PLANNING COMMISSION
MEETING AGENDA

Online via Zoom and In Person at
Tumwater Fire Department
Headquarters, Training Room, 311 Israel
Rd. SW, Tumwater, WA 98501

Tuesday, October 14, 2025
7:00 PM

1. Call to Order
2. Roll Call
3. Changes to Agenda
4. Commissioner's Reports
5. Director's Report
   a. Ongoing 2025 Planning Commission Meeting Schedule
6. Public Comment
7. Ordinance No. O2025-009 Final Docket for 2025 Comprehensive Plan Amendments
8. Ordinance No. O2025-010 – 2025 Comprehensive Plan Periodic Update
9. Next Meeting Date - 10/28/2025
10. Adjourn

Meeting Information
The public are welcome to attend in person, by telephone or online via Zoom.

Watch Online
https://us02web.zoom.us/webinar/register/WN_C2JmYuL3Tk-1ho3HwPh8VQ

Listen by Telephone
Call (253) 215-8782, listen for the prompts, and enter the Webinar ID 833 4649 0987 and Passcode 851028.

Public Comment
The public is invited to attend the meeting and offer comment. The public may register in advance for this webinar to provide comment:

https://us02web.zoom.us/webinar/register/WN_C2JmYuL3Tk-1ho3HwPh8VQ

After registering, you will receive a confirmation email containing information about joining the webinar.

The public may also submit comments prior to the meeting by sending an email to: cdd@ci.tumwater.wa.us. Please send the comments by 1:00 p.m. on the date of the meeting.

Comments are submitted directly to the Commission/Board Members and will not be read individually into the record of the meeting.

If you have any questions, please contact Planning Manager, Brad Medrud at (360) 754-4180 or bmedrud@ci.tumwater.wa.us.

Post Meeting
Video of this meeting will be recorded and posted on our City Meeting page: https://tumwater-wa.municodemeetings.com.

Accommodations
The City of Tumwater takes pride in ensuring that people with disabilities are able to take part in, and benefit from, the range of public programs, services, and activities offered by the City. To request an accommodation or alternate format of communication, please contact the City's ADA Coordinator directly, call (360) 754-4129 or email ADACoordinator@ci.tumwater.wa.us. For vision or hearing impaired services, please contact the Washington State Relay Services at 7-1-1 or 1-(800)-833-6384.

What is the Planning Commission?

The Tumwater Planning Commission is a citizen advisory commission that is appointed by and advisory to the City Council on the preparation and amendment of land use plans and implementing ordinances such as zoning. Actions by the Planning Commission are not final decisions; they are Commission recommendations to the City Council who must ultimately make the final decision. If you have any questions or suggestions on ways the Commission can serve you better, please contact the Community Development Department at (360) 754-4180.

Decorum Statement

Welcome to the Planning Commission meeting. We thank you for attending.

The City Council encourages community engagement in local government and provides a variety of ways to participate.

The Chair of the Planning Commission will be responsible for conducting orderly and efficient meetings within the scheduled time. To accomplish that, the Chair will maintain order and decorum and can regulate inappropriate debate, repetitious discussion, and disruptive behavior when needed.

The Chair will recognize those that wish to speak and may limit the time allowed for individual comments. City staff will record questions and comments during the meeting. If an issue or question cannot be addressed during the meeting, City staff will address the issue or respond to the question by following up with the individual.

We respectfully request that attendees refrain from disruptions during the meeting and comply with decorum rules.

Thank you for participating.

DRAFT TUMWATER PLANNING COMMISSION - 2025 MEETING SCHEDULE

Note: Schedule is tentative and subject to change; Updated 10/2/25

MEETINGS	AGENDA ITEMS
January 14,2025	Work Session: 2025 Comprehensive Plan Update Climate – Brad/Alyssa
January 28, 2025	[Cancelled Meeting]
February 11, 2025	Work Session: 2025 Comprehensive Plan Update Climate – Brad/Alyssa Work Session: Food System Plan – Dana
February 25, 2025	Joint Tour with City Council: 2025 Comprehensive Plan Update Transportation – Brad/Dana
March 11, 2025	[Cancelled Meeting]
March 25, 2025	Briefing: 2025 Regional Transportation Plan – TRPC - Brad Work Session: 2025 Comprehensive Plan Update Housing – Brad/Erika
April 8, 2025	Work Session: 2025 Comprehensive Plan Update Land Use– Brad/Erika
April 22, 2025	Work Session: Food System Plan – Dana
May 13, 2025	Work Session: 2025 Comprehensive Plan Update Lands for Public Purposes/Utilities – Brad/Erika
May 27, 2025	Work Session: 2025 Comprehensive Plan Update Conservation – Brad/Alex Work Session: 2025 Comprehensive Plan Update Housing – Brad/Erika
June 10, 2025	Work Session: 2025 Comprehensive Plan Update Housing – Brad/Erika
June 24, 2025	Work Session: 2025 Comprehensive Plan Update Land Use– Brad/Dana Work Session: 2025 Comprehensive Plan Update User Guide– Brad/Erika
July 8, 2025	Work Session: Food System Plan – Dana Work Session: 2025 Comprehensive Plan Update Development Code – Brad/Erika
July 22, 2025	Work Session: 2025 Comprehensive Plan Update Housing – Brad/Erika Work Session: 2025 Comprehensive Plan Update Land Use– Brad/Dana
August 12, 2025	[Cancelled Meeting]
August 26, 2025	Work Session: 2025 Comprehensive Plan Update Transportation – Brad/Dana Work Session: 2025 Comprehensive Plan Update Climate – Brad/Alyssa
September 9, 2025	Work Session: Food System Plan– Dana Work Session: 2025 Comprehensive Plan Update Plan Introduction – Brad/Erika
September 23, 2025	Hearing: Food System Plan– Dana Briefing: Final Docket for 2025 Comprehensive Plan Amendments (O2025-009) – Brad
October 14, 2025	Briefing: 2025 Comprehensive Plan Update (Ordinance No. O2025-010) – Brad/Dana/Erika Work Session: Final Docket for 2025 Comprehensive Plan Amendments (O2025-009) – Brad

MEETINGS	AGENDA ITEMS
October 28, 2025	Hearing: Final Docket for 2025 Comprehensive Plan Amendments (O2025-009) – Brad Work Session: 2025 Comprehensive Plan Update (Ordinance No. O2025-010) – Brad/Dana/Erika Briefing: 2025 Development Code Update (Ordinance No. O2025-011) – Brad/Dana/Erika
Monday, November 10, 2025	Discussion: Election of New Planning Commission Chair and Vice Chair – Brad Discussion: 2026 Work Program – Brad/Dana/Erika Work Session: 2025 Comprehensive Plan Update (Ordinance No. O2025-010) – Brad/Dana/Erika Work Session: 2025 Development Code Update (Ordinance No. O2025-011) – Brad/Dana/Erika
November 25, 2025	Discussion: 2026 Work Program – Brad/Dana/Erika Work Session: 2025 Comprehensive Plan Update (Ordinance No. O2025-010) – Brad/Dana/Erika Work Session: 2025 Development Code Update (Ordinance No. O2025-011) – Brad/Dana/Erika
December 9, 2025	Hearing: 2025 Comprehensive Plan Update (Ordinance No. O2025-010) – Brad/Dana/Erika Hearing: 2025 Development Code Update (Ordinance No. O2025-011) – Brad/Dana/Erika Joint Work Session with City Council: 2026 Work Program – Brad/Dana/Erika
December 23, 2025	[May Cancel Meeting]

January 13, 2026 –

Briefing: 2026 Development Code Update (Ordinance No. O2026-0XX) – – Brad/Dana/Erika

Joint Work Session with City Council: 2025 Comprehensive Plan Update (Ordinance No. O2025-010) – Brad/Dana/Erika

Joint Work Session with City Council: 2025 Development Code Update (Ordinance No. O2025-011) – – Brad/Dana/Erika

January 27, 2026 – Work Session: 2026 Development Code Update (Ordinance No. O2026-0XX) – Brad/Dana/Erika

February 10, 2026 – Work Session: 2026 Development Code Update (Ordinance No. O2026-0XX) – Brad/Dana/Erika

February 24, 2026 – Hearing: 2026 Development Code Update (Ordinance No. O2026-0XX) – Brad/Dana/Erika

March 10, 2026 – Joint Work Session with City Council: 2026 Development Code Update (Ordinance No. O2026-0XX) – Brad/Dana/Erika

Notes:

The following will need to be scheduled on the Planning Commission meeting schedule:

- Comprehensive Plan Update Economic Development – Brad
- Thurston County Code Title 22 – Tumwater Urban Growth Area Zoning – The City completed a draft review of what needs to be updated in Title 22, and it is waiting for Thurston County to schedule it in its work program – – Brad/Dana/Erika
- Planning Commissioner Training – Brad

TO: Planning Commission

FROM: Brad Medrud, Community Development Director

DATE: October 14, 2025

SUBJECT: Ordinance No. O2025-009 Final Docket for 2025 Comprehensive Plan Amendments

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1) Recommended Action:

Set a public hearing date of October 28, 2025, for Ordinance No. O2025-009.

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2) Background:

Pursuant to RCW 36.70A.130 and TMC 18.60.025(A)(2), amendments to the City's Comprehensive Plan and corresponding rezones are only considered once per calendar year. On October 18, 2022, the City Council approved Ordinance No. O2022-023, which suspended the Comprehensive Plan Annual Amendment Cycle during the 2023 – 2025 Comprehensive Plan Update, except for City-sponsored amendments. On March 4, 2025, the City Council approved Ordinance No. O2025-004, which extended the suspension of the Comprehensive Plan Annual Amendment Cycle during the 2023 – 2025 Comprehensive Plan Update, except for City-sponsored amendments through December 31, 2025.

The City's annual 2025 Final Docket of Comprehensive Plan amendments includes one City-sponsored Comprehensive Plan amendment: the adoption of the 2026 – 2031 Six-Year Capital Facilities Plan Update.

The Capital Facilities Plan programs City expenditures for a six-year period in five broad, programmatic categories: general government, transportation, water, sanitary sewer, and storm drain projects. The Capital Facilities Plan is updated every two years, opposite the biennial budget process.

The Planning Commission and City Council will be going through the ordinance adoption process this fall.

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3) Alternatives:

- ❑ None

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4) Attachments:

A. Staff Report
B. Ordinance No. O2025-009
C1. Ordinance No. O2025-009, Exhibit "A" Sanitary Sewer
C2. Ordinance No. O2025-009, Exhibit "A" Storm
C3. Ordinance No. O2025-009, Exhibit "A" Water

STAFF REPORT

Date: October 14, 2025
To: Planning Commission
From: Brad Medrud, Community Development Director

2025 Annual City of Tumwater Comprehensive Plan Amendments

Ordinance No. O2025-009

Pursuant to RCW 36.70A.130 and TMC 18.60.025(A)(2), amendments to the City's Comprehensive Plan can only be considered once per calendar year.

On October 18, 2022, the City Council approved Ordinance No. O2022-023, which suspended the Comprehensive Plan Annual Amendment Cycle during the 2025 Comprehensive Plan periodic update, except for City-sponsored amendments. On March 4, 2025, the City Council approved Ordinance No. O2025-004, which extended the suspension of the Comprehensive Plan Annual Amendment Cycle during the 2025 Comprehensive Plan Update, except for City-sponsored amendments through December 31, 2025.

The City's annual 2025 Final Docket of Comprehensive Plan amendments includes one City-sponsored Comprehensive Plan amendment: adoption of the 2026 – 2031 Six-Year Capital Facilities Plan Update.

The proposed Comprehensive Plan amendment was reviewed against the criteria found in TMC 18.60.025(B):

1. *Does the amendment conform to the Growth Management Act?*
2. *Is it consistent with the Comprehensive Plan, Thurston County-Wide Planning Policies, and related plans?*
3. *Have area conditions changed or are changing to justify a change in land use for the area?*
4. *Is there a need to provide a community-related use not anticipated by the Comprehensive Plan?*

Contents

2026 – 2031 Six-Year Capital Facilities Plan Update 2
Summary 2
Proposal 2
Proponent 2

Background 2
Review and Approval Criteria 3
Staff Conclusions 7
Staff Recommendation 8
Effect of the Proposed Amendment 8
Staff Contacts 8
Public Approval Process 8
Public Notification 9
Staff Conclusions 9
Staff Recommendation 9

2026 – 2031 Six-Year Capital Facilities Plan Update

Summary

The proposal is a Comprehensive Plan amendment to update the Six-Year Capital Facilities Plan to reflect current information.

Proposal

Update the Six-Year Capital Facilities Plan to reflect current information.

Proponent

City of Tumwater

Background

The purpose of the update is to address Growth Management Act requirements to update the City's Six-Year Capital Facilities Plan with new data and analysis and confirm implementation actions every two years.

City staff have been working on the update of the Six-Year Capital Facilities Plan for the past two years. The update reflects the changes that have occurred in the City since the Capital Facilities Plan's last update as part of the 2023 Comprehensive Plan Amendments. The Capital Facilities Plan is an Element of the Comprehensive Plan.

The City Council placed the proposed Comprehensive Plan amendment on the 2025 Long Range Planning Work Program on January 21, 2025. After the City Council approved the work program, staff from the Transportation & Engineering, Water Resources & Sustainability, Parks &

Recreation, and Community Development Departments reviewed the previous Six-Year Capital Facilities Plan to determine what specific amendments were needed to update the Plan.

The Public Works Committee was briefed on the ordinance on September 18, 2025, and the Planning Commission was briefed on the ordinance on September 23, 2025.

Review and Approval Criteria

Comprehensive Plan amendments are subject to the criteria below from TMC 18.60.025(B):

1) *All amendments to the comprehensive plan must conform with the requirements of the Washington State Growth Management Act, Chapter 36.70A RCW, and all amendments for permanent changes to the comprehensive plan must be submitted to the Washington State Department of Commerce, pursuant to RCW 36.70A.106.*

   The amendment being considered is in accordance with the City's annual Comprehensive Plan amendment process, as required by RCW 36.70A. If the amendment is approved by the City Council, it will be submitted to the Washington State Department of Commerce pursuant to RCW 36.70A.106.

   The amendment meets the goals of the Washington State Growth Management Act as follows:

   1) ***Urban growth***. *Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.*

      The proposed Comprehensive Plan amendment is intended to support the growth and development of the City as outlined in the maps, goals, policies, and actions of the Comprehensive Plan.

   2) ***Reduce sprawl***. *Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development.*

      The proposed Comprehensive Plan amendment is consistent with the goal as the proposed amendment is intended to reduce the inappropriate conversion of undeveloped land into sprawling, low-density development and focus future growth in the City as outlined in the maps, goals, policies, and actions of the Comprehensive Plan.

   3) ***Transportation***. *Encourage efficient multimodal transportation systems that will reduce greenhouse gas emissions and per capita vehicle miles traveled, and are based on regional priorities and coordinated with county and city comprehensive plans.*

      The proposed Comprehensive Plan amendment supports urban level development in the City that would provide for efficient multimodal transportation systems as outlined in the maps, goals, policies, and actions of the Comprehensive Plan.

4) ***Housing***. *Plan for and accommodate housing affordable to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.*

   The proposed Comprehensive Plan amendment is consistent with the goal as the proposed amendment supports the provision of a range of residential development in the City, including permanently affordable housing as outlined in the maps, goals, policies, and actions of the Comprehensive Plan.

5) ***Economic development***. *Encourage economic development throughout the state that is consistent with adopted comprehensive plans, promote economic opportunity for all citizens of this state, especially for unemployed and for disadvantaged persons, promote the retention and expansion of existing businesses and recruitment of new businesses, recognize regional differences impacting economic development opportunities, and encourage growth in areas experiencing insufficient economic growth, all within the capacities of the state's natural resources, public services, and public facilities.*

   The proposed Comprehensive Plan amendment is consistent with the goal as the proposed amendment supports development that provides economic development and allows more people to live closer to jobs and services as outlined in the maps, goals, policies, and actions of the Comprehensive Plan.

6) ***Property rights***. *Private property shall not be taken for public use without just compensation having been made. The property rights of landowners shall be protected from arbitrary and discriminatory actions.*

   The proposed Comprehensive Plan amendment does not require any taking of private property without compensation.

7) ***Permits***. *Applications for both state and local government permits should be processed in a timely and fair manner to ensure predictability.*

   The proposed Comprehensive Plan amendment is being considered as a part of the City's annual Comprehensive Plan amendment review.

8) ***Natural resource industries***. *Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forestlands and productive agricultural lands, and discourage incompatible uses.*

   The proposed Comprehensive Plan amendment does not affect natural resource industries.

9) ***Open space and recreation***. *Retain open space and green space, enhance recreational opportunities, enhance fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities.*

   The proposed Comprehensive Plan amendment supports the goals, policies, and actions for open space and recreation as outlined in the Comprehensive Plan

10) ***Environment***. *Protect and enhance the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.*

The proposed Comprehensive Plan amendment protects the environment by directing future development towards urban rather than rural areas as outlined in the maps, goals, policies, and actions of the Comprehensive Plan.

11) ***Citizen participation and coordination***. *Encourage the involvement of citizens in the planning process, including the participation of vulnerable populations and overburdened communities, and ensure coordination between communities and jurisdictions to reconcile conflicts.*

City residents and all interested parties, agencies and jurisdictions were notified about the application and the public hearing for the proposal as part of the proposed 2025 Comprehensive Plan amendment process.

12) ***Public facilities and services***. *Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.*

The proposed Comprehensive Plan amendment is supported by the City's provision of sewer and water service in the urban area.

13) ***Historic preservation***. *Identify and encourage the preservation of lands, sites, and structures, that have historical or archaeological significance.*

The proposed Comprehensive Plan amendment does not affect historic preservation. As future development occurs, it would need to comply with all the applicable historical or archaeological regulations.

14) ***Climate change and resiliency***. *Ensure that the City's Comprehensive Plans and development regulations adapt to and mitigate the effects of a changing climate; support reductions in greenhouse gas emissions and per capita vehicle miles traveled; prepare for climate impact scenarios; foster resiliency to climate impacts and natural hazards; protect and enhance environmental, economic, and human health and safety; and advance environmental justice.*

The proposed Comprehensive Plan amendment contains projects that support the reduction of greenhouse gas emissions and vehicle miles traveled.

15) ***Shorelines of the state***. *For shorelines of the state, the goals and policies of the shoreline management act as set forth in RCW 90.58.020 shall be considered an element of the City's Comprehensive Plan.*

The proposed Comprehensive Plan amendment does not affect the shorelines of the state. As future development occurs, it would need to comply with the City's Shoreline Management Program, as required.

2) *Amendments and site-specific rezone applications should be evaluated for internal consistency with the comprehensive plan, and for consistency with the county-wide*

planning policies, related plans, and the comprehensive plan of Thurston County or cities which have common borders with Tumwater.

The proposed Comprehensive Plan amendment is consistent with the Land Use Element of the Comprehensive Plan. The Comprehensive Plan is consistent with the Thurston County-Wide Planning Policies.

The applicable goals, policies, and actions of the Land Use Element of the Comprehensive Plan that support the proposed Comprehensive Plan amendment is as follows:

Land Use Element Goal LU-1 states:

Ensure the Land Use Element is implementable and coordinated with all applicable City plans and the plans of other jurisdictions in the Thurston region.

Land Use Element Policy LU-1.10 states:

Coordinate the Land Use Element with the City's Lands for Public Purposes Element and the Capital Facilities Plan.

Land Use Element Policy LU-1.11 states:

Make capital budget decisions consistent with the comprehensive plan in accordance with RCW 36.70A.120 (Reference the City's current six-year Capital Facilities and Transportation Improvement Plans).

Land Use Element Goal LU-2 states:

Ensure development takes place in an orderly and cost-efficient manner in order to best utilize available land and public services, conserve natural resources, protect critical areas, preserve open space, and reduce sprawl.

Land Use Element Policy LU-2.6 states:

Ensure the City's capital budget decisions in the City's current six-year Capital Facilities and Transportation Improvement Plans are coordinated with the Land Use Element, Lands for Public Purpose Element, and Transportation Element.

Land Use Element Goal LU-3 states:

Ensure adequate public services, facilities, and publicly owned utilities are available to proposed and existing development.

Land Use Element Policy LU-3.1 states:

Coordinate development with the City's six-year Capital Facilities Plan.

Land Use Element Action LU-3.1.1 states:

Ensure the Capital Facilities Plan can be implemented through the Land Use Element's projected densities and the direction found in the Lands for Public Purposes Element.

The proposed Comprehensive Plan amendment is consistent with the Land Use Element goals, policies, and actions above.

The applicable goals, policies, and actions of the Lands for Public Purposes Element of the Comprehensive Plan that support the proposed Comprehensive Plan amendment is as follows:

Lands for Public Purposes Element Goal LPP-1 states:

Provide sufficient and efficient services to Tumwater and the Urban Growth Area.

Lands for Public Purposes Element Policy LPP-1.1 states:

Coordinate with Thurston Regional Planning Council, Thurston County, and other service providers to identify areas of shared need for public facilities.

Lands for Public Purposes Element Policy LPP-1.2 states:

Ensure concurrency with City, County, and Regional plans to provide the most efficient array of services.

Lands for Public Purposes Element Policy LPP-1.3 states:

Follow the requirements of County-Wide Planning Policy V and RCW 36.70A.200 when siting new facilities and improve the process whenever possible.

Lands for Public Purposes Element Goal LPP-2 states:

Make recommendations for improvements in the provision of public services.

Lands for Public Purposes Element Policy LPP-2.1 states:

Support actions to expand and improve Tumwater's multimodal transit network.

Lands for Public Purposes Element Policy LPP-2.5 states:

Support the fulfillment of citizen requests for public facilities in line with the Parks, Recreation, and Open Space Plan.

The proposed Comprehensive Plan amendment is consistent with the Lands for Public Purposes Element goals, policies, and actions above.

3) *Whether conditions in the area for which comprehensive plan change/zoning amendment is requested have changed or are changing to such a degree that it is in the public interest to encourage a change in land use for the area.*

The criterion does not apply, because a Comprehensive Plan map amendment and corresponding rezone is not proposed.

4) *Whether the proposed comprehensive plan zoning amendment is necessary in order to provide land for a community-related use which was not anticipated at the time of adoption of the comprehensive plan.*

The criterion does not apply.

Staff Conclusions

1. The proposal meets the review and approval criteria found in TMC 18.60.025(B).

2. The proposed Comprehensive Plan amendment is consistent with the goals of the Washington State Growth Management Act.
3. The proposed Comprehensive Plan amendment is consistent with Goals LU-1, LU-2, and LU-3, Policies LU-1.10, LU-1.11, LU-2.6, and LU-3.1 and Action LU-3.1.1 of the Land Use Element of the Comprehensive Plan.
4. The proposed Comprehensive Plan amendment is consistent with Goals LPP-1 and LPP-2 and Policies LPP-1.1, LPP-1.2 LPP-1.3, LPP-2.1, and LPP-2.5 of the Lands for Public Purposes Element of the Comprehensive Plan.
5. Based on the above review and analysis, staff concludes that the proposed Comprehensive Plan amendment is consistent with the requirements of the Washington State Growth Management Act, Thurston County-Wide Planning Policies, the goals of Sustainable Thurston, and the Comprehensive Plan.

Staff Recommendation

Staff recommend approval of the updated Capital Facilities Plan to reflect current information.

Effect of the Proposed Amendment

The proposal amends the Capital Facilities Plan as shown in Appendix 2.1 and Ordinance No. O2025-009.

Staff Contacts

Brandon Hicks, Transportation & Engineering Director
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Brad Medrud, AICP, Community Development Director
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(360) 754-4180
bmedrud@ci.tumwater.wa.us

Public Approval Process

The City Council placed the proposed amendment on the 2025 Long Range Planning Work Program on January 21, 2025.

An Environmental Checklist for a non-project action was prepared on September 11, 2025, under the State Environmental Policy Act (Chapter 43.21C RCW), pursuant to Chapter 197-11 WAC, and a Determination of Non-Significance was issued on September 26, 2025.

The ordinance will be sent to the Washington State Department of Commerce on September 11, 2025, for their required 60-day review before the proposed amendment is adopted, in accordance with RCW 36.70A.106.

The Planning Commission held a briefing on the ordinance on September 23, 2025, and discussed the general government and transportation components of the Capital Facilities Plan. The Planning Commission is expected to hold a public hearing for the proposed amendment on October 28, 2025. Following the public hearing and deliberations, the Planning Commission is expected to make their recommendation on the proposed amendment to the City Council.

The General Government Committee is expected to review the proposed Comprehensive Plan amendment in a briefing on November 12, 2025; the City Council is expected to hold a work session to discuss the amendment on November 25, 2025; and the City Council is scheduled to consider the proposed amendment at a meeting on December 2, 2025.

Public Notification

A Notice of Public Hearing for the Planning Commission is expected to be issued on October 17, 2025. The notice will be published as a press release, distributed to interested individuals and entities that have requested such notices, and published in The Olympian.

Staff Conclusions

1. The proposed Comprehensive Plan amendment meets the review and approval criteria found in TMC 18.60.025(B).
2. The proposed Comprehensive Plan amendment is consistent with the goals of the Washington State Growth Management Act.
3. The proposed Comprehensive Plan amendment is consistent with the goals of the Land Use Element, the Lands for Public Purposes, and the Transportation Plan of the Comprehensive Plan.
4. Based on the above review and analysis, staff concludes that the proposed Comprehensive Plan amendment is consistent with the requirements of the Washington State Growth Management Act, Thurston County-Wide Planning Policies, and the Comprehensive Plan.

Staff Recommendation

Staff recommends approval of the proposed Comprehensive Plan amendment by Ordinance No. O2025-009.

ORDINANCE NO. O2025-009

AN ORDINANCE of the City Council of the City of Tumwater, Washington, related to planning under the Growth Management Act of the State of Washington and amending the Comprehensive Plan to update the City's Capital Facilities Plan.

WHEREAS, the City is required to plan under the Growth Management Act, Chapter 36.70A RCW; and

WHEREAS, this ordinance meets the goals and requirements of the Growth Management Act; and

WHEREAS, the Growth Management Act, Chapter 36.70A RCW, and Tumwater Municipal Code 18.60.025(A)(2) require amendments to the City's Comprehensive Plan to be considered concurrently and no more than once annually; and

WHEREAS, the City Council, Planning Commission, property owners, or City staff may propose amendments to the City's Comprehensive Plan; and

WHEREAS, the City Council approved Ordinance No. O2022-023 on October 18, 2022, which suspended the Comprehensive Plan Annual Amendment Cycle during the 2023 – 2025 Comprehensive Plan Update, except for City-sponsored amendments; and

WHEREAS, after Ordinance No. O2022-023 expired, the City Council approved Ordinance No. O2025-004 on March 4, 2025, which suspended the Comprehensive Plan Annual Amendment Cycle during the 2025 Comprehensive Plan Update, except for City-sponsored amendments; and

WHEREAS, the adoption of the City's Capital Facilities Plan is a City-sponsored Comprehensive Plan amendment that occurs biennially; and

WHEREAS, because of the complexity and timing of the adoption of the larger, state required Comprehensive Plan update, City Council wants to complete the adoption the Capital Facilities Plan as a separate Comprehensive Plan amendment no later than the end of 2025; and

WHEREAS, the Growth Management Act, Chapter 36.70A RCW, requires a process of early and continuous public participation for the Comprehensive Plan amendment related to the City's Capital Facilities Plan; and

WHEREAS, the adoption of the Comprehensive Plan amendment related to the City's Capital Facilities Plan must be processed in compliance with the requirements of the State Environmental Policy Act; and

WHEREAS, the City Council reviewed all the evidence presented and has made findings of fact and conclusions related to the Comprehensive Plan amendment related to the City's Capital Facilities Plan which are set forth below.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF TUMWATER, STATE OF WASHINGTON, DOES ORDAIN AS FOLLOWS:

Section 1. Findings. For the purposes of effective land use planning, the Tumwater City Council adopts the following findings of fact:

1. The Comprehensive Plan amendment related to the City's Capital Facilities Plan meets the intent of and is consistent with the Growth Management Act, Chapter 36.70A RCW, County-Wide Planning Policies, and internal goals and policies of the City's Comprehensive Plan.

2. The Attorney General *Advisory Memorandum and Recommended Process for Evaluating Proposed Regulatory or Administrative Actions to Avoid Unconstitutional Takings of Private Property* (October 2024) was reviewed and utilized by the City in objectively evaluating the Comprehensive Plan amendment related to the City's Capital Facilities Plan.

3. The Comprehensive Plan amendment related to the City's Capital Facilities Plan was prepared in conformance with the Public Participation and Intergovernmental Coordination Procedures contained in the City's Comprehensive Plan, which meet the Growth Management Act, Chapter 36.70A RCW, requirements for the same.

4. The City engaged the community through public briefings, work sessions, and meetings with the Planning Commission, the Public Works Committee, the General Government Committee, and the City Council.

5. An Environmental Checklist for a non-project action was prepared under the State Environmental Policy Act (Chapter 43.21C RCW), pursuant to Chapter 197-11 WAC on September 11, 2025, and a Determination of Non-Significance was issued on September 26, 2025.

6. The ordinance was sent to the Washington State Department of Commerce on September 11, 2025, for the required 60-day review before the Comprehensive Plan amendment related to the City's Capital Facilities Plan was adopted, in accordance with RCW 36.70A.106.

7. The City Council approved the amendment for processing by staff as part of the 2025 long range planning work program at their January 21, 2025, meeting.

8. The Public Works Committee received briefings on the Comprehensive Plan amendment related to the City's Capital Facilities Plan on September 18, 2025, and October 9, 2025.

9. The Planning Commission received a briefing on the Comprehensive Plan amendment related to the City's Capital Facilities Plan on September 23, 2025, and discussed the amendment at a work session on October 14, 2025.

10. A Notice of Public Hearing for the Planning Commission public hearing was issued on October 17, 2025. The notice was posted, published as a press release, distributed to interested individuals and entities that have requested such notices, and published in *The Olympian*.

11. The Planning Commission held the public hearing on Comprehensive Plan amendment related to the City's Capital Facilities Plan on October 28, 2025.

12. Following a public hearing and deliberations on October 28, 2025, the Planning Commission recommended approval of the Comprehensive Plan amendment related to the City's Capital Facilities Plan to the City Council.

13. The General Government Committee discussed the Planning Commission recommendation on the Comprehensive Plan amendment related to the City's Capital Facilities Plan in a briefing on November 12, 2025.

14. The City Council discussed the Planning Commission recommendation on the Comprehensive Plan amendment related to the City's Capital Facilities Plan in a work session on November 25, 2025.

15. The Comprehensive Plan amendment related to the City's Capital Facilities Plan will be submitted to the Washington State Department of Commerce ten days after final adoption, pursuant to RCW 36.70A.106.

16. Any Conclusion herein, which may be deemed a Finding, is hereby adopted as such.

Section 2. Conclusions. For the purposes of effective land use planning, the Tumwater City Council makes the following conclusions:

1. Based on its review of the requirements of Chapter 36.70A RCW, the analysis prepared by City staff, and the public comments received, the City Council

finds and declares that the Comprehensive Plan amendment related to the City's Capital Facilities Plan has been prepared in conformance with applicable law. This includes Chapter 36.70A RCW, Chapter 43.21C RCW, and the City of Tumwater Public Participation and Intergovernmental Coordination Procedures.

2. Based on its review of the requirements of Chapter 36.70A RCW, the analysis prepared by City staff, the recommendation forwarded by the Planning Commission, and the public comments received, the City Council hereby finds and declares that the Comprehensive Plan amendment related to the City's Capital Facilities Plan complies with the requirements of Chapter 36.70A RCW.

3. Any Finding herein, which may be deemed a Conclusion, is hereby adopted as such.

Section 3. Capital Facilities Plan Update. The Comprehensive Plan is hereby amended to update the Capital Facilities Plan to reflect current information and meet existing deadlines as specified by the State of Washington as shown in Exhibit "A".

Section 4. Corrections. The City Clerk and codifiers of this ordinance are authorized to make necessary corrections to this ordinance including, but not limited to, the correction of scrivener/clerical errors, references, ordinance numbering, section/subsection numbers, and any references thereto.

Section 5. Ratification. Any act consistent with the authority and prior to the effective date of this ordinance is hereby ratified and affirmed.

Section 6. Severability. The provisions of this ordinance are declared separate and severable. The invalidity of any clause, sentence, paragraph, subdivision, section, or portion of this ordinance or the invalidity of the application thereof to any person or circumstance, shall not affect the validity of the remainder of the ordinance, or the validity of its application to other persons or circumstances.

Section 7. Effective Date. This ordinance shall become effective thirty (30) days after passage, approval, and publication as provided by law.

ADOPTED this _____day of _____, 2025.

CITY OF TUMWATER

_____
Debbie Sullivan, Mayor

ATTEST:

_____
Melody Valiant, City Clerk

APPROVED AS TO FORM:

_____
Karen Kirkpatrick, City Attorney

Published:_____

Effective Date:_____

Exhibit "A"

Amendments to the Capital Facilities Plan of the City of Tumwater Comprehensive Plan

[See attached Capital Facilities Plan update.]

FINANCIAL PLAN FOR THE SANITARY SEWER FUND

	PROJECT	EXPENSES		6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YRS	GRAND TOTAL
		Capital Projects:	**LEAD**									
	1	Annual Sewer Infrastructure Replacement Program	**TED/WRS**	$ 4,687,500	$ 156,250	$ 1,406,250	$ 156,250	$ 1,406,250	$ 156,250	$ 1,406,250	$ -	$ 4,687,500
	2	Oversizing Program	**WRS**	$ 975,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 175,000	$ 200,000	$ -	$ 975,000
	3	Regional Pump Station	**TED**	$ 2,900,000	$ -	$ 650,000	$ 2,250,000	$ -	$ -	$ -	$ -	$ 2,900,000
	4	Old Highway 99 Extension: 79th Avenue to 88th Avenue	**TED**	$ 225,000	$ 15,000	$ -	$ 210,000	$ -	$ -	$ -	$ 870,000	$ 1,095,000
	5	Public Works Facility (2025 Update)	**TED**	$ 10,749,800	$ 933,299	$ 7,048,160	$ 2,768,341	$ -	$ -	$ -	$ -	$ 11,195,200
	6	Streamland Estates Lift Station	**TED**	$ 575,000	$ 575,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 610,000
	7	Lloyd Street Lift Station	**TED**	$ 575,000	$ 575,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 620,000
NEW	8	Sewer Extension Program	**WRS/TED**	$ 6,065,000	$ 675,000	$ 4,415,000	$ 600,000	$ 175,000	$ 100,000	$ 100,000	$ -	$ 6,065,000
	9	Comprehensive Plan Review/Update	**WRS**	$ 460,000	$ 425,000	$ 35,000	$ -	$ -	$ -	$ -	$ -	$ 500,000
	10	Enterprise Resource Planning Business System	**FIN**	$ 193,333	$ 96,667	$ 96,667	$ -	$ -	$ -	$ -	$ -	$ 531,675
	11	I-5 Sanitary Sewermain Crossing Assessement	**WRS**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	12	Capitol Blvd and X St Sewer	**TED**	$ 300,000	$ 300,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 350,000
	13	Seismic Resiliency Plan	**WRS**	$ 250,000	$ -	$ 250,000	$ -	$ -	$ -	$ -	$ -	$ 250,000
NEW	14	Kimmie Street Lift Station	**TED**	$ 717,500	$ 62,500	$ 155,000	$ 500,000	$ -	$ -	$ -	$ -	$ 717,500
NEW	15	Hixon Siphon Evaluation	**WRS**	$ 50,000	$ 50,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 50,000
		TOTAL EXPENSES		**$ 28,723,133**	**$ 4,013,716**	**$ 14,206,077**	**$ 6,634,591**	**$ 1,731,250**	**$ 431,250**	**$ 1,706,250**	**$ 870,000**	**$ 30,546,875**
	SOURCES OF FUNDS:	General Governmental		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		Grants		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		Operating Income		$ 8,515,005	$ 1,160,688	$ 1,722,938	$ 2,421,067	$ 1,508,438	$ 255,938	$ 1,445,938	$ 87,000	$ 8,602,005
		Connections		$ 6,958,129	$ 1,244,729	$ 1,019,979	$ 4,034,983	$ 222,813	$ 175,313	$ 260,313	$ 783,000	$ 7,741,129
		Other (Bonds/Loans/LID)		$ 13,250,000	$ 1,608,299	$ 11,463,160	$ 178,541	$ -	$ -	$ -	$ -	$ 13,250,000
		TOTAL SOURCES		**$ 28,723,133**	**$ 4,013,716**	**$ 14,206,077**	**$ 6,634,591**	**$ 1,731,250**	**$ 431,250**	**$ 1,706,250**	**$ 870,000**	**$ 29,593,133**

SIX YEAR FINANCIAL FORECAST

			2025	2026	2027	2028	2029	2030	2031		2025-2031
SEWER FUND		**BEGINNING FUND BALANCE**	**$ 12,036,870**	**$ 9,553,412**	**$ 8,042,451**	**$ 8,659,804**	**$ 2,924,100**	**$ 1,909,967**	**$ 2,433,447**		**$ 12,036,870**
	REVENUES	Charges for Service (Rates & Utility Tax)	$ 3,560,005	$ 3,920,544	$ 4,277,804	$ 4,619,857	$ 4,961,126	$ 5,287,320	$ 5,581,295		$ 28,647,944
		Misc. revenues	$ 400,000	$ 406,000	$ 2,612,090	$ 418,271	$ 424,545	$ 430,914	$ 437,377		$ 4,729,198
		OPERATING INCOME	***$ 3,960,005***	***$ 4,326,544***	***$ 6,889,894***	***$ 5,038,128***	***$ 5,385,671***	***$ 5,718,233***	***$ 6,018,672***		***$ 33,377,141***
		LOTT (Pass Thru incl. CDC)	$ 7,134,400	$ 7,348,432	$ 7,568,885	$ 7,795,952	$ 8,029,830	$ 8,270,725	$ 8,518,847		$ 47,532,670
		Interfund Payment (P&I) - Golf Course	$ 167,500	$ 182,139	$ 174,819	$ -	$ -	$ -	$ -		$ 356,958
		Connection & Development Fees	$ 443,352	$ 508,503	$ 562,582	$ 616,702	$ 676,029	$ 741,063	$ 789,788		$ 3,894,666
		Other (LID, Loans)	$ -	$ 1,608,299	$ 11,463,160	$ 178,541	$ -	$ -	$ -		$ 13,250,000
		TOTAL REVENUE	**$ 11,705,257**	**$ 13,973,917**	**$ 26,659,340**	**$ 13,629,323**	**$ 14,091,530**	**$ 14,730,021**	**$ 15,327,306**		**$ 98,411,436**
	EXPENSES	O & M (including Administration)	$ 3,983,314	$ 4,122,730	$ 4,267,026	$ 4,416,371	$ 4,570,944	$ 4,730,927	$ 4,896,510		$ 27,004,509
		Debt Service	$ -	$ -	$ -	$ 518,112	$ 773,639	$ 773,639	$ 773,639		$ 2,839,028
		Capital	$ 3,071,000	$ 4,013,716	$ 14,206,077	$ 6,634,591	$ 1,731,250	$ 431,250	$ 1,706,250		$ 28,723,133
		LOTT (Pass Thru incl. CDC)	$ 7,134,400	$ 7,348,432	$ 7,568,885	$ 7,795,952	$ 8,029,830	$ 8,270,725	$ 8,518,847		$ 47,532,670
		TOTAL EXPENSE	**$ 14,188,714**	**$ 15,484,878**	**$ 26,041,987**	**$ 19,365,026**	**$ 15,105,663**	**$ 14,206,541**	**$ 15,895,245**		**$ 106,099,341**
	ENDING FUND BALANCE		**$ 9,553,412**	**$ 8,042,451**	**$ 8,659,804**	**$ 2,924,100**	**$ 1,909,967**	**$ 2,433,447**	**$ 1,865,508**		**$ 4,348,966**
	Utility Reserve Policy (20% O&M + Debt Service)		*$ 796,663*	*$ 824,546*	*$ 853,405*	*$ 1,401,386*	*$ 1,687,828*	*$ 1,719,824*	*$ 1,752,941*		
	Rate Increases		7.0%	8.5%	7.5%	6.4%	5.8%	5.0%	4.0%		
	Connection Fee Increases		4.0%	13.0%	9.0%	8.0%	8.0%	8.0%	5.0%		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Sanitary Sewer
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR:

SS-01

PROGRAM TITLE: **Annual Sewer Infrastructure Replacement Program**

PROGRAM DESCRIPTION:
This project provides for the systematic rehabilitation of aging sanitary sewer lines in various areas of the City. The funding demonstrates an initial planning project to evaluate and define projects to be completed. A prioritized list of projects include Tumwater Hill (2026/2027) to address aging infrastructure and I&I concerns, and the Capitol Blvd and Palermo areas (2028/2029) to replace mains containing aesbestos concrete installed approximately 65 years ago. 2029+ project(s) to be determined. The actual construction method will be based on the characteristics of the individual replacements.

IS PROJECT RECOMMENDED BY PLAN/POLICY? Yes PLAN: 2015 General Sewer Plan PAGE# 8-7 GROWTH: 5%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 937,500	$ 156,250	$ 156,250	$ 156,250	$ 156,250	$ 156,250	$ 156,250		$ 937,500
Land & R-O-W										
Construction		$ 3,750,000		$ 1,250,000		$ 1,250,000		$ 1,250,000		$ 3,750,000
Equipment										
Other										
TOTAL EXPENSES	**$ -**	**$ 4,687,500**	**$ 156,250**	**$ 1,406,250**	**$ 156,250**	**$ 1,406,250**	**$ 156,250**	**$ 1,406,250**	**$ -**	**$ 4,687,500**
Sources of Funds:										
General Government										$ -
Grants										$ -
Operating Income		$ 4,453,125	$ 148,438	$ 1,335,938	$ 148,438	$ 1,335,938	$ 148,438	$ 1,335,938		$ 4,453,125
Connections		$ 234,375	$ 7,813	$ 70,313	$ 7,813	$ 70,313	$ 7,813	$ 70,313		$ 234,375
Other (Rev Bonds/Loans/LID)										
TOTAL SOURCES	**$ -**	**$ 4,687,500**	**$ 156,250**	**$ 1,406,250**	**$ 156,250**	**$ 1,406,250**	**$ 156,250**	**$ 1,406,250**	**$ -**	**$ 4,687,500**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Sanitary Sewer
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR:

SS-02

PROGRAM TITLE: **Oversizing Program**

PROGRAM DESCRIPTION:
The City will participate in the funding for projects identified in the Sanitary Sewer Comprehensive Plan to the extent the sewers are constructed as "oversized" relative to the needs of the participating development. The oversizing costs shall be the incremental cost above the cost required to install an 8-inch line. Oversizing will only be funded for those projects where the diameter of pipe required is larger than the capacity needs of the development, exceeding 8-inches.

IS PROJECT RECOMMENDED BY PLAN/POLICY? Yes PLAN: 2015 General Sewer Plan PAGE# 8-1 GROWTH: 90%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design										$ -
Land & R-O-W										$ -
Construction		$ 975,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 175,000	$ 200,000		$ 975,000
Equipment										$ -
Other										$ -
TOTAL EXPENSES	**$ -**	**$ 975,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 175,000**	**$ 200,000**	**$ -**	**$ 975,000**
Sources of Funds:										
General Government										$ -
Grants										$ -
Operating Income		$ 97,500	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 17,500	$ 20,000		$ 97,500
Connections		$ 877,500	$ 135,000	$ 135,000	$ 135,000	$ 135,000	$ 157,500	$ 180,000		$ 877,500
Other (Rev Bonds/Loans/LID)										$ -
TOTAL SOURCES	**$ -**	**$ 975,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 175,000**	**$ 200,000**	**$ -**	**$ 975,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Sanitary Sewer
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR:

SS-03

PROGRAM TITLE: **Regional Pump Station**

PROGRAM DESCRIPTION:
This project would fund the construction of a regional pump station in one of the growth areas of the City. City funding of the station would be to prevent the development of on-site community septic systems in areas of small developments where the construction of a regional station isn't financially feasible. Location and timing of the project would be determined based on development activity.

IS PROJECT RECOMMENDED BY PLAN/POLICY? Yes PLAN: 2015 General Sewer Plan PAGE# 8-1 GROWTH: 90%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 300,000		$ 300,000						$ 300,000
Land & R-O-W		$ 350,000		$ 350,000						$ 350,000
Construction		$ 2,250,000			$ 2,250,000					$ 2,250,000
Equipment										$ -
Other										$ -
TOTAL EXPENSES	**$ -**	**$ 2,900,000**	**$ -**	**$ 650,000**	**$ 2,250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,900,000**
Sources of Funds:										
General Government										$ -
Grants										$ -
Operating Income		$ 290,000		$ 65,000	$ 225,000					$ 290,000
Connections		$ 2,610,000		$ 585,000	$ 2,025,000					$ 2,610,000
Other (Rev Bonds/Loans/LID)										$ -
TOTAL SOURCES	**$ -**	**$ 2,900,000**	**$ -**	**$ 650,000**	**$ 2,250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,900,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Sanitary Sewer
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR:

SS-04

PROGRAM TITLE: **Old Highway 99 Extension: 79th Avenue to 88th Avenue**

PROGRAM DESCRIPTION:
This project would fund the construction of the sewer infrastructure to serve the southeast area of the City. Timing of the project is dependent on development activity. The first phase shown in this CFP extends watermain through the limits of the Old Hwy 99 and 79th Ave Roundabout project.

IS PROJECT RECOMMENDED BY PLAN/POLICY? Yes PLAN: 2015 General Sewer Plan PAGE# 6-24 GROWTH: 90%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 15,000	$ 15,000						$ 70,000	$ 85,000
Land & R-O-W		$ -								$ -
Construction		$ 210,000			$ 210,000				$ 800,000	$ 1,010,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 225,000**	**$ 15,000**	**$ -**	**$ 210,000**	**$ -**	**$ -**	**$ -**	**$ 870,000**	**$ 1,095,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Operating Income		$ 22,500	$ 1,500		$ 21,000				$ 87,000	$ 109,500
Connections		$ 202,500	$ 13,500		$ 189,000				$ 783,000	$ 985,500
Other (Rev Bonds/Loans/LID)		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 225,000**	**$ 15,000**	**$ -**	**$ 210,000**	**$ -**	**$ -**	**$ -**	**$ 870,000**	**$ 1,095,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Sanitary Sewer
DEPT: Water Resources & Sustainability
PROJECT NO. 2016025
NEW: No
PRIOR:

SS-05

PROGRAM TITLE: **Public Works Facility (2025 Update)**

PROGRAM DESCRIPTION:
Construction of a new Public Works Facility at the City's Trails End Drive property. The new facility will house the Transportation and Engineering and Water Resources and Sustainability departments. The relocation of these departments will partially offset City Hall space constraints and allow for future implementation of the Tumwater Civic Center Master Plan. Site costs are distributed approximately 33% General Fund, 28% Water, 22% Sewer, and 17% Storm. Offsite mitigation costs are distributed 50% Transportation CFP, 19% Water, 18% Sewer, and 13% Storm. Cost distribution is based on allocation of resources. Construction is presumed to be financed over 20 years for Water and Storm. Expenses and sources shown here are for Sanitary Sewer only.

Growth: 50%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 340,000	$ 320,000	$ 320,000							$ 660,000
Land & R-O-W	$ 105,400	$ 31,000	$ 31,000							$ 136,400
Construction		$ 9,130,000	$ 456,500	$ 6,391,000	$ 2,282,500					$ 9,130,000
Equipment		$ 330,000			$ 330,000					$ 330,000
Other (Arts/Mitigation)		$ 938,800	$ 125,799	$ 657,160	$ 155,841					$ 938,800
TOTAL EXPENSES	**$ 445,400**	**$ 10,749,800**	**$ 933,299**	**$ 7,048,160**	**$ 2,768,341**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 11,195,200**
Sources of Funds:										
General Government										$ -
Grants										$ -
Operating Income	$ 222,700	$ 1,365,630			$ 1,365,630					$ 1,588,330
Connections	$ 222,700	$ 1,384,170			$ 1,384,170					$ 1,606,870
Other (Rev Bonds/Loans/LID)		$ 8,000,000	$ 933,299	$ 7,048,160	$ 18,541					$ 8,000,000
TOTAL SOURCES	**$ 445,400**	**$ 10,749,800**	**$ 933,299**	**$ 7,048,160**	**$ 2,768,341**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 11,195,200**
		DEBT SERVICE:	$ -	$ -	$ 518,112.12	$ 518,112.12	$ 518,112.12	$ 518,112.12		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Sanitary Sewer
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR:

SS-06

PROGRAM TITLE: **Streamland Estates Lift Station**

PROGRAM DESCRIPTION:
Project will upgrade the Streamland Estates lift station to account for modeled deficiences to accommodate growth in the system. The existing system has an oversized wet well; upgrades include new pumps, valves piping, generator, control panel, automatic transfer switch, and associated equipment.

IS PROJECT RECOMMENDED BY PLAN/POLICY? Yes PLAN: 2015 General Sewer Plan PAGE# 8-7 GROWTH: 60%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 35,000	$ 75,000	$ 75,000							$ 110,000
Land & R-O-W										$ -
Construction		$ 500,000	$ 500,000							$ 500,000
Equipment										$ -
Other										$ -
TOTAL EXPENSES	**$ 35,000**	**$ 575,000**	**$ 575,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 610,000**
Sources of Funds:										
General Government										$ -
Grants										$ -
Operating Income	$ 14,000	$ 230,000	$ 230,000							$ 244,000
Connections	$ 21,000	$ 345,000	$ 345,000							$ 366,000
Other (Rev Bonds/Loans/LID)										$ -
TOTAL SOURCES	**$ 35,000**	**$ 575,000**	**$ 575,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 610,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Sanitary Sewer
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR:

SS-07

PROGRAM TITLE: **Lloyd Street Lift Station**

PROGRAM DESCRIPTION:
Project will upgrade the Lloyd Street lift station to account for modeled deficiences to accommodate growth in the system. Upgrades include wet well oversizing, new pumps, valves, piping, generator, control panel, automatic transfer switch, and associated equipment. Right-of-way acquisition for new generator and control panel is included.

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: 2015 General Sewer Plan PAGE# 8-7 GROWTH: 80%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 45,000	$ 55,000	$ 55,000							$ 100,000
Land & R-O-W		$ 20,000	$ 20,000							$ 20,000
Construction		$ 500,000	$ 500,000							$ 500,000
Equipment										$ -
Other										$ -
TOTAL EXPENSES	**$ 45,000**	**$ 575,000**	**$ 575,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 620,000**
Sources of Funds:										
General Government										$ -
Grants										$ -
Operating Income	$ 9,000	$ 115,000	$ 115,000							$ 124,000
Connections	$ 36,000	$ 460,000	$ 460,000							$ 496,000
Other (Rev Bonds/Loans/LID)										$ -
TOTAL SOURCES	**$ 45,000**	**$ 575,000**	**$ 575,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 620,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Sanitary Sewer
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR:

SS-08

PROGRAM TITLE: **Sewer Extension Program**

PROGRAM DESCRIPTION:
Project provides funding for extension of sewer mains both in advance of development and to existing neighborhoods to expedite private septic system conversions to sanitary sewer for protection of drinking water and environmental health. Project prioritization results from City evaluation and planning processes. Costs estimated based on average known costs; increased 25% for inflation. Program details remain to be defined; expected in 2026.

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: 2015 General Sewer Plan
2015 Urban Septic Assessment (LOTT) PAGE# 8-2 GROWTH: 10%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 1,190,000	$ 425,000	$ 290,000	$ 175,000	$ 100,000	$ 100,000	$ 100,000	$ -	$ 1,190,000
Land & R-O-W		$ 450,000	$ 250,000	$ 125,000		$ 75,000	$ -		$ -	$ 450,000
Construction		$ 4,425,000		$ 4,000,000	$ 425,000				$ -	$ 4,425,000
Equipment									$ -	$ -
Other									$ -	$ -
TOTAL EXPENSES	**$ -**	**$ 6,065,000**	**$ 675,000**	**$ 4,415,000**	**$ 600,000**	**$ 175,000**	**$ 100,000**	**$ 100,000**	**$ -**	**$ 6,065,000**
Sources of Funds:										
General Government									$ -	$ -
Grants									$ -	$ -
Operating Income		$ 733,500			$ 396,000	$ 157,500	$ 90,000	$ 90,000	$ -	$ 733,500
Connections		$ 81,500			$ 44,000	$ 17,500	$ 10,000	$ 10,000	$ -	$ 81,500
Other (Rev Bonds/Loans/LID)		$ 5,250,000	$ 675,000	$ 4,415,000	$ 160,000				$ -	$ 5,250,000
TOTAL SOURCES	**$ -**	**$ 6,065,000**	**$ 675,000**	**$ 4,415,000**	**$ 600,000**	**$ 175,000**	**$ 100,000**	**$ 100,000**	**$ -**	**$ 6,065,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Sanitary Sewer
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR:

SS-09

PROGRAM TITLE: **Comprehensive Plan Review/Update**

PROGRAM DESCRIPTION:
Update the existing Sanitary Sewer Comp Plan (last completed in 2015) to reflect current development trends within the service area, integrate programs such as main replacements and neighborhood extensions for septic conversions, identify wastewater needs for areas of new development, prepare for deployment of techical solutions to reduce overflows, and evaluate utility funding and incentive programs related to low-income housing. This update will also integrate CFP #11: I-5 Sanitary Sewermain Crossing Assessement" as part of an existing conditions analysis. Project was initiated in 2025.

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: WAC 173-240 PAGE# GROWTH: 50%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 40,000	$ 460,000	$ 425,000	$ 35,000						$ 500,000
Land & R-O-W		$ -								$ -
Construction		$ -								$ -
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ 40,000**	**$ 460,000**	**$ 425,000**	**$ 35,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 500,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Operating Income	$ 20,000	$ 230,000	$ 212,500	$ 17,500						$ 250,000
Connections	$ 20,000	$ 230,000	$ 212,500	$ 17,500						$ 250,000
Other (Rev Bonds/Loans/LID)		$ -								$ -
TOTAL SOURCES	**$ 40,000**	**$ 460,000**	**$ 425,000**	**$ 35,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 500,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Sanitary Sewer
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR:

SS-10

PROGRAM TITLE: **Enterprise Resource Planning Business System**

PROGRAM DESCRIPTION:
Replacement and implementation of the current ERP System (Tyler Eden), currently estimated at approximately $2.5 million. The City currently uses Tyler Technology's Eden program, which is no longer supported or upgraded. This system manages the billing and financial programs for the utilities, among other critical functions for the City, like payroll and permitting. The cost for both vendor fees, technology, and City staff time to implement is split between General Fund (50%) and the Water, Sewer and Storm utilities (50%).

IS PROJECT RECOMMENDED BY PLAN/POLICY? PLAN: PAGE# GROWTH: 10%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:		$ -								
Planning & Design		$ -								$ -
Land & R-O-W		$ -								$ -
Construction		$ -								$ -
Equipment	$ 338,341	$ 193,333	$ 96,667	$ 96,667						$ 531,675
Other (Debt Service)	$ -	$ -								$ -
TOTAL EXPENSES	**$ 338,341**	**$ 193,333**	**$ 96,667**	**$ 96,667**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 531,675**
Sources of Funds:										
General Government										$ -
Grants										$ -
Operating Income	$ 304,507	$ 174,000	$ 87,000	$ 87,000						$ 478,507
Connections	$ 33,834	$ 19,333	$ 9,667	$ 9,667						$ 53,167
Other (Rev Bonds/Loans/LID)										$ -
TOTAL SOURCES	**$ 338,341**	**$ 193,333**	**$ 96,667**	**$ 96,667**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 531,675**
		DEBT SERVICE:	$ -	$ -	$ -	$ -	$ -	$ -		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Sanitary Sewer
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR:

SS-11

PROGRAM TITLE: **I-5 Sanitary Sewermain Crossing Assessement**

PROGRAM DESCRIPTION:
This project provides for a condition and capacity assessment of the aging sanitary sewermains crossing under Interstate 5 and an alternatives analysis to consider redirection of sewer flows to potentially eliminate crossings under Interstate 5 which complicates routine maintenance. Known crossings include 2nd Avenue at Desoto Street, 2nd Avenue at E Street, 2nd Avenue between 3rd and H Streets and 2nd Avenue at Little Street. This project has been integrated into the 2026 Comprehensive Santary Sewer Plan Update.

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: 2015 General Sewer Plan PAGE# 8-6 GROWTH: 25%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ -	$ -							$ -
Land & R-O-W										$ -
Construction										$ -
Equipment										$ -
Other (Debt Service)										$ -
TOTAL EXPENSES	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Sources of Funds:										
General Government										$ -
Grants										$ -
Operating Income		$ -	$ -							$ -
Connections		$ -	$ -							$ -
Other (Rev Bonds/Loans/LID)										$ -
TOTAL SOURCES	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
		DEBT SERVICE:	$ -	$ -	$ -	$ -	$ -	$ -		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Sanitary Sewer
DEPT: Water Resources and Sustainability
PROJECT NO.
NEW: No
PRIOR:

SS-12

PROGRAM TITLE: **Capitol Blvd and X St Sewer**

PROGRAM DESCRIPTION:
Funding to replace aging concrete sewer lines on Capitol Blvd and X Street in coordination with the Capitol Blvd and X St Roundabout transportation improvement project. Designs are complete.

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: 2015 General Sewer Plan PAGE# 8-7 GROWTH: 10%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 50,000									$ 50,000
Land & R-O-W										$ -
Construction		$ 300,000	$ 300,000							$ 300,000
Equipment										$ -
Other										$ -
TOTAL EXPENSES	**$ 50,000**	**$ 300,000**	**$ 300,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 350,000**
Sources of Funds:										
General Government										$ -
Grants										$ -
Operating Income	$ 45,000	$ 270,000	$ 270,000							$ 315,000
Connections	$ 5,000	$ 30,000	$ 30,000							$ 35,000
Other (Rev Bonds/Loans/LID)										$ -
TOTAL SOURCES	**$ 50,000**	**$ 300,000**	**$ 300,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 350,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Sanitary Sewer
DEPT: Water Resources and Sustainability
PROJECT NO.
NEW: YES
PRIOR:

SS-13

PROGRAM TITLE: **Seismic Resiliency Plan**

PROGRAM DESCRIPTION:
Conduct a moderate seismic resiliency study to establish Level of Service goals for utility operation after a major seismic event, update geotechnical hazard maps, develop processes for facility structural resilience evaluations on critical structures and distribution systems, and prepare a critical interdependencies assessment. This project will result in the development of an implementation strategy, identifying all the recommendations for reducing vulnerabilities and mitigating risk for both water and sewer utilities. This is the Sanirtary Sewer Fund portion.

IS PROJECT RECOMMENDED BY PLAN/POLICY? PLAN: PAGE# GROWTH: 50%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 250,000		$ 250,000						$ 250,000
Land & R-O-W										$ -
Construction										$ -
Equipment										$ -
Other										$ -
TOTAL EXPENSES	**$ -**	**$ 250,000**	**$ -**	**$ 250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 250,000**
Sources of Funds:										
General Government										$ -
Grants										$ -
Operating Income		$ 125,000		$ 125,000						$ 125,000
Connections		$ 125,000		$ 125,000						$ 125,000
Other (Rev Bonds/Loans/LID)										$ -
TOTAL SOURCES	**$ -**	**$ 250,000**	**$ -**	**$ 250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 250,000**
		DEBT SERVICE:	$ -	$ -	$ -	$ -	$ -	$ -		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Sanitary Sewer
DEPT.: Water Resources and Sustainability
PROJECT NO.
NEW: YES
PRIOR:

SS-14

PROGRAM TITLE: **Kimmie Street Lift Station**

PROGRAM DESCRIPTION:
Project will complete an engineering evaluation and upgrade the Kimmee Street lift station to account for modeled deficiences to accommodate growth in the system. Upgrades may include wet well oversizing, new pumps, valves, piping, generator, control panel, automatic transfer switch, and associated equipment. Right-of-way acquisition for new generator and control panel is included.

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: 2015 Sewer System Plan PAGE# GROWTH: 50%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6-YR. TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 187,500	$ 62,500	$ 125,000						$ 187,500
Land & R-O-W		$ 30,000		$ 30,000						$ 30,000
Construction		$ 500,000			$ 500,000					$ 500,000
Equipment										$ -
Other										$ -
TOTAL EXPENSES	**$ -**	**$ 717,500**	**$ 62,500**	**$ 155,000**	**$ 500,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 717,500**
Sources of Funds:										
General Government										$ -
Grants										$ -
Operating Income		$ 358,750	$ 31,250	$ 77,500	$ 250,000					$ 358,750
Connections		$ 358,750	$ 31,250	$ 77,500	$ 250,000					$ 358,750
Other (Rev Bonds/Loans/LID)										$ -
TOTAL SOURCES	**$ -**	**$ 717,500**	**$ 62,500**	**$ 155,000**	**$ 500,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 717,500**
		DEBT SERVICE:	$ -	$ -	$ -	$ -	$ -	$ -		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Sanitary Sewer
DEPT: Water Resources and Sustainability
PROJECT NO.
NEW: **YES**
PRIOR:

SS-15

PROGRAM TITLE: **Hixon Siphon Evaluation**

PROGRAM DESCRIPTION:
This project includes the analysis of the current operational conditions and needed repair/replacement of failed components; including siphon automatic control valve and wetwell sluice gates. The siphon is currently non-operational and the system is currently operating in by-pass mode.

IS PROJECT RECOMMENDED BY PLAN/POLICY? PLAN: PAGE# GROWTH: 0%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 50,000	$ 50,000							$ 50,000
Land & R-O-W										$ -
Construction										$ -
Equipment										$ -
Other							$ -	$ -	$ -	$ -
TOTAL EXPENSES	**$ -**	**$ 50,000**	**$ 50,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 50,000**
Sources of Funds:										
General Government										$ -
Grants										$ -
Operating Income		$ 50,000	$ 50,000							$ 50,000
Connections										$ -
Other (Rev Bonds/Loans/LID)										$ -
TOTAL SOURCES	**$ -**	**$ 50,000**	**$ 50,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 50,000**
		DEBT SERVICE:	$ -	$ -	$ -	$ -	$ -	$ -		

FINANCIAL PLAN FOR THE STORM DRAIN FUND

	Project	PROJECTS	DEPT	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YRS	GRAND TOTAL
	1	Land Acquisition - Wetland / Habitat Conservation	WRS	$ 300,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ -	$ 300,000
	2	Tumwater Valley Regional Facility	WRS	$ 3,950,000	$ -	$ 125,000	$ 275,000	$ 1,750,000	$ 1,800,000	$ -	$ -	$ 4,520,000
	3	Pioneer Park Restoration	WRS	$ 750,000	$ 225,000	$ 275,000	$ 250,000	$ -	$ -	$ -	$ -	$ 950,000
	4	Emerging Projects	WRS	$ 150,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ -	$ 150,000
	5	East Linwood Basin Outfall Retrofit	--	$ 2,170,000	$ -	$ -	$ 45,000	$ 975,000	$ 1,150,000	$ -	$ -	$ 2,290,000
	6	Percival Creek Fish Passage Barrier Removal	TED	$ 2,408,000	$ 2,408,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,673,000
	7	Kirsop Road Stormwater Improvements	--	$ 305,250	$ -	$ -	$ -	$ -	$ 137,500	$ 167,750	$ 412,500	$ 717,750
	8	54th & Kirsop Road Flooding Reduction	--	$ 287,500	$ -	$ -	$ 37,500	$ 250,000	$ -	$ -	$ -	$ 287,500
	9	66th Ave Culvert Replacement	--	$ 500,000	$ -	$ -	$ -	$ -	$ 225,000	$ 275,000	$ 4,000,000	$ 4,500,000
	10	North Custer Way Stormdrain Redirection	--	$ 112,500	$ -	$ -	$ -	$ -	$ -	$ 112,500	$ 300,000	$ 1,087,500
	11	Beehive Industrial Area Stormwater Improvements	WRS	$ 815,000	$ -	$ 50,000	$ 765,000	$ -	$ -	$ -	$ -	$ 965,000
	12	Public Works Facility (2025 Update)	TED	$ 8,161,800	$ 614,111	$ 5,405,533	$ 2,142,156	$ -	$ -	$ -	$ -	$ 8,607,200
	13	Golf Course Drainage System Repairs	WRS/TED	$ 425,000	$ 50,000	$ 150,000	$ 75,000	$ 150,000	$ -	$ -	$ -	$ 475,000
	14	Enterprise Resource Planning Business System	FIN	$ 193,333	$ 96,667	$ 96,667	$ -	$ -	$ -	$ -	$ -	$ 531,675
	15	Capitol Blvd/X Street Storm Upsizing	TED	$ 650,000	$ 650,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,525,000
	16	Crites Stormwater Pond Improvements	--	$ 1,150,000	$ -	$ -	$ 250,000	$ 400,000	$ 500,000	$ -	$ -	$ 1,150,000
	17	29th Avenue SW Stormwater Improvements	--	$ 650,000	$ -	$ -	$ -	$ -	$ 165,000	$ 485,000	$ 150,000	$ 800,000
	18	Tumwater Hill Basin Assessment	WRS	$ 50,000	$ 50,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 50,000
	19	2028 Comprehensive Stormwater Management Plan Update	WRS	$ 250,000	$ -	$ 50,000	$ 200,000	$ -	$ -	$ -	$ -	$ 250,000
	20	East Dennis Street Outfall Retrofit	WRS	$ 200,000	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 235,000
NEW	21	Somerset Hill Culvert Replacement	TED	$ 4,000,000	$ 200,000	$ 150,000	$ 3,650,000	$ -	$ -	$ -	$ -	$ 4,000,000
		TOTAL EXPENSES:		**$ 27,478,383**	**$ 4,568,778**	**$ 6,377,200**	**$ 7,764,656**	**$ 3,600,000**	**$ 4,052,500**	**$ 1,115,250**	**$ 4,862,500**	**$ 32,064,625**
		SOURCES OF FUNDS: *General Government*		**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		Grants		**$ 13,839,500**	$ 2,709,250	$ 656,250	$ 4,806,250	$ 2,312,500	$ 2,887,500	$ 467,750	$ 4,000,000	$ 17,839,500
		Storm Rates		**$ 5,327,083**	$ 1,245,417	$ 315,417	$ 816,250	$ 1,137,500	$ 1,165,000	$ 647,500	$ 450,000	$ 5,777,083
		Bonds, Misc. Debt		**$ 7,000,000**	$ 7,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 7,000,000
		TOTAL SOURCES:		**$ 26,166,583**	**$ 10,954,667**	**$ 971,667**	**$ 5,622,500**	**$ 3,450,000**	**$ 4,052,500**	**$ 1,115,250**	**$ 4,450,000**	**$ 30,616,583**

STORM FUND — SIX YEAR FORECAST

		2025	2026	2027	2028	2029	2030	2031		2026-2031
BEGINNING FUND BALANCE:		**$ 6,343,871**	**$ 3,922,394**	**$ 9,276,969**	**$ 4,062,582**	**$ 1,493,346**	**$ 934,068**	**$ 840,906**		**$ 3,922,394**
REVENUES:	Charges for Services (Rates & Utility Tax)	$ 4,494,161	$ 4,926,499	$ 5,360,425	$ 5,821,689	$ 6,310,828	$ 6,809,036	$ 7,049,395		$ 36,277,872
	Misc. Revenues	$ 9,350	$ 9,537	$ 9,728	$ 9,922	$ 10,121	$ 10,323	$ 10,530		$ 60,161
	Grants	$ 934,412	$ 2,709,250	$ 656,250	$ 4,806,250	$ 2,312,500	$ 2,887,500	$ 467,750		$ 13,839,500
	Debt Proceeds	$ -	$ 7,000,000	$ -	$ -	$ -	$ -	$ -		$ 7,000,000
TOTAL REVENUES:		**$ 11,781,794**	**$ 18,567,679**	**$ 15,303,372**	**$ 14,700,444**	**$ 10,126,795**	**$ 10,640,927**	**$ 8,368,581**		**$ 61,099,926**
EXPENDITURES:	O & M (including Admin.)	$ 4,584,400	$ 4,721,932	$ 4,863,590	$ 5,009,498	$ 5,159,783	$ 5,314,576	$ 5,474,014		$ 30,543,393
	Debt Service	$ -	$ -		$ 432,944	$ 432,944	$ 432,944	$ 432,944		$ 1,731,777
	Capital	$ 3,275,000	$ 4,568,778	$ 6,377,200	$ 7,764,656	$ 3,600,000	$ 4,052,500	$ 1,115,250		$ 27,478,383
TOTAL EXPENSES:		**$ 7,859,400**	**$ 9,290,710**	**$ 11,240,790**	**$ 13,207,098**	**$ 9,192,727**	**$ 9,800,020**	**$ 7,022,208**		**$ 59,753,553**
ENDING FUND BALANCE:		**$ 3,922,394**	**$ 9,276,969**	**$ 4,062,582**	**$ 1,493,346**	**$ 934,068**	**$ 840,906**	**$ 1,346,373**		**$ 1,346,373**
UTILITY RESERVE POLICY (20% O&M + Debt Service)		*$ 916,880*	*$ 944,386*	*$ 972,718*	*$ 1,088,488*	*$ 1,118,545*	*$ 1,149,504*	*$ 1,181,392*		
Est. Rate Increases		8.0%	8.0%	7.2%	7.0%	6.8%	6.3%	2.0%		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR:

SD-01

PROGRAM TITLE: **Land Acquisition - Wetland / Habitat Conservation**

PROGRAM DESCRIPTION:
Reserve funds for the acquisition of lands for stormwater-related projects requiring wetland mitigation, preservation, or enhancement, and non-mitigation habitat conservation. Conceptual projects include Kirsop-area wetlands, Deschutes watershed wetlands, and Percival Creek and Deschutes River Conservation Easement Program.

IS PROJECT RECOMMENDED BY PLAN/POLICY? PLAN: PAGE#

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ -	$ -								$ -
Land & R-O-W	$ -	$ 300,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000		$ 300,000
Construction	$ -	$ -								$ -
Equipment	$ -	$ -								$ -
Other	$ -	$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 300,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ -**	**$ 300,000**
Sources of Funds:										
General Government	$ -	$ -								$ -
Grants	$ -	$ 150,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000		$ 150,000
Water/Sewer/Storm	$ -	$ 150,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000		$ 150,000
G.O. Bonds: NonVtd	$ -	$ -								$ -
G.O. Bonds: Voted	$ -	$ -								$ -
Revenue Bonds	$ -	$ -								$ -
L.I.D.'s	$ -	$ -								$ -
Other	$ -	$ -								$ -
TOTAL SOURCES	**$ -**	**$ 300,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ -**	**$ 300,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: SD-03

SD-02

PROGRAM TITLE: **Tumwater Valley Regional Facility**

PROGRAM DESCRIPTION:
Funding provides for the construction of a multi-basin stormwater treatment facility for the discharge from 2 major outfalls - M Street Basin and Littlerock/2nd Avenue, with a drainage area of approximately 200 acres. Project includes outfall retrofit as a constructed wetland, walking trail, educational signage, wetland mitigation, and electrical realignment to treat stormwater discharges to the Deschutes River. Planning and design is largely complete; completion of permitting, mitigation, and construction are dependent on grant funding.

IS PROJECT RECOMMENDED BY PLAN/POLICY? No PLAN: PAGE#

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 368,000	$ 175,000		$ 125,000	$ 50,000	$ -	$ -			$ 543,000
Land & R-O-W	$ 202,000	$ 225,000		$ -	$ 225,000	$ -	$ -			$ 427,000
Construction		$ 3,550,000		$ -	$ -	$ 1,750,000	$ 1,800,000			$ 3,550,000
Equipment		$ -			.					$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ 570,000**	**$ 3,950,000**	**$ -**	**$ 125,000**	**$ 275,000**	**$ 1,750,000**	**$ 1,800,000**	**$ -**	**$ -**	**$ 4,520,000**
Sources of Funds:										
General Government		$ -								$ -
Grants	$ 55,000	$ 2,962,500		$ 93,750	$ 206,250	$ 1,312,500	$ 1,350,000			$ 3,017,500
Water/Sewer/Storm	$ 515,000	$ 987,500		$ 31,250	$ 68,750	$ 437,500	$ 450,000			$ 1,502,500
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ 570,000**	**$ 3,950,000**	**$ -**	**$ 125,000**	**$ 275,000**	**$ 1,750,000**	**$ 1,800,000**	**$ -**	**$ -**	**$ 4,520,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: SD-05 / SD-06 (Deschutes Habitat Restoration)

SD-03

PROGRAM TITLE: **Pioneer Park Restoration**

PROGRAM DESCRIPTION:
Project will design and implement instream habitat enhancement and shoreline sediment reduction elements in Pioneer Park in support of Total Maximum Daily Load (TMDL) compliance relating to shade coverage (temperature) and sediment reduction (water quality), and address city restoration goals outlined by the Shoreline Management Plan and Deschutes Habitat Restoration Plan. Phase 1, project design, permitting and upland restoration, will be complete in Q1 2026. Phase 2, instream habitat enhancements, will be completed in 2028 and is funded by a 100% grant from the WA Department of Ecology.

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: NPDES Permit / Shoreline Management Plan PAGE# Multiple

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 160,000	$ 200,000	$ 150,000	$ 50,000	$ -					$ 360,000
Land & R-O-W		$ -								$ -
Construction	$ 40,000	$ 550,000	$ 75,000	$ 225,000	$ 250,000					$ 590,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ 200,000**	**$ 750,000**	$ 225,000	$ 275,000	$ 250,000	$ -	$ -	$ -	$ -	**$ 950,000**
Sources of Funds:										
General Government		$ -								$ -
Grants	$ 200,000	$ 693,750	$ 168,750	$ 275,000	$ 250,000					$ 893,750
Water/Sewer/Storm	$ -	$ 56,250	$ 56,250							$ 56,250
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ 200,000**	**$ 750,000**	**$ 225,000**	**$ 275,000**	**$ 250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 950,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: SD-06

SD-04

PROGRAM TITLE: **Emerging Projects**

PROGRAM DESCRIPTION:
This funding would be used to deal with unanticipated capital facilities needs that arise throughout the year. Typically, they would be used for construction or modification of City facilities in conjunction with construction by private development, or to deal with problems that may occur.

IS PROJECT RECOMMENDED BY PLAN/POLICY? No PLAN: PAGE#

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ -								$ -
Land & R-O-W		$ -								$ -
Construction		$ 150,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000		$ 150,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 150,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ -**	**$ 150,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Water/Sewer/Storm		$ 150,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000		$ 150,000
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 150,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ -**	**$ 150,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: SD-07

SD-05

PROGRAM TITLE: **East Linwood Basin Outfall Retrofit**

PROGRAM DESCRIPTION:
Project will re-evaluate conceptual design previously prepapred to retrofit a stormwater drainage outfall from the East Linwood basin. Initial evaluations of flow and water quality impacts to the Deschutes River were completed during an initial grant-funded design phase in 2014-2015; 2022 Ecology funding for a second alternatives analysis to avoid wetland impacts did not result in a feasible alternative. Other funding sources will be pursued for design completion, permitting, mitigation, and construction. The project aims to address stormwater impacts including discharge velocity, shoreline erosion, and water quality.

IS PROJECT RECOMMENDED BY PLAN/POLICY? No PLAN: PAGE#

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 120,000	$ 420,000			$ 45,000	$ 225,000	$ 150,000			$ 540,000
Land & R-O-W		$ 250,000				$ 250,000				$ 250,000
Construction		$ 1,500,000				$ 500,000	$ 1,000,000			$ 1,500,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ 120,000**	**$ 2,170,000**	**$ -**	**$ -**	**$ 45,000**	**$ 975,000**	**$ 1,150,000**	**$ -**	**$ -**	**$ 2,290,000**
Sources of Funds:										
General Government		$ -								$ -
Grants	$ 120,000	$ 2,170,000			$ 45,000	$ 975,000	$ 1,150,000			$ 2,290,000
Water/Sewer/Storm		$ -								$ -
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ 120,000**	**$ 2,170,000**	**$ -**	**$ -**	**$ 45,000**	**$ 975,000**	**$ 1,150,000**	**$ -**	**$ -**	**$ 2,290,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO. 2020033
NEW: No
PRIOR: SD-11

SD-06

PROGRAM TITLE: **Percival Creek Fish Passage Barrier Removal**

PROGRAM DESCRIPTION:
This project will replace the existing culvert at Sapp Road, which, due to its size, gradient and elevation, is a "complete" fish passage barrier to upstream and downstream migration. Designs have been completed and permits acquired; construction to complete in 2026, fully funded by the WA State Department of Transportation "Promoting Resilient Operation for Transformative, Efficient, and Cost Saving Transportation (PROTECT)" grant program.

IS PROJECT RECOMMENDED BY PLAN/POLICY' YES PLAN: Shoreline Master Plan, Restoration program PAGE# 31

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 265,000	$ -								$ 265,000
Land & R-O-W		$ 125,000	$ 125,000							$ 125,000
Construction		$ 2,283,000	$ 2,283,000							$ 2,283,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ 265,000**	**$ 2,408,000**	**$ 2,408,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,673,000**
Sources of Funds:										
General Government		$ -								$ -
Grants	$ 80,000	$ 2,358,000	$ 2,358,000							$ 2,438,000
Water/Sewer/Storm	$ 185,000	$ 50,000	$ 50,000							$ 235,000
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ 265,000**	**$ 2,408,000**	**$ 2,408,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,673,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: SD-11

SD-07

PROGRAM TITLE: **Kirsop Road Stormwater Improvements**

PROGRAM DESCRIPTION:
To address flooding along the north/south segment of Kirsop Road SW adjacent to Fish Trap Creek; project will replace existing undersized culvert with 8' x 2' box culvert, install and/or regrade existing swales along the west half of this segment adjacent to the Fish Trap Creek crossing, and install a water quality treatment facility to treat stormwater runoff from the paved surface.

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: Annexation Area Drainage Study, #7.4 PAGE# 48

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 155,250					$ 62,500	$ 92,750		$ 155,250
Land & R-O-W		$ 150,000					$ 75,000	$ 75,000		$ 150,000
Construction		$ -							$ 412,500	$ 412,500
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 305,250**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 137,500**	**$ 167,750**	**$ 412,500**	**$ 717,750**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ 305,250					$ 137,500	$ 167,750		$ 305,250
Water/Sewer/Storm		$ -					$ -	$ -		$ -
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 305,250**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 137,500**	**$ 167,750**	**$ -**	**$ 305,250**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: SD-12

SD-08

PROGRAM TITLE: **54th & Kirsop Road Flooding Reduction**

PROGRAM DESCRIPTION:
An undersized drainage ditch flowing east toward Percival Creek on the north side of 54th Avenue (Trosper) has led to localized flooding issues. Natural topography suggests this flow was redirected toward Percival Creek from Fish Pond Creek prior to the construction of 54th Avenue. This project will divert stormwater flows to the natural drainage course through the installation of a cross culvert along the west side of Kirsop Road at its intersection with 54th. Flows will continue south through existing ditches along the west side of Kirsop Road.

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: Annexation Area Drainage Study #7.6 PAGE# 49

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 37,500			$ 37,500					$ 37,500
Land & R-O-W		$ -								$ -
Construction		$ 250,000				$ 250,000				$ 250,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 287,500**	**$ -**	**$ -**	**$ 37,500**	**$ 250,000**	**$ -**	**$ -**	**$ -**	**$ 287,500**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Water/Sewer/Storm		$ 287,500			$ 37,500	$ 250,000				$ 287,500
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 287,500**	**$ -**	**$ -**	**$ 37,500**	**$ 250,000**	**$ -**	**$ -**	**$ -**	**$ 287,500**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: SD-13

SD-09

PROGRAM TITLE: **66th Ave Culvert Replacement**

PROGRAM DESCRIPTION:
Culvert #26 has been identified as undersized in the Annexation Area Drainage Study, in project #7.2. The existing 46" x 72" corrugated metal pipe (CMP) Arch Pipe culvert conveys Fish Pond Creek at 66th Avenue. The culvert is recommended to be replaced with two 48" diameter culvert pipes.

IS PROJECT RECOMMENDED BY PLAN/POLICY? Yes PLAN: Annexation Area Drainage Study PAGE# 47

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 300,000					$ 225,000	$ 75,000		$ 300,000
Land & R-O-W		$ 200,000						$ 200,000		$ 200,000
Construction		$ -							$ 4,000,000	$ 4,000,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 500,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 225,000**	**$ 275,000**	**$ 4,000,000**	**$ 4,500,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ 500,000					$ 225,000	$ 275,000	$ 4,000,000	$ 4,500,000
Water/Sewer/Storm		$ -								$ -
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 500,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 225,000**	**$ 275,000**	**$ 4,000,000**	**$ 4,500,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: SD-15

SD-10

PROGRAM TITLE: **North Custer Way Stormdrain Redirection**

PROGRAM DESCRIPTION:
Stormwater flows in the vicintiy of Capitol Boulevard and Custer Way enter an inadequate system under the Capitol Boulevard Bridge that surcharges due to its configuration. This project is being phased to better align with utility and transportation projects. Phase 1, Complete: Upsizing and treatment for Custer Way from Boston Street to east of Capitol Blvd; Phase 2 - Extend Phase 1 improvements along the Brewhouse Tower access road from Custer Way to the existing discharge area allowing for planned stromwater redirection. This project will increase the volume of stormwater that is treated and ease potential problems associated with erosion due to stormwater under the bridge on the former brewery property.

IS PROJECT RECOMMENDED BY PLAN/POLICY? No PLAN: PAGE#

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 45,000	$ 75,000						$ 75,000		$ 120,000
Land & R-O-W	$ -	$ 37,500						$ 37,500		$ 37,500
Construction	$ 630,000	$ -							$ 300,000	$ 930,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ 675,000**	**$ 112,500**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 112,500**	**$ 300,000**	**$ 1,087,500**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Water/Sewer/Storm		$ 112,500						$ 112,500	$ 300,000	$ 412,500
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 112,500**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 112,500**	**$ 300,000**	**$ 412,500**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: SD-18

SD-11

PROGRAM TITLE: **Beehive Industrial Area Stormwater Improvements**

PROGRAM DESCRIPTION:
Stormwater improvements are needed in the Beehive Industrial Area to address poor conveyance, reduce flooding and improve water quality in stormwater runoff. Improvements include ditch rehabilitation, driveway culvert replacement and installation, and new bioretention and conveyance structures along Joppa St. and Lambskin Rd. Permitting is estimated to be complete in advance of the project in 2027; construction in 2028.

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: PAGE#

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 150,000	$ 50,000		$ 50,000						$ 200,000
Land & R-O-W		$ -								$ -
Construction		$ 765,000			$ 765,000					$ 765,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ 150,000**	**$ 815,000**	**$ -**	**$ 50,000**	**$ 765,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 965,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ 573,750			$ 573,750					$ 573,750
Water/Sewer/Storm		$ 241,250		$ 50,000	$ 191,250					$ 241,250
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 815,000**	**$ -**	**$ 50,000**	**$ 765,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 815,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources and Sustainability
PROJECT NO. 2016025
NEW: No
PRIOR: SD-13

SD-12

PROGRAM TITLE: **Public Works Facility (2025 Update)**

PROGRAM DESCRIPTION:

Construction of a new Public Works Facility at the City's Trails End Drive property. The new facility will house the Transportation and Engineering and Water Resources and Sustainability departments. The relocation of these departments will partially offset City Hall space constraints and allow for future implementation of the Tumwater Civic Center Master Plan. Site costs are distributed approximately 33% General Fund, 28% Water, 22% Sewer, and 17% Storm. Offsite mitigation costs are distributed 50% Transportation CFP, 19% Water, 18% Sewer, and 13% Storm. Cost distribution is based on allocation of resources. Construction is presumed to be financed over 20 years, debt service to be included in the budget.

IS PROJECT RECOMMENDED BY PLAN/POLICY? Yes PLAN: City Campus Master Plan PAGE#

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 340,000	$ 170,000	$ 170,000	$ -	$ -					$ 510,000
Land & R-O-W	$ 105,400	$ -	$ -	$ -	$ -					$ 105,400
Construction	$ -	$ 7,055,000	$ 352,750	$ 4,938,500	$ 1,763,750					$ 7,055,000
Equipment	$ -	$ 255,000	$ -	$ -	$ 255,000					$ 255,000
Other (incl. 1% for Arts)	$ -	$ 681,800	$ 91,361	$ 467,033	$ 123,406					$ 681,800
TOTAL EXPENSES	**$ 445,400**	**$ 8,161,800**	**$ 614,111**	**$ 5,405,533**	**$ 2,142,156**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 8,607,200**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Water/Sewer/Storm	$ 445,400	$ -								$ 445,400
G.O. Bonds: NonVtd		$ 1,161,800		$ 580,900	$ 580,900					$ 1,161,800
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ 7,000,000	$ 7,000,000							$ 7,000,000
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ 445,400**	**$ 8,161,800**	**$ 7,000,000**	**$ 580,900**	**$ 580,900**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 8,607,200**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

SD-13

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: GG-25 / SD-20

PROGRAM TITLE: **Golf Course Drainage System Repairs**

PROGRAM DESCRIPTION:
The original drainage system designed to convey storm water from Henderson Blvd through the golf course is failing and creating sink holes on fairways #3 and #18. The large galvanized pipe installed in 1969 is failing in locations and will need to be replaced. This project provides a funding placeholder to support engineering assesments, integration of conveyance with public stormwater infrastructure, and compliance with Total Maximum Daily Load (TMDL) water quality regulations as critical needs are identified.

IS PROJECT RECOMMENDED BY PLAN/POLICY? PLAN: PAGE#

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 50,000	$ 175,000	$ 50,000	$ 125,000						$ 225,000
Land & R-O-W		$ -								$ -
Construction		$ 250,000		$ 25,000	$ 75,000	$ 150,000				$ 250,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ 50,000**	**$ 425,000**	**$ 50,000**	**$ 150,000**	**$ 75,000**	**$ 150,000**	**$ -**	**$ -**	**$ -**	**$ 475,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ 168,750		$ 112,500	$ 56,250					$ 168,750
Water/Sewer/Storm	$ 50,000	$ 106,250	$ 50,000	$ 37,500	$ 18,750					$ 156,250
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ 50,000**	**$ 275,000**	**$ 50,000**	**$ 150,000**	**$ 75,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 325,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: SD-16

SD-14

PROGRAM TITLE: **Enterprise Resource Planning Business System**

PROGRAM DESCRIPTION:
Replacement and implementation of the current ERP System (Tyler Eden), currently estimated at approximately $2.5 million. The City currently uses Tyler Technology's Eden program, which is no longer supported or upgraded. This system manages the billing and financial programs for the utilities, among other critical functions for the City, like payroll and permitting. The cost for both vendor fees, technology, and City staff time to implement is split between General Fund (50%) and the Water, Sewer and Storm utilities (50%).

IS PROJECT RECOMMENDED BY PLAN/POLICY? PLAN: PAGE#

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ -	$ -								$ -
Land & R-O-W		$ -								$ -
Construction		$ -								$ -
Equipment		$ -								$ -
Other (Software, etc.))	$ 338,341	$ 193,333	$ 96,667	$ 96,667						$ 531,675
TOTAL EXPENSES	**$ 338,341**	**$ 193,333**	**$ 96,667**	**$ 96,667**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 531,675**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Water/Sewer/Storm	$ 338,341	$ 193,333	$ 96,667	$ 96,667						$ 531,675
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ 338,341**	**$ 193,333**	**$ 96,667**	**$ 96,667**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 531,675**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: Yes
PRIOR:

SD-15

PROGRAM TITLE: **Capitol Blvd/X Street Storm Upsizing**

PROGRAM DESCRIPTION:
Replace undersized and deteriorating infrastructure on Capitol Blvd. This project will be completed in several phases and often in conjunction with transportation improvement projects. Construction work prior to 2026 completed in the vicinity of Capitol Blvd and Trosper Rd. Construction work in 2028 will include the vicinity of Capitol Blvd and X St.

IS PROJECT RECOMMENDED BY PLAN/POLICY' YES PLAN: Tumwater Valley Regional Facility Hydraulics Report PAGE#

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 200,000	$ -								$ 200,000
Land & R-O-W		$ -								$ -
Construction	$ 675,000	$ 650,000	$ 650,000							$ 1,325,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ 875,000**	**$ 650,000**	**$ 650,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,525,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Water/Sewer/Storm	$ 875,000	$ 650,000	$ 650,000							$ 1,525,000
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ 875,000**	**$ 650,000**	**$ 650,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,525,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: Yes
PRIOR:

SD-16

PROGRAM TITLE: **Crites Stormwater Pond Improvements**

PROGRAM DESCRIPTION:
Improvements are needed in the Mottman Industrial Area to improve conveyance to Crites Pond and increase capacity of the pond. Improvements are also needed to the pond to increase treatment and infiltration rates to effectivley reduce local flooding during rain events.

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: Mottman Drainage Evaluation PAGE# 15

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ -	$ 250,000			$ 250,000					$ 250,000
Land & R-O-W		$ -								$ -
Construction		$ 900,000				$ 400,000	$ 500,000			$ 900,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 1,150,000**	**$ -**	**$ -**	**$ 250,000**	**$ 400,000**	**$ 500,000**	**$ -**	**$ -**	**$ 1,150,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Water/Sewer/Storm	$ -	$ 1,150,000			$ 250,000	$ 400,000	$ 500,000		$ -	$ 1,150,000
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 1,150,000**	**$ -**	**$ -**	**$ 250,000**	**$ 400,000**	**$ 500,000**	**$ -**	**$ -**	**$ 1,150,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: Yes
PRIOR:

SD-17

PROGRAM TITLE: **29th Avenue SW Stormwater Improvements**

PROGRAM DESCRIPTION:
This project intends to help alleviate flooding issues identified along Crites Steet and RW Johnson Blvd SW. The project includes regrading right-of-ways along 29th Ave SW, and improving storage and conveyance of stormwater by re-grading swales and installing driveway culverts.

IS PROJECT RECOMMENDED BY PLAN/POLICY? Yes PLAN: Mottman Drainage Evaluation PAGE# 22

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ -	$ 200,000					$ 165,000	$ 35,000		$ 200,000
Land & R-O-W	$ -	$ -								$ -
Construction	$ -	$ 450,000						$ 450,000	$ 150,000	$ 600,000
Equipment	$ -	$ -								$ -
Other	$ -	$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 650,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 165,000**	**$ 485,000**	**$ 150,000**	**$ 800,000**
Sources of Funds:										
General Government		$ -								$ -
Grants	$ -	$ -								$ -
Water/Sewer/Storm	$ -	$ 650,000					$ 165,000	$ 485,000	$ 150,000	$ 800,000
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 650,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 165,000**	**$ 485,000**	**$ 150,000**	**$ 800,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: SD-19

SD-18

PROGRAM TITLE: **Tumwater Hill Basin Assessment**

PROGRAM DESCRIPTION:
Widespread conveyance infrastructure is failing in the Tumwater Hill neighborhood. Flow control and water quality Best Management Practices (BMPs) are largely absent from area, which drains directly to the DeSoto Canyon. City has performed some spot repairs on failing infrastructure, but need a more comprehensive approach. Project will perform detailed study to inventory and assess infrastructure throughout neighborhood and develop recommendations for repair and improvement.

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: 2017 Stormwater Comprehensive Management Plan PAGE#

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 50,000	$ 50,000							$ 50,000
Land & R-O-W		$ -								$ -
Construction		$ -								$ -
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 50,000**	**$ 50,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 50,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Water/Sewer/Storm		$ 50,000	$ 50,000							$ 50,000
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 50,000**	**$ 50,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 50,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW:
PRIOR: SD-20

SD-19

PROGRAM TITLE: **2028 Comprehensive Stormwater Management Plan Update**

PROGRAM DESCRIPTION:
Project will update the 2018 Comprehensive Stormwater Management Plan, intending to review and update program capacities for permit-related programs, technical assistance programs, operations and maintenance, funding sources and staffing levels. Regular updates to the Comprehensive Stormwater Management Plan are required through the City's NPDES permit. Project is due to growth and will integrate findings and recommendations of basin assessments completed in previous years.

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: NPDES Permit PAGE#

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ -	$ 250,000		$ 50,000	$ 200,000					$ 250,000
Land & R-O-W		$ -								$ -
Construction		$ -								$ -
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 250,000**	**$ -**	**$ 50,000**	**$ 200,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 250,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Water/Sewer/Storm	$ -	$ 250,000		$ 50,000	$ 200,000					$ 250,000
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 250,000**	**$ -**	**$ 50,000**	**$ 200,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 250,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW:
PRIOR: SD-21

SD-20

PROGRAM TITLE: **East Dennis Street Outfall Retrofit**

PROGRAM DESCRIPTION:
Runoff from East Dennis Street and upstream roadways currently discharges untreated to unnamed surface tributary to the Deschutes River. Project includes evaluation of upstream drainage structures and modification/construction of recommended improvements for retrofit of outfall(s) and structure(s) upstream of DMH#10275 and DMH#10034. Project funded in the 2025-2026 budget.

IS PROJECT RECOMMENDED BY PLAN/POLICY? PLAN: PAGE#

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 35,000	$ -								$ 35,000
Land & R-O-W		$ -								$ -
Construction		$ 200,000	$ 200,000							$ 200,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ 35,000**	**$ 200,000**	**$ 200,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 235,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Water/Sewer/Storm	$ -	$ 200,000	$ 200,000							$ 200,000
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 200,000**	**$ 200,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 200,000**

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Storm Drain
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: YES
PRIOR:

SD-21

PROGRAM TITLE: **Somerset Hill Culvert Replacement**

PROGRAM DESCRIPTION:
This project will replace the current partial barrier with a bridge. The bridge will allow for unimpeded fish and wildlife habitat and passage at the crossing. It will also allow Percival Creek sufficient space to meander and change its sediment deposition and bankfull width over time. Majority funded by WA State Department of Transportation "Promoting Resilient Operation for Transformative, Efficient, and Cost Saving Transportation (PROTECT)" grant program.

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: PAGE#

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ -	$ 300,000	$ 200,000	$ 100,000						$ 300,000
Land & R-O-W		$ 50,000		$ 50,000						$ 50,000
Construction		$ 3,650,000			$ 3,650,000					$ 3,650,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 4,000,000**	**$ 200,000**	**$ 150,000**	**$ 3,650,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 4,000,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ 3,957,500	$ 157,500	$ 150,000	$ 3,650,000					$ 3,957,500
Water/Sewer/Storm	$ -	$ 42,500	$ 42,500							$ 42,500
G.O. Bonds: NonVtd		$ -								$ -
G.O. Bonds: Voted		$ -								$ -
Revenue Bonds		$ -								$ -
L.I.D.'s		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 4,000,000**	**$ 200,000**	**$ 150,000**	**$ 3,650,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 4,000,000**

Attachment E

FINANCIAL PLAN FOR THE WATER FUND

	PROJECT	PROJECT NAME	DEPT	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YRS	GRAND TOTAL
	1	Water Rights Acquisition	WRS	$ 1,225,000	$ 1,000,000	$ 25,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ -	$ 1,225,000
	2	Brewery Wellfield - Water Production Infrastructure	WRS	$ 12,900,000	$ 2,775,000	$ 7,625,000	$ 2,500,000	$ -	$ -	$ -	$ -	$ 14,230,000
	3	Brewery Wellfield - Abandon Existing Wells	WRS	$ 2,100,000	$ -	$ 850,000	$ 1,250,000	$ -	$ -	$ -	$ -	$ 2,100,000
	4	Emerging Projects / Oversizing	WRS	$ 400,000	$ 150,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ -	$ 400,000
	5	Water Main Replacement and Extension Program	TED	$ 1,865,000	$ -	$ 105,000	$ 775,000	$ 105,000	$ 775,000	$ 105,000	$ -	$ 1,865,000
	6	Well 15 Improvements	WRS	$ 1,480,000	$ 1,480,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,480,000
	7	Public Works Facility (2025 Update)	TED	$ 13,196,200	$ 863,847	$ 8,822,357	$ 3,509,996	$ -	$ -	$ -	$ -	$ 14,060,800
	8	Southeast Reservoir & System Extension	TED	$ 18,200,000	$ 200,000	$ 18,000,000	$ -	$ -	$ -	$ -	$ -	$ 19,700,000
	9	Enterprise Resource Planning Business System	FIN	$ 193,333	$ 96,667	$ 96,667	$ -	$ -	$ -	$ -	$ -	$ 531,675
	10	Water Comprehensive Plan Update	WRS	$ 350,000	$ -	$ -	$ -	$ 100,000	$ 150,000	$ 100,000	$ -	$ 350,000
	11	Capitol Blvd and X St Watermain	TED	$ 600,000	$ 600,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 700,000
	12	Seismic Resilience	WRS	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ 100,000
NEW	13	Bush Wellfield Deep Monitoring Wells	WRS	$ 115,000	$ 15,000	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ 115,000
NEW	14	454 Zone Booster Pump Station Improvement	WRS	$ 1,200,000	$ -	$ 200,000	$ 1,000,000	$ -	$ -	$ -	$ -	$ 1,200,000
		TOTAL CAPITAL PROJECT EXPENSES		**$ 53,824,533**	**$ 7,180,514**	**$ 35,874,024**	**$ 9,134,996**	**$ 305,000**	**$ 1,025,000**	**$ 305,000**	**$ 100,000**	**$ 58,057,475**
			General Government	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
			Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
	SOURCE OF FUNDS:		*Operating Income*	$ 5,645,100	$ 2,074,000	$ 905,550	$ 1,501,550	$ 174,500	$ 815,000	$ 174,500	$ 75,000	$ 5,720,100
			Connections	$ 5,864,433	$ 2,352,667	$ 1,319,217	$ 1,721,550	$ 130,500	$ 210,000	$ 130,500	$ 25,000	$ 5,889,433
			Revenue Bonds / Loan	$ 41,000,000	$ 11,000,000	$ 30,000,000	$ -	$ -	$ -	$ -	$ -	$ 41,000,000
		TOTAL SOURCES		**$ 52,509,533**	**$ 15,426,667**	**$ 32,224,767**	**$ 3,223,100**	**$ 305,000**	**$ 1,025,000**	**$ 305,000**	**$ 100,000**	**$ 52,609,533**

SIX YEAR FINANCIAL FORECAST

			2025	2026	2027	2028	2029	2030	2031		2025-2031
WATER FUND		***BEGINNING FUND BALANCE***	**$ 9,499,698**	**$ 9,755,071**	**$ 15,179,170**	**$ 10,767,999**	**$ 1,552,182**	**$ 1,691,490**	**$ 1,450,344**		**$ 9,755,071**
	OPERATING INCOME	Charges for Services (Rates & Utility Tax)	$ 6,663,798	$ 7,383,488	$ 8,121,837	$ 8,909,656	$ 9,666,976	$ 10,246,995	$ 10,708,110		$ 55,037,062
		Misc. Revenues	$ 115,000	$ 116,725	$ 118,476	$ 120,253	$ 122,057	$ 123,888	$ 125,746		$ 727,144
		OPERATING INCOME SUBTOTAL	***$ 6,778,798***	**$ 7,500,213**	**$ 8,240,313**	**$ 9,029,909**	**$ 9,789,033**	**$ 10,370,882**	**$ 10,833,856**		***$ 55,764,206***
	MISC REVENUE(S)	Connection Charges	$ 605,701	$ 965,545	$ 1,004,167	$ 774,917	$ 798,165	$ 822,110	$ 854,994		$ 5,219,898
		DEBT Proceeds (Bonds , Loans, Etc.)	$ -	$ 11,000,000	$ 30,000,000	$ -	$ -	$ -	$ -		$ 41,000,000
		TOTAL REVENUES	**$ 16,884,197**	**$ 29,220,829**	**$ 54,423,649**	**$ 20,572,825**	**$ 12,139,380**	**$ 12,884,482**	**$ 13,139,194**		**$ 111,739,175**
	EXPENDITURES	O & M (including Administration)	$ 6,629,126	$ 6,861,146	$ 7,101,286	$ 7,349,831	$ 7,607,075	$ 7,873,323	$ 8,148,889		$ 44,941,549
		Debt Service	$ -	$ -	$ 680,341	$ 2,535,816	$ 2,535,816	$ 2,535,816	$ 2,535,816		$ 10,823,604
		Capital	*$ 500,000*	$ 7,180,514	$ 35,874,024	$ 9,134,996	$ 305,000	$ 1,025,000	$ 305,000		$ 53,824,533
		TOTAL EXPENSES	**$ 7,129,126**	**$ 14,041,660**	**$ 43,655,650**	**$ 19,020,643**	**$ 10,447,891**	**$ 11,434,138**	**$ 10,989,705**		**$ 109,589,686**
		ENDING FUND BALANCE	**$ 9,755,071**	**$ 15,179,170**	**$ 10,767,999**	**$ 1,552,182**	**$ 1,691,490**	**$ 1,450,344**	**$ 2,149,489**		**$ 2,149,489**
		UTILITY RESERVE POLICY (20% O&M + Debt Service)	$ 1,325,825	$ 1,372,229	$ 1,556,325	$ 1,977,129	$ 2,028,578	$ 2,081,828	$ 2,136,941		
		Proposed Rate Increase	6.0%	9.3%	8.5%	8.2%	7.0%	4.5%	3.0%		
		Proposed Connection Fee Increase	8.5%	5.0%	4.0%	3.0%	3.0%	3.0%	4.0%		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

WA-1

CONTACT: Dan Smith
FUND: Water
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: WA-03

PROGRAM TITLE: **Water Rights Acquisition**

PROGRAM DESCRIPTION:
This project reserves funding for the purchase and processing of existing water rights, as opportunities become available, to support system growth demands. While the timing of acquistions is opportunity-dependent, larger reserves are allocated for earlier years to support known opportunities.

IS PROJECT RECOMMENDED BY PLAN/POLICY? Yes PLAN: Water System Plan PAGE# S-3 GROWTH: 100%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land & R-O-W		$ 1,225,000	$ 1,000,000	$ 25,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ -	$ 1,225,000
Construction		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TOTAL EXPENSES	**$ -**	**$ 1,225,000**	**$ 1,000,000**	**$ 25,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ -**	**$ 1,225,000**
Sources of Funds:										
General Government		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Grants		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Operating Income		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Connections		$ 1,225,000	$ 1,000,000	$ 25,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ -	$ 1,225,000
Revenue Bonds		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TOTAL SOURCES	**$ -**	**$ 1,225,000**	**$ 1,000,000**	**$ 25,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ -**	**$ 1,225,000**
		Debt Service:	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

WA-2

CONTACT: Dan Smith
FUND: Water
DEPT: Water Resources & Sustainability
PROJECT NO. 2017031
NEW: No
PRIOR: WA-05

PROGRAM TITLE: **Brewery Wellfield - Water Production Infrastructure**

PROGRAM DESCRIPTION:
This project provides funding for the development of water production infrastructure necessary to put to beneficial use the water rights acquired from the former Brewery. Wells are expected to be drilled and tested beginning late 2025 through 2026. The treatment plant is anticipated to be designed and permitted in 2026 with construction completing in 2028.

IS PROJECT RECOMMENDED BY PLAN/POLICY? Yes PLAN: Water System Plan PAGE# S-5 GROWTH: 80%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 580,000	$ 400,000	$ 275,000	$ 125,000						$ 980,000
Land & R-O-W		$ -								$ -
Construction	$ 750,000	$ 12,500,000	$ 2,500,000	$ 7,500,000	$ 2,500,000					$ 13,250,000
Equipment		$ -								$ -
Other (Debt Service)		$ -								$ -
TOTAL EXPENSES	**$ 1,330,000**	**$ 12,900,000**	**$ 2,775,000**	**$ 7,625,000**	**$ 2,500,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 14,230,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Operating Income	$ 266,000	$ 180,000	$ 180,000	$ -						$ 446,000
Connections	$ 1,064,000	$ 720,000	$ 720,000	$ -						$ 1,784,000
Revenue Bonds		$ 12,000,000		$ 12,000,000						$ 12,000,000
Other		$ -								$ -
TOTAL SOURCES	**$ 1,330,000**	**$ 12,900,000**	**$ 900,000**	**$ 12,000,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 14,230,000**
		Debt Service:	$ -	$ -	*$ 742,190*	*$ 742,190*	*$ 742,190*	*$ 742,190*		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

WA-3

CONTACT: Dan Smith
FUND: Water
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: WA-07

PROGRAM TITLE: **Brewery Wellfield - Abandon Existing Wells**

PROGRAM DESCRIPTION:
This project assumes that new wells will be developed as part of the Brewery Wellfield and the ~31 existing defunct wells will be decommissioned. The costs shown are 2/3 of the total cost, reflecting the ownership share with the City of Olympia (1/3 owner).

IS PROJECT RECOMMENDED BY PLAN/POLICY? Yes PLAN: Water System Plan PAGE# S-7 GROWTH: 80%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 150,000		$ 100,000	$ 50,000					$ 150,000
Land & R-O-W		$ -								$ -
Construction		$ 1,950,000		$ 750,000	$ 1,200,000					$ 1,950,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 2,100,000**	**$ -**	**$ 850,000**	**$ 1,250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,100,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Operating Income		$ 420,000		$ 170,000	$ 250,000					$ 420,000
Connections		$ 1,680,000		$ 680,000	$ 1,000,000					$ 1,680,000
Revenue Bonds		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 2,100,000**	**$ -**	**$ 850,000**	**$ 1,250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,100,000**
		Debt Service:	$ -	$ -	$ -	$ -	$ -	$ -		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Water
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: WA-04

WA-4

PROGRAM TITLE: **Emerging Projects / Oversizing**

PROGRAM DESCRIPTION:
This funding will be utilized to react to development projects by providing funds for such items as completing "loops" to increase flows, system redundancy, and oversizing costs. Could also be used to fund water line improvements and replacements within City street projects in order to avoid road cuts following road resurfacing.

IS PROJECT RECOMMENDED BY PLAN/POLICY? Yes PLAN: Water System Plan PAGE# D-1 GROWTH: 90%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ -	$ -	$ -	$ -	$ -	$ -	$ -		$ -
Land & R-O-W		$ -								$ -
Construction		$ 400,000	$ 150,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000		$ 400,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 400,000**	**$ 150,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ -**	**$ 400,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Operating Income		$ 40,000	$ 15,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ -	$ 40,000
Connections		$ 360,000	$ 135,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ -	$ 360,000
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 400,000**	**$ 150,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ -**	**$ 400,000**
		Debt Service:			*$ -*	*$ -*	*$ -*	*$ -*		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

WA-5

CONTACT: Dan Smith
FUND: Water
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: WA-10

PROGRAM TITLE: **Water Main Replacement and Extension Program**

PROGRAM DESCRIPTION:
This program aims to replace aging water mains and associated infrastructure in the system, including main replacements on roadways in coordination with other utility, road, or development projects that may not have been previously identified as specific replacement projects. Projects may be combined for efficiency and staffing workload, and not necessarily completed on an annual basis. Projects funded by this program shall be tracked for compliance with WA Department of Health requirements and integrated into the City's comprehensive plan updates.

IS PROJECT RECOMMENDED BY PLAN/POLICY? Yes PLAN: Water System Plan PAGE# D-2 GROWTH: 10%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 395,000		$ 65,000	$ 100,000	$ 65,000	$ 100,000	$ 65,000		$ 395,000
Land & R-O-W		$ 170,000		$ 40,000	$ 25,000	$ 40,000	$ 25,000	$ 40,000		$ 170,000
Construction		$ 1,300,000			$ 650,000		$ 650,000			$ 1,300,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 1,865,000**	**$ -**	**$ 105,000**	**$ 775,000**	**$ 105,000**	**$ 775,000**	**$ 105,000**	**$ -**	**$ 1,865,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Operating Income		$ 1,678,500		$ 94,500	$ 697,500	$ 94,500	$ 697,500	$ 94,500		$ 1,678,500
Connections		$ 186,500		$ 10,500	$ 77,500	$ 10,500	$ 77,500	$ 10,500		$ 186,500
Revenue Bonds		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 1,865,000**	**$ -**	**$ 105,000**	**$ 775,000**	**$ 105,000**	**$ 775,000**	**$ 105,000**	**$ -**	**$ 1,865,000**
		Debt Service:	$ -	$ -	$ -	$ -	$ -	$ -		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Water
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: NO
PRIOR:

WA-6

PROGRAM TITLE: **Well 15 Improvements**

PROGRAM DESCRIPTION:
Well #15 is the City's second largest producer, sited on property owned by the Port of Olympia through a perpetual easement. Infrastructure supporting, surrounding, and securing Well 15 is significantly below City standards for production sites. Recent corrosion control evaluations resulted in Well 15 being required by the Washington Department of Health (DOH) to increase corrosion control treatment by August 2026. Aeration treatment will raise the pH to 7.8 to 8.0 for water quality optimzation. This project will also enhance site security and auxillary power, update infrastructure to current standard.
*Referenced by: 2020 Water System Plan / 2021 Homeland Security Assessment / 2023 Corrosion Control Memo / DOH Approval Letter

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: Multiple* PAGE# GROWTH: 10%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 230,000	$ 230,000							$ 230,000
Land & R-O-W		$ -								$ -
Construction		$ 800,000	$ 800,000							$ 800,000
Equipment		$ 450,000	$ 450,000							$ 450,000
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 1,480,000**	**$ 1,480,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,480,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Operating Income		$ 1,332,000	$ 1,332,000							$ 1,332,000
Connections		$ 148,000	$ 148,000							$ 148,000
Revenue Bonds		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 1,480,000**	**$ 1,480,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,480,000**
		Debt Service:	$ -	$ -	$ -	$ -	$ -	$ -		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Water
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: NO
PRIOR:

WA-7

PROGRAM TITLE: **Public Works Facility (2025 Update)**

PROGRAM DESCRIPTION:
Construction of a new Public Works Facility at the City's Trails End Drive property. The new facility will house the Transportation and Engineering and Water Resources and Sustainability departments. The relocation of these departments will partially offset City Hall space constraints and allow for future implementation of the Tumwater Civic Center Master Plan. Site costs are distributed approximately 33% General Fund, 28% Water, 22% Sewer, and 17% Storm. Offsite mitigation costs are distributed 50% Transportation CFP, 19% Water, 18% Sewer, and 13% Storm. Cost distribution is based on allocation of resources. Construction is presumed to be financed over 20 years, debt service to be included in the budget. Expenses and sources shown below are for Water only.

Growth: 50%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 660,000	$ 180,000	$ 180,000							$ 840,000
Land & R-O-W	$ 204,600	$ (31,000)	$ (31,000)							$ 173,600
Construction		$ 11,620,000	$ 581,000	$ 8,134,000	$ 2,905,000					$ 11,620,000
Equipment		$ 420,000			$ 420,000					$ 420,000
Other (Arts & Mitigation)		$ 1,007,200	$ 133,847	$ 688,357	$ 184,996					$ 1,007,200
TOTAL EXPENSES	**$ 864,600**	**$ 13,196,200**	**$ 863,847**	**$ 8,822,357**	**$ 3,509,996**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 14,060,800**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Operating Income	$ 432,300	$ 1,098,100		$ 549,050	$ 549,050					$ 1,530,400
Connections	$ 432,300	$ 1,098,100		$ 549,050	$ 549,050					$ 1,530,400
Revenue Bonds		$ 11,000,000	$ 11,000,000							$ 11,000,000
L.I.D.'s		$ -								$ -
TOTAL SOURCES	**$ 864,600**	**$ 13,196,200**	**$ 11,000,000**	**$ 1,098,100**	**$ 1,098,100**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 14,060,800**
		Debt Service:	$ -	*$ 680,341*	*$ 680,341*	*$ 680,341*	*$ 680,341*	*$ 680,341*		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Water
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: WA-13

WA-8

PROGRAM TITLE: **Southeast Reservoir & System Extension**

PROGRAM DESCRIPTION:
This project would design and construct a new 3.0 Million Gallon reservoir south of 93rd Avenue on property that has been previously acquired for this purpose. The project will also include the piping necessary to extend the City water system along 93rd Avenue to the reservoir from the Preserve development. Construction of the project is assumed to be funded with a revenue bond or Public Works Trust Fund Loan.

IS PROJECT RECOMMENDED BY PLAN/POLICY? Yes PLAN: Water System Plan PAGE# M-9 GROWTH: 95%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 1,500,000	$ 200,000	$ 200,000							$ 1,700,000
Land & R-O-W		$ -								$ -
Construction		$ 18,000,000		$ 18,000,000						$ 18,000,000
Equipment		$ -								$ -
debt service		$ -								$ -
TOTAL EXPENSES	**$ 1,500,000**	**$ 18,200,000**	**$ 200,000**	**$ 18,000,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 19,700,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Operating Income	$ 75,000	$ 10,000	$ 10,000							$ 85,000
Connections	$ 1,425,000	$ 190,000	$ 190,000							$ 1,615,000
Revenue Bonds		$ 18,000,000		$ 18,000,000						$ 18,000,000
Other		$ -								$ -
TOTAL SOURCES	**$ 1,500,000**	**$ 18,200,000**	**$ 200,000**	**$ 18,000,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 19,700,000**
		Debt Service:	$ -	$ -	$ 1,113,285	$ 1,113,285	$ 1,113,285	$ 1,113,285		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

WA-9

CONTACT: Dan Smith
FUND: Water
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: WA-10

PROGRAM TITLE: **Enterprise Resource Planning Business System**

PROGRAM DESCRIPTION:
Replacement and implementation of the current ERP System (Tyler Eden), currently estimated at approximately $2.6 million. Tyler Technology's, Eden program, is no longer supported and is being upgraded to MUNIS. This system manages the billing and financial programs for the utilities, among other critical functions for the City, like payroll and permitting. The cost for both vendor fees, technology, and City staff time to implement is split between General Fund (50%) and the Water, Sewer and Storm utilities (50%).

IS PROJECT RECOMMENDED BY PLAN/POLICY? PLAN: PAGE# GROWTH: 10%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ -								$ -
Land & R-O-W		$ -								$ -
Construction		$ -								$ -
Equipment		$ -								$ -
Other (Software, etc.)	$ 338,341	$ 193,333	$ 96,667	$ 96,667						$ 531,675
TOTAL EXPENSES	**$ 338,341**	**$ 193,333**	**$ 96,667**	**$ 96,667**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 531,675**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Operating Income	$ 304,507	$ 174,000	$ 87,000	$ 87,000						$ 478,507
Connections	$ 33,834	$ 19,333	$ 9,667	$ 9,667						$ 53,167
Revenue Bonds		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ 338,341**	**$ 193,333**	**$ 96,667**	**$ 96,667**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 531,675**
		Debt Service:	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

WA-10

CONTACT: Dan Smith
FUND: Water
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: No
PRIOR: WA-11

PROGRAM TITLE: **Water Comprehensive Plan Update**

PROGRAM DESCRIPTION:
The WA Department of Health (DOH) requires the City update the Water System Comprehensive Plan every ten years. The current plan, completed in 2021, will need to be updated and approved by DOH by November 2031. The Water Comp Plan update includes an assessment of water rights and production capacity, treatment needs, and distribution system. The report also reviews the City's wellhead protection, water conservation, and water quality programs, makes recommendedations for capital improvements and ensures the City has financial resources to implement the plan and protect public health.

IS PROJECT RECOMMENDED BY PLAN/POLICY? Yes PLAN: Water System Plan PAGE# M-9 GROWTH: 25%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ -	$ 350,000				$ 100,000	$ 150,000	$ 100,000		$ 350,000
Land & R-O-W		$ -								$ -
Construction		$ -								$ -
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 350,000**	**$ -**	**$ -**	**$ -**	**$ 100,000**	**$ 150,000**	**$ 100,000**	**$ -**	**$ 350,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Operating Income		$ 262,500				$ 75,000	$ 112,500	$ 75,000		$ 262,500
Connections		$ 87,500				$ 25,000	$ 37,500	$ 25,000		$ 87,500
Revenue Bonds		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 350,000**	**$ -**	**$ -**	**$ -**	**$ 100,000**	**$ 150,000**	**$ 100,000**	**$ -**	**$ 350,000**
		Debt Service:	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

WA-11

CONTACT: Dan Smith
FUND: Water
DEPT: Water Resources & Sustainability
PROJECT NO. T3041003
NEW: No
PRIOR: WA-12

PROGRAM TITLE: **Capitol Blvd and X St Watermain**

PROGRAM DESCRIPTION:
This project will upsize existing 8-inch AC (asbestos cement) watermain along Capitol Blvd with 16-inch ductile iron pipe in conjunction with a Transportation Capital Facilities Plan project. Undersized cast iron watermain on X Street within project limits will also be replaced. Infrastructure upgrades along Capitol Blvd are consistent with seismic protection recommendations. Design is complete and right-of-way negotiations are underway. Construction is tentatively scheduled for construction in 2026.

IS PROJECT RECOMMENDED BY PLAN/POLICY?	Yes	PLAN:	Water System Plan	PAGE#	GROWTH:	25%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design	$ 100,000	$ -								$ 100,000
Land & R-O-W		$ -								$ -
Construction		$ 600,000	$ 600,000							$ 600,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ 100,000**	**$ 600,000**	**$ 600,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 700,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Operating Income	$ 75,000	$ 450,000	$ 450,000							$ 525,000
Connections	$ 25,000	$ 150,000	$ 150,000							$ 175,000
Revenue Bonds		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ 100,000**	**$ 600,000**	**$ 600,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 700,000**
		Debt Service:	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Water
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: YES
PRIOR: WA-13

WA-12

PROGRAM TITLE: **Seismic Resilience**

PROGRAM DESCRIPTION:
Conduct a moderate seismic resiliency study to establish Level of Service goals for utility operation after a major seismic event, update geotechnical hazard maps, develop processes for facility structural resilience evaluations on critical structures and distribution systems, and prepare a critical interdependencies assessment. This project will result in the development of an implementation strategy, identifying all the recommendations for reducing vulnerabilities and mitigating risk for both water and sewer utilities. This is the Drinking Water Fund portion.

IS PROJECT RECOMMENDED BY PLAN/POLICY? YES PLAN: 2021 Water System Plan PAGE# 7-14 GROWTH: 25%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ -							$ 100,000	$ 100,000
Land & R-O-W		$ -								$ -
Construction		$ -								$ -
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 100,000**	**$ 100,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Operating Income		$ -							$ 75,000	$ 75,000
Connections		$ -							$ 25,000	$ 25,000
Revenue Bonds		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 100,000**	**$ 100,000**
		Debt Service:	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Water
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW: YES
PRIOR:

WA-13

PROGRAM TITLE: **Bush Wellfield Deep Monitoring Wells**

PROGRAM DESCRIPTION:
Install 2 to 4 monitoring wells in the lower aquifer in the Bush Wellfield area to monitor water levels and water quality of the City's primary source aquifer to evaluate impacts from local water withdrawals, monitor seasonal fluctuations, overall water level trends, and collect water quality samples within the wellhead protection area.

IS PROJECT RECOMMENDED BY PLAN/POLICY? PLAN: PAGE# GROWTH: 10%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 15,000	$ 15,000							$ 15,000
Land & R-O-W		$ -								$ -
Construction		$ 100,000		$ 100,000						$ 100,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 115,000**	**$ 15,000**	**$ 100,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 115,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Operating Income		$ 103,500	$ 13,500	$ 90,000						$ 103,500
Connections		$ 11,500	$ 1,500	$ 10,000						$ 11,500
Revenue Bonds		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 115,000**	**$ 15,000**	**$ 100,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 115,000**
		Debt Service:	$ -	$ -	$ -	$ -	$ -	$ -		

CITY OF TUMWATER CAPITAL FACILITIES PLAN WORKSHEET

CONTACT: Dan Smith
FUND: Water
DEPT: Water Resources & Sustainability
PROJECT NO.
NEW:
PRIOR:

WA-14

PROJECT TITLE: **454 Zone Booster Pump Station Improvement**

PROGRAM DESCRIPTION:
This project includes the repair/replacement of the 454 Zone Booster Pump Station including pumps, piping, controls and building. The overall condition of the steel piping, piping manifold and roof are poor and are in need of replacement.

IS PROJECT RECOMMENDED BY PLAN/POLICY? PLAN: PAGE# GROWTH: 10%

FINANCIAL DATA

EXPENSES	PRIOR YRS	6YR TOTAL	2026	2027	2028	2029	2030	2031	FUTURE YEARS	GRAND TOTAL
Capital Costs:										
Planning & Design		$ 200,000		$ 200,000						$ 200,000
Land & R-O-W		$ -								$ -
Construction		$ 1,000,000			$ 1,000,000					$ 1,000,000
Equipment		$ -								$ -
Other		$ -								$ -
TOTAL EXPENSES	**$ -**	**$ 1,200,000**	**$ -**	**$ 200,000**	**$ 1,000,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,200,000**
Sources of Funds:										
General Government		$ -								$ -
Grants		$ -								$ -
Operating Income		$ 1,080,000		$ 180,000	$ 900,000					$ 1,080,000
Connections		$ 120,000		$ 20,000	$ 100,000					$ 120,000
Revenue Bonds		$ -								$ -
Other		$ -								$ -
TOTAL SOURCES	**$ -**	**$ 1,200,000**	**$ -**	**$ 200,000**	**$ 1,000,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,200,000**
		Debt Service:	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*		

TO: Planning Commission

FROM: Brad Medrud, Community Development Director; Dana Bowers, Associate Planner; and Erika Smith-Erikson, Associate Planner

DATE: October 14, 2025

SUBJECT: Ordinance No. O2025-010 – 2025 Comprehensive Plan Periodic Update

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1) Recommended Action:

This is a discussion item about 2025 Comprehensive Plan Periodic Update to review and accept comments about the ordinance and plan updates.

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2) Background:

On a ten-year cycle, the City is required to conduct a Growth Management Act periodic update of its Comprehensive Plan and related development regulations. For the current cycle, the City is required to complete work on the periodic update by December 31, 2025.

The updated Comprehensive Plan will address diversity, equity, and inclusion throughout the Plan. 2025 Comprehensive Plan Update | City of Tumwater, WA contains links to guidance material and information about the update.

The intent of this briefing is to present Ordinance No. O2025-010 – 2025 which contains the draft Comprehensive Plan.

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3) Alternatives:

- ❑ None.

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4) Attachments:

A. Staff Report
B. Presentation
C. Ordinance No. O2025-010
D.1. Plan Introduction
D.2. Plan Introduction Appendix A
E.1 Climate Element Part 1
E.2 Climate Element Part 2
F.1. Conservation Element Part 1
F.2. Conservation Element Part 2
F.3. Conservation Element Part 2 Appendix B
F.4. Conservation Element Part 2 Appendix C
F.5. Conservation Element Map Packet
G.1. Housing Element Part 1
G.2. Housing Element Part 2
G.3. Housing Element Part 2 Appendix B
G.4. Housing Element Part 2 Appendix C
G.5. Housing Element Part 2 Appendix D

G.6. Housing Element Part 2 Appendix E
G.7. Housing Element Part 2 Appendix F
G.8. Housing Element Part 2 Appendix G
H.1. Land Use Element Part 1
H.2. Land Use Element Part 2
H.3. Land Use Element Part 2 Appendix B
H.4. Land Use Element Map Packet
I.1. Lands for Public Purposes Element Part 1
I.2. Lands for Public Purposes Element Part 2
I.3. Lands for Public Purposes Map Packet
J.1. Transportation Plan Part 1
J.2. Transportation Plan Part 2
J.3. Transportation Plan Part 2 Appendix B
J.4. Transportation Plan Part 2 Appendix C
K.1. Utilities Part 1
K.2. Utilities Part 2
K.3. Utilities Element Map Packet

STAFF REPORT

Date: October 14, 2025
To: Planning Commission
From: Brad Medrud, Community Development Director; Dana Bowers, Associate Planner; and Erika Smith Erickson, Housing and Land Use Planner

2025 City of Tumwater Comprehensive Plan Periodic Update – Ordinance No. O2025-010

On a ten-year cycle, Tumwater is required to conduct a Growth Management Act periodic update of its Comprehensive Plan and related development regulations. For the current cycle, Tumwater is required to complete work on the periodic update by December 31, 2025. Work on the periodic update started in October 2022 and continued until this year.

The updated Comprehensive Plan addresses diversity, equity, and inclusion throughout the Plan and incorporates the State required changes addressing housing, climate change, and other topics.

The intent of the Planning Commission meeting on Tuesday, October 14, 2025, is to present Ordinance No. O2025-010, which contains the updated Comprehensive Plan, its Elements, appendices, and maps and to discuss the schedule for adoption of the ordinance.

As part of our discussion with the Planning Commission, staff would like the Planning Commission to consider following questions:

- **Does the ordinance clearly lay out the process that was followed to develop, review and adopt the updated Comprehensive Plan?**
- **Do the Elements in the ordinance align with the overall Comprehensive Plan goals?**

1 – Summary

Ordinance No. O2025-010 is a ten-year periodic update to the City of Tumwater's Comprehensive Plan, to the reflect current population, housing, and employment forecasts, updated State regulations and guidance, and new community priorities. Comprehensive Plan went through its last periodic update process in 2016.

The Plan serves as Tumwater's road map for accommodating growth in the City and its urban growth area from 2026 to 2045. The Plan was prepared in accordance with the requirements of

the Growth Management Act (Chapter 36.70A RCW) and adopted Thurston County County-Wide Planning Policies.

2 – Background

City staff have been working on the Comprehensive Plan periodic update since the fall of 2022. The periodic update included the following state required Elements, with their associated maps and appendices:

- Climate Element (New in 2025)
- Conservation Element
- Housing Element
- Land Use Element
- Lands for Public Purposes Element
- Transportation Plan
- Utilities Element

A Plan Introduction was prepared containing the overall Plan goals, as well as public participation, intergovernmental coordination, plan review, and plan update and amendment requirements.

The Tumwater Thurston County Joint Plan will be updated to reflect the City's amended Comprehensive Plan following the approval of the Ordinance No. O2025-010.

Other Elements of the Comprehensive Plan were not included in the periodic update if they were not required to be updated at this time:

- Economic Development Plan (City update expected 2026)
- Parks, Recreation, and Open Space Plan (City update expected 2026)
- Shoreline Master Program (Next update due 2030)

3 – Public Engagement

A summary of the periodic update's public engagement opportunities is included as Appendix C of the Plan Introduction.

4 – Review and Approval Criteria

The periodic update to the Comprehensive Plan is subject to the Plan amendment criteria below from TMC 18.60.025(B):

1) *All amendments to the comprehensive plan must conform with the requirements of the Washington State Growth Management Act, Chapter 36.70A RCW, and all amendments*

for permanent changes to the comprehensive plan must be submitted to the Washington State Department of Commerce, pursuant to RCW 36.70A.106.

The periodic update being considered is in accordance with the City's Comprehensive Plan amendment process, as required by RCW 36.70A. If Ordinance No. O2025-010 for the periodic update is approved by the City Council, the Plan will be submitted to the Washington State Department of Commerce pursuant to RCW 36.70A.106.

The periodic update meets the goals of the Washington State Growth Management Act as follows:

1) ***Urban growth***. *Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.*

   The proposed Comprehensive Plan periodic update is intended to support the growth and development of the City as outlined in the maps, goals, policies, and actions of the Comprehensive Plan.

2) ***Reduce sprawl***. *Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development.*

   The proposed Comprehensive Plan periodic update is consistent with the goal as the proposed periodic update is intended to reduce the inappropriate conversion of undeveloped land into sprawling, low-density development and focus future growth in the City as outlined in the maps, goals, policies, and actions of the Comprehensive Plan.

3) ***Transportation***. *Encourage efficient multimodal transportation systems that will reduce greenhouse gas emissions and per capita vehicle miles traveled, and are based on regional priorities and coordinated with county and city comprehensive plans.*

   The proposed Comprehensive Plan periodic update supports urban level development in the City that would provide for efficient multimodal transportation systems as outlined in the maps, goals, policies, and actions of the Comprehensive Plan.

4) ***Housing***. *Plan for and accommodate housing affordable to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.*

   The proposed Comprehensive Plan periodic update is consistent with the goal as the proposed periodic update supports the provision of a range of residential development in the City, including middle housing and other types of affordable housing for all income groups as outlined in the maps, goals, policies, and actions of the Comprehensive Plan.

5) ***Economic development***. *Encourage economic development throughout the state that is consistent with adopted comprehensive plans, promote economic opportunity for all citizens of this state, especially for unemployed and for*

disadvantaged persons, promote the retention and expansion of existing businesses and recruitment of new businesses, recognize regional differences impacting economic development opportunities, and encourage growth in areas experiencing insufficient economic growth, all within the capacities of the state's natural resources, public services, and public facilities.

The proposed Comprehensive Plan periodic update is consistent with the goal as the proposed periodic update supports development that provides economic development and allows more people to live closer to jobs and services as outlined in the maps, goals, policies, and actions of the Comprehensive Plan.

6) ***Property rights***. *Private property shall not be taken for public use without just compensation having been made. The property rights of landowners shall be protected from arbitrary and discriminatory actions.*

   The proposed Comprehensive Plan periodic update does not require any taking of private property without compensation.

7) ***Permits***. *Applications for both state and local government permits should be processed in a timely and fair manner to ensure predictability.*

   The proposed Comprehensive Plan periodic update and concurrent development code amendments support this goal.

8) ***Natural resource industries***. *Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forestlands and productive agricultural lands, and discourage incompatible uses.*

   The proposed Comprehensive Plan periodic update does not affect rural natural resource industries.

9) ***Open space and recreation***. *Retain open space and green space, enhance recreational opportunities, enhance fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities.*

   The proposed Comprehensive Plan periodic update supports the goals, policies, and actions for open space and recreation as outlined in the Comprehensive Plan

10) ***Environment***. *Protect and enhance the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.*

    The proposed Comprehensive Plan periodic update protects the environment by directing future development towards urban rather than rural areas as outlined in the maps, goals, policies, and actions of the Comprehensive Plan.

11) ***Citizen participation and coordination***. *Encourage the involvement of citizens in the planning process, including the participation of vulnerable populations and overburdened communities, and ensure coordination between communities and jurisdictions to reconcile conflicts.*

City residents and all interested parties, agencies and jurisdictions were notified about the periodic update as part of the proposed 2025 Comprehensive Plan periodic update process.

12) ***Public facilities and services***. *Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.*

The proposed Comprehensive Plan periodic update is supported by the City's provision of sewer and water service in the urban area.

13) ***Historic preservation***. *Identify and encourage the preservation of lands, sites, and structures, that have historical or archaeological significance.*

The proposed Comprehensive Plan periodic update supports historic preservation. As future development occurs, it would need to comply with all the applicable historical or archaeological regulations.

14) ***Climate change and resiliency***. *Ensure that the City's Comprehensive Plans and development regulations adapt to and mitigate the effects of a changing climate; support reductions in greenhouse gas emissions and per capita vehicle miles traveled; prepare for climate impact scenarios; foster resiliency to climate impacts and natural hazards; protect and enhance environmental, economic, and human health and safety; and advance environmental justice.*

The proposed Comprehensive Plan periodic update supports the reduction of greenhouse gas emissions and vehicle miles traveled and fosters resilience.

15) ***Shorelines of the state***. *For shorelines of the state, the goals and policies of the shoreline management act as set forth in RCW 90.58.020 shall be considered an element of the City's Comprehensive Plan.*

The proposed Comprehensive Plan periodic update does not affect the shorelines of the state. As future development occurs, it would need to comply with the City's Shoreline Management Program, as required.

2) *Amendments and site-specific rezone applications should be evaluated for internal consistency with the comprehensive plan, and for consistency with the county-wide planning policies, related plans, and the comprehensive plan of Thurston County or cities which have common borders with Tumwater.*

The Elements of the proposed Comprehensive Plan periodic update are internally consistent. The Comprehensive Plan is consistent with the Thurston County-Wide Planning Policies and the plans of neighboring jurisdictions.

3) *Whether conditions in the area for which comprehensive plan change/zoning amendment is requested have changed or are changing to such a degree that it is in the public interest to encourage a change in land use for the area.*

Conditions in the City and state requirements have changed since the last periodic update, which require changes to land use to accommodate required future housing.

4) *Whether the proposed comprehensive plan zoning amendment is necessary in order to provide land for a community-related use which was not anticipated at the time of adoption of the comprehensive plan.*

   The criterion does not apply.

5 – Public Approval Process

An Environmental Checklist for a non-project action was prepared on October 7, 2025, under the State Environmental Policy Act (Chapter 43.21C RCW), pursuant to Chapter 197-11 WAC, and a Determination of Non-Significance is expected to be issued in October 2025.

The ordinance will be sent to the Washington State Department of Commerce on October 17, 2025, for their required 60-day review before the proposed periodic update is adopted, in accordance with RCW 36.70A.106.

The Planning Commission is expected to hold work sessions on the periodic update on October 28, 2025, and November 10, 2025, and a joint City Council and Planning Commission work session on November 25, 2025

The Planning Commission is expected to hold a public hearing for the periodic update on December 9, 2025. Following the public hearing and deliberations, the Planning Commission is expected to make their recommendation on the proposed periodic update to the City Council.

A Joint City Council and Planning Commission work session is expected to review the Planning Commission's recommendation on the Comprehensive Plan periodic update in a briefing on January 23, 2026; the City Council is expected to hold a work session to discuss the recommendation on January 27, 2026; and the City Council is scheduled to consider the proposed periodic update at a meeting on February 17, 2026.

6 – Public Notification

A Notice of Public Hearing for the Planning Commission is expected to be issued on November 28, 2025. The notice will be published as a press release, distributed to interested individuals and entities that have requested such notices, and published in The Olympian.

7 – Staff Conclusions

1. The proposed Comprehensive Plan periodic update meets the review and approval criteria found in TMC 18.60.025(B).
2. The proposed Comprehensive Plan periodic update is consistent with the goals of the Washington State Growth Management Act and the Thurston County County-Wide Planning Policies.

3. All the Elements of the proposed Comprehensive Plan periodic update are internally consistent.
4. The proposed Comprehensive Plan periodic update is consistent with neighboring jurisdictions' plans.
5. The proposed Comprehensive Plan periodic update is consistent with the goals of the Land Use Element, the Lands for Public Purposes, and the Transportation Plan of the Comprehensive Plan.
6. Based on the above review and analysis, staff concludes that the proposed Comprehensive Plan periodic update is consistent with the requirements of the Washington State Growth Management Act, Thurston County-Wide Planning Policies, and the Comprehensive Plan.

8 – Staff Recommendation

Staff recommends approval of the proposed Comprehensive Plan periodic update by Ordinance No. O2025-0010 to reflect current information and requirements.

9 – Effect of the Proposed Periodic Update

The proposal amends the Comprehensive Plan as shown in Ordinance No. O2025-010.

10 – Staff Contacts

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City of Tumwater Community Development Department
(360) 754-4180
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City of Tumwater Community Development Department
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Erika Smith-Erickson, Associate Planner
City of Tumwater Community Development Department
(360) 754-4180
ESmith-Erickson@ci.tumwater.wa.us

Attachment B

2025 Comprehensive Plan Periodic Update
Ordinance No. O2025-010

Balancing Nature and Community:
Tumwater's Path to Sustainable Growth

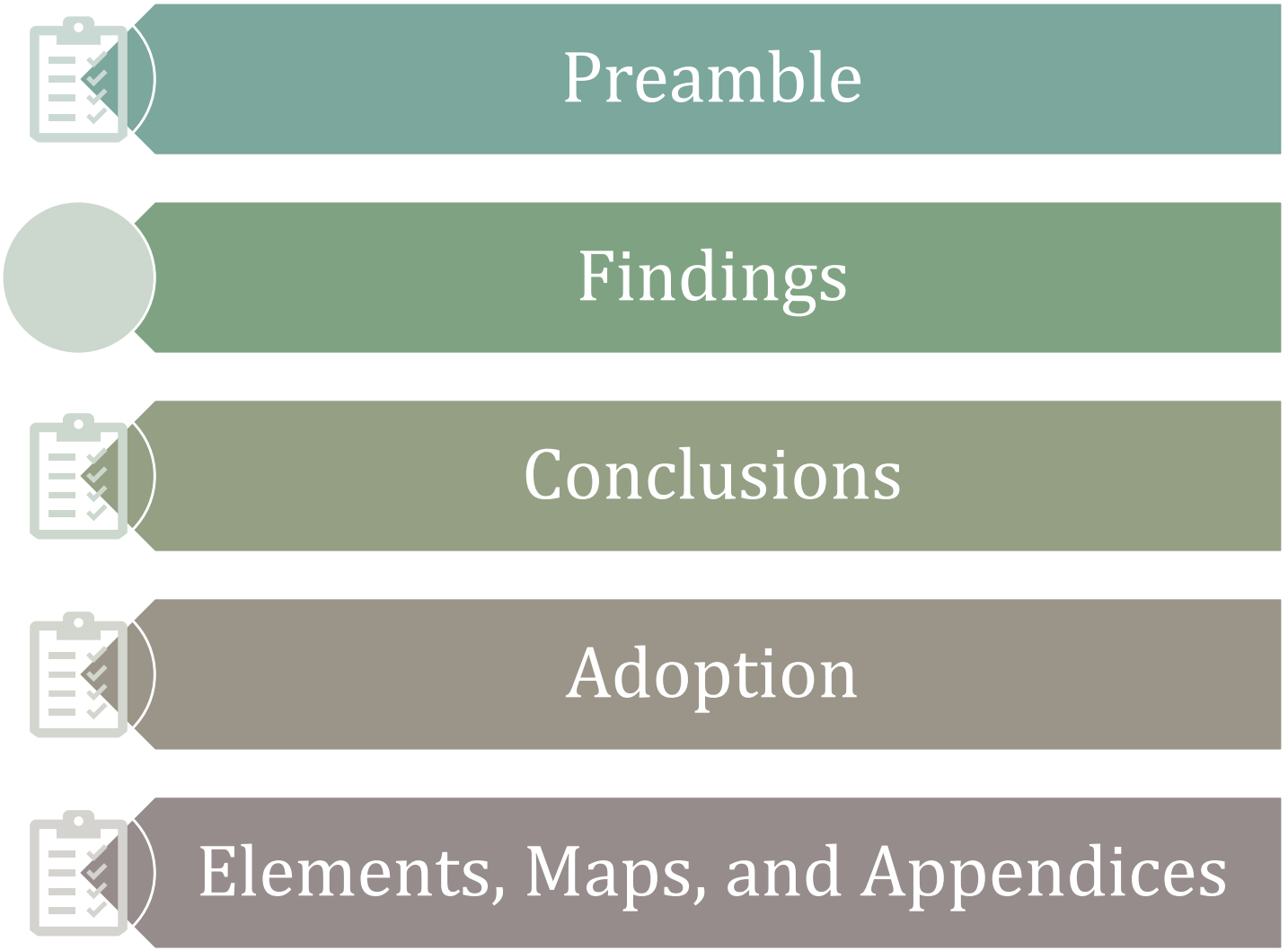
Planning Commission Briefing, October 14, 2025

Intent

- Review the format of the Ordinance and the attachments
- Discuss adoption schedule

Ordinance No. O2025-010

Format for the Ordinance



Ordinance Adoption Considerations

1. Summary of the purpose of the periodic update and background on the Elements in the Plan periodic update
2. Public engagement to date
3. Review and approval criteria from TMC 18.60.025(B)
4. Public approval process for the ordinance
5. Public notification for hearing on ordinance
6. Staff conclusions
7. Staff recommendation
8. Effect of the proposed periodic update

Overall Plan Goals

Engagement

Goal PI-1

Continuously engage with the community and the region.

Coordination

Goal PI-2

Ensure coordination between Elements, Plans, and Subarea Plans of the Comprehensive Plan.

Community Vibrancy

Goal PI-3

Foster livability by evoking a sense of identity through arts, culture, and history and attracting and sustaining desired economic activity that supports the community by making investments that emphasize Tumwater as a welcoming place and enhance community building.

Equity

Goal PI-4

Ensure that all members of the community, especially those whose needs have been systematically neglected, are well served by making decisions and investments through an inclusive process which results in equitable outcomes.

Climate Resilience

Goal PI-5

Increase climate resiliency by promoting sustainability, reducing pollution, promoting healthy habitats, and supporting clean air and water.

Fiscal Stewardship

Goal PI-6

Make wise investments of public and private funds in community infrastructure and projects.

Environmental Protection & Enhancement

Goal PI-7

Protect and enhance the environment.

Update Adoption Schedule

Three Separate Ordinances

Three separate ordinances that will be brought forward in the Fall of 2025 and Winter of 2026:

1. 2025 Comprehensive Plan amendment (2026-27 Capital Facilities Plan) (Ord. No. O2025-009)
2. 2025 Comprehensive Plan update (Ord. No. O2025-010)
3. 2025 Development Code update (Ord. No. O2025-011)

Comprehensive Plan Periodic Update

SEPA Review

- Expected October 17, 2025 – November 12, 2025

State Commerce Notice of Intent Process

- Expected October 17, 2025 – December 17, 2025

Comprehensive Plan Periodic Update

Planning Commission Review and Hearing

- October 28, 2025 – Briefings
- November 10, 2025 – Work sessions
- November 25, 2025 – Joint City Council and Planning Commission work sessions
- December 9, 2025 – Planning Commission hearings

Comprehensive Plan Periodic Update

City Council Review and Consideration

- January 13, 2026 – Joint City Council and Planning Commission work sessions
- January 27, 2026 – Work session
- February 17, 2026 – Consideration

2026 Development Code Update

There will be a second Development Code update ordinance in the first half of 2026 to address the code changes that support the Comprehensive Plan update but are not specifically required to be adopted by December 31, 2025

Submitting Comments or Questions

Written comments or questions are welcome at any time during the periodic update process

- Update website: 2025 Comprehensive Plan Update
- Periodic update email: compplan@ci.tumwater.wa.us
- City of Tumwater contact:

  Community Development Department
  555 Israel Road SW
  Tumwater, WA 98501
  Phone: 360-754-4180
  Email: compplan@ci.tumwater.wa.us

ORDINANCE NO. O2025-010

AN ORDINANCE of the City Council of the City of Tumwater, Washington, relating to planning under the Growth Management Act, Chapter 36.70A RCW, of the State of Washington updating the City's Comprehensive Plan and Future Land Use Map.

WHEREAS, the City is required to plan under the Growth Management Act, Chapter 36.70A RCW; and

WHEREAS, the Growth Management Act, Chapter 36.70A RCW, contains fifteen goals that guide the development and adoption of the Comprehensive Plan, which relate to urban growth, reducing sprawl, transportation, housing, economic development, property rights, permits, natural resource industries, open space and recreation, environment, public participation and coordination, public facilities and services, historic preservation, climate change and resiliency, and shorelines of the state; and

WHEREAS, the Growth Management Act, Chapter 36.70A RCW, requires the Comprehensive Plan to demonstrate and uphold the concepts of internal consistency, conformity, and concurrency; and

WHEREAS, the Growth Management Act, Chapter 36.70A RCW, requires a process of early and continuous public participation for updating the Comprehensive Plan; and

WHEREAS, the Growth Management Act, Chapter 36.70A RCW, requires the City to review and, if needed, revise its Comprehensive Plan periodically every ten years in accordance with RCW 36.70A.130(1) to ensure the plan complies with the requirements of the Growth Management Act, Chapter 36.70A RCW; and

WHEREAS, under the schedule established in RCW 36.70A.130(5), the deadline for the City to take action to comply with the ten year review and evaluation process was December 31, 2025; and

WHEREAS, the Comprehensive Plan periodic update was processed in compliance with the requirements of the State Environmental Policy Act; and

WHEREAS, the City Council reviewed all the evidence presented and has made findings of fact and conclusions related to the Comprehensive Plan periodic update, which are set forth below.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF TUMWATER, STATE OF WASHINGTON, DOES ORDAIN AS FOLLOWS:

Section 1. Findings. For the purposes of effective land use planning, the Tumwater City Council adopts the following findings of fact:

1. The City Council approved Long Range Work Programs on January 17, 2023, January 16, 2024, and January 21, 2025.

2. The Long Range Work Programs included work on the Comprehensive Plan periodic update, which included the Climate Element, Conservation Element, Housing Element, Land Use Element, Lands for Public Purposes Element, Transportation Plan, and Utilities Element of the Comprehensive Plan.

3. The Comprehensive Plan periodic update addressed the requirements of the Growth Management Act, Chapter 36.70A RCW, ten year periodic update and brought the Comprehensive Plan's goals and policies up to date to reflect changes to the community and align with current values.

4. The lack of City staff during the update process delayed the review and approval of the Comprehensive Plan periodic update.

5. City staff reviewed the Comprehensive Plan for consistency with the requirements of the Growth Management Act, Chapter 36.70A RCW. Based on this analysis, City staff prepared proposed revisions needed to update the Comprehensive Plan to comply with the Growth Management Act, Chapter 36.70A RCW.

6. The Comprehensive Plan periodic update meets the intent of and is consistent with the Growth Management Act, Chapter 36.70A RCW, County-Wide Planning Policies, and the internal goals and policies of the City's Comprehensive Plan are consistent.

7. The Attorney General Advisory Memorandum and Recommended Process for Evaluating Proposed Regulatory or Administrative Actions to Avoid Unconstitutional Takings of Private Property (October 2024) was reviewed and utilized by the City in order to objectively evaluate the Comprehensive Plan periodic update.

8. The Comprehensive Plan periodic update was prepared in conformance with the Public Participation and Intergovernmental Coordination

Procedures contained in the Comprehensive Plan, which meet the Growth Management Act, Chapter 36.70A RCW, requirements for the same.

9. The City engaged the community through three open houses, three public outreach surveys, topic focused working groups, listening sessions with individuals, civic groups, and organizations, as well as briefings and work sessions with the Planning Commission, Tree Board, General Government Committee, Public Works Committee, and the City Council.

10. The Planning Commission reviewed the work plan, staff analysis, and the Comprehensive Plan Elements, and the Future Land Use Map in briefings and work sessions.

11. The Planning Commission reviewed the Comprehensive Plan Elements in briefings and work sessions on October 25, 2022, February 28, 2023, June 27, 2023, July 25, 2023, August 8, 2023, August 22, 2023, September 12, 2023, September 26, 2023, October 24, 2023, November 14, 2023, November 28, 2023, January 9, 2024, February 13, 2024, February 27, 2024, March 26, 2024, April 23, 2024, May 14, 2024, May 28, 2024, June 11, 2024, August 13, 2024, September 10, 2024, September 24, 2024, November 12, 2024, December 10, 2024, January 14, 2025, February 11, 2025, March 25, 2025, April 8, 2025, May 13, 2025, May 27, 2025, June 10, 2025, June 24, 2025, July 22, 2025, August 26, 2025, and September 9, 2025.

12. The Tree Board reviewed the Comprehensive Plan Elements in a work session on June 9, 2025.

13. General Government Committee and Public Works Committee reviewed the Comprehensive Plan Elements in briefings and work sessions on November 9, 2022, January 11, 2023, July 12, 2023, August 9, 2023, September 13, 2023, October 11, 2023, November 8, 2023, December 13, 2023, January 10, 2024, February 14, 2024, April 10, 2024, June 12, 2024, July 17, 2024, September 11, 2024, October 9, 2024, December 11, 2024, January 8, 2025, February 18, 2025, March 18, 2025, May 14, 2025, June 11, 2025, July 9, 2025, August 21, 2025, September 10, 2025, and October 8, 2025.

14. The City Council discussed the Comprehensive Plan Elements in briefings and work sessions on October 24, 2023, July 9, 2024, May 14, 2025, June 10, 2025, June 24, 2025, July 22, 2025, and August 26,2025.

15. The City Council and the Planning Commission held joint work sessions on the Comprehensive Plan Elements on December 13, 2022, December 12,

2023, April 9, 2023 (Housing Tour), June 25, 2024, July 9, 2024, and February 25, 2025 (Transportation Tour).

16. The City served as the Lead Agency under the State Environmental Policy Act, Chapter 43.21C RCW, for the Comprehensive Plan periodic update.

17. An Environmental Checklist for a non-project action for the Comprehensive Plan periodic update ordinance was prepared under the State Environmental Policy Act, Chapter 43.21C RCW, pursuant to Chapter 197-11 WAC on October 17, 2025, and a Determination of Non-Significance was issued on October XXXX, 2025.

18. The Transportation Plan was sent to the Thurston Regional Planning Council for review and certification on September 17, 2025, as required by Growth Management Act, Section 365-196-430 WAC.

19. The Comprehensive Plan periodic update ordinance was provided to the Washington State Department of Commerce on October 17, 2025, for the required 60-day review before the Comprehensive Plan periodic update ordinance was adopted, in accordance with RCW 36.70A.106.

20. The Planning Commission received a briefing on the Comprehensive Plan periodic update ordinance on October 28, 2025, and discussed the Comprehensive Plan periodic update ordinance at a work session on November 10, 2025, and in a joint session with the City Council on November 25, 2025.

21. A Notice of Public Hearing for the Planning Commission public hearing on the Comprehensive Plan periodic update ordinance was issued on November 28, 2025. The notice was posted, published as a press release, distributed to interested individuals and entities that have requested such notices, and published in The Olympian.

22. The Planning Commission held the public hearing on the Comprehensive Plan periodic update ordinance on December 9, 2025.

23. Following a public hearing and deliberations on December 9, 2025, the Planning Commission recommended approval of the Comprehensive Plan periodic update ordinance to the City Council.

24. The City Council and the Planning Commission discussed the Planning Commission recommendation on the Comprehensive Plan periodic update ordinance in a joint work session on January 13, 2026.

25. The City Council discussed the Comprehensive Plan periodic update ordinance at a work session on January 27, 2026.

26. The City Council considered the Comprehensive Plan periodic update ordinance on February 17, 2026.

27. The Comprehensive Plan periodic update ordinance will be submitted to the Washington State Department of Commerce no later than ten days after final adoption, pursuant to RCW 36.70A.106.

28. Any Conclusion herein, which may be deemed a Finding, is hereby adopted as such.

Section 2. Conclusions. For the purposes of effective land use planning, the Tumwater City Council makes the following conclusions:

1. Based on its review of the requirements of the Growth Management Act, Chapter 36.70A RCW, the analysis and proposed revisions prepared by City staff, and the public comments received, the City Council finds, declares, and concludes that the review and needed revisions have been prepared in conformance with applicable law. This includes the Growth Management Act, Chapter 36.70A RCW, the State Environmental Policy Act, Chapter 43.21C RCW, and the City of Tumwater Public Participation and Intergovernmental Coordination Procedures.

2. Based on its review of the requirements of the Growth Management Act, Chapter 36.70A RCW, the analysis and proposed Comprehensive Plan periodic update prepared by City staff, the recommendation forwarded by the Planning Commission, and the public comments received, the City Council accepts the analysis and proposed Comprehensive Plan periodic update. The City Council hereby finds, declares, and concludes that the Comprehensive Plan as revised by this ordinance complies with the requirements of the Growth Management Act, Chapter 36.70A RCW.

3. Any Finding herein, which may be deemed a Conclusion, is hereby adopted as such.

Section 3. Adoption. The City Council of the City of Tumwater Washington hereby adopts:

1. The City of Tumwater 2025 Comprehensive Plan attached hereto as Exhibit "A" and incorporated herein by reference.

2. The City of Tumwater 2025 Comprehensive Plan Future Land Use Map attached hereto as Exhibit "B" and incorporated herein by reference.

Section 4. Corrections. The City Clerk and codifiers of this ordinance are authorized to make necessary corrections to this ordinance including, but not limited to, the correction of scrivener/clerical errors, references, ordinance numbering, section/subsection numbers, and any references thereto.

Section 5. Ratification. Any act consistent with the authority and prior to the effective date of this ordinance is hereby ratified and affirmed.

Section 6. Severability. The provisions of this ordinance are declared separate and severable. The invalidity of any clause, sentence, paragraph, subdivision, section, or portion of this ordinance or the invalidity of the application thereof to any person or circumstance, shall not affect the validity of the remainder of the ordinance, or the validity of its application to other persons or circumstances.

Section 7. Effective Date. This ordinance shall become effective thirty (30) days after passage, approval and publication as provided by law.

ADOPTED this _____day of _____, 20___.

CITY OF TUMWATER

_____
Debbie Sullivan, Mayor

ATTEST:

_____
Melody Valiant, City Clerk

APPROVED AS TO FORM:

_____
Karen Kirkpatrick, City Attorney

Published:_____

Effective Date:_____

Exhibit "A"

City of Tumwater Comprehensive Plan

[Attach City of Tumwater Comprehensive Plan]

Exhibit "B"

City of Tumwater Comprehensive Plan Future Land Use Map

[Attach City of Tumwater Comprehensive Plan Future Land Use Map]

Plan Introduction

City of Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 7, 2025

December 2025

Ordinance No. O2025-010

CITY OF TUMWATER

Plan Introduction

Table of Contents

1. Foundation of the Plan 3
A. Background 3
B. Purpose and Scope of the Comprehensive Plan 3
C. Vision, Mission, and Values 3
D. Growth Management Act Goals 4
E. County-Wide Planning Policies 6
F. Amendments and Updates 6
G. Ongoing Plan Review Program 7
H. Public Participation 7
I. Intergovernmental Coordination 8
2. Overall Plan Goals 9
A. Engagement 9
B. Coordination 9
C. Community Vibrancy 9
D. Equity 10
E. Climate Resilience 10
F. Fiscal Stewardship 10
G. Environmental Protection and Enhancement 11
Appendix A Thurston County County-Wide Planning Policies 12
Appendix B Ordinance No. O2025-010 13
Appendix C Public Engagement Summary 14

Abbreviations Used in Document

CDD – Community Development Department

RCW – Revised Code of Washington

DRAFT

1. Foundation of the Plan

A. Background

The Plan Introduction is part of Tumwater's Comprehensive Plan, which was prepared in response to the state Growth Management Act (Chapter 36.70A RCW). It is intended to provide the foundation for the Comprehensive Plan and its overarching goals.

B. Purpose and Scope of the Comprehensive Plan

The Plan serves as Tumwater's road map for accommodating growth in the City and its urban growth area from 2026 to 2045. The Tumwater Comprehensive Plan was prepared in accordance with the requirements of the Growth Management Act (Chapter 36.70A RCW) and adopted Thurston County County-Wide Planning Policies.

C. Vision, Mission, and Values

The following vision, mission, and values provide the overarching direction for the future of Tumwater and were developed by the City Council through Tumwater's Strategic Planning Process in 2025.

1) Vision – The Why

Tumwater of the future will be people-oriented and highly livable, with a strong economy, dynamic places, vibrant neighborhoods, a healthy natural environment, diverse and engaged residents, and a living connection to its history.

2) Mission – The What

In active partnership with our community, we provide courageous leadership and essential municipal services to cultivate a prosperous economy, a healthy natural environment, vibrant neighborhoods, and supportive social fabric.

3) Values

a) People

We respect the diverse people that make up the social fabric of our community and strive to be inclusive of all people. We value and seek to strengthen our vibrant neighborhoods, which are cornerstones of civic life and community identity. As we pursue our goals and the long-term sustainability of Tumwater organization, we value the contributions and diversity of our staff, support their continued personal and professional growth, and act to retain their expertise for the good of the community.

b) Environment

We act to preserve and enhance the natural environment and the social fabric of our community.

c) Opportunity

We seize opportunities to improve our community's social, environmental, and economic well-being. We endeavor to realize

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positive opportunities in adverse situations and periods of change.

d) Partnership

We work collaboratively with residents, businesses, and community organizations. We also actively partner with other jurisdictions to address regional, state, and even broader issues.

e) Learning

We are a learning organization which strives to benefit from past experience, foresight, and innovation to seek new ways to enhance the community and improve City operations and services.

f) Excellence

We strive for excellence and integrity in providing City services. By providing quality services, being responsible and efficient stewards of public resources, and empowering employees to achieve excellence, we continue to build public trust and encourage civic involvement. We know that excellence does not have to come at the price of our sense of community or our small city character.

D. Growth Management Act Goals

The State of Washington requires Tumwater to plan under the Growth Management Act (RCW 36.70A.040).

The following fifteen Growth Management Act goals guide the development and adoption of Tumwater's Comprehensive Plan and development regulations and are not listed in order of priority. Each Element of the Comprehensive Plan describes how it meets the goals applicable to its topic area.

4) Strategic Focus Areas – The How

The following Tumwater strategic focus areas guide the realization of Tumwater's vision.

The City's Strategic Priorities and Goals 2025 – 2026 include the following focus areas:

- **Vibrant, Livable, and Inclusive Community** – Build a community recognized for quality, compassion, and humanity.
- **Environmental Stewardship** – Be a leader in environmental health and sustainability.
- **Community Mobility** – Create and maintain a transportation system safe for all modes of travel.
- **Health and Safety** – Provide and sustain quality public safety services.
- **Growth and Development** – Pursue and support targeted community and economic development.
- **Tumwater Excellence** – Refine and sustain a great organization.

1. ***Urban growth***. *Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.*
2. ***Reduce sprawl***. *Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development.*
3. ***Transportation***. *Encourage efficient multimodal transportation systems that*

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will reduce greenhouse gas emissions and per capita vehicle miles traveled, and are based on regional priorities and coordinated with county and city comprehensive plans.

4. ***Housing***. *Plan for and accommodate housing affordable to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.*

5. ***Economic development***. *Encourage economic development throughout the state that is consistent with adopted comprehensive plans, promote economic opportunity for all citizens of this state, especially for unemployed and for disadvantaged persons, promote the retention and expansion of existing businesses and recruitment of new businesses, recognize regional differences impacting economic development opportunities, and encourage growth in areas experiencing insufficient economic growth, all within the capacities of the state's natural resources, public services, and public facilities.*

6. ***Property rights***. *Private property shall not be taken for public use without just compensation having been made. The property rights of landowners shall be protected from arbitrary and discriminatory actions.*

7. ***Permits***. *Applications for both state and local government permits should be processed in a timely and fair manner to ensure predictability.*

8. ***Natural resource industries***. *Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forestlands and productive agricultural lands, and discourage incompatible uses.*

9. ***Open space and recreation***. *Retain open space and green space, enhance recreational opportunities, enhance fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities.*

10. ***Environment***. *Protect and enhance the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.*

11. ***Citizen participation and coordination***. *Encourage the involvement of citizens in the planning process, including the participation of vulnerable populations and overburdened communities, and ensure coordination between communities and jurisdictions to reconcile conflicts.*

12. ***Public facilities and services***. *Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.*

13. ***Historic preservation***. *Identify and encourage the preservation of lands,*

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sites, and structures, that have historical or archaeological significance.

14. ***Climate change and resiliency**. Ensure that the City's Comprehensive Plans and development regulations adapt to and mitigate the effects of a changing climate; support reductions in greenhouse gas emissions and per capita vehicle miles traveled; prepare for climate impact scenarios; foster resiliency to climate impacts and natural hazards; protect and enhance environmental, economic, and human health and safety; and advance environmental justice.*

15. ***Shorelines of the state**. For shorelines of the state, the goals and policies of the shoreline management act as set forth in RCW 90.58.020 shall be considered an element of the City's Comprehensive Plan.*

E. County-Wide Planning Policies

The Growth Management Act requires that Tumwater's Comprehensive Plan be consistent with the Thurston County County-Wide Planning Policies, as amended in 2025.

The adopted County-Wide Planning Policies are included in this document in their entirety in Appendix A. Relevant policies are also included in the introduction section of each Element.

F. Amendments and Updates

The Comprehensive Plan is subject to amendment to ensure internal and interjurisdictional consistency of the Comprehensive Plan and with the development regulations implementing the Comprehensive Plan. An evaluation of new conditions will be an integral part of the amendment process.

State law allows amendment of the Comprehensive Plan once annually, except in cases of emergency as determined by the City Council. The process Tumwater uses to amend the plan and development regulations implementing the plan is set forth in Chapter 18.60 Tumwater Municipal Code.

The Planning Commission and City Council will individually consider concurrently all proposed changes to the document accumulated over time since the last amendment, to ascertain the cumulative impact of the proposed changes.

The Comprehensive Plan may be amended outside of the normal annual amendment cycle if findings are adopted by the City Council demonstrating that the emergency meets all the following criteria:

1. The circumstances of the emergency request, if processed within the normal amendment cycle, will result in delays that contribute to significant imminent impact on the community in general, or a specific neighborhood; and

2. The emergency request relates to an issue or issues of a community or neighborhood-wide significance beyond the interests of a particular property owner, provided that an issue pertaining to an individual property may be considered if findings reveal that impacts to the community or specific

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neighborhood would result from the individual property.

The nature of the emergency and the proposed amendment shall be presented to the City Council, which shall decide if the proposal qualifies as an emergency. Any proposal deemed an emergency should proceed ahead of the normal amendment schedule.

G. Ongoing Plan Review Program

The Comprehensive Plan is meant to be a flexible and easily used document. As Tumwater grows and changes, the Comprehensive Plan will need to be revised and amended to reflect new circumstances.

Tumwater will undertake a program of ongoing review to monitor the performance of its Comprehensive Plan goals, policies, and implementation actions. This will be done principally through the annual Comprehensive Plan amendment process.

H. Public Participation

Public participation in comprehensive planning is required both as a matter of law and policy. The public participation program affirms Tumwater's commitment to public involvement in the planning process.

The intent of the public participation program is to ensure that citywide and neighborhood planning is done with the contribution of all interested parties, including residents, property owners, business owners, neighborhood associations, and other community members. Tumwater will make every effort to involve the community in the processes to develop and update the Comprehensive Plan, subarea plans, zoning, and other development regulations.

Public participation and intergovernmental coordination procedures are set forth below to ensure conformance with the Growth Management Act. Specifically, these procedures are set forth to establish policy providing for early and continuous public participation in Tumwater's development and amendment of the Comprehensive Plan and development regulations implementing the plan.

Errors in exact compliance with the established procedures do not invalidate the Comprehensive Plan or development regulations.

1. Before the due date for submitting requests for Comprehensive Plan amendments, Tumwater will publish an article on Tumwater's media platforms and distribute it to local news media inviting amendment requests and informing the public of the deadline.
2. Proposed amendments to the Comprehensive Plan and development regulations that affect the unincorporated urban growth area will be subject to public hearings by the Tumwater and Thurston County Planning Commissions, the Tumwater City Council, and the Thurston County Board of Commissioners.
3. Tumwater publications, mail, email, broadcast and print media, and the City's website and social media should be

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utilized by Tumwater to inform affected parties about current or proposed plans or regulations, as well as opportunities for participation in City decision processes.

4. Procedures for providing notice of public hearings are set forth in Chapter 18.60 Tumwater Municipal Code. The City should have proposed amendments to the Comprehensive Plan and development regulations available to the public for inspection at City Hall during regular business hours beginning on the first business day following the date the public hearing notice is published.

5. In addition to hearings and other formal opportunities for oral and written public comment, Tumwater should use various outreach techniques such as opinion surveys, speakers' programs, forums, workshops, open houses, hands–on events, and task forces.

I. Intergovernmental Coordination

Adjacent local jurisdictions, fire districts, school districts, public transit agencies, appropriate state agencies, Port of Olympia, The Confederated Tribes of the Chehalis Reservation, the Nisqually Indian Tribe, and the Squaxin Island Tribe will be mailed notices of draft Comprehensive Plan and development regulation amendment proposals prior to final adoption by the City Council. The notice will contain a description of the amendments and methods for obtaining the draft proposal. Methods for providing input will also be included. Whenever possible, this notification process will be accomplished prior to Planning Commission consideration and in conjunction with the state agency notification requirements set forth in RCW 36.70A.106.

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2. Overall Plan Goals

A. Engagement

Goal PI-1 Continuously engage with the community and the region.

Community engagement and participation in the comprehensive planning process are both a Tumwater policy and a state requirement, ensuring that all members of the community have a voice in Tumwater's growth and development. Tumwater will engage all members of the public in planning for Tumwater, so decisions made regarding the growth and development of Tumwater engage all parts of the community, reflect general community goals, and are sensitive to special interests of effected parties.

B. Coordination

Goal PI-2 Ensure coordination between Elements, Plans, and Subarea Plans of the Comprehensive Plan.

The Elements, Plans, and Subarea Plans that make up Tumwater's Comprehensive Plan are interconnected, so changes in one component could affect many other parts of the Plan.

As the Comprehensive Plan is updated and amended, Tumwater will make certain that all Elements, Plans, and Subarea Plans are reviewed and amended as needed when the Comprehensive Plan is updated and amended

C. Community Vibrancy

Goal PI-3 Foster livability by evoking a sense of identity through arts, culture, and history and attracting and sustaining desired economic activity that supports the community by making investments that emphasize Tumwater as a welcoming place and enhance community building.

Building community through the Comprehensive Plan is more than buildings and infrastructure. It is important to recognize the role played the arts, culture, history, and economic development in the creation and maintenance of Tumwater's history and what makes the City unique.

The Comprehensive Plan's Economic Development Plan, Parks, Recreation, and Open Space Plan , and Land Use Element all play important roles in supporting this goal.

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D. Equity

Goal PI-4 Ensure that all members of the community, especially those whose needs have been systematically neglected, are well served by making decisions and investments through an inclusive process which results in equitable outcomes.

The Comprehensive Plan is intended serve to all members of the Tumwater community. It is important that the Plan strive to create opportunities for members of the community regardless of age, race, color, national origin, ancestry, sex, sexual orientation, familial status, marital status, ethnic background, source of income use of federal housing assistance, disability, veteran status, protected classes, or other arbitrary factors.

The Comprehensive Plan's Climate Element, Economic Development Plan and Housing Element play important roles in supporting this goal.

E. Climate Resilience

Goal PI-5 Increase climate resiliency by promoting sustainability, reducing pollution, promoting healthy habitats, and supporting clean air and water.

The Comprehensive Plan provides the goal and policy basis for how Tumwater will develop work programs over the next 20 years to address greenhouse gas reduction and climate resilience. While the goals and policies of each of the Element of the Plan support this goal, the Climate, Conservation, and Land Use Elements will be the primary guides for how Tumwater will meet this goal.

F. Fiscal Stewardship

Goal PI-6 Make wise investments of public and private funds in community infrastructure and projects.

The Comprehensive Plan provides the goal and policy basis for how Tumwater will address development and redevelopment of the community over the next 20 years. The Plans goals and policies are used in turn to guide Tumwater's investments during this period through the City's budget, Capital Facilities Plan, Transportation Improvement Plan, and project identified in system plans.

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Public resources are finite and wise investment of such resources is essential for the financial health and the City's ability to serve its community.

G. Environmental Protection and Enhancement

Goal PI-7 Protect and enhance the environment.

Protecting and enhancing the environment and improving Tumwater's high quality of life, including air and water quality, and the availability of water, while accommodating state required growth and development is a fundamental component of the Comprehensive Plan.

The Comprehensive Plan's Climate, Conservation, and Land Use Elements play important roles in supporting this goal.

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Appendix A Thurston County County-Wide Planning Policies

The Thurston County County-Wide Planning Policies as amended March 18, 2025, are attached as a separate document.

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Appendix B Ordinance No. O2025-010

Ordinance No. O2025-010, approved by the City Council on _____, 2026, is attached as a separate document.

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Appendix C Public Engagement Summary

The following table provides a summary of the activities that were completed to ensure the public had opportunities to engage with staff to better understand, offer feedback, and guide the development of the 2025 Comprehensive Plan Update.

Copies of all the materials that were parts of the update, draft Elements, staff reports, presentations, and other materials were continually added to and updated on the project website.

A separate City email, CompPlan@ci.tumwater.wa.us, was set up to receive public comments and questions.

Date	Group Name	Type	Notes
October 25, 2022	Planning Commission	Work Session	Reviewed the work program.
February 28, 2023	Planning Commission	Work Session	Reviewed the Public Participation Plan.
June 27, 2023	Planning Commission	Work Session	Reviewed the Public Participation Plan.
July 12, 2023	General Government Committee	Work Session	Provided an update on the process.
July 25, 2023	Planning Commission	Work Session	Reviewed the project schedule and work program.
August 8, 2023	Planning Commission	Work Session	Discussed the Land Use Element.
August 9, 2023	General Government Committee	Work Session	Reviewed the project schedule and work program.
August 22, 2023	Planning Commission	Work Session	Discussed the Housing Element.
September 12, 2023	Planning Commission	Work Session	Discussed the Land Use Element.
September 13, 2023	General Government	Work Session	Discussed the Land Use and Housing Elements.
September 26, 2023	Planning Commission	Work Session	Discussed the Housing Element.
October 24, 2023	City Council	Work Session	Provided a general update.
October 24, 2023	Planning Commission	Work Session	Discussed Climate and Conservation Elements.
November 1, 2023	Public Outreach	Community Survey	Conducted a community survey to help identify Community

Plan Introduction

Date	Group Name	Type	Notes
			priorities. Over 900 responses were received.
November 8, 2023	General Government Committee	Work Session	Discussed Growth Management Act housing allocation, Conservation and Climate Elements.
November 14, 2023	Planning Commission	Work Session	Discussed the Economic Development Plan.
November 28, 2023	Planning Commission	Work Session	Discussed Lands for Public Purposes and Utilities Elements.
December 12, 2023	Planning Commission and City Council	Joint Work Session	Provided a general update on the process.
December 13, 2023	General Government Committee	Work Session	Discussed Economic Development Plan, and Lands for Public Purposes and Utilities Elements.
January 9, 2024	Planning Commission	Work Session	Discussed Transportation Plan.
January 10, 2024	General Government Committee	Work Session	Discussed Transportation Plan.
January 31, 2024	Public Outreach	Comprehensive Plan Update Open House	Presented information and gathered feedback through polls and discussion about the City's 20-year Comprehensive Plan Update at an in person open house at the Fire Training Room that included a remote attendance option.
February 13, 2024	Planning Commission	Work Session	Discussed approaches to joint meetings with City Council.
February 14, 2024	General Government Committee	Work Session	Discussed public outreach with the community survey and Comprehensive Plan Open House.
February 27, 2024	Planning Commission	Work Session	Provided a summary of the Comprehensive Plan Open House.
March 26, 2024	Planning Commission	Work Session	Provided a summary of the community survey and

Plan Introduction

Date	Group Name	Type	Notes
			discussed the document format.
April 2, 2024	Thurston Climate Mitigation Collaborative Community Advisory Workgroup	Discussion	Discussed Climate Element.
April 3, 2024	Housing Stakeholder Engagement	Affordable Housing Conversations	An email invitation sent to interested parties to become a housing stakeholder and join in conversations for the Housing Element.
April 2024-May 2024	Meetings	Affordable Housing Conversations	Meetings with interested individuals and groups of housing stakeholders.
April 9, 2024	Planning Commission and City Council	Middle Housing Joint Tour	Visited examples of middle housing throughout the City and in Olympia.
April 10, 2024	General Government Committee	Work Session	Discussed middle housing tour and received comments and provided a summary of the community survey.
April 23, 2024	Planning Commission	Work Session	Discussed Housing Element.
May 14, 2024	Planning Commission	Work Session	Discussed Conservation Element.
May 17, 2024	Public Outreach	Tabling Event at the Tumwater Regional Library	Staff tabled at the local library to get community input on housing and survey responses.
May 28, 2024	Planning Commission	Work Session	Discussed Land Use Element.
May 29, 2024	Public Outreach	Housing Open House	Housing Element Open House in-person and virtual.
June 11, 2024	Planning Commission	Work Session	Discussed Conservation, Lands for Public Purposes and Utilities Elements.
June 11, 2024	Climate Policy Advisory Team	Meeting	Discussed Climate Element.
June 12, 2024	General Government Committee	Work Session	Discussed Conservation, Lands for Public Purposes, and Utilities Element.

Plan Introduction

Date	Group Name	Type	Notes
June 15, 2024	Public Outreach	Tabling Event	Tabling Event at the Juneteenth Event, Lacey, WA; Juneteenth is hosted by the Fred U Harris Masonic Lodge in collaboration with the cities of Tumwater and Lacey.
July 9, 2024	Planning Commission and City Council	Joint Work Session	Discussed Climate Element.
July 17, 2024	General Government Committee	Work Session	Discussed Lands for Public Purposes, Utilities, and Climate Elements.
August 13, 2024	Planning Commission	Work Session	Discussed document format and Housing Element.
August 14, 2024	In Person Open House	Open House	Discussed Climate Element.
August 15, 2024 – October 31, 2024	Online Open House	Open House	Discussed Climate Element.
September 9, 2024	Climate Policy Advisory Team	Meeting	Discussed Climate Element.
September 10, 2024	Planning Commission	Work Session	Discussed Transportation Plan.
September 11, 2024	General Government Committee	Work Session	Discussed document format and Transportation Plan.
September 24, 2024	Planning Commission	Work Session	Reviewed Housing Allocation and Land Capacity Analysis.
October 9, 2024	General Government Committee	Work Session	Reviewed Housing Allocation and Land Capacity Analysis.
October 21, 2024	South Sound Asian Pacific Islander Coalition	Presentation and Discussion	Discussed Climate Element.
November-December 2024	Public Outreach	Public Engagement	Displacement Analysis Community Outreach in person meetings as part of the Housing Element.
November 6, 2024	Stakeholder Engagement	Affordable Housing Conversations	An in-person meeting with housing stakeholders on the draft housing goals and policies.
November 12, 2024	Planning Commission	Work Session	Discussed Climate Element.

Plan Introduction

Date	Group Name	Type	Notes
December 2024-January 2025	Public Outreach	Online survey	Online Survey for the Displacement Analysis as part of the Housing Element.
December 4, 2024	Climate Policy Advisory Team	Meeting	Discussed Climate Element.
December 10, 2024	Planning Commission	Work Session	Discussed Housing and Land Use Elements.
January 2, 2025 – January 31, 2025	Public Comment Period	Public Comment Period	Received Public Comments on the Climate Element.
January 7, 2025	Tumwater Library Patrons	Tabling	Discussed Climate Element.
January 8, 2025	General Government Committee	Work Session	Reviewed Climate Chapter.
January 14, 2025	Planning Commission	Work Session	Reviewed Climate Element.
January 22, 2025	South Sound Asian Pacific Islander Coalition	Presentation and Discussion	Discussed Climate Element.
January 23, 2025	Food Bank Clients	Tabling	Discussed Climate Element.
February 7, 2025	People First, Family Support Center of South Sound	Listening Session	Discussed needs of community members with disabilities and families with low incomes.
February 11, 2025	Planning Commission	Work Session	Reviewed Climate Element.
February 18, 2025	General Government Committee	Work Session	Reviewed Climate Element.
February 19, 2025	Climate Policy Advisory Team	Meeting	Reviewed Climate Element.
February 20, 2025	Climate Policy Advisory Team	Meeting	Reviewed Climate Element.
February 25, 2025	Planning Commission and City Council	Joint Tour	Visted transportation points of interest throughout the City.
March 18, 2025	General Government Committee	Work Session	Discussed Climate and Housing Elements.
March 19, 2025	Public Outreach	Open House	Provided information about level of traffic stress and prioritization and gathered feedback about user experience.

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Plan Introduction

Date	Group Name	Type	Notes
March 25, 2025	Planning Commission	Work Session	Review Housing Element updates.
March 27, 2025	Food Bank Clients	Tabling	Provided information about how to participate in the online open house and gathered feedback about user experience.
April 8, 2025	Planning Commission	Work Session	Review Land Use Element goals and policies (Part 1).
May 13, 2025	Planning Commission	Work Session	Review Lands for Public Purposes and Utilities Elements updates.
May 14, 2025	General Government Committee	Work Session	Reviewed Lands for Public Purposes and Utilities Elements.
May 27, 2025	Planning Commission	Work Session	Review Housing and Conservation Elements.
June 4, 2025- July 11, 2025	Draft Housing Element published	Public Comment Period	Public Comment Period on Draft Housing Element Part 1 Goals, Policies, and Actions Items and Part 2 Technical Information
June 10, 2025	Planning Commission	Work Session	Review Housing Element.
June 10, 2025	City Council	Work Session	Reviewed Housing Element.
June 11, 2025	General Government Committee	Work Session	Reviewed Conservation Element.
June 24, 2025	City Council	Work Session	Reviewed Housing Element.
June 24, 2025	Planning Commission	Work Session	Review Land Use Element Part 2 and discuss the User Guide.
July 3, 2025	Tumwater Library Patrons	Tabling	Discussing Climate Element.
July 3, 2025	Climate Policy Advisory Team	Meeting	Discussed Climate Element.
July 7, 2025	Climate Policy Advisory Team	Meeting	Discussed Climate Element.
July 9, 2025	Climate Policy Advisory Team	Meeting	Discussed Climate Element.

Plan Introduction

Date	Group Name	Type	Notes
July 9, 20225	General Government Committee	Work Session	Reviewed Conservation Element.
July 22, 2025	Planning Commission	Work Session	Review Land Use Maps and Housing Displacement Study.
July 22, 2025	City Council	Work Session	Reviewed Climate Element.
July 24, 2025	Thurston Conservation District	Meeting	Discussed Climate Element.
August 21, 2025	Public Works Committee	Work Session	Reviewed Transportation Plan.
August 26, 2025	City Council	Work Session	Reviewed Housing and Land Use Elements.
August 26, 2025	Planning Commission	Work Session	Reviewed Transportation Plan and Climate Element public outreach.
September 9, 2025	Planning Commission	Work Session	Reviewed Plan Introduction and discussed adoption process.
September 10, 2025	General Government Committee	Work Session	Reviewed Plan Introduction and discussed adoption process.
October 8, 2025	General Government Committee	Work Session	Reviewed User Guide.
October 14, 2025	Planning Commission	Briefing	Presented Ordinance No. O2025-010.
November 10, 2025	Planning Commission	Work Session	Reviewed Ordinance No. O2025-010.
November 25, 2025	Planning Commission and City Council	Joint Work Session	Reviewed Ordinance No. O2025-010.
December 9, 2025	Planning Commission	Public Hearing	Public hearing on Ordinance No. O2025-010.
January 13, 2026	Planning Commission and City Council	Joint Work Session	Reviewed Ordinance No. O2025-010.
January 27, 2026	City Council	Work Session	Reviewed Ordinance No. O2025-010.
February 17, 2026	City Council	Consideration	Adopted Ordinance No, O2025-010.

Attachment D.2.

Appendix A

Thurston County

COUNTY-WIDE PLANNING POLICIES

March 18, 2025

These policies were adopted by the Board of County Commissioners on September 8, 1992. They were ratified earlier by each of the seven cities and towns within Thurston County. Those seven cities and towns are Lacey, Olympia, Tumwater, Bucoda, Rainier, Tenino and Yelm. On August 2, 1993, representatives of Thurston County and the seven cities and towns met to clarify intent of policies 1.2 and 1.3 and to affirm long and short term Urban Growth boundaries established in 1988 around Olympia, Lacey and Tumwater. In 2002, policies were amended to be consistent with RCW 36.70A.215 ("Buildable Lands Program"). In 2015, the policies were amended to incorporate foundational principles and policies from Creating Places, Preserving Spaces, A Sustainable Development Plan for the Thurston Region, December 2013. In 2025, the policies were amended to be consistent with RCW 36.70.210, incorporating tribal participation and coordination. Thurston County includes ceded lands of the Medicine Creek Treaty Tribes, including the Nisqually Indian Tribe, Puyallup Tribe of Indians, Squaxin Island Tribe, and other tribal nations; as well as the ceded areas of and the Reservation Home Land of the Confederated Tribes of the Chehalis Reservation. These tribes will be referred to in these policies as "tribes."

Background: The Growth Management Act calls for the faster growing counties and cities within their borders to undertake new planning to prepare for anticipated growth. New parts are to be added to the Comprehensive Plans of these counties and cities, and those plans are to be coordinated and consistent. The framework for this coordination are county-wide planning policies, developed by each county, in collaboration with its cities towns, and tribes. These are Thurston County's county-wide planning policies which will be used to frame how the Comprehensive Plans of Thurston County and the seven cities and towns will be developed and coordinated.

TABLE OF CONTENTS

I. General Policies 3
II. Urban Growth Areas 5
III. Promotion Of Contiguous And Orderly Development, Provision Of Urban Services, And Protection Of Rural Areas 7
IV. Joint County And City Planning Within Urban Growth Areas 9
V. Siting County-Wide And State-Wide Public Capital Facilities 10
VI. Analysis Of Fiscal Impact 11
VII. Economic Development And Employment 12
VIII. Affordable Housing 13
IX. Transportation 14
X. Environmental Quality 16
XI. County-Wide Policies Which Establish A Process To Develop Future Policies 17

I. GENERAL POLICIES

(Adopted November 10, 2015, Amended March 18, 2025)

The seven cities and towns within Thurston County commit to consulting with the tribes, and the agencies and departments on matters that directly affect the tribes, and to the following general policies:

1.1 Balance our needs today with those of future residents, to protect and enhance quality of life and in recognition that each generation is a trustee of the environment for succeeding generations.

1.2 Preserve and promote awareness of our historic, cultural, and natural heritage.

1.3 Collaborate with tribes to identify and protect tribal cultural resources.

1.4 Recognize tribal sovereignty and demonstrate respect for Tribal governmental authority.

1.5 Develop new ways to cultivate and support respectful civic engagement and participation by residents, and public, private, and nonprofit businesses and organizations, encouraging choices and offering information that contribute to individual, household, and community health and well-being.

1.6 Break down institutional barriers to communication and cooperation, fostering open communication and transparent processes that encourage community-wide participation.

1.7 Think broadly, regionally, and globally – act locally. Acknowledge the interdependence of communities both within and external to our region, recognizing the impacts of our region upon the world, as well as the impacts of the world upon our region.

1.8 Translate vision to policy and act on adopted local plans and policies. Consider the effects of decisions on achieving this vision, while balancing individual property rights with broader community needs and goals.

1.9 Monitor progress and shift course when necessary. Use meaningful, easy-to-understand methods to measure progress on key objectives. Respond and adapt to future social, economic, and environmental challenges.

1.10 Partner across topic areas and jurisdictional boundaries. While supporting local decision-making, encourage regional and cross-jurisdictional coordination, communication, and cooperation that increase our capacity to make decisions for the common good across jurisdiction boundaries.

1.11 Build and maintain distinct communities, preserving and enhancing the character and unique identities of the existing urban, suburban, and rural communities in a way that protects what matters most, while offering additional opportunities to improve on what can be better.

1.12 Meet basic human needs of clean water and air, healthy food, adequate housing, quality education, public safety, and equal access, regardless of socio-economic status.

1.13 Support education, employment, commercial opportunities, cultural, social, and recreational opportunities in appropriate places and at a scale that supports community health and well-being.

1.14 Champion energy efficiency and renewable energy strategies that contribute to energy independence, economic stability, reduced climate impacts, and long-term household and community health.

1.15 Protect the natural environment while acknowledging the interdependence of a healthy environment and a healthy economy.

1.16 Provide for adequate active and passive recreational opportunities.

1.17 Cooperate on utilities, transportation, and economic development issues.

II. URBAN GROWTH AREAS

(June 5, 1992, Adopted September 8, 1992, Amended November 10, 2015)

2.1 Urban growth within Thurston County is to occur only in designated urban growth areas.

2.2 The boundaries of designated urban growth areas must meet the following criteria:

a. Contain areas characterized by urban growth.
b. Be served by or planned to be served by municipal utilities.
c. Contain vacant land, or under-developed land with additional capacity, near existing urban areas that is capable of supporting urban development.
d. Be compatible with the use of designated resource lands and critical areas.
e. Follow logical boundaries.
f. Consider citizen preferences.
g. Be of sufficient area and densities to permit the urban growth that is projected to occur in the succeeding twenty-year period.

2.3 Amendments to the urban growth boundaries must use the following process:

a. Cities and towns will confer with the county about boundary location or amendment.
b. Proposed boundaries are presented to the Urban Growth Management (UGM) subcommittee of Thurston Regional Planning Council, which makes a recommendation directly to the Board of County Commissioners.
c. Following a public hearing, the Board of County Commissioners designates the boundaries and justifies its decision in writing.
d. Cities and towns not in agreement with the boundary designation may request mediation through the State Department of Commerce.
e. At least every 10 years, growth boundaries will be reviewed based on updated 20-year population projections.
f. Appeals of decisions made through this process are per the State Growth Management Act, RCW 36.70A.

2.4 Expansion of the Urban Growth Boundary must demonstrate consistency with:

a. All of the following criteria:
    i. For South County jurisdictions: the expansion area can and will be served by municipal water and transportation in the succeeding 20 years. South County jurisdictions must demonstrate that the expansion can be served by sewage disposal measures that provide for the effective treatment of waste water in the succeeding 20 years.
    ii. For North County jurisdictions: the expansion area can and will be served by municipal sewer, water, and transportation in the succeeding 20 years.
    iii. Urbanization of the expansion area is compatible with the use of designated resource lands and with critical areas.
    iv. The expansion area is contiguous to an existing urban growth boundary.
    v. The expansion is consistent with these County-Wide Planning Policies.
b. One of the two following criteria:
    i. There is insufficient land within the Urban Growth Boundary to permit the urban growth that is forecast to occur in the succeeding 20 years; or
    ii. An overriding public interest demonstrating a public benefit beyond the area proposed for inclusion would be served by moving the Urban Growth Boundary

related to protecting public health, safety and welfare; enabling more cost-effective, efficient provision of sewer or water; and enabling the locally adopted Comprehensive Plans to more effectively meet the goals of the State Growth Management Act.

2.5 Reduction of the Urban Growth Boundary must demonstrate consistency with all of the following criteria:

a. Sufficient land will remain within the reduced Urban Growth Boundary to permit the urban growth that is forecast to occur in the succeeding 20 years.

b. The reduced Urban Growth Boundary will include cost-effective sewer and water and transportation service areas, as applicable for each urban growth area.

c. Reduction of the Urban Growth Boundary is compatible with the use of the designated resource lands and with critical areas.

III. PROMOTION OF CONTIGUOUS AND ORDERLY DEVELOPMENT, PROVISION OF URBAN SERVICES, AND PROTECTION OF RURAL AREAS

(August 19, 1992, Adopted September 8, 1992, Amended November 10, 2015)

3.1 Concentrate development in urban growth areas and protect rural areas by:

a. Accommodating the county's growth first and foremost in the urban growth areas and ensuring that development occurring in rural areas is rural in character.

b. Encouraging infilling first within those parts of the urban growth areas that are:

i. Already characterized by urban growth that has adequate existing public facilities and service capacities to serve such development,

ii. Second, in areas already characterized by urban growth that will be served adequately by a combination of both existing public services and facilities, that are provided by either public or private sources, and

iii. Third, in the remaining portions of the urban growth areas.

c. Phasing urban development and facilities outward from core areas.

d. Establishing mechanisms to ensure average residential densities sufficient to enable the county as a whole to accommodate its 20-year population projection.

e. Limiting growth in rural areas to prevent sprawl and the overburdening of rural services, maintain rural character, and protect the natural environment.

f. Prohibiting urban net densities in rural areas.

g. Designating rural areas for low intensity, non-urban uses that preserve natural resource lands, protect rural areas from sprawling, low-density development and assure that rural areas may be served with lower cost, non-urban public services and utilities.

h. Where urban services and utilities are not yet available, requiring development to be configured so urban growth areas may eventually infill and become urban.

i. Considering innovative development techniques.

3.2 Coordinate Urban Services, Planning, and Development Standards through:

a. Maximizing the use of existing infrastructure and assets, and leveraging the value of these in building vital, healthy, and economically viable communities.

b. Making public investments that further multiple community goals, target identified priorities, and leverage additional investment.

c. Considering both economies of scale and long-term maintenance cost when investing in infrastructure.

d. Providing and maintaining municipal services (water, sewer, solid waste, public safety, transportation, and communication networks) in a sustainable, and cost-effective manner.

e. Coordinating planning and implementation of policies regarding urban land use, parks, open space corridors, transportation, and infrastructure within growth areas. Developing compatible development standards and road/street level of service standards among adjoining jurisdictions.

f. Developing, and ensuring the enforcement of, agreements between Thurston County and the cities and towns within its borders, that ensure development occurring within unincorporated urban growth areas is consistent with city utility and storm water planning and conforms to the development standards and road/street level of service standards of the associated city or town.

g. Phasing extensions of urban services and facilities concurrent with development and prohibiting extensions of urban services and facilities, such as sewer and water, beyond urban growth boundaries except to serve existing development in rural areas with public health or water quality problems.

h. Identifying, in advance of development, sites for schools, parks, fire, and police stations, major storm water facilities, greenbelts, open space, and other public assets. Acquisition of sites for these facilities shall occur in a timely manner and as early as possible in the overall development of the area.

3.3 Cooperate on annexations in order to accomplish an orderly transfer of contiguous lands within growth areas into the adjoining cities and towns. Cooperate on developing a streamlined and efficient process for annexation, while maintaining appropriate environmental review.

3.4 Provide capacity to accommodate planned growth by:

a. Assuring that each jurisdiction will have adequate capacity in transportation, public and private utilities, storm drainage systems, municipal services, parks and schools to serve growth that is planned for in adopted local comprehensive plans; and

b. Protecting ground water supplies from contamination and maintaining ground water in adequate supply by identifying and reserving future supplies well in advance of need.

IV. JOINT COUNTY AND CITY PLANNING WITHIN URBAN GROWTH AREAS

(August 19, 1992, Adopted September 8, 1992, Amended November 10, 2015)

4.1 Thurston County and the cities and towns within its borders will jointly plan the unincorporated portions of urban growth areas.

4.2 Each city and town will assume lead responsibility for preparing the joint plan for its growth area in consultation with the county and adjoining jurisdictions.

a. The lead city or town and the county will jointly agree to the level and role of county involvement at the outset of the project, including the role of each jurisdiction's planning commission.

b. A scope of work, schedule and budget will be jointly developed and individually adopted by each jurisdiction.

c. The process will ensure participation by area residents and affected entities.

4.3 The jointly adopted plan or zoning will serve as the basis for county planning decisions and as the pre-annexation comprehensive plan for the city to use when annexations are proposed.

4.4 Each joint plan or zoning will include an agreement to honor the plan or zoning for a mutually agreeable period following adoption of the plan or annexation.

4.5 Nothing in these policies shall be interpreted to change any duties and roles of local governmental bodies mandated by state law; for example, statutory requirements that each jurisdiction's planning commission hold hearings and make recommendations on comprehensive plans and zoning ordinances.

V. SITING COUNTY-WIDE AND STATE-WIDE PUBLIC CAPITAL FACILITIES

(June 5, 1992, Adopted September 8, 1992, Amended November 10, 2015)

5.1 Cooperatively establish a process for identifying and siting within their boundaries public capital facilities of a county-wide and state-wide nature which have a potential for impact beyond jurisdictional boundaries. The process will include public involvement at early stages. These are facilities that are typically difficult to site, such as airports, terminal facilities, state educational facilities, state or regional transportation facilities, state and local correctional facilities, solid waste handling facilities, and in-patient facilities including substance abuse facilities, mental health facilities, and group homes.

5.2 Base decisions on siting county-wide and state-wide public capital facilities on the jurisdiction's adopted plans, zoning and environmental regulations, and the following general criteria:

a. County-wide and state-wide public capital facilities shall not have any probable significant adverse impact on lands designated as critical areas or resource lands; and

b. Major public facilities that generate substantial traffic should be sited near major transportation corridors.

VI. ANALYSIS OF FISCAL IMPACT

(August 19, 1992, Adopted September 8, 1992, Amended November 10, 2015)

6.1 Develop financing methods for infrastructure which minimize the taxpayer's overall burden and fairly divide costs between existing and new development.

6.2 Cooperatively explore a method to mitigate the fiscal impact on county government of annexation of significant developed commercial and industrial properties.

6.3 Cooperatively explore methods of coordinating financing of infrastructure in urban growth areas.

VII. ECONOMIC DEVELOPMENT AND EMPLOYMENT

(June 5, 1992, Adopted September 8, 1992, Amended November 10, 2015)

7.1 Encourage an economy that is diverse, can adapt to changing conditions, and takes advantage of new opportunities.

7.2 Support the recruitment, retention, and expansion of environmentally sound and economically viable commercial, public sector, and industrial development and resource uses, including the provision of assistance in obtaining funding and/or technical assistance.

7.3 Provide in comprehensive plans for an adequate amount of appropriately located land, utilities, and transportation systems to support desirable economic development. Create and maintain regulatory certainty, consistency, and efficiency.

7.4 Acknowledge and look for opportunities to engage with regional economic drivers such as state government, the Port of Olympia, and Joint Base Lewis-McChord. Coordinate economic development efforts as well with other jurisdictions, the Economic Development Council, Chambers of Commerce, and other affected groups.

7.5 Build a vital, diverse, and strong local economy, including job opportunities that support community and household resilience, health, and well-being, by:

a. Supporting workforce training and offering opportunities for education and entrepreneurial endeavors.
b. Supporting creativity, arts, and culture.
c. Providing opportunities for a range of business types to succeed.
d. Emphasizing policies that support locally owned businesses including home-based, entrepreneurial, and nonprofit business and organizations.
e. Encouraging the development of local services for food, clothing, and other basic human needs.
f. Nurturing urban and rural agricultural and food-oriented businesses.
g. Protecting resource lands.
h. Encouraging the utilization and development of areas designated for industrial use, consistent with the environmental policies in these county-wide policies.
i. Connecting economic health with personal health and well-being and the advancement of environmental health.
j. Adding incentives for businesses to demonstrate their environmental sustainability including reduction in greenhouse gas emissions.

VIII. AFFORDABLE HOUSING

(August 19, 1992, Adopted September 8, 1992, Amended November 10, 2015)

8.1 Increase housing choices to support all ranges of lifestyles, household incomes, abilities, and ages. Encourage a range of housing types and costs that are commensurate with the employment base and income levels of jurisdictions' populations, particularly for low, moderate and fixed income families.

8.2 Accommodate low and moderate income housing throughout each jurisdiction rather than isolated in certain areas.

8.3 Explore ways to reduce the costs of housing.

8.4 Establish and maintain a process to accomplish a fair share distribution of affordable housing among the jurisdictions.

8.5 Work with the private sector, Housing Authority, neighborhood groups, and other affected citizens, to facilitate the development of attractive, quality, low and moderate income housing that is compatible with the surrounding neighborhood and located within easy access to public transportation, commercial areas and employment centers.

8.6 Regularly examine and modify policies that pose barriers to affordable housing.

8.7 When possible, provide assistance in obtaining funding and/or technical assistance for the expansion or establishment of low cost affordable housing for low, moderate and fixed income individuals and families.

IX. TRANSPORTATION

(*April 30, 1992, Adopted September 8, 1992, Amended November 10, 2015*)

9.1 Increase transportation choices to support all ranges of lifestyles, household incomes, abilities, and ages.

9.2 Increase opportunities for riding transit, biking, walking, ridesharing, allowing and encouraging flexible work schedules, and teleworking.

9.3 Encourage efficient multi-modal transportation systems that are based on regional priorities and are coordinated with county and city comprehensive plans.

a. Local comprehensive plans will consider the relationship between transportation and land use density and development standards.

b. Local comprehensive plans and development standards should provide for local and regional pedestrian and bicycle circulation.

c. Improved transit service will be based on Intercity Transit's plans, informed by and consistent with the regional transportation plan and local comprehensive plans.

d. Transportation Demand Management plans and programs required by State law will be implemented as a key part of the region's transportation program.

e. Improvements to the regional road network will be consistent with local and regional transportation plans.

f. The regional transportation planning process is the primary forum for setting county-wide transportation policy.

9.4 The transportation element of each jurisdiction's comprehensive plan will be consistent with the land use element of that jurisdiction's comprehensive plan.

9.5 The transportation element of each jurisdiction's comprehensive plan will include level of service standards for all arterials and transit routes and services. Each jurisdiction will coordinate these level of service standards with all adjacent jurisdictions. Transit level of service standards will be consistent with Intercity Transit policies.

9.6 Each jurisdiction's transportation element will include an assessment of the impacts of the transportation plan and land use assumptions on the transportation systems of adjacent jurisdictions.

9.7 The transportation elements of comprehensive plans adopted by Thurston County and each city and town in the county will be consistent with the Regional Transportation Plan adopted by Thurston Regional Planning Council, in accordance with the provisions of the Washington State Growth Management Act.

9.8 The Regional Transportation Plan adopted by Thurston Regional Planning Council will be consistent with the land use elements of comprehensive plans adopted by Thurston County and the cities and towns within Thurston County and with state transportation plans. To ensure this, the Regional Transportation Plan will be reviewed and updated, if necessary, at least every two years for consistency with these plans.

9.9 All transportation projects within Thurston County that have an impact upon facilities or services identified as regional in the Regional Transportation Plan will be consistent with the Regional Transportation Plan.

9.10 Local and regional transportation plans will consider maritime, aviation, and rail transportation as an integral link to the area's regional transportation needs.

X. ENVIRONMENTAL QUALITY

(*August 19, 1992, Adopted September 8, 1992, Amended November 10, 2015, Amended March 18, 2025*)

10.1 Recognize our dependence on natural systems and maintain a balance between human uses and the natural environment.

10.2 Establish a pattern and intensity of land and resource use that is in concert with the ability of land and resources to sustain such use, reduce the effects of the built environment on the natural environment, conserve natural resources, and enable continued resource use, through:

a. Land-use and transportation plans and actions that encourage compact development and concentrate development in urban growth areas.
b. Retrofitting existing infrastructure to reduce impacts of the built environment on the natural environment.
c. Planning for the amount of population that can be sustained by our air, land, and water resources without degrading livability and environmental quality.
d. Minimizing high noise levels that degrade residents' quality of life.

10.3 Protect the soil, air, surface water, and groundwater quality, including through:

a. Reducing dependence on the use of chemicals and other products that pollute and, when their use is necessary, minimizing releases to the environment.
b. Ensuring adequate clean water is available to support household and commercial needs while sustaining ecological systems through conservation, balancing of uses, and reuse.
c. Protecting ground and surface water, the rivers and creeks of Thurston County and the water of the Puget Sound from further degradation by adopting and participating in comprehensive, multi-jurisdictional programs to protect and monitor water resources for all uses, including fish habitat and passage.
d. Protecting and enhancing air quality.

10.4 Take action to conserve resources, increase use of renewable resources and decrease dependence on non-renewable resources by:

a. Reducing energy consumption and reliance on nonrenewable energy sources.
b. Encouraging the reuse and recycling of materials and products, and reduction of waste to the maximum extent practicable.

10.5 Acknowledge that changing weather and climate patterns will impact the human, natural, and built environments and plan for impacts such as increased wildfire, flooding and sea-level rise.

10.6 Protect and restore natural ecosystems, such as, forests, prairies, wetlands, surface and groundwater resources, that provide habitat for aquatic and terrestrial plants and animals.

10.7 Provide for public access to natural resource lands, while ensuring that uses and economic activity which are allowed within those lands are sustainable.

10.8 Provide for parks and open space and maintain significant wildlife habitat and corridors.

10.9 Where outdoor lighting is necessary, design the lighting to minimize the light pollution.

XI. COUNTY-WIDE POLICIES WHICH ESTABLISH A PROCESS TO DEVELOP FUTURE POLICIES

(August 10, 1992, Adopted September 8, 1992, Amended July 1, 2002, Amended November 10, 2015, Amended March 18, 2025)

11.1. Process to determine and assure sufficiency of Urban Growth Areas to permit projected urban population:

a. The state Office of Financial Management (OFM) growth management planning population projections for Thurston County will be used as the range of population to be accommodated for the coming 20 years.

b. Within the overall framework of the OFM population projections for the County, Thurston Regional Planning Council will develop countywide and smaller area population projections, pursuant to RCW 36.70A.110 and based on current adopted plans, zoning and environmental regulations and buildout trends.

c. A review and evaluation program pursuant to RCW 36.70A.215 ("Buildable Lands Program") will be established. The evaluation and subsequent updates required under the Buildable Lands Program will follow timelines in the RCWs, subject to availability of State funding. This evaluation may be combined with the review and evaluation of county and city comprehensive land use plans and development regulations required by RCW 36.70A.130 (1), and the review of urban growth areas required by RCW 36.70A.130(3).

i. In the event of a dispute among jurisdictions relating to inconsistencies in collection and analysis of data, the affected jurisdictions shall meet and discuss methods of resolving the dispute.

ii. Nothing in this policy shall be construed to alter the land use power of any Thurston County jurisdiction under established law.

iii. Because inclusion of this policy is as a result of state mandated legislation, implementation of this policy shall be commensurate with state funding.

d. The Thurston Regional Planning Council will review the smaller area population projections to assure that the 20-year population is accommodated county-wide, and that urban growth areas are of sufficient area and densities to permit the projected urban population.

11.2 These county-wide policies will be reviewed upon the request of four jurisdictions.

11.3 Under the State Growth Management Act, authority for making changes to County-Wide Planning Policies (CWPPs) lies with counties. The State Growth Management Act also states that counties are required to consult with the cities, towns, and tribes within its borders regarding changes to the CWPPs. It is the role of the Thurston Regional Planning Council Urban Growth Management (UGM) Subcommittee to be the vehicle for this jurisdictional consultation process in Thurston County. Amendments to the Thurston County County-Wide Planning Policies must use the following process:

a. Proposed amendments are to be reviewed by the UGM Subcommittee, which consists of a representative from the Council of each of the cities, towns, and tribes in Thurston County and a representative from the Board of County Commissioners.

b. Technical assistance will be provided to the UGM Subcommittee by jurisdictional Planning Directors or their designated representatives.

c. It is the responsibility of the UGM Subcommittee members to coordinate with their respective Councils regarding amendments to the CWPPs and to do so prior to the UGM Subcommittee making its recommendation on the amendments to the Board of County Commissioners.

d. The UGM Subcommittee will make a recommendation on the amendments to the CWPPs directly to the Board of County Commissioners.

e. The Board of County Commissioners will hold a public hearing on the amendments to the CWPPs. This public hearing would allow cities, towns, and tribes within Thurston County an opportunity to comment directly to the Board of County Commissioners on the amendments.

Climate Element

Part 1 – Goals, Policies, and Implementation Actions

City of Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 6, 2025

December 2025

Ordinance No. O2025-010

CITY OF TUMWATER

Table of Contents

1. Introduction 6
A. How to Read this Part of the Element 6
2. Growth Management Act 7
3. County-Wide Planning Policies 8
4. Element Goals and Policies 9
A. How to Read These Tables 9
B. Overarching Climate Goals 9
C. Greenhouse Gas Reduction Sub-Element Goals 11
D. Resilience Sub-Element Goals 14
Appendix A Draft Implementation Actions 21
A. How to Read These Tables 21
A. Overarching Climate Goals 22
B. Greenhouse Gas Reduction Sub-Element Goals 26
C. Resilience Sub-Element Goals 36

Acronyms and Abbreviations Used in Document

ASD – Administrative Services Department.

CBO – Community Based Organization.

CCA – The Climate Commitment Act (CCA) (Chapter 310, Laws of 2021) caps and reduces greenhouse gas emissions from Washington's largest emitting sources and industries, allowing businesses to find the most efficient path to lower carbon emissions. This program works alongside other critical climate laws and policies to help Washington achieve its commitment to reducing greenhouse gas emissions by 95% by 2050. The CCA also puts environmental justice and equity at the center of climate policy, making sure communities that bear the greatest burdens from air pollution today breathe cleaner, healthier air as the state cuts greenhouse gases. Finally, funds from the auction of emission allowances support new investments in climate-resiliency programs, fund clean transportation, and address health disparities across the state.

CDD – Tumwater Community Development Department

City – City of Tumwater

Commerce – Washington State Department of Commerce

County – Thurston County

CPAT – Climate Policy Advisory Team

DAHP – Washington State Department of Archaeology and Historic Preservation

EDC – Thurston Economic Development Council

EV – Electric Vehicle

EXD – Tumwater Executive Department

Fire & EMS – Fire and Emergency Medical Services Department.

FIN – Tumwater Finance Department

GHG – Greenhouse Gas

PRFD – Tumwater Parks, Recreation, & Facilities Department

RCW – Revised Code of Washington

TCAT – Thurston Climate Action Team

TED – Tumwater Transportation & Engineering Department

TMC – Tumwater Municipal Code

Tribes – Nisqually Indian Tribe, Squaxin Island Tribe, and the Confederated Tribes of the Chehalis Reservation

TRPC – Thurston County Regional Planning Council

UFMP – Urban Forestry Management Plan

WRS – Tumwater Water Resources & Sustainability Department

WSDOT – Washington State Department of Transportation

Key Terms and Definitions

15-minute neighborhood: An urban planning concept referring to neighborhoods in cities in which most daily necessities, services, and amenities (e.g., work, education, health care, shopping, recreational opportunities) can be reached by a 15-minute walk, bicycle ride, or public transportation trip. These neighborhoods tend to be relatively walkable and support a greater baseline of residential density.

Climate: The "average weather" generally over a period of three decades. Measures of climate include temperature, precipitation, and wind.

Climate change: Any significant change in the average climate of a region lasting for decades or longer. Can be measured through substantial changes in temperature, precipitation, or wind. Climate change may result from natural factors and from human activities that change the atmosphere's composition and land surface.

Climate refugia: Areas that continue to resist the impacts of anthropogenic climate change, allowing valued and culturally significant physical, ecological, and socio-cultural resources to continue to survive and even thrive amidst a changing landscape.[1]

Environmental Justice (EJ): The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to environmental laws, rules, and policies according to RCW 70A.02.010(8). Environmental justice includes

[1] Morelli, T.L.; Millar, C. 2018. Climate Change Refugia. USDA Forest Service Climate Change Resource Center. https://www.fs.usda.gov/ccrc/topics/climate-change-refugia

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addressing unfair environmental and health impacts in all laws, rules, and policies by:

- prioritizing vulnerable populations and overburdened communities;
- the equitable distribution of resources and benefits; and
- eliminating harm.

Food Justice: Assumes consistent access to nutritious, affordable, and culturally relevant food to be a human right that should be secured and protected.

Frontline Community[2]: Those communities that experience the effects of climate change "first and worst" while also having significantly lower capacity to adapt and reduced access to resources and political power to respond to those risks. Though not limited to these groups, frontline communities generally include communities of color, Indigenous peoples, and low-income communities. These communities have also not historically had access to City decision making processes.

Green stormwater infrastructure: Stormwater management systems that mimic natural systems, capturing and absorbing or diverting rainwater where it falls.

Greenhouse gas (GHG): Any gas that absorbs heat in the atmosphere; examples include carbon dioxide, methane, nitrous oxide, ozone, and water vapor.

Managed retreat: The voluntary movement and transition of communities away from regions that are likely to become unsustainable for life due to climate change impacts. Primarily a tool used in coastal regions to move communities away from sea level rise impacts, but increasingly a tool used in planning for other climate hazards.

Native species: Any plant, fungus, or animal species native to our area. In the US, this only includes species present in the region prior to the arrival of European settlers.[3]

Overburdened Community[4]: According to RCW 70A.02.010(11), denotes a geographic area where vulnerable populations face combined, multiple environmental harms and health impacts, and includes, but is not limited to, highly impacted communities as defined in RCW 19.405.020.

Passive survivability: Building to ensure that residences will remain at a safe temperature for occupants if the power goes out and that they will overall require less power to keep at a regulated temperature. It can also entail building single-family residences with one room designed to maintain comfortable temperatures or multifamily residences with a designated common area designed to serve this same

[2] In the Climate Element the term "frontline community" is preferred as it does not carry the disempowering and othering connotations of the terms "overburdened community" and "vulnerable population." However, the latter terms carry legislative meaning, with precise definitions in Washington State law and policies that direct funding for and engagement with these groups. All three terms will be used throughout the goals, policies, and implementation actions contained in this Element. "Frontline communities" will be the preferred term where the legislative context is not relevant, while "overburdened community" and "vulnerable population" will be used where the precise definitions are key to enacting the policy.

[3] United States Department of Agriculture, n.d. "What is a native plant?" https://www.usda.gov/peoples-garden/gardening-advice/why-native-species-matter

[4] See Note 1

function. Building for passive survivability also reduces demand on local energy infrastructure.

Resilience: the ongoing process of anticipating, preparing for, and adapting to changes in climate and minimizing negative impacts to our natural systems, infrastructure, and communities (RCW 70A.65.010).

Sustainability: meeting the needs of the present without compromising the ability of future generations to meet their own needs. Often considered through the "triple bottom line" approach which considers impacts to natural environment, community health, and economic vitality.

Vulnerable Populations[5]: According to RCW 70A.02.010(14), includes population groups that are more likely to be at higher risk for poor health outcomes in response to environmental harms, due to: adverse socioeconomic factors, high housing and transportation costs relative to income, limited access to nutritious food and adequate health care, linguistic isolation, and other factors that negatively affect health outcomes and increase vulnerability to the effects of environmental harms; and sensitivity factors, such as low birth weight and higher rates of hospitalization. Vulnerable populations can include but are not limited to racial or ethnic minorities, low-income populations, populations disproportionately impacted by environmental harm, and populations of workers experiencing environmental harm.

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[5] See Note 1

1. Introduction

The Climate Element is part of Tumwater's Comprehensive Plan and was created to meet the State Growth Management Act (Chapter 36.70A RCW) requirements to adapt to and mitigate the effects of a changing climate.

Tumwater's Vision, Mission, and Belief Statements that provide overarching direction for the future of Tumwater are found in the Plan Introduction.

The Climate Element aligns and is consistent with the other elements of the Comprehensive Plan.

Part 1 – Goals Policies, and Implementation Actions establishes Tumwater's goals and policies to address greenhouse gas reduction and climate resilience.

The goals and policies of the Climate Element are guided by the state Growth Management Act and the Thurston County-Wide Planning Policies and the vision of a Tumwater that is a vibrant city that fosters a sense of place, active transportation, local business prosperity, and provides a safe environment for our coming climate challenges. The Element's goals and policies are coordinated with the other Elements and regional plans.

The Climate Element's goals and policies are the policy basis for the draft implementation actions in Climate Element and those future actions that will be developed over the next 20 years which will be the foundation for Tumwater's annual work programs to address greenhouse gas reduction and climate resilience.

Part 2 – Technical Information provides the background information on the development of the Climate Element.

A. How to Read this Part of the Element

In Part 1, Chapters 2 and 3 discuss the Climate Element's connection to the goals of the state Growth Management Act and the Thurston County-Wide Planning Policies.

Chapter 4 presents each goal with introductory text, and an explanation of the lead and timeline for each policy.

Appendix A contains the draft implementation actions, which are intended to be a source of annual work program items that serve to implement the goals and policies of the Climate Element.

The annual work programs will further refine the implementation actions prior to their being put into practice. It is expected that implementation actions will be further amended, added, or subtracted as needed over the course of the 20 year Comprehensive Plan as new opportunities arise to meet the intent of the Climate Element's goals and policies.

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2. Growth Management Act

The State Growth Management Act (Chapter 36.70A RCW) requires that Tumwater shows that each Element in its Comprehensive Plan meets the relevant fifteen planning goals contained within the Act. The fifteen goals guide the development and adoption of Tumwater's Comprehensive Plan and development regulations.

The following is a summary of how the new Climate Element addresses the goal related to climate change and resiliency. The state legislature added this goal in 2023.

15. ***Climate change and resiliency***. *Ensure that comprehensive plans, development regulations, and regional policies, plans, and strategies under RCW 36.70A.210 and chapter 47.80 RCW adapt to and mitigate the effects of a changing climate; support reductions in greenhouse gas emissions and per capita vehicle miles traveled; prepare for climate impact scenarios; foster resiliency to climate impacts and natural hazards; protect and enhance environmental, economic, and human health and safety; and advance environmental justice.*

The Conservation Element, Land Use Element, and Transportation Plan of the Comprehensive Plan address this new goal in coordination with the new Climate Element.

The Climate Element addresses the dual goals of increasing climate resiliency and mitigating Tumwater's contributions to climate change by promoting sustainability, reducing pollution, promoting healthy habitats, and supporting clean air and water.

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3. County-Wide Planning Policies

The Growth Management Act requires that comprehensive plans be consistent with Thurston County's County-Wide Planning Policies, as amended in 2015.

The following is a list of the relevant policies that apply to this Element. The sections of the County-Wide Planning Policies relevant to this Element are cited below. All County-Wide Planning Policies are adopted as Appendix B to the Comprehensive Plan.

I. General Policies

The Climate Element has goals, policies, and actions that address County-Wide Planning Policies 1.1 through 1.14. These goals, policies and actions support a regional vision for sustainable communities which will thrive in the face of climate change impacts and lead efforts to mitigate future impacts.

VII. Economic Development and Employment

Resource uses and resource land protection are addressed in the goals, policies, and actions of the Climate Element.

X. Environmental Quality

The Climate Element is based upon the themes of equity, sustainability, and resilience.

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4. Element Goals and Policies

A. How to Read These Tables

The Climate Element goals and policies are not in priority order.

Appendix A provides a list of the draft implementation actions by goal and policy that will be considered when developing annual work programs for implementing the Climate Element's goals and policies.

1) Department Leads

Implementation of the Climate Element's policies is associated with eight different Tumwater departments:

CAO	City Attorney's Office
CDD	Community Development Department
EXD	Executive Department
FIN	Finance Department
PRD	Parks, Recreation, and Facilities Department
TED	Transportation & Engineering Department
TFD	Fire Department
WRS	Water Resources & Sustainability Department

In most cases, the work will require multiple Tumwater departments working together. Each of the Climate Element's policies include a lead department or departments.

2) Period

Each of the Climate Element's policies are associated with estimated start dates, length of time to complete, and target completion dates, if appropriate based on adequate funding for staff and resources. Most policies are for the term of the Comprehensive Plan with no set target completion date.

B. Overarching Climate Goals

Goal CL-1 Increase Tumwater's capacity to implement climate action and adaptation priorities.

The goals and policies contained in this Element will only lead to effective climate mitigation and adaptation if Tumwater devotes appropriate resources to implement all aspects of the Element.

Policies	Lead	Period
CL-1.1 Support fully staffing Tumwater positions needed to support the actions outlined in the Climate Element.	WRS EXD	**Start:** 2026

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Policies		Lead	Period
CL-1.2	**Develop a program funding strategy to support equitable access to climate mitigation and adaptation programs developed by Tumwater.**	**WRS** EXD	**Start:** 2026
CL-1.3	**Educate Tumwater staff and community on the Climate Element's goals, policies, and actions.**	**WRS**	**Start:** 2026

Goal CL-2 Advance environmental justice by providing all Tumwater community members with an equitable opportunity to learn about climate impacts, influence policy decisions, and take actions to enhance community resilience.

Environmental justice must be central to any effort to mitigate and adapt to climate change. Tumwater will create opportunities for all members of the community to make meaningful changes to climate policy and must also strive to ensure frontline communities have access to resources to adapt to climate impacts.

Policies		Lead	Period
CL-2.1	**Work with community based organizations and community organizers to conduct intentional outreach with frontline communities to create opportunities for equitable engagement in climate adaptation, mitigation, and education.**	**WRS** EXD	**Start:** 2026 Term of the Plan
CL-2.2	**Prioritize the people of Tumwater and their needs, values, and goals in all future climate planning efforts by developing and implementing all adaptation and mitigation tasks in collaboration with equitable representation from all Tumwater communities.**	**WRS**	**Start:** 2026 Term of the Plan
CL-2.3	**Develop programs and resources to promote equitable financial access to climate resilience and mitigation activities.**	**WRS** **FIN** EXD	**Start:** 2026

Goal CL-3 Address that changing weather and climate patterns driven by human-generated emissions will affect every aspect of life in Tumwater, and plan for impacts such as increased heat, wildfire, and flooding while working to reduce local emissions.

This goal is at the heart of why Tumwater is climate planning. Human-generated emissions are driving unprecedented climate changes, and that fact drives the Greenhouse Gas Reduction

Sub-Element, whose goals strive to curb human emissions. Simultaneously, Tumwater and all communities globally must prepare for the inevitable impacts already set in motion.

Policies		Lead	Period
CL-3.1	**Assess Tumwater's vulnerability to climate change.**	**WRS**	**Start:** 2027
CL-3.2	**Address climate change impacts in all Tumwater planning efforts.**	**WRS** **CDD**	**Start:** 2027

C. Greenhouse Gas Reduction Sub-Element Goals

This sub-element contains five goals that aim to help Tumwater reach its new goal of net-zero emissions by 2045, ahead of the State's emissions target. The policies and actions in the sub-element focus on continuing Tumwater's progress on addressing climate mitigation.

1) Greenhouse Gas Reduction Targets

Under RCW 36.70A.070, Tumwater is required to prepare a sub-element on greenhouse gas emissions reduction as part of its Climate Element. Tumwater's Greenhouse Gas Reduction Sub-Element directs Tumwater's approach to eliminating Greenhouse Gas emissions towards achieving net-zero emissions by 2045.

Tumwater has identified specific interim targets for municipal emissions, such as emissions from Tumwater-owned assets, operations, and services, and community-wide emissions, such as emissions from various sectors across Tumwater, including but not limited to residential, commercial, and transportation sectors.

Community-wide Greenhouse Gas Emissions Targets

- Reduce community-wide emissions by 45% from 2023 levels by 2030, and 70% by 2040.
- Achieve net-zero community-wide emissions by 2045.

Municipal Greenhouse Gas Emissions Targets

- Reduce municipal emissions by 50% from 2023 levels by 2030.
- Achieve net-zero municipal emissions by 2045.

2) Greenhouse Gas Goals and Policies

The goals and policies identified below are designed to move Tumwater towards these emissions reduction targets. As with other components of this Climate Element, these goals and policies were developed based on present information and community feedback, but they are subject to revision over time as regulations and technology evolve.

Goal CL-4 Reduce greenhouse gas emissions from all building types through energy conservation measures prioritizing the deployment of financial resources and programs that help finance or subsidize improvements across Tumwater.

Greenhouse gas emissions from buildings and energy use account for over half of the community-wide emissions across Thurston County. This presents significant opportunities for action and impact, which can include prioritizing energy conservation measures and funding programs and incentives that will reduce Tumwater's municipal and community-wide greenhouse gas emissions.

Community members expressed support for energy efficiency measures to provide financial benefits, particularly for renters and low-income residents.

Policies		Lead	Period
CL-4.1	**Reduce energy use across building types.**	WRS CDD	**Start:** 2026 Term of the Plan
CL-4.2	**Reduce energy use in existing residential buildings.**	WRS CDD	**Start:** 2026 Term of the Plan
CL-4.3	**Reduce energy use in existing nonresidential buildings.**	WRS CDD	**Start:** 2026 Term of the Plan
CL-4.4	**Reduce energy use in new construction, redevelopment, and deconstruction.**	WRS CDD	**Start:** 2027
CL-4.5	**Increase energy efficiency in manufactured home parks and recreational vehicle parks/campgrounds.**	WRS CDD	**Start:** 2027
CL-4.6	**Convert to alternative fuel sources.**	WRS CDD	**Start:** 2026 Term of the Plan

Goal CL-5 Expand the use of on-site renewable energy technology (e.g., solar photovoltaics, battery storage, etc.) across all building types through providing funds, code changes, and educational programs.

Local on-site renewable technology, such as solar photovoltaics and battery storage, will provide increased renewable energy options to Tumwater community members. Additionally, the development of local renewable energy resources strengthens Tumwater's resilience during future extreme weather events. Developing local renewable energy resources

can also strengthen the local economy through job creation.

Policies		Lead	Period
CL-5.1	**Increase the production and storage of local renewable energy.**	WRS CDD	**Start:** 2026

Goal CL-6 Reduce greenhouse gas emissions by making it easier for people to use and shift to low- or zero-carbon transportation modes through policy, programming, and regional collaborations.

Transportation is the second largest source of greenhouse gas emissions in Thurston County. Tumwater can significantly reduce emissions by creating policies and programs that support zero emissions transportation modes, including increasing the number of electric vehicles and charging stations throughout Tumwater and encouraging active transportation such as biking and walking. Community members strongly expressed the desire for improved sidewalks and an increased number of bike lanes to enable active transit.

Policies		Lead	Period
CL-6.1	**Promote increased use of active forms of travel such as bicycling, walking, and other nonmotorized options.**	TED	**Start:** 2026 Term of the Plan
CL-6.2	**Increase adoption of electric vehicles.**	WRS	Term of the Plan
CL-6.3	**Facilitate low-carbon options for movement into and through Tumwater.**	CDD TED	**Start:** 2026 Term of the Plan

Goal CL-7 Reduce vehicle miles traveled by using permitting, regulatory, and other land use tools to promote multimodal transportation options and the use of public transit.

In addition to increasing the adoption of electric vehicles and encouraging active transportation in Tumwater, expanding multimodal options and public transit ridership can greatly affect Tumwater's greenhouse gas emissions.

Promoting public transit ridership includes short term efforts, such as public awareness campaigns and expand transit lines, and long-term efforts, such as urban planning to reduce urban sprawl. Land use tools, such as street network connectivity improvements, can also

contribute to reducing vehicle miles traveled, which in turn lead to reduced emissions, air pollution, and traffic congestion.

Policies		Lead	Period
CL-7.1	**Continue land use policies that support increased urban density and efficient transportation networks and reduce urban sprawl.**	CDD	Term of the Plan
CL-7.2	**Increase efficiency of the transportation system.**	TED	Term of the Plan

Goal CL-8 Strengthen existing policies and regulations to deploy and enhance natural carbon solutions that are ecosystem-appropriate, store carbon, and offer co-benefits such as pollution reduction, wildlife habitat, and climate resilience.

Natural carbon solutions play an important role in the local environment by sequestering carbon through tree canopy and natural open space. In conjunction with reducing greenhouse gas emissions at the source, natural carbon solutions reduce atmospheric carbon, pollution, and reduce urban heat. Community members have expressed strong support of preserving the tree canopy in Tumwater.

Policies		Lead	Period
CL-8.1	**Preserve tree canopy, native prairie habitat, and support habitat restoration and conservation to sequester carbon.**	WRS CDD	Term of the Plan

D. Resilience Sub-Element Goals

This section contains eight goals that aim to help Tumwater guide climate adaptation efforts to protect its communities against unavoidable climate impacts. The policies and actions in this element focus on expanding and improving Tumwater's work on Climate Adaptation.

Goal CL-9 Design, plan, and upgrade buildings and energy infrastructure to accommodate renewable energy opportunities, keep the community safe, and withstand and recover from extreme weather and natural hazards worsened by climate change.

Tumwater's energy infrastructure and buildings need to be protected against projected climate impacts, creating safe and reliable space for community members. Renewable energy does

not just offer climate mitigation benefits: locally generated and stored renewable energy is also more resilient under an uncertain climate future.

Policies		Lead	Period
CL-9.1	**Require that planned facilities, utilities, and infrastructure projects and existing vulnerable sites be built or hardened to avoid or withstand climate impacts, including extreme heat, extreme precipitation, and sea level rise.**	CDD WRS	**Start:** 2028
CL-9.2	**Plan energy infrastructure to be able to integrate with an increase in renewable energy sources, including increasing energy storage capacity to improve energy grid resilience.**	CDD WRS TFD	**Start:** 2026
CL-9.3	**Require buildings in high-risk areas[6] to be designed and built to be resilient to natural hazards and extreme weather worsened by climate change.**	CDD WRS	**Start:** 2028
CL-9.4	**Encourage property owners to increase the resilience of existing buildings to natural hazards and extreme weather worsened by climate change.**	CDD WRS	**Start:** 2028
CL-9.5	**Work with Puget Sound Energy to improve the safety and reliability of infrastructure vulnerable to climate change.**	WRS CDD	**Start:** 2026

Goal CL-10 Increase preparedness for acute climate impacts and improve the resilience of Tumwater's people and systems against climate hazards.

Research has shown that climate change impacts frontline communities first and worst, while these communities also contribute the least to worsening climate change. System-wide changes need to be implemented to protect all of Tumwater's community members from both chronic and acute climate harm, with particular attention to frontline communities.

Policies		Lead	Period
CL-10.1	**Improve community outreach on and response capabilities for climate health and hazard issues, prioritizing frontline communities to address economic, social, and health disparities.**	WRS EXD	**Start:** 2026
CL-10.2	**Develop resources to mitigate the risks posed by extreme heat in coordination with regional partners.**	WRS TFD	**Start:** 2026

[6] High risk areas to be identified by Tumwater's Comprehensive Vulnerability Assessment, which should be completed by 2028. Weatherization and hardening building codes should be developed based on identified risks and land use designations of at-risk land parcels.

Policies		Lead	Period
CL-10.3	Increase regional wildfire resilience, preparedness, and response capabilities in Tumwater.	WRS TFD	Start: 2026
CL-10.4	Collaborate with regional partners to develop resources that address projected increases in risks and impacts associated with climate change.	WRS TFD	Start: 2026
CL-10.5	Improve community resilience, health equity, and environmental justice by striving to ensure that all community members can use active transportation to access public green spaces within half a mile and connected by sidewalks or protected walkways.	TED WRS PRD	Start: 2027
CL-10.6	Position Tumwater to qualify for more funding opportunities to adapt to climate impacts.	WRS	Start: 2028
CL-10.7	Work with the Thurston County Public Health Department to increase local understanding of how climate change impacts vector-borne disease outbreaks.	WRS	Start: 2027
CL-10.8	Develop programs that enable and empower community members to protect themselves from poor air quality.	WRS	Start: 2027
CL-10.9	Work with Thurston County Emergency Management to improve access to the resources needed for community members to shelter in place or to adequately reach temporary shelter.	TFD WRS	Start: 2026
CL-10.10	Increase language accessibility of emergency services, plans, and resources.	EXD	Start: 2026

Goal CL-11 Preserve, protect, and sustain cultural sites and resources in alignment with the values and needs of Tribes, traditional stewards, and frontline communities.

Tumwater is built on land traditionally stewarded by the Coast Salish people. Their descendants in the Nisqually, Squaxin Island, Chehalis, and Cowlitz Tribes continue to live on and steward the land today but are also unfairly impacted by climate change and excluded from key climate decision-making. Tumwater must elevate the goals, values, and needs of the region's Indigenous communities.

Policies		Lead	Period
CL-11.1	Enhance partnership between the Tribes and Tumwater, integrating Tribal expertise, opinions, and values into climate planning efforts, projects, and programs.	EXD WRS	Start: 2026

Policies		Lead	Period
CL-11.2	In accordance with Tribal treaty rights, protect, enhance, and restore ecosystems and culturally important consumptive and non-consumptive resources including foods, medicinal plants, places, and materials that could be adversely impacted by climate change.	WRS PRD	**Start:** 2026
CL-11.3	Collaborate with the Tribes to prioritize the preservation of archaeological sites and traditional cultural properties that are vulnerable to climate impacts.	WRS CDD PRD	**Start:** 2026

Goal CL-12 With climate, growth, and environmental changes in mind, identify and elevate the protection of key habitats, ecosystem services, and wildlife corridors.

Protecting Tumwater's local ecosystems is key to building both ecological and community resilience to expected climate impacts. Resilient ecosystems will help vital native species to survive and thrive in the coming decades, while also continuing to provide key ecosystem services to Tumwater's human residents.

Policies		Lead	Period
CL-12.1	Manage Tumwater's urban forest in line with the most recent Urban Forestry Management Plan and current climate projections and guidance.	WRS	**Start:** 2026
CL-12.2	Protect, restore, and connect streams, estuaries, wetlands, floodplains, and other land and habitats that are next to rivers and streams (i.e., riparian ecosystems) to increase resiliency to climate change and reduce flood risk.	WRS CDD	**Start:** 2026
CL-12.3	Manage Tumwater's natural resources to protect, restore, and connect native ecosystems and foster habitats that are resilient to climate change.	CDD WRS	**Start:** 2030
CL-12.4	Increase the climate resilience of native fish species and aquatic ecosystems by reducing the impact of threats such as aquatic invasive species, invasive plants, pollutants, and changes in seasonal water flow.	WRS	**Start:** 2026
CL-12.5	Advocate for prioritizing maintenance of habitat integrity and function when working with regulatory agencies to determine allowed activities and uses within protected wetlands and Fish and Wildlife Habitat Conservation Areas.	WRS	**Start:** 2026

Policies	Lead	Period
CL-12.6 Take early action to eliminate or control non-native invasive species, including insects and plants that take advantage of climate change, especially where invasives threaten native species or ecosystem function.	WRS PRD TED	**Start:** 2026

CL-13 Promote land use and development decisions that support compact urban development and Tumwater-wide resilience, including a resilient local economy.

Compact, walkable, and transit-oriented cities are vital to building community resilience. Land use decisions should support this future, while also striving to foster equity in decision-making.

Policies	Lead	Period
CL-13.1 Continue to focus high intensity land uses into centers to support community resilience and provide public services more efficiently.	CDD	**Start:** 2026
CL-13.2 Form a working group to secure Tumwater's economic resilience regarding climate impacts.	EXD WRS	**Start:** 2026
CL-13.3 In coordination with the Conservation Element, protect, restore, and maintain critical areas, non-regulated open space areas, and the floodplain to maximize climate resilience and ecosystem benefits.	WRS	**Start:** 2026
CL-13.4 Identify and implement strategies for reducing development pressure in the wildland-urban interface.	CDD	**Start:** 2027
CL-13.5 Encourage the location of new development in areas where exposure to climate hazards is low and ecological impacts are minimized.	CDD	**Start:** 2026
CL-13.6 Support efforts of local businesses to bolster climate preparedness and continuity of operations.	EXD WRS	**Start:** 2035
CL-13.7 In areas with significant vulnerability to climate hazards, facilitate and support long-term community visioning including consideration of managed retreat.	CDD WRS	**Start:** 2026

Goal CL-14 Strive to create a local transportation system, including infrastructure, routes, and active travel modes, which fosters connectivity and can withstand and recover quickly from climate impacts.

It is important to address the intersection of transportation planning and climate resilience in the Transportation Plan framework for an equitable, accessible, and multimodal future for Tumwater.

Policies	Lead	Period
CL-14.1 Improve street connectivity, transit accessibility, and walkability, including sidewalks and street crossings, to ease emergency evacuation.	TED	Term of the Plan
CL-14.2 Prioritize access to and restoration of water bodies and water-adjacent sites when designing and siting new and expanded transportation infrastructure.	TED WRS	Term of the Plan
CL-14.3 Improve habitat connectivity wherever possible when constructing and redeveloping roadways.	TED WRS	**Start:** 2028
CL-14.4 Facilitate quick recovery of the whole multimodal transportation system after disruption from disasters or extreme weather events.	TED	**Start:** 2028

Goal CL-15 Protect and improve water quality and availability.

Climate change will cause drastic and uncertain impacts to regional watersheds. Tumwater needs to prepare for potential droughts, changes in seasonal water flow, and impacts to aquatic life.

Policies	Lead	Period
CL-15.1 Manage Tumwater's water sustainably, ensuring there is adequate quantity and quality of water available for future generations.	WRS	Term of the Plan
CL-15.2 Improve Tumwater's drought resilience through water reclamation and conservation measures, drought-tolerant landscape design, and advocacy.	WRS CDD	**Start:** 2026
CL-15.3 Develop and implement a comprehensive drought resilience strategy that factors in projected climate impacts and sets action levels for different drought stages.	WRS	**Start:** 2027
CL-15.4 Increase use of green stormwater infrastructure projects that help capture, filter, store, and reuse stormwater runoff.	WRS	**Start:** 2026

Goal CL-16 Expand local food justice to address climate impacts and increase access to nourishing, affordable, culturally appropriate, and climate-friendly foods while expanding local use of composting.

Climate change will have inevitable impacts on access to nourishing and culturally appropriate foods, but Tumwater has an opportunity to secure a sustainable food future. At the same time, Tumwater can address waste reduction goals by shifting food waste into composting waste streams.

Policies	Lead	Period
CL-16.1 Improve local food justice through collaboration, education, and advocacy.	WRS CDD	**Start:** 2026
CL-16.2 Increase composting in urban agriculture and by private residences.	WRS	**Start:** 2026
CL-16.3 Expand consistent access to food for Tumwater community members.	WRS CDD	**Start:** 2026

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Appendix A Draft Implementation Actions

Each of the goals and policies in Chapter 4 will require Tumwater to take specific actions to implement over the course of the 20 year term of the Comprehensive Plan.

The draft implementation actions in the tables below were developed in coordination with the Climate Policy Advisory Team, the community, Tumwater staff, and other agencies. The implementation actions in the tables below are intended to serve as a vetted resource for developing annual Tumwater work programs to address climate change across multiple departments.

As the Comprehensive Plan is put into action over the next twenty years, the draft implementation actions will change as new, unforeseen opportunities emerge: new ones may be added, proposed ones may be modified or replaced by other actions. These draft implementation actions currently represent best available science, best practices and lessons learned from other jurisdictions in North America.

The draft implementations actions below are intended to be draft work program items that serve to implement the goals and policies of the Element. The draft implementation actions will need further refinement before they are incorporated into annual Tumwater work programs.

Draft implementation actions that can only be undertaken by other entities are not included in the Climate Element.

A. How to Read These Tables

The Climate Element goals and policies, and draft implementation actions are not in priority order.

1) Department Leads

Implementation of the Climate Element's policies and draft implementation actions are associated with eight different Tumwater departments:

CAO	City Attorney's Office
CDD	Community Development Department
EXD	Executive Department
PRD	Parks, Recreation, and Facilities Department
TED	Transportation & Engineering Department
TFD	Fire Department
TPD	Police Department
WRS	Water Resources & Sustainability Department

Each of the Climate Element's policies and draft implementation actions include the lead department. In most cases, the work will require multiple Tumwater departments working together.

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2) Period

Each of the Climate Element's policies and draft implementation actions are associated with estimated start dates, length of time to complete, and target completion dates, if appropriate based on adequate funding for staff and resources. Most policies and draft implementation actions are for the term of the Comprehensive Plan.

3) Prioritization

Each of the Climate Element's draft implementation actions have been prioritized by the Climate Policy Advisory Team into the following categories:

High Impact Climate Actions. Drives the greatest amount of emissions reductions and/or reduce casualties due to climate hazards immediatley or in the near term.

Easy Wins. Easier to accomplish, allowing Tumwater community members to feel motivated by real and visible progress.

Futureproofing for Everyone. Helps to untangle potential future conflicts and allow Tumwater to create policies and legislate on the side of climate action.

Equity. Creates a more equitable and just community immediately or in the near-term, addressing issues of economic injustice and making it possible for Tumwater's community members to access basic needs.

Building Longevity. Creates a more equitable, just, and resilient community in the long term but require action now to build that future.

A. Overarching Climate Goals

Goal CL-1 Increase Tumwater's capacity to implement climate action and adaptation priorities.

Policies and Implementation Actions		Lead	Period	Prioritization
CL-1.1	**Support fully staffing Tumwater positions needed to support the actions outlined in the Climate Element.**	WRS EXD	**Start:** 2026	

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Climate Element

Part 1 – Goals, Policies, and Implementation Actions

Policies and Implementation Actions	Lead	Period	Prioritization
CL-1.1.1 Identify future staffing needs to implement the Climate Element and reach state mandated targets.	WRS EXD	**Start:** 2026 Every 2 years for the term of the Plan	
CL-1.1.2 Fill existing vacant positions that will allow implementation of Climate Element actions, and any positions identified in CL-1.1.1.	WRS EXD	**Start:** 2026 Every 2 years for the term of the Plan	
CL-1.1.3 Utilize creative staffing solutions such as AmeriCorps, Climate Corps, Civic Spark, and fellowships.	WRS EXD	**Start:** 2027	
CL-1.2 Develop a program funding strategy to support equitable access to climate mitigation and adaptation programs developed by Tumwater.	WRS EXD	**Start:** 2026	
CL-1.2.1 Identify the cost to implement the Climate Element and determine funding opportunities and needs.	WRS EXD	**Start:** 2026 Every 2 years for the term of the Plan	
CL-1.3 Educate Tumwater staff and the public on the Climate Element's goals, policies, and actions.	WRS	**Start:** 2026	
CL-1.3.1 Develop training materials for Tumwater employees on the Climate Element to provide opportunities for instruction.	WRS	**Start**: 2026 Term of the Plan	
CL-1.3.2 Develop educational outreach materials on the Climate Element for Tumwater community members to learn how they will be impacted by climate change, can be involved in future climate planning efforts, and be empowered to help implement the Climate Element.	WRS	**Start**: 2026 Term of the Plan	

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Goal CL-2 **Advance environmental justice by providing all Tumwater community members with an equitable opportunity to learn about climate impacts, influence policy decisions, and take actions to enhance community resilience.**

Policies and Implementation Actions	Lead	Period	Prioritization
CL-2.1 Work with community based organizations and community organizers to conduct intentional outreach with frontline communities to create opportunities for equitable engagement in climate adaptation, mitigation, and education.	**WRS** EXD	**Start:** 2026 Term of the Plan	
CL-2.1.1 Build and support partnerships with existing community based organizations that have the capacity and existing relationships needed to convene diverse coalitions of community members and collaboratively empower their communities to develop and implement climate resilience and mitigation actions and work to address underlying disparities that impact these communities.	**WRS** EXD	**Start:** 2026 Term of the Plan	
CL-2.1.2 Create and implement tailored outreach and education initiatives that will empower frontline communities to respond to climate change threats.	**WRS**	**Start:** 2026 **Complete:** est. 2 years[7]	
CL-2.1.3 Attend pop-up events with existing community based organizations and hold focus groups, office hours, and other events to build trust in both group settings and one-on-one with Tumwater's frontline community members.	**WRS**	**Start:** 2026 Term of the Plan	

[7] Estimated times required for completing each action are estimates only based on current projected funding, staff capacity, and alignment with broader City goals. Unforeseen circumstances could cause timelines to be extended beyond estimated completion timelines.

Policies and Implementation Actions	Lead	Period	Prioritization
CL-2.1.4 Conduct outreach and listening sessions in frontline communities to understand existing needs and opportunities and to educate on projected climate impacts.	WRS EXD	**Start:** 2026 Term of the Plan	
CL-2.2 Prioritize the people of Tumwater and their needs, values, and goals in all future climate planning efforts by developing and implementing all adaptation and mitigation tasks in collaboration with equitable representation from all Tumwater communities.	WRS	**Start:** 2026 Term of the Plan	
CL-2.2.1 Prioritize recruiting frontline community members most impacted by climate change when forming any Tumwater working group, committee, or task force on climate-related issues. Strive to form all working groups and committees with equitable representation.	WRS	**Start:** 2026 Term of the Plan	
CL-2.2.2 Plan and conduct community engagement activities to co-create all policies and tasks with the community and to share new plan information upon completion and update throughout implementation.	WRS	**Start:** 2026 Term of the Plan	
CL-2.3 Develop programs and resources to promote equitable financial access to climate resilience and mitigation activities.	WRS FIN EXD	**Start:** 2026	
CL-2.3.1 Identify funding sources for subsidies for frontline communities to offset costs associated with climate impacts and mitigation actions, which could include potential cost increases associated with changing to non-fossil-fuel energy sources, increased energy usage to maintain livable indoor temperatures, and home hardening projects.	WRS FIN EXD	**Start:** 2026 **Complete:** est. 1-2 years	

Goal CL-3 **Address that changing weather and climate patterns driven by human-generated emissions will affect every aspect of life in Tumwater, and plan for impacts such as increased heat, wildfire, and flooding while working to reduce local emissions.**

Policies and Implementation Actions	Lead	Period	Prioritization
CL-3.1 Assess Tumwater's vulnerability to climate change.	WRS	**Start:** 2027	
CL-3.1.1 Conduct a comprehensive Vulnerability Assessment that considers climate impacts to communities, physical assets, and Tumwater operations and services, including impacts from extreme heat and flooding.	WRS	**Start:** 2027 **Complete:** est. 1 year	
CL-3.2 Address climate change impacts in all Tumwater planning efforts.	WRS CDD	**Start:** 2027	
CL-3.2.1 Review climate impacts to Tumwater operations and existing facilities and implement plans and changes to operations, buildings, and practices to reduce risk. Utilize planning methods that identify and prioritize multiple potential adaptation pathways into all planning efforts to mitigate the risk of bad investments and account for changes in climate projections.	WRS CDD EXD	**Start:** 2027 **Complete:** Term of the Plan	
CL-3.2.2 Develop a systematic review process to assess Tumwater's plan to build and maintain roads, buildings, utilities, and other facilities for potential climate vulnerabilities to planned facilities, utilities, and infrastructure projects (e.g., the Capital Facilities Plan) and address prior to installation.	WRS TED PRD CDD EXD	**Start:** 2027 **Complete:** Term of the Plan, every 2 years	

B. Greenhouse Gas Reduction Sub-Element Goals

Goal CL-4 **Reduce greenhouse gas emissions from all building types through energy conservation measures prioritizing the deployment of financial resources**

and programs that help finance or subsidize improvements across Tumwater.

Policies and Implementation Actions	Lead	Period	Prioritization
CL-4.1 Reduce energy use across building types.	WRS CDD	**Start:** 2026 Term of the Plan	
CL-4.1.1 Provide educational resources and/or technical assistance to industry professionals and building owners and managers on energy-efficient building design, retrofits, and operations for new and existing buildings.	CDD WRS	**Start:** 2026 Term of the Plan	
CL-4.1.2 Develop data methodology to monitor use and impacts of green building incentives (i.e., encouraging buildings that are environmentally responsible and resource-efficient) and inform recommendations for policy or programs.	CDD WRS	**Start:** 2027 Term of the Plan	
CL-4.1.3 Collaborate with Puget Sound Energy and/or other energy providers to promote and/or deploy energy efficiency programs, local funds, and customer enrollment in clean energy projects and programs.	CDD WRS	**Start:** 2026 Term of the Plan	
CL-4.2 Reduce energy use in existing residential buildings.	WRS CDD	**Start:** 2026 Term of the Plan	
CL-4.2.1 Explore the feasibility of incorporating Home Energy Score disclosures for all types of dwelling units at the time of listing for sale to allow prospective buyers to make informed decisions.	CDD WRS	**Start:** 2026 Term of the Plan	
CL-4.2.2 Explore the feasibility of incorporating Home Energy Score disclosures for all types of rental dwelling units at the time of application to allow prospective tenants to make informed decisions.	CDD WRS	**Start:** 2027 **Complete:** est. 1-5 years	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-4.2.3 Explore the feasibility of incorporating policies that require existing dwelling units to undertake an energy audit during a substantial remodel.[8]	CDD WRS	**Start:** 2029 Term of the Plan	
CL-4.2.4 Explore the feasibility of tenant protections and/or landlord incentives to promote energy-efficiency and energy safety in rental housing. These may include rights to request improvements to energy efficiency based on tenant energy burden and/or property tax breaks for installing energy conservation measures.	CDD EXD FIN WRS	**Start:** 2026 Complete: est. 1-5 years	
CL-4.2.5 Explore the feasibility of requiring baseline levels of energy efficiency as part of building permit review.	CDD	**Start:** 2029 Term of the Plan	
CL-4.2.6 Where funding allows, continue programs like Energize Thurston that help reduce emissions of existing residential buildings.	WRS	Term of the Plan	
CL-4.3 Reduce energy use in existing nonresidential buildings.	WRS CDD	**Start:** 2026 Term of the Plan	
CL-4.3.1 Explore feasibility of requiring disclosure of Clean Building Performance Standard EUI when available for nonresidential buildings at the time of application for tenants and at time of listing for sales so that owners, tenants, and prospective buyers are informed before making purchasing or rental decisions.	CDD WRS	**Start:** 2027 **Complete:** est. 1-5 years	
CL-4.3.2 Continue to install LED lighting in Tumwater buildings and infrastructure as funding becomes available.	TED EXD	Term of the Plan **Complete:** est. 1-2 years	

[8] "Substantially rehabilitate," or remodel, refers to extensive structural repair or extensive modeling of premises that requires a permit such as a building, electrical, plumbing, or mechanical permit, and that results in the displacement of an existing tenant (RCW 59.18.200).

Policies and Implementation Actions	Lead	Period	Prioritization
CL-4.3.3 Create an incentive program for the installation of sustainable roof options like green roofs and cool roofs[9] on nonresidential buildings to reduce energy consumption and the urban heat island effect.	CDD WRS	**Start:** 2027 Term of the Plan	
CL-4.3.4 Explore feasibility of expanding the State Department of Commerce's Clean Building Performance Standards energy efficiency performance standards to include existing nonresidential buildings with gross floor areas smaller than 20,000 square feet.	CDD WRS	**Start:** 2028 Term of the Plan	
CL-4.3.5 Explore feasibility of expanding the Clean Building Performance Standards program to multifamily buildings smaller than 20,000 square feet. This feasibility study must examine potential negative impacts on property owners and tenants.	CDD	**Start:** 2029 **Complete:** est. 1-2 years	
CL-4.4 Reduce energy use in new construction, redevelopment, and deconstruction.	WRS CDD	**Start:** 2027	
CL-4.4.1 Incentivize projects that meet net-zero carbon certification through land use tools such as floor area ratio, density bonus, height bonus, or parking reductions.	CDD	**Start:** 2027 Term of the Plan	
CL-4.4.2 Support CDD staff pursuing green building accreditations and certifications from green building specialists.	CDD	**Start:** 2026 Term of the Plan	
CL-4.4.3 Explore developing guidelines for deconstruction and salvaging materials for reuse.	CDD	**Start:** 2026 **Complete:** est. 5 years	
CL-4.5 Increase energy efficiency in manufactured home parks and recreational vehicle parks/campgrounds.	WRS CDD	**Start:** 2027	

[9] Roofs designed to reflect more sunlight, thus lowering building temperatures.

Policies and Implementation Actions	Lead	Period	Prioritization
CL-4.5.1 Explore creating an incentive program to weatherize and improve air quality in dwellings not covered in other policies.	CDD	**Start:** 2027 **Complete:** est. 2-3 years	
CL-4.6 Convert to alternative fuel sources.	WRS CDD	**Start:** 2026 Term of the Plan	
CL-4.6.1 Educate community members on options for electric appliances and the benefits of pairing electrification with the installation of renewable energy. Create incentives to support fuel switching.	WRS	**Start:** 2026 Term of the Plan	

Goal CL-5 Expand the use of on-site renewable energy technology (e.g., solar photovoltaics, battery storage, etc.) across all building types through providing funds, code changes, and educational programs.

Policies and Implementation Actions	Lead	Period	Prioritization
CL-5.1 Increase the production and storage of local renewable energy.	WRS CDD	**Start:** 2026	
CL-5.1.1 Install solar photovoltaics on all available and feasible municipal sites such as building rooftops, City Hall, police and fire stations, community centers, parking lots, and municipal water pump sites in collaboration with key community partners, like Olympia Community Solar and/or Puget Sound Energy	TED EXD	**Start:** 2026 **Complete:** est. 1-5 years	
CL-5.1.2 Expand current solar-ready requirements to include incentives for non-residential building types and for building with a southern roof orientation.	CDD	**Start:** 2026 **Complete:** est. 1-5 years	

Policies and Implementation Actions		Lead	Period	Prioritization
CL-5.1.3	Pursue public-private partnerships to accelerate clean energy projects.	WRS	**Start:** 2026 **Complete:** Term of the Plan	
CL-5.1.4	Support existing community solar initiatives from Olympia Community Solar and Puget Sound Energy by providing educational resources, promoting programs, and identifying opportunities for Tumwater residents to participate.	WRS	**Start:** 2026 **Complete:** est. 1-5 years	

Goal CL-6 **Reduce greenhouse gas emissions by making it easier for people to use and shift to low- or zero-carbon transportation modes through policy, programming, and regional collaborations.**

Policies and Implementation Actions		Lead	Period	Prioritization
CL-6.1	**Promote increased use of active forms of travel such as bicycling, walking, and other nonmotorized options.**	TED	**Start:** 2026 Term of the Plan	
CL-6.1.1	Coordinate with the bike and pedestrian plans of other cities to work toward a large regional plan to expand walking and bicycling infrastructure, per goals laid out in the Transportation Plan to maximize funding mechanisms and opportunities.	TED WRS	**Start:** 2026 **Complete:** est. 1-5 years	
CL-6.1.2	Prioritize active transportation in coordination with the Transportation Plan by investing in accessible and attractive street-level elements such as seating, shaded sidewalks, ADA ramps, enhanced signals and crossings, and protected bike lanes.	TED CDD	**Start:** 2026 **Complete:** est. 1-5 years	

Policies and Implementation Actions		Lead	Period	Prioritization
CL-6.1.3	Explore developing a rebate program for community members who wish to buy a bicycle or electric bicycle, with priority for low-income residents or households with greater barriers to vehicles.	WRS	**Start:** 2026 **Complete:** est. 1-5 years	
CL-6.1.4	Continue support for Intercity Transit's Walk N Roll program that focuses on a walking and bicycling incentive program with safety education for families, in coordination with Tumwater School District.	TED WRS	Term of the Plan	
CL-6.1.5	Update the Transportation Plan and Capital Facilities Plan to prioritize active transportation. Set goals and plans for shifting to active transportation, like developing car-free corridors in commercial and mixed-use areas to encourage mode shift.	TED	**Start:** 2026 **Complete:** est. 3 years	
CL-6.2	**Increase adoption of electric vehicles.**	WRS	Term of the Plan	
CL-6.2.1	Collaborate with industry experts and environmental organizations to increase consumer awareness about electric vehicle options and incentives for use and purchase.	WRS	**Start:** 2026 **Complete:** est. <1 year	
CL-6.2.2	Explore providing an incentive and/or technical assistance program to support installing electric vehicle charging at existing rental housing.	WRS CDD	**Start:** 2026 **Complete:** est. 1-5 years	
CL-6.2.3	Add free and publicly accessible Level 2 electric vehicle charging at as many Tumwater properties as feasible.	WRS TED EXD	Term of the Plan	
CL-6.2.4	Develop public-private partnerships to install two or more Level 3 chargers at commercial centers	EXD WRS TED	Term of the Plan	

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Policies and Implementation Actions		Lead	Period	Prioritization
CL-6.2.5	Advocate for consumer protections for electric vehicle owners.	EXD	Term of the Plan	
CL-6.3	**Facilitate low-carbon options for movement into and through Tumwater.**	CDD TED	**Start:** 2026 Term of the Plan	
CL-6.3.1	Collaborate with local businesses and industries to explore low-carbon options for deliveries and the movement of goods into, out of, and through Tumwater.	CDD TED	**Start:** 2026 Term of the Plan	
CL-6.3.2	Collaborate with local businesses to identify the people who commute into Tumwater and develop programs to support lower carbon commutes.	CDD TED	**Start:** 2026 Term of the Plan	

Goal CL-7 **Reduce vehicle miles traveled by using permitting, regulatory, and other land use tools to promote multimodal transportation options and the use of public transit.**

Policies and Implementation Actions		Lead	Period	Prioritization
CL-7.1	**Continue land use policies that support increased urban density and efficient transportation networks and reduce urban sprawl.**	CDD	Term of the Plan	
CL-7.1.1	Create a safe, regionally well-connected, and attractive bike and pedestrian network to encourage active transportation both within Tumwater and between neighboring jurisdictions.	CDD TED	Term of the Plan **Complete:** est. 5-10 years	
CL-7.1.2	Increase the number of 15-minute neighborhoods (i.e., walkable environment, destinations that support a range of basic living needs and a residential density), in coordination with goals outlined in the Land Use Element.	CDD	Term of the Plan **Complete:** est. 5 years	
CL-7.2	**Increase efficiency of the transportation system.**	TED	Term of the Plan	

Policies and Implementation Actions		Lead	Period	Prioritization
CL-7.2.1	Develop educational campaigns and programs about benefits of properly inflated tires, including signage at gas stations and local businesses and collaborating with schools.	TED WRS	**Start:** 2026 Complete: est. <1 year	
CL-7.2.2	Work with Intercity Transit to increase local public transit routes or frequency with a focus on providing access to a lower carbon transportation option to the greatest number of riders. Any expansion of service should include an analysis of climate impacts to prevent the program from resulting in an increase in greenhouse gas emissions.	CDD TED	**Start:** 2026 **Complete:** est. 1-5 years	
CL-7.2.3	Work with Intercity Transit to identify and implement programs that help people move to and from transit, reduce greenhouse gas emissions, and use street-level improvements to connect neighborhoods without the population to support fixed routes transit options. Potential programs explored should include an electric vehicle car-share program. Tumwater will engage homeowners' associations for representation and feedback. Expansion of service will include an analysis of climate impacts to prevent the program from resulting in an increase in greenhouse gas emissions.	CDD TED	**Start:** 2026 **Complete:** est. 1-5 years	

Goal CL-8 **Strengthen existing policies and regulations to deploy and enhance natural carbon solutions that are ecosystem-appropriate, store carbon, and offer co-benefits such as pollution reduction, wildlife habitat, and climate resilience.**

Climate Element

Part 1 – Goals, Policies, and Implementation Actions

Policies and Implementation Actions		Lead	Period	Prioritization
CL-8.1	**Preserve tree canopy, native prairie habitat, and support habitat restoration and conservation to sequester carbon.**	**WRS**	Term of the Plan	
CL-8.1.1	Develop and implement a coordinated reforestation and afforestation program guided by the Urban Forestry Management Plan with goals and policies to support stormwater management. Consider how existing or future tree canopy can support stormwater management and water quality improvements in receiving waters. Include goals for maintaining or increasing canopy in frontline communities.	**WRS**	**Start:** 2026 **Complete:** est. 1-5 years	
CL-8.1.2	Develop goals for preserving existing mature tree canopy in alignment with TMC 16.08. Include guidelines and incentives for maintaining larger, more established trees.	**WRS**	**Start:** 2026 **Complete:** est. >1 year	
CL-8.1.3	Support implementation of habitat conservation plans that allow for state required development and provide for preservation and restoration of prairie habitat for endangered and threatened prairie species.	**CDD**	Term of the Plan	
CL-8.1.4	Continue to champion statewide conservation efforts to protect, restore, and manage wetlands and land and habitats that are near rivers and streams and provide watershed management and flood protection (i.e., riparian ecosystems).	**CDD**	Term of the Plan	
CL-8.1.5	Build relationships and capacity among regional partners to foster successful and effective data coordination and program alignment.	**WRS**	Term of the Plan	

Policies and Implementation Actions		Lead	Period	Prioritization
CL-8.1.6	Maximize tree canopy coverage in surface parking lots. Develop an initiative for identifying impervious surfaces across parking lots for potential reforestation, conversion (i.e., de-pave), or pervious surfaces.	WRS CDD	**Start:** 2027 **Complete:** est. 1-5 years	

C. Resilience Sub-Element Goals

Goal CL-9 **Design, plan, and upgrade buildings and energy infrastructure to accommodate renewable energy opportunities, keep the community safe, and withstand and recover from extreme weather and natural hazards worsened by climate change.**

Policies and Implementation Actions		Lead	Period	Prioritization
CL-9.1	**Require that planned facilities, utilities, and infrastructure projects and existing vulnerable sites be built or hardened to avoid or withstand climate impacts, including extreme heat, extreme precipitation, and sea level rise.**	CDD WRS	**Start:** 2028	
CL-9.1.1	Identify potential funding sources to bury existing power lines and associated infrastructure, or to make them more resilient to climate impacts where burial is not feasible.	CDD TED WRS	Term of the Plan	
CL-9.1.2	Implement a phased program to improve the resilience and safety of existing power lines; prioritizing areas identified as higher fire risk in the Vulnerability Assessment.	CDD TED WRS	**Start:** 2028 Term of the Plan as funding becomes available	

Climate Element

Part 1 – Goals, Policies, and Implementation Actions

Policies and Implementation Actions		Lead	Period	Prioritization
CL-9.1.3	Identify potential funding sources to develop and maintain a grant program that will enable affordable housing development projects to bury new power lines and associated infrastructure as required, or to make more resilient to climate impacts where burial is not feasible.	WRS CDD	**Start:** 2028 **Complete:** Term of the Plan	
CL-9.2	**Plan energy infrastructure to be able to integrate with an increase in renewable energy sources, including increasing energy storage capacity to improve energy grid resilience.**	CDD WRS TFD	**Start:** 2026	
CL-9.2.1	Identify public sites to install local microgrid solar and battery storage facilities that will lead to negligible or low impacts on local habitats, infrastructure, and human health.	TED PRD WRS CDD	**Start:** 2027 **Complete:** est. 2-3 years	
CL-9.2.2	Install locally distributed renewable energy generation and battery storage infrastructure at identified key public facilities to enable continuity of operations for a minimum of 24 hours.	TED PRD WRS CDD	**Start:** 2030 **Complete:** est. 5-10 years	
CL-9.3	**Require buildings in high-risk areas[10] to be designed and built to be resilient to natural hazards and extreme weather worsened by climate change.**	CDD WRS	**Start:** 2028	
CL-9.3.1	Develop and enforce fire-resilience standards for new and redeveloped sites in high-risk wildfire areas identified by the State of Washington's Wildland-Urban Interface Map.	CDD	**Start:** 2028 **Complete:** est. 4-5 years	

[10] High risk areas to be identified by Tumwater's Comprehensive Vulnerability Assessment, which should be completed by 2028. Weatherization and hardening building codes should be developed based on identified risks and land use designations of at-risk land parcels.

Policies and Implementation Actions		Lead	Period	Prioritization
CL-9.3.2	Require a hazard assessment and climate risk planning for new and existing buildings in designated high-risk areas, designing for enhanced resilience and mandating building practices that protect inhabitants from climate impacts.	CDD WRS	**Start:** 2028 Term of the Plan	
CL-9.3.3	Help facilitate the subsidization of the cost of hazard risk assessments and climate risk planning for low-income property owners and low-income housing development projects.	CDD WRS FIN	**Start:** 2028 Term of the Plan	
CL-9.4	**Encourage property owners to increase the resilience of existing buildings to natural hazards and extreme weather worsened by climate change.**	CDD WRS	**Start:** 2028	
CL-9.4.1	Develop Climate Resilience Guidelines demonstrating how to design buildings for passive survivability[11] and cooling where necessary, at a minimum providing one common room for residents that provides refuge from heat and power during extended outages for medical necessities. Share this guidance with developers and property owners through outreach activities.	CDD WRS	**Start:** 2031 **Complete:** est. 5 years	
CL-9.4.2	Explore creation of an incentive program for retrofit of existing buildings to meet established Climate Resilience Standards.	CDD WRS	**Start:** 2033 Term of the Plan	

[11] See Part 2: Technical Information for more information on heat projections, passive survivability, and building code.

Policies and Implementation Actions		Lead	Period	Prioritization
CL-9.4.3	Develop and maintain a rebate program for low-income residents who do not qualify for weatherization assistance and refuge cooling through the Community Action Council or whose dwellings are considered vulnerable, such as manufactured homes, to weatherize their homes against extreme weather. Work with Puget Sound Energy on this action where possible.	WRS	**Start:** 2028 **Complete:** Term of the Plan	
CL-9.5	**Work with Puget Sound Energy to improve the safety and reliability of infrastructure vulnerable to climate change.**	WRS CDD	**Start:** 2026	
CL-9.5.1	Collaborate with local energy utilities to explore large-scale energy storage options to use in Tumwater as part of a transition to reliable renewable energy.	WRS CDD TFD	**Start:** 2026 **Complete:** est. 3 years	Puget Sound Energy

Goal CL-10 Increase preparedness for acute climate impacts and improve the resilience of Tumwater's people and systems against climate hazards.

Policies and Implementation Actions		Lead	Period	Prioritization
CL-10.1	**Improve community outreach on and response capabilities for climate health and hazard issues, prioritizing frontline communities to address economic, social, and health disparities.**	WRS EXD	**Start:** 2026	
CL-10.1.1	Collaborate with community based organizations to build a volunteer network to develop and manage a vulnerable population database that includes community members who require aid and/or check-in calls during and after emergencies. This database can be built on the existing Lifeline Program members.	WRS TFD	**Start:** 2026 **Complete:** est. 1 year	

Policies and Implementation Actions		Lead	Period	Prioritization
CL-10.1.2	Transition management of the vulnerable population database to Tumwater and develop a long-term strategy to keep the database up to date and oversee its use during emergencies.	WRS TFD	**Start:** 2028 **Complete:** est. 1-2 years	
CL-10.1.3	Explore developing a Pre-Event Recovery Ordinance using American Planning Association's guidance that will allow Tumwater to facilitate a Local Recovery Management Organization charged with planning for long-term, resilient disaster recovery and coordinating with the Tumwater Disaster Recovery Group and Thurston County Disaster Recovery Team after a disaster to align long-term planning with short-term needs.	CDD EXD CAO TFD	**Start:** 2026 **Complete:** < 1 year	
CL-10.1.4	Explore developing climate-resilient redevelopment guidelines to help guide disaster recovery decisions. Utilize recommendations from FEMA's Pre-Disaster Recovery Planning Guide for Local Governments and the hazard-specific zoning overlays created by CL-13.6.3.	CDD EXD TFD	**Start:** 2031 **Complete:** est. 1-5 years	
CL-10.1.5	Require that all Tumwater employees that would serve a role in emergency operations center activation complete FEMA training courses on disaster recovery and achieve functional expertise in FEMA post-disaster processes.	EXD	Term of the Plan	
CL-10.1.6	Explore developing a neighborhood-scale capacity grant or other assistance program to support neighborhood scale resiliency, disaster preparedness, and/or resilience hubs.	CDD EXD	**Start:** 2026 Term of the Plan	

Climate Element

Part 1 – Goals, Policies, and Implementation Actions

Policies and Implementation Actions	Lead	Period	Prioritization
CL-10.2 Develop resources to mitigate the risks posed by extreme heat in coordination with regional partners.	**WRS TFD**	**Start:** 2026	
CL-10.2.1 Implement the Thurston County Extreme Heat, Emergency Response, and Illness Prevention Plan.	**WRS TFD**	**Start:** 2026	
CL-10.2.2 Preserve and expand tree and shade cover to reach the 2040 goal of 40% recommended in the Urban Forestry Management Plan to reduce urban heat.	**WRS**	**Start:** 2027 **Complete:** est. 10-15 years	
CL-10.2.3 Support the work of community based organizations and regional agencies creating and implementing resilience hubs.	**WRS TFD**	**Start:** 2026 **Complete:** est. 3-5 years	
CL-10.2.4 Explore feasibility of implementing and maintaining a program to distribute portable cooling units and install heat pumps, prioritizing households with residents most vulnerable to extreme temperature events such as renters and low-income seniors. Work with Puget Sound Energy and energy providers on this program wherever possible.	**WRS**	**Start:** 2026 **Complete:** est. 1-2 years	
CL-10.3 Increase regional wildfire resilience, preparedness, and response capabilities in Tumwater.	**WRS TFD**	**Start:** 2026	
CL-10.3.1 Collaborate with regional partners to develop a community wildfire protection plan.	**WRS TFD**	**Start:** 2030 **Complete:** est. 3-5 years	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-10.3.2 Collaborate with emergency managers and fire experts to educate and empower homeowners to make changes to their homes and properties that lower their wildfire risk, encouraging measures that do not decrease canopy cover where possible.	WRS TFD	**Start:** 2030 **Complete:** est. 5-7 years	
CL-10.3.3 Help facilitate grant funding for low-income community members to follow recommended changes to their homes and properties to lower their wildfire risk.	CDD TFD	**Start:** 2030 **Complete:** est. 2 years	
CL-10.4 Collaborate with regional partners to develop resources that address projected increases in risks and impacts associated with climate change.	WRS TFD	**Start:** 2026	
CL-10.4.1 Develop and share guidance for navigating post-disaster mental health and social resources, translated into multiple languages.	WRS TFD EXD	**Start:** 2026 **Complete:** < 2 years	
CL-10.4.2 Develop and implement a regional wildfire and smoke resilience and response strategy.	WRS TFD	**Start:** 2027 **Complete:** est. 5-7 years	
CL-10.4.3 Work with Thurston County to develop a protocol for using the county emergency alert system to issue Tumwater-specific alerts for wildfire risk, smoke exposure, and evacuation information. Create alert messaging that uses plain language to communicate risks and information.	WRS TFD	**Start:** 2027 **Complete:** est. 3-5 years	

Climate Element

Part 1 – Goals, Policies, and Implementation Actions

Policies and Implementation Actions	Lead	Period	Prioritization
CL-10.5 Improve community resilience, health equity, and environmental justice by striving to ensure that all community members can use active transportation to access public green spaces within half a mile and connected by sidewalks or protected walkways.	TED WRS PRD	**Start:** 2027	
CL-10.5.1 Utilize data from the Trust for Public Land and from community outreach efforts to find any gaps in equitable access to public green spaces.	WRS	**Start:** 2026 **Complete:** est. 1-2 years	
CL-10.5.2 Engage community members who lack equitable access to green spaces to determine how they would like to improve their access. Options can include better transportation options, addition of new green space, and improved safety of active transportation routes, among others.	TED WRS PRD	**Start:** 2027 **Complete:** est. 1-5 years	
CL-10.5.3 Finish the Deschutes Valley Trail project, aiming to complete construction by 2040.	TED WRS PRD	**Start:** 2028 **Complete:** est. 10 years	
CL-10.6 Position Tumwater to qualify for more funding opportunities to adapt to climate impacts.	WRS	**Start:** 2028	
CL-10.6.1 Work with academic research institutions to study hazard events of all magnitudes to provide a fuller understanding of the Tumwater's hazard characteristics — including those affected by climate change.	WRS	**Start:** 2028 **Complete:** est. 1-3 years	

Policies and Implementation Actions		Lead	Period	Prioritization
CL-10.6.2	Analyze how well the municipal water system would maintain adequate pressure during a major wildfire event with multiple structures burning. and how it will look under current and projected drought conditions. Generate a report with specific recommendations for increasing the resilience of the water system.	WRS	**Start:** 2028 **Complete:** est. 2-3 years	
CL-10.6.3	Incorporate findings from Tumwater's Comprehensive Vulnerability Assessment into the Tumwater Annex of the Thurston County Hazard Mitigation Plan. Identify specific projects and opportunities that Tumwater can leverage to maximize funding.	CDD	**Start:** 2029 **Complete:** est. 2-3 years	
CL-10.6.4	Develop a specific, phased plan for completing a large-scale tree planting program.	WRS	**Start:** 2027 **Complete:** est. 3-4 years	
CL-10.7	**Work with the Thurston County Public Health Department to increase local understanding of how climate change impacts vector-borne disease outbreaks.**	WRS	**Start:** 2027	
CL-10.7.1	Work with the Thurston County Public Health Department to identify and map areas in Tumwater that are at high risk to become disease vectors, including developed areas with poor drainage and standing water that serves no ecological purpose.	WRS TED	**Start:** 2027 **Complete:** est. 2 years	
CL-10.7.2	Coordinate with the Thurston County Health Department to develop strategies to mitigate projected increases in disease and pest risk.	WRS CDD	**Start:** 2029 **Complete:** est. 3 years	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-10.8 Develop programs that enable and empower community members to protect themselves from poor air quality.	**WRS** **TFD**	**Start:** 2027	
CL-10.8.1 Collect data to determine how many Tumwater community members are vulnerable to poor air quality and the neighborhoods in which these residents live, using both quantitative and qualitative data and from community outreach efforts. Use collected data to set target thresholds for shelter occupancy and locations and air conditioner/heat pump and air filtration distribution programs.	**WRS**	**Start:** 2027 **Complete:** est. 1-2 years	
CL-10.8.2 Develop a program to distribute personal protective equipment to populations vulnerable to poor air quality.	**WRS**	**Start:** 2029 **Complete:** est. 1-2 years **Maintain:** Term of the Plan	
CL-10.8.3 Identify facilities that serve high-risk populations to create incentive programs encouraging infrastructure updates for clean indoor air. Updates should include HVAC system improvements.	**WRS** **TFD** **EXD**	**Start:** 2030 **Complete:** est. 1-5 years	
CL-10.8.4 Enhance and protect the quality of life for non-human residents during poor air quality events. Activities can include educational outreach, protection of wildlife corridors, and the development of emergency prevention and response plans focused on preventing harm to non-human residents.	**WRS** **TFD** **EXD**	**Start:** 2028 Term of the Plan	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-10.9 Work with Thurston County Emergency Management to improve access to the resources needed for community members to shelter in place or to adequately reach temporary shelter.	TFD WRS	**Start:** 2026	
CL-10.9.1 Coordinate with other agencies and jurisdictions to provide more cooling centers with 24-hour capacity. Offer 24-hour capacity for all of Tumwater's heat-vulnerable residents including seniors, low-income, and houseless individuals. Shelter locations should be sited equitably throughout Tumwater, with priority for opening locations near the highest concentrations of heat-vulnerable residents.	WRS TFD	**Start:** 2026 **Complete:** est. 5-10 years	
CL-10.9.2 Coordinate with local businesses, community centers, and other neighborhood hubs to assess the potential of using these spaces as cooling centers. Provide sites that agree to participate in this program with resources detailing how to set up an equitable and functional cooling center.	WRS TFD	**Start:** 2026 **Complete:** est. 5-10 years	
CL-10.9.3 Develop outreach programs or materials to increase awareness and education on individual emergency preparedness (e.g., Two Weeks Ready).	TFD EXD WRS	**Start:** 2026 **Complete:** est. <1 year	
CL-10.10 Increase language accessibility of emergency services, plans, and resources.	EXD	**Start:** 2026	
CL-10.10.1 Utilize on-call contracts for language interpretation and translation services, including American sign language, to translate all emergency resources and plans.	EXD	**Start:** 2026 Term of the Plan upon adoption of relevant plans	

Goal CL-11 **Preserve, protect, and sustain cultural sites and resources in alignment with the values and needs of Tribes, traditional stewards, and frontline communities.**

Policies and Implementation Actions	Lead	Period	Prioritization
CL-11.1 Enhance partnership between the Tribes and Tumwater, integrating Tribal expertise, opinions, and values into climate planning efforts, projects, and programs.	EXD WRS	**Start:** 2026	
CL-11.1.1 In collaboration with the Tribes, develop guidelines and standards for incorporating Traditional Ecological Knowledge into Tumwater programs and planning efforts to adapt to climate change impacts.	WRS	**Start:** 2026 **Complete:** est. 5 years	
CL-11.1.2 Integrate the Tribal Stewards Curriculum or an alternative approved by Tribal representatives into regular Tumwater training schedules.	WRS	**Start:** 2030 **Complete:** est. 5 years	
CL-11.2 In accordance with Tribal treaty rights, protect, enhance, and restore ecosystems and culturally important consumptive and non-consumptive resources including foods, medicinal plants, places, and materials that could be adversely impacted by climate change.	WRS	**Start:** 2026	
CL-11.2.1 Work with local partners, especially representatives of the Tribes, to facilitate a native plant nursery and seed bank to support long-term ecological restoration and foster continued access to culturally significant plants.	WRS	**Start:** 2026 **Complete:** est. 4 years	
CL-11.2.2 In collaboration with the Tribes, identify consumptive and non-consumptive resources that will be adversely impacted by climate change.	WRS	**Start:** 2026 **Complete:** est. 3 years	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-11.2.3 In collaboration with the Tribes, develop and implement a plan to protect, enhance, restore, and/or preserve cultural resources that have been identified as threatened by climate change.	WRS	**Start:** 2028 **Complete:** est. 5 years	
CL-11.2.4 Collaborate with tribes to provide access to foraging opportunities including but not limited to camas, evergreen huckleberry, bog plant species, and cedar.	WRS	**Start:** 2026 Term of the Plan	
CL-11.3 Collaborate with the Tribes to prioritize the preservation of archaeological sites and traditional cultural properties that are vulnerable to climate impacts.	WRS CDD EXD	**Start:** 2026	
CL-11.3.1 Request recommendations from the Tribes for actions Tumwater can take to preserve historic sites and cultural properties.	WRS EXD	**Start:** 2026 **Complete:** est. 3 years	
CL-11.3.2 In collaboration with the Tribes, develop guidelines for protecting, enhancing, and restoring affected historic sites and cultural properties.	WRS	**Start:** 2029 **Complete:** est. 5 years	

Goal CL-12 With climate, growth, and environmental changes in mind, identify and elevate the protection of key habitats, ecosystem services, and wildlife corridors.

Policies and Implementation Actions	Lead	Period	Prioritization
CL-12.1 Manage Tumwater's urban forest in line with the Urban Forestry Management Plan and current climate projections and guidance.	WRS	**Start:** 2026	
CL-12.1.1 Update the Tree Ordinance.	CDD WRS	**Start:** 2026 **Complete:** < 1 year	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-12.1.2 Protect and enhance the climate resilience of urban forests by implementing the Urban Forestry Management Plan. Prioritize implementation of Urban Forestry Management Plan actions that provide benefits for frontline communities.	WRS	Term of the Plan	
CL-12.1.3 Update the Urban Forestry Management Plan every five years, including updated tree species selection and planting guidance, and integrate the most recent available climate data into each new edition of the Plan. Climate guidance consideration should include projections for heat, precipitation, pests, and any other relevant emergent information.	WRS	**Start:** 2027 Reassess every 5 years	
CL-12.1.4 Develop and share guidance with community members that identifies native drought- and pest-resistant trees, shrubs, and grasses. Encourage their use over non-native, non-resilient species in urban forest plantings and in restoration efforts to support climate resilience.	WRS	**Start:** 2027 **Complete:** est. 2 years	
CL-12.1.5 Develop a program to analyze and address the climate impacts and risks of pests and disease on Tumwater's urban forest.	WRS	**Start:** 2027 **Complete:** est. 5-7 years	
CL-12.1.6 Assess tree canopy and forests including parks, greenbelts, and urban forests to identify potential wildfire risk zones and develop strategies to mitigate that risk.	WRS EXD	**Start:** 2038 **Complete:** est. 8 years	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-12.2 Protect, restore, and connect streams, estuaries, wetlands, floodplains, and other land and habitats that are next to rivers and streams (i.e., riparian ecosystems) to increase resiliency to climate change and reduce flood risk.	**WRS CDD**	**Start:** 2026	
CL-12.2.1 Conduct inventory of watersheds throughout Tumwater, including an assessment of overall health and connectivity and the type and degree of restoration or protection needed	**WRS**	**Start:** 2026 **Complete:** est. 3 years	
CL-12.2.2 Protect and restore wetlands and corridors between wetlands to provide biological and hydrological connectivity that fosters resilience to climate impacts.	**WRS CDD**	**Start:** 2029 **Complete:** est. 8 years	
CL-12.2.3 Protect and restore vegetation in habitats that are next to streams and rivers to reduce erosion, provide shade, and support other functions that improve the climate resilience of streams.	**WRS CDD**	**Start:** 2029 **Complete:** est. 8 years	
CL-12.2.4 Collaborate with relevant parties to prioritize where and how beavers can be incorporated strategically to address climate change impacts on water quality, streamflow volume, and habitats surrounding rivers and streams without causing any adverse impacts to Oregon spotted frog habitat.	**WRS**	Term of the Plan	
CL-12.3 Manage Tumwater's natural resources to protect, restore, and connect native ecosystems and foster habitats that are resilient to climate change.	**CDD WRS**	**Start:** 2030	

Climate Element

Part 1 – Goals, Policies, and Implementation Actions

Policies and Implementation Actions	Lead	Period	Prioritization
CL-12.3.1 Collaborate with other regional partners to inventory potential climate refugia sites in Tumwater that will require protection and to assess existing habitat protections, habitat quality levels, and connectivity.	WRS	**Start:** 2032 **Complete:** est. 5 years	Tribes, Thurston County, TRPC, Climate Refugia Coalition
CL-12.3.2 Develop an Ecosystem Restoration Plan or a Natural Resource Management Plan that incorporates relevant measures from other relevant existing plans. The plans must address existing stressors, consider climate change impacts, emphasize taking a precautionary approach to reduce risk of environmental harm, and guide adaptive management.	WRS	**Start:** 2030 **Complete:** est. 5 years	
CL-12.3.3 Implement the Ecosystem Restoration Plan and/or Natural Resource Management Plan	WRS CDD	**Start:** 2035 **Complete:** est. 2 years	
CL-12.4 Increase the climate resilience of native fish species and aquatic ecosystems by reducing the impact of threats such as aquatic invasive species, invasive plants, pollutants, and changes in seasonal water flow.	WRS	**Start:** 2026	
CL-12.4.1 Conduct a study of existing threats to native fish and aquatic ecosystems to prioritize which threats are addressed.	WRS	**Start:** 2026 Term of the Plan	TRPC
CL-12.4.2 Develop an Aquatic Resilience Strategy that addresses each unique threat identified.	WRS	**Start:** 2027 **Complete:** est. 1 year	
CL-12.4.3 Implement the Aquatic Resilience Strategy.	WRS	**Start:** 2028 **Complete:** est. 5 years	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-12.5 Advocate for prioritizing maintenance of habitat integrity and function when working with regulatory agencies to determine allowed activities and uses within protected wetlands and Fish and Wildlife Habitat Conservation Areas.	WRS	**Start:** 2026	
CL-12.5.1 Identify programs that will have a substantive impact on fish and wildlife habitat.	WRS	**Start:** 2026 Term of the Plan	
CL-12.5.2 Review and amend local policies, rules, and management activities to eliminate potential negative impacts on fish and wildlife habitat and take advantage of opportunities to incorporate positive impacts.	WRS TED PRD CDD	**Start:** 2028 Term of the Plan	
CL-12.6 Take early action to eliminate or control non-native invasive species, including insects and plants that take advantage of climate change, especially where invasives threaten native species or ecosystem function.	WRS EXD TED	**Start:** 2026	
CL-12.6.1 Develop and implement a monitoring plan to assess how invasive species are spreading and impacting local plant communities.	WRS	**Start:** 2026 **Complete:** est. 2 years	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-12.6.2 Collaborate with regional stakeholders and experts to develop an Invasive Insect and Pest Management Plan based on collected data. Utilize an integrated approach that includes a wide variety of strategies, including at a minimum: a. management of established pest infestations; b. widespread use of and restoration of native plants resilient to regional pest threats; c. regular monitoring activities; and d. requirements to include invasive species prevention plans in future projects.	WRS	**Start:** 2028 **Complete:** est. 5 years	

GOAL CL-13 Promote land use and development decisions that support compact urban development and Tumwater-wide resilience, including a resilient local economy.

Policies and Implementation Actions	Lead	Period	Prioritization
CL-13.1 Continue to focus high intensity land uses into centers to support community resilience and provide public services more efficiently.	CDD	**Start:** 2026	
CL-13.2 Form a working group to secure Tumwater's economic resilience regarding climate impacts.	EXD WRS	**Start:** 2026	
CL-13.2.1 Develop partnerships within the local business community in collaboration with existing economic organizations and other stakeholders to set up a working group to analyze climate-driven projected economic impacts on Tumwater.	EXD WRS	**Start:** 2027 **Complete:** est. 2 years	

Climate Element

Part 1 – Goals, Policies, and Implementation Actions

Policies and Implementation Actions	Lead	Period	Prioritization
CL-13.2.2 Provide resources to the local Economic Climate Resilience Working Group to inform the development of a climate resilience component of the Economic Development Plan.	EXD WRS	**Start:** 2029 **Complete:** est. 1-2 years	
CL-13.2.3 Coordinate with partners to incorporate continuity of operations thinking into the Thurston County's Comprehensive Emergency Management Plan.	EXD WRS	**Start:** 2029 **Complete:** est. 4 years	
CL-13.2.4 Form partnerships with workforce development organizations to provide services and resources to Tumwater community members that support workers and local businesses affected by climate change.	EXD WRS	**Start:** 2026 **Complete:** est. 7 years	
CL-13.3 In coordination with the Conservation Element, protect, restore, and maintain critical areas, non-regulated open space areas, and the floodplain to maximize climate resilience and ecosystem benefits.	WRS	**Start:** 2026	
CL-13.3.1 Inventory existing and projected vulnerabilities of critical areas, open spaces, and floodplain-adjacent parcels.	WRS	**Start:** 2026 **Complete:** est. 2 years	
CL-13.3.2 Identify maintenance and restoration actions needed to keep critical areas and open spaces resilient. Prepare a report outlining the recommended actions which should incorporate green stormwater infrastructure that will enhance natural systems into recommended actions.	WRS TED	**Start:** 2028 **Complete:** 3 years	
CL-13.3.3 When new State best available science is issued, update critical areas ordinances.	CDD	Term of the Plan	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-13.3.4 Coordinate with FEMA to update floodplain and flood risk maps for the region based on projected extreme precipitation, increased winter streamflow, and sea-level rise due to climate change.	CDD	**Start:** 2026 **Complete:** est. 6 years	
CL-13.3.5 Review best available science for buffers and setbacks for steep slopes vulnerable to erosion exacerbated by climate change, and explore setting new minimums, if necessary, so that improvements are not required to protect structures during their expected life.	CDD	**Start:** 2028 Reassess every 2 years	
CL-13.4 Identify and implement strategies for reducing development pressure in the wildland-urban interface.	CDD	**Start:** 2027	
CL-13.4.1 Identify areas with high fire risk and explore the feasibility of land use changes to reduce further development in these areas.	CDD	**Start:** 2032 **Complete:** est. 1-3 years	
CL-13.4.2 Develop incentives and regulations to maintain open space buffers to reduce wildfire risk.	WRS CDD	**Start:** 2027 **Complete:** est. 3-5 years	
CL-13.5 Encourage the location of new development in areas where exposure to climate hazards is low and ecological impacts are minimized.	CDD	**Start:** 2026	
CL-13.5.1 Develop design guidelines for climate-resilient multi-use development. Guidelines should require residential development to be designed for passive survivability under future climate projections.	CDD	**Start:** 2030 **Complete:** est. 5 years	
CL-13.5.2 Update the regional Transfer of Development Rights program to meet state-mandated growth requirements while preventing urban sprawl and protecting key ecosystems.	CDD	**Start:** 2028 **Complete:** est. 1-2 years	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-13.5.3 Develop hazard-specific overlay zones to inform the development of Climate Resilience Guidelines (CL-9.4.1) and climate-resilient redevelopment guidelines (CL-10.1.4) to promote climate resilient development.	WRS CDD TED	**Start:** 2028 **Complete:** est. 3 years	
CL-13.5.4 Update development regulations on a regular basis to incorporate best practices for reducing the risk of wildfire, extreme heat, flooding, and other climate-exacerbated hazards.	CDD	**Start:** 2026 Reassess every 5 years	
CL-13.6 Support efforts of local businesses to bolster climate preparedness and continuity of operations.	EXD WRS	**Start:** 2035	
CL-13.6.1 Collaborate with key stakeholders to draft recommendations for new building codes and incentive programs that help installation of on-site renewable energy and battery storage.	EXD	**Start:** 2035 **Complete:** est. 3 years	
CL-13.7 In areas with significant vulnerability to climate hazards, facilitate and support long-term community visioning including consideration of managed retreat.	CDD WRS	**Start:** 2026	
CL-13.7.1 Utilize information from the Comprehensive Vulnerability Assessment to identify areas at high risk from climate impacts that will require substantial adaptation activities or the managed retreat of the entire community.	CDD WRS	**Start:** 2028 **Complete:** est. 7 years	
CL-13.7.2 Conduct regular outreach activities with identified high-risk communities and other key stakeholders to educate them on risks.	CDD WRS	**Start:** 2029 Term of the Plan	
CL-13.7.3 Review adaptation plans for communities in other cities and neighborhoods facing similar risks.	CDD WRS	**Start:** 2026 **Complete:** est. 1 year	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-13.7.4 Develop long term action plans with at-risk communities, with distinct phases for different increasing levels of risk.	CDD WRS	**Start:** 2028 **Complete:** est. 3-5 years	

Goal CL-14 **Strive to create a local transportation system, including infrastructure, routes, and active travel modes, which fosters connectivity and can withstand and recover quickly from climate impacts.**

Policies and Implementation Actions	Lead	Period	Prioritization
CL-14.1 Improve street connectivity, transit accessibility, and walkability, including sidewalks and street crossings, to ease emergency evacuation.	TED	**Start:** 2028	
CL-14.1.1 Assess Tumwater's street network to find gaps in street connectivity and transit access.	TED	**Start:** 2028 **Complete:** est. 5 years	
CL-14.1.2 Redesign streets in alignment with complete streets mandate where possible, eliminating connectivity gaps to facilitate smoother evacuations and create whole communities connected by safe walking routes.	TED	**Start:** 2035 **Complete:** est. >10 years	
CL-14.1.3 Work with Intercity Transit to expand their transit program that provides evacuation aid to community members who do not or cannot drive, utilizing the vulnerable population database (CL-10.1.2).	TFD	**Start:** 2029 **Complete:** est. 8 years	
CL-14.1.4 Assess current transportation network and transit options to identify barriers to accessibility and develop a plan to address gaps for all abilities and accessibility supports.	TED	**Start:** 2026 **Complete:** est. 3-5 years	
CL-14.2 Prioritize access to and restoration of water bodies and water-adjacent sites when designing and siting new and expanded transportation infrastructure.	TED WRS	Term of the Plan	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-14.3 Improve habitat connectivity wherever possible when constructing and redeveloping roadways.	TED WRS	**Start:** 2028	
CL-14.3.1 Integrate habitat connectivity considerations into road construction and redevelopment projects, reviewing plans for opportunities to make roads more permeable for both aquatic and terrestrial species through actions like widening culverts.	TED WRS	**Start:** 2028 Term of the Plan	
CL-14.4 Facilitate quick recovery of the whole multimodal transportation system after disruption from disasters or extreme weather events.	TED	**Start:** 2028	
CL-14.4.1 Develop transportation recovery plans that assess how recovery of one aspect of the transportation system could inhibit recovery of other forms of transportation and strive to avoid such impacts. For example, snow plowing should not restrict access to bike lanes.	TED	**Start:** 2028 **Complete:** est. 5 years	
CL-14.4.2 Prioritize infrastructure needed for the recovery of Intercity Transit in the aftermath of an extreme weather event.	TED	Term of the Plan	

Goal CL-15 Protect and improve water quality and availability.

Policies and Implementation Actions	Lead	Period	Prioritization
CL-15.1 Manage Tumwater's water sustainably, ensuring there is adequate quantity and quality of water available for future generations.	WRS	Term of the Plan	

Climate Element

Part 1 – Goals, Policies, and Implementation Actions

Policies and Implementation Actions	Lead	Period	Prioritization
CL-15.1.1 Develop guidance for Tumwater residents, businesses, and developers on sustainable water management practices. Topics may include smart irrigation, drought tolerant plant selection, etc.	WRS	**Start:** 2026 **Complete:** est. 1-2 years	
CL-15.1.2 Study projected climate hazard impacts on water quality and quantity to develop strategies to protect and preserve water for Tumwater's future.	WRS	Term of the Plan (as new projections are available)	
CL-15.1.3 Evaluate the long-term adequacy of water delivery infrastructure to effectively anticipate and manage changes in hydrological patterns. Changes in hydrological patterns may include increases in flooding frequency or reduction of late-summer water availability associated with climate change.	WRS	**Start:** 2028 **Complete:** est. 3-4 years	
CL-15.1.4 Assess current groundwater reservoirs aquifers for any projected climate impacts, including saltwater intrusion, contamination, and reduced quantities (diminishment of aquifers and reduction of streamflow). If necessary, develop and implement strategies to mitigate impacts.	WRS	**Start:** 2028 **Complete:** est. 4-5 years	
CL-15.2 Improve Tumwater's drought resilience through water reclamation and conservation measures, drought-tolerant landscape design, and advocacy.	WRS CDD	**Start:** 2026	
CL-15.2.1 Expand use of reclaimed water at Tumwater facilities when resources are available and expand municipal reclaimed water systems.	WRS	**Start:** 2026 Reassess every 2 years	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-15.2.2 Promote rain gardens, dormant lawns, and lawn alternatives, as well as native and drought-tolerant landscaping choices. Facilitate an incentive or rebate program for community members who use native and drought-tolerant landscaping options.	WRS	**Start:** 2026 Term of the Plan	
CL-15.2.3 Facilitate a demonstration area for lawn alternatives that highlights native and drought-tolerant landscaping.	WRS EXD	**Start:** 2026 **Complete:** est. 1 year	
CL-15.2.4 Advocate at the Thurston County Health Department and state level agencies for the reuse of greywater on-site in buildings for flushing toilets and irrigation.	WRS	**Start:** 2026 Term of the Plan	
CL-15.2.5 Advocate at state level to prioritize using water resources in alignment with public interests.	WRS	**Start:** 2026 Term of the Plan	
CL-15.3 Develop and implement a comprehensive drought resilience strategy that factors in projected climate impacts and sets action levels for different drought stages.	WRS	**Start:** 2026	
CL-15.3.1 Conduct outreach to understand current water resource needs (i.e., water-reliant livelihoods).	WRS	**Start:** 2026 **Complete:** est. 1 year	
CL-15.3.2 Draft measures to protect access to water availability at a fair rate for low-income residents and residents whose income relies on water.	WRS	**Start:** 2027 **Complete:** est. 2 years	
CL-15.4 Increase use of low-impact development infrastructure projects that help capture, filter, store, and reuse stormwater runoff.	WRS	**Start:** 2026	
CL-15.4.1 Continue to prioritize green stormwater infrastructure projects using Stormwater Utility Funds.	WRS	Term of the Plan	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-15.4.2 For all stormwater project designs, require use of improved stormwater runoff modeling that uses future rainfall projections.	WRS	Term of the Plan	
CL-15.4.3 Share guidance for different types of green stormwater infrastructure best management practices with developers to use in future projects.	WRS	**Start:** 2026 Term of the Plan	

Goal CL-16 Expand local food justice to address climate impacts and increase access to nourishing, affordable, culturally appropriate, and climate-friendly foods while expanding local use of composting.

Policies and Implementation Actions	Lead	Period	Prioritization
CL-16.1 Improve local food justice through collaboration, education, and advocacy.	WRS	**Start:** 2026	
CL-16.1.1 Implement the Food System Plan, updating it periodically as necessary.	CDD WRS	**Start:** 2026 **Complete:** est. 1-2 years	
CL-16.1.2 Identify relevant stakeholders who can further sustainable, climate-adapted, and equitable food distribution in Tumwater.	CDD WRS	**Start:** 2026 **Complete:** est. 1 year	
CL-16.1.3 Explore opportunities for the community to provide and engage in local and sustainable food production and consumption, such as farmers markets and community gardens.	WRS	**Start:** 2026 **Complete:** est. 2-5 years	
CL-16.1.4 Work with urban farms and community gardens to invest in climate-resilient water storage solutions such as natural rainwater collection.	WRS	**Start:** 2027 **Complete:** est. 3 years	
CL-16.1.5 Support state-wide regulations that protect producers and consumers from climate change impacts on the food system.	WRS	Term of the Plan	

Policies and Implementation Actions	Lead	Period	Prioritization
CL-16.1.6 Collaborate with community members to identify culturally important foods and develop strategies to secure access to these, incorporating strategies into an update to the Food System Plan.	WRS	**Start:** 2030 **Complete:** est. 2-3 years	
CL-16.2 Increase composting in urban agriculture and by private residences.	WRS	**Start:** 2026	
CL-16.2.1 Develop outreach materials to promote and educate on composting methods and systems.	WRS	**Start:** 2026 **Complete:** est. 1 year	
CL-16.2.2 Develop an incentive program for residents to install and utilize composting systems.	WRS	**Start:** 2031 **Complete:** 1-2 years	
CL-16.3 Expand consistent access to food for Tumwater community members.	WRS	**Start:** 2026	
CL-16.3.1 Coordinate with the Food Bank to expand access to food assistance services.	WRS	**Start:** 2026 **Complete:** est. 1-3 years	
CL-16.3.2 Conduct community outreach to find gaps and barriers in consistent access to nutritious food.	WRS	**Start:** 2026 **Complete:** est. 1 year	

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Climate Element

Part 2 – Technical Information

City of Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 6, 2025

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Ordinance No. O2025-010

CITY OF TUMWATER

Climate Element

Part 2 – Technical Information

Table of Contents

1. Introduction 7
A. Background 7
B. How to Read this Part of the Element 8
C. Growth Management Act Goals 8
D. Methodology 10
2. Equity & Environmental Justice 13
A. Introduction 13
B. Community Engagement 13
C. Equity Goals 14
D. Frontline Communities 15
E. Evaluating Equity within Strategies 15
3. Greenhouse Gas Reduction 17
A. Introduction 17
B. Greenhouse Gas Emissions 17
C. Measuring & Reducing Emissions 17
D. Greenhouse Gas Emissions Targets 18
E. Municipal Operations Greenhouse Gas Emissions 18
F. Community-Wide Greenhouse Gas Emissions 20
G. Vehicle Miles Traveled & Land Use 22
4. Climate Resilience 23
A. Introduction 23
B. Projected Climate Impacts 24
C. Climate Adaptation Strategies 25
Appendix A Foundational Documents 27
1. Policy Analysis 29
Appendix B Engagement Results 32
1. In-Person Workshop 32
2. Virtual Open House 33
Appendix C Equity-Focused Goals, Policies, & Actions 42

1. Overarching Climate Goals 42
2. Greenhouse Gas Reduction Sub-Element Goals 43
3. Resilience Sub-Element Goals 45

List of Tables

Table CL-1. Equity Criterion Matrix. 16
Table CL-2. Tumwater Climate Projections, Low & High Emissions 24
Table CL-3. Foundational Documents for the Climate Element. 27
Table CL-4. Climate Element Virtual Open House – Equity Question. 34
Table CL-5. Climate Element Virtual Open House – Greenhouse Gas Questions. 35
Table CL-6. Climate Element Virtual Open House – Resilience Mapping: Heat Questions. 38
Table CL-7. Climate Element Virtual Open House – Governance Questions. 39
Table CL-8. Climate Element Virtual Open House – Closing Survey Question. 41

List of Figures

Figure CL-1. The Distinct Goals of Climate Mitigation and Adaptation with Co-Benefits. 9
Figure CL-2. Tumwater 2023 Municipal Greenhouse Gas Emissions Inventory. 19
Figure CL-3. Puget Sound Energy 2022 Power Content Mix. 20
Figure CL-4. Thurston County 2022 Community-Wide Greenhouse Gas Emissions. 21
Figure CL-5. Number of Policies by Sector, Policy Gap Analysis. 30
Figure CL-6. Policies by Focus Area. 31
Figure CL-7. Climate Element Virtual Open House – Equity Map. 33

Acronyms and Abbreviations Used in Document

EV – Electric Vehicle

GHG – Greenhouse Gas

RCW – Revised Code of Washington

TRPC – Thurston County Regional Planning Council

VMT – Vehicle Miles Traveled

Key Terms and Definitions

15-Minute Neighborhood: An urban planning concept referring to neighborhoods in cities in which most daily necessities, services, and amenities, such as work, education, health care, shopping, recreational opportunities, can be reached by a 15-minute walk, bicycle ride, or public transportation trip. These neighborhoods tend to be relatively walkable and support a greater baseline of residential density.

Climate: The "average weather" generally over a period of three decades. Measures of climate include temperature, precipitation, and wind.

Climate Change: Any significant change in the average climate of a region lasting for decades or longer. Can be measured through substantial changes in temperature, precipitation, or wind. Climate change may result from natural factors and from human activities that change the atmosphere's composition and land surface.

Climate Commitment Act – The Climate Commitment Act (Chapter 310, Laws of 2021) caps and reduces greenhouse gas emissions from the State's largest emitting sources and industries, allowing businesses to find the most efficient path to lower carbon emissions. This program works alongside other critical climate laws and policies to help the state achieve its commitment to reducing greenhouse gas emissions by 95 percent by 2050.

The Act also puts environmental justice and equity at the center of climate policy, making sure communities that bear the greatest burdens from air pollution today breathe cleaner, healthier air as the state cuts greenhouse gases. Finally, funds from the auction of emission allowances support new investments in climate-resiliency programs, fund clean transportation, and address health disparities across the state.

Climate Refugia: Areas that continue to resist the impacts of anthropogenic climate change, allowing valued and culturally significant physical, ecological, and socio-cultural resources to continue to survive and even thrive amidst a changing landscape.[1]

Environmental Justice: The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to environmental laws, rules, and policies RCW 70A.02.010(8). Environmental justice includes addressing unfair environmental and health impacts in all laws, rules, and policies by:

- Prioritizing vulnerable populations and overburdened communities;
- The equitable distribution of resources and benefits; and
- Eliminating harm.

Food Justice: Assumes consistent access to nutritious, affordable, and culturally relevant food to be a human right that should be secured and protected.

[1] Morelli, T.L.; Millar, C. 2018. Climate Change Refugia. USDA Forest Service Climate Change Resource Center. https://www.fs.usda.gov/ccrc/topics/climate-change-refugia

Frontline Community[2]: Those communities that experience the effects of climate change "first and worst" while also having significantly lower capacity to adapt and reduced access to resources and political power to respond to those risks. Though not limited to these groups, frontline communities generally include communities of color, Indigenous peoples, and low-income communities. These communities have also not historically had access to decision making processes in Tumwater.

Green Stormwater Infrastructure: Stormwater management systems that mimic natural systems, capturing and absorbing or diverting rainwater where it falls.

Greenhouse Gas: Any gas that absorbs heat in the atmosphere; examples include carbon dioxide, methane, nitrous oxide, ozone, and water vapor.

Managed Retreat: The voluntary movement and transition of communities away from regions that are likely to become unsustainable for life due to climate change impacts. Primarily a tool used in coastal regions to move communities away from sea level rise impacts, but increasingly a tool used in planning for other climate hazards.

Native Species: Any plant, fungus, or animal species native to our area. In the US, this only includes species present in the region prior to the arrival of European settlers.[3]

Overburdened Community[4]: According to RCW 70A.02.010(11), denotes a geographic area where vulnerable populations face combined, multiple environmental harms and health impacts, and includes, but is not limited to, highly impacted communities as defined in RCW 19.405.020.

Passive Survivability: Building to ensure that residences will remain at a safe temperature for occupants if the power goes out and that they will overall require less power to keep at a regulated temperature. It can also entail building single-family residences with one room designed to maintain comfortable temperatures or multifamily residences with a designated common area designed to serve this same function. Building for passive survivability also reduces demand on local energy infrastructure.

Resilience: the ongoing process of anticipating, preparing for, and adapting to changes in climate and minimizing negative impacts to our natural systems, infrastructure, and communities (RCW 70A.65.010).

Sustainability: meeting the needs of the present without compromising the ability of future generations to meet their own needs. Often considered through the "triple bottom line" approach which considers impacts to natural

[2] In the Climate Element the term "frontline community" is preferred as it does not carry the disempowering and othering connotations of the terms "overburdened community" and "vulnerable population." However, the latter terms carry legislative meaning, with precise definitions in State law and policies that direct funding for and engagement with these groups. All three terms will be used throughout the goals, policies, and implementation actions contained in this Element. "Frontline communities" will be the preferred term where the legislative context is not relevant, while "overburdened community" and "vulnerable population" will be used where the precise definitions are key to enacting the policy.

[3] United States Department of Agriculture, n.d. "What is a native plant?" https://www.usda.gov/peoples-garden/gardening-advice/why-native-species-matter.

[4] Refer to Note 1.

environment, community health, and economic vitality.

Vulnerable Populations[5]: According to RCW 70A.02.010(14), includes population groups that are more likely to be at higher risk for poor health outcomes in response to environmental harms, due to: adverse socioeconomic factors, high housing and transportation costs relative to income, limited access to nutritious food and adequate health care, linguistic isolation, and other factors that negatively affect health outcomes and increase vulnerability to the effects of environmental harms; and sensitivity factors, such as low birth weight and higher rates of hospitalization.

Vulnerable populations can include but are not limited to racial or ethnic minorities, low-income populations, populations disproportionately impacted by environmental harm, and populations of workers experiencing environmental harm.

[5] Refer to Note 1.

1. Introduction

A. Background

The Climate Element is part of Tumwater's Comprehensive Plan and was created to meet the state Growth Management Act (Chapter 36.70A RCW) requirements to adapt to and mitigate the effects of a changing climate.

Part 2 of the Climate Element provides the technical analysis to address the requirements of RCW 36.70A.070(9). The Climate Element addresses:

1. **Climate Mitigation.**
   - Building-Scale Emissions Reduction.
   - Transportation and Vehicle Miles Traveled reduction.
   - Carbon Sequestration.
2. **Climate Resilience.**
   - Adaption Strategies across 11 key sectors.
     - Agriculture and Food Systems.
     - Buildings & Energy.
     - Cultural Resources.
     - Economic Development.
     - Ecosystems.
     - Emergency Management.
     - Health & Well-Being.
     - Transportation.
     - Waste Management.
     - Water Resources.
     - Zoning & Development.
3. **Climate Equity.**
   - Embedded throughout the Climate Element.
   - Addressing inequities in climate impacts and access to resources.

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State requirements (RCW 36.70A.070(9)(a)) that the Comprehensive Plan must meet:

- A climate change and resiliency element that is designed to result in reductions in overall greenhouse gas emissions and that must enhance resiliency to and avoid the adverse impacts of climate change, which must include efforts to reduce localized greenhouse gas emissions and avoid creating or worsening localized climate impacts to vulnerable populations and overburdened communities.

The objectives of the Climate Element are found in two sub-elements:

- The **Climate Mitigation Sub-Element** addresses reducing Tumwater's greenhouse gas emissions to achieve net zero by 2050 goals set by the State.
- The **Climate Resilience Sub-Element** focuses on adapting to climate impacts that are already being felt across the

region and aims to address those impacts that cannot be avoided regardless of whether Tumwater reaches its net zero goals.

B. How to Read this Part of the Element

Part 2 of the Climate Element consists of the following chapters.

- **Chapter 2 – Equity & Environmental Justice**: Provides a summary of the equity and environmental justice work completed for preparation of the Climate Element.
- **Chapter 3 – Greenhouse Gas Reduction**: Provides background Tumwater's current greenhouse gas emissions, how they are measured and their sources.
- **Chapter 4 – Climate Resilience**: Provides a discussion of project climate impacts and adaptation strategies that will guide the Climate Element's goals and policies.
- **Appendices**: The appendices include the following:
  - Summary of foundational documents used to prepare the Climate Element.
  - Summary of engagement results.
  - Index of equity-focused actions.

C. Growth Management Act Goals

The Growth Management Act requires that Tumwater demonstrate that each Element in its Comprehensive Plan meets the relevant fifteen planning goals contained within the Act. The fifteen goals in turn guide the development and adoption of Tumwater's Comprehensive Plan and development regulations.

The Climate Element addresses the Growth Management Act goal related to climate:

14. ***Climate change and resiliency***. *Ensure that comprehensive plans, development regulations, and regional policies, plans, and strategies under RCW 36.70A.210 and chapter 47.80 RCW adapt to and mitigate the effects of a changing climate; support reductions in greenhouse gas emissions and per capita vehicle miles traveled; prepare for climate impact scenarios; foster resiliency to climate impacts and natural hazards; protect and enhance environmental, economic, and human health and safety; and advance environmental justice.*

The Climate Element has specific guidelines and policies that delineate what must be covered across the Greenhouse Gas Reduction and Resilience Sub-Elements.

State Department of Commerce requires two separate sub-elements addressing these two focus areas. At times there are actions that appear to be missing but are instead addressed in the other sub-element. Throughout the Climate Element, policies and goals were prioritized where they provided co-benefits with environmental justice and climate equity goals.

Climate Element

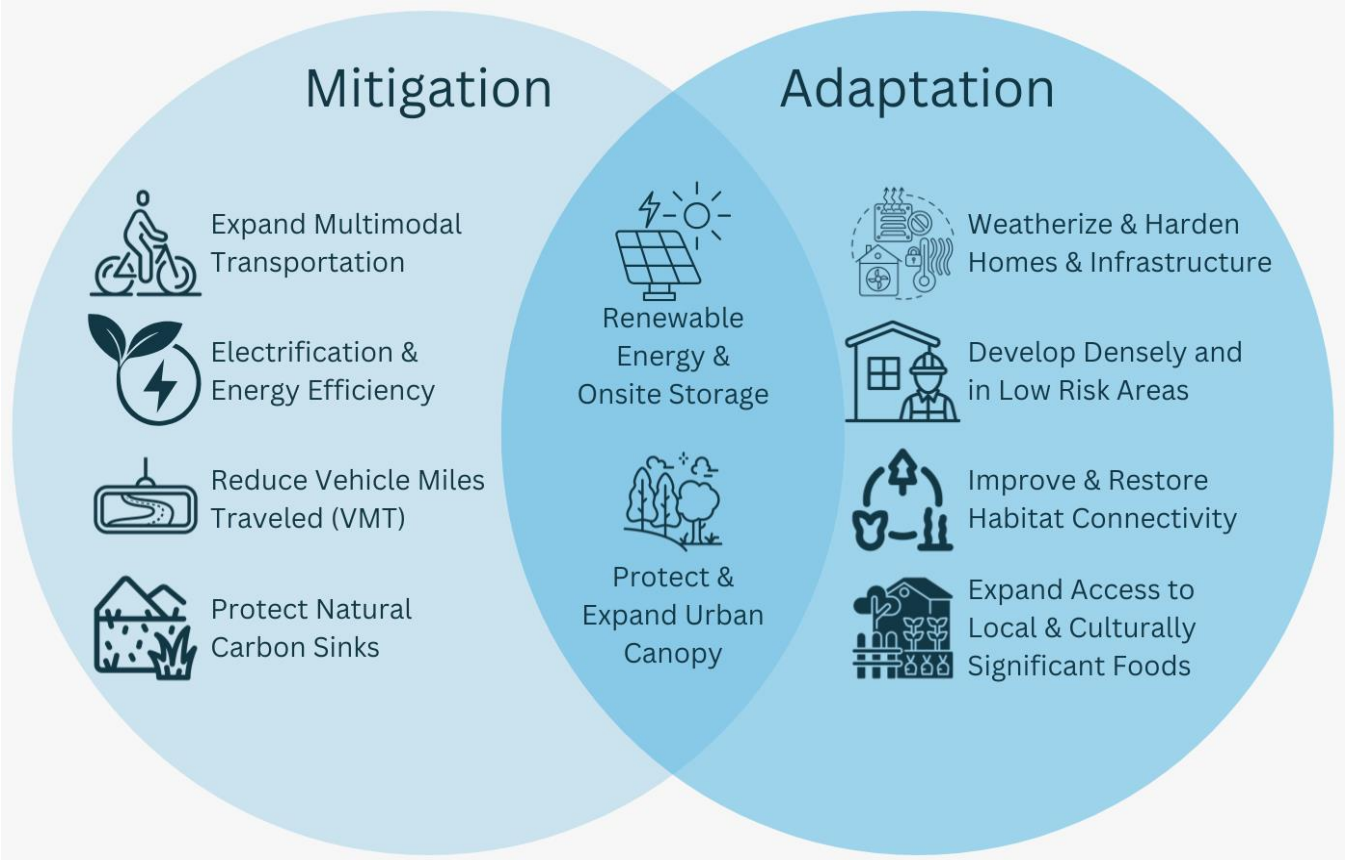
Part 2 – Technical Information

The Climate Element was developed with public input as described in the Public Outreach Plan as required by the Growth Management Act. The Element is also based on the updated list of additional supporting plans, documents, and best available science found in Appendix A.

Tumwater has a long history of pursuing sustainability goals and leading the region on efforts such as working across jurisdictions to advance climate mitigation action. In recent years, however, it has become apparent that some climate impacts cannot be avoided. Therefore, Tumwater must pursue climate resilience or adaptation measures as well to ensure Tumwater residents can survive and thrive while continuing to push for global climate mitigation.

Resilience and mitigation actions are not discrete categories, as shown in Figure CL-1. There are several key areas of overlap across the two, such as renewable energy and onsite storage and protecting and expanding the urban canopy.

Figure CL-1. The Distinct Goals of Climate Mitigation and Adaptation with Co-Benefits.



D. Methodology

The Climate Element was developed through a phased, multilateral process with analytical, public outreach, and regulatory input.

1) Regulatory, Policy, & Planning Drivers

All planning and policy documents for the region that addressed climate mitigation or resilience were gathered and reviewed for relevance to the development of the Climate Element. The documents that were determined to be the most relevant based on recency, policy robustness and focus on climate mitigation or resilience, were reviewed more thoroughly.

Through this review, staff identified what the region and Tumwater have accomplished and what gaps remain. The details of this policy gap analysis, including the documents reviewed and breakdown of policies by sector and focus area can be found in Appendix A.

2) Climate Policy Advisory Team

The State Department of Commerce issued guidance suggesting that Tumwater should create an interdisciplinary group of planners, public works professionals, and community members with a focus on helping to prepare the Climate Element. This interdisciplinary group is the Climate Policy Advisory Team.

The Climate Policy Advisory Team addressed the following:

- Supporting the analysis of climate information.
- Providing recommendations on short- and long-term goals.
- Centering equity in the creation of goals, policies, and draft implementation actions of the Climate Element.
- Representing community voices across the community, particularly overburdened communities.

In creating the Climate Policy Advisory Team, staff invited interested individuals within and outside of Tumwater, aiming to capture a mix of representation including:

- Subject matter experts including academia and research institutions.
- Local businesses.
- Staff from Tumwater and Thurston County.
- Frontline communities.

The resulting 11 member Climate Policy Advisory Team was engaged continuously and substantively throughout the Climate Element Planning process, providing feedback and advice with respect to the following issues and questions:

- Vision and Alignment:
  - What is the short- and long-term vision for the Climate Element?
  - How does Tumwater align its Climate Element with other City and regional climate plans and community feedback and priorities?
- Public Engagement:

- How should Tumwater engage with residents on the issue of climate change?
- Who are the priority groups and individuals to engage?
- What are the appropriate times and venues for engagement?

- Greenhouse Gas Reduction and Resilience Analyses:
  - Do the findings of the emissions inventory and climate vulnerability and risk analyses align with the community's lived experience?
  - How are these analyses used effectively and thoughtfully to inform the goals and policies in the Climate Element?
- Policy Development and Planning:
  - What should be the Climate Element goals and policies?
  - Do the Greenhouse Gas Reduction and Resilience Sub-Elements satisfy and align with findings from staff's analyses and with input from community members?

The Climate Policy Advisory Team provided direct input and completed multiple rounds of review on the goals and policies throughout the development of the Climate Element.

The Climate Policy Advisory Team will continue to advise and advocate as needed as Tumwater moves forward with implementing the Climate Element.

3) Public Engagement

Public outreach and engagement were critical components of the Climate Element planning process. Tumwater presented its Public Engagement Strategy on the Comprehensive Plan Update in July 2023 and developed an addendum to this strategy specific to the Climate Element in June 2024. The addendum detailed Tumwater's approach to engaging community members on the Greenhouse Gas Reduction and Resilience Sub-Elements.

The public engagement strategy for the Climate Element focused on providing community members with equitable and ongoing access to the planning process. This entailed direct engagement with City staff, as well as multiple in-person and virtual opportunities to provide input on the Climate Element.

Tumwater also considered planning fatigue as a limitation since other elements of the Comprehensive Plan Update were being developed at the same time as the Climate Element. Tumwater utilized two key approaches to engagement for all chapters of the Comprehensive plan including the Climate Element:

- Public workshop: An in-person workshop where participants reviewed greenhouse gas reduction and climate resilience analyses, with the intent to learn more about the community's lived experience and vision for the Climate Element.
- Online Story Map: An online platform that provides all relevant analytical and qualitative information pertaining to the Greenhouse Gas Reduction and Resilience Sub-Elements. The Online

Story Map provided ongoing feedback to Tumwater throughout the initial development of the Climate Element.

2. Equity & Environmental Justice

A. Introduction

Tumwater recognizes that climate change, inequity, social justice, and environmental justice are inextricably intertwined. The root causes of climate change and environmental justice are the same systemic outcomes of the exploitative extraction of natural and human resources. Communities across the world, including Tumwater, have suffered from the inequitable distribution of benefits and burdens that are especially relevant to the issue of climate change.

Frontline communities are groups of people that typically experience the impacts of climate change 'first and worst.' They are often made up of marginalized populations, such as Black and Indigenous communities of color and low-income individual and households. Frontline communities are often located in areas that are more exposed to certain climate hazards. They have historically had less political power and fewer resources. For example, they may not have the capacity to respond to these risks due to inflexible work policies or positions, and some employers may not issue paychecks when work is suspended due to a hazard event.

For these reasons, the Climate Element and the Comprehensive Plan more broadly placed the issues of environmental justice and climate equity at the center of planning efforts by establishing goals related to these core problems.[6] Centering equity principles is essential for the development of a Comprehensive Plan that ensures frontline communities are not adversely impacted further by new plans and policies.

B. Community Engagement

Effective community engagement is centered around the following attributes:

- Mutually beneficial.
- Recognizes and values the contributions of all participants.
- Focuses on strengths and successes.
- Ensures that all voices are equally respected in shaping decisions whether based on lived experience or technical knowledge.

Tumwater held an in person public workshop that invited residents to identify priorities and solutions. The workshop was designed to encourage community members who might not always feel welcome or choose to attend public forums to participate.

The workshop was held in the ASHHO Cultural Community Center and advertised extensively by City Staff. Over 60 community members

[6] One of the overarching goals (CL-2) that guides policy in both Greenhouse Gas Reduction and Resilience Sub-Elements focuses exclusively on equity and environmental justice, while both sub-elements contain specific policies and actions that further equity. A full list of equity-focused policies and actions can be found in Appendix C.

attended the workshop. They visited three different stations to learn about and share their lived experience and opinions on greenhouse gas reduction strategies, climate hazards and resilience, and local governance. A full summary is included in Appendix B.

C. Equity Goals

All community members, regardless of their background, have an opportunity to benefit from policies and programs. Equity in this strategy is essential to ensure that all communities can participate in and benefit from policies in a fair and inclusive way.

Tumwater developed a series of goals and policies to address these concerns using targeted universalism, which means that universal goals are set for everyone, but the targeted approaches are tailored to meet the unique needs of different groups. Using this approach ensures that all communities can achieve the same outcomes, even if the methods differ.[7]

This approach integrates various forms of equity, including:

- Procedural equity, which ensures that everyone can participate in decision-making.
- Distributional equity, which ensures that benefits and burdens are shared fairly.
- Structural equity, which addresses historical and systemic inequalities.
- Transgenerational equity, which ensures that decisions made today consider their impact on future generations.

Together, these principles created a more inclusive, fair, and sustainable approach to community engagement and policy development.

The following equity goals were aimed to empower underserved communities, enhance access to resources, and ensure that all voices are represented in decision-making processes. In developing the Climate Element, Tumwater made sure to:

- Develop an accessible, equitable, and engaging Element.
- Meet people where they are and ensure that all engagement efforts are accessible and equitable. This means accommodating anyone with certain health, physical, or working conditions, and it requires that needs around language, mobility, or family care are thoughtfully addressed.
- Focus on reducing inequalities and fostering greater community ownership[8]

[7] In Part 1 of the Climate Element Goals, Policies, and Actions, policies that require community members to meet new, more stringent codes or assessment requirements are supported by draft implementation actions that call for creating subsidy or rebate programs or developing funds to support low-income community members.

[8] All policies and actions that were developed by or with the Climate Policy Advisory Team or originated from a suggestion from the public workshop or virtual open house are flagged as Community-Identified Priorities so that community members can see their input in action.

of the Climate Element which will lead to more equitable outcomes to benefit frontline communities.

- Seek how best to intentionally allocate resources to overcome the cumulative impacts of institutional racism on historically underserved and under-represented people.

D. Frontline Communities

In Tumwater, frontline communities face disproportionate challenges related to housing affordability, environmental stressors, and access to essential resources. Since these challenges are disproportionate, they require targeted interventions to center equity and resilience.

To address these disparities, Tumwater must identify overburdened communities and vulnerable populations within its jurisdiction. Tumwater is making intentional efforts to understand the cumulative threats these communities face.

Tumwater has aligned with the motto, "no data without stories and no stories without data." Data confirmed by lived experience can inform how land use planning and policy adjustments may alleviate these issues in ways that align with community needs.

To get those stories, Tumwater must:

- Prioritize collaboration with impacted communities.
- Build community capacity.
- Foster meaningful relationships with community members and community-based organizations.

This work ensures support is both impactful and aligned with local priorities.

E. Evaluating Equity within Strategies

When communities can actively participate in decision-making, policies are more likely to reflect local realities and provide meaningful, sustainable impacts.

Collaborative governance empowers Tumwater communities, which are most affected by social and environmental challenges, fostering self-determination and reducing systemic inequities. Targeted benefits emphasize the right to healthy environments. This approach also explicitly prioritizes support for those experiencing the highest cumulative risks.

Each proposed Climate Element policy and draft implementation action was assessed in accordance with the Intermediate Planning Guidance's Equity Criterion Matrix in Table CL-1, which helped determine if the policy or draft implementation action was equitable. The matrix provides questions for co-governance, targeted benefits, just responsibility, and wealth building considerations and sub-considerations

to assess for each Climate Element policy and draft implementation action.

Table CL-1. Equity Criterion Matrix.

Co-Governance	
Consideration:	**Sub-considerations:**
Does the measure show potential to build self-determination for frontline communities of color and/or low-income communities?	Are communities' most impacted identifying their needs and solutions? Do they have the ability to meaningfully shape the decisions in implementation?
Targeted Benefits	
Consideration:	**Sub-considerations:**
Is the measure clearly explicit in targeting interventions to communities furthest from achieving a healthy community?	Do the goals and targets recognize healthy environments and communities? Do the strategies prioritize those most at risk from highest cumulative impacts?
Just Responsibility	
Consideration:	**Sub-considerations:**
Does the measure show potential to directly limit harm and hold those causing harm responsible? Does it prioritize effectiveness?	Is the solution directly stopping the problem? Is it making anything worse? Are those causing the greatest harm held most accountable?
Wealth Building	
Consideration:	**Sub-considerations:**
Does the measure show potential to invest in and sustain local livelihoods, starting with communities with the greatest barriers to meeting their needs?	Are we supporting production by local communities for local communities, based on a principle of using local resources and living wage labor?

Source: Washington State Department of Commerce.

Using this system of continuous engagement and evaluation of equity criteria throughout development of the Climate Element, 24 percent of the policies and 27 percent of the actions in the Element directly address issues of equity. Additionally, 10 of the Element's 16 goals contain equity considerations.

Frequent and multifaceted public engagement also led to Climate Element developing 19 percent of the policies and 18 percent of the actions directly out of requests, input, and ideas generated through the public workshop, virtual open house, and Climate Policy Advisory Team meetings.

3. Greenhouse Gas Reduction

A. Introduction

Following the requirements of RCW 36.70A.070, Tumwater prepared a sub-element on greenhouse gas emissions reduction as part of Climate Element. The Greenhouse Gas Reduction Sub-Element **dictates Tumwater's approach to eliminating greenhouse gas emissions towards achieving net-zero emissions by 2050**, with interim targets for municipal and community-wide emissions**.**

B. Greenhouse Gas Emissions

Greenhouse gases refer to specific gaseous compounds that trap heat from the sun after it radiates from the Earth's surface. Greenhouse gases include, but are not limited to, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O).

Some greenhouse gases are naturally occurring, or 'biogenic,' whereas others are produced by human activity, or are 'anthropogenic.' Greenhouse gases are essential to life on earth: they prevent heat from escaping Earth's atmosphere.

However, increased anthropogenic emissions from burning fossil fuels and land use changes like deforestation have rapidly and significantly increased the concentration of greenhouse gas in the Earth's atmosphere. This increased volume has resulted in a global warming effect that is shifting climate and weather patterns across the world.

This phenomenon has far-reaching impacts on communities, infrastructure, ecosystems, and wildlife as is discussed in Chapter 4 Climate Resilience. As a result, it is critical that Tumwater take action to reduce anthropogenic greenhouse gas emissions, and to do so as quickly as possible.

C. Measuring & Reducing Emissions

Tumwater developed a series of goals and policies to reduce greenhouse gas emissions across the City. These were informed by municipal and community-wide greenhouse gas emissions inventories, providing an accounting of Tumwater's largest sources of greenhouse gas emissions.[9] Tumwater drew upon these emissions inventories to help determine the specific goals and policies for the Greenhouse Gas Reduction Sub-Element. These goals and policies align with feedback from community members, the Thurston County Climate Mitigation Plan, and statewide regulations and climate goals.

[9] Greenhouse gas emissions are measured in metric tons of carbon dioxide equivalent ($MTCO_2e$).

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D. Greenhouse Gas Emissions Targets

The Greenhouse Gas Reduction Sub-Element dictates Tumwater's approach to eliminating greenhouse gas emissions towards achieving net-zero emissions by 2045. Tumwater has identified specific interim targets for municipal emissions (i.e., emissions from City-owned assets, operations, and services) and community-wide emissions (i.e., emissions from various sectors across Tumwater, including, but not limited to, residential, commercial, and transportation sectors).

1) Municipal Emissions Goals

Based on its current municipal emissions, Tumwater is **establishing an interim target of reducing emissions by 50 percent from 2023 levels by 2030 on its way to net-zero emissions by 2045.** These municipal emissions milestones keep Tumwater ahead of statewide emissions reduction goals through both 2030 and 2045.

2) Community-Wide Emissions Goals

Based on its current community-wide emissions, Tumwater is establishing an interim target of reducing emissions by 45 percent from 2022 levels by 2030, and 70 percent by 2040 on its way to net-zero emissions by 2045. These milestones align with statewide emissions goals through 2040, while exceeding the State's requirements by 2045.

E. Municipal Operations Greenhouse Gas Emissions

For the Climate Element, Tumwater utilized a municipal inventory of its greenhouse gas emissions from calendar year 2023. Following the State Department of Commerce's Intermediate Guidance on greenhouse gas Emissions-Reduction Pathways, Tumwater exercised Pathway 3 – Create greenhouse gas Emissions Inventory, coordinating with an external expert to prepare a comprehensive municipal emissions inventory for 2023.

In that year, Tumwater's municipal emissions totaled 3,821 $MTCO_2e$, with the leading sources of emissions including electricity used to provide water and wastewater services to residents (47 percent), gasoline, diesel, and electricity used to power city vehicles and equipment (19 percent), and electricity and natural gas used to power municipal buildings and facilities.

Figure CL-2 shows Tumwater's 2023 Municipal Greenhouse Gas Emissions Inventory.

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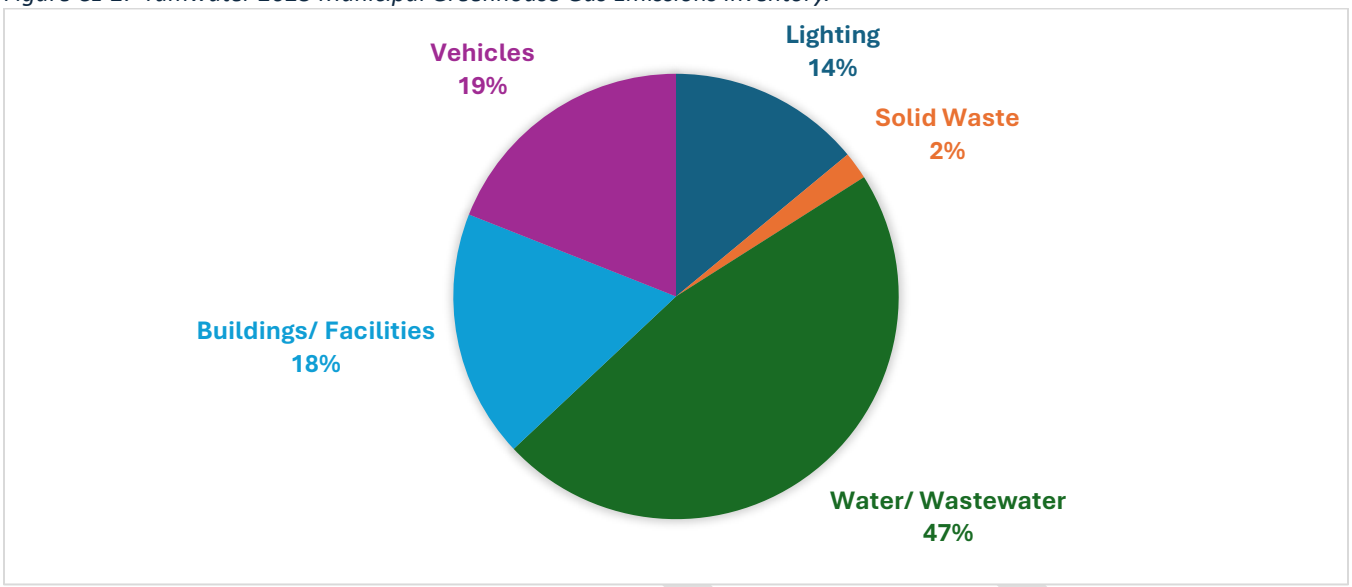
Figure CL-2. Tumwater 2023 Municipal Greenhouse Gas Emissions Inventory.



1) Water & Wastewater Services

Water and wastewater services are critical operations for Tumwater and its residents. The emissions from these operations are 47 percent of Tumwater's municipal emissions. The emissions from electricity used to provide water and wastewater services to Tumwater largely stem from water wells and wastewater lift stations. Electricity is used to power pumps in water wells and wastewater lift stations.

2) Fleet Vehicles

Emissions from Tumwater's fleet vehicles make up 19 percent of municipal emissions. Of these emissions, 75.5 percent are attributed to gasoline fuel vehicles, while 24.3 percent are attributed to diesel fuel vehicles. Electric vehicle emissions contribute 0.2 percent of vehicle emissions for the fleet.

Municipal lighting makes up approximately 14 percent of municipal greenhouse gas emissions. Municipal lighting includes traffic signals, streetlights, lights, and other outdoor lighting throughout Tumwater.

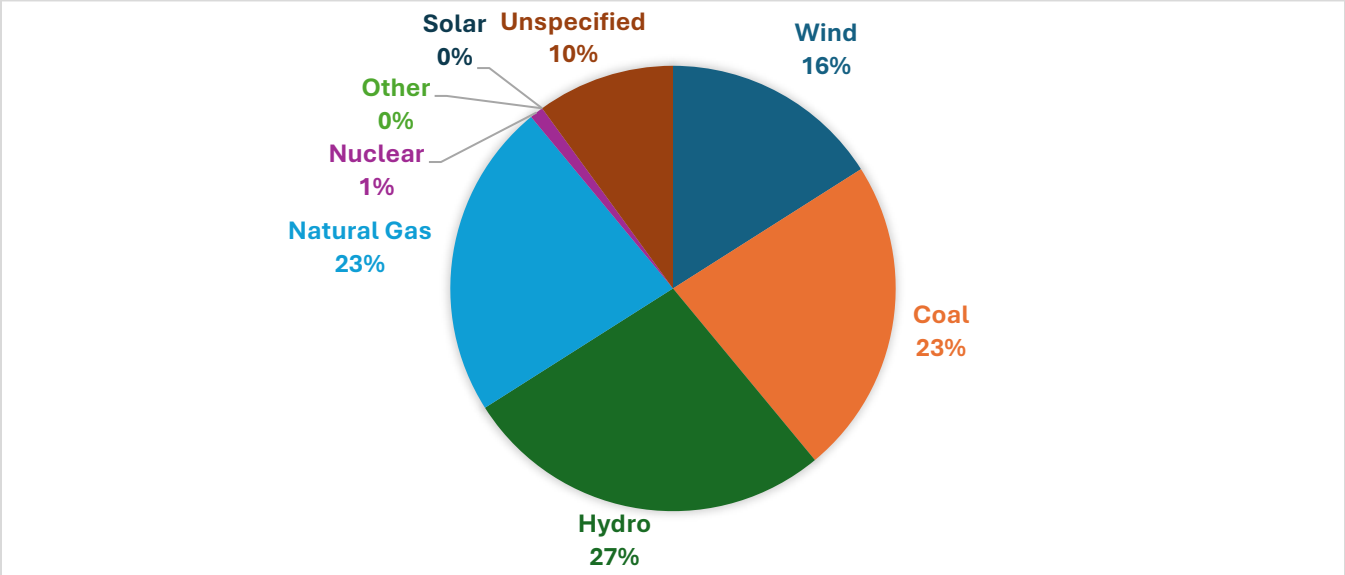
3) Electricity & Power Content

Much of Tumwater's greenhouse gas emissions can be attributed to the electricity used to power its assets. Emissions from this source are directly attributed to the power content of the electricity that Tumwater procures from its utility, Puget Sound Energy. Under the State's Clean Energy Transformation Act, utilities like Puget Sound Energy are required to provide fully clean, renewable energy by 2045

As of 2022, Puget Sound Energy's electric power content included natural gas (23 percent) and coal (23 percent), which explain much of the emissions coming from Tumwater's electricity use. As Puget Sound Energy's power content improves and more clean energy sources are used to power the electric grid, emissions from municipal assets will decline.

Figure CL-3 shows the 2022 Puget Sound Energy Power Content Mix.

Figure CL-3. Puget Sound Energy 2022 Power Content Mix.



Source: Puget Sound Energy, 2023.

F. Community-Wide Greenhouse Gas Emissions

Tumwater did not conduct its own community-wide greenhouse gas emissions inventory. Instead, Tumwater's community-wide emissions were derived from the 2022 Thurston County greenhouse gas emissions inventory.[10]

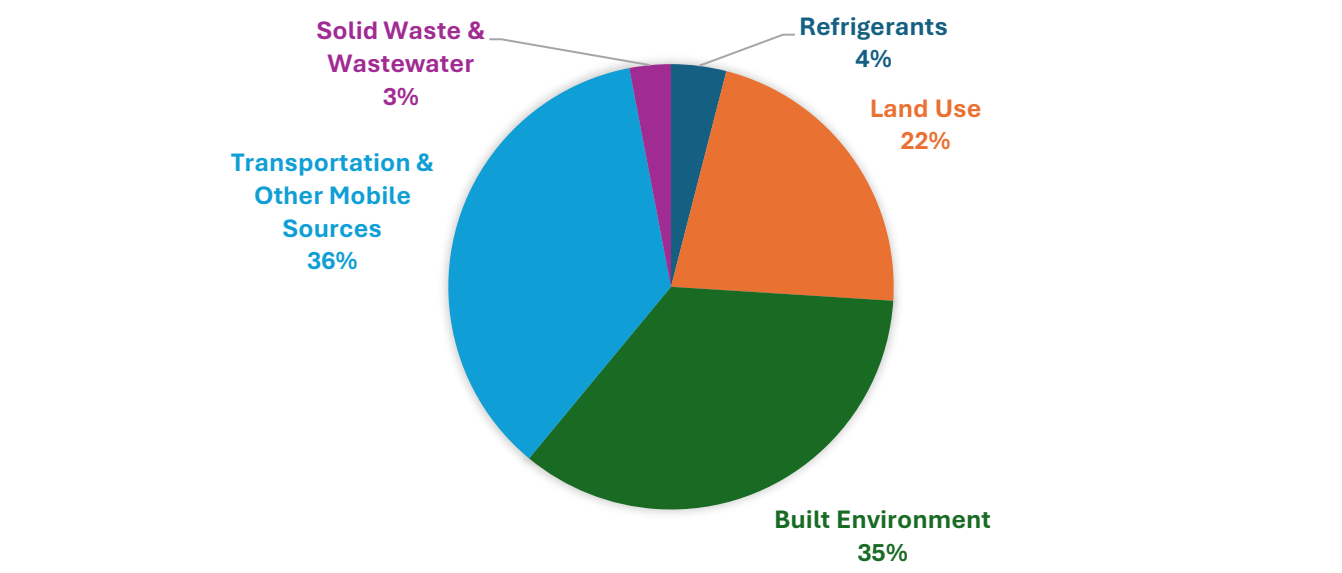
Community emissions include those produced by residential, commercial, industrial, and agricultural and other activities outside municipally owned assets and operations. While this emissions inventory accounts for jurisdictions and land area that falls outside of the jurisdiction of Tumwater, it still provides key insights into emissions across different sectors.

Tumwater exercised Pathway 1 – Conduct greenhouse gas Emissions Estimate – according to the State Department of Commerce's Intermediate Guidance to derive its community-wide emissions from another source.

Thurston County greenhouse gas emissions in 2022 shown in Figure CL-4 amounted to 4,240,135 $MTCO_2e$ (or 14.1 $MTCO_2e$ per capita).

[10] The State Department of Commerce funded the development of greenhouse gas emissions inventories for the State's eleven largest counties, including Thurston County.

Figure CL-4. Thurston County 2022 Community-Wide Greenhouse Gas Emissions.



Source: Thurston County, WA: 2022 Inventory of Community-Wide Greenhouse Gas Emissions.

A majority of countywide greenhouse gas emissions are from the transportation sector (36 percent), which largely comprise emissions from on-road vehicles, such as passenger vehicles, freight, and service vehicles. Other transportation emissions can be attributed to:

- Public transit.
- Off-road equipment.
- Aviation.
- Marine and rail.

The built environment makes up the second largest source of emissions in Thurston County (35 percent), largely stemming from natural gas and electricity to power buildings.

In 2022, Thurston County had approximately 19,518 acres of agricultural cropland. Land use from agricultural activities contributed 22 percent of greenhouse gas emissions countywide, with nearly half of those emissions stemming from methane production at dairy farms. Land use emissions also include emissions from tree cover loss in the Thurston County.

Smaller sources of greenhouse gas emissions countywide include emissions from:

- Solid waste and wastewater (3 percent), which include generation and disposal of solid waste, commercially processed compost, and wastewater treatment.
- Refrigerants (4 percent), which include use and leakage of hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and CO_2 from ozone depleting substances (ODs) that are used to cool buildings and other assets.

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G. Vehicle Miles Traveled & Land Use

Vehicle Miles Traveled (VMT) is a measure of the number of miles traveled by vehicles in a geographic area. In 2023, the Thurston County VMT was 2,404,917,000 total, and 7,927 per capita. Increasing public transit ridership, carpooling, and increasing modes of active transit, such as biking or walking, all reduce VMT, and emissions from transportation.

VMT can also be reduced through land use and urban planning. Urban sprawl increases the number of miles for daily trips such as commuting to work or running errands. Denser city development reduces VMT by reducing the distance of these trips.

Additionally, planning public transit routes, bike lanes, and micro mobility between denser areas of housing and commercial centers contributes to lowering VMT.

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4. Climate Resilience

A. Introduction

Climate adaptation aims to prepare Tumwater for the inevitable impacts of climate change. These impacts are already being felt and can no longer be lessened by climate mitigation activities alone. At the core of climate adaptation is community resilience.

The goal of resilience is that Tumwater not only recovers after a climate-related disaster but bounces back better. Effective resilience requires policies that support a mix of disaster preparedness, response, and recovery activities. Policies should also address systemic underlying issues. Climate adaptation can include:

- Repairing and enhancing existing infrastructure.
- Restoring natural systems which provide a variety of ecosystem services.
- Providing educational resources on individual resilience actions.
- Enacting policies that provide legal protections.

During implementation it is important to continuously engage broadly across the entire Tumwater community to ensure adaptation actions are:

- Equitable.
- Provide benefits for frontline communities.
- Designed to avoid or mitigate unintended negative consequences.

Building resilience effectively requires acting across all 11 sectors:

1. Agriculture and Food Systems,
2. Buildings & Energy.
3. Cultural Resources
4. Economic Development.
5. Ecosystems.
6. Emergency Management.
7. Health & Well-Being
8. Transportation.
9. Waste Management.
10. Water Resources.
11. Zoning & Development.

Tumwater has combined these 11 sectors into eight focus areas:

1. Buildings & Energy.
2. Community Well-Being & Preparedness.
3. Cultural Resources.
4. Ecosystems.
5. Local Economy, Zoning & Development.
6. Transportation.
7. Water Resources.
8. Agriculture, Food Systems, & Waste Management.

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B. Projected Climate Impacts

Tumwater is exposed to many natural hazards, several of which are projected to be exacerbated by climate change in the coming decades.

Although Tumwater has laid out mitigation actions for high-risk hazards through the Thurston County Hazards Mitigation Plan, the mitigation actions laid out in the Hazards Mitigation Plan were not created through a climate lens. Further, traditional hazard mitigation tends to focus on infrastructure upgrades alone, neglecting social, behavioral, and institutional adaptation actions. All of these must be implemented in conjunction with infrastructure to effectively build resilience to climate change impacts.

Table CL-2 shows the expected climate projections for high and low greenhouse gas emissions.

Table CL-2. Tumwater Climate Projections, Low & High Emissions

Climate Projection	By 2100	
	Low emissions scenario	High emissions scenario
Average summer temperature in June-August	↑ 5.4°F increase	↑ 9.5°F increase
Summer maximum temperature	↑ 4.7°F increase	↑ 9.6°F increase
Number of hot days (humidex over 90 degrees)	↑ 29.1 days	↑ 58.2 days
Total annual precipitation	*no data*	↑ 5.1% increase
Intensity of extreme rainfall events (change in the magnitude of 2-year storms)	*no data*	↑ 14% increase
Percent change in the magnitude of 25-year storm	*no data*	↑ 25% increase
Peak streamflow	↑ 15% increase	↑ 14% increase
Return interval of 25-year peak streamflow	↓ 9.6 years	↓ 13.8 years
Likely sea level rise	↑ 2.17 ft. increase	↑ 2.67 ft. increase
Change in high fire danger days	↑ 7 days *(by 2040)*	↑ 10 days *(by 2040)*
Precipitation drought (likelihood of a year with summer precipitation below 75% of historical normal)	*no data*	↑ 38% increase
Total late summer precipitation July-September	*no data*	↓ 22% decrease
Percent change in April 1 snowpack	*no data*	↓ 100% decrease

Source: Climate Impacts Group Climate Mapping for a Resilient Washington Tool.

By 2050, Tumwater is projected to experience hotter temperatures, especially during the

summer months, with higher average temperatures and a greater number of days each year that are considered extremely hot.

Tumwater will also experience more frequent and more intense precipitation events, with no projected change in annual rainfall but less precipitation falling during the summer months. There will also be a reduction in winter snowpack and an earlier start to seasonal snowmelt, resulting in altered streamflow regimes.

Although Tumwater is not projected to experience drastic sea level rise in this period, Tumwater could begin to experience impacts on groundwater water quality due to saltwater intrusion or other climate-related impacts. There will likely also be some more direct flooding impacts due to sea level rise, especially at sites like the Historical Park that are adjacent to the tidally influenced Capitol Lake.

All of these projected impacts will lead to more frequent and more intense disaster events in Tumwater, including:

- More extreme heat waves.
- More frequent and severe urban and riverine flooding.
- A higher likelihood of wildfires and the accompanying risk of smoke.
- A higher likelihood of drought due to high temperatures and lack of summer rain.
- A higher risk of landslide activity due to heavier rainfall, saturating soils and wildfires removing supportive root structures.

Tumwater is also projected to experience an increase in vector-borne illnesses, pollen-related air quality issues, and other public health hazards.

C. Climate Adaptation Strategies

1) Types of Adaptation Strategies

The strategies prepared for the Climate Element include both reactive strategies designed to address the impacts of climate change that are already underway and proactive strategies that work to build long-term resilience.

Adaptation strategies are often classified into four typologies: behavioral changes, infrastructural and technological, institutional, and nature-based solutions.[11] To create a robust adaptation strategy, Tumwater needs to create a portfolio of actions that includes strategies across all of these adaptation types.

Behavioral adaptation includes strategies such as relocating away from hazards, making substantive changes to property to mitigate the risk of fire, heat, and other hazards, and shifting food and consumption practices. Infrastructural and technological solutions encompass any adaptation that involves building or strengthening physical infrastructure such as

[11] Berrang-Ford, L., Siders, A.R., Lesnikowski, A. *et al.* A systematic global stocktake of evidence on human adaptation to climate change. *Nature Climate Change.* **11**, 989–1000 (2021). https://doi.org/10.1038/s41558-021-01170-y

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dams, wastewater systems, and capital assets. Institutional adaptation methods include the creation of policies, programs, incentives, and the like to guide and support adaptation action.

Finally, nature-based solutions focus on integrating the benefits and protections offered by natural systems into protection strategies, for instance using seagrass restoration to stabilize eroding shorelines. Nature-based solutions in particular offer co-benefits with mitigation goals, usually through increased carbon sequestration.

2) Passive Survivability

Some of the adaptation measures suggested for the Climate Element promote the idea of passive survivability. This involves building or upgrading facilities to be able to maintain a safe temperature for building occupants.

There are many complexities to navigate when building for passive survivability. Tumwater must first decide on definitions of survivability, specifically setting the lowest and highest allowable temperatures that a space can reach. To protect building occupants from extreme heat, the building must be well-insulated, provide airflow, and may even need to offer cooling using technology like heat pumps. Renewable energy like solar power that is connected to a battery system is also important to provide continuous power for cooling and heating systems in the event of a power outage.

Codifying requirements for passive survivability presents challenges at Tumwater level and would require advocacy for mandating code updates at the State level. Tumwater could also explore the viability of incentive programs to encourage new construction to incorporate recommended strategies for passive survivability. This is especially important for low-income and multifamily housing where residents typically cannot choose to make upgrades themselves.

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Appendix A Foundational Documents

Table CL-3 identifies the foundational planning documents that form the basis for the Climate Element of the Comprehensive Plan.

Table CL-3. Foundational Documents for the Climate Element.

Plan	Description
Hazards Mitigation Plan for the Thurston Region (2024)	Outlines a multi-jurisdictional strategy to reduce the risks of the most destructive natural hazards such as floods, earthquakes, and wildfires that threaten communities in Thurston County. Includes a Tumwater specific appendix.
Thurston Climate Adaptation Plan (2018)	Climate Resilience Actions for Thurston County and South Puget Sound.
Thurston County Climate Mitigation Plan (2020)	Lays out a road map for continuing regional collaboration on reducing local contributions to climate change and actions that can help to achieve greenhouse gas reduction goals.
Clean Energy Transformation Act (2019)	The Clean Energy Transformation Act aims to transition Washington to a clean energy economy by eliminating coal-fired electricity by 2025, achieving 100 percent carbon-neutral electricity by 2030, and 100 percent carbon-free electricity by 2045.
Tumwater Urban Forestry Management Plan (2021)	Lays out goals and recommendations for sustainably managing Tumwater's urban canopy.
Tumwater Tree Inventory and Maintenance Plan (2024)	Outlines inventoried tree resources (distinct species compositions, age distribution, and condition).
Tumwater Comprehensive Plan – Transportation Plan (2025)	Outlines the transportation goals, policies, and strategies for the community. Aims to improve mobility, safety, and accessibility while promoting sustainable and efficient transportation systems.
Tumwater Comprehensive Plan – Conservation Element (2025)	Outlines natural resource land conservation and critical area protection.

Plan	Description
Tumwater Comprehensive Plan – Land Use Element (2025)	It outlines policies and guidelines for land use planning and development. Aims to promote sustainable growth, protect natural resources, and enhance community livability.
City of Tumwater Shoreline Master Program (2019)	Provides guidance for positive, equitable use and development of shorelines of the state in Tumwater while promoting community well-being, ecological preservation, and compliance with state policy
Tumwater Comprehensive Plan – Lands for Public Purposes Element (2025)	Details the public facilities and services planning for 20 years, including essential public facilities siting and expansion.
City of Tumwater and Thurston County Joint Plan (2021)	Tumwater and Thurston Country last amended the joint plan in 2021, and an update is expected in 2026. The Joint Plan guides future development in the unincorporated portion of Tumwater's urban growth area, ensuring a smooth transition from rural to urban development.
Olympia Climate Action Annual Report (2019)	The goals established a framework for climate-focused decisions, set a foundation for solar and green building community, created city staff culture of climate awareness, green Tumwater's fleet, and facilities, built foundation for climate-friendly infrastructure, and leveraged partnerships.
Puget Sound Energy Green Direct Program	Puget Sound Energy's Green Direct program allows government and commercial customers the ability to purchase 100 percent of their energy from a local, renewable energy resource that is cost-efficient.
Washington Clean Fuel Standard (2023)	The standard will reduce carbon pollution from transportation by decreasing emissions from the production and supply of transportation fuels. It will also provide an increasing range of low-carbon and renewable alternatives to improve air quality and decrease dependency.

1. Policy Analysis

A gap analysis was performed to evaluate the existing policy framework and to identify its strengths and weaknesses. The analysis focused on assessing policies in the areas of environment, economics, and community while also evaluating responses to various risks such as climate change impacts and natural disasters.

The analysis aimed to provide a comprehensive understanding of the current policy landscape, highlighting both effective areas and critical gaps and shortcomings in policies. The overall goal was to develop a more comprehensive and inclusive policy framework that effectively addresses diverse needs and challenges, thereby enhancing community well-being and ensuring long-term sustainability.

An extensive literature review compiled a total of 107 resources to explore climate planning and mitigation strategies. These resources covered a wide range of topics including:

- Forestry and urban green spaces.
- Transportation and air quality.
- equity and community involvement.
- Regulatory and policy frameworks.
- Hazard and risk management.

From this comprehensive collection, a detailed policy analysis focused on key plans to assess their content and relevance. 362 relevant policies were extracted from the 15 plans in Table CL-3.

The detailed policy analysis involved categorizing the reviewed resources into sectors, focus areas, and climate hazards to systematically evaluate their coverage and identify gaps. The categorization was as follows:

Sectors:

- Agriculture & Food Systems.
- Buildings & Energy.
- Cultural Resources & Practices.
- Economic Development.
- Ecosystems.
- Emergency Management.
- Health & Well-Being.
- Transportation.
- Waste Management.
- Water Resources.
- Zoning & Development.

Focus Areas:

- Climate Resilience.
- Climate Mitigation.
- Climate Equity.

Hazards:

- Drought.
- Extreme Heat.
- Flooding, Extreme Precipitation, & Sea Level Rise.
- Wildfire.
- Earthquake.
- Landslide.

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- Snowpack Reduction/Snowstorms.

Conducting a thorough policy analysis was essential to understand the current stance on various policy areas. This detailed inquiry revealed several important findings. Firstly, there is a robust framework of policies addressing ecosystems, zoning, and development as shown in Figure CL-5.

Figure CL-5. Number of Policies by Sector, Policy Gap Analysis.

These existing policies underline a strong commitment to natural resource management and land use governance. However, the analysis has also revealed notable gaps in other areas. Specifically, there is a gap in policies related to cultural resources, practices, and economic

development. This indicates a need for more comprehensive strategies that integrate and support these important aspects of the community.

Moreover, while many policies prioritize climate resilience by aiming to safeguard the environment against the impacts of climate change, there is a noticeable gap in policies that address climate equity as shown in Figure CL-6.

Figure CL-6. Policies by Focus Area.

This gap suggests that, although Tumwater is preparing for climate-related challenges, the policies are not addressing the impacts on diverse communities equally and ensuring that all groups benefit from climate resilience efforts. Additionally, nearly all resilience policies originated from County-level.

Thus, this policy analysis underscores the importance of developing a more balanced and inclusive approach that not only fortifies Tumwater's climate resilience but also promotes equitable outcomes for all stakeholders.

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Appendix B Engagement Results

1. In-Person Workshop

Across all focus groups, participants called for greater collaboration and engagement citywide, as well as a need to identify funding sources and provide financial incentive, safeguards, and subsidies to ensure equitable climate adaptation and mitigation.

a) Greenhouse Gas Reduction Focus Group

Key discussion themes included:

- Multimodal Transportation System Improvements: requested actions ranged from expanding public transit access, enhancing bike accessibility and walkability, reducing car dependence, and increasing Electric Vehicle charging capabilities.
- Sustainable Land Use: participants urged for preservation of green spaces and urban canopies, denser urban development, and elimination of minimum parking requirements.
- Energy: participants suggested measures that would improve energy efficiency in buildings and encourage renewable energy generation and use.

b) Resilience Focus Group

Participants highlighted several key issues they would like to have addressed in Climate Element policies:

- Equity & Environmental Justice: Building resilience in low-income, historically disadvantaged areas that are disproportionately impacted by climate change.
- Climate Hazards: Actions that will address issues like wildfire smoke, power grid interruptions, and drought.
- Sustainable Practices: Managing water resources for Tumwater's future communities through water conservation methods and integrating and expanding use of renewable energy sources.
- Urban and Land Use Planning: Improving connectivity, walkability, and bike infrastructure, implementing strategies to increase shade and mitigate urban heat islands, and managing Tumwater's projected population growth and housing needs sustainably and equitably.
- Wise Resource Management: Reducing reliance on resource-intensive industries and promoting and supporting sustainable businesses.

c) Governance Focus Group

Participants voiced several areas of concern and opportunity regarding City governance:

- Building Public Trust: Participants noted some wariness due to previous perceived failures to address community needs by Tumwater in past efforts, particularly highlighting skepticism of long-term residents.

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- Improving Communication: Finding ways to communicate with diverse age groups and demographics continuously and effectively, including targeted outreach to youth and underrepresented groups
- Clarity and Transparency: Present community members with clear cost-benefit analyses of proposed actions and ensure Climate Element development is transparent and accessible.

2. Virtual Open House

The City hosted a virtual open house, in the format of an ArcGIS StoryMap with all the same information and questions that were presented at the in-person workshop. The virtual open house was open from August 15, 2024, to October 31, 2024. Results are as follows.

a) Equity

Figure CL-72. Climate Element Virtual Open House – Equity Map.

Click on the map to place a pin on areas you are concerned about in terms of pollution, contamination, and/or inequitable benefits (like tree canopy cover).

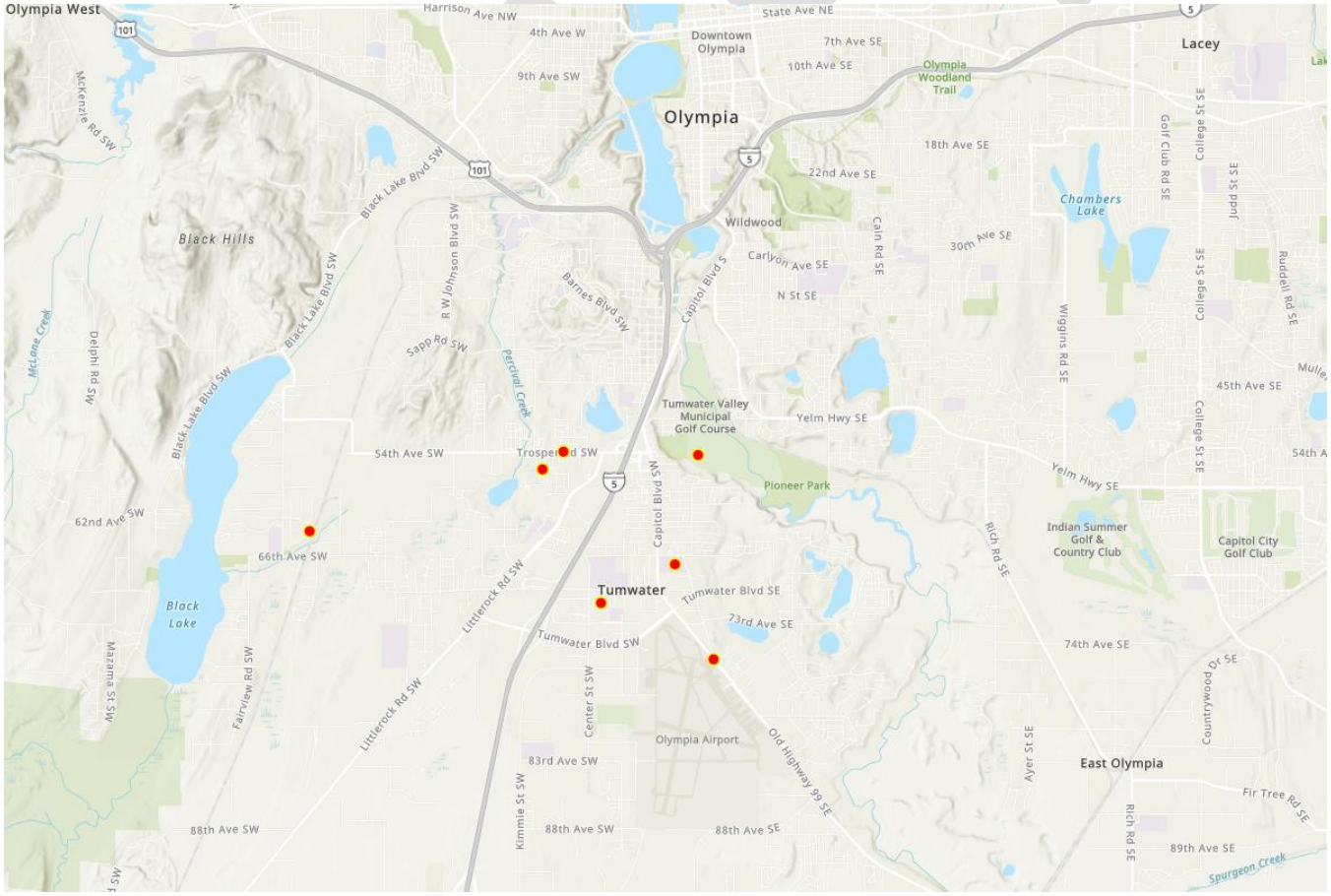

Table CL-4. Climate Element Virtual Open House – Equity Question.

What would you like Tumwater to do to address environmental justice issues and ensure that all residents have equal quality of life both before and after climate disasters?
Create programs and incentives that support resident access to clean energy, such as heat pumps, solar, and EV chargers. Include specific carveouts for low-income and elderly populations.
The ability to walk or roll around our community is a transportation method not dependent on income or on the presence of fuels or electricity. Having a fully accessible, walkable community will be resilient as well.
Sidewalks along Trosper Road and nearby streets are incomplete. Many older residents live in this area and need safe walking routes to get to the commercial area to the east.
Provide safe walking and cycling throughout the city. This is important to reduce emissions and pollution. It is also important so that people can move around if fuel becomes scarce, or some services are not accessible by car. It is also important that people who need to get to transit can walk safely to reach a bus stop. Transit cannot go everywhere, so that means that people need safe walking routes to and from their home and services and destinations.
I believe the City is in need of more cooling & heating centers for community members. This summer was relatively cool but investing in at least one other area in a different part of Tumwater to support heating & cooling for community members would be a great idea. I also really liked an idea I heard at the ASHHO event, which was to find a way to repurpose abandoned parking lots that become heat islands during extreme weather events. If these lots cannot be repurposed right away, maybe trees can be planted in the sidewalk areas that border these lots, to help shade the parking lots somewhat when it's really hot outside. Or maybe we could consider building simple structures that could provide shade over parts of certain heat islands. An empty parking lot on a busy road that had some sort of shade structure with a bench or two underneath it could help a severity of heat coming from that asphalt and also give passerby a place to sit in the shade on hot days.
My concern is putting warehouses near schools. The Tumwater planning dept. should not allow this. Schools need better air quality nearby, not trucks going to and from large Port of OLY. warehouses. My concern is water quality. The Port allowed a Coca Cola plant to lease a parcel in Tumwater. My concern is allowing an industrial plant to bottle our water to be shipped out of state. I do not think we have enough scientific evidence that Tumwater has enough available water for the next 20-25 years to do this. The town of Lacey has water restrictions. This is a big deal. Do we have enough water for the next 40 years of growth? We should not allow industry to take our water!

What would you like Tumwater to do to address environmental justice issues and ensure that all residents have equal quality of life both before and after climate disasters?
Protect the Davis Meeker Garry Oak! The Davis Meeker Garry Oak is sacred to several Coastal Salish Tribes, as well as many Tumwater residents. The Davis Meeker Garry Oak is located on the historic Cowlitz Trail (parts of which became Old Highway 99) and is fairly close to the site of the Bush Family Farm. The City of Tumwater needs to protect the Davis Meeker Garry Oak as one of the only visible reminders of the Cowlitz Trail, and our shared history. The Davis Meeker Garry Oak provides important habitat for birds, as well as sequestration of atmospheric carbon. Too many large trees have been removed in Tumwater already.
There are many mobile home parks in Tumwater. Most of us senior citizens do not have the money to add insulation, although we are exposed to the increase in temperatures more rapidly than most stick-built homes. Help us upgrade the mobile homes we live in. Our rent is being increased annually and on a reduced fixed income leaves little money for improvements.
In a wildfire or incident, how would large numbers be able to exit on the present two- lane roads? Are there enough fire stations, equipment & responders? Would the city be able to expedite building permits to rebuild?

b) Greenhouse Gas

Table CL-5. Climate Element Virtual Open House – Greenhouse Gas Questions.

What is your lived experience with climate change? Does it change seasonally?
I don't really know - I try to rely on data.
I wonder, when it gets hot in the summer, or wet in the winter, whether climate change is showing up, or whether it's just local variation.
I have experienced the heat events but fortunately my health has not been impacted. I also have noted the increase in smoke events.
Summer wildfires are much more frequent in this area compared to when I was a kid growing up here. Summers are hotter.
Our rivers and streams are low. We have less rain. Our thick forests are super dry in the summer. We could have a massive forest fire (my sister went through this in another town, her area was wiped out by fire). We must be aware of how much water we remove from the water table. We must not allow industry into our area that will contribute to lowering the water table.
I purchased a portable a/c for my apartment about 4 years ago to help with the heat. But I am not convinced still that it is related to climate change. I believe the earth goes through cycles like this, it just wasn't tracked 100s of years ago. Tracking temperatures has only been happening for the last 150 years or so.
I am noticing longer hotter and drier summers.

What is your lived experience with climate change? Does it change seasonally?
Aware of increased heat in summer & more snow days in winter. We are less active in summer due to heat and more careful of road conditions in winter. Have been impacted by smoke from fires in other areas.

Have you made any changes to your home or routine due to climate change or its effects?
I haven't made any changes, but I was pleased to buy a home with a heat pump since it gets pretty warm during the summer.
We installed a single split heat pump in the back of our house; replaced our old gas water heater with a new heat pump water heater; went from our plug-in hybrid to a full battery electric; put in a 240 charger; and signed up for Puget Sound Energy's community solar and their time of use rate program. We don't eat red meat anymore (except for occasional bacon and for meat on pizza); We don't fly for vacations.
Went to ductless system from burning wood for heating house. Electric bill has gone up but overall less work/time to heat house.
Yes, we purchased a window-install AC unit. (heat pump) to prepare for heat events. This was the best choice for us since retrofitting our entire home would be expensive. We also have air filters now.
Yes, I've made many changes, but I've also not been able to make all the changes I'd like to because of budget constraints. I drive an EV, I bike to work in the warmer months, I eat a mostly plant-based diet, I've taken my investments out of fossil fuels, and I'm active in local climate groups.
Air conditioning is more necessary for quality of life than it used to be in this area. I try to commute by bike as much as I can to reduce my personal carbon emissions.
We bought 23 solar panels to our house. Our electric bill is lower now. We travel less, so less Greenhouse gas (GHG) emissions.
I try to recycle as much as possible.... but because it is a good thing to do. Not because of climate change.
In the fourteen years I have lived here, I have had to add AC to my home due to summer heat in the last five years. I am sensitive to heat and have to abstain from participating in outdoor activities or un-airconditioned locations on hot days. In my work, I am required to work outdoors but have the flexibility to choose when I can work outdoors. My schedule has had to change due to high heat days.
Have added a portable air conditioner. Have had to adapt a homemade window screen to deter smoke and wear masks outside.

What greenhouse gas mitigation would you like to see improved, enhanced, or created if it doesn't exist now?
Require landlords to implement pollution reduction and safety upgrades on their rental housing. Prevent them from undue increases in rental fees. Prevent new development in tree areas - protect trees from removal.
I would like to talk more about the buildings portion - how can that be reduced?
More community education and outreach about the issues, and opportunities for individual action, available incentives, household planning for gradual electrification. Education and outreach about consumption emissions. Add building recommissioning to the actions in the regional climate plan. EV group purchasing program.
Time limits on car charging stations, some public stations (city parking lot) have cars parked in them all day even though they are fully charged in less than 2 hours. This leaves limited charging space for others to use.
Stop allowing building of homes and services that are not near already established services and transit. We need to grow with density in order to support efficient transit and allow for non-motorized travel. This is an action in the regional Climate Plan. Spreading out beyond existing services is going to increase emissions and miles driven. It also creates inequitable and unaffordable housing which requires ownership of a car. Lowering emissions means we live closer together and drive much less.
Something that improves the lives of poor and working class people. More bike and ped infrastructure in Tumwater - make it not only safe but inviting for people to get out of their cars.
Better community planning that reduce sprawl and car-dependency; improved non-motorized transportation options/infrastructure; increased public transit reliability and awareness; higher cost to GHG-emitting modes.
Do we have enough electric charging stations? I doubt it. We bought an electric vehicle. WE NEED MORE ELECTRIC CHARGING STATIONS!
Any improved mitigation would be appreciated.

Take a look at the committed goals and actions identified in the Thurston County Climate Mitigation Plan. Do you feel there are goals and actions missing? Are the goals and actions identified in the TCMP still what the community wants to commit to?
We continue to float along about the 50 percent of local reductions that the plan says are supposed to come from afforestation. Creating 37,000 acres of new forest seems totally unrealistic. This requirement doubles if we use the estimates for sequestration TRPC adopted in its white paper, even though the ICLEI methodology they said they were using actually recommends using local sequestration estimates when those are available, which is what the plan does. We're also going to get a significantly larger reduction from recent State legislation that the plan estimates). We ought to have a plan that's based on facts and realistic estimates, even if that means we have to recognize that we can't make the reductions we need with our local capacities alone.
I feel like there definitely could have been a goal for increasing the amount of space available for walking and biking. I feel like we should invest more money into improving areas of town to be more walkable and bikeable. Improve spaces to be used by modes of transportation that don't burn fossil fuels. I also don't see anything mentioned about improving the structures of our buildings to waste less energy.
Yes - please continue to commit to the TCMP! And take the actions in the Plan. There are plenty of actions to take. Don't think that doing a handful is enough. We need to do almost all of the actions in order to save our planet.
Regulating large polluters in whatever ways the City can
YES, we want to commit to lowering our GHG emissions. Do we have enough electric vehicle charging stations in Tumwater? NO! We have an electric car. We need more charging stations.

c) Resilience Mapping: Flooding

No responses.

d) Resilience Mapping: Heat

Table CL-6. Climate Element Virtual Open House – Resilience Mapping: Heat Questions.

What has been your experience with extreme heat in Tumwater?
Living here during heat waves and/or heat domes. Many housing units don't have air conditioning, especially rentals.

What has been your experience with extreme heat in Tumwater?
During the June 2021 heat wave I experienced heavy sweating, heart racing and flushing. It felt like my brain was in a fog and I felt weak and fatigued. I recognized these symptoms as the symptoms of heat exhaustion and went to the mall to escape the heat for a while. We did not have air conditioning in our home, and as there was almost no wind, opening the windows couldn't help. Our house got hotter than it was outside. I am 71 years old, so such heat is especially dangerous for my health. After this heat wave we contracted to install a heat pump in our house. This has made our life much more comfortable in the last few years, and when the next heat wave comes, we will be protected. I was very concerned for my neighbor who lives alone and is much older and quite frail and does not have air conditioning. I have told him that we will check on him in future heat wave, and he can shelter with us. I worry about the health of so many other people who are similarly at risk.

Have you had access to all of the resources you needed during an extreme heat event? Is there anything you would like to have available to you in the future?
Portable a/c units or heat pumps that I could rent or borrow during heat events
We did not have any air conditioning for the June 2021 heat wave and suffered for not having what we now consider essential with our changing climate. We have lived in Thurston County for 36 years and never had air conditioning until we installed our heat pump after this heat event. Many of our friends are in the same position. We need a robust program to help our residents have a safe home. I would not want to go to a cooling shelter, and Tumwater's shelter is only available during the daytime and would be very crowded. People need to be able to protect themselves at home.

e) Governance

Table CL-7. Climate Element Virtual Open House – Governance Questions.

What does a resilient Tumwater look like to you?
Great looking plan.
People can walk and cycle safely without needing to own a car. Homes and services are located so that people can access services and schools without driving. There are no homes or businesses in the areas where flooding will happen. A transit system is in place along major corridors. That transit provides access to other communities and helps move people along Tumwater corridors.
Improved transit and non-motorized connectivity; emphasis on density and mixed-use zoning; protection and restoration of our precious natural resources; restoration of derelict properties
A resilient Tumwater would protect the basic needs of the community, including clean water; available housing with limited restrictions for homeowners who want to add ADUs to assist in that effort; encouragement of business growth; and clean and repaired streets.

What do you hope will be true about Tumwater in the future?
I would like to see all the warehouse roofs covered with solar panels. I recommend that there be a requirement for all new warehouse construction, otherwise, that is just wasted real estate, missing the opportunity for developing the backbone of a distributive electric grid. Better to do it there than on agricultural land or forested land. More stringent building codes for renewable electrification across the board. ... EV-ready, etc.
People have their basic needs met and they are happy to live in Tumwater. There are electric vehicles on our streets, but there is not congestion and people who walk and cycle can do so safely.
Improved transit and non-motorized transportation; significant decrease in per capita vehicle miles traveled; higher density housing and mixed-use zoning.
That it will be a city that is proud of its beauty and inclusion.

Are there areas within the city you are most concerned about regarding climate change impacts? If so, what are those areas?
Areas near Deschutes River and creeks... all vulnerable to heavier rainfall amounts as the climate changes.
Not so much areas, but income-levels.

How would you like the city to engage with you around climate change?
Having staff out in the community is good.

What could the City do to improve your trust in it/them?
The City will improve my trust in them by following through to actually take the actions in the Climate Plan. Moving forward with many actions, not just a few. Be open about challenges.

How would you like to see equity addressed in the climate element?
It is not equitable to zone areas for housing or to place low income housing where the people who live there cannot walk or cycle for their needs. Denser areas of housing mean that fire, utilities, mail, deliveries, police, etc. cost less to provide and can respond more efficiently. Schools need to be located amongst the population who will attend the school. And those students should be able to walk to school. This all points to stopping sprawl and developing as a close-knit denser community. That actually is more equitable for everyone.
Reduce future harm

What could the City do to improve your trust in it/them?
No responses

Have you felt distrust or a lack of transparency in any of your interactions with the City?
No responses

Are there current community equity efforts you know about that can be built upon for climate action?
No responses

Are there communities in the city you are particularly concerned about regarding climate change impacts? If so, who are those communities?
Young people who will inherit the world in the condition we leave it.
Poor and working class folks
Tumwater has a significant elderly population who are vulnerable to heat-related illness and many of whom depend on transit or pedestrian routes. Tumwater needs a complete non-motorized network with good tree canopies.

f) Closing Survey

Table CL-8. Climate Element Virtual Open House – Closing Survey Question.

If you have any questions or comments related to the Comprehensive Plan Update and/or Climate Element for City staff, please provide them below.
What is going to happen to the old brewery project when the Deschutes returns to an estuary, tides reach up the river, and sea level continues to rise?
What are you doing to change business as usual to reduce GHG's, increase HOV's reduce water usage, replant forests that are burning up releasing more carbon into the air?

Appendix C Equity-Focused Goals, Policies, & Actions

1. Overarching Climate Goals

Goal CL-2 Advance environmental justice by providing all Tumwater community members with an equitable opportunity to learn about climate impacts, influence policy decisions, and take actions to enhance community resilience.

Policies and Implementation Actions	
CL-2.1	**Work with community based organizations and community organizers to conduct intentional outreach with frontline communities to create opportunities for equitable engagement in climate adaptation, mitigation, and education.**
CL-2.1.1	Build and support partnerships with existing community based organizations that have the capacity and existing relationships needed to convene diverse coalitions of community members and collaboratively empower their communities to develop and implement climate resilience and mitigation actions and work to address underlying disparities that impact these communities.
CL-2.1.2	Create and implement tailored outreach and education initiatives that will empower frontline communities to respond to climate change threats.
CL-2.1.3	Attend pop-up events with existing community based organizations and hold focus groups, office hours, and other events to build trust in both group settings and one-on-one with Tumwater's frontline community members.
CL-2.1.4	Conduct outreach and listening sessions in frontline communities to understand existing needs and opportunities and to educate on projected climate impacts.
CL-2.2	**Prioritize the people of Tumwater and their needs, values, and goals in all future climate planning efforts by developing and implementing all adaptation and mitigation tasks in collaboration with equitable representation from all Tumwater communities.**
CL-2.2.1	Prioritize recruiting frontline community members most impacted by climate change when forming any Tumwater working group, committee, or task force on climate-related issues. Strive to form all working groups and committees with equitable representation.
CL-2.2.2	Plan and conduct community engagement activities to co-create all policies and tasks with the community and to share new plan information upon completion and update throughout implementation.
CL-2.3	**Develop programs and resources to promote equitable financial access to climate resilience and mitigation activities.**
CL-2.3.1	Identify funding sources for subsidies for frontline communities to offset costs associated with climate impacts and mitigation actions, which could include potential cost increases associated with changing to non-fossil-fuel energy sources, increased energy usage to maintain livable indoor temperatures, and home hardening projects.

Goal CL-3 **Address that changing weather and climate patterns driven by human-generated emissions will affect every aspect of life in Tumwater, and plan for impacts such as increased heat, wildfire, and flooding while working to reduce local emissions.**

Policies and Implementation Actions
CL-3.1 Assess Tumwater's vulnerability to climate change.

CL-3.1.1 Conduct a comprehensive Vulnerability Assessment that considers climate impacts to communities, physical assets, and Tumwater operations and services, including impacts from extreme heat and flooding.

2. Greenhouse Gas Reduction Sub-Element Goals

Goal CL-4 **Reduce greenhouse gas emissions from all building types through energy conservation measures prioritizing the deployment of financial resources and programs that help finance or subsidize improvements across Tumwater.**

Policies and Implementation Actions
CL-4.2 Reduce energy use in existing residential buildings.

CL-4.2.2 Explore the feasibility of incorporating Home Energy Score disclosures for all types of rental dwelling units at the time of application to allow prospective tenants to make informed decisions.

CL-4.2.5 Explore the feasibility of requiring baseline levels of energy efficiency as part of building permit review.

Goal CL-5 **Expand the use of on-site renewable energy technology (e.g., solar photovoltaics, battery storage, etc.) across all building types through providing funds, code changes, and educational programs.**

Policies and Implementation Actions
CL-5.1 Increase the production and storage of local renewable energy.

CL-5.1.4 Support existing community solar initiatives from Olympia Community Solar and Puget Sound Energy by providing educational resources, promoting programs, and identifying opportunities for Tumwater residents to participate.

Goal CL-6 Reduce greenhouse gas emissions by making it easier for people to use and shift to low- or zero-carbon transportation modes through policy, programming, and regional collaborations.

Policies and Implementation Actions	
CL-6.1	**Promote increased use of active forms of travel such as bicycling, walking, and other nonmotorized options.**
CL-6.1.2	Prioritize active transportation in coordination with the Transportation Plan by investing in accessible and attractive street-level elements such as seating, shaded sidewalks, ADA ramps, enhanced signals and crossings, and protected bike lanes.
CL-6.1.3	Explore developing a rebate program for community members who wish to buy a bicycle or electric bicycle, with priority for low-income residents or households with greater barriers to vehicles.
CL-6.1.4	Continue support for Intercity Transit's Walk N Roll program that focuses on a walking and bicycling incentive program with safety education for families, in coordination with Tumwater School District.
CL-6.1.5	Update the Transportation Plan and Capital Facilities Plan to prioritize active transportation. Set goals and plans for shifting to active transportation, like developing car-free corridors in commercial and mixed-use areas to encourage mode shift.
CL-6.2	**Increase adoption of electric vehicles.**
CL-6.2.2	Explore providing an incentive and/or technical assistance program to support installing electric vehicle charging at existing rental housing.
CL-6.2.3	Add free and publicly accessible Level 2 electric vehicle charging at as many Tumwater properties as feasible.

Goal CL-7 Reduce vehicle miles traveled by using permitting, regulatory, and other land use tools to promote multimodal transportation options and the use of public transit.

Policies and Implementation Actions	
CL-7.1	**Continue land use policies that support increased urban density and efficient transportation networks and reduce urban sprawl.**
CL-7.1.2	Increase the number of 15-minute neighborhoods (i.e., walkable environment, destinations that support a range of basic living needs and a residential density), in coordination with goals outlined in the Land Use Element.
CL-7.2	**Increase efficiency of the transportation system.**
CL-7.2.3	Work with Intercity Transit to identify and implement programs that help people move to and from transit, reduce greenhouse gas emissions, and use street-level

Policies and Implementation Actions	
	improvements to connect neighborhoods without the population to support fixed routes transit options. Potential programs explored should include an electric vehicle car-share program. Tumwater will engage homeowners' associations for representation and feedback. Expansion of service will include an analysis of climate impacts to prevent the program from resulting in an increase in greenhouse gas emissions.

Goal CL-8 **Strengthen existing policies and regulations to deploy and enhance natural carbon solutions that are ecosystem-appropriate, store carbon, and offer co-benefits such as pollution reduction, wildlife habitat, and climate resilience.**

Policies and Implementation Actions	
CL-8.1	**Preserve tree canopy, native prairie habitat, and support habitat restoration and conservation to sequester carbon.**
CL-8.1.1	Develop and implement a coordinated reforestation and afforestation program guided by the Urban Forestry Management Plan with goals and policies to support stormwater management. Consider how existing or future tree canopy can support stormwater management and water quality improvements in receiving waters. Include goals for maintaining or increasing canopy in frontline communities.

3. Resilience Sub-Element Goals

Goal CL-9 **Design, plan, and upgrade buildings and energy infrastructure to accommodate renewable energy opportunities, keep the community safe, and withstand and recover from extreme weather and natural hazards worsened by climate change.**

Policies and Implementation Actions	
CL-9.1	**Require that planned facilities, utilities, and infrastructure projects and existing vulnerable sites be built or hardened to avoid or withstand climate impacts, including extreme heat, extreme precipitation, and sea level rise.**
CL-9.1.3	Identify potential funding sources to develop and maintain a grant program that will enable affordable housing development projects to bury new power lines and associated infrastructure as required, or to make more resilient to climate impacts where burial is not feasible.

Policies and Implementation Actions

CL-9.4 Encourage property owners to increase the resilience of existing buildings to natural hazards and extreme weather worsened by climate change.

CL-9.4.3 Develop and maintain a rebate program for low-income residents who do not qualify for weatherization assistance through the Community Action Council or whose dwellings are considered vulnerable, such as manufactured homes, to weatherize their homes against extreme weather.

Goal CL-10 Increase preparedness for acute climate impacts and improve the resilience of Tumwater's people and systems against climate hazards.

Policies and Implementation Actions

CL-10.1 Improve community outreach on and response capabilities for climate health and hazard issues, prioritizing frontline communities to address economic, social, and health disparities.

CL-10.1.1 Collaborate with community based organizations to build a volunteer network to develop and manage a vulnerable population database that includes community members who require aid and/or check-in calls during and after emergencies. This database can be built on the existing Lifeline Program members.

CL-10.1.2 Transition management of the vulnerable population database to Tumwater and develop a long-term strategy to keep the database up to date and oversee its use during emergencies.

CL-10.1.6 Explore developing a neighborhood-scale capacity grant or other assistance program to support neighborhood scale resiliency, disaster preparedness, and/or resource hubs.

CL-10.2 Develop resources to mitigate the risks posed by extreme heat in coordination with regional partners.

CL-10.2.1 Implement the Thurston County Extreme Heat, Emergency Response, and Illness Prevention Plan.

CL-10.2.2 Preserve and expand tree and shade cover to reach the 2040 goal of 40% recommended in the Urban Forestry Management Plan to reduce urban heat.

CL-10.2.3 Support the work of community based organizations and regional agencies creating and implementing resilience hubs.

CL-10.2.4 Explore feasibility of implementing and maintaining a program to distribute portable cooling units and install heat pumps, prioritizing households with residents most vulnerable to extreme temperature events such as renters and low-income seniors.

CL-10.3 Increase regional wildfire resilience, preparedness, and response capabilities in Tumwater.

CL-10.3.3 Help facilitate grant funding for low-income community members to follow recommended changes to their homes and properties to lower their wildfire risk.

Policies and Implementation Actions

CL-10.4 Collaborate with regional partners to develop resources that address projected increases in risks and impacts associated with climate change.

CL-10.4.1 Develop and share guidance for navigating post-disaster mental health and social resources, translated into multiple languages.

CL-10.5 Improve community resilience, health equity, and environmental justice by striving to ensure that all community members can use active transportation to access public green spaces within half a mile and connected by sidewalks or protected walkways.

CL-10.5.1 Utilize data from the Trust for Public Land and from community outreach efforts to find any gaps in equitable access to public green spaces.

CL-10.5.2 Engage community members who lack equitable access to green spaces to determine how they would like to improve their access. Options can include better transportation options, addition of new green space, and improved safety of active transportation routes, among others.

CL-10.8 Develop programs that enable and empower community members to protect themselves from poor air quality.

CL-10.8.1 Collect data to determine how many Tumwater community members are vulnerable to poor air quality and the neighborhoods in which these residents live, using both quantitative and qualitative data and from community outreach efforts. Use collected data to set target thresholds for shelter occupancy and locations and air conditioner/heat pump and air filtration distribution programs.

CL-10.8.2 Develop a program to distribute personal protective equipment to populations vulnerable to poor air quality.

CL-10.8.3 Identify facilities that serve high-risk populations to create incentive programs encouraging infrastructure updates for clean indoor air. Updates should include HVAC system improvements.

CL-10.9 Work with Thurston County Emergency Management to improve access to the resources needed for community members to shelter in place or to adequately reach temporary shelter.

CL-10.9.1 Coordinate with other agencies and jurisdictions to provide more cooling centers with 24-hour capacity. Offer 24-hour capacity for all of Tumwater's heat-vulnerable residents including seniors, low-income, and houseless individuals. Shelter locations should be sited equitably throughout Tumwater, with priority for opening locations near the highest concentrations of heat-vulnerable residents.

CL-10.9.2 Coordinate with local businesses, community centers, and other neighborhood hubs to assess the potential of using these spaces as cooling centers. Provide sites that agree to participate in this program with resources detailing how to set up an equitable and functional cooling center.

CL-10.9.3 Develop outreach programs or materials to increase awareness and education on individual emergency preparedness (e.g., Two Weeks Ready).

Policies and Implementation Actions

CL-10.10 Increase language accessibility of emergency services, plans, and resources.

CL-10.10.1 Utilize on-call contracts for language interpretation and translation services, including American sign language, to translate all emergency resources and plans.

Goal CL-11 Preserve, protect, and sustain cultural sites and resources in alignment with the values and needs of Tribes, traditional stewards, and frontline communities.

Policies and Implementation Actions

CL-11.1 Enhance partnership between the Tribes and Tumwater, integrating Tribal expertise, opinions, and values into climate planning efforts, projects, and programs.

CL-11.1.1 In collaboration with the Tribes, develop guidelines and standards for incorporating Traditional Ecological Knowledge into Tumwater programs and planning efforts to adapt to climate change impacts.

CL-11.1.2 Integrate the Tribal Stewards Curriculum or an alternative approved by Tribal representatives into regular Tumwater training schedules.

CL-11.2 In accordance with Tribal treaty rights, protect, enhance, and restore ecosystems and culturally important consumptive and non-consumptive resources including foods, medicinal plants, places, and materials that could be adversely impacted by climate change.

CL-11.2.1 Work with local partners, especially representatives of the Tribes, to facilitate a native plant nursery and seed bank to support long-term ecological restoration and foster continued access to culturally significant plants.

CL-11.2.2 In collaboration with the Tribes, identify consumptive and non-consumptive resources that will be adversely impacted by climate change.

CL-11.2.3 In collaboration with the Tribes, develop and implement a plan to protect, enhance, restore, and/or preserve cultural resources that have been identified as threatened by climate change.

CL-11.2.4 Collaborate with tribes to provide access to foraging opportunities including but not limited to camas, evergreen huckleberry, bog plant species, and cedar.

CL-11.3 Collaborate with the Tribes to prioritize the preservation of archaeological sites and traditional cultural properties that are vulnerable to climate impacts.

CL-11.3.1 Request recommendations from the Tribes for actions Tumwater can take to preserve historic sites and cultural properties.

CL-11.3.2 In collaboration with the Tribes, develop guidelines for protecting, enhancing, and restoring affected historic sites and cultural properties.

Goal CL-12 **With climate, growth, and environmental changes in mind, identify and elevate the protection of key habitats, ecosystem services, and wildlife corridors.**

Policies and Implementation Actions	
CL-12.1	**Manage Tumwater's urban forest in line with the Urban Forestry Management Plan and current climate projections and guidance.**
CL-12.1.2	Protect and enhance the climate resilience of urban forests by implementing the Urban Forestry Management Plan. Prioritize implementation of Urban Forestry Management Plan actions that provide benefits for frontline communities.

GOAL CL-13 **Promote land use and development decisions that support compact urban development and Tumwater-wide resilience, including a resilient local economy.**

Policies and Implementation Actions	
CL-13.2	**Form a working group to secure Tumwater's economic resilience regarding climate impacts.**
CL-13.2.4	Form partnerships with workforce development organizations to provide services and resources to Tumwater community members that support workers and local businesses affected by climate change.
CL-13.5	**Encourage the location of new development in areas where exposure to climate hazards is low and ecological impacts are minimized.**
CL-13.5.1	Develop design guidelines for climate-resilient multi-use development. Guidelines should require residential development to be designed for passive survivability under future climate projections.

Goal CL-14 **Strive to create a local transportation system, including infrastructure, routes, and active travel modes, which fosters connectivity and can withstand and recover quickly from climate impacts.**

Policies and Implementation Actions	
CL-14.1	**Improve street connectivity, transit accessibility, and walkability, including sidewalks and street crossings, to ease emergency evacuation.**
CL-14.1.3	Work with Intercity Transit to expand their transit program that provides evacuation aid to community members who do not or cannot drive, utilizing the vulnerable population database (CL-10.1.2).

Policies and Implementation Actions
CL-14.1.4 Assess current transportation network and transit options to identify barriers to accessibility and develop a plan to address gaps for all abilities and accessibility supports.
CL-14.4 Facilitate quick recovery of the whole multimodal transportation system after disruption from disasters or extreme weather events.
CL-14.4.2 Prioritize infrastructure needed for the recovery of Intercity Transit in the aftermath of an extreme weather event.

Goal CL-15 Protect and improve water quality and availability.

Policies and Implementation Actions
CL-15.2 Improve Tumwater's drought resilience through water reclamation and conservation measures, drought-tolerant landscape design, and advocacy.
CL-15.2.5 Advocate at state level to prioritize using water resources in alignment with public interests.
CL-15.3 Develop and implement a comprehensive drought resilience strategy that factors in projected climate impacts and sets action levels for different drought stages.
CL-15.3.1 Conduct outreach to understand current water resource needs (i.e., water-reliant livelihoods).
CL-15.3.2 Draft measures to protect access to water availability at a fair rate for low-income residents and residents whose income relies on water.

Goal CL-16 Expand local food justice to address climate impacts and increase access to nourishing, affordable, culturally appropriate, and climate-friendly foods while expanding local use of composting.

Policies and Implementation Actions
CL-16.1 Improve local food justice through collaboration, education, and advocacy.
CL-16.1.1 Implement the Food System Plan, updating it periodically as necessary.
CL-16.1.2 Identify relevant stakeholders who can further sustainable, climate-adapted, and equitable food distribution in Tumwater.
CL-16.1.3 Explore opportunities for the community to provide and engage in local and sustainable food production and consumption, such as farmers markets and community gardens.
CL-16.1.6 Collaborate with community members to identify culturally important foods and develop strategies to secure access to these, incorporating strategies into an update to the Food System Plan.

Policies and Implementation Actions

CL-16.3 Expand consistent access to food for Tumwater community members.

CL-16.3.1 Coordinate with the Food Bank to expand access to food assistance services.

CL-16.3.2 Conduct community outreach to find gaps and barriers in consistent access to nutritious food.

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Conservation Element

Goals, Policies, and Implementation Actions

City of Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 6, 2025

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Ordinance No. O2025-003

CITY OF TUMWATER

Conservation Element

Part 1 – Goals, Policies, and Implementation Actions

Table of Contents

1. Introduction 3
   A. Background 3
   B. How to Read this Part of the Element 3
2. Growth Management Act – Element Goals 4
3. County-Wide Planning Policies 5
4. Element Goals and Policies 6
   A. How to Read These Tables 6
   B. Overarching Environmental Goals 6
   C. Natural Resource Areas Goals 7
   D. Critical Areas Goals 9

Appendix A – Draft Implementation Actions 18
   1. How to Read These Tables 18
   2. Overarching Environmental Goals 19
   3. Natural Resource Areas Goals 20
   4. Critical Areas Goals 22

Abbreviations Used in Document

CDD – Community Development Department

PRD – Parks, Recreation, and Facilities Department

RCW – Revised Code of Washington

TED – Transportation & Engineering Department

TMC – Tumwater Municipal Code

WRS – Water Resources & Sustainability Department

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1. Introduction

A. Background

The Conservation Element is part of Tumwater's Comprehensive Plan. It was created to meet the State Growth Management Act (Chapter 36.70A RCW) requirements to identify and protect critical environmental areas and valuable natural resources.

Tumwater's Vision, Mission, and Belief Statements that provide overarching direction for the future of Tumwater are found in the Comprehensive Plan Summary.

The Conservation Element aligns and is consistent with the other elements of the Comprehensive Plan.

Part 1 – Goals Policies, and Implementation Actions establishes Tumwater's goals and policies to set forth a direction to identify, protect, and conserve critical environmental areas and valuable natural resources in Tumwater.

The goals and policies of the Conservation Element are guided by the state Growth Management Act and the Thurston County-Wide Planning Policies and the vision of a Tumwater that protects and enhances natural resources and the environment. The Element's goals and policies are coordinated with the other Elements and regional plans.

The Conservation Element's goals and policies are the policy basis for the draft implementation actions in Conservation Element and those future actions that will be developed over the next 20 years which will be the foundation for Tumwater's annual work programs to address natural resources and the environment.

Part 2 – Technical Information provides an analysis of natural resource lands appropriate to Tumwater and its critical areas to support the twenty-year growth projections for Tumwater.

B. How to Read this Part of the Element

In Part 1, Chapters 2 and 3 discuss the Conservation Element's connection to the goals of the state Growth Management Act and the Thurston County-Wide Planning Policies.

Chapter 4 presents each goal with an explanation of how to read the tables and then presents each of Tumwater's conservation goals in detail with an explanation of the importance of each goal.

Appendix A contains the draft implementation actions, which are intended to be a source of annual work program items that serve to implement the goals and policies of the Conservation Element.

The annual work programs will further refine the implementation actions prior to their being put into practice. It is expected that implementation actions will be further amended, added, or subtracted as needed over the course of the 20-year Comprehensive Plan as new opportunities arise to meet the intent of the Conservation Element's goals and policies.

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2. Growth Management Act – Element Goals

Chapter 36.70A RCW requires that Tumwater show how the Conservation Element meets the relevant planning goals contained within the Act. The following is a listing of the two applicable goals for the Conservation Element, and an analysis of how the Element addresses these goals:

8. ***Natural resource industries.*** *Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forestlands and productive agricultural lands and discourage incompatible uses.*

The Conservation Element has specific guidelines and policies that ensure the viability of natural resource industries and activities. Additionally, the Conservation Element ensures the viability of natural resource industries in Tumwater through the identification of such lands in the Conservation Element text and maps.

While Tumwater has limited natural resource lands as defined by the Growth Management Act, it does have mineral resources, forestry, and agriculture lands. Since these parcels are within Tumwater, it is difficult to determine their long-term significance. Tumwater supports urban agriculture with goals, policies, and implementation actions.

10. ***Environment.*** *Protect and enhance the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.*

The state legislature updated the Growth Management Act environment goal in 2023 to require enhancement of the environment. The Conservation Element contains specific policies relating to air and water quality, water availability, and protection and preservation of critical areas and addresses how to enhance the environment.

If conflict occurs in the implementation of policy and development regulations, the priority of protecting critical areas will be superior to other uses of natural resources.

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3. County-Wide Planning Policies

The Growth Management Act requires that Tumwater's Comprehensive Plan be consistent with Thurston County's County-Wide Planning Policies, which were last amended in 2025.

The following is a list of the relevant policies that apply to this Element of the Comprehensive Plan. All County-Wide Planning Policies are adopted as Appendix B to the Comprehensive Plan. The relevant sections of the County-Wide Planning Policies to this Element are cited below.

II. Urban Growth Areas

The resource land and critical area chapters in the Element describe what kinds of development are compatible with the resource or area that chapter covers.

III. Promotion of Contiguous and Orderly Development, Provision of Urban Services, and Protection of Rural Areas

The critical aquifer recharge area policies in the Element support this policy.

VII. Economic Development and Employment

Urban agriculture is discussed in the Element. The critical areas chapters address the protection of crucial areas for both environmental and public health reasons.

X. Environmental Quality

The Conservation Element is based upon the theme of the importance of natural systems and resources to human uses. The portion of the Element related to water resources cover the issues surrounding the balance between meeting future needs for water and protecting water resources.

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4. Element Goals and Policies

A. How to Read These Tables

The Conservation Element's goals and policies are not in priority order.

The Conservation Element's goals and policies are associated with one of the three areas of conservation goals:

1. Overarching Environmental Goals
2. Natural Resource Areas Goals
3. Critical Areas Goals

Appendix A provides a list of the draft implementation actions by goal and policy that will be considered when developing annual work programs for implementing the Conservation Element's goals and policies.

1) Department Leads

As noted in the tables below, implementation of the Conservation Element's goals and policies are associated with four different Tumwater departments:

CDD	Community Development Department
PRD	Parks, Recreation, and Facilities Department
TED	Transportation & Engineering Department
WRS	Water Resources & Sustainability Department

2) Period

Each of the Conservation Element's policies is associated with estimated start dates, length of time to complete, and target completion dates, if appropriate based on adequate funding for staff and resources. Most policies are ongoing with no set target completion date.

B. Overarching Environmental Goals

Goal C-1 Recognize the significant role played by natural features and systems in determining the overall environmental quality and livability of Tumwater.

Natural features and systems perform key environmental functions that enhance the livability of Tumwater and protects its residents from hazards.

Policies		Lead	Period
C-1.1	**Support active measures to protect and enhance Tumwater's natural environment**	**CDD**	**Term of Plan**

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Policies		Lead	Period
C-1.2	**Use adopted plans to inform critical area policies, regulations, and implementation actions.**	CDD WRS	Term of Plan

Goal C-2 Promote conservation of natural resources and the protection of the environment in cooperation with residents, property owners, other jurisdictions, and tribes.

Natural resources are the building blocks to produce all the things we need. Some resources need Tumwater's protection and management to ensure they can continue to provide materials and services into the future.

Human activity has a large impact on the environment, changing the way the landscape meets the needs of others. Collaboration is key to ensuring that everyone's needs can be met in the future.

Policies		Lead	Period
C-2.1	**Support education programs in the community that outline the need for natural resource conservation and protection of critical areas and create opportunities for community action.**	CDD WRS	Term of Plan

C. Natural Resource Areas Goals

Goal C-3 Support urban agriculture for access to local food production.

Access to nutritious food is becoming more important as Tumwater residents face issues with the cost of living. Supporting urban agriculture like farmstands, community gardens, and urban farms helps provides residents with access to fresh locally grown products, decreases the cost of transporting goods, protects cultural heritage, and provides open space.

As goals and policies are developed which support urban agriculture, farmers have increased access to markets, as well as opportunities to diversify their products and services. These benefits help make farms more viable at a scale that is compatible with urban environments.

Policies		Lead	Period
C-3.1	**Support local food production to maintain the quality of life and long-term sustainability of Tumwater.**	CDD	Term of Plan
C-3.2	**Work with community groups to support the continued viability of agriculture and encourage neighborhood and community support.**	CDD	Term of Plan

Goal C-4 Support urban forestry.

Urban forestry is the care and management of the vegetation on public and private properties in Tumwater. It includes native plants and ornamental plants, understory, and canopy. Plants in Tumwater provide benefits to those who live, work, and play in the area.

Trees mitigate pollution, provide habitat for wildlife, sequester carbon, reduce stormwater runoff, and provide socioeconomic and aesthetic benefits. Managing trees to ensure safety and avoiding conflicts with infrastructure is an important part of urban forestry practices. The City Council adopted the Tumwater Urban Forestry Management Plan in 2021 to guide code development and protect trees and improve public safety.

Policies		Lead	Period
C-4.1	**Maximize retention of a healthy tree cover and native vegetation and encourage restoration, replacement, and enhancement of unhealthy trees and disturbed vegetation as recommended in the adopted *Tumwater Urban Forestry Management Plan* consistent with the Growth Management Act and the requirements of protected habitat.**	WRS	Term of Plan
C-4.2	**Ensure that harvesting for conversion to other uses occurs in a manner compatible with land uses of the surrounding area and maintenance of water quality and critical areas.**	WRS CDD	Term of Plan

Goal C-5 Protect mineral resource lands.

Modern industry relies on mineral resources. The most abundant mineral resource in Washington State is aggregate which includes sand, gravel, and crushed rock. These products are vital to road construction and other projects that require soil stabilization and additional drainage.

Local mineral sources are especially valuable since they reduce the shipping costs associated with transporting heavy materials. Since

minerals are a non-renewable resource, protecting existing sources in Tumwater is important to ensure they are available locally into the future.

Policies		Lead	Period
C-5.1	**Allow mineral extraction industries to locate where prime natural resource deposits exist and where extraction will not cause the degradation of sensitive areas.**	CDD	Term of Plan
C-5.2	**Conserve designated mineral resource lands of long-term commercial significance for mineral extraction, and the use of adjacent lands should not interfere with the continued use of the designated mining sites that are being operated in accordance with applicable best management practices and other laws and regulations.**	CDD	Term of Plan
C-5.3	**Restore mineral extraction sites as the site is being mined. The site should be restored for appropriate future use, and it should blend with the adjacent landscape and contours.**	CDD	Term of Plan

D. Critical Areas Goals

Goal C-6 Designate and protect critical areas including wetlands, critical aquifer recharge areas, frequently flooded areas, geologically hazardous areas, shorelines of the state, and fish and wildlife habitat conservation areas in accordance with the Growth Management Act to protect their functions and values as well as safeguard against threats to health, safety, and property.

Unwise development of critical areas jeopardizes environmental resource functions and values, puts species at risk of extinction, triggers regulatory burdens, and places people and property in unsafe conditions.

If critical area functions are not protected, attempting to enhance or restore them in the future is likely to be costly, if not impossible.

Policies		Lead	Period
C-6.1	**Base critical areas designations and regulations on best available science to protect and enhance the functions and values of these areas.**	CDD	Term of Plan

Policies		Lead	Period
C-6.2	Protect critical areas while allowing for compatible growth and development.	CDD	Term of Plan
C-6.3	Require that prior to any development, critical areas are identified and protected.	CDD	Term of Plan

Goal C-7 Protect and enhance water quality.

Clean water is necessary for life. Everyday activities such as cleaning and driving can have a negative impact on water quality. Reducing the quantity of pollutants on Tumwater's roads and yards decreases the likelihood that they will be washed into waterways or carried into groundwater.

Since most sources of pollution are all around Tumwater's landscape, it is also important to maintain systems that can remove pollution from water.

Policies		Lead	Period
C-7.1	Protect water quality by preserving and enhancing the ecological functions of water features through land use plans, development regulations, and public education.	CDD WRS	Term of Plan
C-7.2	Support restoration of river and stream channels and associated wetland and riparian areas to enhance water quality, improve fish and wildlife habitat, and mitigate flooding and erosion.	CDD WRS	Term of Plan
C-7.3	Allow public access to wetlands, streams, and lakes for scientific, educational, and recreational use, provided access is carefully sited, sensitive habitats and species are protected, and hydrologic continuity is maintained.	CDD	Term of Plan
C-7.4	Manage water resources to preserve ecosystem services, while addressing fish and wildlife habitat, flood protection, water supply, recreation, and open space.	CDD PRD WRS	Term of Plan

Policies		Lead	Period
C-7.5	Work with Olympia, Thurston County, and other affected entities to enhance and protect water quality in the region guided by the Deschutes River Study.	WRS	Term of Plan

Goal C-8 Improve natural drainage systems.

Storm and surface waters are a primary concern for urban environments. As impervious surfaces replace the permeable land cover, water travelling across the land accumulates pollutants. As development converts more land, less water is filtered through soil, and more pollutants are accumulated.

Drainage systems are also critical to protect the built environment from flood damage. With extreme amounts of stormwater entering the stormwater system within short periods of time, it is imperative that Tumwater expand the system at the rate of land conversion to meet the ever-changing needs.

Policies		Lead	Period
C-8.1	Develop Watershed Management Plans in partnership with other jurisdictions who are also part of the same watershed.	WRS	Term of Plan
C-8.2	Develop and implement conservation measures necessary to preserve and enhance anadromous fish habitat and fisheries and other state and federally protected species, consistent with the Growth Management Act.	CDD	Term of Plan
C-8.3	Protect and enhance natural drainage systems to maintain and improve water quality and reduce public costs.	CDD WRS	Term of Plan
C-8.4	Prevent environmental degradation by using best management practices and current stormwater treatment and flow control standards on new and redevelopment projects.	CDD TED WRS	Term of Plan
C-8.5	Use current State approved stormwater treatment and flow control standards on development and construction projects.	CDD TED WRS	Term of Plan

Policies		Lead	Period
C-8.6	**Require resource industries to use management practices that prevent erosion and sedimentation and pollutants from entering ground or surface waters following State regulations.**	CDD	Term of Plan

Goal C-9 Improve air quality.

Poor air quality can have serious impacts on health for both people and the environment. Ensuring that air is appropriately filtered by retaining vegetation and reducing the amount of air pollution at the source are two strategies to manage air quality for the next 20 years.

Policies		Lead	Period
C-9.1	**Continue to support and rely on the various State, federal, and local programs to protect and enhance air quality.**	CDD	Term of Plan
C-9.2	**Require appropriate tree and vegetation retention and landscaping to provide filtering of suspended particulates.**	CDD	Term of Plan
C-9.3	**Coordinate with the other Elements in the Comprehensive Plan on actions to reduce vehicle miles traveled, greenhouse gas emissions, and other locally generated air pollutants.**	CDD WRS TED	Term of Plan

Goal C-10 Protect and enhance rivers, streams, and lakes.

Surface waters like rivers, streams and lakes provide necessary transit for water as it flows across the landscape. Measures to protect waterways mitigate erosion and pollution that are ubiquitous in urban areas.

Surface water also provides necessary habitat for wildlife. Protecting water quality is important for preserving Tumwater's environments to continue the beneficial ecosystem functions necessary for life.

Policies		Lead	Period
C-10.1	**Protect, enhance, and restore natural stream channels for their hydraulic, ecological, and aesthetic functions through development regulations; land dedications, easements, and acquisitions; incentives; and restoration planning.**	CDD WRS	Term of Plan

Policies	Lead	Period
C-10.2 Require any alteration of rivers, streams, and lakes include mitigation and maintenance which address water quality; floodplain protection; fish and wildlife habitat; channel stability and vegetative cover; maintenance of instream flows; and impacts to downstream property owners.	**CDD**	**Term of Plan**

Goal C-11 Protect and enhance wetlands.

Wetlands play a vital role in the overall natural environment. Wetlands protect water quality, reduce flooding, provide aquifer recharge for drinking water and other uses, and provide critical habitat for fish and wildlife as well as carbon sequestration. Wetlands also provide many social values including recreational opportunities, aesthetic benefits, places for research and education, and cultural resources important to tribes.

Policies	Lead	Period
C-11.1 Where possible, protect wetlands as ecosystems that provide essential services and functionality within watersheds.	**CDD**	**Term of Plan**
C-11.2 Preserve and enhance wetlands from new developments by providing buffers around wetlands adequate to protect natural functions.	**CDD**	**Term of Plan**
C-11.3 Allow reasonable use of property containing existing wetlands to avoid a regulatory taking following State guidance.	**CDD**	**Term of Plan**
C-11.4 Maintain stormwater treatment and flow control sites associated with wetlands in a manner that ensures the ecological functions of the wetland to minimize impacts to critical area habitat.	**CDD** **WRS**	**Term of Plan**

Goal C-12 Protect groundwater.

Tumwater's water comes from underground aquifers, which are sand and gravel formations below the ground that "hold" water. These aquifers are replenished by rain and snow infiltrated through the ground and filtered by the soil and trillions of microbes. The many layers of

soil, rock, and microbes that sit above the aquifers act to cleanse the water as it passes and helps prevent contamination from the surface. Groundwater contributes to the flow of streams and rivers, providing base flows that are essential for fish and other aquatic life, especially during dry periods.

Policies		Lead	Period
C-12.1	**Protect aquifers, aquifer recharge areas, and wellhead protection areas from contamination.**	CDD WRS	Term of Plan
C-12.2	**Protect streams, wetlands, and lakes that serve to recharge aquifers from contamination.**	CDD WRS	Term of Plan

Goal C-13 Protect geologically hazardous areas.

Protecting geologically hazardous areas in Tumwater is important because they pose significant threats to public safety and infrastructure. Identifying these areas allows for better planning, mitigation, and emergency response. Washington state is particularly more vulnerable due to its geological location, active faults, and volcanic activity.

Policies		Lead	Period
C-13.1	**Regulate development intensity, site coverage, and vegetation removal in geologically hazardous areas to prevent property damage and environmental degradation; minimize soil erosion, siltation, and landslides; and enhance greenbelt and wildlife habitat values.**	CDD	Term of Plan
C-13.2	**Minimize soil disturbance and maximize retention and replacement of native vegetative cover, such as trees, for land use permitted in erosion and landslide hazard areas.**	CDD	Term of Plan
C-13.3	**Decrease development intensity as slopes increase to mitigate problems of drainage, erosion, siltation, and landslides.**	CDD	Term of Plan
C-13.4	**Require erosion and sedimentation prevention best management practices be used on construction projects by the Development Guide and Drainage Design & Erosion Control Manual.**	CDD	Term of Plan

Policies		Lead	Period
C-13.5	Require appropriate engineering, building design, and construction measures to minimize the risk of structural damage and fire and injury to occupants, and to prevent post-seismic collapse in areas with severe seismic hazards.	CDD TED	Term of Plan

Goal C-14 Preserve flood plains and floodways.

Floodplains are important for flood protection and ecosystems. Natural floodplains provide flood risk reduction benefits by slowing runoff, storing floodwater, and reducing erosion. Floodplains frequently contain wetlands and provide fish and wildlife habitats.

It is important to protect the functions of floodplains and reduce risk to people and property by limiting development in frequently flooded areas.

Policies		Lead	Period
C-14.1	Minimize land alterations that would increase potential flooding and changes to natural surface water features that retain or carry floodwaters, such as wetlands, floodplains, rivers, streams, and lakes.	CDD	Term of Plan
C-14.2	Require mitigation for adverse environmental impacts from engineered flood control measures.	CDD	Term of Plan
C-11.3	Meet state regulatory standards for floodplain development as these standards are updated for consistency with relevant federal requirements including those related to the Endangered Species Act.	CDD	Term of Plan
C-14.4	Emphasize non-structural methods in planning for flood prevention and damage reduction. Require new developments or land modifications in 100-year floodplains maintain natural flood storage functions and minimize hazards.	CDD	Term of Plan

Policies	Lead	Period
C-14.5 Protect 100-year floodplains by restricting development; encouraging low-impact uses such as open space, trails, and parks; locating infrastructure above the flood level, and requiring new development replace existing flood storage capacity lost due to filling.	**CDD**	**Term of Plan**
C-14.6 Restrict permanent structures within the floodway due to risks associated with deep and fast-flowing waters unless appropriate flood control measures have been taken.	**CDD**	**Term of Plan**
C-14.7 Restrict land uses in a floodway that would divert water from the floodway, change flood elevation, or obstruct natural flow, unless appropriate flood control measures have been taken such that there are no additional offsite impacts and no degradation of water quality.	**CDD**	**Term of Plan**
C-14.8 Restrict development in the floodway fringe that would reduce the existing level of flood storage.	**CDD**	**Term of Plan**

Goal C-15 Protect and enhance wildlife habitat.

Wildlife habitats, such as prairies, provide essential resources for wildlife and humans. Resources include food, water, shelter, and breeding grounds, ensuring the continuation of diverse species and the health of ecosystems.

Protecting habitats also helps mitigate climate change, conserve biodiversity conservation, and provide health and economic benefits.

Wildlife habitat offers recreation opportunities for the community and has economic benefits as well. Integrating wildlife habitat protection into land use planning decisions can help minimize development impacts on wildlife populations.

Policies	Lead	Period
C-15.1 Identify, protect, and enhance fish and wildlife habitat corridors to minimize habitat fragmentation, especially along existing linkages by enhancing vegetation composition and structure and incorporating compatible indigenous plant species.	**CDD**	**Term of Plan**

Policies		Lead	Period
C-15.2	Protect and preserve habitats for species identified as endangered, threatened, or sensitive by the State or federal government, giving special consideration to measures necessary to preserve or enhance suitable habitat.	CDD	Term of Plan
C-15.3	Maintain habitats that support the greatest diversity of fish and wildlife through conservation and enhancement of critical areas.	CDD	Term of Plan
C-15.4	When developing forested property adjacent to steep slopes, wetlands, stream ravines, or stream corridors, encourage development to provide additional buffer areas to provide wildlife and fish habitat.	CDD	Term of Plan
C-15.5	Restore native vegetation and control invasive species to preserve and enhance fish and wildlife habitat.	CDD	Term of Plan

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Appendix A – Draft Implementation Actions

Each of the Conservation Element goals and policies in Chapter 4 will require Tumwater to take specific actions to implement over the course of the 20-year term of the Comprehensive Plan.

The draft implementation actions in the tables below were developed in coordination with the stakeholders, the community, and Tumwater staff. The draft implementation actions in the tables below are intended to serve as the start for developing annual Tumwater work programs to address conservation actions.

As the Comprehensive Plan is put into action over the next twenty years, the draft implementation actions will change as new, unforeseen opportunities emerge: new ones may be added, proposed ones may be modified or replaced by other actions.

The draft implementations actions below are intended to be draft work program items that serve to implement the goals and policies of the Element. The draft implementation actions will need further refinement before they are incorporated into annual Tumwater work programs.

1. How to Read These Tables

The Conservation Element goals, policies, and the draft implementation actions associated with them are not in priority order.

The draft implementation actions that can only be undertaken by other entities are not included in this plan.

The Conservation Element's goals, policies, and draft implementation actions are associated with one of the three areas of conservation goals:

1. Overarching Environmental Goals
2. Natural Resource Areas Goals
3. Critical Areas Goals

1) Department Leads

As noted in the tables below, implementation of the Conservation Element's policies and draft implementation actions are associated with four different Tumwater departments:

CDD	Community Development Department
PRD	Parks, Recreation, and Facilities Department
TED	Transportation & Engineering Department
WRS	Water Resources & Sustainability Department

2) Period

Each of the Conservation Element's policies and draft implementation are associated with estimated start dates, length of time to complete, and target completion dates, if appropriate based on adequate funding for staff and resources. Most policies are ongoing with no set target completion date.

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2. Overarching Environmental Goals

Goal C-1 Recognize the significant role played by natural features and systems in determining the overall environmental quality and livability of Tumwater.

Policies and Implementation Actions		Lead	Period
C-1.1	**Support active measures to protect and enhance Tumwater's natural environment**	**CDD**	**Term of Plan**
C-1.2	**Use adopted plans to inform critical area policies, regulations, and implementation actions.**	**CDD WRS**	**Term of Plan**
C-1.2.1	Implement the actions identified in the Thurston Climate Mitigation Plan.	CDD WRS	Term of Plan
C-1.2.2	Implement the actions identified in the most recent version of the Natural Hazards Mitigation Plan for Thurston County.	CDD WRS	Term of Plan
C-1.2.3	Implement the actions identified in the Tumwater Urban Forestry Management Plan.	CDD WRS	Term of Plan

Goal C-2 Promote conservation of natural resources and the protection of the environment in cooperation with residents, property owners, other jurisdictions, and tribes.

Policies and Implementation Actions		Lead	Period
C-2.1	**Support education programs in the community that outline the need for natural resource conservation and protection of critical areas and create opportunities for community action.**	**CDD WRS**	**Term of Plan**
C-2.1.1	Support the work of the Stream Team.	WRS	Term of Plan
C-2.1.2	Support the work for the Tumwater Green Team.	WRS	Term of Plan

Policies and Implementation Actions		Lead	Period
C-2.1.3	Support water conservation messaging and outreach.	WRS	Term of Plan
C-2.1.4	Support water quality messaging and outreach for wellhead and source protection.	WRS	Term of Plan

3. Natural Resource Areas Goals

Goal C-3 Support urban agriculture for access to local food production.

Policies and Implementation Actions		Lead	Period
C-3.1	**Support local food production to maintain the quality of life and long-term sustainability of Tumwater.**	CDD	**Term of Plan**
C-3.1.1	Implement and keep the Food System Plan updated.	CDD	Term of Plan
C-3.1.2	Collaborate with local organizations to promote food system resources to improve participation.	CDD	Term of Plan
C-3.2	**Work with community groups to support the continued viability of agriculture and encourage neighborhood and community support.**	CDD	**Term of Plan**
C-3.2.1	Support the efforts of organizations to develop a vibrant food system through access to healthy, local, affordable, culturally appropriate, sustainably produced food to assist the community in having reliable access to enough affordable nutritious food.	CDD	Term of Plan

Goal C-4 Support urban forestry.

Policies and Implementation Actions		Lead	Period
C-4.1	**Maximize retention of a healthy tree cover and native vegetation and encourage restoration, replacement, and enhancement of unhealthy trees and disturbed vegetation as recommended in the adopted *Tumwater Urban Forestry Management Plan* consistent with the Growth Management Act and the requirements of protected habitat.**	**WRS**	**Term of Plan**
C-4.1.1	Implement the actions in the Tumwater Urban Forestry Management Plan.	WRS	Term of Plan
C-4.2	**Ensure that harvesting for conversion to other uses occurs in a manner compatible with land uses of the surrounding area and maintenance of water quality and critical areas.**	**WRS CDD**	**Term of Plan**

Goal C-5 Protect mineral resource lands.

Policies and Implementation Actions		Lead	Period
C-5.1	**Allow mineral extraction industries to locate where prime natural resource deposits exist and where extraction will not cause the degradation of sensitive areas.**	**CDD**	**Term of Plan**
C-5.2	**Conserve designated mineral resource lands of long-term commercial significance for mineral extraction, and the use of adjacent lands should not interfere with the continued use of the designated mining sites that are being operated in accordance with applicable best management practices and other laws and regulations.**	**CDD**	**Term of Plan**
C-5.3	**Restore mineral extraction sites as the site is being mined. The site should be restored for appropriate future use, and it should blend with the adjacent landscape and contours.**	**CDD**	**Term of Plan**

4. Critical Areas Goals

Goal C-6 Designate and protect critical areas including wetlands, critical aquifer recharge areas, frequently flooded areas, geologically hazardous areas, shorelines of the state, and fish and wildlife habitat conservation areas in accordance with the Growth Management Act to protect their functions and values as well as safeguard against threats to health, safety, and property.

Policies and Implementation Actions		Lead	Period
C-6.1	**Base critical areas designations and regulations on best available science to protect and enhance the functions and values of these areas.**	**CDD**	**Term of Plan**
C-6.1.1	Update critical area regulations as needed to reflect current best available science and state guidance to minimize impacts from new development.	**CDD**	Term of Plan
C-6.2	**Protect critical areas while allowing for compatible growth and development.**	**CDD**	**Term of Plan**
C-6.2.1	When updating development regulations, review in conjunction with critical areas regulations to ensure compatibility.	**CDD**	Term of Plan
C-6.2.2	Use incentive programs, acquisition, appropriate regulations, and other techniques to preserve critical areas as permanent open space where development may pose hazards to health, property, or important ecological functions.	**CDD**	Term of Plan
C-6.2.3	Apply mitigation sequencing to avoid and minimize impacts to critical areas, and, if necessary, require and enforce mitigation to ensure no net loss of critical area functions.	**CDD**	Term of Plan

Policies and Implementation Actions		Lead	Period
C-6.2.4	Ensure the effectiveness of critical area mitigation by requiring adequate critical area studies and mitigation plans, the application of mitigation sequencing, financial assurances to ensure mitigation success, and by improving Tumwater oversight of maintenance and monitoring of mitigation.	CDD	Term of Plan
C-6.3	**Require that prior to any development, critical areas are identified and protected.**	CDD	**Term of Plan**
C-6.3.1	In reviewing development proposals that may impact a critical area, supplement staff review with a qualified third-party professional as needed to assess potential impacts and require development alternatives or mitigation.	CDD	Term of Plan

Goal C-7 Protect and enhance water quality.

Policies and Implementation Actions		Lead	Period
C-7.1	**Protect water quality by preserving and enhancing the ecological functions of water features through land use plans, development regulations, and public education.**	CDD WRS	**Term of Plan**
C-7.1.1	Require adequate stormwater treatment and flow control for new development, including low impact development techniques.	CDD	Term of Plan
C-7.1.2	Update stormwater regulations as needed to reflect current state guidance, including low impact development provisions.	CDD WRS	Term of Plan
C-7.1.3	Support water quality messaging and outreach for wellhead and source protection.	WRS	Term of Plan

Policies and Implementation Actions	Lead	Period
C-7.2 Support restoration of river and stream channels and associated wetland and riparian areas to enhance water quality, improve fish and wildlife habitat, and mitigate flooding and erosion.	CDD WRS	**Term of Plan**
C-7.3 Allow public access to wetlands, streams, and lakes for scientific, educational, and recreational use, provided access is carefully sited, sensitive habitats and species are protected, and hydrologic continuity is maintained.	CDD	**Term of Plan**
C-7.3.1 Work with the Tumwater and Olympia School Districts, LOTT, and other community-based organizations on public education on maintaining water quality.	WRS	Term of Plan
C-7.4 Manage water resources to preserve ecosystem services, while addressing fish and wildlife habitat, flood protection, water supply, recreation, and open space.	CDD PRD WRS	**Term of Plan**
C-7.4.1 Update the Salmon Creek Basin Plan.	CDD TED WRS	Term of Plan
C-7.4.2 Monitor storm drain outfalls on a regular basis and pursue corrective actions, as necessary.	WRS	Term of Plan
C-7.5 Work with Olympia, Thurston County, and other affected entities to enhance and protect water quality in the region guided by the Deschutes River Study.	WRS	**Term of Plan**
C-7.5.1 Coordinate implementation strategies and regulations with Olympia and Thurston County.	CDD TED WRS	Term of Plan

Goal C-8 Improve natural drainage systems.

Policies and Implementation Actions	Lead	Period
C-8.1 Develop Watershed Management Plans in partnership with other jurisdictions who are also part of the same watershed.	WRS	**Term of Plan**

Policies and Implementation Actions		Lead	Period
C-8.1.1	Work with Olympia and Thurston County to ensure that regulations regarding surface water management provide consistent surface water management.	WRS	Term of Plan
C-8.1.2	Continue involvement with watershed planning efforts through participation in the Salmon Creek Basin and WRIA 13 watershed planning efforts.	WRS	Term of Plan
C-8.2	**Develop and implement conservation measures necessary to preserve and enhance anadromous fish habitat and other state and federally protected species, consistent with the Growth Management Act.**	CDD	**Term of Plan**
C-8.3	**Protect and enhance natural drainage systems to maintain and improve water quality and reduce public costs.**	CDD WRS	**Term of Plan**
C-8.4	**Prevent environmental degradation by using best management practices and current stormwater treatment and flow control standards on new and redevelopment projects.**	CDD TED WRS	**Term of Plan**
C-8.5	**Use current State approved stormwater treatment and flow control standards on development and construction projects.**	CDD TED WRS	**Term of Plan**
C-8.5.1	Update stormwater regulations as needed to reflect current best available science and state guidance.	CDD TED WRS	Term of Plan
C-8.6	**Require resource industries to use management practices that prevent erosion and sedimentation and pollutants from entering ground or surface waters following State regulations.**	CDD	**Term of Plan**
C-8.6.1	Update regulations as needed to meet state standards to minimize the amount of erosion, sedimentation, and water pollutants created by resource industries.	CDD	Term of Plan

Goal C-9 Improve air quality.

Policies and Implementation Actions		Lead	Period
C-9.1	**Continue to support and rely on the various State, federal, and local programs to protect and enhance air quality.**	CDD	**Term of Plan**
C-9.1.1	Work with the Olympic Region Clean Air Agency and with Federal and State agencies to ensure that air quality is improved and protected within Tumwater.	CDD	Term of Plan
C-9.2	**Require appropriate tree and vegetation retention and landscaping to provide filtering of suspended particulates.**	CDD	**Term of Plan**
C-9.2.1	Update regulations as needed to reflect the current best available science and state guidance that allow the use of existing vegetated areas for biofiltration.	CDD	Term of Plan
C-9.3	**Coordinate with the other Elements in the Comprehensive Plan on actions to reduce vehicle miles traveled, greenhouse gas emissions, and other locally generated air pollutants.**	CDD WRS TED	**Term of Plan**

Goal C-10 Protect and enhance rivers, streams, and lakes.

Policies and Implementation Actions		Lead	Period
C-10.1	**Protect, enhance, and restore natural stream channels for their hydraulic, ecological, and aesthetic functions through development regulations; land dedications, easements, and acquisitions; incentives; and restoration planning.**	CDD WRS	**Term of Plan**
C-10.2	**Require any alteration of rivers, streams, and lakes include mitigation and maintenance which address water quality; floodplain protection; fish and wildlife habitat; channel stability and vegetative cover; maintenance of instream flows; and impacts to downstream property owners.**	CDD	**Term of Plan**
C-10.2.1	Rehabilitate degraded river and stream channels and banks using public and private programs, where conditions permit.	CDD WRS	Term of Plan

Policies and Implementation Actions		Lead	Period
C-10.2.2	Work with tribes, nonprofit organizations, and other public agencies to implement programs to rehabilitate rivers, streams, and lakes.	WRS	Term of Plan

Goal C-11 Protect and enhance wetlands.

Policies and Implementation Actions		Lead	Period
C-11.1	**Where possible, protect wetlands as ecosystems that provide essential services and functionality within watersheds.**	**CDD**	**Term of Plan**
C-11.2	**Preserve and enhance wetlands from new developments by providing buffers around wetlands adequate to protect natural functions.**	**CDD**	**Term of Plan**
C-11.3	**Allow reasonable use of property containing existing wetlands to avoid a regulatory taking following State guidance.**	**CDD**	**Term of Plan**
C-11.4	**Maintain stormwater treatment and flow control sites associated with wetlands in a manner that ensures the ecological functions of the wetland to minimize impacts to critical area habitat.**	**CDD WRS**	**Term of Plan**
C-11.4.1	Ensure the water level fluctuations within wetland areas due to stormwater treatment and flow control objectives are maintained like natural conditions as part of new development.	CDD WRS	Term of Plan

Goal C-12 Protect groundwater.

Policies and Implementation Actions		Lead	Period
C-12.1	**Protect aquifers, aquifer recharge areas, and wellhead protection areas from contamination.**	**CDD WRS**	**Term of Plan**

Policies and Implementation Actions		Lead	Period
C-12.1.1	Work with the State Department of Ecology and others to update the delineation of aquifer recharge areas and regulations.	CDD WRS	Term of Plan
C-12.1.2	Update the wellhead protection plan as new source locations are considered or implemented.	WRS	Term of Plan
C-12.1.3	Develop processes to identify and treat contaminated City water sources.	WRS	Term of Plan
C-12.2	**Protect streams, wetlands, and lakes that serve to recharge aquifers from contamination.**	CDD WRS	**Term of Plan**

Goal C-13 Protect geologically hazardous areas.

Policies and Implementation Actions		Lead	Period
C-13.1	**Regulate development intensity, site coverage, and vegetation removal in geologically hazardous areas to prevent property damage and environmental degradation; minimize soil erosion, siltation, and landslides; and enhance greenbelt and wildlife habitat values.**	CDD	**Term of Plan**
C-13.2	**Minimize soil disturbance and maximize retention and replacement of native vegetative cover, such as trees, for land use permitted in erosion and landslide hazard areas.**	CDD	**Term of Plan**
C-13.3	**Decrease development intensity as slopes increase to mitigate problems of drainage, erosion, siltation, and landslides.**	CDD	**Term of Plan**
C-13.4	**Require contractors to use erosion and sedimentation prevention best management practices on construction projects by the Development Guide and Drainage Design & Erosion Control Manual.**	CDD	**Term of Plan**

Policies and Implementation Actions	Lead	Period
C-13.5 Require appropriate engineering, building design, and construction measures to minimize the risk of structural damage and fire and injury to occupants, and to prevent post-seismic collapse in areas with severe seismic hazards.	**CDD TED**	**Term of Plan**
C-13.5.1 Update building and fire codes as needed to reflect current state standards to account for the severity and frequency of seismic activity in the south Puget Sound area.	**CDD**	Term of Plan

Goal C-14 Preserve flood plains and floodways.

Policies and Implementation Actions	Lead	Period
C-14.1 Minimize land alterations that would increase potential flooding and changes to natural surface water features that retain or carry floodwaters, such as wetlands, floodplains, rivers, streams, and lakes.	**CDD**	**Term of Plan**
C-14.2 Require mitigation for adverse environmental impacts from engineered flood control measures.	**CDD**	**Term of Plan**
C-14.2.1 Prior to authorizing engineered flood control measures, encourage non-structural methods of flood control utilizing best available science.	**CDD**	Term of Plan
C-14.3 Meet state regulatory standards for floodplain development as these standards are updated for consistency with relevant federal requirements including those related to the Endangered Species Act.	**CDD**	**Term of Plan**
C-14.4 Emphasize non-structural methods in planning for flood prevention and damage reduction. Require new developments or land modifications in 100-year floodplains maintain natural flood storage functions and minimize hazards.	**CDD**	**Term of Plan**

Policies and Implementation Actions	Lead	Period
C-14.5 Protect 100-year floodplains by restricting development; encouraging low-impact uses such as open space, trails, and parks; locating infrastructure above the flood level, and requiring new development replace existing flood storage capacity lost due to filling.	**CDD**	**Term of Plan**
C-14.5.1 Update regulations as needed to reduce development in floodplains following Federal Emergency Management Agency standards.	**CDD**	Every five years. Next update 2028.
C-14.6 Restrict permanent structures within the floodway due to risks associated with deep and fast-flowing waters unless appropriate flood control measures have been taken.	**CDD**	**Term of Plan**
C-14.7 Restrict land uses in a floodway that would divert water from the floodway, change flood elevation, or obstruct natural flow, unless appropriate flood control measures have been taken such that there are no additional offsite impacts and no degradation of water quality.	**CDD**	**Term of Plan**
C-14.8 Restrict development in the floodway fringe that would reduce the existing level of flood storage.	**CDD**	**Term of Plan**

Goal C-15 Protect and enhance wildlife habitat.

Policies and Implementation Actions	Lead	Period
C-15.1 Identify, protect, and enhance fish and wildlife habitat corridors to minimize habitat fragmentation, especially along existing linkages by enhancing vegetation composition and structure and incorporating compatible indigenous plant species.	**CDD**	**Term of Plan**
C-15.2 Protect and preserve habitats for species identified as endangered, threatened, or sensitive by the State or federal government, giving special consideration to measures necessary to preserve or enhance suitable habitat.	**CDD**	**Term of Plan**

Policies and Implementation Actions		Lead	Period
C-15.2.1	Implement salmon habitat protection and restoration priorities in approved Water Resource Inventory Area 13 and 23 plans.	CDD WRS	Term of Plan
C-15.2.2	Implement suitable habitat protections and restoration priorities for threatened and endangered aquatic and terrestrial plant and animal species.	CDD	Term of Plan
C-15.2.3	Complete and implement the Bush Prairie Habitat Conservation Plan.	CDD	Term of Plan
C-15.3	**Maintain habitats that support the greatest diversity of fish and wildlife through conservation and enhancement of critical areas.**	CDD	**Term of Plan**
C-15.3.1	Coordinate with adjacent jurisdictions and tribes to identify, protect, and develop enhancement plans and actions for habitat networks and wetlands that cross jurisdictional lines.	CDD	Term of Plan
C-15.3.2	Promote the enhancement or restoration of streams, rivers, lakes, and wetlands as adjacent development activities occur.	CDD	Term of Plan
C-15.4	**When developing forested property adjacent to steep slopes, wetlands, stream ravines, or stream corridors, encourage development to provide additional buffer areas to provide wildlife and fish habitat.**	CDD	**Term of Plan**
C-15.5	**Restore native vegetation and control invasive species to preserve and enhance fish and wildlife habitat.**	CDD	**Term of Plan**
C-15.5.1	Develop regulations requiring all new developments to remove invasive plants and use native vegetation in restoration of buffers around wetlands, streams, creeks, and steep slope areas.	CDD	Term of Plan

Conservation Element

Part 2 – Technical Information

City of Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 6, 2025

December 2025

Ordinance No. O2025-010

CITY OF TUMWATER

Conservation Element

Part 2 – Technical Information

Table of Contents

1. Introduction 4
A. Background 4
B. How to Read this Part of the Element 5
C. Best Available Science 6
D. Shorelines of the State 6
2. Natural Resources 7
A. Background 7
B. Urban Agriculture 7
C. Forest Lands 10
C. Mineral Resource Lands 14
3. Critical Areas 18
A. Background 18
B. Wetland Areas 18
C. Critical Aquifer Recharge Areas 23
D. Frequently Flooded Areas 28
E. Geologically Hazardous Areas 30
F. Fish and Wildlife Habitat Conservation Areas 32
Appendix A Foundational Documents and Best Available Science 36
1. General Policy 36
2. Critical Areas 37
3. Resource Lands 40
Appendix B Open Space Taxation Act Summary 41
Appendix C Tumwater Soils Report 42

List of Tables

Table C-1. State Private Forest Land Grades. 11
Table C-2. Forest Resource Land Identification. 13
Table C-3. Forest Lands Designation Considerations. 13
Table C-4. Mineral Resource Land Identification. 16

DRAFT

Table C-5. Considerations for Mineral Lands Designation in Tumwater. 17
Table C-5. General Policy Foundational Documents for the Conservation Element..... 36
Table C-6. Critical Areas Foundational Documents for the Conservation Element. 37
Table C-7. Resource Lands Foundational Documents for the Conservation Element. 40

List of Figures

Figure C-1. Agricultural Soil Classifications in Tumwater. 9

List of Maps

Map C-1. Designated Forest Resource Lands Map
Map C-2. Designated Mineral Resource Lands Map
Map C-3. Critical Aquifer Recharge Areas Map
Map C-4. Frequently Flooded Areas Map
Map C-5. Geologically Hazardous Areas Map
Map C-6. Shorelines of the State Map
Map C-7. Wetlands Map

Abbreviations Used in Document

CDD – Community Development Department

RCW – Revised Code of Washington

TMC – Tumwater Municipal Code

WAC – Washington Administrative Code

WRS – Water Resources & Sustainability Department

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1. Introduction

A. Background

The Conservation Element is part of Tumwater's Comprehensive Plan. It was created to meet the State Growth Management Act (Chapter 36.70A RCW) requirements to identify and protect critical environmental areas and valuable natural resources.

The Element addresses:

1. **Natural Resource Lands Conservation**
   - Agricultural Lands
   - Forest Lands
   - Mineral Resource Lands
2. **Critical Areas Protection**
   - Wetland Areas
   - Critical Aquifer Recharge Areas
   - Frequently Flooded Areas
   - Geologically Hazardous Areas
   - Fish and Wildlife Habitat Conservation Areas

The Growth Management Act requires that Tumwater demonstrate that each Element in its Comprehensive Plan meets the relevant fifteen planning goals contained within the Act. The fifteen goals in turn guide the development and adoption of Tumwater's Comprehensive Plan and development regulations.

The Conservation Element addresses the two Growth Management Act goals related to the environment and natural resources:

CONSERVATION

State requirements (WAC 365-196-405) that the Comprehensive Plan must meet:

- Designation of the proposed general distribution and general location and extent of the uses of land, where appropriate, for agricultural, timber, and mineral production of long-term commercial significance.
- The general location of any known critical areas that limit the suitability of land for development.
- Provisions for the protection of the quality and quantity of ground water used for public water supplies.
- A review of drainage, flooding, and stormwater runoff in the area covered by the plan and nearby jurisdictions, and guidance for corrective actions to mitigate or cleanse those discharges that pollute waters of the state, including Puget Sound or waters entering Puget Sound.
- Influences or threats to the quality and quantity of ground water used for public water supplies.

8. ***Natural resource industries.*** *Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forestlands and productive*

agricultural lands, and discourage incompatible uses.

The Conservation Element has specific guidelines and policies that ensure the viability of natural resource industries and activities. Additionally, the Conservation Element ensures the viability of natural resource industries in Tumwater through the identification of such lands in the Conservation Element text and maps.

While Tumwater has limited natural resource lands as defined by the Growth Management Act, it does have mineral resources, forestry, and agriculture lands. Tumwater supports urban forestry and agriculture appropriate and compatible with other land use goals, policies, and implementation actions.

10. ***Environment.*** *Protect and enhance the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.*

The State Legislature updated the Growth Management Act environment goal in 2023 to require enhancement of the environment.

The Conservation Element contains specific policies relating to air and water quality, water availability, and protection and preservation of critical areas and enhance the environment. Areas of environmental sensitivity are designated as open space or a lower intensity land use designation than other areas of Tumwater.

If conflict occurs in the implementation of planning and development regulations, the priority of protecting critical areas will be superior to other uses of natural resources.

The Conservation Element and implementing ordinances were developed with public input as described in the Public Outreach Plan required by the Growth Management Act. The Element is based on the updated list of additional supporting plans, documents, and best available science found in Appendix A.

B. How to Read this Part of the Element

Part 2 of the Conservation Element consists of the following chapters.

- **Chapter 2 – Natural Resources**: Provides a summary of Tumwater's current mineral resource lands and discusses urban forestry and urban agriculture.
- **Chapter 3 – Critical Areas**: Provides a summary of critical areas in Tumwater, including wetlands, critical aquifer recharge areas, frequently flooded areas, geologically hazardous areas, and fish and wildlife conservation areas. Each critical area has its own section, discussing regulations, classifications, and locations within Tumwater.
- **Appendix A – Foundational Documents and Best Available Science**: Provides a list of the documents used to create the Conservation Element's Technical Summary.

C. Best Available Science

RCW 36.70A.172 and WAC 365-195-900 through WAC 365-195-925 require Tumwater to use best available science in revising or adopting new policies and regulations related to critical areas.

Utilization of best available science is particularly important to wetland and riparian area protection, floodplain areas and salmon recovery efforts required under the Endangered Species Act. Best available science is a process to assist jurisdictions in ascertaining what science is appropriate for use in basing policy and regulatory decision-making.

Tumwater uses best available science in all revisions and additions to critical areas policies and regulations to protect the functions and values of critical areas.

D. Shorelines of the State

For shorelines of the state, the goals, and policies of the Shoreline Management Act (RCW 90.58.020) were added as one of the goals of the Growth Management Act (RCW 36.70A.020) without creating an order of priority among the fifteen goals. The goals and policies of Tumwater's Shoreline Master Program approved under RCW 90.58 shall be considered an element of the Comprehensive Plan.

The shorelines of the state as identified by the Shoreline Management Act within Tumwater include the Deschutes River, and Black Lake Drainage area as well as Trosper Lake, Barnes Lake, Lake Susan, and Munn Lake. Shorelines of the state within Tumwater's urban growth area include Black Lake.

Shorelines of the state also include the upland or shorelands that extend 200 feet landward from the edge of these waters, and any wetlands, floodways, and floodplain areas associated with such waters.

Tumwater's updated Shoreline Master Program was adopted in 2019 following review and approval from the State Department of Ecology. The Shoreline Master Program incorporated the existing critical area regulations from TMC Chapter 16.20, TMC Chapter 16.28, and TMC Chapter 16.32.

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2. Natural Resources

A. Background

Natural resources are the materials that occur in nature and are used by humans to meet their needs. The European settlement of Tumwater was based on its location adjacent an abundant water source for industry and transport. The trees around Tumwater were harvested and used for construction, wood pulp, and other products.

Today, natural resources are still a part of Tumwater's urban environment. Having access to locally grown fresh food, forests for wood products, and mineral resources for transportation and other infrastructure reduces the cost of transporting these essential goods from far away. It also creates jobs in harvesting and manufacturing these raw materials into goods.

Natural Resources serve many benefits besides use. Trees sequester carbon, filter air, provide shade, absorb water, and provide habitat. Agriculture improves soil fertility, manages water infiltration, reduces soil erosion, and provides habitat.

Harvesting natural resources can also have impacts on neighboring ecosystems, properties, and human health. Air pollution, erosion, and habitat loss are some of the more detrimental disturbances.

Identifying lands where humans should extract and use resources that will have less impact on the landscape and on other humans is an important part of planning. This section considers natural resources in Tumwater, their value for residents, and considers which lands are most appropriate for natural resource use in an urban area.

B. Urban Agriculture

1) Introduction

Protecting agricultural resource lands in rural areas is prioritized in the Growth Management Act. While Tumwater is developing to urban levels to protect the long-term sustainability of agricultural resource lands outside of the urban area, there are limited areas of Tumwater that currently contain agricultural uses.

Access to healthy food choices is an important public health issue. Lack of healthy food choices contributes to health problems such as obesity, diabetes, heart disease, and cancer. Access to healthy food and local food production are clearly part of planning for a vital, healthy community.

The Tumwater City Council's Strategic Plan has several goals and policies directly related to environmental sustainability and increasing the availability of healthy, locally grown food. Long distance transportation consumes an enormous amount of fossil fuel and generates a great deal of greenhouse gases. Increased local food production has a direct beneficial effect on the environment by reducing greenhouse gas emissions. Transportation costs are much lower for local food producers.

In addition, a direct benefit to the community is the provision of fresh, healthy, locally grown food. Encouraging a wide range of local food production options compatible with an urban environment are important policy decisions in furthering the sustainability goals of Tumwater.

2) Sustainable Urban Agriculture

Sustainable urban agriculture can take a variety of forms, some of which are listed below.

1. **Urban Farm.** An urban farm is where plants and/or some animals are grown for sale of the plants and animals or their products, and in which the plants and animals or their products are sold either on the lot where they are grown or off site, or both. Examples may include flower and vegetable raising, orchards and vineyards. Urban farms are small-scale agricultural uses that are appropriate for an urban area and compatible with other urban land uses.
2. **Community Garden.** A community garden means land managed by a public or nonprofit organization, or a group of individuals, which is used to grow plants and harvest food or ornamental crops from them for donation or use by those cultivating the land and their households.
3. **Individual Home Garden.** A home garden is a garden grown on a residential lot as an accessory use to the primary use for consumption by the occupants.
4. **Farmers Market.** A farmers market consists of a group of individual venders primarily selling locally grown produce and products drawn from the region. This use typically is seasonal and may be temporary. Some examples are set up on closed streets or on portions of sites used for other primary uses.

3) Agricultural Lands Classification

The Conservation Element's classification and identification of agricultural lands of long-term significance is based upon the land-capability classification system of the U.S. Department of Agriculture Handbook No. 210, which utilizes soil characteristics to determine capacity. The classes of agricultural lands are based upon consideration of growing capacity, productivity, and soil composition of the land.

The reference standard for defining categories of agricultural lands of long-term significance is the use of prime and unique farmland soils classifications as mapped by the Natural Resource Conservation Service in the Web Soil Survey.

The Conservation Element recognizes that under the Growth Management Act, the prime agricultural lands in Tumwater and its urban growth areas have developed for urban uses in large part to protect the agricultural lands of long-term significance in rural Thurston County from development pressure.

These circumstances do not allow for a classification of agricultural lands of long-term significance to be applied to Tumwater or its urban growth area, which is intended for urban growth under WAC 365-190-050(3)(a).

4) Agricultural Lands Identification

The U.S. Department of Agriculture updates the soil classification and surveys annually. The

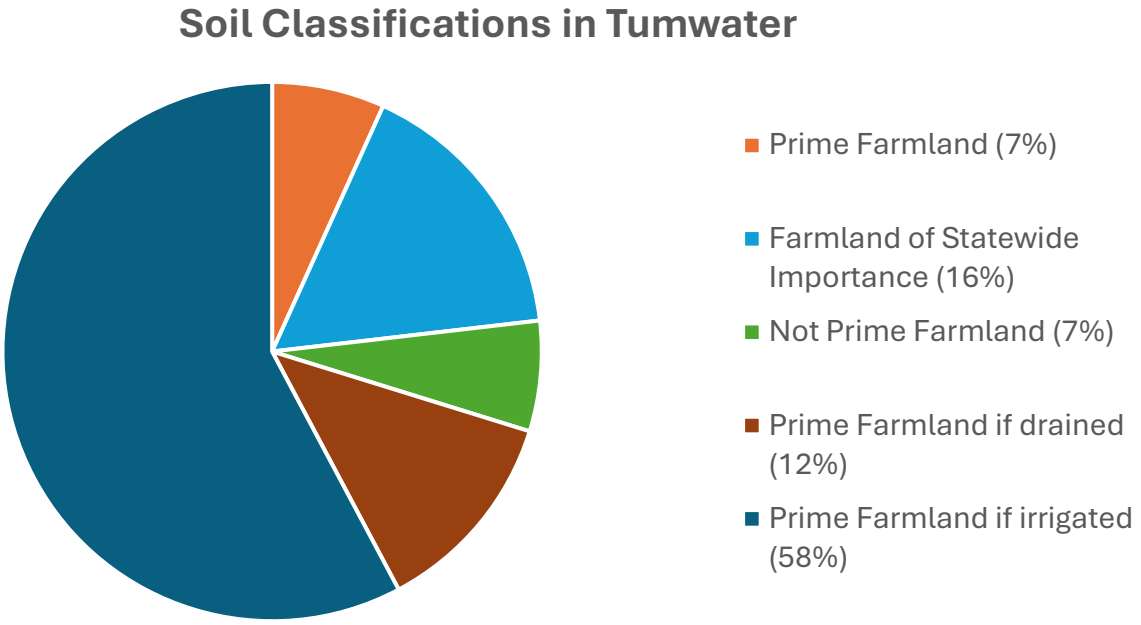
Natural Resource Conservation Service soil survey report for Tumwater is included as Appendix A.

The Natural Resource Conservation Service Soil Survey Report for Tumwater and its urban growth area provides information on the various soils as surveyed in the area. Classifications for soil are contained in the report as well as information about the characteristics of the soil and suitability for land use types. The percentage of prime soil, soils of state significance, and other agriculture land uses classes are provided in Table C-1 below.

While this information is valuable for open space and parcels without development, most of the soil in Tumwater is or will be covered by urban land uses. Information on soil is developed from the Natural Resource Conservation Service Soil Survey of Thurston County. Soils in the classifications including where drained and where irrigated were not included as those actions do not align with other conservation goals within this section.

Urban soils are separately identified as they have different characteristics than natural soils. Part of the reason for this is the impact of human activity from adding fill material to make it more suitable for specific development or to modify the landscape for specific activities.

Figure C-1. Agricultural Soil Classifications in Tumwater.



Source: Web Soil Survey, Natural Resources Conservation Service, U.S. Department of Agriculture. Accessed April 2025.

5) Current Agriculture Uses

Currently within Tumwater there are several agriculture operations identified by the State Department of Agriculture. Several landowners produce hay, pasture, lawn and turf, nursery, and other crops. One of two local farmstand and corn maze agritourism businesses and a grocery retailer focused on local food are located within Tumwater.

Due to the current use, there are parcels within Tumwater that are designated as agriculture and

are eligible for tax reduction programs through the State Department of Revenue.

This incentive-based program promotes the retention of lands used for agriculture by reducing the tax rate for these parcels and restricting the use to agriculture. Future landowners are deterred from changing the land use as doing so results in a penalty. Map C-1 shows the properties enrolled in these programs within Tumwater.

6) Small Scale Urban Agriculture

There are other land use factors that impact small scale agriculture in urban areas and should be considered when regulating food systems. Encouraging small-scale urban farms and community gardens is one way Tumwater can play a role in ensuring food access, food security, and overall environmental sustainability into the future.

While lands for agriculture can be found within Tumwater, the cost of land and the economic pressure for development make it difficult to sustain large scale agriculture businesses within Tumwater.

Existing Tumwater support for small scale agriculture includes:

- The Right-to-Farm Ordinance (Ordinance No. 1276, effective 1991) protected legally established agricultural facilities.
- The Urban Agriculture Ordinance (Ordinance No. O2010-029, effective 2011) established regulations for the following:
    - New agriculture uses are allowed within the Airport Related Industry, Light Industrial, Residential/Sensitive Resource, Single Family Low, Single Family Medium, and Multifamily Medium zone districts provided they are thirty acres or less in size that meet specific requirements.
    - Farmers markets as a permitted use in all commercial and industrial zone districts.
    - Community gardens as a permitted use in all residential, commercial, and industrial zone districts, except for the Manufactured Home Park zone district.
    - Permitting small scale farm animal options such as apiaries, poultry, and rabbits within Tumwater.
    - Taller fences for agricultural uses.

In 2024 the City Council approved a project to review the food system in Tumwater which included a review of regulatory barriers and prepare a plan to address next steps.

C. Forest Lands

1) Introduction

Protecting forest lands in rural areas is prioritized in the Growth Management Act. While Tumwater is developing to urban levels to protect the long-term sustainability of forest resource lands outside of the urban area, there are limited areas of Tumwater that are classified as forest resource

lands.

Applying best management practices on forest land creates environmental benefits such as:

- Improving water and air quality
- Reducing soil erosion
- Decreasing damage from storms and floods
- Protecting wildlife habitat
- Providing scenic and recreational spaces

2) Forest Lands Classification

The Growth Management Act requires Tumwater to classify current forest resource lands. The classification of the forest lands is based upon the private forest land grades of the State Department of Revenue (WAC 458-40-530).

This classification system incorporates consideration of growing capacity, productivity, and soil composition of the land. These factors are calculated and expressed as a site index. Forest lands of long-term commercial significance generally have higher private forest land grades. If lower private forest land grades exist within areas of predominately higher grades, the land may be designation as forest land.

Identifying lands suitable for forest land designation in Tumwater balanced the state requirement that growth occur in urban areas against the review of the dominant species and site index to determine the land grade. Table C-1 shows land grades for Western Washington forests.

Table C-1. State Private Forest Land Grades.

Washington State Species: Westside	Private Forest Site Index	Land Grade
Douglas Fir	136 feet and over	1
	118 to 135 feet	2
	99 to 117 feet	3
	84 to 98 feet	4
	Under 84 feet	5
Western Hemlock	136 feet and over	1
	116 to 135 feet	2
	98 to 115 feet	3
	83 to 97 feet	4
	68 to 82 feet	5
	Under 68 feet	6
Red Alder	117 feet and over	6
	Under 117 feet	7

Washington State Species: Westside	Private Forest Site Index	Land Grade
	Marginal forest productivity	7 or 8
	Noncommercial	8

Source: WAC 458-40-530

Notes: Land Grade 1 = highest, Land Grade 8 = lowest. The marginal forest productivity in Tumwater is Land Grade 8

Forest lands are further defined by operability classes based upon characteristics of soils and slope. The criteria are as follows:

- **Class 1 – Favorable**. Stable soils that slope less than thirty percent. Forest operations do not significantly affect soil productivity and soil erosion. Forest operations, such as road building and logging, are carried out with minimal limitations.
- **Class 2 – Average.** Stable soils that slope less than thirty percent, but on which significant soil erosion, compaction, and displacement may occur because of forest operations.
- **Class 3 – Difficult**. Soils with one or both of the following characteristics:
  a. Stable soils that slope between 30 and 65 percent; and
  b. Soils that slope between zero and 65 percent but display evidence that rapid mass movement may occur as a direct result of forest operations.
- **Class 4 – Extreme**. All soils that slope more than 65 percent.

3) Current Forest Land Use

Forestry occurs at many different scales in Tumwater. Common forestry activities include maintaining existing trees through pruning and non-native plant removal, planting new trees in parks and streetscaping, and tree removal.

Within Tumwater, there are also stands of trees which are currently used for commercial harvest. These stands of trees are harvested and replanted to harvest again in cycles to produce timber for the many wood products made, purchased, or used locally.

There are parcels within Tumwater that are designated for forestry use and are eligible for tax reduction programs through the State Department of Revenue Open Space Program. This incentive-based program promotes the retention of land used for forestry by reducing the tax rate for these parcels and restricting the use to agriculture.

Future landowners are deterred from changing the land use as doing so results in a penalty. Map C-2 and Table C-2 show the properties enrolled in these programs within Tumwater.

Thurston County Assessor public records show that seven parcels within Tumwater and its urban growth area are designated forest land. The total area of all designated forest land in Tumwater is 371.81 acres. More than half of the parcels are owned by a large timber company that manages many parcels for forest products.

There are also lands which are not identified by the assessor nor enrolled in the program where forest practices occur.

Table C-2. Forest Resource Land Identification.

Parcel Number	Parcel Area	Adjacent Land Use Designation	Adjacent Current Land Use
11718330000	37.95	Low Density Residential, Neighborhood Commercial, Open Space	Residential
12721330000	38	Light Industrial	Residential, Commercial, Industrial
12820340000	120	Light Industrial, Low Density Residential, Heavy Industrial	Natural Resource, Residential
12829210000	30	Light Industrial, Low Density Residential, Heavy Industrial	Natural Resource, Residential
12829230000	120	Light Industrial, Low Density Residential, Heavy Industrial	Natural Resource, Residential
12829410000	16.01	Green Belt, Low Density Residential, Light Industrial	Residential, Parks, Vacant
12832420500	9.85	Low Density Residential	Residential, Vacant, Commercial, Industrial, Utilities
51620100100	9.59	Light Industrial	Residential, Commercial, Industrial

Sources: Thurston County Assessor and Thurston Regional Planning Council, 2025.

4) Forest Lands Conservation

Development and urbanization are the leading causes of forest lands conversion. The Growth Management Act protects forest resources in the rural areas by directing urban development within Tumwater and its urban growth area.

Table C-2 shows the conditions for conversion of forest lands to urban land uses.

Table C-3. Forest Lands Designation Considerations.

Considerations	Tumwater Conditions
The availability of transportation and other necessary public services and facilities	Services and facilities available
Forest lands are located outside the urban and suburban areas and rural settlements	Located within an urban area
Parcel size: forest lands consist of predominantly large parcels	Parcels identified are small to medium in size
The compatibility of adjacent and nearby land use and settlement patterns with forest lands of long-term commercial significance	Adjacent land uses of urban land use intensity
Property is assessed as open space or forest land	Seven parcels identified

pursuant to Chapter 84.33 RCW or Chapter 84.34 RCW	
Local economic conditions	Not supportive in the long term of forest land designation
History of land development permits issued nearby	Parcels harvested under state conversion permits are processed by Tumwater

5) Forest Lands in the Urban Area

The Growth Management Act (WAC 365-190-060(2)) locates forests of long-term commercial significance outside of urban growth areas. Forest lands in Tumwater and its urban growth area are not considered in the Conservation Element to be of long-term significance and are not planned for designation as protected resource lands.

Tumwater continues to manage urban forest resources for the many benefits they provide to residents and the larger region. Several goals and policies in the Comprehensive Plan align urban forest practices with other planning requirements and community interests.

While no forest lands of long-term significance are currently identified, the parcels of land that are currently forested are encouraged to remain forested for their environmental and open space benefits, as long as possible, before conversion to urban land uses.

6) Urban Forestry Management Plan

The Tumwater Urban Forest Management Plan establishes goals to ensure healthy trees on Tumwater's urban landscape into the future. The Plan identified a number of action items to support its goals, which include:

- Restore and enhance the community and urban forest.
- Protect and preserve the community and urban forest, which includes trees, understory, habitat, and soils.
- Balance the protection and support of the community and urban forest with other City strategic priorities, which include, in part, providing affordable housing, developing a walkable urban community, economic development, addressing climate change, and protecting endangered species.

C. Mineral Resource Lands

1) Introduction

While metallic, nonmetallic and coal are found and mined in the state, currently the most valuable mineral resource is aggregate. Gravel, sand, and crushed stone are examples of aggregate resources used for transportation, residential, commercial, and industrial construction. The state is the seventh highest sand and gravel producer in the nation. Identifying and conserving local sources for aggregate is important since hauling these materials requires large amounts of fuel due to the weight and heavy vehicle route maintenance.

As with other types of resource lands discussed in this plan, the identification and conservation of mineral resource lands is a requirement of the Growth Management Act. The Conservation Element identifies and classifies mineral resource lands from which the extraction of minerals currently occurs or may occur in the future as well as a strategy to ensure a future supply of these minerals is maintained.

2) Mineral Resources Lands Classification

In defining what lands qualify as mineral resource lands, the Conservation Element bases its methodology upon WAC 365-190-070(3) with modification to include consideration of environmentally sensitive areas, existing land uses, and land ownership.

Tumwater classifies mineral resource lands using the following minimum guidelines:

- **Geology** – The land in question should contain deposits consisting of sand and gravel, coal, sandstone, basalt, or other igneous rock that is recoverable and marketable, based on U.S. Geological Survey maps or site-specific information prepared by a geologist, or as indicated by the State Department of Natural Resources mining permit data.
- **Projected Life of the Resource** – To be designated as mineral resource land there should be sufficient mineral resource to be commercially sustainable for a number of years under market conditions present when the designation is being considered.
- **Proximity to Point of Use or Market** – Consideration for the energy cost of transporting the extracted materials to the market or end user.
- **Infrastructure** – Consideration for the availability of public roads and whether there is a source of water.
- **Current and Future Land Use** – Extractive industries should locate where prime natural resource deposits exist, provided these sites are separated by buffer strips from existing residential areas and restored for appropriate re-use after removing the resource material.

When classifying these areas, maps and information on the location and extent of mineral deposits provided by the State Department of Natural Resources, U.S. Geological Service and any relevant information provided by property owners should be utilized. Critical areas, other environmentally sensitive areas, and cultural resources are also important criterion to consider.

3) Mineral Resources Lands Identification

The Conservation Element identifies lands with long-term commercial significance for extracting mineral resources.

The State Department of Natural Resources maintains maps and classification systems for mineral resources which aligns with state guidance for mineral lands designation in WAC 365.190.040(4) and WAC 365.190.070(3). Aggregate Resource Maps are made using existing geologic maps, subsurface data, materials-testing data, and publicly available mining data to classify potential sources of aggregate. These classifications vary based on size, quality, and uncertainty of the resource. Table C-4 and Map C-

3 show the mineral resources in Tumwater and its urban growth area.

Table C-4. Mineral Resource Land Identification.

Parcel Number	Parcel Area	Adjacent Land Use Designation	Adjacent Current Land Use
11706320100	23.75	Open Space	Natural Resource, Undeveloped Land
11706330000	21.85	Open Space	Natural Resource, Undeveloped Land
11706330100	42.28	Open Space	Natural Resource, Undeveloped Land
12713240100	13.03	Open Space, Light Industrial, Low Density Residential	Parks, residential, Undeveloped Land
12715120900	6.00	Light Industrial, Medium Density Residential, Low Density Residential	Natural Resource
12829120200	15.03	Light Industrial, Heavy Industrial	Commercial, Industrial, Natural Resource
12829130200	3.74	Heavy Industrial, Light Industrial Green Belt	Natural Resource, Undeveloped Land
12829130201	9.10	Heavy Industrial, Light Industrial Green Belt	Natural Resource, Undeveloped Land
12829130202	0.90	Heavy Industrial, Light Industrial Green Belt	Natural Resource, Undeveloped Land
12829130203	5.81	Heavy Industrial, Light Industrial Green Belt	Natural Resource, Undeveloped Land
12829210100	10.06	Heavy Industrial, Light Industrial	Natural Resource,
12829310000	36.57	Heavy Industrial, Light Industrial, Low Density Residential	Natural Resource, Undeveloped Land, Commercial, Industrial
12829320200	27.40	Heavy Industrial, Low Density Residential	Natural Resource, Undeveloped Land
12829320201	12.72	Heavy Industrial, Low Density Residential	Natural Resource, Undeveloped Land
12829340200	4.97	Heavy Industrial, Low Density Residential	Natural Resource, Undeveloped Land, Commercial, Industrial
63050001900	13.55	Light Industrial	Natural Resource, Commercial, Industrial, Residential, Undeveloped Land

Sources: Thurston County Assessor and Thurston Regional Planning Council, 2025.

In Tumwater, the Heavy Industrial land use designation and associated zoning district was specifically created to support the existing rock quarry use on Black Lake Boulevard. New mineral extraction uses are not permitted anywhere else in Tumwater.

Mineral resource lands identified are subject to consideration of the effects of proximity to population areas and the possibility of more intense uses of land as shown in Table C-5.

Table C-5. Considerations for Mineral Lands Designation in Tumwater.

Considerations for Mineral Lands Designation	Conditions in Tumwater
General land use patterns in the area	Urban
Availability of utilities	Available
Availability and adequacy of water supply	Available
Surrounding parcel sizes and surrounding uses	Small-medium sized parcels, land uses industrial and commercial in nature
Availability of public roads and other public services	Available
Division or zoning for urban or small lots	Yes
Accessibility and/or distance from point of use	Close to use sites
Physical and topographic characteristics of the mineral resource site	Accommodating to low operating costs
Depth of the resource	Exposed at surface
Depth of the overburden	Exposed materials
Physical properties of the resource	High grade gravel, sand, and rock
Life of the resource	10 to 100 years
Resource availability in the region	Good for sand/gravel, limited to rock
Surrounding critical areas	Site by site variation
Impact to endangered species habitat	Site by site variation
Energy costs of transporting minerals	Dependent upon location

4) Mineral Resources Lands Protection

TMC Chapter 16.16 protects legally established mineral resource extraction facilities.

Future discoveries of mineral resources, or market conditions that are conducive, may encourage the opening of new mineral resource extraction operations. What or where these facilities would be located cannot be accurately gauged. A newly established mineral resource extraction facility must be a land use identified within the land use designations and zone districts applying to the site.

3. Critical Areas

A. Background

Tumwater's environment is comprised of both natural and built features. Lakes, mature trees, steep slopes, natural vegetation, streams, wetlands, and prairies are parts of the natural environment within Tumwater. Tumwater's history and name reflects the importance of the natural environment to the community identity.

As the need for more jobs, housing, public services, transportation, utilities, and recreation increase, the protection of the natural environment becomes more important.

Tumwater must continually assess the relationship between the natural and built environments and evaluate the potential impacts of development on the environment and the community. Maintaining a quality natural environment in Tumwater depends on coordinated actions between government, the private sector, and individuals.

The Conservation Element guides City effort to balance nature and community, creating a path to sustainable growth. It is intended to meet the objectives of the Growth management Act, the federal Endangered Species Act, State Environmental Policy Act, County-Wide Planning Policies for Thurston County, and other applicable federal, state, and county policies.

This Element also provides guidance for reducing the risks to people, property, and the environment posed by geological and flood hazard areas. Tumwater's Appendix to the Thurston County Hazard Mitigation Plan provides additional mitigation strategies and background information about natural hazards.

TMC Title 16 promotes the maintenance, enhancement, and preservation of critical areas and environmentally sensitive natural systems by avoiding or minimizing adverse impacts from construction and development.

Under the Growth Management Act, Tumwater is required to use the best available science when reviewing and revising policies and regulations for critical areas. The plans and regulations designed to protect critical areas are not intended to deny reasonable use of private and public property, but to assure that development on or near critical areas is accomplished in a manner that is sensitive to the environmental resources of the community.

B. Wetland Areas

1) Introduction

Wetlands serve many important ecological functions. They act as natural reservoirs for flooding and stormwater runoff; protect water quality by filtering out pollutants; help stabilize shorelines; provide areas for groundwater recharge; provide fish and wildlife habitat; provide open space and recreation opportunities; and provide areas for scientific study and education.

Wetlands preservation can significantly reduce public and private costs associated with

downstream flooding, poor water quality, and diminished wildlife habitat.

Through the Conservation Element and associated regulations, Tumwater will:

- Preserve, protect, manage, and regulate wetlands for the purpose of promoting public health, safety and general welfare while conserving fish, wildlife, and other natural resources;
- Protect the ecological and economic benefits to the public of wetlands functions and values;
- Regulate property use and development to maintain the natural and economic benefits provided by wetlands;
- Protect private property rights consistent with the public interest; and
- Provide for protection against direct and indirect wetlands impacts by providing regulatory authority for management of wetland buffers.

It is the short-term goal of this policy to achieve no net loss of the remaining wetlands in Tumwater, defined by acreage and function. It is the long-term goal to improve the health of Tumwater's existing wetlands and create wetlands, where feasible, to increase the quantity and quality of wetlands in Tumwater.

2) Wetland Values and Benefits

Wetlands serve many important ecological functions. A summary of wetland benefits follows:

- Wetlands slow and store floodwater. Riverine wetlands and floodplains provide flat areas where floodwaters can spread out and slow down, reducing the height and velocity of floods. Floodwater trapped in wetlands may then slowly drain, reducing stream bank erosion and downstream peaks.
- Wetlands provide erosion control for shorelines by dissipating the water's energy and stabilizing shorelines with the root systems of plants commonly found in wetlands.
- Wetlands improve water quality by their ability to filter out sediments, nutrients, and toxic chemicals. Moving water carries suspended sediments and other materials. As the water enters a wetland and slows down, these sediments tend to settle down. The sediments are then trapped by wetland vegetation, which in turn reduces the amount of siltation deposited in lakes and reservoirs.
- Wetlands allow water to soak into the underlying soil, which adds to the supply of groundwater.
- Wetlands provide essential areas for waterfowl and migratory shorebirds to rest and feed.
- Wetlands provide essential escape covers and feeding, nesting, and breeding habitat for many species of fish and wildlife, including the Oregon spotted frog. Wetland plants help protect juvenile fish, thereby serving to increase the anadromous fish population.
- Wetlands furnish areas for education and research of a variety of flora and fauna that cannot be found in other

environments.

- Wetlands provide open space and recreation opportunities, including fishing, hiking, boating, and bird watching.

3) Existing Wetland Policies, Regulations, and Inventories

Several federal, state, and local wetland policies, regulations, and inventories currently form a patchwork for wetlands protection.

a) Federal Clean Water Act

The Federal Clean Water Act is a broad-based law covering water pollution control in general. Section 404 of the Act requires the Army Corp of Engineers to regulate the dredging and filling of waters of the United States, including the tributaries and wetlands. However, the dredging, draining or land clearing of wetlands without a nexus to waters of the United States, including their tributaries and wetlands, is not addressed by the Act.

b) State Shoreline Management Act

The State Shoreline Management Act regulates activities in shorelines of the state, which include lakes over 20 acres in size, rivers, and streams with flows more than 20 cubic feet per second (c.f.s.), and all lands within 200 feet of the ordinary high water mark and any wetlands, floodways, and/or floodplain areas associated with such waters.

The Act excludes wetlands not associated with shorelines of the state, including isolated wetlands and riparian wetlands associated with lakes less than 20 acres and streams with flows less than 20 c.f.s. It also exempts most agricultural and forest practices from permit requirements.

Tumwater adopted an updated Shoreline Master Program in April 2014, and it was subsequently amended on December 3, 2019.

Tumwater's Shoreline Master Program requires that wetland buffers be determined by the category and function level of the wetland as stated in the version of TMC Chapter 16.28 adopted as part of the Shoreline Master Program.

c) State Hydraulics Code

Any work that uses, diverts, obstructs, or changes the natural flow or bed of any salt or freshwaters of the state requires Hydraulics Project Approval. The State Department of Fish and Wildlife administers the State Hydraulics Code through Hydraulic Project Approval process. The intent of the Code is to protect fish and fish habitat.

Wetlands outside the ordinary high-water mark and isolated wetlands without fish life are excluded. A Hydraulic Project Approval does not address impacts to wetland functions and values other than fish and fish habitat.

d) State Wetland Rating System for Western Washington

The manual is currently the definitive methodology for determining when a wetland is present and where a wetland boundary is located. It is based on the functional values present in the wetland, sensitivity to disturbance, significance, rarity, and ability to replace. The use of the most current manual during project review is consistent with using the best available science.

e) National Wetlands Inventory

Conducted on a national level using aerial photographs, the National Wetlands Inventory depicts wetland locations, approximate boundaries, and includes classification by wetland type. The inventory is available for Tumwater, but

it should not be presumed to locate every wetland area in Tumwater. Often the only reliable method for wetland identification is a site visit by a qualified wetland biologist following the process in TMC Chapter 16.28. This is typically done in conjunction with a development proposal.

f) Wetland Mapping for the Thurston Region

The Thurston Regional Planning Council has identified wetlands in Thurston County based on color infrared aerial photographs. In many cases, the results of aerial photography have been verified by field surveys. The result is digitized maps showing wetlands boundaries and types. This inventory must be supplemented with site specific field surveys to verify wetland boundaries at the time of development permit review.

g) Environmental Policy

TMC Chapter 16.04 adopts the State Environmental Policy Act with amendments. The intent of this code is to identify and if necessary, mitigate the environmental impacts associated with a variety of actions.

h) Wetlands Protection Standards

TMC Chapter 16.28 establishes standards for the protection of wetlands. Wetlands in Tumwater are regulated under this chapter. Exemptions include intentionally created wetlands, such as stormwater treatment ponds, and certain unintentionally created wetlands.

i) Protection of Trees and Vegetation

TMC Chapter 16.08 regulates the clearing of land in Tumwater, including trees and vegetation located in wetlands. The Urban Forestry Management Plan was adopted on March 2, 2021. The intent of the plan was to guide policies and implementation actions for the maintenance and improvement of the urban tree canopy in Tumwater over the next 20 years.

j) Floodplain Regulations

Floodplains are regulated by TMC Chapter 18.38. The Floodplain Overlay prohibits or strictly limits filling and development in designated floodplains, including wetlands located within these areas. This reduces the height and velocity of floods and lessens bank erosion.

4) Wetland Protection Areas Classification

The Growth Management Act requires Tumwater to classify wetlands according to their sensitivity to disturbance, rarity, functions, and irreplaceability. Tumwater uses the *Washington State Wetland Rating System for Western Washington* for classifying wetlands as outlined below, which is further identified in TMC Chapter 16.28.

5) Wetland Identification

Identification of wetlands is undertaken by the permit application at the time an application for development is made, using the *Washington State Wetland Rating System for Western Washington* in its current form, and as hereafter amended.

6) Wetland Protection Techniques

Techniques used to protect wetland areas include:

- Using the *Washington State Wetland Rating System for Western Washington* for wetland classification based on function and value.
- Requiring a qualified wetland biologist to

determine wetland type and boundary for development sites containing wetlands.

- Establishing wetland buffers based on the relative value of the wetland in which no development or disturbance should occur.
- Striving to achieve no net loss of wetland areas and functions.
- Striving to create wetlands in the long term, where feasible, to increase the quantity and quality of wetlands.
- Attempting to avoid impacts to wetlands altogether if practicable.
- If impact avoidance is impossible, attempting to reduce wetland impacts through mitigation.
- If impact avoidance and reduction are impossible, accomplishing wetland compensation.
- Providing education on the value of wetlands to developers and homeowners.

7) Wetland Protection

WAC 365-190-040(1) states that when critical areas, including wetland areas, cannot be readily identified, these areas should be designated by performance standards or definitions. In this way, such areas can be specifically identified during the processing of a site-specific permit or development authorization.

For the purposes of wetland protection, a performance standard based process is followed.

The wetland protection standards in TMC Chapter 16.28 classify, designate, and protect wetlands and their associated buffers from on-site and off-site activities impacts. These regulations have provisions for reasonable wetland buffer areas and the means for avoidance and reduction of wetland impacts. Attributes of the wetland protection standards in TMC Chapter 16.28 include the following.

a) Wetland Buffer Areas

Wetland buffer areas are required to be adjacent to regulated wetlands to protect wetland functions and values. All wetland buffer widths are measured from the wetland boundary as established by a field survey conducted by a qualified wetland biologist. Wetland buffers are the primary means by which wetland functions and values are protected.

Wetland buffer widths may be increased, reduced, or averaged on a case-by-case basis in accordance with best available science when an altered buffer is necessary to protect wetland functions and values in accordance with TMC Chapter 16.28.

b) Wetland and Wetland Buffer Areas – Allowed Activities

Certain limited low-intensity activities may be permitted in wetland buffer areas without a wetlands permit provided that these activities are not prohibited by any other chapter or law, and they are conducted using best management practices, such as:

- Conservation or preservation of soil, water, vegetation, fish, shellfish, and other wildlife that does not entail changing the structure or functions of the existing wetland.
- Outdoor recreational activities, including fishing, bird watching, hiking, boating, horseback riding, swimming, canoeing, and bicycling.

- The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, or alteration of the wetland by changing existing topography, water conditions, or water sources.
- The maintenance of drainage ditches.
- Education, scientific research, and use of nature trails.
- Navigation aids and boundary markers.
- Site investigative work necessary for land use application submittals such as surveys, soil logs, percolation tests, and other related activities. In every case, wetland impacts should be minimized and disturbed areas should be immediately restored.
- Normal maintenance, repair, or operation of existing serviceable structures, facilities, or improved areas. Maintenance and repair do not include any modification that changes the character, scope, or size of the original structure, facility, or improved area and does not include construction of a maintenance road.
- Minor modification of existing serviceable structures within a buffer where modification does not adversely impact wetland functions.

C. Critical Aquifer Recharge Areas

1) Introduction

All of Tumwater's drinking water supply comes from underground aquifer areas. The goal of establishing Critical Aquifer Recharge Areas is to protect the functions and values of Tumwater's drinking water by preventing pollution and maintaining supply.

Tumwater's water comes from underground

c) Reasonable Use of Wetlands and Wetland Buffers

Following state law, if an applicant for a proposed development demonstrates that application of these regulations would deny all reasonable use of the property, conditioned development may be allowed if the applicant demonstrates that the criteria in TMC Chapter 16.28 are met.

d) Wetland Replacement Ratios

As a condition of any permit allowing alteration of wetlands or wetland buffers, the applicant should engage in the restoration, creation, or enhancement of wetlands and their buffers to offset loss of wetland function and value. It is recognized that the alteration of wetlands and/or wetland buffers is not desirable. Creation, restoration and enhancement of wetlands or wetland buffers are extremely difficult to achieve. Wetland alteration should only occur when impact avoidance and reduction are impossible.

Wetland restoration, creation, and enhancement acreage replacement ratios are identified in TMC Chapter 16.28.

8) Wetland Enhancement

The Growth Management Act requires that Tumwater not only protects but enhances its critical areas. As part of that process, the Conservation Element's goals, policies, and implementation actions in Part 1 address how Tumwater will be enhancing wetland resources.

aquifers, which are gravel formations below the ground that hold water. These aquifers are replenished by rain and snow as they infiltrate through the ground and are filtered by the soil and trillions of microbes. The many layers of soil, rock, and microbes that sit above the aquifers act to cleanse the water as it passes and helps prevent contamination from the surface.

Tumwater's water system draws water out of these aquifers from multiple sources located around the City. As the water seeps into the aquifers, contaminants from above-ground activities can get into the water. Critical aquifer recharge areas are areas identified where groundwater seeps through the layers and collects. Certain land uses and organic and inorganic materials must be regulated to protect the water and keep it safe.

Public drinking water supply systems are regulated by the State Department of Health under the Safe Drinking Water Act. Generally, the state regulates systems with 15 or more residential connections, known as a Group A system.

Tumwater coordinates with Thurston County Environmental Health to monitor groundwater and report on conditions, including notification of any identified hazards. Periodic inspections have also been completed every few years of businesses that use hazardous materials onsite to ensure they are handled, stored, and disposed of properly.

2) Critical Aquifer Recharge Area Classification

The Growth Management Act requires Tumwater to protect public groundwater supplies so contamination can be avoided. Drinking water depends on groundwater availability, and so the amount of water in aquifers must be monitored to ensure water sources are replenished and are not depleted.

In addition, Chapter 246-290 WAC requires water protection and standards that address vulnerable sources of drinking water, such as Tumwater's Wellhead Protection Program.

All groundwater is vulnerable. Using criteria to create classifications or categories of vulnerability helps Tumwater apply the appropriate measures for the risks involved. Vulnerability is the combined effect of hydrogeologic susceptibility to contamination based on characteristics of the aquifer and the contamination potential.

Vulnerability and hydrogeologic susceptibility to contamination can be determined by using the guidance in WAC 365-190-100(a), such as the following:

- Depth to groundwater.
- Aquifer properties such as hydraulic conductivity, gradients, and size.
- Soil, including texture, permeability, and contaminant attenuation properties.
- Characteristics of the vadose zone including permeability and attenuation properties.
- Other relevant factors.

The following have been considered to evaluate vulnerability based on the contaminant loading potential outlined in WAC 365-190-100:

- General land use.
- Waste disposal sites.

- Agriculture activities.
- Well logs and water quality test results.
- Proximity to marine shorelines.
- Other information about the potential for contamination.

The goals of Tumwater's classification strategy for critical aquifer recharge areas and wellhead protection are to maintain the quality of the groundwater effectively by preventing contamination, with particular attention to recharge areas of high susceptibility. Classification of these areas includes:

- Consideration of the degree to which the aquifer is used, now or in the future, as a potable (drinking) water source.
- Protective measures to preclude further degradation.
- Practicability of treatment measures to maintain potability.
- Availability of alternative potable water sources.
- The degree of sensitivity of contaminants entering the aquifer.

The aquifers within Tumwater provide drinking water and require an Aquifer Protection Overlay based on TMC Chapter 18.39. The intent of the Aquifer Protection Overlay is to identify, classify, and protect critical aquifer recharge areas within Tumwater and its urban growth area. This overlay imposes additional restrictions on development in order to protect public health and safety by preserving the existing and future groundwater supply for Tumwater and its urban growth area.

TMC Chapter 16.24 regulates land uses and activities within the critical aquifer recharge areas. These areas are identified using a mapping system, Geodata, maintained by Thurston County. There are three levels of critical aquifer recharge areas, TMC Chapter 16.24 standards apply to all critical aquifer recharge area designations.

Wellhead protection areas are the surface and subsurface areas surrounding a well or well field of a public water system. These areas have higher vulnerability to contamination from potential land uses. They are classified or rated by the amount of time it would take groundwater to reach a pumping well.

Tumwater's wellhead protection areas are divided into six-month, one-year, five-year, and ten-year time of travel zones. A raindrop landing in the one-year time of travel should reach the well within one year. These areas have extra protections and regulations found in TMC Chapter 16.26. Wellhead protection areas and the Aquifer Protection Overlay are identified using Thurston County Geodata maps.

3) Critical Aquifer Protection Concerns

Concerns about ground water in Tumwater and the Thurston region, in general, include:

- Few alternative sources of drinking water exist.
- Geological conditions in the region leave aquifers unprotected and ground water extremely vulnerable to pollution.
- Septic systems, stormwater runoff, chemical spills, pesticides, and fertilizers can add contaminants to ground water.
- Though the region's ground water is

generally of good quality, it is showing increasing effects of human activities.

- Urbanization and population growth are placing increased demands on limited ground water resources.

Potential sources of ground water pollution include pesticides and fertilizers, septic systems, hazardous materials, contaminated storm water and leaking underground storage tanks.

Gas stations and other land uses that utilize hazardous chemicals are prohibited within the one year and six-month wellhead protection areas. The types of hazardous chemicals that need to be addressed are defined in TMC Chapter 16.24 Aquifer Recharge Standards and TMC Chapter 16.26 Wellhead Protection Standards and are updated based on adopted federal and state standards, whichever is more stringent.

Wellhead protection areas are the surface or subsurface areas surrounding municipal water wells or well fields through which contaminants are reasonably likely to move toward and reach such water well or well field within six months, one year, five years, and ten years.

4) Wells and Critical Aquifers in Tumwater

a) Bush Wellfield

The Bush Wellfield is located in southwest Tumwater, near George Washington Bush Middle School. The wellfield is currently Tumwater's largest producer of drinkable water.

b) Lakeland Manor Water System

The Lakeland Manor Water System is operated and maintained by Tumwater, but it is a Satellite Management Water System that is a separate system from Tumwater's main distribution system. All drinking water for Lakeland Manor comes from its own well located on 60th Avenue Southwest. Tumwater provides an emergency interconnection with Lakeland Manor, if the well were to lose power or experience another emergency, the development will receive water from Tumwater's main distribution system.

c) Palermo Wellfield

Tumwater's Palermo Wellfield is one of Tumwater's oldest and most important wellfields, and up until the early 1990s, provided close to 100 percent of Tumwater's drinking water. Palermo wells deliver high quality groundwater from six wells to customers throughout Tumwater, blending with water from Tumwater's Bush and Port Wellfields. To help keep the water clean, Tumwater has implemented aeration treatment, which is suitable for removing volatile organic compounds coming from the Southgate and Littlerock Road and Trosper Road areas.

d) Port Wellfield

Tumwater operates several wells in the general area of the Olympia Airport and Israel Road. Many of these wells and the associated water rights were acquired by Tumwater from the Port of Olympia in 1991. As with the Palermo water rights, in 2001 Tumwater negotiated with the State Department of Ecology to review the quantities associated with previously issued water rights and determine whether the amounts were correctly established. As a result, the State Department of Ecology issued a superseding permit that increased Tumwater's water right portfolio.

e) Olympia Brewery Wellfield

The Olympia Brewery Wellfield does not currently provide drinking water to the Community of Tumwater, but it is an aquifer within Tumwater that has been carbon dated to be over 3,000 years old. It is part of the Tumwater Sand unit of the Vashon recessional outwash formation.

5) Critical Aquifer Protection

Wellhead protection is a high priority. Tumwater's first wellhead protection areas were drawn in 1997 and adopted the Wellhead Protection Ordinance. There have been many changes to the wellhead protection ordinance as water protection updates were needed, and Tumwater acquired more wells.

In 2016, Tumwater completed a new Wellhead Protection Area Plan. This plan included new groundwater flow technology which more accurately drew the protection areas. The program identifies risks of contamination with potential to impact city wells. Once identified, it finds ways to reduce or eliminate those risks. The ordinance also defines what development and/or uses within the wellhead protection areas are allowed. For example, the ordinance does not allow dry cleaners to use chemical cleaning methods on site within the designated six-month and one-year wellhead protection areas.

Tumwater also has a wellhead protection program that supports Tumwater's mission of keeping high quality drinking water. This program ensures businesses who use, store, and dispose of hazardous materials do so in the safest manner possible. City staff work with Thurston County Environmental Health to inspect and educate businesses about proper material storage and disposal.

Quarterly groundwater monitoring is conducted at wells throughout the wellhead protection areas. Tumwater's well monitoring network serves as an early warning system against issues that could impact Tumwater's drinking water. If the system detects contamination, Tumwater can take measures to lessen the impact.

To help educate and inform the public on the importance of water protection and best practices, the Water Resources & Sustainability Department maintains a website with maps, information, and a quarterly "One Water Newsletter."

The Tumwater aquifer protection classification regime measures susceptibility to pollution in terms of vulnerability. TMC Chapter 16.24 and TMC Chapter 16.26 protect areas of high vulnerability through the Aquifer Protection Overlay, which is geographically applied Citywide. In addition, these chapters maintain specific standards applied citywide.

D. Frequently Flooded Areas

1) Introduction

Protection of life and property during floods is a vital part of Tumwater's responsibility to public safety. Many of Tumwater's rivers, streams, and lakes are subject to flooding during periods of heavy rainfall.

Tumwater has had extensive research and study completed regarding frequently flooded areas within Tumwater. Since August of 1980, Tumwater has participated in the National Flood Insurance Program, as authorized by the National Flood Insurance Act of 1968, and updated its Floodplain Ordinance in 2024.

2) Frequently Flooded Areas Classification

The Growth Management Act requires Tumwater to classify frequently flooded areas known as the 100-year floodplain based on the one percent flood designations of the Federal Emergency Management Agency and the National Flood Insurance Program. In addition, the Act requires Tumwater to provide guidance for corrective actions to mitigate or cleanse those discharges that pollute the waters of the state.

Tumwater considered the following when designating and classifying frequently flooded areas:

1. Effects of flooding on human health and safety, and to public facilities and services.
2. Available documentation, including federal, state, and local laws, regulations, and programs, local studies and maps, and federal flood insurance programs.
3. Future flow floodplain, defined as the channel of the stream and that portion of the adjoining floodplain that is necessary to contain and discharge the base flood flow at buildout without measurable increase in flood heights.
4. The potential effects of tsunami, high tides with strong winds, sea level rise resulting from global climate change.
5. Greater surface runoff caused by increasing impervious surfaces.

The frequently flooded areas within Tumwater are mainly along the Deschutes River and valley. Other areas include Trosper Lake, Barnes Lake, Munn Lake, and Black Lake. City staff utilize Thurston County Geodata mapping, which was updated May 8, 2024, to match the 2024 Flood Insurance Study and Flood Insurance Maps for Thurston County, completed by Federal Emergency Management Agency and adopted by Tumwater to locate frequently flooded areas.

3) Frequently Flooded Areas Concerns

Concerns about frequently flooded areas in Tumwater include:

1. Heavy rains project to increase from climate change can cause sudden river and stream rises and out-of-bank flows.
2. Out-of-bank flows can cause damage to life, dwellings, and industrial, commercial, agricultural, recreational facilities, and Tumwater owned utilities such as drinking wells.
3. Groundwater flooding of low-lying areas

when there is higher than normal precipitation.

4) Frequently Flooded Areas Protection

Tumwater last updated its Floodplain Overlay Ordinance in 2024. Ordinance No. 02023-017 amended floodplain regulations to be more consistent with the state model ordinance for Floodplain Management under the Nation Flood Insurance Program and the Endangered Species Act.

Continued enforcement of the floodplain management ordinance allows Federal Emergency Management Agency to make federally backed flood insurance available to property owners within Tumwater. Properties mapped in the Floodplain Overlay are subject to the regulations in TMC Chapter 18.38 to protect life and property.

In 2023 Tumwater adopted the fourth edition of the Hazards Mitigation Plan. This plan includes the Tumwater Appendix and outlines in detail the extent, impacts, risks, and mitigation measures to protect against damage from floods.

5) Flood Insurance Maps

Flood Insurance Rate Maps from the Federal Emergency Management Agency clearly delineate frequently flooded areas. These maps are used to designate the Floodplain Overlay. The Flood Insurance Rate Maps and Flood Insurance Study were updated in 2024.

The Floodplain Overlay identifies and defines the special flood hazard area within Tumwater, which is the area subject to flooding by the base flood and subject to the provisions of TMC Chapter 18.38. The Floodplain Overlay has served Tumwater well in minimizing the undesirable impacts of flooding.

Frequently flooded areas are identified by the Federal Emergency Management Agency in a scientific and engineering report entitled, "Flood Insurance Study for Thurston County, Washington and Incorporated Areas," dated May 8, 2024, and any revisions thereto, with an accompanying Flood Insurance Rate Map for Thurston County, Washington and Incorporated Areas, dated May 8, 2024, and any subsequent revisions.

The methodology and detail of these studies is accepted as best available science. TMC Chapters 16.28 and 18.38 serve to designate frequently flooded areas. If allowed, any structures permitted in the designated flood areas are subject to strict development regulations. The existing regulations were put in place after careful study, and they fulfill the requirements of the Growth Management Act regarding designation, classification, and protection of frequently flooded areas.

6) Salmon Creek Groundwater Flooding

Above average rainfall caused localized flooding in Salmon Creek Basin in the rainy seasons of 1996-97 and 1998-99. Property owners experienced a range of inconveniences from high water around and under homes to failed septic systems, contaminated drinking water, and restricted access to property. Salmon Creek Basin is located in Thurston County, Washington, in the southern portion of Tumwater.

The basin is relatively flat and slopes gently toward Salmon Creek, which flows into Black River. The basin boundary encompasses

approximately 12 square miles (7,500 acres) from the Tumwater on the northern boundary, to 113th Avenue on its southernmost edge. The western boundary lies along Littlerock Road, and the eastern boundary extends just past Brooks Lane. The area of the basin is defined by the surface and groundwater sources that contribute to recharge of Salmon Creek.

A comprehensive study of the area was completed in late 1999. As a result, Tumwater and several other jurisdictions in Thurston County completed and adopted the Salmon Creek Comprehensive Drainage Basin Plan.

The development review process within the Salmon Creek Comprehensive Drainage Basin Plan was adopted by resolution but Tumwater and was incorporated into the Drainage Design and Erosion Control Manual for Tumwater, WA.

E. Geologically Hazardous Areas

1) Introduction

The Conservation Element defines geologically hazardous areas as those areas susceptible to erosion, landslides, earthquakes, and other geological events, which pose a threat to public safety. This section discusses the proper design and location of development to remove or reduce incompatibility with underlying geology. Appropriate engineering, design, or construction can be used to achieve this goal of land use and geological harmony.

It must also be recognized that even the best of efforts in proper design and application of technology, at times, will not adequately reduce the risks of geological damage. In these instances, building in such extreme geologically hazardous areas should be avoided.

2) Geologically Hazardous Areas Classification

Areas in Tumwater that are prone to one or more of the following hazards are defined as geologically hazardous:

1. Erosion.
2. Landslides.
3. Earthquakes.
4. Volcanic hazards (slight risk in Tumwater).
5. Tsunami Hazard (slight risk in Tumwater).
6. Stream channel migration zones.
7. Other geologic events, including mass wasting, debris flows, rock falls, and differential settlement.

The Conservation Element identifies areas with the above-described hazards and subsequently classifies areas within Tumwater in one of three categories:

1. Known or suspected risk.
2. No risk.
3. Risk unknown (because of lack of information).

3) Geologically Hazardous Areas Identification

The identification methodology used in the Conservation Element to define geologically hazardous areas is as follows:

a) Erosion

Identified by the U.S. Department of Agriculture Soil Conservation Service as the breakdown, detachment, transport, and redistribution of soil particles by forces of water, wind, or gravity. Erosion hazard areas include areas likely to become unstable, such as bluffs, steep slopes, and areas with unconsolidated soils.

b) Landslides

A landslide generally refers to the downhill movement of rock, soil, or debris. The term landslide can also refer to the deposit that is created by a landslide event. Landslide areas are at risk of mass movement due to a combination of geologic, topographic, and hydrologic factors. They include any areas susceptible to landslide because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors found in WAC 365-190-120(6). Landslide hazard areas are further defined in TMC Chapter 16.20.

c) Earthquakes

Earthquakes or seismic hazard areas are those which are subject to severe risk of damage because of ground shaking, slope failure, settlement, soil liquefaction, or surface faulting, debris flows, lahars, or tsunamis. Within the region, the historic damage inducement has been ground shaking which results in settlement and soil liquefaction. The amount of ground shaking is affected by earthquake magnitude, distance from the earthquake epicenter, cohesionless soils of low density, shallow ground water tables, and sub-surface geologic structure.

4) Geologically Hazardous Areas in Tumwater

a) Erosion

The two major soil groupings within Tumwater are the Alderwood-Everett and Spanaway-Nisqually series. These soil types are identified as having severe erosion hazard characteristics when disturbed. Erosion risk is dependent on-site conditions and locations outlined in TMC Chapter 16.20.

b) Landslides

Areas of slope over 15 percent and groundwater seepage exist on Tumwater Hill, the Deschutes River valley slopes, and Bush Mountain. Steep slope risk is the combination of slope, soil, and other factors. A geotechnical report is required in certain areas based on conditions outlined in TMC Chapter 16.28, drainage, and site development reviews, and building plan review.

c) Earthquakes

Tumwater is identified in the International Building Code as being located within the Zone D seismic zone map of the United States. Zone A is the lowest and Zone E is the highest. Zone D is a high-risk area for earthquakes and IBC standards for building construction set out stringent structural performance standards.

Liquefaction is primarily addressed through implementation of International Building Code requirements, local amendments, and structural engineering principles. Liquefaction issues associated with the poor soil bearing capacity in Tumwater are addressed with commonly accepted engineering principles such as “pin piles” or “aggregate piers” to ensure structures of up to approximate six stories can accommodate the impacts of a seismic event.

The 2024 update to the Hazard Mitigation Plan for Thurston County identifies areas of liquefaction based on the fault lines in the region. The entire Deschutes Valley from Henderson Boulevard SE to the former Olympia Brewery has high liquefaction susceptibility. Percival Creek vicinity from Trosper Road SW to Sapp Road SW have areas of moderate to high liquefaction.

d) Volcanic Hazards

According to the 2014 U.S. Geological Survey Mt. Rainier Lahar Hazard Map, Tumwater is not in a Volcanic Hazard zone. Only ash fall from a volcanic eruption is expected to affect Tumwater.

5) Development within Geologically Hazardous Areas

TMC Chapter 16.20 sets forth standards for construction in areas identified as susceptible to earthquake and landslide conditions.

F. Fish and Wildlife Habitat Conservation Areas

1) Introduction

Preservation of fish and wildlife habitats is critical to the protection of suitable environments for animal species and in providing a natural beauty and healthy quality of life for Tumwater and its residents.

The conservation of habitat means active land management for maintaining species within their preferred habitats and accustomed geographic distribution. These areas may include, but are not limited to, rare or vulnerable ecological systems, communities, and habitat or habitat elements including seasonal ranges, breeding habitat, winter range, and movement corridors; and areas with high relative population density or species richness. If these areas are altered, it may reduce the likelihood of the species survival.

2) Habitat Conservation Classification

The Growth Management Act requires Tumwater to classify seasonal ranges and habitats that are critical to the survival of endangered, threatened, and sensitive species. Within Tumwater, habitats and species are identified which are of local importance. Tumwater must include best available science when classifying these areas according to WAC 365-195.

A listing of the types of fish and wildlife habitat areas to be protected by state-mandate in Tumwater include:

- Areas where endangered, threatened, and sensitive species have a primary association.
- Habitats and species of local importance, as determined locally.
- Naturally occurring ponds under twenty acres and their submerged aquatic beds, which provide fish or wildlife habitat.
- Waters of the state as defined in WAC Title 222.
- Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity.
- State natural area preserves and natural resource conservation areas.
- All areas within Tumwater meeting one or more of the criteria in this section,

regardless of any formal identification, are subject to the provisions of TMC Chapter 16.32 and should be managed consistent with the best available science, which includes the "Washington State Department of Fish and Wildlife's Management Recommendations for Priority Habitat and Species" as written or hereafter amended.

3) Habitat Protection Techniques

After classifying and designating fish and wildlife areas in Tumwater, the following protection techniques are pursued:

- Creating a system of fish and wildlife habitat with connections between larger habitat blocks and open spaces, integrating with open space corridor planning where appropriate.
- Limiting the level of human activity in such areas including presence of roads and level of recreation type after site specific analysis and planning passive or active recreation may be appropriate for certain areas and habitats.
- Protecting riparian ecosystems and salmonid habitat.
- Evaluating land uses surrounding ponds and fish and wildlife habitat areas that may negatively or positively impact these areas and functions.
- Establishing buffer areas around these areas to separate incompatible uses from habitat areas.
- Restoration of lost and impaired salmonid habitat.

4) Habitat Identification

A review of state and local records and studies on habitats and species indicates that the following habitat categories exist within Tumwater:

1. Seasonal ranges and habitats with which federal and state listed endangered, threatened, and sensitive species have a primary association and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term.

2. Naturally occurring ponds under twenty acres and their submerged aquatic beds which provide fish or wildlife habitat.

   Naturally occurring ponds do not include ponds deliberately designed and created from dry sites, such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction ponds of less than three years duration and landscape amenities. However, naturally occurring ponds may include those artificial ponds intentionally created from dry areas to mitigate conversion of ponds, if permitted by a regulatory authority.

3. Waters of the state. Waters of the state are defined in WAC Title 222; the forest practices rules and regulations. Tumwater uses the water typing system established in WAC 222-16-030 to classify waters of the state.

   The following factors are considered when classifying waters of the state as fish and wildlife habitats:

   a. Species present in Tumwater that are

endangered, threatened, or sensitive, and other species of concern.

b. Species present which are sensitive to habitat manipulation.

c. Historic presence of priority species.

d. Existing surrounding land uses that are incompatible with salmonid habitat.

e. Presence and size of riparian ecosystems.

f. Existing water rights.

g. The intermittent nature of some of the higher classes of waters of the state.

4. Lakes, ponds, streams, and rivers planted with game fish. This includes game fish planted in these water bodies under the auspices of a federal, state, local, or tribal program or which supports priority fish species as identified by the State Department of Fish and Wildlife.

5) Sensitive Species Identification

The State Department of Fish and Wildlife maintains a listing of the priority habitats and species for Tumwater. This database is the reference document to be used by Tumwater in the protection of habitats and species identified within Tumwater.

6) Fish and Wildlife Habitat Protection

Given Tumwater's diversity of fish and wildlife habitats in terms of geographic location, biological sensitivity, species hierarchy, and current and future adjacent land uses, the Conservation Element proposes a regulation and protection process based upon performance standards to be applied to site-specific development.

These performance standards are to be implemented on site-specific projects through TMC Chapter 16.32 and associated development permits. If there are any conflicts between the Shoreline Master Program and the standards in TMC Chapter 16.32, the requirements of the Shoreline Master Program apply.

In addition, Tumwater's Flood Ordinance incorporates federal recommendations for protection of aquatic species. Tumwater has also upgraded the fish capture facility at the head of Tumwater Falls and is planning a new hatchery with the State Department of Fish and Wildlife to help stabilize South Sound salmon populations.

a) Threatened and Endangered Species

Tumwater has critical habitat for several federally designated, threatened, or endangered species including:

- Bull Trout (threatened).
- Oregon Spotted Frog (threatened).
- Mazama Pocket Gopher – Olympia Subspecies (threatened).
- Puget Sound Chinook Salmon (threatened).
- Streaked Horned Lark (threatened).
- Taylor's Checkerspot Butterfly (endangered).
- Water howellia (threatened).

Tumwater has critical habitat for several state designated, threatened, or endangered species including:

- Mazama Pocket Gopher – Olympia Subspecies (threatened).
- Oregon Spotted Frog (endangered).
- Oregon vesper sparrow (threatened).
- Streaked Horned Lark (endangered).
- Western gray squirrel (threatened).

b) Habitat Conservation Plan

The southern portion of Tumwater is located in a glacial prairie that has been historically called Bush Prairie. Most of Bush Prairie has been converted to agriculture or forestry, residences, and businesses, but part of it still remains and provides a home for the unique flora and fauna of the South Puget Sound Prairie ecosystem.

A Habitat Conservation Plan will provide for the long-term preservation and management of three species, protected or soon to be protected under the federal Endangered Species Act that occurs in Tumwater: Olympia pocket gopher subspecies of the Mazama pocket gopher, the streaked horned lark, the Oregon spotted frog, and the Oregon vesper sparrow.

As of 2025, Tumwater in cooperation with the Port of Olympia is preparing the Bush Prairie Habitat Conservation Plan for prairie species. When that plan is completed, the Comprehensive Plan and the Tumwater Municipal Code will need to be amended to reflect the Plan.

Appendix A Foundational Documents and Best Available Science

The table below identifies the foundational planning documents that form the basis for the Conservation Element of the Comprehensive Plan.

1. General Policy

Table C-6. General Policy Foundational Documents for the Conservation Element.

Topic Index	Supporting Plans and Materials
General Policy	• Land Use Element (2025) • County-Wide Planning Policies, Thurston County (2015) • Sustainable Thurston, Thurston Regional Planning Council (2013)

2. Critical Areas

Table C-7. Critical Areas Foundational Documents for the Conservation Element.

Topic Index	Supporting Plans and Materials
Wetland Areas	• Best Available Science for Freshwater Wetlands, State Department of Fish and Wildlife and State Department of Ecology (2005 and 2013) • Custom Soil Resource Report for Thurston County Area, Washington – 2016 Tumwater Soil Survey, U.S. Department of Agriculture (2016) • Priority Habitats and Species Data Base, State Department of Fish and Wildlife (Updated annually) • Priority Habitats and Species List, State Department of Fish and Wildlife (2024) • Shoreline Master Program (2019) • Soil Conservation Service Soil Survey of Thurston County, U.S. Department of Agriculture (1958) • Wetland Mapping for the Thurston Region, Thurston Regional Planning Council (2004)
Critical Aquifer Recharge Areas	• Lands for Public Purposes Element • Thurston County On-Site Sewage Management Plan (2021) • Wastewater Resource Management Plan, LOTT Clean Water Alliance (2015) • Water System Plan (2010-2015) • Wellhead Protection Plan (2016)

Topic Index	Supporting Plans and Materials
Frequently Flooded Areas	• Comprehensive Stormwater Implementation Plan (2018) • Flood Hazard Maps (2024) • Flood Insurance Studies and the Flood Insurance Rate Maps, Federal Emergency Management Agency (2024) • Floodplain Overlay Ordinance (2024) • GIS Thurston County Floodplain Mapping • Littlerock-70th Avenue Annexation Area Drainage Study (Part of the Littlerock-70th Avenue Annexation in 2008) (2011) • Hazards Mitigation Plan for the Thurston Region (2024) • Salmon Creek Comprehensive Drainage Basin Plan (2004)
Geologically Hazardous Areas	• Coastal Zone Atlas, State Department of Ecology (2014) • Custom Soil Resource Report for Thurston County Area, Washington – 2025 Tumwater Soil Survey, U.S. Department of Agriculture (2025) • Geologic Map of the Centralia Quadrangle, Washington, State Department of Natural Resources (1987) • Liquefaction Hazards Map, State Department of Natural Resources • Hazards Mitigation Plan for the Thurston Region (2024) • Steep Slopes Map, State Department of Natural Resources

Fish and Wildlife Conservation Areas	• Habitat Conservation Plan (In development 2016-25) • Landscape Planning for Washington's Wildlife: Managing for Biodiversity in Developing Areas, State Department of Fish and Wildlife (2009) • Management Recommendations for Priority Habitat and Species (Multiple Documents), State Department of Fish and Wildlife (1991 – 2011) • Priority Habitats and Species Data Base, State Department of Fish and Wildlife (Updated annually) • Priority Habitats and Species List, State Department of Fish and Wildlife (2024) • Determination of Threatened Status for Bull Trout in the Coterminous United States, Federal Register (64):58910-58933, U.S. Fish and Wildlife Service (1999) • Endangered and Threatened Species: Regulations Consolidation, Final Rule, Code of Federal Regulations Volume 50 Part 223.102, National Oceanic and Atmospheric Administration (1999) (Chinook Salmon) • Endangered and Threatened Wildlife and Plants, Threatened Status for Oregon Spotted Frog, Final Rule, Federal Register Volume 79:51658, U.S. Fish and Wildlife Service (2014) • Threatened Species Status for the Olympia Pocket Gopher, Roy Prairie Pocket Gopher, Tenino Pocket Gopher, and Yelm Pocket Gopher, With Special Rule, Federal Register Volume 79:19759, U.S. Fish and Wildlife Service (2014) • Endangered and Threatened Wildlife and Plants, Endangered Status for Taylor's Checkerspot Butterfly and Threatened Status for the Streaked Horned Lark, Final Rule, Federal Register Volume 78:61452, U.S. Fish

Topic Index	Supporting Plans and Materials
	and Wildlife Service (2013) • Multiple Additional ESA Documents described in the Environmental Conservation Online System

3. Resource Lands

Table C-8. Resource Lands Foundational Documents for the Conservation Element.

Topic Index	Supporting Plans and Materials
Agricultural Lands	• Custom Soil Resource Report for Thurston County Area, Washington – 2025 Tumwater Soil Survey, U.S. Department of Agriculture (2025) • Handbook No. 210, U.S. Department of Agriculture (1961) • Soil Conservation Service Soil Survey of Thurston County, U.S. Department of Agriculture (1958)
Forest Lands	• Private Forest Land Grades (WAC 458-40-530), State Department of Revenue
Mineral Resource Lands	• Mineral Resource Lands (WAC 365-190-070), State Department of Natural Resources • Thurston County Assessor Land Use Data (2025)

Appendix B Open Space Taxation Act Summary

The Open Space Taxation Act Summary is attached as a separate document.

Appendix C Tumwater Soils Report

The Custom Soils Resource Report for Tumwater is attached as a separate document.

Open Space Taxation Act

JULY 2021

The information and instructions in this publication are to be used when applying for assessment on the basis of current use under the "open space laws," chapter 84.34 RCW and chapter 458-30 WAC.

What is the Open Space Taxation Act?

The Open Space Taxation Act, enacted in 1970, allows property owners to have their open space, farm and agricultural, and timber lands valued at their current use rather than at their highest and best use. The Act states that it is in the best interest of the state to maintain, preserve, conserve, and otherwise continue in existence adequate open space lands for the production of food, fiber, and forest crops and to assure the use and enjoyment of natural resources and scenic beauty for the economic and social well-being of the state and its citizens.

Lands qualifying for current use classification

The law provides three classifications:

Open space land

Farm and agricultural land

Timber land

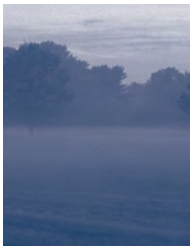
Open space land is defined as any of the following:

1. Any land area zoned for open space by a comprehensive official land use plan adopted by any city or county.

2. Any land area in which the preservation in its present use would:
   - **a.** Conserve and enhance natural or scenic resources.
   - **b.** Protect streams or water supply.
   - **c.** Promote conservation of soils, wetlands, beaches or tidal marshes. (As a condition of granting open space classification, the legislative body may not require public access on land classified for the purpose of promoting conservation of wetlands.)
   - **d.** Enhance the value to the public of neighbouring parks, forests, wildlife preserves, nature reservations or sanctuaries or other open space.
   - **e.** Enhance recreation opportunities.
   - **f.** Preserve historic sites.
   - **g.** Preserve visual quality along highway, road, and street corridors or scenic vistas.
   - **h.** Retain in its natural state tracts of land not less than one acre situated in an urban area and open to public use on such conditions as may be reasonably required by the legislative authority granting the open space classification.

3. Any land meeting the definition of "farm and agricultural conservation land," which means either:
   - **a.** Land previously classified under the farm and agricultural classification that no longer meets the criteria and is reclassified under open space land; or
   - **b.** "Traditional farmland," not classified, that has not been irrevocably devoted to a use inconsistent with agricultural uses, and that has a high potential for returning to commercial agriculture.

This fact sheet provides general information regarding the Open Space Taxation Act. The information is current at the date of publication. Please note subsequent law changes may supersede or invalidate some of this information.



Farm and agricultural land is defined as any of the following:

1. Any parcel of land that is 20 or more acres, or multiple parcels of land that are contiguous and total 20 or more acres, and are:
   - **a.** Devoted primarily to the production of livestock or agricultural commodities for commercial purposes.
   - **b.** Enrolled in the federal conservation reserve program (CRP) or its successor administered by the United States Department of Agriculture.
   - **c.** Other commercial agricultural activities established under chapter 458-30 WAC.

2. Any parcel of land that is five acres or more but less than 20 acres, is devoted primarily to agricultural uses, and has produced a gross income equivalent to:
   - **a.** Prior to January 1, 1993, $100 or more per acre per year for three of the five calendar years preceding the date of application for classification.
   - **b.** On or after January 1, 1993, $200 or more per acre per year for three of the five calendar years preceding the date of application for classification.

3. Any parcel of land that is five acres or more but less than 20 acres, is devoted primarily to agricultural uses, and has standing crops with an expectation of harvest within:
   - **a.** Seven years and a demonstrable investment in the production of those crops equivalent to $100 or more per acre in the current or previous calendar year.
   - **b.** Fifteen years for short rotation hardwoods and a demonstrable investment in the production of those crops equivalent to $100 or more per acre in the current or previous calendar year.

4. For parcels of land five acres or more but less than 20 acres, "gross income from agricultural uses" includes, but is not limited to, the wholesale value of agricultural products donated to nonprofit food banks or feeding programs.

5. Any parcel of land less than five acres devoted primarily to agricultural uses and has produced a gross income of:
   - **a.** Prior to January 1, 1993, $1,000 or more per year for three of the five calendar years preceding the date of application for classification.
   - **b.** On or after January 1, 1993, $1,500 or more per year for three of the five calendar years preceding the date of application for classification.

6. "Farm and agricultural land" also includes any of the following:
   - **a.** Incidental uses compatible with agricultural purposes, including wetland preservation, provided such use does not exceed 20 of the classified land.
   - **b.** Land on which appurtenances necessary for production, preparation, or sale of agricultural products exist in conjunction with the lands producing such products.
   - **c.** Any non-contiguous parcel one to five acres, that is an integral part of the farming operations.
   - **d.** Land on which housing for employees or the principal place of residence of the farm operator or owner is sited provided the use of the housing or residence is integral to the use of the classified land for agricultural purposes, the housing or residence is on or contiguous to the classified land, and the classified land is 20 or more acres.
   - **e.** Land that is used primarily for equestrian-related activities for which a charge is made, including, but not limited to, stabling, training, riding, clinics, schooling, shows, or grazing for feed. Depending on the number of classified acres, the land may be subject to minimum gross income requirements.
   - **f.** Land that is primarily used for commercial horticultural purposes, including growing seedlings, trees, shrubs, vines, fruits, vegetables, flowers, herbs, and other plants in containers, whether under a structure or not. For additional criteria regarding this use, please refer to RCW 84.34.020(2)(h).

Timber land is defined as the following:

Any parcel of land five or more acresor multiple parcels of land that are contiguous and total five or more acres which is or are devoted primarily to the growth and harvest of timber for commercial purposes. Timber land means the land only and does not include a residential homesite. The term includes land used for incidental uses that are compatible with the growing and harvesting of timber but no more than 10% of the land may be used for such incidental uses.

It also includes the land which appurtenances necessary for the production, preparation, or sale of the timber products exist in conjunction with land producing these products.

The timber land classification may be unavailable in some counties. As a result of the passage of Senate Bill 6180 in 2014, counties have the option to merge their timber land classification into their designated forest land program under chapter 84.33 RCW. To determine whether your county offers the timber land classification, you may contact the county assessor or visit the Department of Revenue's website at: www.dor.wa.gov.

Who may apply?

An owner or contract vendee may apply for current use assessment. However, all owners or contract vendees must sign the application for classification, and any resulting agreement.

When may I apply?

Applications may be made for classification at any time during the year from January 1 through December 31. If approved, current use assessment will begin on January 1 following the year the application was submitted.

Where do I get the application?

Application forms for the farm and agricultural land classification are available from the county assessor's office. Application forms for the open space and timber land classifications are available from either the county assessor's office or by contacting the county legislative authority.

Where do I file the application?

An application for open space classification is filed with the county legislative authority.

An application for farm and agricultural land classification is filed with the county assessor.

An application for timber land classification is filed with the county legislative authority. Timber land applications require that a timber management plan also be filed.

Is there an application fee?

The city or county legislative authority may, at their discretion, establish a processing fee to accompany each application. This fee must be in an amount that reasonably covers the processing costs of the application.

What happens after I file my application for open space classification?

Applications for classification or reclassification as "open space land" are made to the appropriate agency or official called the "granting authority." If the land is located in the county's unincorporated area, the county legislative authority is the granting authority on the application. If the land is located within an incorporated area of the county, the application is acted upon by both the county and city legislative authorities.

If the application is subject to a comprehensive plan that has been adopted by any city or county it will be processed in the same manner in which an amendment to the comprehensive plan is processed. If the application is not subject to a comprehensive land use plan, a public hearing on the application will be conducted, but a notice announcing the hearing must be published at least 10 days prior to the hearing.

The granting authority must approve or reject the application within six months of receiving the application. In determining whether an application made for classification or reclassification should be approved or denied, the granting authority may consider the benefits to the general welfare of preserving the current use of the property.

They may require that certain conditions be met including but not limited to the granting of easements.

If the application is approved, the granting authority will, within five calendar days of the approval date, send an agreement to the applicant for signature showing the land classification and conditions imposed. The applicant may accept or reject the agreement. If the applicant accepts, he or she must sign and return the agreement to the granting authority within 30 days after receipt.

The approval or denial of the application for classification or reclassification is a legislative determination and is reviewable only for arbitrary and capricious actions. Appeal can be made only to the superior court of the county where the application was filed.

Within 10 days of receiving notice of classification of the land from the granting authority, the assessor submits the notice to the county auditor for recording in the place and manner provided for the public recording of state tax liens on real property.

If approved, current use assessment will begin on January 1 following the year the application was submitted. The criteria for classification continue to apply after classification has been granted.

How does a public benefit rating system work?

If the county legislative authority has established a public benefit rating system (PBRS) for the open space classification, the criteria contained within the rating system governs the eligibility and valuation of the land subject to the application.

When a county creates or amends a PBRS, all classified open space land will be rated under the new PBRS. Land that no longer qualifies for classification will not be removed from classification, but will be rated according to the PBRS. Within 30 days of receiving notification of the new assessed value established by the PBRS, the owner may request removal of classification of the land without imposition of additional tax, interest, and penalty.

What happens after I file my application for farm and agricultural land classification?

Upon application for classification or reclassification, the assessor may require applicants to provide data regarding the use of the land, including, but not limited to, the productivity of typical crops, sales receipts, federal income tax returns, other related income and expense data, and any other information relevant to the application.

The application will be considered approved unless the assessor notifies the applicant in writing prior to May 1 of the year after the application was submitted. The criteria for classification continue to apply after classification has been granted.

What is an "advisory committee"?

The county legislative authority must appoint a five member committee representing the active farming community within the county. This committee will serve in an advisory capacity to the assessor in implementing assessment guidelines as established by the Department of Revenue for the assessment of open space lands, farm and agricultural lands, and timber lands.

How do I appeal a denial of my farm and agricultural land application?

The owner may appeal the assessor's denial to the board of equalization in the county where the land is located. The appeal must be filed with the board on or before July 1 of the year of the determination or within 30 days after the mailing of the notice of denial, or within a time limit of up to 60 days adopted by the county legislative authority, whichever is later.

What happens after I file my application for timber land classification?

Applications for timber land classification or reclassification are made to the county legislative authority. A timber management plan is required at the time of application or when a sale or transfer of timber land occurs and a notice of continuance is signed.

The application form requests information about forest management, restocking, fire protection, insect and disease control, weed control, and any other summary of experience and activity that supports the growth and harvest of timber for commercial purposes.

The application is acted upon in a manner similar to open space land applications and within six months of receiving the application.

Approval or denial of a timber land application is a legislative determination and is reviewable only for arbitrary and capricious action. Appeal can be made only to the superior court of the county where the application was filed.

Within 10 days of receiving notice of classification of the land from the granting authority, the assessor submits the notice to the county auditor for recording in the place and manner provided for the public recording of state tax liens on real property.

If approved, current use assessment will begin on January 1 following the year the application was submitted. The criteria for classification continue to apply after classification has been granted.

How is the value of classified land determined?

The assessor is required to maintain two values for each parcel that is classified. The first is the value that would be placed on the land if it was not classified. This is commonly referred to as the "fair market value." The second is the current use land value based on its current use, not highest and best use , as classified by the granting authority.

Open space land located within a county that has adopted a public benefit rating system will be valued according to the criteria of the rating system.

In the absence of a rating system, the per acre value can be no less than the lowest per acre value of classified farm and agricultural land in the county.

In determining the current use value of farm and agricultural land, the assessor considers the earning or productive capacity of comparable lands from crops grown most typically in the area averaged over not less than five years. This earning or productive capacity is the "net cash rental" and is capitalized by a "rate of interest" charged on long term loans secured by a mortgage on farm or agricultural land plus a component for property taxes.

Timber land is valued according to a schedule prepared by the Department of Revenue according to chapter 84.33 RCW. The Department of Revenue annually adjusts and certifies timber land values to be used by county assessors in preparing assessment rolls. The assessors assign the timber land values to the property based upon land grades and operability classes.

When are taxes due on classified lands?

Land classified as open space, farm and agricultural, or timber land is assessed at its current use value and placed on the assessment rolls the year after the application was submitted. Taxes on classified land are due and payable the year after the current use value was placed on the assessment rolls.

How long does the classification last?

The land continues in its classification until a request for removal is made by the owner, the use of land no longer complies, a sale or transfer to an owner that causes land to be exempt from property taxes, or the ownership has changed and the new owner has not signed a Notice of Continuance. The notice of removal is recorded with the county auditor in the same manner as the recording of state tax liens on real property. Additional tax, interest, and penalties will apply if the land is removed and the removal does not meet one of the exceptions listed in RCW 84.34.108(6).

How do I withdraw from classification?

If intending to withdraw all or a portion of the land from classification after 10 years of classification, the owner must complete a withdrawal form with the county assessor.

If a portion of the land is removed from classification, the remaining portion must meet the requirements of original classification unless the remaining land has different income or investment criteria.

What happens after I file a request to withdraw?

Upon receipt of a request for withdrawal, the assessor notifies the granting authority that originally approved the classification, and, the assessor withdraws the land from classification. The land withdrawn from classification is subject to seven years of additional tax and interest, but not a 20% penalty.

What happens if the classified land is sold or transferred?

When classified land is sold or transferred, the seller or transferor becomes liable at the time of sale for the additional tax, interest, and penalty unless the new owner(s) signs the Notice of Continuance which is attached to or shown on the real estate excise tax affidavit. The county auditor cannot accept an instrument of conveyance on any classified land unless the Notice of Continuance has been signed or the additional tax, interest, and penalty has been paid. The assessor determines if the land qualifies for continued classification

What if I want to change the use of my classified property?

An owner changing the use of land from a classified use must notify the county assessor within 60 days of this action. The assessor will remove the land from classified status and impose an additional tax equal to the difference between the tax paid on the current use value and the tax that would have been paid on the land had it not been classified. The additional tax is payable for the last seven tax years, plus interest at the same rate as charged on delinquent property taxes, plus a penalty of 20% of the total amount.

If the assessor removes my land from classification, may I appeal?

Yes, the owner may file an appeal of the removal from classification to the county board of equalization on or before July 1 of the year of the determination, or within 30 days of the date the notice was mailed by the assessor, or within a time limit of up to 60 days adopted by the county legislative authority, whichever is later.

Upon removal from classification, what taxes are due?

At the time the land is removed from classification, any taxes owing from January 1 of the removal year through the removal date, and any additional tax, applicable interest, and penalty owing are due and payable to the county treasurer within 30 days of the owner being notified.

What if the additional taxes are not paid?

Any additional tax, applicable interest, and penalty become a lien on the land at the time the land is removed from classification. This lien has priority over any other encumbrance on the land. Such a lien may be foreclosed upon expiration of the same period after delinquency in the same manner as delinquent real property taxes. If unpaid, interest is charged on the total amount due at the same rate that is applied by law to delinquent property taxes. Interest accrues from the date of the delinquency until the date the total amount is paid in full.

What is done with the additional tax, interest, and penalty paid when land is removed from classification?

Upon collection, the additional tax is distributed by the county treasurer in the same manner in which current taxes applicable to the subject land are distributed. The applicable interest and penalties are distributed to the county's current expense fund.

How do I change the classification of my property?

Land may be reclassified, upon request by the owner, subject toall applicable qualifications for each classification, without additional tax, interest, and penalty for the following:

1. Land classified as farm and agricultural land may be reclassified to timber land; timber land may be reclassified to farm and agricultural land.
2. Land classified as either farm and agricultural land or timber land under chapter 84.34 RCW, or forest land under chapter 84.33 RCW may be reclassified to open space land.
3. Land classified as farm and agricultural land or timber land may be reclassified to forest land under chapter 84.33 RCW.
4. Land previously classified as farm and agricultural land may be reclassified to open space land as "farm and agricultural conservation land" and subsequently be reclassified back to farm and agricultural land.

Applications for reclassification are acted upon in the same manner as approvals for initial classification. The county assessor approves all applications for farm and agricultural classifications and reclassifications. The county legislative authority (and in some cases, the city legislative authority)approves all land classifications or reclassifications for timber land and open space land, including farm and agricultural conservation land.

Is supporting information required to change classifications?

The assessor may require an owner of classified land to submit data regarding the use of the land, productivity of typical crops, income and expense data, and similar information regarding continued eligibility.

Laws and Rules

It is helpful to read the complete laws, Revised Code of Washington, chapters 84.33 and 84.34 (RCW) and rules, Washington Administrative Code, chapter 458-30 (WAC) to understand requirements of the classifications and the tax liabilities incurred.

Need More Information?

Requirements for making application for current use classification are available at the county assessor's office or by contacting the county legislative authority.

For general information contact:

- **Department of Revenue, Property Tax Division**
  P. O. Box 47471
  Olympia, Washington 98504-7471
  360-534-1400
- **Website: dor.wa.gov**
- **Telephone Information Center**
  360-705-6705
- For tax assistance or to request this document in an alternate format, visit dor.wa.gov or call 360-705-6705. Teletype (TTY) users may use the Washington Relay Service by calling 711.

Department of Revenue
Washington State

dor.wa.gov

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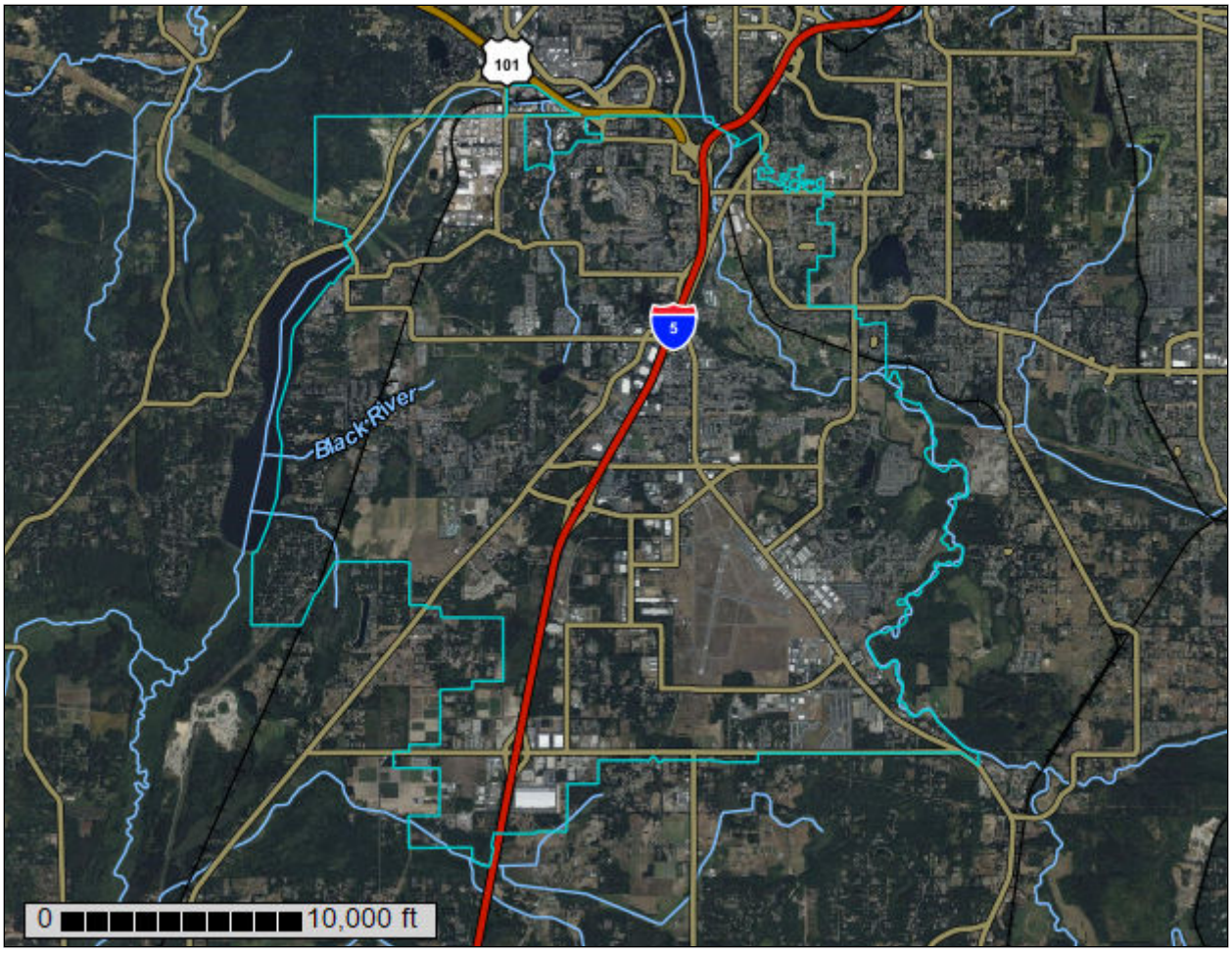
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Thurston County Area, Washington



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

Preface.....2
How Soil Surveys Are Made.....6
Soil Map.....9
Soil Map.....10
Legend.....11
Map Unit Legend.....12
Map Unit Descriptions.....13
Thurston County Area, Washington.....16
1—Alderwood gravelly sandy loam, 0 to 8 percent slopes.....16
2—Alderwood gravelly sandy loam, 8 to 15 percent slopes.....17
3—Alderwood gravelly sandy loam, 15 to 30 percent slopes.....19
20—Cagey loamy sand.....21
27—Delphi very gravelly loam, 3 to 15 percent slopes.....22
30—Dystric Xerochrepts, 60 to 90 percent slopes.....23
32—Everett very gravelly sandy loam, 0 to 8 percent slopes.....24
33—Everett very gravelly sandy loam, 8 to 15 percent slopes.....25
34—Everett very gravelly sandy loam, 15 to 30 percent slopes.....26
35—Everett very gravelly sandy loam, 30 to 50 percent slopes.....28
38—Giles silt loam, 0 to 3 percent slopes.....29
39—Giles silt loam, 3 to 15 percent slopes.....30
40—Giles silt loam, 15 to 30 percent slopes.....31
41—Godfrey silty clay loam.....32
45—Hydraquents, tidal.....34
46—Indianola loamy sand, 0 to 5 percent slopes.....35
47—Indianola loamy sand, 5 to 15 percent slopes.....36
48—Indianola loamy sand, 15 to 30 percent slopes.....38
51—Kapowsin silt loam, 3 to 15 percent slopes.....39
52—Kapowsin silt loam, 15 to 30 percent slopes.....41
53—Kapowsin silt loam, 30 to 50 percent slopes.....42
65—McKenna gravelly silt loam, 0 to 5 percent slopes.....43
69—Mukilteo muck.....44
70—Mukilteo muck, drained.....45
73—Nisqually loamy fine sand, 0 to 3 percent slopes.....46
74—Nisqually loamy fine sand, 3 to 15 percent slopes.....47
75—Norma fine sandy loam.....49
76—Norma silt loam.....50
84—Pilchuck loamy sand.....51
85—Pits, gravel.....52
88—Puget silt loam.....52
89—Puyallup silt loam.....54
98—Salkum silty clay loam, 8 to 15 percent slopes.....55
102—Schneider very gravelly loam, 20 to 40 percent slopes.....56
103—Schneider very gravelly loam, 40 to 65 percent slopes.....57
104—Semiahmoo muck.....58

106—Shalcar variant muck..... 59
108—Skipopa silt loam, 3 to 15 percent slopes..... 60
109—Spana gravelly loam..... 61
110—Spanaway gravelly sandy loam, 0 to 3 percent slopes..... 62
115—Sultan silt loam.....63
120—Tisch silt loam..... 64
125—Xerorthents, 0 to 5 percent slopes.....65
126—Yelm fine sandy loam, 0 to 3 percent slopes..... 66
127—Yelm fine sandy loam, 3 to 15 percent slopes..... 67
128—Yelm fine sandy loam, 15 to 30 percent slopes..... 68
129—Water..... 69
Soil Information for All Uses.....71
Soil Reports.....71
Land Classifications.....71
Prime and other Important Farmlands.....71
References.....75

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

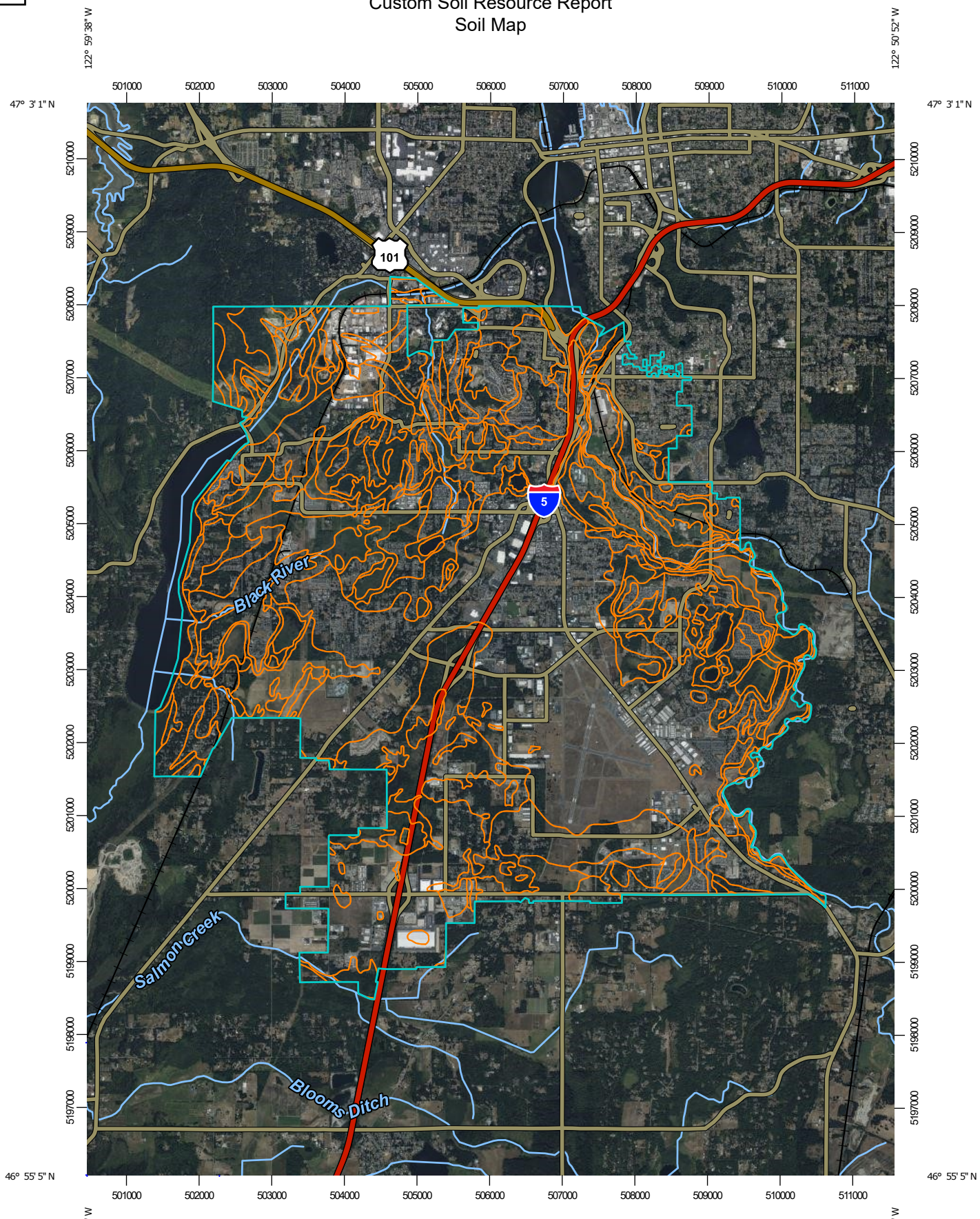
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:71,500 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 1000 2000 4000 6000

Feet: 0 3000 6000 12000 18000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Thurston County Area, Washington
Survey Area Data: Version 18, Aug 27, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 18, 2020—Aug 14, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Alderwood gravelly sandy loam, 0 to 8 percent slopes	173.8	1.2%
2	Alderwood gravelly sandy loam, 8 to 15 percent slopes	321.7	2.2%
3	Alderwood gravelly sandy loam, 15 to 30 percent slopes	36.9	0.3%
20	Cagey loamy sand	2,116.9	14.8%
27	Delphi very gravelly loam, 3 to 15 percent slopes	116.2	0.8%
30	Dystric Xerochrepts, 60 to 90 percent slopes	20.7	0.1%
32	Everett very gravelly sandy loam, 0 to 8 percent slopes	862.6	6.0%
33	Everett very gravelly sandy loam, 8 to 15 percent slopes	169.6	1.2%
34	Everett very gravelly sandy loam, 15 to 30 percent slopes	29.4	0.2%
35	Everett very gravelly sandy loam, 30 to 50 percent slopes	111.8	0.8%
38	Giles silt loam, 0 to 3 percent slopes	16.9	0.1%
39	Giles silt loam, 3 to 15 percent slopes	107.4	0.8%
40	Giles silt loam, 15 to 30 percent slopes	8.9	0.1%
41	Godfrey silty clay loam	47.4	0.3%
45	Hydraquents, tidal	1.5	0.0%
46	Indianola loamy sand, 0 to 5 percent slopes	1,432.1	10.0%
47	Indianola loamy sand, 5 to 15 percent slopes	378.0	2.6%
48	Indianola loamy sand, 15 to 30 percent slopes	471.5	3.3%
51	Kapowsin silt loam, 3 to 15 percent slopes	127.7	0.9%
52	Kapowsin silt loam, 15 to 30 percent slopes	267.5	1.9%
53	Kapowsin silt loam, 30 to 50 percent slopes	23.0	0.2%
65	McKenna gravelly silt loam, 0 to 5 percent slopes	159.7	1.1%
69	Mukilteo muck	212.3	1.5%
70	Mukilteo muck, drained	227.8	1.6%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
73	Nisqually loamy fine sand, 0 to 3 percent slopes	3,613.9	25.2%
74	Nisqually loamy fine sand, 3 to 15 percent slopes	14.2	0.1%
75	Norma fine sandy loam	40.5	0.3%
76	Norma silt loam	707.2	4.9%
84	Pilchuck loamy sand	36.3	0.3%
85	Pits, gravel	69.4	0.5%
88	Puget silt loam	69.2	0.5%
89	Puyallup silt loam	293.6	2.1%
98	Salkum silty clay loam, 8 to 15 percent slopes	3.6	0.0%
102	Schneider very gravelly loam, 20 to 40 percent slopes	271.5	1.9%
103	Schneider very gravelly loam, 40 to 65 percent slopes	386.2	2.7%
104	Semiahmoo muck	232.2	1.6%
106	Shalcar variant muck	11.4	0.1%
108	Skipopa silt loam, 3 to 15 percent slopes	12.7	0.1%
109	Spana gravelly loam	10.1	0.1%
110	Spanaway gravelly sandy loam, 0 to 3 percent slopes	21.3	0.1%
115	Sultan silt loam	213.4	1.5%
120	Tisch silt loam	25.9	0.2%
125	Xerorthents, 0 to 5 percent slopes	43.8	0.3%
126	Yelm fine sandy loam, 0 to 3 percent slopes	423.9	3.0%
127	Yelm fine sandy loam, 3 to 15 percent slopes	36.4	0.3%
128	Yelm fine sandy loam, 15 to 30 percent slopes	33.6	0.2%
129	Water	308.0	2.2%
Totals for Area of Interest		**14,319.9**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic

class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Thurston County Area, Washington

1—Alderwood gravelly sandy loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2t625
Elevation: 50 to 800 feet
Mean annual precipitation: 25 to 60 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 240 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Alderwood and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Alderwood

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest, talf
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Glacial drift and/or glacial outwash over dense glaciomarine deposits

Typical profile

A - 0 to 7 inches: gravelly sandy loam
Bw1 - 7 to 21 inches: very gravelly sandy loam
Bw2 - 21 to 30 inches: very gravelly sandy loam
Bg - 30 to 35 inches: very gravelly sandy loam
2Cd1 - 35 to 43 inches: very gravelly sandy loam
2Cd2 - 43 to 59 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: 20 to 39 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 18 to 37 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: B
Ecological site: F002XA004WA - Puget Lowlands Forest
Forage suitability group: Limited Depth Soils (G002XS301WA), Limited Depth Soils (G002XF303WA), Limited Depth Soils (G002XN302WA)

Other vegetative classification: Limited Depth Soils (G002XS301WA), Limited Depth Soils (G002XF303WA), Limited Depth Soils (G002XN302WA)
Hydric soil rating: No

Minor Components

Everett
Percent of map unit: 5 percent
Landform: Moraines, eskers, kames
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Crest, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Mckenna
Percent of map unit: 5 percent
Landform: Drainageways, depressions
Landform position (three-dimensional): Dip
Down-slope shape: Linear, concave
Across-slope shape: Concave
Hydric soil rating: Yes

Shalcar
Percent of map unit: 3 percent
Landform: Depressions
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Norma
Percent of map unit: 2 percent
Landform: Drainageways, depressions
Landform position (three-dimensional): Dip
Down-slope shape: Linear, concave
Across-slope shape: Concave
Hydric soil rating: Yes

2—Alderwood gravelly sandy loam, 8 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2t626
Elevation: 50 to 800 feet
Mean annual precipitation: 20 to 60 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 160 to 240 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition
Alderwood and similar soils: 85 percent

Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Alderwood

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Nose slope, talf
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Glacial drift and/or glacial outwash over dense glaciomarine deposits

Typical profile

A - 0 to 7 inches: gravelly sandy loam
Bw1 - 7 to 21 inches: very gravelly sandy loam
Bw2 - 21 to 30 inches: very gravelly sandy loam
Bg - 30 to 35 inches: very gravelly sandy loam
2Cd1 - 35 to 43 inches: very gravelly sandy loam
2Cd2 - 43 to 59 inches: very gravelly sandy loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 20 to 39 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 18 to 37 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: B
Ecological site: F002XA004WA - Puget Lowlands Forest
Forage suitability group: Limited Depth Soils (G002XS301WA), Limited Depth Soils (G002XF303WA), Limited Depth Soils (G002XN302WA)
Other vegetative classification: Limited Depth Soils (G002XS301WA), Limited Depth Soils (G002XF303WA), Limited Depth Soils (G002XN302WA)
Hydric soil rating: No

Minor Components

Indianola

Percent of map unit: 5 percent
Landform: Terraces, kames, eskers
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Everett

Percent of map unit: 5 percent
Landform: Moraines, eskers, kames

Landform position (two-dimensional): Shoulder, footslope
Landform position (three-dimensional): Crest, base slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Shalcar

Percent of map unit: 3 percent
Landform: Depressions
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Norma

Percent of map unit: 2 percent
Landform: Drainageways, depressions
Landform position (three-dimensional): Dip
Down-slope shape: Linear, concave
Across-slope shape: Concave
Hydric soil rating: Yes

3—Alderwood gravelly sandy loam, 15 to 30 percent slopes

Map Unit Setting

National map unit symbol: 2t627
Elevation: 0 to 1,000 feet
Mean annual precipitation: 25 to 60 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 160 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Alderwood and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Alderwood

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Nose slope, side slope, talf
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Glacial drift and/or glacial outwash over dense glaciomarine deposits

Typical profile

A - 0 to 7 inches: gravelly sandy loam
Bw1 - 7 to 21 inches: very gravelly sandy loam

Bw2 - 21 to 30 inches: very gravelly sandy loam
Bg - 30 to 35 inches: very gravelly sandy loam
2Cd1 - 35 to 43 inches: very gravelly sandy loam
2Cd2 - 43 to 59 inches: very gravelly sandy loam

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: 20 to 39 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 18 to 37 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: F002XA004WA - Puget Lowlands Forest
Forage suitability group: Limited Depth Soils (G002XS301WA), Limited Depth Soils (G002XF303WA), Limited Depth Soils (G002XN302WA)
Other vegetative classification: Limited Depth Soils (G002XS301WA), Limited Depth Soils (G002XF303WA), Limited Depth Soils (G002XN302WA)
Hydric soil rating: No

Minor Components

Everett

Percent of map unit: 5 percent
Landform: Moraines, eskers, kames
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Indianola

Percent of map unit: 5 percent
Landform: Terraces, kames, eskers
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Shalcar

Percent of map unit: 3 percent
Landform: Depressions
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Norma

Percent of map unit: 2 percent
Landform: Drainageways, depressions

Landform position (three-dimensional): Dip
Down-slope shape: Linear, concave
Across-slope shape: Concave
Hydric soil rating: Yes

20—Cagey loamy sand

Map Unit Setting

National map unit symbol: 2nd8d
Elevation: 330 to 980 feet
Mean annual precipitation: 40 to 60 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 165 to 195 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Cagey and similar soils: 85 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cagey

Setting

Landform: Terraces
Parent material: Sandy glacial drift

Typical profile

H1 - 0 to 6 inches: loamy sand
H2 - 6 to 28 inches: loamy sand
H3 - 28 to 60 inches: fine sand

Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A
Ecological site: F002XA005WA - Puget Lowlands Moist Forest
Forage suitability group: Seasonally Wet Soils (G002XS201WA)
Other vegetative classification: Seasonally Wet Soils (G002XS201WA)
Hydric soil rating: No

Minor Components

Mckenna

Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

27—Delphi very gravelly loam, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2nd8m
Elevation: 330 to 3,280 feet
Mean annual precipitation: 50 to 75 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 165 to 195 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Delphi and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Delphi

Setting

Landform: Till plains
Parent material: Continental basal till

Typical profile

H1 - 0 to 8 inches: very gravelly loam
H2 - 8 to 13 inches: very gravelly loam
H3 - 13 to 48 inches: very gravelly silt loam
H4 - 48 to 52 inches: extremely gravelly clay loam

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: 40 to 55 inches to densic material
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 39 to 54 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: B
Ecological site: F002XA007WA - Puget Lowlands Wet Forest

Forage suitability group: Droughty Soils (G001XY402WA)
Other vegetative classification: Droughty Soils (G001XY402WA)
Hydric soil rating: No

30—Dystric Xerochrepts, 60 to 90 percent slopes

Map Unit Setting

National map unit symbol: 2nd8r
Elevation: 0 to 3,280 feet
Mean annual precipitation: 50 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Dystric xerochrepts and similar soils: 85 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dystric Xerochrepts

Setting

Landform: Escarpments
Parent material: Colluvium and glacial till

Typical profile

H1 - 0 to 4 inches: very gravelly sandy loam
H2 - 4 to 30 inches: very gravelly sandy loam
H3 - 30 to 34 inches: very gravelly sandy loam

Properties and qualities

Slope: 60 to 90 percent
Depth to restrictive feature: 20 to 72 inches to densic material
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Skipopa

Percent of map unit: 5 percent
Hydric soil rating: No

32—Everett very gravelly sandy loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2t629
Elevation: 30 to 900 feet
Mean annual precipitation: 35 to 91 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 180 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Everett and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Everett

Setting

Landform: Kames, moraines, eskers
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Crest, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and gravelly glacial outwash

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 3 inches: very gravelly sandy loam
Bw - 3 to 24 inches: very gravelly sandy loam
C1 - 24 to 35 inches: very gravelly loamy sand
C2 - 35 to 60 inches: extremely cobbly coarse sand

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Ecological site: F002XA004WA - Puget Lowlands Forest
Forage suitability group: Droughty Soils (G002XS401WA), Droughty Soils (G002XF403WA), Droughty Soils (G002XN402WA)

Other vegetative classification: Droughty Soils (G002XS401WA), Droughty Soils (G002XF403WA), Droughty Soils (G002XN402WA)
Hydric soil rating: No

Minor Components

Indianola
Percent of map unit: 10 percent
Landform: Terraces, kames, eskers
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Alderwood
Percent of map unit: 10 percent
Landform: Hills, ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest, talf
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

33—Everett very gravelly sandy loam, 8 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2t62b
Elevation: 30 to 900 feet
Mean annual precipitation: 35 to 91 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 180 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Everett and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Everett

Setting
Landform: Moraines, eskers, kames
Landform position (two-dimensional): Shoulder, footslope
Landform position (three-dimensional): Crest, base slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and gravelly glacial outwash

Typical profile
Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 3 inches: very gravelly sandy loam

Bw - 3 to 24 inches: very gravelly sandy loam
C1 - 24 to 35 inches: very gravelly loamy sand
C2 - 35 to 60 inches: extremely cobbly coarse sand

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Ecological site: F002XA004WA - Puget Lowlands Forest
Forage suitability group: Droughty Soils (G002XS401WA), Droughty Soils (G002XF403WA), Droughty Soils (G002XN402WA)
Other vegetative classification: Droughty Soils (G002XS401WA), Droughty Soils (G002XF403WA), Droughty Soils (G002XN402WA)
Hydric soil rating: No

Minor Components

Alderwood

Percent of map unit: 10 percent
Landform: Hills, ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Nose slope, talf
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Indianola

Percent of map unit: 10 percent
Landform: Terraces, kames, eskers
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

34—Everett very gravelly sandy loam, 15 to 30 percent slopes

Map Unit Setting

National map unit symbol: 2t62c
Elevation: 30 to 900 feet
Mean annual precipitation: 35 to 91 inches

Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 180 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Everett and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Everett

Setting

Landform: Moraines, eskers, kames
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and gravelly glacial outwash

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 3 inches: very gravelly sandy loam
Bw - 3 to 24 inches: very gravelly sandy loam
C1 - 24 to 35 inches: very gravelly loamy sand
C2 - 35 to 60 inches: extremely cobbly coarse sand

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Ecological site: F002XA004WA - Puget Lowlands Forest
Forage suitability group: Droughty Soils (G002XS401WA), Droughty Soils (G002XN402WA)
Other vegetative classification: Droughty Soils (G002XS401WA), Droughty Soils (G002XN402WA)
Hydric soil rating: No

Minor Components

Alderwood

Percent of map unit: 10 percent
Landform: Hills, ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Nose slope, side slope, talf
Down-slope shape: Convex, linear
Across-slope shape: Convex

Hydric soil rating: No

Indianola

Percent of map unit: 10 percent
Landform: Terraces, kames, eskers
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

35—Everett very gravelly sandy loam, 30 to 50 percent slopes

Map Unit Setting

National map unit symbol: 2t62d
Elevation: 30 to 900 feet
Mean annual precipitation: 35 to 91 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 180 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Everett and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Everett

Setting

Landform: Moraines, eskers, kames
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and gravelly glacial outwash

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 3 inches: very gravelly sandy loam
Bw - 3 to 24 inches: very gravelly sandy loam
C1 - 24 to 35 inches: very gravelly loamy sand
C2 - 35 to 60 inches: extremely cobbly coarse sand

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None

Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: F002XA004WA - Puget Lowlands Forest
Hydric soil rating: No

Minor Components

Indianola

Percent of map unit: 10 percent
Landform: Terraces, kames, eskers
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Alderwood

Percent of map unit: 10 percent
Landform: Hills, ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Nose slope, side slope, talf
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

38—Giles silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2ndbv
Elevation: 160 to 1,640 feet
Mean annual precipitation: 35 to 60 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 170 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Giles and similar soils: 85 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Giles

Setting

Landform: Terraces
Parent material: Volcanic ash and glacial outwash

Typical profile

H1 - 0 to 10 inches: silt loam
H2 - 10 to 48 inches: silt loam
H3 - 48 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very high (about 14.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: B
Ecological site: F002XA004WA - Puget Lowlands Forest
Forage suitability group: Soils with Few Limitations (G002XS501WA)
Other vegetative classification: Soils with Few Limitations (G002XS501WA)
Hydric soil rating: No

Minor Components

Yelm

Percent of map unit: 3 percent
Landform: Terraces
Hydric soil rating: No

Norma

Percent of map unit: 2 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

39—Giles silt loam, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2ndbw
Elevation: 160 to 1,640 feet
Mean annual precipitation: 35 to 60 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 170 to 200 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Giles and similar soils: 85 percent

Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Giles

Setting
Landform: Terraces
Parent material: Volcanic ash and glacial outwash

Typical profile
H1 - 0 to 10 inches: silt loam
H2 - 10 to 48 inches: silt loam
H3 - 48 to 60 inches: silt loam

Properties and qualities
Slope: 3 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very high (about 14.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: F002XA004WA - Puget Lowlands Forest
Forage suitability group: Soils with Moderate Limitations (G002XN602WA)
Other vegetative classification: Soils with Moderate Limitations (G002XN602WA)
Hydric soil rating: No

Minor Components

Yelm
Percent of map unit: 5 percent
Hydric soil rating: No

40—Giles silt loam, 15 to 30 percent slopes

Map Unit Setting
National map unit symbol: 2nd8v
Elevation: 160 to 1,640 feet
Mean annual precipitation: 35 to 60 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 170 to 200 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Giles and similar soils: 85 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Giles

Setting

Landform: Escarpments
Parent material: Volcanic ash and glacial outwash

Typical profile

H1 - 0 to 10 inches: silt loam
H2 - 10 to 48 inches: silt loam
H3 - 48 to 60 inches: silt loam

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very high (about 14.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: F002XA004WA - Puget Lowlands Forest
Forage suitability group: Sloping to Steep Soils (G002XN702WA)
Other vegetative classification: Sloping to Steep Soils (G002XN702WA)
Hydric soil rating: No

Minor Components

Yelm

Percent of map unit: 5 percent
Landform: Terraces
Hydric soil rating: No

41—Godfrey silty clay loam

Map Unit Setting

National map unit symbol: 2nd8w
Elevation: 20 to 300 feet
Mean annual precipitation: 40 to 65 inches
Mean annual air temperature: 50 to 54 degrees F

Frost-free period: 150 to 200 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Godfrey, drained, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Godfrey, Drained

Setting

Landform: Flood plains
Parent material: Alluvium

Typical profile

H1 - 0 to 8 inches: silty clay loam
H2 - 8 to 52 inches: silty clay
H3 - 52 to 60 inches: silty clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Ecological site: F002XA008WA - Puget Lowlands Riparian Forest
Forage suitability group: Seasonally Wet Soils (G002XS201WA)
Other vegetative classification: Seasonally Wet Soils (G002XS201WA)
Hydric soil rating: Yes

Minor Components

Sultan

Percent of map unit: 5 percent
Hydric soil rating: No

Godfrey, undrained

Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Newberg

Percent of map unit: 3 percent
Hydric soil rating: No

Puget, undrained

Percent of map unit: 2 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)

Hydric soil rating: Yes

45—Hydraquents, tidal

Map Unit Setting

National map unit symbol: 2nd90
Elevation: 0 to 100 feet
Mean annual precipitation: 20 to 30 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 170 to 210 days
Farmland classification: Not prime farmland

Map Unit Composition

Hydraquents, tidal, and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hydraquents, Tidal

Setting

Landform: Tidal flats
Parent material: Alluvium

Typical profile

H1 - 0 to 6 inches: fine sandy loam
H2 - 6 to 60 inches: stratified fine sandy loam to silty clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Very frequent
Frequency of ponding: None
Maximum salinity: Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 10.0
Available water supply, 0 to 60 inches: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: B/D
Hydric soil rating: Yes

46—Indianola loamy sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2t62k
Elevation: 0 to 980 feet
Mean annual precipitation: 30 to 81 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 170 to 210 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Indianola and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Indianola

Setting

Landform: Terraces, eskers, kames
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy glacial outwash

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 6 inches: loamy sand
Bw1 - 6 to 17 inches: loamy sand
Bw2 - 17 to 27 inches: sand
BC - 27 to 37 inches: sand
C - 37 to 60 inches: sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): 4s
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Ecological site: F002XA004WA - Puget Lowlands Forest
Forage suitability group: Droughty Soils (G002XS401WA), Droughty Soils (G002XF403WA), Droughty Soils (G002XN402WA), Droughty Soils (G002XV402WA)

Other vegetative classification: Droughty Soils (G002XS401WA), Droughty Soils (G002XF403WA), Droughty Soils (G002XN402WA), Droughty Soils (G002XV402WA)
Hydric soil rating: No

Minor Components

Alderwood
Percent of map unit: 5 percent
Landform: Ridges, hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest, talf
Down-slope shape: Linear, convex
Across-slope shape: Convex
Hydric soil rating: No

Everett
Percent of map unit: 5 percent
Landform: Eskers, moraines, kames
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Norma
Percent of map unit: 5 percent
Landform: Depressions, drainageways
Landform position (three-dimensional): Dip
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: Yes

47—Indianola loamy sand, 5 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2t635
Elevation: 0 to 980 feet
Mean annual precipitation: 30 to 81 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 170 to 210 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition
Indianola and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Indianola

Setting

Landform: Terraces, kames, eskers
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy glacial outwash

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 6 inches: loamy sand
Bw1 - 6 to 17 inches: loamy sand
Bw2 - 17 to 27 inches: sand
BC - 27 to 37 inches: sand
C - 37 to 60 inches: sand

Properties and qualities

Slope: 5 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Ecological site: F002XA004WA - Puget Lowlands Forest
Forage suitability group: Droughty Soils (G002XS401WA), Droughty Soils (G002XN402WA)
Other vegetative classification: Droughty Soils (G002XS401WA), Droughty Soils (G002XN402WA)
Hydric soil rating: No

Minor Components

Alderwood

Percent of map unit: 8 percent
Landform: Hills, ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Nose slope, talf
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Everett

Percent of map unit: 5 percent
Landform: Moraines, eskers, kames
Landform position (two-dimensional): Shoulder, footslope
Landform position (three-dimensional): Crest, base slope
Down-slope shape: Convex

Across-slope shape: Convex
Hydric soil rating: No

Norma

Percent of map unit: 2 percent
Landform: Drainageways, depressions
Landform position (three-dimensional): Dip
Down-slope shape: Linear, concave
Across-slope shape: Concave
Hydric soil rating: Yes

48—Indianola loamy sand, 15 to 30 percent slopes

Map Unit Setting

National map unit symbol: 2t639
Elevation: 0 to 980 feet
Mean annual precipitation: 30 to 81 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 170 to 210 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Indianola and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Indianola

Setting

Landform: Terraces, kames, eskers
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy glacial outwash

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 6 inches: loamy sand
Bw1 - 6 to 17 inches: loamy sand
Bw2 - 17 to 27 inches: sand
BC - 27 to 37 inches: sand
C - 37 to 60 inches: sand

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 99.90 in/hr)
Depth to water table: More than 80 inches

Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Ecological site: F002XA004WA - Puget Lowlands Forest
Forage suitability group: Droughty Soils (G002XS401WA), Droughty Soils (G002XN402WA)
Other vegetative classification: Droughty Soils (G002XS401WA), Droughty Soils (G002XN402WA)
Hydric soil rating: No

Minor Components

Alderwood

Percent of map unit: 8 percent
Landform: Hills, ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Nose slope, side slope, talf
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Everett

Percent of map unit: 5 percent
Landform: Moraines, eskers, kames
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Norma

Percent of map unit: 2 percent
Landform: Drainageways, depressions
Landform position (three-dimensional): Dip
Down-slope shape: Linear, concave
Across-slope shape: Concave
Hydric soil rating: Yes

51—Kapowsin silt loam, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2ndbx
Elevation: 50 to 900 feet
Mean annual precipitation: 30 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 220 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Kapowsin and similar soils: 85 percent
Minor components: 8 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kapowsin

Setting

Landform: Till plains
Parent material: Compact basal till

Typical profile

H1 - 0 to 4 inches: silt loam
H2 - 4 to 22 inches: silt loam
H3 - 22 to 30 inches: gravelly loam
H4 - 30 to 34 inches: gravelly loam

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: 20 to 40 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Ecological site: F002XA004WA - Puget Lowlands Forest
Forage suitability group: Limited Depth Soils (G002XN302WA)
Other vegetative classification: Limited Depth Soils (G002XN302WA)
Hydric soil rating: No

Minor Components

Norma

Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Skipopa

Percent of map unit: 3 percent
Other vegetative classification: Seasonally Wet Soils (G002XN202WA)
Hydric soil rating: No

52—Kapowsin silt loam, 15 to 30 percent slopes

Map Unit Setting

National map unit symbol: 2ndby
Elevation: 50 to 900 feet
Mean annual precipitation: 30 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 220 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Kapowsin and similar soils: 85 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kapowsin

Setting

Landform: Till plains
Parent material: Compact basal till

Typical profile

H1 - 0 to 4 inches: silt loam
H2 - 4 to 22 inches: silt loam
H3 - 22 to 30 inches: gravelly loam
H4 - 30 to 34 inches: gravelly loam

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: 20 to 40 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C/D
Ecological site: F002XA004WA - Puget Lowlands Forest
Forage suitability group: Limited Depth Soils (G002XN302WA)
Other vegetative classification: Limited Depth Soils (G002XN302WA)
Hydric soil rating: No

Minor Components

Hoogdal

Percent of map unit: 5 percent
Hydric soil rating: No

Indianola

Percent of map unit: 5 percent
Hydric soil rating: No

53—Kapowsin silt loam, 30 to 50 percent slopes

Map Unit Setting

National map unit symbol: 2ndbz
Elevation: 50 to 900 feet
Mean annual precipitation: 30 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Kapowsin and similar soils: 85 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kapowsin

Setting

Landform: Till plains
Parent material: Compact basal till

Typical profile

H1 - 0 to 4 inches: silt loam
H2 - 4 to 22 inches: silt loam
H3 - 22 to 30 inches: gravelly loam
H4 - 30 to 34 inches: gravelly loam

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 20 to 40 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C/D
Ecological site: F002XA004WA - Puget Lowlands Forest
Hydric soil rating: No

Minor Components

Hoogdal
Percent of map unit: 5 percent
Hydric soil rating: No

65—McKenna gravelly silt loam, 0 to 5 percent slopes

Map Unit Setting
National map unit symbol: 2nd9g
Elevation: 50 to 500 feet
Mean annual precipitation: 30 to 60 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 180 days
Farmland classification: Prime farmland if drained

Map Unit Composition
Mckenna and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mckenna

Setting
Landform: Depressions, drainageways
Parent material: Glacial drift

Typical profile
H1 - 0 to 9 inches: gravelly silt loam
H2 - 9 to 13 inches: gravelly silt loam
H3 - 13 to 36 inches: very gravelly loam
H4 - 36 to 40 inches: very gravelly loam

Properties and qualities
Slope: 0 to 5 percent
Depth to restrictive feature: 20 to 39 inches to densic material
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water supply, 0 to 60 inches: Low (about 5.4 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w

Hydrologic Soil Group: D
Ecological site: F002XA007WA - Puget Lowlands Wet Forest
Forage suitability group: Wet Soils (G002XS101WA)
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Minor Components

Bellingham, undrained
Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XN102WA)
Hydric soil rating: Yes

Norma
Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Skipopa
Percent of map unit: 5 percent
Other vegetative classification: Seasonally Wet Soils (G002XN202WA)
Hydric soil rating: No

69—Mukilteo muck

Map Unit Setting
National map unit symbol: 2nd9l
Elevation: 0 to 1,000 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 250 days
Farmland classification: Prime farmland if drained

Map Unit Composition
Mukilteo, undrained, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mukilteo, Undrained

Setting
Landform: Depressions
Parent material: Herbaceous organic material

Typical profile
Oa - 0 to 6 inches: muck
Oe - 6 to 60 inches: mucky peat

Properties and qualities
Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water supply, 0 to 60 inches: Very high (about 26.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: B/D
Ecological site: R002XA003WA - Puget Lowlands Bogs and Fens
Forage suitability group: Wet Soils (G002XS101WA)
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Minor Components

Shalcar

Percent of map unit: 10 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

70—Mukilteo muck, drained

Map Unit Setting

National map unit symbol: 2ndc5
Elevation: 0 to 1,000 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 250 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Mukilteo, drained, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mukilteo, Drained

Setting

Landform: Depressions
Parent material: Herbaceous organic material

Typical profile

Oa - 0 to 6 inches: muck
Oe2 - 6 to 60 inches: mucky peat

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very high (about 26.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: B/D
Ecological site: R002XA003WA - Puget Lowlands Bogs and Fens
Forage suitability group: Seasonally Wet Soils (G002XS201WA)
Other vegetative classification: Seasonally Wet Soils (G002XS201WA)
Hydric soil rating: Yes

Minor Components

Shalcar

Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Mukilteo, undrained

Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

73—Nisqually loamy fine sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2ndc8
Elevation: 160 to 1,310 feet
Mean annual precipitation: 40 to 60 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Nisqually and similar soils: 85 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nisqually

Setting

Landform: Terraces
Parent material: Sandy glacial outwash

Typical profile

H1 - 0 to 5 inches: loamy fine sand
H2 - 5 to 31 inches: loamy fine sand
H3 - 31 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Ecological site: R002XA006WA - Puget Lowlands Prairie
Forage suitability group: Droughty Soils (G002XS401WA)
Other vegetative classification: Droughty Soils (G002XS401WA)
Hydric soil rating: No

Minor Components

Yelm

Percent of map unit: 3 percent
Hydric soil rating: No

Norma

Percent of map unit: 2 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

74—Nisqually loamy fine sand, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2ndc9
Elevation: 160 to 1,310 feet
Mean annual precipitation: 40 to 60 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 150 to 200 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Nisqually and similar soils: 85 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nisqually

Setting

Landform: Terraces
Parent material: Sandy glacial outwash

Typical profile

H1 - 0 to 5 inches: loamy fine sand
H2 - 5 to 31 inches: loamy fine sand
H3 - 31 to 60 inches: loamy sand

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: A
Ecological site: R002XA006WA - Puget Lowlands Prairie
Forage suitability group: Droughty Soils (G002XS401WA)
Other vegetative classification: Droughty Soils (G002XS401WA)
Hydric soil rating: No

Minor Components

Yelm

Percent of map unit: 3 percent
Hydric soil rating: No

Norma

Percent of map unit: 2 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

75—Norma fine sandy loam

Map Unit Setting

National map unit symbol: 2ndcb
Elevation: 0 to 1,000 feet
Mean annual precipitation: 35 to 60 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Norma, fine sandy loam, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Norma, Fine Sandy Loam

Setting

Landform: Depressions, drainageways
Parent material: Alluvium

Typical profile

H1 - 0 to 7 inches: fine sandy loam
H2 - 7 to 25 inches: fine sandy loam
H3 - 25 to 60 inches: sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: A/D
Ecological site: F002XA007WA - Puget Lowlands Wet Forest
Forage suitability group: Wet Soils (G002XS101WA)
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Minor Components

Norma, silt loam

Percent of map unit: 5 percent

Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Alderwood
Percent of map unit: 5 percent
Hydric soil rating: No

76—Norma silt loam

Map Unit Setting
National map unit symbol: 2ndcc
Elevation: 0 to 1,000 feet
Mean annual precipitation: 35 to 60 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Prime farmland if drained

Map Unit Composition
Norma, silt loam, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Norma, Silt Loam

Setting
Landform: Depressions, drainageways
Parent material: Alluvium

Typical profile
H1 - 0 to 8 inches: silt loam
H2 - 8 to 30 inches: sandy loam
H3 - 30 to 60 inches: sandy loam

Properties and qualities
Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water supply, 0 to 60 inches: Moderate (about 8.9 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: B/D
Ecological site: F002XA007WA - Puget Lowlands Wet Forest
Forage suitability group: Wet Soils (G002XS101WA)

Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Minor Components

Norma, fine sandy loam
Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Alderwood
Percent of map unit: 5 percent
Hydric soil rating: No

84—Pilchuck loamy sand

Map Unit Setting
National map unit symbol: 2nd9t
Elevation: 70 to 1,970 feet
Mean annual precipitation: 35 to 60 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 210 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition
Pilchuck and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pilchuck

Setting
Landform: Flood plains
Parent material: Alluvium

Typical profile
H1 - 0 to 6 inches: loamy sand
H2 - 6 to 60 inches: fine sand

Properties and qualities
Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 24 to 48 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A
Ecological site: F002XA008WA - Puget Lowlands Riparian Forest
Forage suitability group: Droughty Soils (G002XS401WA)
Other vegetative classification: Droughty Soils (G002XS401WA)
Hydric soil rating: No

Minor Components

Puget, undrained

Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Sultan

Percent of map unit: 5 percent
Hydric soil rating: No

Newberg

Percent of map unit: 5 percent
Hydric soil rating: No

85—Pits, gravel

Map Unit Composition

Pits: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pits

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydric soil rating: No

88—Puget silt loam

Map Unit Setting

National map unit symbol: 2nd9y
Elevation: 10 to 650 feet
Mean annual precipitation: 35 to 55 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Puget, drained, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Puget, Drained

Setting

Landform: Flood plains
Parent material: Alluvium

Typical profile

H1 - 0 to 9 inches: silt loam
H2 - 9 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 12 to 35 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 12.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C
Ecological site: F002XA008WA - Puget Lowlands Riparian Forest
Forage suitability group: Soils with Few Limitations (G002XS501WA)
Other vegetative classification: Soils with Few Limitations (G002XS501WA)
Hydric soil rating: Yes

Minor Components

Puget, undrained

Percent of map unit: 5 percent
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Newberg

Percent of map unit: 5 percent
Hydric soil rating: No

Semiahmoo, undrained

Percent of map unit: 3 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Sultan

Percent of map unit: 2 percent
Hydric soil rating: No

89—Puyallup silt loam

Map Unit Setting

National map unit symbol: 2nd9z
Elevation: 70 to 1,970 feet
Mean annual precipitation: 35 to 60 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 170 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Puyallup and similar soils: 85 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Puyallup

Setting

Landform: Terraces, flood plains
Parent material: Alluvium

Typical profile

H1 - 0 to 10 inches: silt loam
H2 - 10 to 19 inches: fine sandy loam
H3 - 19 to 60 inches: sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 14 to 20 inches to strongly contrasting textural stratification
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): 3w
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B
Ecological site: F002XA008WA - Puget Lowlands Riparian Forest
Forage suitability group: Droughty Soils (G002XS401WA)
Other vegetative classification: Droughty Soils (G002XS401WA)
Hydric soil rating: No

Minor Components

Newberg
Percent of map unit: 5 percent
Hydric soil rating: No

Semiahmoo, undrained
Percent of map unit: 3 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Sultan
Percent of map unit: 2 percent
Hydric soil rating: No

98—Salkum silty clay loam, 8 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2ndcq
Elevation: 200 to 1,000 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 150 to 210 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Salkum and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Salkum

Setting
Landform: Terraces
Parent material: Highly weatherd glacial drift

Typical profile
H1 - 0 to 12 inches: silty clay loam
H2 - 12 to 51 inches: silty clay
H3 - 51 to 60 inches: silty clay

Properties and qualities
Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: F002XA005WA - Puget Lowlands Moist Forest
Forage suitability group: Soils with Moderate Limitations (G001XY602WA)
Other vegetative classification: Soils with Moderate Limitations (G001XY602WA)
Hydric soil rating: No

Minor Components

Scamman

Percent of map unit: 5 percent
Landform: Terraces
Other vegetative classification: Seasonally Wet Soils (G003XF203WA)
Hydric soil rating: No

102—Schneider very gravelly loam, 20 to 40 percent slopes

Map Unit Setting

National map unit symbol: 2nd7p
Elevation: 50 to 1,800 feet
Mean annual precipitation: 60 to 75 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Schneider and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Schneider

Setting

Landform: Mountains

Typical profile

H1 - 0 to 6 inches: very gravelly loam
H2 - 6 to 32 inches: very gravelly silt loam
H3 - 32 to 55 inches: extremely gravelly silt loam
H4 - 55 to 59 inches: unweathered bedrock

Properties and qualities

Slope: 20 to 40 percent
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches

Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: F002XA005WA - Puget Lowlands Moist Forest
Hydric soil rating: No

103—Schneider very gravelly loam, 40 to 65 percent slopes

Map Unit Setting

National map unit symbol: 2nd7q
Elevation: 50 to 1,800 feet
Mean annual precipitation: 60 to 75 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Schneider and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Schneider

Setting

Landform: Mountains

Typical profile

H1 - 0 to 6 inches: very gravelly loam
H2 - 6 to 32 inches: very gravelly silt loam
H3 - 32 to 55 inches: extremely gravelly silt loam
H4 - 55 to 59 inches: unweathered bedrock

Properties and qualities

Slope: 40 to 65 percent
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: F002XA005WA - Puget Lowlands Moist Forest
Hydric soil rating: No

104—Semiahmoo muck

Map Unit Setting

National map unit symbol: 2nd7r
Elevation: 10 to 1,300 feet
Mean annual precipitation: 4 to 70 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 125 to 250 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Semiahmoo, drained, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Semiahmoo, Drained

Setting

Landform: Flood plains
Parent material: Herbaceous organic material

Typical profile

Oa1 - 0 to 6 inches: muck
Oa2 - 6 to 60 inches: muck

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very high (about 26.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: B/D
Ecological site: R002XA003WA - Puget Lowlands Bogs and Fens
Forage suitability group: Wet Soils (G002XS101WA)
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Minor Components

Shalcar variant

Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Semiahmoo, undrained
Percent of map unit: 5 percent
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Puget, undrained
Percent of map unit: 3 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Sultan
Percent of map unit: 2 percent
Hydric soil rating: No

106—Shalcar variant muck

Map Unit Setting
National map unit symbol: 2nd7t
Elevation: 70 to 980 feet
Mean annual precipitation: 40 to 60 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Prime farmland if drained

Map Unit Composition
Shalcar variant and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Shalcar Variant

Setting
Landform: Flood plains
Parent material: Organic material over alluvium

Typical profile
Oa1 - 0 to 6 inches: muck
Oa2 - 6 to 20 inches: muck
H3 - 20 to 60 inches: clay

Properties and qualities
Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Occasional
Frequency of ponding: Frequent
Available water supply, 0 to 60 inches: Very high (about 15.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: C/D
Ecological site: R002XA003WA - Puget Lowlands Bogs and Fens
Forage suitability group: Wet Soils (G002XS101WA)
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Minor Components

Sultan

Percent of map unit: 5 percent
Hydric soil rating: No

Puget, undrained

Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Semiahmoo, undrained

Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

108—Skipopa silt loam, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2nd7w
Elevation: 490 to 980 feet
Mean annual precipitation: 30 to 50 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 160 to 200 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Skipopa and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Skipopa

Setting

Landform: Terraces
Parent material: Volcanic ash over glaciolacustrine deposits

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 18 inches: silt loam

H3 - 18 to 60 inches: clay

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: 10 to 20 inches to abrupt textural change
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: D
Ecological site: F002XA007WA - Puget Lowlands Wet Forest
Forage suitability group: Seasonally Wet Soils (G002XN202WA)
Other vegetative classification: Seasonally Wet Soils (G002XN202WA)
Hydric soil rating: No

Minor Components

Yelm

Percent of map unit: 10 percent
Hydric soil rating: No

109—Spana gravelly loam

Map Unit Setting

National map unit symbol: 2nd7x
Elevation: 330 to 1,640 feet
Mean annual precipitation: 25 to 45 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Spana and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Spana

Setting

Landform: Drainageways, outwash plains
Parent material: Glacial outwash

Typical profile

H1 - 0 to 22 inches: gravelly loam
H2 - 22 to 26 inches: gravelly loam
H3 - 26 to 38 inches: gravelly loam

H4 - 38 to 60 inches: extremely gravelly sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: About 12 to 35 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B
Ecological site: R002XA006WA - Puget Lowlands Prairie
Forage suitability group: Soils with Few Limitations (G002XS501WA)
Other vegetative classification: Soils with Few Limitations (G002XS501WA)
Hydric soil rating: No

110—Spanaway gravelly sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2ndb6
Elevation: 330 to 1,310 feet
Mean annual precipitation: 35 to 65 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Spanaway and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Spanaway

Setting

Landform: Terraces, outwash plains
Parent material: Volcanic ash over gravelly outwash

Typical profile

H1 - 0 to 15 inches: gravelly sandy loam
H2 - 15 to 20 inches: very gravelly loam
H3 - 20 to 60 inches: extremely gravelly sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Ecological site: R002XA006WA - Puget Lowlands Prairie
Forage suitability group: Droughty Soils (G002XS401WA)
Other vegetative classification: Droughty Soils (G002XS401WA)
Hydric soil rating: No

115—Sultan silt loam

Map Unit Setting

National map unit symbol: 2ndbc
Elevation: 0 to 150 feet
Mean annual precipitation: 35 to 55 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 150 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Sultan and similar soils: 85 percent
Minor components: 8 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sultan

Setting

Landform: Flood plains
Parent material: Alluvium

Typical profile

H1 - 0 to 7 inches: silt loam
H2 - 7 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 24 to 48 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 11.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: C
Ecological site: F002XA008WA - Puget Lowlands Riparian Forest
Forage suitability group: Seasonally Wet Soils (G002XS201WA)
Other vegetative classification: Seasonally Wet Soils (G002XS201WA)
Hydric soil rating: No

Minor Components

Godfrey, undrained
Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Puget, undrained
Percent of map unit: 3 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

120—Tisch silt loam

Map Unit Setting
National map unit symbol: 2nd82
Elevation: 50 to 1,000 feet
Mean annual precipitation: 20 to 60 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 250 days
Farmland classification: Prime farmland if drained

Map Unit Composition
Tisch, drained, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tisch, Drained

Setting
Landform: Depressions, drainageways
Parent material: Alluvium, volcanic ash, and diatomaceous earth

Typical profile
H1 - 0 to 11 inches: silt loam
H2 - 11 to 50 inches: silt loam
Oa - 50 to 60 inches: muck

Properties and qualities
Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very high (about 25.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: C/D
Ecological site: F002XA007WA - Puget Lowlands Wet Forest
Forage suitability group: Wet Soils (G002XS101WA)
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Minor Components

Tisch, undrained

Percent of map unit: 5 percent
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Everson, undrained

Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Dupont, undrained

Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Mckenna

Percent of map unit: 4 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Giles

Percent of map unit: 1 percent
Hydric soil rating: No

125—Xerorthents, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2nd87
Elevation: 0 to 2,620 feet
Mean annual precipitation: 30 to 60 inches
Mean annual air temperature: 39 to 50 degrees F

Frost-free period: 150 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition
Xerorthents and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Xerorthents

Setting
Landform: Tidal flats
Parent material: Sandy and loamy cut and fill material

Typical profile
H1 - 0 to 60 inches: variable

Properties and qualities
Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Depth to water table: About 24 inches
Frequency of flooding: None
Frequency of ponding: None

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydric soil rating: No

126—Yelm fine sandy loam, 0 to 3 percent slopes

Map Unit Setting
National map unit symbol: 2nd88
Elevation: 80 to 980 feet
Mean annual precipitation: 30 to 60 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 170 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Yelm and similar soils: 85 percent
Minor components: 13 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Yelm

Setting
Landform: Outwash terraces
Parent material: Glacial outwash

Typical profile
H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 46 inches: fine sandy loam

H3 - 46 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 11.0 inches)

Interpretive groups

Land capability classification (irrigated): 3w
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B
Ecological site: F002XA005WA - Puget Lowlands Moist Forest
Forage suitability group: Seasonally Wet Soils (G002XS201WA)
Other vegetative classification: Seasonally Wet Soils (G002XS201WA)
Hydric soil rating: No

Minor Components

Everson, undrained

Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Norma

Percent of map unit: 5 percent
Landform: Depressions
Other vegetative classification: Wet Soils (G002XS101WA)
Hydric soil rating: Yes

Skipopa

Percent of map unit: 3 percent
Other vegetative classification: Seasonally Wet Soils (G002XN202WA)
Hydric soil rating: No

127—Yelm fine sandy loam, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2nd89
Elevation: 80 to 980 feet
Mean annual precipitation: 30 to 60 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 170 to 200 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Yelm and similar soils: 85 percent
Minor components: 3 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Yelm

Setting

Landform: Outwash terraces
Parent material: Glacial outwash

Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 46 inches: fine sandy loam
H3 - 46 to 60 inches: loamy sand

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 11.0 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: F002XA005WA - Puget Lowlands Moist Forest
Forage suitability group: Soils with Moderate Limitations (G002XS601WA)
Other vegetative classification: Soils with Moderate Limitations (G002XS601WA)
Hydric soil rating: No

Minor Components

Skipopa

Percent of map unit: 3 percent
Other vegetative classification: Seasonally Wet Soils (G002XN202WA)
Hydric soil rating: No

128—Yelm fine sandy loam, 15 to 30 percent slopes

Map Unit Setting

National map unit symbol: 2nd8b
Elevation: 80 to 980 feet
Mean annual precipitation: 30 to 60 inches
Mean annual air temperature: 50 degrees F

Frost-free period: 170 to 200 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Yelm and similar soils: 85 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Yelm

Setting
Landform: Outwash terraces
Parent material: Glacial outwash

Typical profile
H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 46 inches: fine sandy loam
H3 - 46 to 60 inches: loamy sand

Properties and qualities
Slope: 15 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 11.0 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: F002XA005WA - Puget Lowlands Moist Forest
Forage suitability group: Sloping to Steep Soils (G002XS701WA)
Other vegetative classification: Sloping to Steep Soils (G002XS701WA)
Hydric soil rating: No

Minor Components

Hoogdal
Percent of map unit: 2 percent
Hydric soil rating: No

129—Water

Map Unit Composition
Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Setting

Landform: Alluvial cones

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Land Classifications

This folder contains a collection of tabular reports that present a variety of soil groupings. The reports (tables) include all selected map units and components for each map unit. Land classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Prime and other Important Farmlands

This table lists the map units in the survey area that are considered important farmlands. Important farmlands consist of prime farmland, unique farmland, and farmland of statewide or local importance. This list does not constitute a recommendation for a particular land use.

In an effort to identify the extent and location of important farmlands, the Natural Resources Conservation Service, in cooperation with other interested Federal, State, and local government organizations, has inventoried land that can be used for the production of the Nation's food supply.

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

For some of the soils identified in the table as prime farmland, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

A recent trend in land use in some areas has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, and other fruits and vegetables. It has the special combination of soil quality, growing season, moisture supply, temperature, humidity, air drainage, elevation, and aspect needed for the soil to economically produce sustainable high yields of these crops when properly managed. The water supply is dependable and of adequate quality. Nearness to markets is an additional consideration. Unique farmland is not based on national criteria. It commonly is in areas where there is a special microclimate, such as the wine country in California.

In some areas, land that does not meet the criteria for prime or unique farmland is considered to be *farmland of statewide importance* for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland if conditions are favorable. Farmland of statewide importance may include tracts of land that have been designated for agriculture by State law.

In some areas that are not identified as having national or statewide importance, land is considered to be *farmland of local importance* for the production of food, feed, fiber, forage, and oilseed crops. This farmland is identified by the appropriate local agencies. Farmland of local importance may include tracts of land that have been designated for agriculture by local ordinance.

Report—Prime and other Important Farmlands

Prime and other Important Farmlands–Thurston County Area, Washington		
Map Symbol	**Map Unit Name**	**Farmland Classification**
1	Alderwood gravelly sandy loam, 0 to 8 percent slopes	Prime farmland if irrigated
2	Alderwood gravelly sandy loam, 8 to 15 percent slopes	Prime farmland if irrigated
3	Alderwood gravelly sandy loam, 15 to 30 percent slopes	Farmland of statewide importance
20	Cagey loamy sand	Prime farmland if irrigated
27	Delphi very gravelly loam, 3 to 15 percent slopes	Farmland of statewide importance
30	Dystric Xerochrepts, 60 to 90 percent slopes	Not prime farmland
32	Everett very gravelly sandy loam, 0 to 8 percent slopes	Farmland of statewide importance
33	Everett very gravelly sandy loam, 8 to 15 percent slopes	Farmland of statewide importance
34	Everett very gravelly sandy loam, 15 to 30 percent slopes	Farmland of statewide importance
35	Everett very gravelly sandy loam, 30 to 50 percent slopes	Not prime farmland
38	Giles silt loam, 0 to 3 percent slopes	All areas are prime farmland
39	Giles silt loam, 3 to 15 percent slopes	Farmland of statewide importance
40	Giles silt loam, 15 to 30 percent slopes	Farmland of statewide importance
41	Godfrey silty clay loam	Prime farmland if drained
45	Hydraquents, tidal	Not prime farmland
46	Indianola loamy sand, 0 to 5 percent slopes	Prime farmland if irrigated
47	Indianola loamy sand, 5 to 15 percent slopes	Prime farmland if irrigated
48	Indianola loamy sand, 15 to 30 percent slopes	Farmland of statewide importance
51	Kapowsin silt loam, 3 to 15 percent slopes	Farmland of statewide importance
52	Kapowsin silt loam, 15 to 30 percent slopes	Farmland of statewide importance
53	Kapowsin silt loam, 30 to 50 percent slopes	Not prime farmland
65	McKenna gravelly silt loam, 0 to 5 percent slopes	Prime farmland if drained
69	Mukilteo muck	Prime farmland if drained
70	Mukilteo muck, drained	Prime farmland if drained
73	Nisqually loamy fine sand, 0 to 3 percent slopes	Prime farmland if irrigated
74	Nisqually loamy fine sand, 3 to 15 percent slopes	Farmland of statewide importance
75	Norma fine sandy loam	Prime farmland if drained
76	Norma silt loam	Prime farmland if drained
84	Pilchuck loamy sand	Prime farmland if irrigated
85	Pits, gravel	Not prime farmland
88	Puget silt loam	Prime farmland if drained
89	Puyallup silt loam	All areas are prime farmland
98	Salkum silty clay loam, 8 to 15 percent slopes	Farmland of statewide importance
102	Schneider very gravelly loam, 20 to 40 percent slopes	Not prime farmland
103	Schneider very gravelly loam, 40 to 65 percent slopes	Not prime farmland
104	Semiahmoo muck	Prime farmland if drained
106	Shalcar variant muck	Prime farmland if drained
108	Skipopa silt loam, 3 to 15 percent slopes	Farmland of statewide importance
109	Spana gravelly loam	Prime farmland if drained

Prime and other Important Farmlands–Thurston County Area, Washington		
Map Symbol	**Map Unit Name**	**Farmland Classification**
110	Spanaway gravelly sandy loam, 0 to 3 percent slopes	Prime farmland if irrigated
115	Sultan silt loam	All areas are prime farmland
120	Tisch silt loam	Prime farmland if drained
125	Xerorthents, 0 to 5 percent slopes	Not prime farmland
126	Yelm fine sandy loam, 0 to 3 percent slopes	All areas are prime farmland
127	Yelm fine sandy loam, 3 to 15 percent slopes	Farmland of statewide importance
128	Yelm fine sandy loam, 15 to 30 percent slopes	Farmland of statewide importance
129	Water	Not prime farmland

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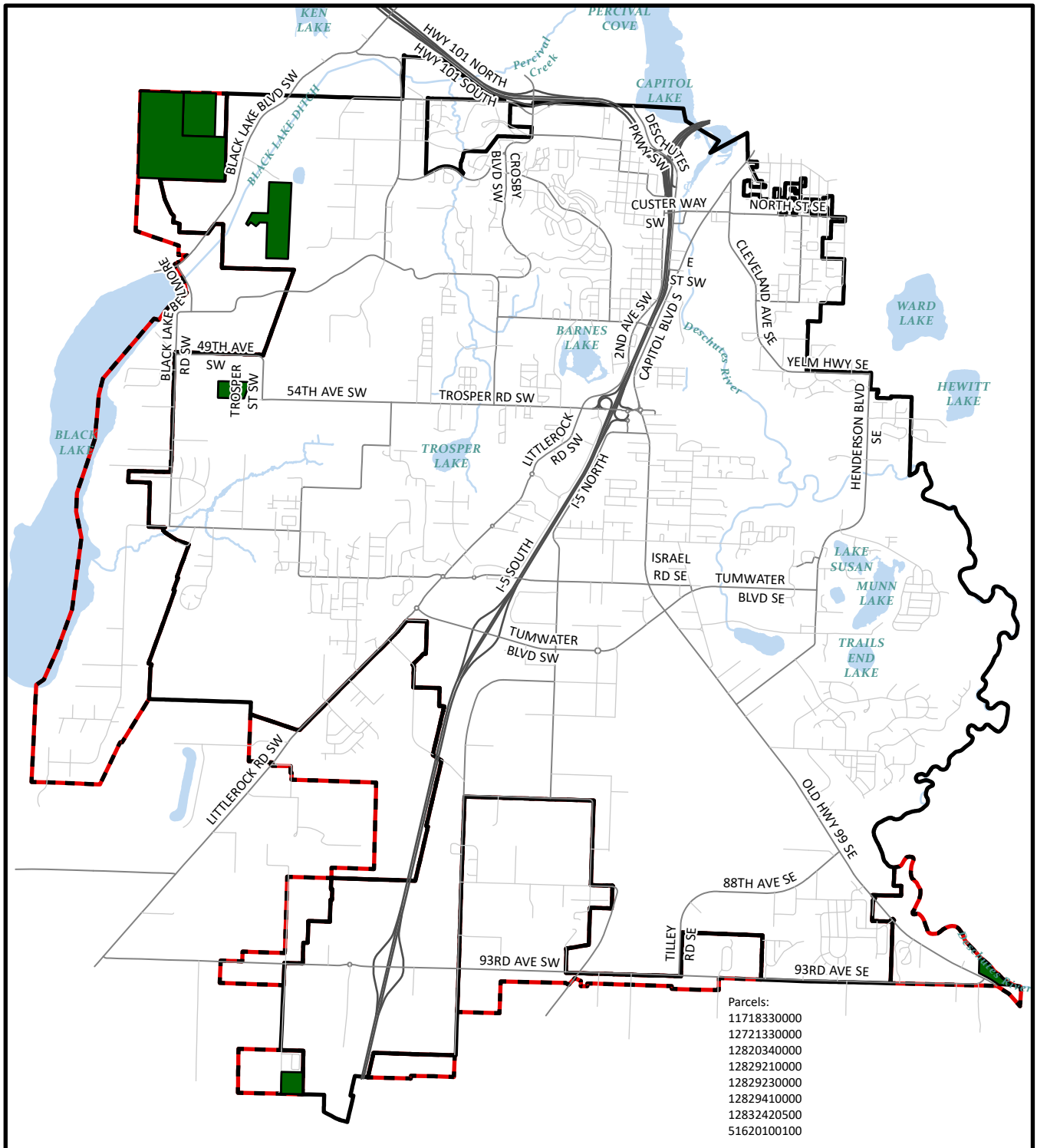
Attachment F.5.

Map C-1



Designated Forest Resource Lands

0 0.25 0.5 1 Miles

N

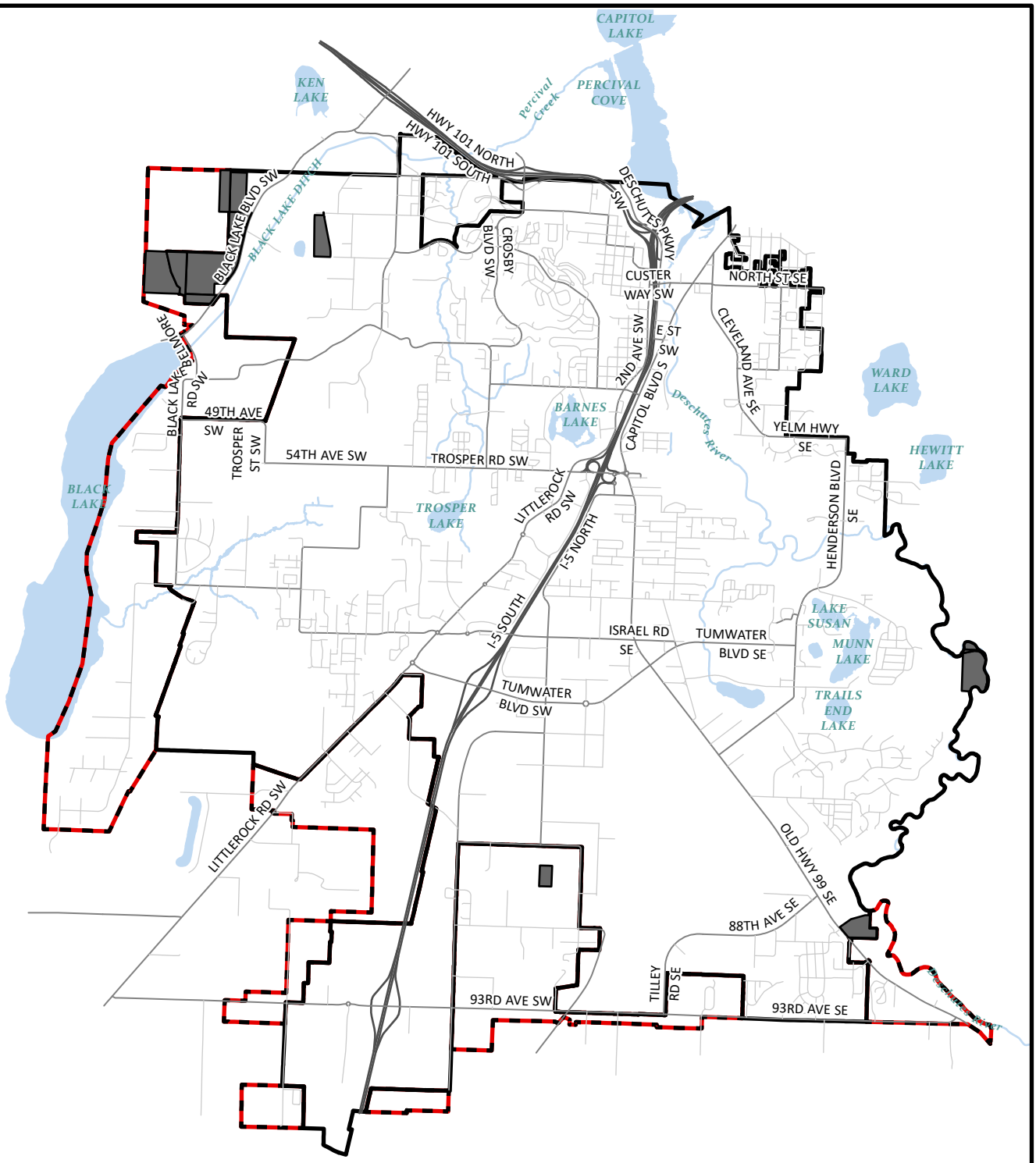
Designated Forest Lands

Tumwater City Limits

Tumwater Urban Growth Area

Map created by the City of Tumwater Transportation and Engineering Department using ArcGIS Pro 3.3.2.
Data courtesy City of Tumwater Transportation and Engineering Department and Thurston County.
DISCLAIMER: The City of Tumwater does not warrant, guarantee, or accept any liability for the accuracy, precision, or completeness of any information shown hereon or for any inferences made therefrom.

Map C-2



Designated Mineral Resource Lands

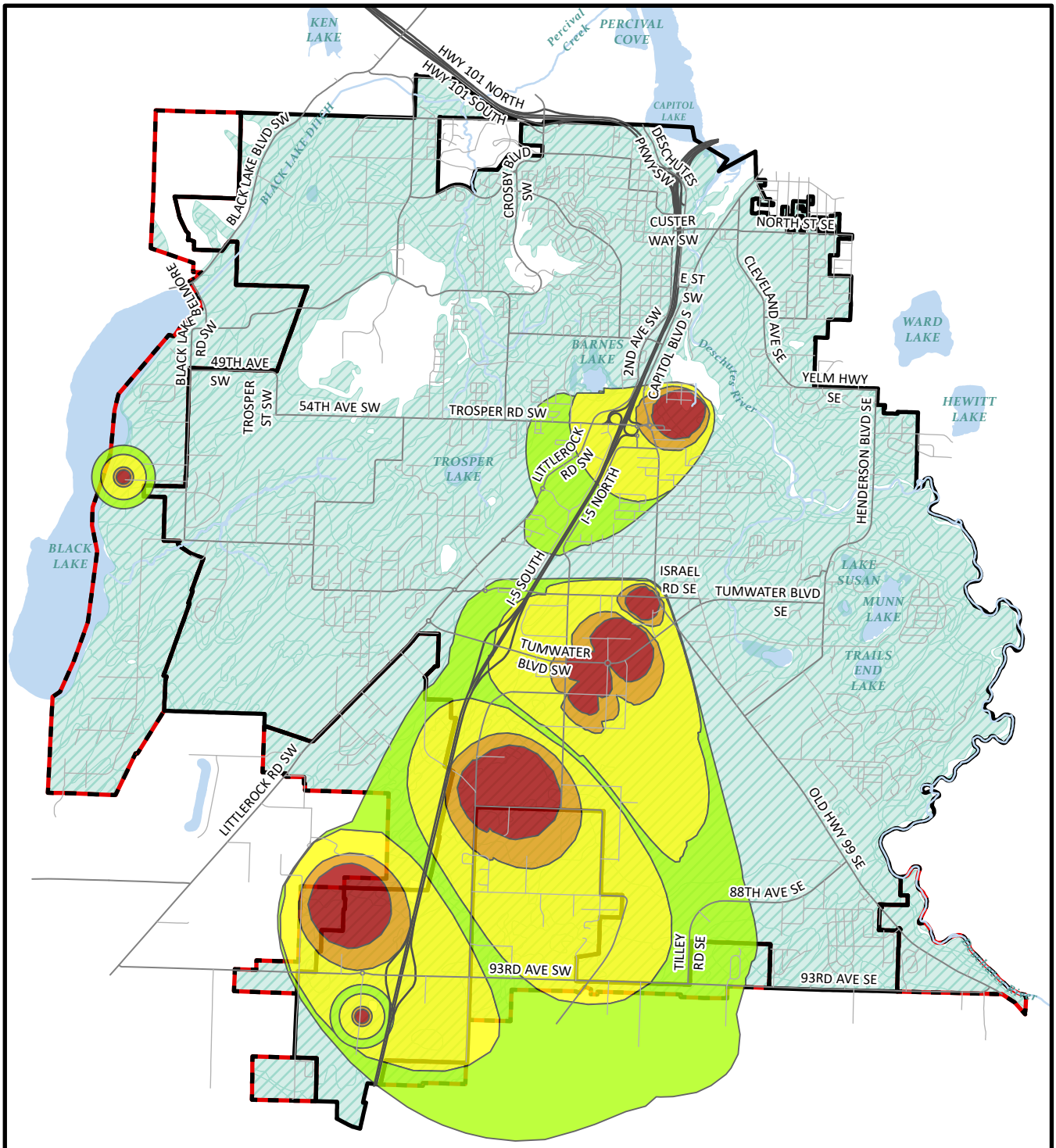
0 0.25 0.5 1 Miles

N

- Mineral Resource Lands
- Tumwater City Limits
- Tumwater Urban Growth Area

Map created by the City of Tumwater Transportation and Engineering Department using ArcGIS Pro 3.3.2.
Data courtesy City of Tumwater Transportation and Engineering Department and Thurston County.
Mineral resource lands were identified from County parcels with the property use code of "85".
DISCLAIMER: The City of Tumwater does not warrant, guarantee, or accept any liability for the accuracy, precision, or completeness of any information shown hereon or for any inferences made therefrom.

Map C-3



Critical Aquifer Recharge Areas

N

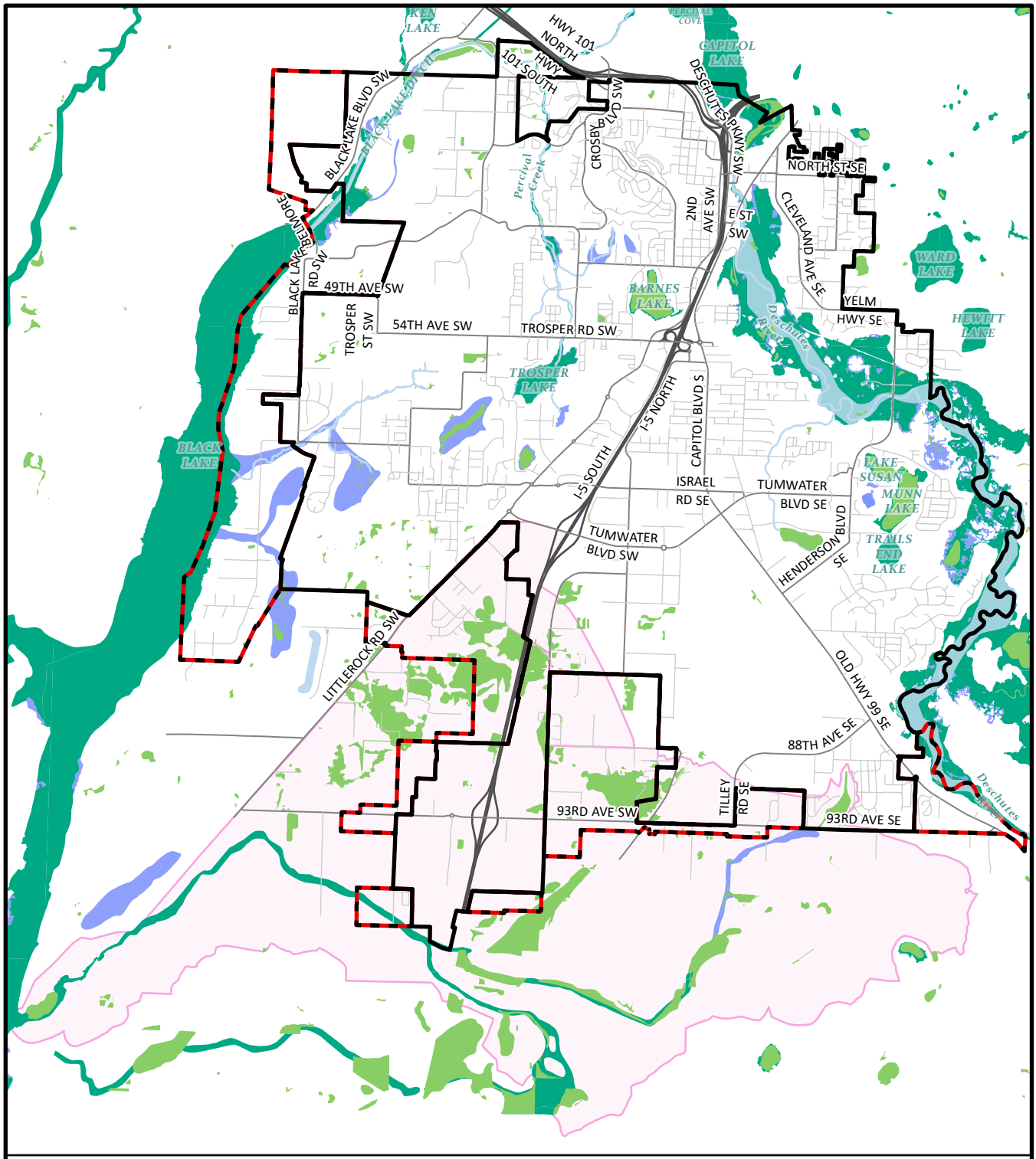
Wellhead Protection Area Capture Zones

- 6 month
- 1 year
- 5 year
- 10 year
- Critical Aquifier Recharge Areas
- Tumwater City Limits
- Tumwater Urban Growth Area

0 0.25 0.5 1 Miles

Map created by the City of Tumwater Transportation and Engineering Department using ArcGIS Pro 3.2.1.
Data courtesy City of Tumwater Transportation and Engineering Department, Golder Associates Inc., and Thurston County.
Wellhead Protection Area capture zones were delineated for each of the City's four wellfields using a groundwater flow model to simulate capture zones by Golder Associates Inc. in 2014. These zones are effective as of September 22, 2018 and were adopted under ordinance O2018-010.
DISCLAIMER: The City of Tumwater does not warrant, guarantee, or accept any liability for the accuracy, precision, or completeness of any information shown hereon or for any inferences made therefrom.

Map C-4



Frequently Flooded Areas

0 0.25 0.5 1 Miles

N

- 100 Year Flood Zone
- High Groundwater Hazard Areas
- Floodway
- FEMA Flood Zone
- Salmon Creek Basin
- Tumwater City Limits
- Tumwater Urban Growth Area

Map created by the City of Tumwater Transportation and Engineering Department using ArcGIS Pro 3.2.1.
Data courtesy City of Tumwater Transportation and Engineering Department, FEMA, and Thurston County.
FIRM Panel numbers: 53067C0164F, 53067C0168H, 53067C0169H, 53067C0301G, 53067C0282G, 53067C0281F, 53067C0280E, 53067C0283F, 53067C0284G, 53067C0303G
Effective May 8, 2024
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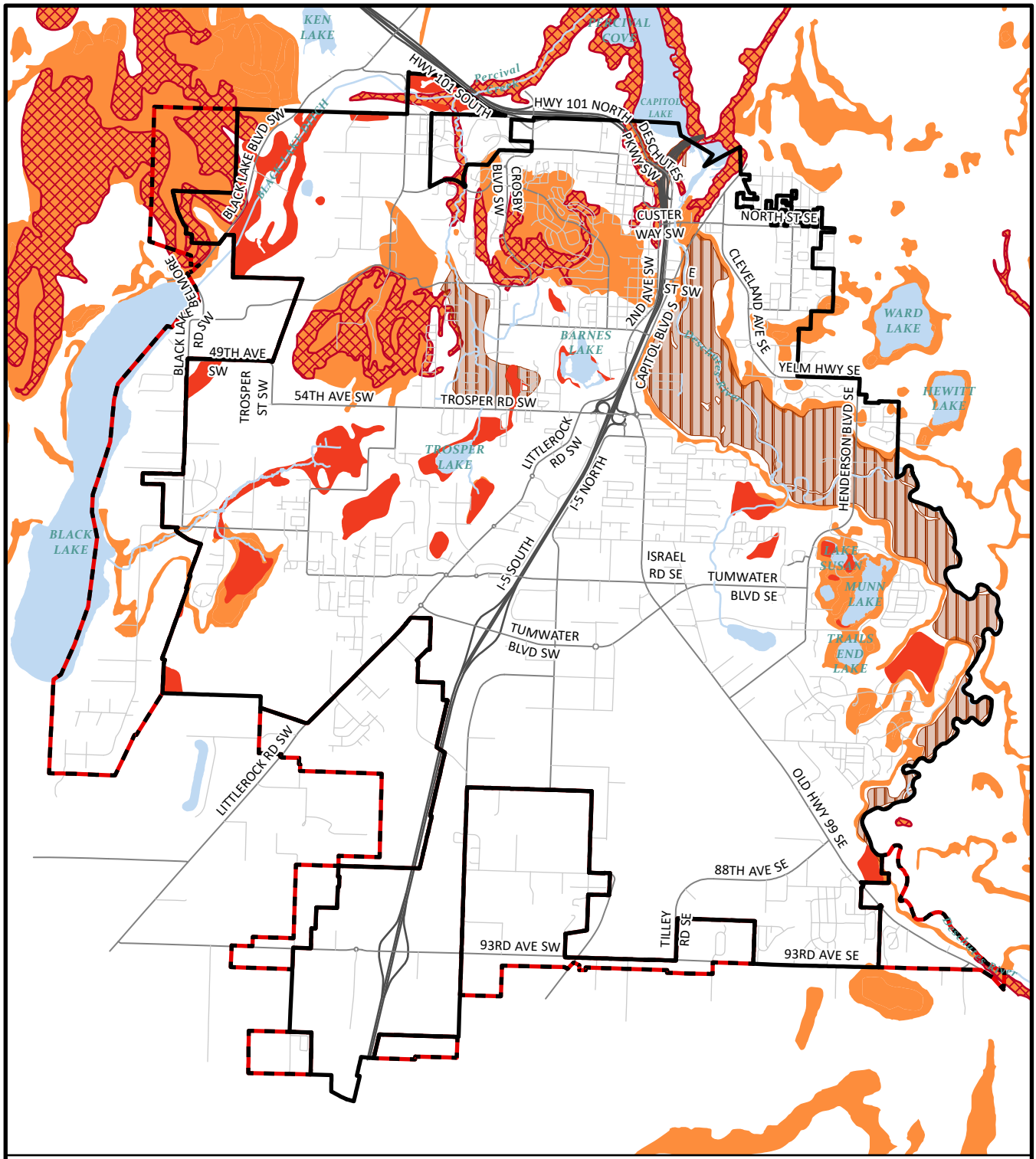
Map C-5



Geologically Hazardous Areas

N

- Peat
- High Liquefaction
- Landslide Hazard Areas
- Steep Slopes
- Tumwater City Limits
- Tumwater Urban Growth Area

0 0.25 0.5 1 Miles

Map created by the City of Tumwater Transportation and Engineering Department using ArcGIS Pro 3.2.1.
Data courtesy City of Tumwater Transportation and Engineering Department, Thurston County, and WA State Department of Natural Resources.
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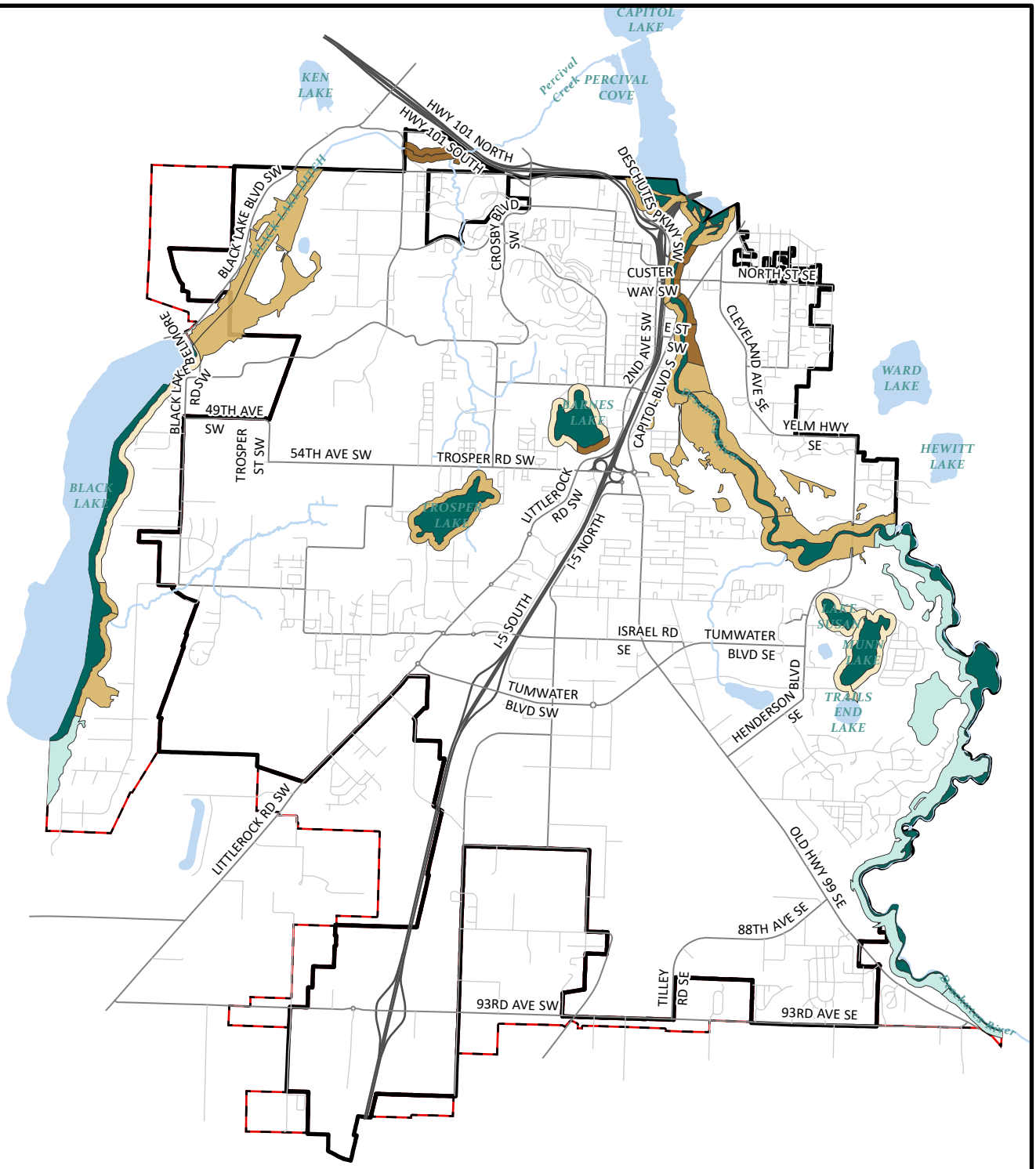
Map C-6



Shorelines of the State

N

Tumwater Shoreline Designations

- Aquatic
- Natural
- Shoreline Residential
- Urban Conservancy
- Urban Intensity
- Tumwater City Limits
- Tumwater Urban Growth Area

0 0.25 0.5 1 Miles

Map created by the City of Tumwater Transportation and Engineering Department using ArcGIS Pro 3.2.1.
Data courtesy City of Tumwater Transportation and Engineering Department.
Shoreline designations are sourced from the Tumwater Shoreline Master Program, last amended in 2019.
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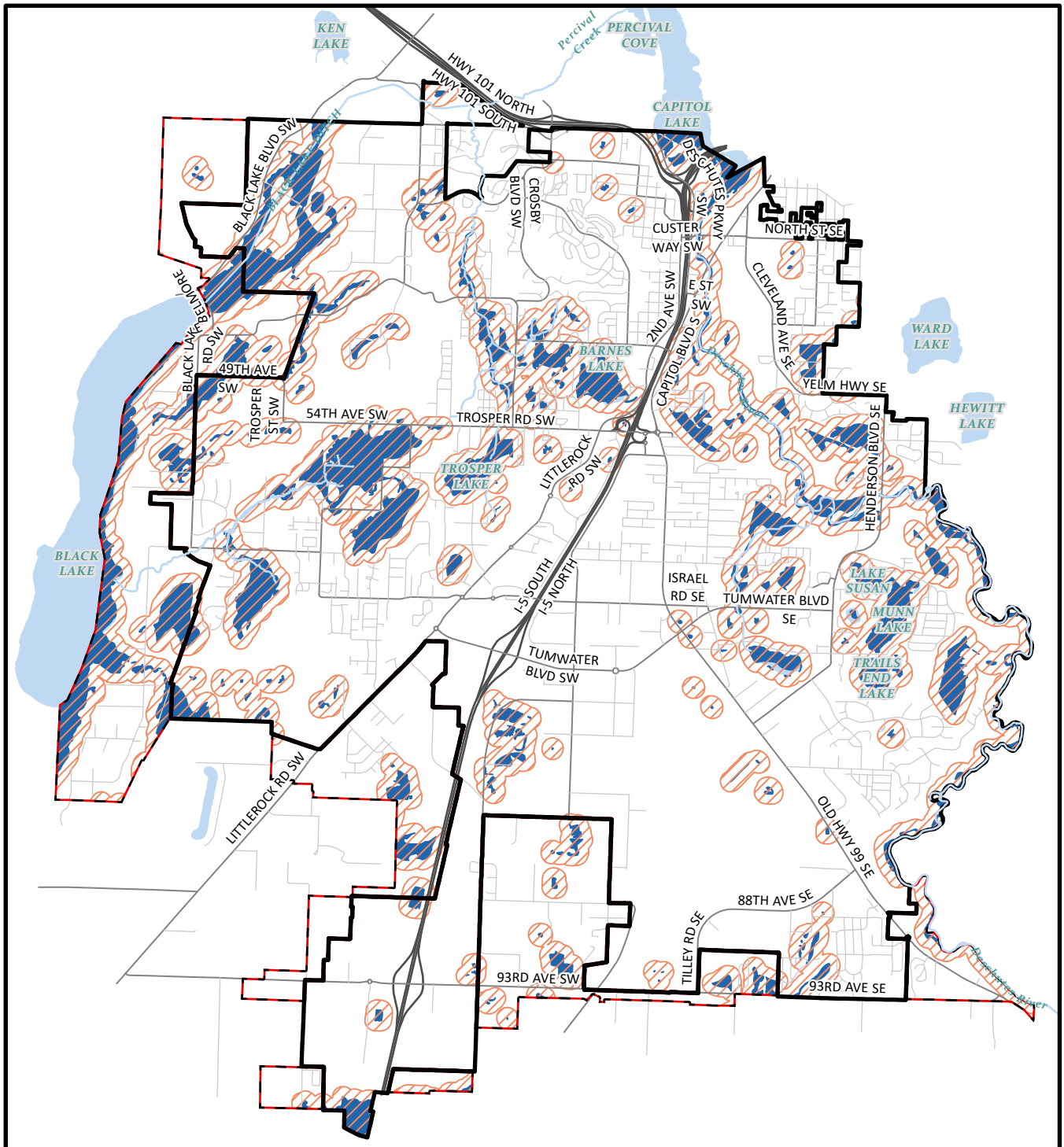
Map C-7



Wetlands

- Wetlands
- Wetland Review Areas
- Tumwater City Limits
- Tumwater Urban Growth Area

N

0 0.25 0.5 1 Miles

Map created by the City of Tumwater Transportation and Engineering Department using ArcGIS Pro 3.2.1.

Data courtesy City of Tumwater Transportation and Engineering Department and Thurston County.

Wetlands are a composite of new wetland standards and old wetland (pre-2017) delineations identified by the Thurston Regional Planning Council (TRPC) staff and the National Wetlands Inventory data. Edits to the data are made using verified wetland reports that have been submitted to and accepted by the Thurston County Community Planning and Economic Development Department. Last updated July 2, 2024.

Wetland Review Areas contains areas 300 feet around mapped wetland areas identified by TRPC, the National Wetlands Inventory, and wetland delineations from approved Thurston County permit applications.

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Housing Element

Part 1 – Goals, Policies, and Implementation Actions

City of Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 6, 2025

December 2025

Ordinance No. O2025-010

CITY OF TUMWATER

Housing Element

Part 1 – Goals, Policies, and Implementation Actions

Table of Contents

1. Introduction 3
A. Background 3
B. How to Read this Part of the Document 3
2. Growth Management Act – Element Goals 5
3. County-Wide Planning Policies 6
4. Element Goals and Policies 8
A. How to Read These Tables 8
B. Housing Goals and Policies 9
Appendix A – Draft Implementation Actions 20
1. How to Read These Tables 20
2. Housing Goals, Policies, and Implementation Actions 22

Abbreviations Used in Document

RCW – Revised Code of Washington

WAC – Washington Administrative Code

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1. Introduction

A. Background

The Housing Element is part of Tumwater's Comprehensive Plan and was prepared in response to the Growth Management Act (Chapter 36.70A RCW) and meets the requirements of RCW 36.70A.070(2) for the housing elements that are found in Appendix B *State Requirements*.

Tumwater's Vision, Mission, and Belief Statements that provide overarching direction for the future of Tumwater are found in the Comprehensive Plan Summary.

The Housing Element aligns and is consistent with the other elements of the Comprehensive Plan.

The 2021 goals and actions to address homelessness and create more housing identified in Tumwater Housing Action Plan were incorporated into the Housing Element.

Part 1 – Goals Policies, and Implementation Actions establishes Tumwater's goals and policies to set forth a direction to create and maintain housing in Tumwater.

The goals of the Housing Element are guided by the state Growth Management Act and the Thurston County County-Wide Planning Policies and the vision of a Tumwater that supports affordable housing for all members of the community. The Element's goals and policies are coordinated with the other Elements and regional plans.

The Housing Element's goals and policies are the policy basis for the draft implementation actions in Housing Element and those future actions that will be developed over the next 20 years which will be the foundation for Tumwater's annual work programs to address affordable housing for the community.

Part 2 – Technical Information provides a housing needs assessment, a land capacity analysis, consideration of racially disparate impacts, exclusion, and displacement, and a discussion of existing and future housing provision that are intended to try to reduce the cost of producing more housing to support the twenty-year growth projections for Tumwater.

B. How to Read this Part of the Document

In Part 1, Chapters 2 and 3 discuss the Housing Element's connection to the goals of the state Growth Management Act and the Thurston County County-Wide Planning Policies.

Chapter 4 presents each goal with an explanation of how to read the tables and then presents each of Tumwater's housing goals in detail with an explanation of the importance of each goal and how it helps to reduce the cost of housing and address equity.

Appendix A contains the draft implementation actions, which are intended to be a source of annual work program items that serve to implement the goals and policies of the Housing Element.

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The annual work programs will further refine the implementation actions prior to their being put into practice. It is expected that implementation actions will be further amended, added, or subtracted as needed over the course of the 20 year Comprehensive Plan as new opportunities arise to meet the intent of the Housing Element's goals and policies.

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2. Growth Management Act – Element Goals

Chapter 36.70A RCW requires that Tumwater show how the Housing Element meets the relevant planning goals contained within the Act. The following is a listing of the applicable goals for the Housing Element, and an analysis of how the Element addresses these goals:

1. ***Urban growth***. *Encourage development in urban growth areas where adequate public facilities and services exist or can be provided in an efficient manner.*

The Housing Element has policies supporting development in the urban growth area that support the goals of the Land Use Element.

2. ***Reduce sprawl***. *Reduce the inappropriate conversion of undeveloped land into sprawling, low density development.*

The Housing Element has goals and policies requiring urban growth to be phased outward from the urban core and supports the development of housing on vacant and underdeveloped properties to reduce urban sprawl.

4. ***Housing***. *Plan for and accommodate housing affordable to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.*

The Housing Element includes a variety of policies expressly designed to keep housing affordable, including a number of regulatory changes dispersed throughout the document.

7. ***Permits***. *Applications for both state and local government permits should be processed in a timely and fair manner to ensure predictability.*

Tumwater tracks the time it processes permits and has historically achieved short turnaround times for permits.

11. ***Citizen participation and coordination***. *Encourage the involvement of citizens in the planning process, including the participation of front line communities and overburdened communities, and ensure coordination between communities and jurisdictions to reconcile conflicts.*

During the 2025 Comprehensive Plan update, staff met with a housing stakeholder group made up of a wide range of individuals and groups involved in providing housing construction and services. Staff held an in person housing open house and an online housing story, conducted an informational survey and met regularly with the Planning Commission, General Government Committee, and City Council to discuss the development of the Element. The 2025 Comprehensive Plan update webpage was updated with all materials presented publicly. Tumwater staff also attended meetings with homeowner associations, civic and business groups. This approach allowed for public participation in the planning process for the Housing Element.

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3. County-Wide Planning Policies

The Growth Management Act requires that Tumwater's Comprehensive Plan be consistent with the Thurston County County-Wide Planning Policies, which were last amended in 2025.

The following is a list of the relevant sections of the County-Wide Planning Policies that apply to the Housing Element. All County-Wide Planning Policies are adopted as part of the Comprehensive Plan and are found in Appendix A of the Plan Introduction.

The Housing Element is Tumwater's principal policy document concerning affordable housing. The Land Use Element works with the Housing Element to provide adequate suitably zoned vacant land to further the policies of the Housing Element. Each residential designation as well as a number of designations that allow for mixed use development in the Land Use Element provide a variety of housing types to allow for affordable housing to be provided for all economic segments of the Tumwater population.

The Housing Element includes a variety of policies expressly designed to support housing affordability, including but not limited to, suggested regulatory changes found throughout the document.

VIII. Affordable Housing

8.1 Increase housing choices to support all ranges of lifestyles, household incomes, abilities, and ages. Encourage a range of housing types and costs that are commensurate with the employment base and income levels of jurisdictions' populations, particularly for low, moderate and fixed income families.

The Housing Element addresses how best to provide affordable housing for all economic segments of Tumwater's population by examining current housing conditions, regulatory barriers, and projected housing needs. The Element contains a variety of policies supporting a wide range of housing choices, such as providing sufficient, suitably zoned land for housing and developing innovative plans, codes, and standards for affordable housing.

8.2 Accommodate low and moderate income housing throughout each jurisdiction rather than isolated in certain areas.

The Housing Element discourages the concentration of low and moderate income housing, favoring dispersal of such housing.

8.3 Exploring ways to reduce the costs of housing.

The Housing Element's purpose is to support ways to reduce the cost of housing so that Tumwater residents of all income groups can afford housing suitable to their needs.

8.4 Establish and maintain a process to accomplish a fair share distribution of affordable housing among the jurisdictions.

The Housing Element recommends that the fair share distribution of affordable housing among the jurisdictions be decided on a regional basis.

8.5 Working with the private sector, Housing Authority, neighborhood

groups, and other affected citizens, to facilitate the development of attractive, quality, low and moderate income housing that is compatible with the surrounding neighborhood and located within easy access to public transportation, commercial areas and employment centers.

Throughout the Housing Element, there are many goals and policies that support the development of housing to serve the needs of all income groups in Tumwater. Tumwater will address these goals by increasing density in specified areas, increasing the range of housing types, and building partnerships with other agencies and organizations including homeowners' associations to reduce restrictions and increase permanent, income-restricted affordable housing stock.

8.6 Regularly examine and modify policies that pose barriers to affordable housing.

The chapter on barrier assessment in the Housing Element provides specific recommendations on regulatory amendments to support the development and maintenance of affordable housing.

8.7 When possible, provide assistance in obtaining funding and/or technical assistance for the expansion or establishment of low cost affordable housing for low, moderate, and fixed income individuals and families.

The Housing Element includes language supporting low income housing providers in Tumwater.

DRAFT

4. Element Goals and Policies

A. How to Read These Tables

The Housing Element goals and policies are not in priority order.

Appendix A provides a list of the draft implementation actions by goal and policy that will be considered when developing annual work programs for implementing the Housing Element's goals and policies.

1) Period

Each of the Housing Element's policies are associated with estimated start dates, length of time to complete, and target completion dates, if appropriate based on adequate funding for staff and resources. Most policies are ongoing with no set target completion date.

2) Effort to Achieve

Each of the Housing Element's policies are ranked according to the level of effort to achieve:

High Policy would require significant funding or staff resources or political effort to implement.

Medium Policy would require moderate funding or staff resources or political effort to implement.

Low Policy would require few funding or staff resources or political effort to implement.

3) Effect on Housing Supply

Each of the Housing Element's policies are ranked according to their expected effect on housing supply in Tumwater:

High Policy could result in a significant increase in desired housing units.

Medium Policy could result in a moderate increase in desired housing units.

Low Policy could result in a small increase in desired housing units.

4) Housing Needs

The Housing Element's policies are associated with one of the six goals in the Housing Element. Each policy addresses one or more of the eight areas of housing needs or state requirements:

Affordability. Reduces the cost of housing for low-income and cost-burdened households.

Supply. Increases the inventory of housing for all households.

Variety. Increases the variety of housing types.

Seniors. Increases the stock of housing options needed for aging seniors.

Improvements. Maintains the existing housing stock, including improving energy efficiency and air quality.

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Stability. Increases household wealth by providing safe, stable options for rental housing and pathways to homeownership.

Supportive Housing. Increases permanent supportive housing options for people with disabilities and those at risk of or experiencing homelessness.

State Requirement. Addresses state requirements for housing.

B. Housing Goals and Policies

Goal H-1 Increase the supply and variety of housing for every income and age group.

Goal H-1 is intended to streamline the development and construction of both owner and renter-occupied market rate and publicly supported housing to increase the amount and variety of housing types.

1) Why is this Goal Important?

Between 2020 and 2045, the population of Tumwater and its urban growth area is projected to increase by 21,969 people. This growth will require 9,192 new housing units in Tumwater and its urban growth area by 2045. Of those units 3,298 would need to be affordable to a household of four making 80% or less of the Area Median Income, which was $82,000 in Thurston County in 2023. When demand for housing is high, but supply stays low, housing costs increase, reducing affordability. The increase in costs affects both renters and those looking to buy.

As household formation and composition have changed over time, so have housing needs. Increasing the variety of housing types allows households more choices and creates a dynamic housing market better able to meet the needs of people wanting to live in Tumwater.

2) How Does the Goal Reduce Housing Costs?

Tumwater will see a growth of households in all income categories over the next twenty years, from the lowest earning ones to those earning well above the median income. This will require housing affordable to a wide range of incomes.

Expanding the housing supply also means people can find housing better suited to their needs. For example, a young family looking to buy their first home may continue to rent or pay more than 30 percent of their household income on a mortgage if home sale prices are too high.

Middle housing, a small part of Tumwater's current housing stock, is an important part of an affordable housing strategy. Middle housing includes duplexes, triplexes, quadplexes, stacked units attached townhomes, and cottage housing.

Per unit costs for middle housing tend to be lower than single-family homes, because the units are smaller, and developers can benefit from economies of scale. Per unit costs are also less than larger multifamily developments because

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they do not require structured parking or concrete and steel structures and are typically in neighborhoods with existing infrastructure. This leads to lower costs for both homeowners and renters.

Diversifying the housing stock also recognizes that households are unique and have a wide range of housing needs. This is particularly true as Tumwater's population ages. Middle housing is one way for seniors to downsize while staying in the neighborhoods they love.

3) How Does this Goal Address Equity?

When demand for housing is high, but supply is low, housing costs rise, decreasing affordability.

Those with the lowest incomes, who are disproportionately people of color, are most affected. Rising rents are correlated with increased evictions and homelessness.

Rising home prices means homeownership, a way for disadvantaged households to build wealth and increase financial stability, becomes more difficult.

Increasing costs can also lead to gentrification or cultural displacement as people move to new neighborhoods that lack the businesses and institutions important to their community. While this process may be voluntary, it can be destabilizing for communities of color. When higher income households, those that can afford to rent or buy at market rates, find housing that better meets their needs and budgets, more units are freed up that lower income households can afford. Expanding the overall housing stock also slows the increases in rent and housing prices that disproportionately affect people of color.

Market rate housing alone will not address the needs of the most disadvantaged populations, and pressure to develop market rate housing in communities of color can cause displacement. Draft implementation actions for Goal H-1 in Appendix A would help to increase the supply of housing for the lowest-income households.

Increasing the variety of housing options gives more affordable housing options to low-income households, who are disproportionately people of color. Middle housing can be both rental and owner-occupied. Affordable owner-occupied units are a way to build financial equity.

Middle housing also expands the housing options available in predominantly single-family neighborhoods, leading to a mix of household incomes. This allows low-income households to access some of the resources, such as better school districts or healthier neighborhoods, available to higher-income households.

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Policies		Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-1.1	**Strive for equity and opportunities for housing regardless of age, race, color, national origin, ancestry, sex, sexual orientation, familial status, marital status, ethnic background, source of income use of federal housing assistance, disability, veteran status, protected classes, or other arbitrary factors.**	Term of the Plan	H	H	
H-1.2	**In conjunction with the Land Use Element, provide sufficient land to meet projected future housing needs.**	Term of the Plan	M	H	
H-1.3	**In conjunction with the Transportation Plan and Lands for Public Purposes Element, support capital facilities planning that meets projected future housing needs over the next 20 years.**	Term of the Plan	M	H	
H-1.4	**Support the construction of housing on vacant or unused lots, such as unused commercial buildings, to minimize urban sprawl and reuse existing infrastructure.**	**Term of the Plan**	L	L	
H-1.5	**Direct mixed use and high density residential development along transit corridors and into urban centers to support employment and place-making opportunities.**	Term of the Plan	L	L	

Policies		Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-1.6	**Consider innovative plans, codes, standards, and procedures to take advantage of the best private and public sector approaches to creating housing.**	Term of the Plan	M	M	
H-1.8	**Support housing opportunities for those at risk of homelessness.**	Term of the Plan	H	M	
H-1.9	**Support housing opportunities for those with special needs, particularly those related to age or disability.**	2026-28	M	L	
H-1.10	**Strive for housing that is compatible in quality and design with surrounding land uses, traffic patterns, public facilities, and environmentally sensitive areas through use of innovative designs that enhance the appearance and quality of Tumwater's neighborhoods.**	Term of the Plan	M	L	

Goal H-2 Expand the supply of permanent, income-restricted affordable housing.

Goal H-2 includes draft implementation actions in Appendix A that increase the supply of housing affordable to low-income households (those making eighty or less percent of the area median family income) and draft implementation actions that support the providers of low-income housing.

1) Why is this Goal Important?

Demand for housing is straining the limited supply of affordable options. For households with the lowest incomes, such as single income earners with service industry roles like retail

clerks, home health aides, or a childcare provider, market rate housing is unlikely to be an affordable option. For these households, even home maintenance costs, let alone rent or mortgage payment costs, can be unaffordable.

2) How does this Goal Reduce Housing Costs?

Removing barriers and providing incentives to develop affordable housing for the lowest incomes increases housing affordability for these households.

Reducing the cost of renting and owning a home are both parts of the solution. For households looking towards homeownership, the up-front costs associated with purchasing a home can put this option out of reach. Low-income households, however, can benefit from the stabilization in housing costs that owning a home can offer, in general, monthly mortgage payments stay the same over 30 years while monthly rent payments increase.

The draft implementation actions in Appendix A address the need for permanent supportive housing for people with disabilities, seniors on limited incomes, and others in similar situations. For people moving out of emergency housing situations, such as a homeless shelter, permanent supportive housing provides not only affordable housing but also access to health and social services. These services build stability and decrease the likelihood residents experiencing homelessness again.

3) How Does this Goal Address Equity?

People who have systematically had less access to generational wealth building, such as communities of color, or those who have experienced homelessness, stand to benefit the most from income restricted housing. Equity means getting people and communities to have equal possible outcomes, which requires eliminating barriers and providing support to those who need it the most. This goal seeks to address equity by providing affordable, stable housing options tailored to meet the needs of our community.

Housing affordable to households with the lowest incomes can be rental or owner units, both of which help stabilize households. Programs that expand homeownership opportunities can significantly improve a household's wealth; this is especially important to addressing inequities for households of color stemming from historical policies like redlining and zoning.

Policies		Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-2.1	**Support permanent, income-restricted affordable housing in variety of locations, types, and designs that is safe, and near jobs and daily activities.**	**Term of the Plan**	**H**	**M**	

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Policies		Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-2.2	**Support permanent, income-restricted affordable housing through budgeting and funding decisions.**	**Term of the Plan**	**H**	**M**	

Goal H-3 Maintain and improve existing housing stock.

Goal H-3 is intended to support the ongoing maintenance of Tumwater's housing stock.

1) Why is this Goal Important?

One of the most important methods to keep an adequate supply of housing in Tumwater is to retain existing housing in good condition. The policies and draft implementation actions in Appendix A for Goal H-3 are intended to support the maintenance and improvement of the existing housing stock to avoid prematurely needing new housing to replace existing housing.

2) How Does the Goal Reduce Housing Costs?

Goal H-3 helps to reduce costs by addressing ongoing maintenance on a regular basis to avoid creating a larger, more expensive problem later by not dealing with a smaller, less expensive problem now.

Maintaining and improving Tumwater's existing housing stock also improves energy efficiency, which reduces costs and climate impacts, and air quality, which improves resident's health.

3) How Does this Goal Address Equity?

Existing housing stock is more likely to serve low- and moderate-income residents of Tumwater. Providing public funding to help with renovating and maintaining existing housing that serves low-income households, seniors, or residents with disabilities is a good way of ensuring that residents of all incomes can continue to live in Tumwater.

Tumwater has implemented this goal in the part through funding to nonprofits, CDBG funding, and work through the Regional Housing Council.

DRAFT

Policies		Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-3.1	Support efforts to maintain existing housing stock as healthy and safe.	Term of the Plan	H	M	
H-3.2	Support Federal, State, and local financing opportunities to maintain, upgrade, or retrofit the existing housing stock.	Term of the Plan	M	M	
H-3.3	Strive to increase equity and quality of life by improving community surroundings and infrastructure in residential areas.	Term of the Plan	H	M	
H-3.4	Support manufactured home parks to maintain existing sources of affordable housing.	Term of the Plan	M	M	

Goal H-4 Make it easier for households to access housing and stay housed.

Goal H-4 address housing stability in Tumwater by preventing evictions and displacement and creating opportunities to build financial equity through homeownership.

1) Why is this Goal Important?

Housing stability is an important component of housing affordability. When households face housing insecurity because they live paycheck to paycheck or other issues, there can be a fine line between being housed and being homeless. Evictions and foreclosures are both destabilizing and can lead to long-term poverty. These events also make it more likely that a household will experience homelessness.

2) How does this Goal Reduce Housing Costs?

For Tumwater, our priority is to prevent our residents from experiencing homelessness. Not only is that more humane, but it is also more cost-effective.

Households that can avoid evictions and foreclosures also avoid increases in their monthly housing costs. Finding a new home to live in is also very challenging when the supply is

low and the demand is high. For renters, this can also include application fees, deposits, moving expenses, and other costs associated with finding new rental housing.

3) How Does this Goal Address Equity?

Goal H-4 includes draft implementation actions in Appendix A to make it easier for households to access housing and stay housed.

Homeownership is an important way for a household to build financial equity, move people out of poverty, and create generational wealth. Creating these opportunities for people of color, who were historically denied access to mortgages and loans, is particularly important.

As a result of these structural past and present harms, people of color are more likely to rent and more likely to have a lower income than their white, non-Hispanic counterparts. This makes them particularly vulnerable to being evicted when rent increases exceed their ability to pay. This concern is reflected in the population experiencing homelessness, which are also disproportionately people of color.

Policies		Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-4.1	**Coordinate with and promote social service organizations in their efforts to help prospective homeowners with financial assistance.**	**Term of the Plan**	**M**	**M**	
H-4.2	**Develop policies that protect front line communities from displacement and inflated housing costs when on fixed incomes.**	**2026-28**	**M**	**M**	

Goal H-5 Continually develop partnerships to improve implementation of housing strategies.

Goal H-5 recognizes the need for Tumwater to engage with its community and maintain strong relationships with affordable housing and housings service providers to address housing affordability.

1) Why is this Goal Important?

While Tumwater does not build or manage housing, the policies and codes the City enacts can affect how much housing can be built and at what cost.

2) How does this Goal Reduce Housing Costs?

By establishing partnerships with organizations who build housing and that serve below median income households, Tumwater can work with them to direct resources and enact policies that best serve the community.

For some, changes brought on by growth and new development in their established neighborhoods can be seen as difficult. As a result, residents may support policies that improve housing affordability while at the same time deter implementation actions needed to increase affordable options.

Inviting people of all social and economic groups in Tumwater into conversation provides the most direct means of collaborating with leaders of disadvantaged populations to foster government action that does not increase inequities faced by people of color.

3) How Does this Goal Address Equity?

Building public understanding and compassion around the challenges faced by low-income households includes recognizing the historic and systemic reasons why they are disproportionately people of color.

The people who typically engage in public review processes, especially land use processes, are often white and have a higher income, which is not reflective our entire community. Developing relationships with organizations that work with or represent communities of color and disadvantaged groups can help Tumwater better:

- Serve our community.
- Identify who benefits or is burdened by an action.
- Examine potential unintended consequences of taking an action.
- Mitigate unintended negative consequences of taking an action.
- Build in strategies to advance racial equity.

Initiative-taking efforts to strive for engagement in decision-making processes are broadly inclusive and grounded in achieving equity is necessary. With broader input representative of the whole community, decisions are better balanced and implementation actions Tumwater take can be more successfully implemented in an equitable fashion.

Inviting and bringing in people of all levels of society in Tumwater into conversation provides the most direct means of collaborating with leaders of disadvantaged populations to foster government action that does not increase inequities faced by people of color.

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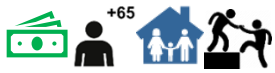
Policies		Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-5.1	Maintain relationships with for profit housing developers and services.	Term of the Plan	M	M	
H-5.2	Maintain relationships with nonprofits housing providers and services.	Term of the Plan	M	M	
H-5.3	Work with the other jurisdictions as part of the Regional Housing Council to address homelessness and affordable housing in Thurston County.	Term of the Plan	M	M	
H-5.4	Maintain partnerships with agencies that provide or support housing.	Term of the Plan	M	M	

Goal H-6 Explore a Permanent Source of Funding for Low-Income Housing.

Goal H-6 addresses the need to increase funding for low-income housing and to provide a regional strategy for distributing funds.

1) Why is this Goal Important?

While the private sector will build most of the housing needed to meet demand in the Cities of Lacey, Olympia, and Tumwater, a significant portion of households earn less than 80 percent of the median area income. Paying market rate rents or mortgages may not be affordable for them.

For nonprofit or for-profit developers, it is difficult for a low-income development project to be feasible without public support.

2) How does this Goal Reduce Housing Costs?

Providing affordable housing for the lowest income households and those experiencing homelessness requires significant public resources. Currently those resources are scarce, leaving many households unable to afford a decent and affordable place to live that does not have unsafe or unhealthy living conditions.

Many of the draft implementation actions identified in Appendix A of this Element are not possible without more funding. Tumwater can play a significant role in leveraging local, state, and federal dollars for low-income housing. The City also recognizes the need to collaborate regionally on a funding strategy so that funds are used efficiently and distributed to the areas of greatest need. More funding reduces the costs to develop and maintain units and makes housing units more affordable.

While Tumwater will explore ways to increase funding, the City recognizes the need to increase at the state and federal level for affordable housing.

3) How Does this Goal Address Equity?

In 2021, 39 percent of households in Tumwater less than 80 percent of area median income, which are low-, very low-, and extremely low-income households. The draft implementation actions in Appendix A of Goal H-6 will help to address these issues.

Policies		Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-6.1	**Work with the state and regional partners to explore permanent sources of funding for the construction and maintenance of low-income housing.**	**Term of the Plan**	**H**	**H**	

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Appendix A – Draft Implementation Actions

Each of the Housing Element goals and policies in Chapter 4 will require Tumwater to take specific actions to implement over the course of the 20 year term of the Comprehensive Plan.

The draft implementation actions in the tables below were developed in coordination with the housing stakeholders, the community, and Tumwater staff. The draft implementation actions in the tables below are intended to serve as the building blocks for developing the annual Tumwater work programs that will implement the goals and policies of the Housing Element.

The draft implementation actions will need further refinement before they are incorporated into annual Tumwater work programs.

As the Comprehensive Plan is put into action over the next twenty years, the draft implementation actions will change as new, unforeseen opportunities emerge: new ones may be added, proposed ones may be modified or replaced by other actions.

1. How to Read These Tables

The Housing Element goals, policies, and the draft implementation actions associated with them are not in priority order.

The draft implementation actions that can only be undertaken by other entities are not included in this plan.

a) Period

Each of the Housing Element's policies and draft implementation actions are associated with estimated start dates, length of time to complete, and target completion dates, if appropriate based on adequate funding for staff and resources. Most policies are ongoing with no set target completion date.

b) Effort to Achieve

Each of the Housing Element's policies and draft implementation actions are ranked according to the level of effort to achieve:

High	Policy or action would require significant funding or staff resources or political effort to implement.
Medium	Policy or action would require moderate funding or staff resources or political effort to implement.
Low	Policy or action would require few funding or staff resources or political effort to implement.

c) Effect on Housing Supply

Each of the Housing Element's policies and draft implementation actions are ranked according to their expected effect on housing supply in Tumwater:

High	Policy or action could result in a significant increase in desired housing units.

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Medium Policy or action could result in a moderate increase in desired housing units.

Low Policy or action could result in a small increase in desired housing units.

d) Housing Needs

The Housing Element's policies and draft implementation actions are associated with one of the six goals in the Housing Element. Each policy and draft implementation action addresses one or more of the eight areas of housing need or state requirements:

Affordability. Reduces the cost of housing for low-income and cost-burdened households.

Supply. Increases the inventory of housing for all households.

Variety. Increases the variety of housing types.

Seniors. Increases the stock of housing options needed for aging seniors.

Improvements. Maintains the existing housing stock, including improving energy efficiency and air quality.

Stability. Increases household wealth by providing safe, stable options for rental housing and pathways to homeownership.

Supportive Housing. Increases permanent supportive housing options for people with disabilities and those at risk of or experiencing homelessness.

State Requirement. Addresses state requirements for housing.

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2. Housing Goals, Policies, and Implementation Actions

Goal H-1 Increase the supply and variety of housing for every income and age group.

Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-1.1 Strive for equity and opportunities for housing regardless of age, race, color, national origin, ancestry, sex, sexual orientation, familial status, marital status, ethnic background, source of income use of federal housing assistance, disability, veteran status, protected classes, or other arbitrary factors.	Term of the Plan	H	H	
H-1.1.1 Consider Tumwater programs to offset the displacement of community members by new housing development while not resulting in unnecessary barriers to housing production.	2026-28	M	L	
H-1.1.2 Develop programs to address racially disparate impacts and exclusion in housing caused by local policies, plans, and implementation actions.	2026-28	M	L	

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Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-1.1.3 Evaluate the impact on housing affordability, especially for low-income households, as part of the Comprehensive Plan and development code amendment processes.	Term of the Plan	M	L	
H-1.1.4 Monitor the rental market in Tumwater and implement appropriate tenant protection programs in coordination with landlords and tenants that improve household stability.	Term of the Plan	H	M	
H-1.2 In conjunction with the Land Use Element, provide sufficient land to meet projected future housing needs.	Term of the Plan	M	H	
H-1.2.1 Designate sufficient land for all types of housing to accommodate the future needs of every income group and make the most efficient use of infrastructure and services.	Term of the Plan	M	H	

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Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-1.2.2 Determine the capacity of land in order to develop a funding strategy for publicly assisted housing, housing for moderate, low, very low, and extremely low-income households, manufactured housing, middle housing, multifamily housing, group homes, foster care facilities, emergency housing, emergency shelters, and permanent supportive housing.	Term of the Plan	M	M	
H-1.3 In conjunction with the Transportation Plan and Lands for Public Purposes Element, support capital facilities planning that meets projected future housing needs over the next 20 years.	Term of the Plan	M	H	
H-1.3.1 Review transportation impacts and update the Transportation Plan and the Capital Facilities Plan as needed when making housing decisions affecting the location and density of housing.	Term of the Plan	M	M	

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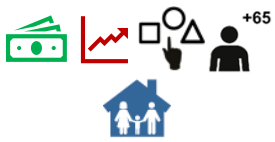
Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-1.3.2 Review impacts to public utilities and services and update the Lands for Public Purposes Element and the Capital Facilities Plan when making housing decisions affecting the location and density of housing.	Term of the Plan	M	M	
H-1.3.3 Increase multimodal transportation options to allow for greater variety of housing.	2026-28	M	M	
H-1.4 Support the construction of housing on vacant or unused lots, such as unused commercial buildings, to minimize urban sprawl and reuse existing infrastructure.	**Term of the Plan**	L	L	
H-1.5 Direct mixed use and high density residential development along transit corridors and into urban centers to support employment and place-making opportunities.	Term of the Plan	L	L	
H-1.5.1 Lower transportation impact fees for multifamily and mixed use developments near frequent transit service routes.	2026-28	H	M	
H-1.5.2 Review options for deferring impact fee payments for desired housing development types.	2026-28	M	L	

Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-1.6 Consider innovative plans, codes, standards, and procedures to take advantage of the best private and public sector approaches to creating housing.	Term of the Plan	M	M	
H-1.6.1 Update the development code to allow for a range of housing for all income segments and housing types.	Term of the Plan	M	M	
H-1.6.2 Develop incentives for the development of accessory dwelling units within new and existing single-family developments.	2026-28	M	L	
H-1.6.3 Collaborate with the development community to support the construction of life cycle housing, particularly for young adults and seniors.	2026-28	M	L	
H-1.6.4 Continually review permitting requirements and processes to streamline housing development review.	Term of the Plan	M	M	
H-1.6.5 Reduce off street parking requirements in appropriate locations served by other modes of transportation to allow for more housing.	2026-28	M	M	

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Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-1.6.6 Update permitting processes to support condominium ownership.	2026-28	L	L	
H-1.6.7 Identify where and how to extend public water and sewer to unserved areas to allow infill residential development in underdeveloped areas.	2026-28	H	M	
H-1.6.8 Use SEPA Planned Actions in specific areas of Tumwater to reduce the need for SEPA reviews for individual residential developments.	2026-28	M	M	
H-1.7 Support manufactured home parks as a source of affordable housing.	Term of the Plan	M	M	+65
H-1.7.1 Maintain the manufactured home park district land use designation and zone district to prevent conversion of affordable housing to other uses without replacement.	Term of the Plan	M	M	+65
H-1.8 Support housing opportunities for those at risk of homelessness.	Term of the Plan	H	M	+65

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Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-1.8.1 Develop a plan for housing to meet the needs of those at risk of homelessness throughout Tumwater, including Emergency Housing, Emergency Shelter, Permanent Supportive Housing, and Transitional Housing.	2026-28	M	L	
H-1.9 Support housing opportunities for those with special needs, particularly those related to age or disability.	2026-28	M	L	
H-1.9.1 Support social and health service organizations, which offer support programs for those with special needs, particularly those programs that help people remain in Tumwater.	2026-28	M	L	
H-1.9.2 Support actions to secure grants and loans tied to the provision of special needs housing by agencies, private developers, and nonprofit organizations.	2026-28	L	L	
H-1.9.3 Work with agencies, private developers, and nonprofit organizations to locate housing to serve Tumwater's special needs populations, particularly those with challenges related to age, health or disability.	2026-28	M	L	

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Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-1.9.4 Strive to increase the range of housing types for seniors affordable at a variety of incomes, including independent various degrees of independent and assisted living and skilled nursing care facilities.	2026-28	M	L	
H-1.10 Strive for housing that is compatible in quality and design with surrounding land uses, traffic patterns, public facilities, and environmentally sensitive areas through use of innovative designs that enhance the appearance and quality of Tumwater's neighborhoods.	Term of the Plan	M	L	
H-1.10.1 Update Citywide Design Guidelines for residential uses on a regular basis.	Term of the Plan	M	L	
H-1.10.2 Develop a form-based code that would allow more flexibility in incorporating different housing types into development projects and addressing compatibility in neighborhoods.	2029-2030	H	M	
H-1.10.3 Strategically allow live/work units in nonresidential zones.	2026-28	L	L	

Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-1.10.4 Work with the development community to support innovation and variety in housing design and development to build housing with unique individual character.	Term of the Plan	M	L	

Goal H-2 Expand the supply of permanent, income-restricted affordable housing.

Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-2.1 Support permanent, income-restricted affordable housing in variety of locations, types, and designs that is safe, and near jobs and daily activities.	**Term of the Plan**	**H**	**M**	
H-2.1.1 Expand incentives to incorporate permanent, income-restricted affordable housing into residential developments.	2029-30	H	M	
H-2.1.2 Develop regulations that require a portion of a new Planned Unit Development used for residential development be permanent, income-restricted affordable housing units of different types.	2029-30	H	M	

Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-2.1.3 Mix market rate and low-income housing to avoid creating areas of concentrated low-income housing.	Term of the Plan	M	L	
H-2.1.4 Donate or lease surplus Tumwater-owned land as available to developers that provide permanent supportive housing and explore a process for coordinating the acceptance of land donations from others.	Term of the Plan	M	M	
H-2.2 Support permanent, income-restricted affordable housing through budgeting and funding decisions.	**Term of the Plan**	H	M	
H-2.2.1 Review deferral of park and transportation impact fee payments and utility connection charges for permanent, income-restricted affordable housing.	2026-28	M	M	
H-2.2.2 Review and update permit fee waivers for low-income housing developments.	2026-28	M	M	

Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-2.2.3 Coordinate with nonprofit developers on projects that increase permanent, income-restricted affordable housing through federal, state, or local grants or loans.	Term of Plan	H	M	
H-2.2.4 Coordinate with social service organizations in their efforts to seek funds for construction and operation of emergency, transitional, and permanent supportive housing.	Term of Plan	M	M	
H-2.2.5 Meet regularly with housing providers and developers and help inform and educate on programs that support affordable housing.	Term of the Plan	M	M	
H-2.2.6 Coordinate with the Housing Authority of Thurston County and other non-profit organizations to purchase income-restricted units before they are converted to market rate housing.	Term of Plan	H	M	

Goal H-3 Maintain and improve existing housing stock.

Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-3.1 Support efforts to maintain existing housing stock as healthy and safe.	**Term of the Plan**	**H**	**M**	
H-3.1.1 Work with nonprofit providers to support services that work with property owners and renters to maintain housing in good condition and keep people housed.	Term of the Plan	M	M	
H-3.2 Support Federal, State, and local financing opportunities to maintain, upgrade, or retrofit the existing housing stock.	**Term of the Plan**	**M**	**M**	
H-3.2.1 Build and maintain public and private partnerships to address renovations of unfit structures for use as permanent, income-restricted affordable housing.	Term of the Plan	M	M	
H-3.2.2 Explore funding for seniors, low income, and disabled residents to purchase housing through community land trusts.	Term of the Plan	H	L	
H-3.2.3 Consider an energy assistance program for rental housing to help property owners with making upgrades when the unit is sold.	2029-30	M	L	

Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-3.2.4 Explore programs for septic and well conversions to allow for more housing capacity and density.	2029-30	H	H	
H-3.3 Strive to increase equity and quality of life by improving community surroundings and infrastructure in residential areas.	**Term of the Plan**	**H**	**M**	
H-3.3.1 Focus improvements on green space, transportation, and utilities in areas that are cost burdened and at elevated risk of displacement to strive for equity and health.	Term of the Plan	H	M	
H-3.4 Support manufactured home parks to maintain existing sources of affordable housing.	**Term of the Plan**	**M**	**M**	
H-3.4.1 Facilitate a program to preserve and maintain healthy and viable manufactured home parks.	2029-30	M	M	
H-3.4.2 Explore programs with non-profits to acquire mobile home parks so that lot rental fees can be managed.	Term of the Plan	H	M	

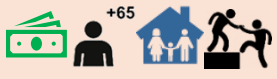
Goal H-4 Make it easier for households to access housing and stay housed.

Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-4.1 Coordinate with and promote social service organizations in their efforts to help prospective homeowners with financial assistance.	**Term of the Plan**	**M**	**M**	
H-4.1.1 Support down payment assistance programs for homeownership and programs that help people entering the rental market.	2031-32	**H**	**M**	
H-4.2 Develop policies that protect frontline communities from displacement and inflated housing costs when on fixed incomes.	**2026-28**	**M**	**M**	
H-4.2.1 Work with non-profits and organizations on programs that help communities facing barriers stay housed	Term of the Plan	**M**	**M**	
H-4.2.2 Identify areas at risk of displacement and update policies and regulations to address.	2026-28	**M**	**M**	
H-4.2.3 Consider short-term rental regulations to minimize impacts on long-term housing availability.	2029-31	**H**	**L**	

Goal H-5 Continually develop partnerships to improve implementation of housing strategies.

Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-5.1 Maintain relationships with for profit housing developers and services.	**Term of the Plan**	**M**	**M**	
H-5.1.1 Start local housing stakeholder group that meets regularly to continue collaboration.	Term of the Plan	**L**	**M**	
H-5.1.2 Collaborate with the for profit and nonprofit development community on mixed use, infill, and reuse of existing buildings for housing.	Term of the Plan	**L**	**L**	
H-5.1.3 Work with local landlords to identify incentives to increase the amount of rental housing and units that accept housing vouchers and housing assistance.	2026-28	**M**	**M**	
H-5.1.4 Work with developers and home lenders to make middle housing more desirable and financially feasible.	2026-28	**M**	**L**	
H-5.1.5 Work with regional partners to develop a technical assistance program for small landlords.	2026-28	**M**	**L**	

Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-5.2 Maintain relationships with nonprofits housing providers and services.	**Term of the Plan**	**M**	**M**	
H-5.2.1 Explore collaborations with low-income housing developers to expand homeownership opportunities.	Term of the Plan	**M**	**M**	
H-5.2.2 Work with regional partners on housing strategies for homeless individuals and families, which may include Host Homes.	2026-28	**M**	**L**	
H-5.2.3 Collaborate with financial institutions and non-profits to encourage housing land trusts.	2029-30	**M**	**L**	
H-5.2.4 Work with non-profits, financial institutions, and other agencies to increase opportunities for home ownership, especially within BIPOC communities, lower income households, and families with children.	Term of the Plan	**M**	**L**	

Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-5.2.5 Identify and develop partnerships with organizations that provide or support low-income, workforce, young adult, and senior housing as well as other populations with unique housing needs.	2026-28	M	M	
H-5.2.6 Explore opportunities to work with local trade schools that provide renovation and retrofit services for low-income households as part of on-the-job-training.	2029-30	M	L	
H-5.3 Work with the other jurisdictions as part of the Regional Housing Council to address homelessness and affordable housing in Thurston County.	**Term of the Plan**	M	M	
H-5.3.1 Coordinate allocation of housing for all income groups in cooperation with other jurisdictions in Thurston County.	Term of the Plan	M	M	
H-5.3.2 Track data on affordable housing at the regional level.	2029-30	M	M	
H-5.4 Maintain partnerships with agencies that provide or support housing.	**Term of the Plan**	M	M	

Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-5.4.1 Work with local post-secondary schools to develop strategies for developing off campus housing	2026-28	M	L	
H-5.4.2 Work with the Tumwater School District, Thurston County Housing Authority, and other nonprofits to pursue grant funding and implement transitional housing strategies for families with children.	Term of Plan	M	M	
H-5.4.3 Consider support for Housing Navigators to help households, renters, homeowners, and landlords with housing issues.	2029-30	H	M	

Goal H-6 Explore a Permanent Source of Funding for Low-Income Housing.

Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-6.1 Work with the state and regional partners to explore permanent sources of funding for the construction and maintenance of low-income housing.	**Term of the Plan**	H	H	

Policies and Implementation Actions	Period	Effort to Achieve	Effect on Housing Supply	Needs Addressed
H-6.1.1 Develop a comprehensive funding strategy for affordable housing that addresses both the sources of funding and how the funds should be spent.	2026-28	H	H	
H-6.1.2 Support legislative action to increase permanent sources of funding for low-income housing.	Term of the Plan	H	H	
H-6.1.3 Explore an affordable housing property tax levy to finance permanent affordable housing for very low-income households.	2029-30	H	H	
H-6.1.4 Consider an affordable housing sales tax.	2029-30	H	H	
H-6.1.5 Work with the Housing Authority of Thurston County to take greater advantage of State and Federal housing grants and tax incentives.	Term of the Plan	L	M	

Housing Element

Part 2 – Technical Information

Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 6, 2025

December 2025

Ordinance No. O2025-010

CITY OF TUMWATER

Housing Element

Part 2 – Technical Information

Table of Contents

1. Introduction 8
A. Background 8
B. How to Read this Part of the Element 9
C. Demographic Summary 10
D. Sources of Data 12
E. Affordable Housing Definition 12
2. Housing Needs Assessment 14
A. Introduction 14
B. Household Characteristics 14
C. Housing Affordability 23
D. Housing Inventory 29
E. Emergency & Supportive Housing 35
F. Housing Production Trends 36
G. Funding Housing Construction 37
H. Homeless Population & Trends 38
I. Projected Housing Need 40
3. Land Capacity Analysis 44
A. Analysis 44
Step 1: Summarize Land Capacity by Zone District 44
Step 2: Categorize Zones by Allowed Housing Types & Density Category 45
Step 3: Relate Zone Categories to Potential Income Levels & Housing Types 46
Step 4: Summarize Capacity by Zone Category 47
Step 5: Compare Allocated Housing Need to Capacity 47
B. Emergency Housing 48
C. Area Median Income, Housing Type, & Tenure 49
D. Other Specific Housing Needs 54
4. Racially Disparate Impacts, Exclusion, & Displacement 56
A. Background 56
B. Historical Context 57

DRAFT

C. Communities of Interest 59
D. Racially Disparate Impacts 62
E. Exclusion 70
F. Displacement Risk 71
G. Policy Evaluation 73
5. Housing Provisions 74
A. Protection of Existing Housing Stock 74
B. Low & Moderate Income Provisions 74
C. Employment & Unemployment 74
D. Gaps in Local Funding 75
E. Regulatory Barrier Assessment 75
F. Programs & Actions to Achieve Housing Availability 78
Appendix A Foundational Documents 81
Appendix B Housing Needs Assessment 82
Appendix C Planning for and Accommodating Housing Needs in Thurston County 83
Appendix D Tumwater Housing Action Plan 84
Appendix E Housing Displacement Risk Analysis 85
Appendix F Housing Displacement Analysis and Comprehensive Plan Recommendations for the cities of Lacey, Olympia, Tumwater, and Yelm 86
Appendix G Policy Evaluation Matrix 87
Appendix H Additional Data 88
1. Introduction 88
2. Housing Needs Assessment 88

List of Tables

Table H-1. Population of Tumwater & Its Urban Growth Area, 2010-24. 15
Table H-2. Disability Types in Tumwater, 2023. 16
Table H-3. Household Size in Tumwater, 2023. 17
Table H-4. Household Tenure in Tumwater by Presence of Children, 2023. 18
Table H-5. Household Tenure & Race in Tumwater, 2023. 19

DRAFT

Table H-6. Household Income Categories Associated with Area Median Income for a Family of Four in Tumwater, 2024. 19

Table H-7. Median Household Income for All Households by U.S. Census Block Group in Tumwater, 2023. 21

Table H-8. HUD Final Fiscal Year 2024 & 2025 Fair Market Rates By Unit Bedrooms for the Olympia-Tumwater, WA MSA. 26

Table H-9. Gross Rent as a Percentage of Household Income in Tumwater, 2023. 28

Table H-10. U.S. Census Decennial Count of Housing Units in Tumwater, 1980-2024. 29

Table H-11. Estimated Housing Supply by Income in Tumwater & Urban Growth Area, 2020. 30

Table H-12. Occupied & Total Housing Units in Tumwater, 2020. 31

Table H-13. Subsidized Rental Inventory in Tumwater, 2023. 33

Table H-14. Privately Subsidized Housing in Tumwater, 2025. 33

Table H-15. Housing Authority of Thurston County Residential Properties in Tumwater, 2024. 34

Table H-16. Tumwater School District – Students Experiencing Homelessness, 2024-25. 40

Table H-17. Allocation of Projected Tumwater Housing Needs, 2020-45. 42

Table H-18. Housing Need Allocation for Tumwater, 2020-45. 43

Table H-19. Capacity Reduction Factors for Bush Prairie Habitat Conservation Plan. 45

Table H-20. Categories for Classifying Zone Districts by Housing Types Allowed. 45

Table H-21. The Relationship of Zone Categories to Housing Income Levels Served in Moderate-Cost Communities. 46

Table H-22. Housing Capacity by Zone Category in Tumwater& Its Urban Growth Area. 47

Table H-23. Summary of Housing Surplus or Deficit in Tumwater& Its Urban Growth Area in 2045. 47

Table H-24. Details of Housing Surplus or Deficit in Tumwater& Its Urban Growth Area in 2045. 48

Table H-25. Projected Housing Demand by Income in Tumwater & Urban Growth Area, 2020 to 2045.52

Table H-26. Housing Types with Tumwater Income Thresholds. 53

Table H-27. Estimate of Accessory Dwelling Unit Capacity in Tumwater. 54

Table H-28. Subdivisions or Plats with Historical Racial Restrictive Covenants in Tumwater. 58

Table H-29. Individual Race or Ethnic Origin in Tumwater and Thurston County, 2023. 59

Table H-30. Individual Race or Ethnic Origin in Tumwater, 2013 and 2023. 59

Table H-31. Change in Individual Race or Ethnic Origin in Tumwater and Thurston County, 2013 and 2023. 61

DRAFT

Table H-32. Percent Below Poverty Level of Individuals by Race or Ethnic Origin in Tumwater and Thurston County, 2023. 62
Table H-33. Percentage Below Poverty Level of Households by Race or Ethnic Origin in Tumwater and Thurston County, 2023. 63
Table H-34. Household Income by Race & Hispanic or Latino Origin of Householder in Tumwater and Thurston County, 2023. 66
Table H-35. Number of All Households by Cost Burden in Tumwater, 2021. 68
Table H-36. Number of Owner Households by Cost Burden in Tumwater, 2021. 69
Table H-37. Number of Renter Households by Cost Burden in Tumwater, 2021. 70
Table H-38. Foundational Documents for the Housing Element 81
Table H-39. Tumwater Median Income, 2014-24. 88
Table H-40. Age by Race/Ethnicity in Tumwater, 2023. 88
Table H-41. Share of Age by Race/Ethnicity in Tumwater, 2023. 89
Table H-42. Percentage of Household Tenure & Race in Tumwater, 2023. 90
Table H-43. Household Income by Area Median Income Categories in Tumwater 2021 & 2024. 91
Table H-44. House Price Data for Tumwater, 2021-24. 91
Table H-45. Annual Median Home Prices in Thurston County, 2017-24. 92
Table H-46. Housing Cost Burden By Area Median Income in Tumwater, 2021. 92
Table H-47. All Home Buyers Housing Affordability Index, Thurston & Nearby Counties, 2000-24. 93
Table H-48. Median Home Buyers Housing Affordability Index, Thurston County Cities, 2021-24. 93
Table H-49. First Time Home Buyers Housing Affordability Index, Thurston & Nearby Counties, 2021-24. 94
Table H-50. First Time Home Buyers Housing Affordability Index, Thurston County Cities, 2021-24. 94
Table H-51. Average Rent, Thurston County Cities, 2014-24. 95
Table H-52. Median Renters Housing Affordability Index, Thurston County Cities, 2014-24. 95
Table H-53. Transitional Renters Housing Affordability Index, Thurston County Cities 2014-24. 96
Table H-54. Age of Residential Structures in Tumwater by Decade, 2023. 96
Table H-55. All Residential Building Permits in Tumwater, 2014-23. 97
Table H-56. Single-Family & Multifamily Residential Building Permits in Tumwater, 2014-23. 97
Table H-57. Middle Housing (Two to Four Units) Building Permits in Tumwater, 2014-23. 98
Table H-58. Multifamily (5+ Units) Building Permits in Tumwater, 2014-23. 98

DRAFT

Table H-59. Accessory Dwelling Unit Building Permits in Tumwater, 2014-24. 99

List of Figures

Figure H-1. Tumwater Median Income, 2014-24. 13
Figure H-2. Tumwater Population, 1970-2020. 15
Figure H-3. Age by Race/Ethnicity in Tumwater, 2023. 16
Figure H-4. Household Tenure by Age & Type in Tumwater, 2023 18
Figure H-5. Proportion of Households by Area Median Income & Tenure in Tumwater, 2021. 20
Figure H-6. Median Household Income in the Past 12 Months by U.S. Census Tract in Tumwater. 21
Figure H-7. Percentage of Population with Income Below Poverty Level by Census Tract & the Tumwater Opportunity Index 22
Figure H-8. Housing Cost Burden By Area Median Income in Tumwater, 2021. 23
Figure H-9. Annual Median Home Prices in Thurston County, 2017-24. 24
Figure H-10. Median Home Buyers Housing Affordability Index, Thurston County Cities, 2021-24. 25
Figure H-11. First Time Home Buyers Housing Affordability Index, Thurston County Cities, 2021-24. 25
Figure H-12. Average Rent by Thurston County Cities, 2014-24. 27
Figure H-13. Median Renters Housing Affordability Index, Thurston County Cities, 2014-24 27
Figure H-14. Transitional Renters Housing Affordability Index, Thurston County Cities, 2014-24. 28
Figure H-15. U.S. Census Decennial Count of Types of Housing Units in Tumwater, 1980-2024. 29
Figure H-16. Age of Residential Structures in Tumwater by Decade, 2023. 31
Figure H-17. Manufactured & Mobile Home Parks in Tumwater. 32
Figure H-18. Single-Family & Multifamily Residential Building Permits in Tumwater, 2014-23. 36
Figure H-19. Accessory Dwelling Unit Building Permits in Tumwater, 2014-24 36
Figure H-20. Thurston Point-in-Time Counts Over the Past Decade, 2015-24. 39
Figure H-21. HB 1220 (Chapter 254, Laws of 2021) Process. 40
Figure H-22. Countywide Housing Need for Thurston County, 2045. 41
Figure H-23. Low-Income Housing Need in Tumwater, 2020-45. 42
Figure H-24. Comparison of Housing Need Allocation for Tumwater & All of Thurston County, 2020-45. 42
Figure H-25. 2045 Tumwater & Urban Growth Area Housing Need Allocation by Area Median Income, Housing Type, & Tenure. 49

DRAFT

Figure H-26. Projected Housing Demand by Income in Tumwater & Urban Growth Area, 2020 to 2045. 51
Figure H-27. Change in Individual Race in Tumwater and Thurston County, 2013 and 2023. 60
Figure H-28. Change in Individual Ethnic Origin in Tumwater and Thurston County, 2013 and 2023..... 61
Figure H-29. Percentage of Black, Indigenous, and People of Color Households by Census Block Groups & the Tumwater Opportunity Index. 64
Figure H-30. Household Income by Race of Householder in Tumwater, 2023. 65
Figure H-31. Household Income by Hispanic or Latino Origin of Householder in Tumwater, 2023. 65
Figure H-32. Total Housing Cost Burden (Percent of Household Income) by Racial & Ethnic Group in Tumwater, 2021. 67
Figure H-33. Number of All Households by Cost Burden in Tumwater, 2021. 68
Figure H-34. Number of Owner Households by Cost Burden in Tumwater, 2021. 69
Figure H-35. Number of Renter Households by Cost Burden in Tumwater, 2021. 70
Figure H-36. Areas of Housing Displacement Risk in Tumwater. 72
Figure H-37. Share of Age by Race/Ethnicity in Tumwater, 2023. 90
Figure H-38. Percentage of Household Tenure & Race in Tumwater, 2023. 91
Figure H-39. All Home Buyers Housing Affordability Index, Thurston & Nearby Counties, 2000-14. 93
Figure H-40. First Time Home Buyers Housing Affordability Index for Thurston & Nearby Counties, 2021-24. 94

Abbreviations Used in Document

ADU – Accessory dwelling unit

AMI – Area median income

PSH – Permanently supported housing

RCW – Revised Code of Washington

TMC – Tumwater Municipal Code

UGA – Tumwater's urban growth area

WAC – Washington Administrative Code

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1. Introduction

A. Background

The Housing Element is part of Tumwater's Comprehensive Plan and was prepared in response to the state Growth Management Act (Chapter 36.70A RCW).

Part 2 of the Housing Element provides the technical analysis to address the requirements of RCW 36.70A.070(2) for housing elements. It analyzes Tumwater's:

- Housing needs.
- Housing supply.
- Affordability.
- Racially disparate impacts, exclusion, and displacement.
- Future housing needs.

The assessment supports the development of the Housing Element's goals, policies, and implementation actions found in Part 1 of the Housing Element.

Tumwater is planning for future housing growth for both the City itself and its urban growth area together, so the estimated housing supply for Tumwater and its urban growth area is evaluated together.

1) Growth Management Act Goals

The Growth Management Act requires that Tumwater demonstrate that each Element in its Comprehensive Plan meets the relevant fifteen planning goals contained within the Act. The fifteen goals in turn guide the development and adoption of Tumwater's Comprehensive Plan and development regulations.

HOUSING

State requirements (WAC 365-196-410) that the Comprehensive Plan must meet:

- An inventory and analysis of existing and projected housing needs.
- A statement of the goals, policies, and objectives for the preservation, improvement, and development of housing, including single-family residences.
- Identification of sufficient land for housing including, but not limited to, government-assisted housing, housing for low-income families, manufactured housing, multifamily housing, group homes, and foster care facilities.
- Adequate provisions for existing and projected housing needs of all economic segments of the community.

The updated Housing Element addresses the Growth Management Act goal related to housing:

> ***4. Housing***. *Plan for and accommodate housing affordable to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.*

The Housing Element specifically sets forth how Tumwater will accommodate affordable housing for all income groups. This effort builds on the work Tumwater has done to prepare and implement a local Housing Action Plan through City actions and working with the Regional Housing Council to address homelessness and permanently affordable housing.

The Housing Element works with the Land Use Element to allocate sufficient land to ensure an adequate supply of buildable land for housing that serves every income group. Each residential land use designation will provide a variety of housing types at varying densities. Each Neighborhood subarea will contain sufficient variability in housing types to ensure housing needs can be met for all segments of Tumwater's population for the next 20 years.

As required by the Growth Management Act, the Housing Element was developed with community and stakeholder input as described in the Comprehensive Plan Update Community Engagement Plan.

2) Foundational Documents

The Housing Element is also based on the additional supporting plans and documents found in Appendix A: Foundational Documents, as well as the following documents that are in Appendices B through E:

- Housing Needs Assessment: Lacey, Olympia, and Tumwater (September 2020).
- Tumwater Housing Action Plan (2021).
- Planning for and Accommodating Housing Needs in Thurston County: Implementing the Housing Affordability Requirements of HB 1220 (April 2025).
- Housing Displacement Risk Analysis for the Cities of Lacey, Olympia, Tumwater, and Yelm – Executive Summary and Technical Annex (2025).

B. How to Read this Part of the Element

Part 2 of the Housing Element consists of the following chapters.

- **Chapter 2 – Housing Needs Assessment**: Provides a summary of Tumwater's existing housing conditions using data from the U.S. Census and other federal, state, and regional sources to provide information on housing supply and demand to establish Tumwater's overall housing needs.

  This chapter also includes a summary of Tumwater's 2045 projected housing need in the form of unit targets by income level, as established by Thurston County and its cities in cooperation with the Thurston Regional Planning Council. In addition, it provides a summary of Tumwater's housing inventory and a discussion of housing affordability, production, and investment.

- **Chapter 3 – Land Capacity Analysis**: Provides a summary of Tumwater's zoned capacity in relation to its 2045 housing unit targets.

DRAFT

- **Chapter 4 – Racially Disparate Impacts, Exclusion, and Displacement**: Provides a detailed assessment of socioeconomic data to identify potential racial housing disparities and risk of displacement and exclusion, as well as an evaluation of current housing policies to identify policies and regulations that may begin to undo these impacts.
- **Chapter 5 – Housing Provisions**: Provides a discussion of existing and future housing provisions that are intended to try to reduce the cost of producing more housing.
- **Appendices**: The appendices include the following:
    - Summary of Foundational Documents.
    - Housing Needs Assessment: Lacey, Olympia, and Tumwater (September 2020).
    - Planning for and Accommodating Housing Needs in Thurston County: Implementing the Housing Affordability Requirements of HC 1220 (April 2025).
    - City of Tumwater Housing Action Plan (September 2021).
    - Housing Displacement Risk Analysis for the Cities of Lacey, Olympia, Tumwater, and Yelm (May 2025).
    - Housing Displacement Risk Analysis for the Cities of Lacey, Olympia, Tumwater, and Yelm: Technical Appendix (May 2025).
    - Housing Displacement Risk Analysis for the Cities of Lacey, Olympia, Tumwater, and Yelm: Technical Appendix – Policy Evaluation Matrix (May 2025).
    - State Department of Commerce Adequate Provisions Checklists.
    - Additional Housing Data.

C. Demographic Summary

1) Growing Population, Getting Older

In 2020, Tumwater and its urban growth area was home to more than 28,707 people. By 2045, Tumwater and its urban growth area are expected to grow to more than 46,070 people.

The overall population is aging. In 2023, 14.9 percent of the population was 65 or older, and 6.4 percent of seniors were 75 or older. Countywide by 2045, 22.7 percent of residents will be 65 or older and 12.7 percent of seniors will be 75 or older. This affects housing affordability for Tumwater's residents as well and reflects the types of housing needed to meet this population's needs.

2) Renting or Buying

In 2024, there were more than 13,580 housing units in Tumwater and its urban growth area, and the Thurston Regional Planning Council projected that 7,986 more housing units would need to be built to accommodate the Tumwater's growing population.

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In 2023, 38.9 percent of all occupied housing units in Tumwater are rented, and 61.1 percent were owned by the occupant of the housing unit.

However, the smaller the household income, the fewer options there are for home ownership, which is a key factor for many households in building wealth. Housing units with two or fewer bedrooms are typically rented, and renters are more likely to be cost burdened, meaning they spend more than 30 percent of their income on rent and other housing expenses.

3) Smaller Households, Larger Homes

Over the last 40 years, the average household size in Tumwater has gotten smaller going from 2.93 people per household in 1970 to 2.39 in 2020. However, since 2000 household size has risen from 2.20. During the same period of time, homes have gotten bigger. In the 1980s, more than half of all houses built were less than 1,500 square feet. In the 2010s, only 11 percent were less than 1,500 square feet.

4) Higher Wages, Rents, & Mortgages

According to the Thurston Regional Planning Council, in 2017 Tumwater was home to more than 27,030 jobs and it is estimated this will grow to about 37,760 jobs by 2045. The Washington State Employment Security Department figures indicate wages have increased over the last ten years when adjusted for inflation.

However, the cost of housing has increased whether a resident rents or owns. Between 2014 and 2024, average rents increased from $895 per month to $1,751 per month in Tumwater, while the average sale price for a home in Tumwater increased from $230,736.38 in 2014 to $510,363.52 in 2024[1]. Today, Tumwater is not considered affordable for median or first-time home buyers, although it is still more affordable than jurisdictions in either King or Pierce Counties.

5) Affordable Housing

Approximately ten percent of households in Tumwater in 2024 were extremely low income and earned less than 30 percent of the area median family income. By 2045, another five percent of households are expected to fall into this category.

There are approximately 1,857 housing units available at below-market rents countywide in 2020. This is fewer than the more than 1,900 extremely low income households in Tumwater alone, which are the households that are most at risk of becoming homeless. There were at least 952 people experiencing homelessness in Thurston County, according to the 2024 Point in Time Count. Both subsidized and permanent supportive housing are needed to support these communities with barriers.

6) Equality

In 2020, 24 percent of Tumwater residents identified as people of color, defined as those who are Hispanic or Latino of any race and those who are any race other than white alone. Those who are multiracial, or Hispanic or Latino are the largest minority population groups in Tumwater. In general, people of color have more people in

[1] Zillow Housing Sales Data, December 2014, and December 2024

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their household, are less likely to own their own home, have a smaller household income, and are more likely to experience homelessness than their white, non-Hispanic counterparts.

D. Sources of Data

The Housing Element Part 2 – Technical Information combined data from a range of sources. Key sources included:

- **U.S. Census Bureau:** The 2020 U.S. Census and 2019-23 American Community Survey provided key data on population, households, and housing characteristics.
- **Washington Center for Real Estate Research:** Based in the University of Washington's College of Built Environments, Washington Center for Real Estate Research's quarterly Housing Market Report and Apartment Market Survey supplied timely data on housing costs and vacancy rates.
- **Washington Office of Financial Management:** The Office of Financial Management provided annual population estimates for cities.
- **Thurston Regional Planning Council:** The Thurston Regional Planning Council contributed annual population, housing, and employment estimates for Tumwater and its urban growth area, as well as 25-year projections.
- **U.S. Department of Housing and Urban Development:** U.S. Department of Housing and Urban Development's Consolidated Housing Action Strategy data provided area median incomes, information on cost burden, and other housing challenges faced by low-income residents.
- **Zillow Real Estate**: Zillow provided data on housing sales in Tumwater.

Additional sources were included as referenced in the Element.

Much of the data shown in the Housing Element were based on surveys. All survey data contain a margin of error, which is a measure of uncertainty around an estimate. The American Community Survey publishes margins of error with their tables. While not included in the figures and tables in this report, they can be accessed through searching the referenced tables at data.census.gov.

Additional tables and graphs related to the individual sections are found in Appendix H.

E. Affordable Housing Definition

WAC 365-196-410 requires that the Comprehensive Plan include a definition of "affordable housing." This is a difficult definition to arrive at because what is affordable for one family can be drastically different from what is affordable for another family. A higher income family may be looking to purchase a larger home, while a lower income family may be struggling to pay the rent on an apartment that is too small for their needs.

Because of this disparity, the U.S. Department of Housing and Urban Development uses a definition of affordability that is based on a percentage of gross income. U.S. Department of Housing and

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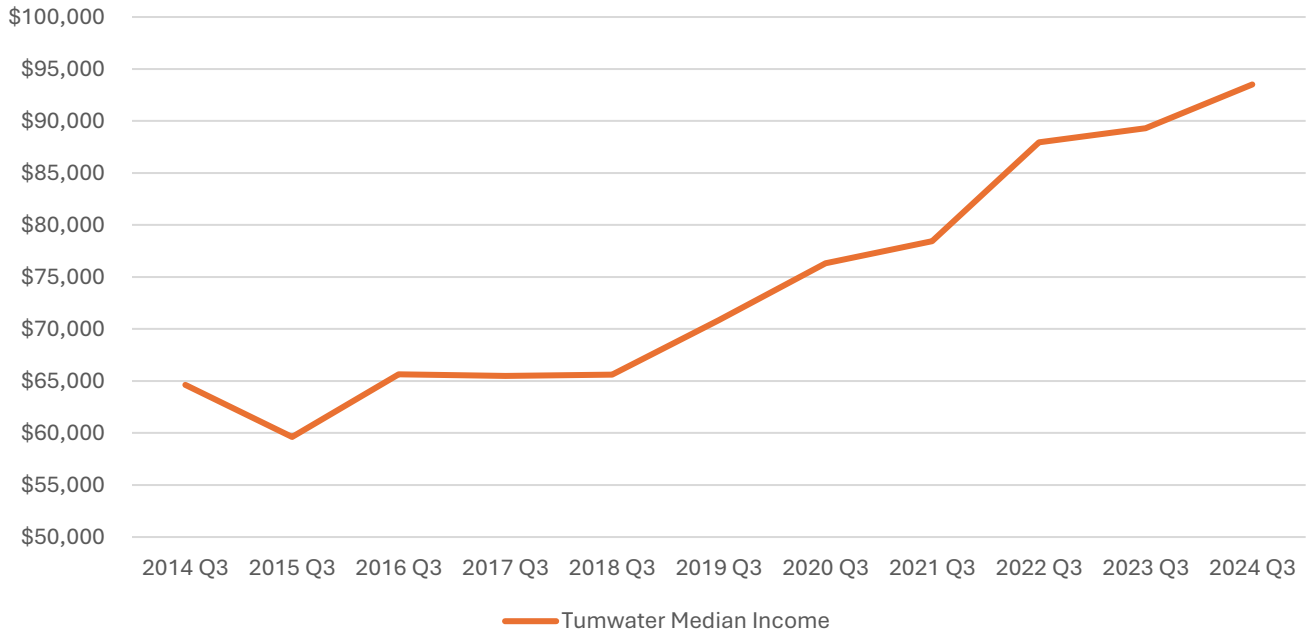
Urban Development allows up to 30 percent of a family's gross income to be available for gross housing costs, including mortgage payments or rent, and utility payments. The Housing Element uses the same definition of "affordable housing."

In practice, the median family income for a family of two in Tumwater based on data from the Washington Center for Real Estate Research was $93,513 in the third quarter of 2024. For the median family, affordable housing would be any housing that costs $2,338 per month or less, including utilities. Similarly, a family that earned 80 percent of the median income could afford $1,870 per month in mortgage or rent and utilities. In 2024, Tumwater's average rent was $1,747 per month, and roughly $1,950 with utilities.

Figure H-1 shows Tumwater's median income of all households regardless of size from 2014 to 2024.

Figure H-1. Tumwater Median Income, 2014-24.



Source: Washington Center for Real Estate Research, Median Income Data. Third Quarter Data, 2014-24.

2. Housing Needs Assessment

A. Introduction

In September 2020, in cooperation with the Thurston Regional Planning Council, Tumwater, Lacey, and Olympia completed a housing needs assessment as a part of the Tumwater Housing Action Plan project, which is found in Appendix B: Housing Needs Assessment.

The 2020 Housing Needs Assessment provides key findings on Tumwater's housing conditions and identifies shortcomings and gaps in the housing supply meeting demand.

While the Housing Needs Assessment was completed in 2020, its focus and most of the findings are still relevant today. Key findings from the Housing Needs Assessment have been updated in the Housing Element with more current available data. Along with community input, the findings from the Housing Needs Assessment were used to develop the strategies and actions identified in the Tumwater Housing Action Plan found in Appendix D, which in turn have been carried forward and aligned through the goals, policies, and implementation actions in Part 1 of the Housing Element.

The data in the Housing Needs Assessment as updated in the Housing Element meets the state requirement for this Comprehensive Plan Update.

This chapter includes detailed findings on:

- The number and type of current housing units.
- Housing tenure.
- Housing conditions.
- Housing costs and affordability.
- Housing units that were available to various income groups.
- Current and projected housing needs by 2045.

Data for current and projected housing demand by 2045 was based on the April 2025 *Planning for and Accommodating Housing Needs in Thurston County* found in Appendix C.

B. Household Characteristics

1) Demographics

Tumwater is a diverse and fast-growing community.

The U.S. Census Bureau estimated in 2020 that Tumwater's population was 25,573 and its urban growth area's population was calibrated as 3,134. The Washington State Office of Financial Management estimated that Tumwater's population as of April 1, 2024, was 27,470 and the Thurston Regional Planning Council estimated that Tumwater's urban growth area was 3,100 in 2024 for a total of 30,570 residents.

Figure H-2 shows the change in Tumwater's population since 1970. Between 1970 and 2020, Tumwater's population more than quadrupled, growing 476 percent over 50 years. Over the next 25 years from 2020 to 2045, Tumwater and its

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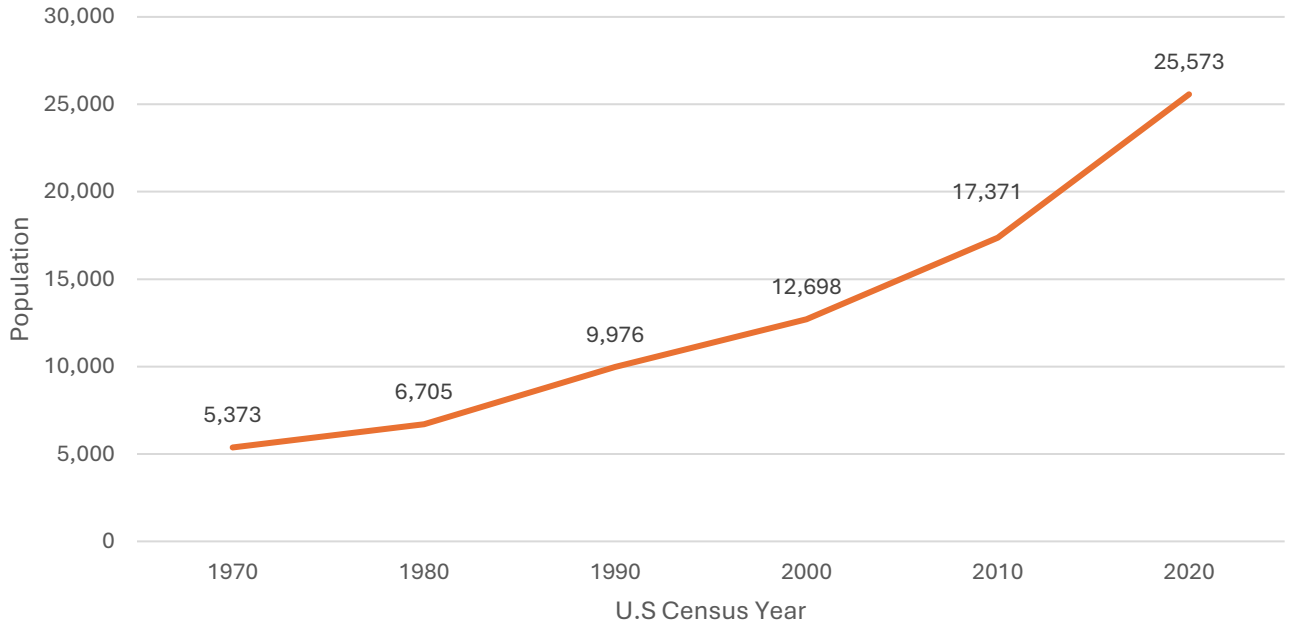
urban growth area population are anticipated to grow by 17,360 to reach 46,070 residents in Tumwater and its urban growth area by 2045.

Table H-1 shows the population of Tumwater and its urban growth area since 2010. The population of Tumwater has increased, and its urban growth area decreased since 2010 in part due to annexations.

Figure H-2. Tumwater Population, 1970-2020.



Sources: Washington State Office of Financial Management, 2020 Decennial U.S. Census Counts of Population for the State, Counties, Cities and Towns and Thurston Regional Planning Council, Small Area Population Estimates and Forecast, 2024.

Table H-1. Population of Tumwater & Its Urban Growth Area, 2010-24.

	2010	2020	2021	2022	2023	2024
City	17,371	25,573	26,050	26,360	27,100	27,470
Urban Growth Area	6,350	3,134	3,290	3,300	2,890	3,100
Total	**23,720**	**28,707**	**29,340**	**29,660**	**29,990**	**30,570**

Source: Thurston Regional Planning Council, Small Area Population Estimates and Forecast, 2024.

The diversity and age of Tumwater's residents informs the types of housing that are needed, including family-sized units, accessible units for seniors and disabled household members, and housing types affordable and suitable for multigenerational households.

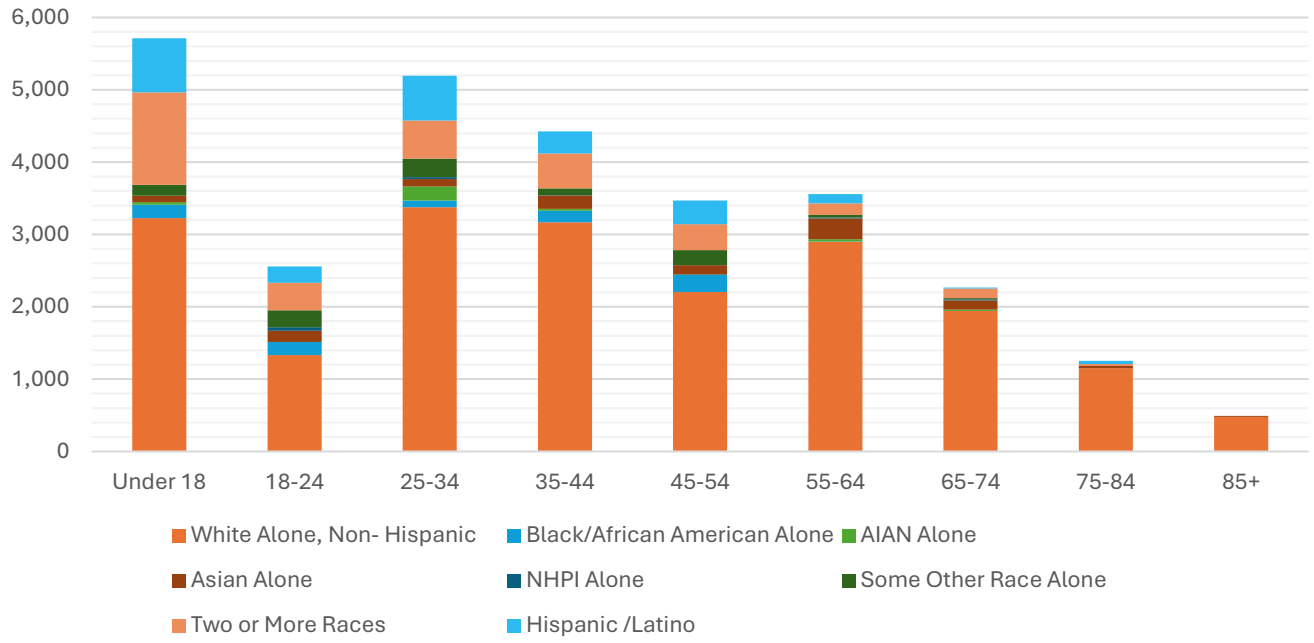
Washington State law defines a household an individual, family, or group of unrelated people living together in a single home. Members of a household can be related, unrelated, or living alone.

This section presents a profile of these households, which is critical to understanding the types and sizes of new housing needed, including household information by race that supports equitable growth strategies. Figure H-3 shows the

demographic breakdown by race and age in Tumwater.

Chapter 4 includes an analysis of the racially disparate impacts.

Figure H-3. Age by Race/Ethnicity in Tumwater, 2023.



Sources: 2023 U.S. Census American Community Survey 5-Year Estimates, Tables B01001A - B01001I.
Notes: "AIAN Alone" are people who are American Indian and Alaska Native alone. NHPI Alone" are people who are Native Hawaiian and Other Pacific Islander alone.

More than six percent of Tumwater households have one or more members with a cognitive difficulty, the highest share of any disability category. As Tumwater's population ages, the share of residents with a disability who need accessible housing is likely to increase.

Table H-2 provides more details on disability types and the number of Tumwater residents.

Table H-2. Disability Types in Tumwater, 2023.

Disability Type	Tumwater Residents	Percentage of Total City Population
With a Hearing Difficulty	834	3.2%
With a Vision Difficulty	418	1.6%
With a Cognitive Difficulty	1,602	6.5%
With an Ambulatory Difficulty	1,478	6.0%
With a Self-Care Difficulty	548	1.7%
With an Independent Living Difficulty	1,387	6.6%

Source: 2023 U.S. Census American Community Survey 5-Year Estimates, Table S1810.

2) Household Sizes & Types

As of 2023, there were an estimated 10,863 households in Tumwater, 6,636 of which were owner occupied or 61.1 percent of the total and 4,227 of which were renter occupied or 38.9 percent of the total.

In Thurston County, the most common household sizes are one or two people, which account for 29.7 percent and 32.5 percent of all households, respectively.

The average household size in Tumwater fell from 3.23 people in 1960 to 2.39 in 2020 and 2023. However, the average household size of 2.39 in 2020 was higher than any U.S. Census since 1970.

Table H-3 has more details on the size and types of households in Tumwater.

Table H-3. Household Size in Tumwater, 2023.

Households	2023 Estimate	Percent of the Total
Total:	**10,863**	**100.0%**
Owner occupied:	**6,636**	**61.1%**
1-person household	1,644	15.1%
2-person household	2,262	20.8%
3-person household	1,336	12.3%
4-person household	892	8.2%
5-person household	312	2.9%
6-person household	153	1.4%
7-or-more person household	37	0.3%
Renter occupied:	**4,227**	**38.9%**
1-person household	1,591	14.6%
2-person household	1,276	11.7%
3-person household	791	7.3%
4-person household	412	3.8%
5-person household	153	1.4%
6-person household	0	0.0%
7-or-more person household	4	0.0%

Source: 2023 U.S. Census American Community Survey 5-Year Estimates, Table B25009.

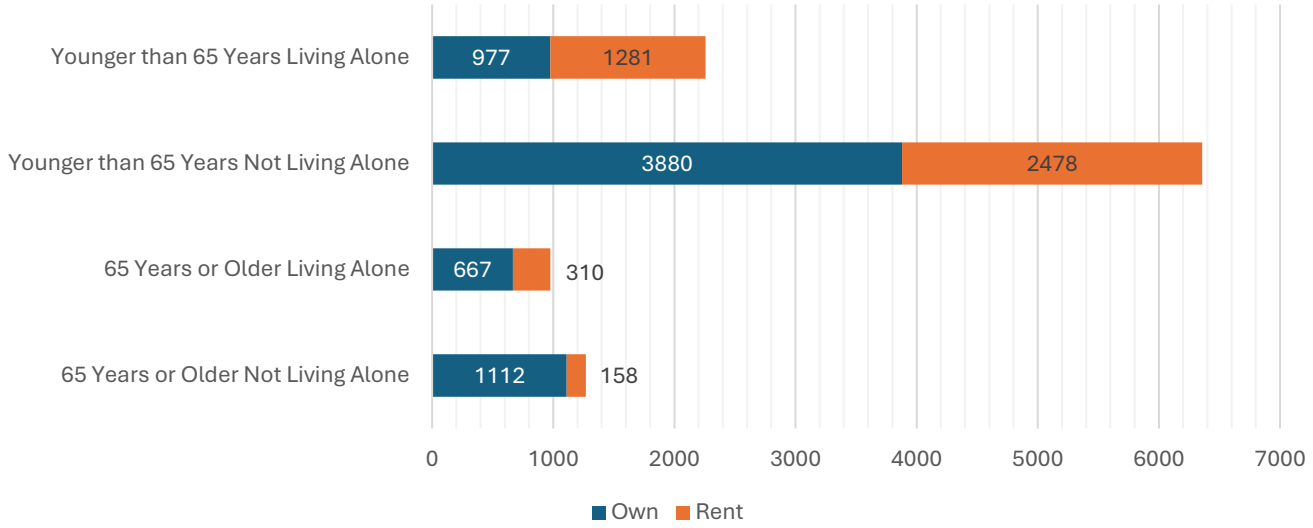
3) Household Tenure – Age & Race

Tenure refers to housing ownership status, whether a resident owns or rents where they live. Tenure patterns help to understand housing needs and develop appropriate policies and programs.

Figure H-4 breaks down housing tenure by age and household type. Owner-occupied households are the largest household type and

most people over the age of 65 own their own house.

Figure H-4. Household Tenure by Age & Type in Tumwater, 2023.



Source: 2023 U.S. Census American Community Survey 5-Year Estimates, Table B25011.

Table H-4 breaks down owner-occupied and renter-occupied housing units by whether children under 18 live in the household. The proportion of owner-occupied and renter-occupied housing units with children under 18 are similar.

Table H-4. Household Tenure in Tumwater by Presence of Children, 2023.

Households	2023 Estimate	Percentage
Total:	***10,863***	***100%***
Owner-occupied housing units	**6,636**	**61%**
With children under 18	1,696	26%
No children under 18	4,940	74%
Renter-occupied housing units	**4,227**	**39%**
With children under 18	1,109	26%
No children under 18	3,118	74%

Source: 2023 U.S. Census American Community Survey 5-Year Estimates, Table B25012.

Table H-5 shows the breakdown of household tenure by race. Householders who are more likely to own rather than rent in Tumwater are classified by the U.S. Census as White Alone, Asian Alone, American Indian and Alaska Native Alone, Two or More Races, or White Alone, Not Hispanic or Latino, while Black or African American Alone, Native Hawaiian and Other Pacific Islander Alone, Some Other Race Alone, or Hispanic or Latino in Tumwater are more likely to rent rather than own.

Table H-5. Household Tenure & Race in Tumwater, 2023.

Householders	Total Units	Owner Occupied Units	Renter Occupied Units
All Households	**10,863**	**6,636**	**4,227**
White Alone	8,632	5,508	3,124
Black or African American Alone	362	88	274
American Indian and Alaska Native Alone	122	66	56
Asian Alone	379	307	72
Native Hawaiian and Other Pacific Islander Alone	50	0	50
Some Other Race Alone	310	151	159
Two or More Races	1,008	516	492
White Alone, Not Hispanic or Latino	8,292	5,426	2,866
Hispanic or Latino	918	180	738

Sources: 2023 U.S. Census American Community Survey 5-Year Estimates, Tables B25003 and B25003A - B25003I.

4) Household Income

Household income refers to the total combined income of all members of a household. A household's income, cost of living, and market conditions determine whether housing is affordable.

Households at typically grouped by income level relative to the area median income to quantify different housing needs. Area median income is an estimate of the median family income for the current year and is published by the US Department of Housing and Urban Development.

As of April 1, 2025, the area median income for a two-person household in Thurston County was $93,375 and four-person household was $116,688.

Table H-6 shows typical household income categories for groups of area median income. Income thresholds for grouping households into these categories vary by size, and the typical jobs that may fall in each of the household income categories.

Table H-6. Household Income Categories Associated with Area Median Income for a Family of Four in Tumwater, 2024.

Household Income Category	Percent of Area Median Income	Equivalent Household Income for a Family of Four	Typical Jobs that May Fall in this Income Category
Extremely Low-Income	0-30% AMI	Less than $35,000	Farm Workers, Fast Food Workers, Fixed Incomes
Very Low-Income	30-50% AMI	$35,000 to $58,350	Childcare, Administrative Assistants, Landscaping

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Household Income Category	Percent of Area Median Income	Equivalent Household Income for a Family of Four	Typical Jobs that May Fall in this Income Category
Low-Income	50-80% AMI	$58,350 to $93,350	Veterinary Technicians, Construction Workers, Truck Drivers, Social Workers
Moderate-Income	80-100% AMI	$93,350 to $116,688	Nurses, Plumbers
Moderate-Income	100-120% AMI	$116,688 to $140,025	Analysts, Teachers
Upper Income	>120% AMI	More than $140,025	Lawyers, Managers

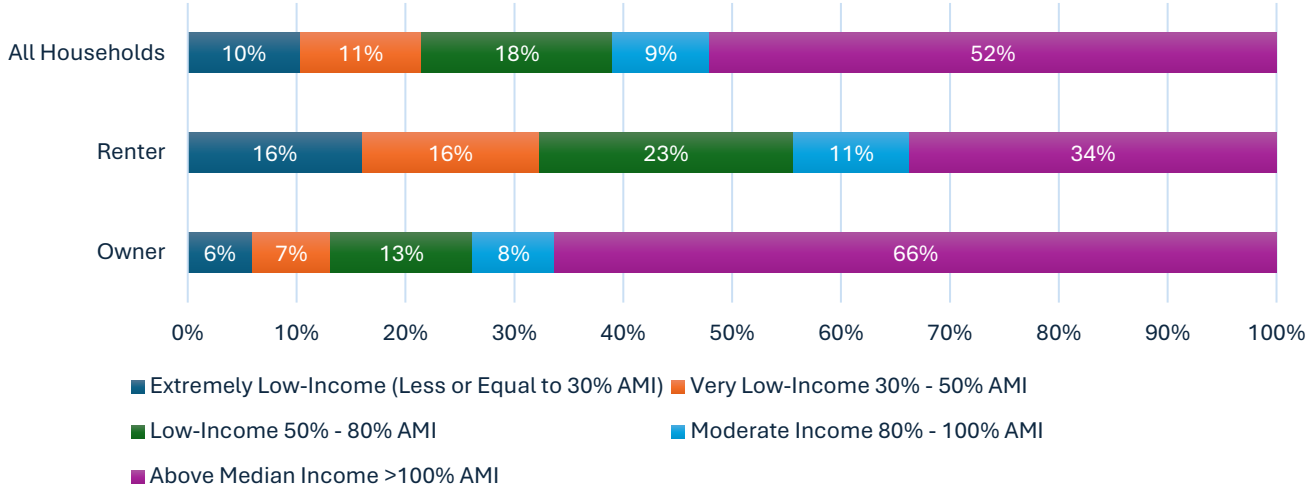
Source: Income Limits, U.S. Department of Housing and Urban Development, 2025.

It takes more income to support a large family than a person living alone. For example, in 2025, a one-person household with a $63,350 income is in the 80 percent area median income. A five-person household with an income of $63,050 is in the 50 percent area median income.

Figure H-5 shows how the various Thurston County area median income groups in Tumwater break down by percentage of households. Twenty-one percent of households in Tumwater fall into the Extremely Low Income or Very Low-Income categories and 52 percent are above median income.

The latest U.S. Department of Housing and Urban Development data on households by income is from 2016 and 2020. 39 percent of households in Tumwater had incomes at or below 80 percent area median income of which 55 percent of renter households were at or below 80 percent area median income. The percentage of renters at or below 80 percent area median income was much higher than the 34 percent for owner-occupied households.

Figure H-5. Proportion of Households by Area Median Income & Tenure in Tumwater, 2021.

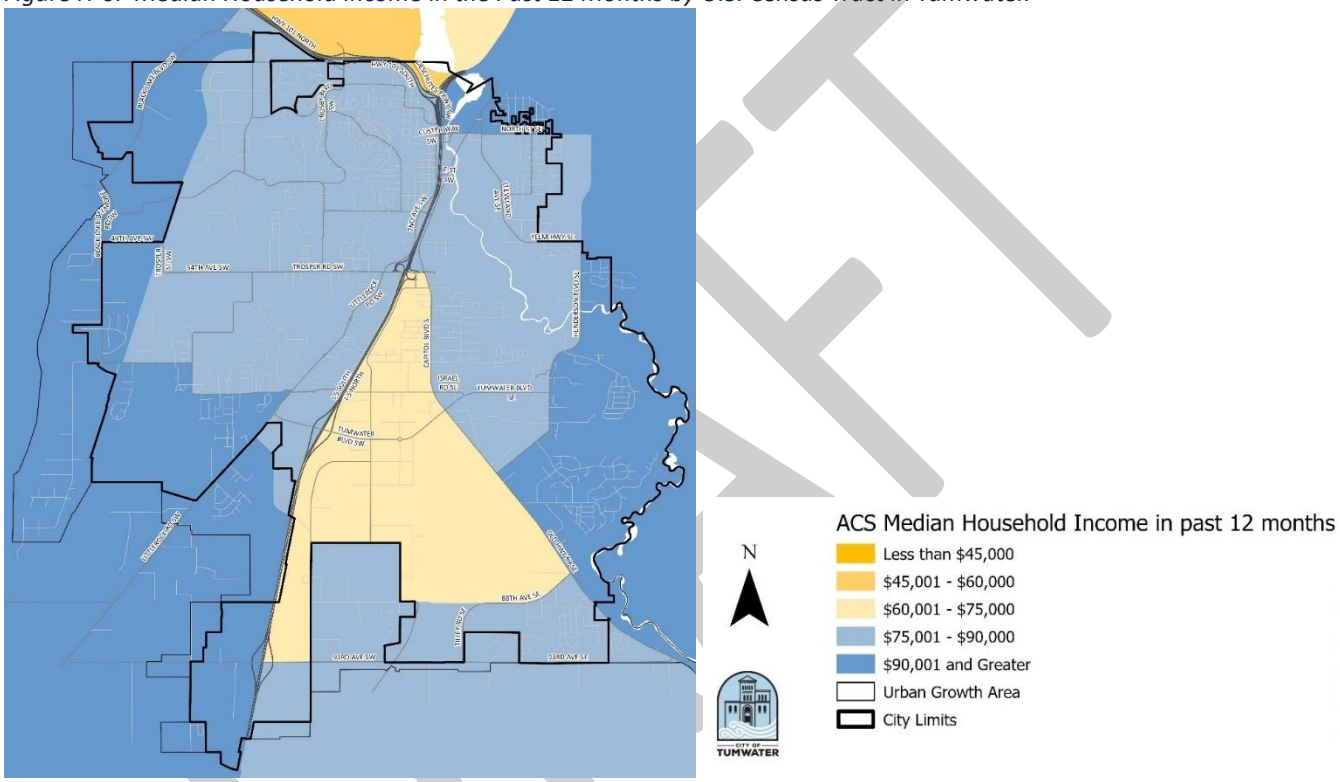


Source: U.S. Department of Housing and Urban Development Affordability Strategy (CHAS), 2021.
Note: AMI is area median income.

Figure H-6 and Table H-7 show the median household income in Tumwater, which is based on data from the U.S. Census Bureau. This number is different than area median income and varies across Tumwater.

The median income is the amount that divides the household income distribution in each block group into two equal groups, with half of the households having incomes above the median and the other half that has incomes below the median. This measure does not take into consideration household size like area median income.

Figure H-6. Median Household Income in the Past 12 Months by U.S. Census Tract in Tumwater.



Source: 2023 U.S. Census American Community Survey 5-Year Estimates. Tables B19013B - B19013I, B19049, and B19053.

Table H-7. Median Household Income for All Households by U.S. Census Block Group in Tumwater, 2023.

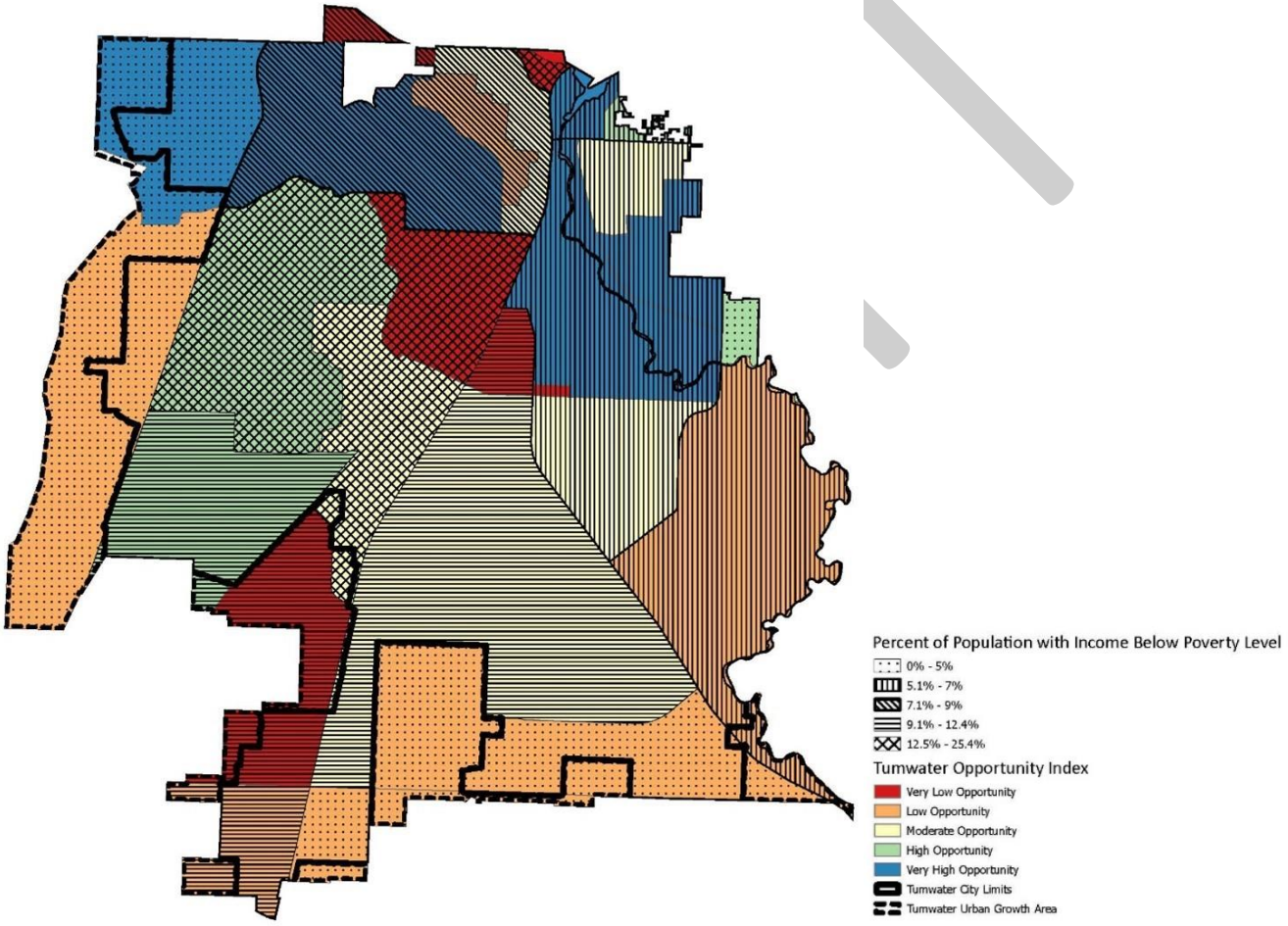
Household Income	Estimate
Total	10,863
Less than $10,000	2.2%
$10,000 to $14,999	2.4%
$15,000 to $24,999	4.5%
$25,000 to $34,999	6.6%
$35,000 to $49,999	9.1%
$50,000 to $74,999	15.0%
$75,000 to $99,999	13.5%

Household Income	Estimate
$100,000 to $149,999	23.1%
$150,000 to $199,999	10.5%
$200,000 or more	13.1%
Median income (dollars)	$93,635
Mean income (dollars)	$115,276

Source: 2023 U.S. Census American Community Survey 5-Year Estimates, Table S1901.

Figure H-7 combines the percentage of population in Tumwater with an income below poverty level with the Tumwater Opportunity Index.

Figure H-7. Percentage of Population with Income Below Poverty Level by Census Tract & the Tumwater Opportunity Index.



Sources: Tumwater Transportation and Engineering Department and 2023 U.S. Census American Community Survey 5-Year Estimates.

C. Housing Affordability

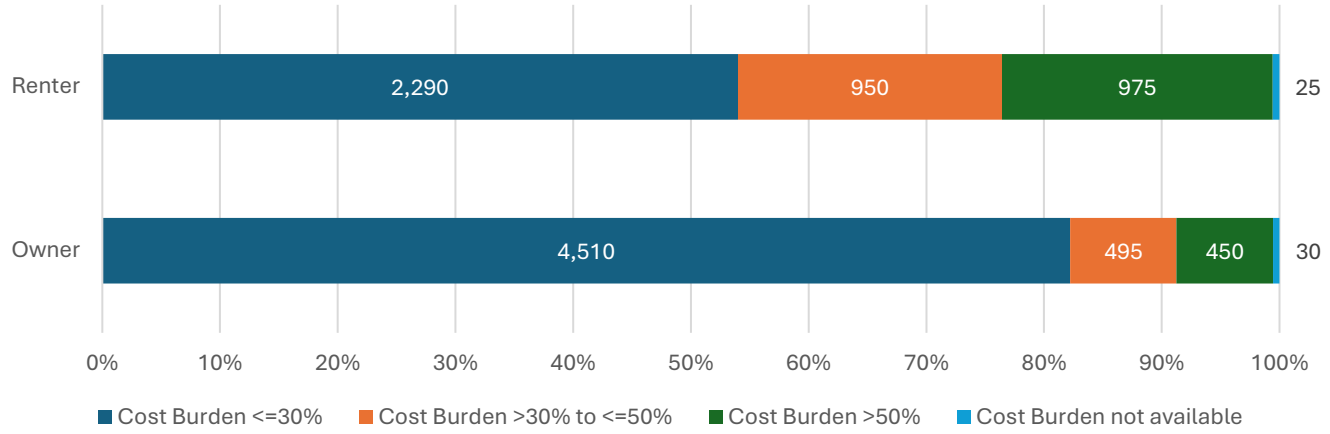
1) Household Cost Burden

Housing cost burden is an important indicator of housing affordability. A household is cost-burdened if it spends more than 30 percent of its income on housing costs.

Figure H-8 shows that at least 45 percent of renter households were cost-burdened. This is much higher than the 17 percent of owner households.

Current trends indicate that this will increase in the near future.

Figure H-8. Housing Cost Burden By Area Median Income in Tumwater, 2021.



Source: U.S. Department of Housing and Urban Development Affordability Strategy (CHAS), 2021.

Severely cost-burdened households spend more than half of their income on housing costs and are most likely to be housing insecure. They are at risk of displacement or homelessness if housing costs rise. In Tumwater, almost 15 percent of households were severely cost-burdened as of 2021. Nearly a quarter of all renter households were severely cost burdened.

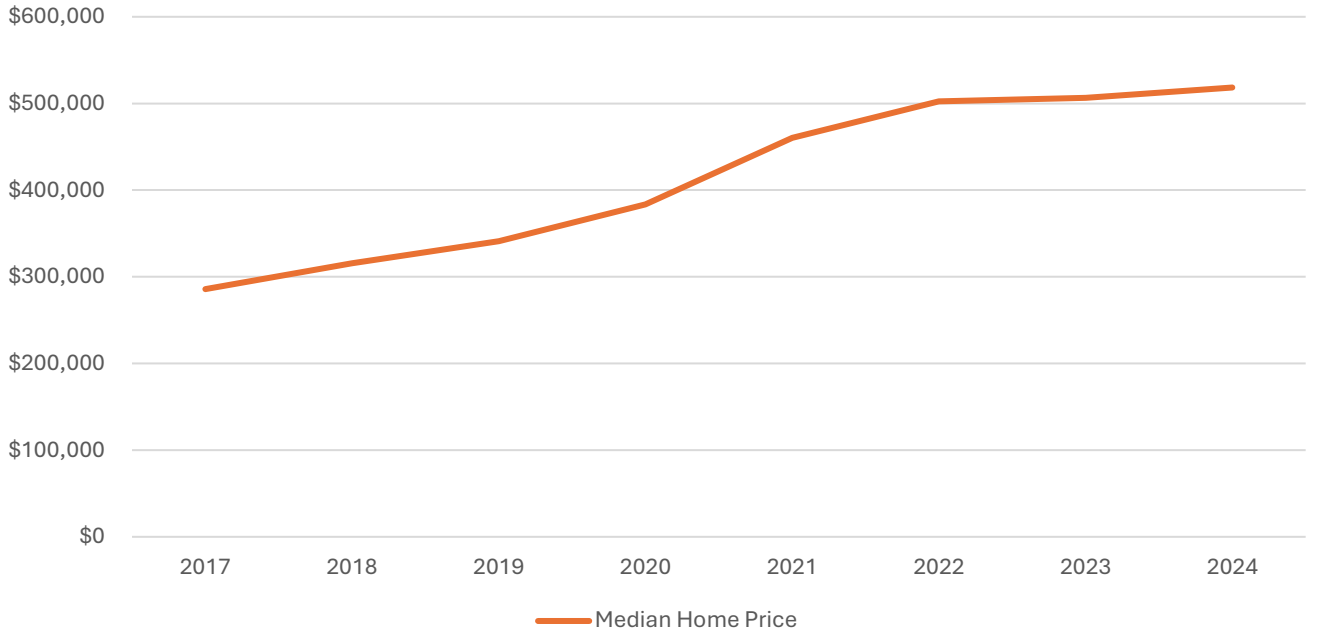
2) Housing Prices

As of the fourth quarter of 2024, the median house prices in Thurston County were $515,800.[2]

The range of median house prices in Thurston County from 2017 to 2024 is found in Figure H-9.

[2] Washington Housing Market Report, Fourth Quarter 2024, Washington Center for Real Estate Research.

Figure H-9. Annual Median Home Prices in Thurston County, 2017-24.



Source: Washington Housing Market Report, Fourth Quarter 2024, Washington Center for Real Estate Research.

3) Housing Costs and Trends

At the end of 2024 according to Zillow, the typical home value in Tumwater was $510,363.52. Based on a 30-year mortgage of 6.65 percent with a 20 percent down payment of $102,072.70 and a monthly payment of $3,116.97 plus utilities, would be affordable at approximately 118 percent area median income, for a four-person household. New homes usually sell for more.

Tumwater was less affordable than 40 percent of Washington State cities.

4) Affordability Index for Owners

Aside from looking at estimated housing supply by income and property sales, housing affordability indexes for both housing unit owners and renters are another way to understand the scope of the affordability issue. The Runstad Center for Real Estate Research at the University of Washington maintains the Housing Affordability Index used in this section.

Figure H-10 shows the index measuring the overall ability of a middle income family to carry the mortgage payments on a median price home. When the index is 100 there is a balance between the family's ability to pay and the cost. Higher indexes indicate housing is more affordable.

Affordability for both all and median home buyers has been declining for cities in Thurston County at approximately the same rate since 2010.

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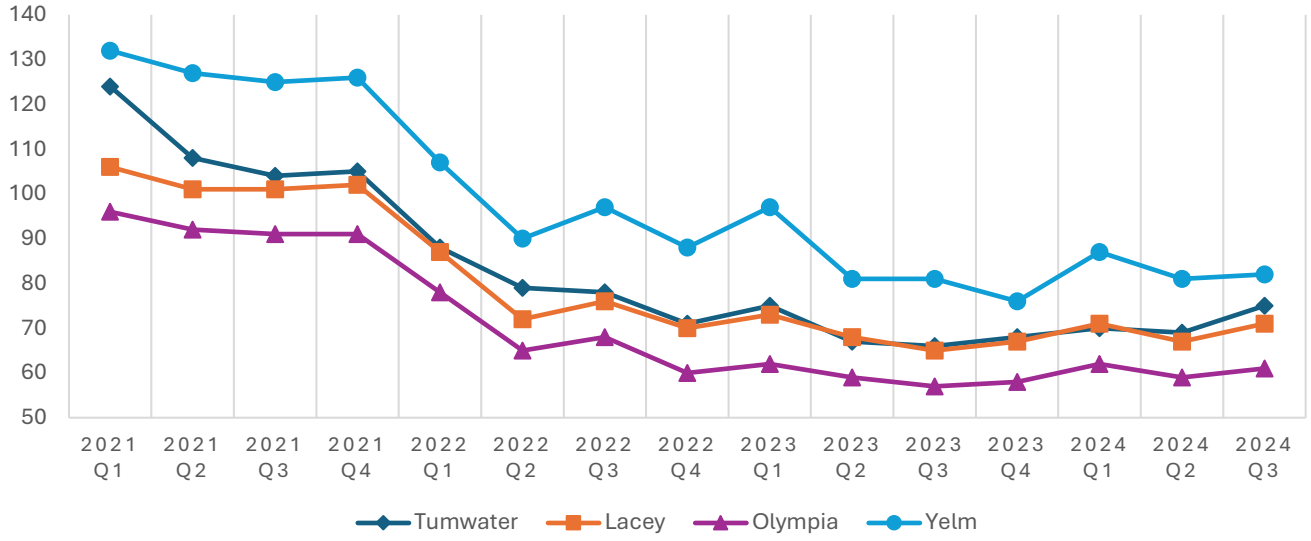
Figure H-10. Median Home Buyers Housing Affordability Index, Thurston County Cities, 2021-24.

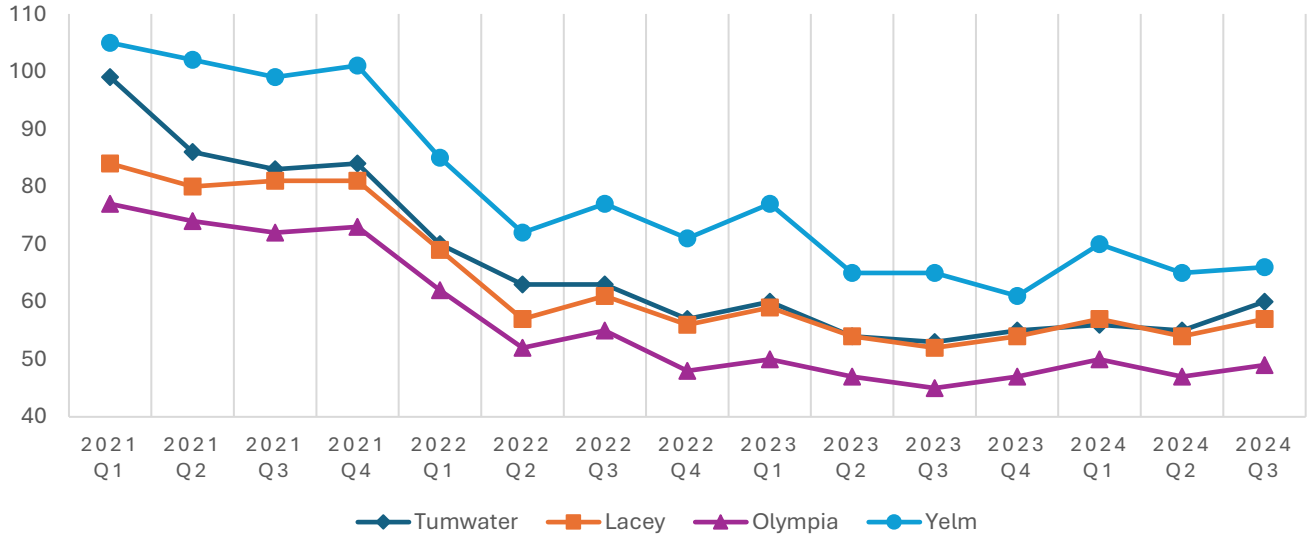


Source: Washington Center for Real Estate Research, 2024, Median Home Buyers Housing Affordability Index Data, 2024.
Note: Data was not available for all quarters.

Figure H-11 summarize the Housing Affordability Index for first time home buyers by Thurston County and adjacent counties and Tumwater and other larger Thurston County cities. When the index is 100 there is a balance between the family's ability to pay and the cost. Higher indexes indicate housing is more affordable.

Affordability for first time home buyers has been declining in Thurston County and surrounding counties and for cities in Thurston County at approximately the same rate since 2010.

Figure H-11. First Time Home Buyers Housing Affordability Index, Thurston County Cities, 2021-24.



Source: Washington Center for Real Estate Research, First Time Home Buyers Housing Affordability Index Data, 2024.
Note: Data was not available for all quarters.

5) Fair Market Rent

As defined in 24 CFR 888.113, the U.S. Department of Housing and Urban Development created Fair Market Rents as the estimates of the 40th percentile gross rents for standard quality units within a metropolitan area such as the Olympia-Tumwater, WA MSA. Table H-8 shows the U.S. Department of Housing and Urban Development Fair Market Rents for Fiscal Years 2024 and 2025 for the Olympia-Tumwater, WA Metropolitan and Micropolitan Statical Area.

Table H-8. HUD Final Fiscal Year 2024 & 2025 Fair Market Rates By Unit Bedrooms for the Olympia-Tumwater, WA MSA.

Year	Efficiency	One-Bedroom	Two-Bedroom	Three-Bedroom	Four-Bedroom
FY 2024 Fair Market Rate	$1,341	$1,554	$1,802	$2,531	$3,058
FY 2025 Fair Market Rate	$1,393	$1,585	$1,843	$2,526	$3,095

Source: U.S. Department of Housing and Urban Development, Fiscal Year 2025 Fair Market Rent Documentation System, 2025.

The U.S. Department of Housing and Urban Development annually estimates Fair Market Rents for the U.S. Office of Management and Budget defined metropolitan areas, some U.S. Department of Housing and Urban Development defined subdivisions of the U.S. Office of Management and Budget metropolitan areas, and each nonmetropolitan county. 42 USC 1437f requires Fair Market Rents to be posted at least 30 days before they are effective and they are effective at the start of the federal fiscal year, which is around October 1.

Fair Market Rents are used to determine payment standard amounts for:

- The Housing Choice Voucher program.
- Initial renewal rents for some expiring project-based the Housing Choice Voucher program contracts.
- Initial rents for housing assistance payment contracts in the Moderate Rehabilitation Single Room Occupancy program.
- Rent ceilings for rental units in both the HOME Investment Partnerships program and the Emergency Solutions Grants program.
- Maximum award amounts for Continuum of Care recipients and the maximum amount of rent a recipient may pay for property leased with Continuum of Care funds.
- Flat rents in public housing units.

6) Rental Housing Costs & Trends

In the third quarter of 2024, the average rent in Tumwater was $1,747 according to the Washington Center for Real Estate Research as shown in Figure H-12.

Depending on the cost of utilities, a studio or one-bedroom rental housing unit would be considered affordable.

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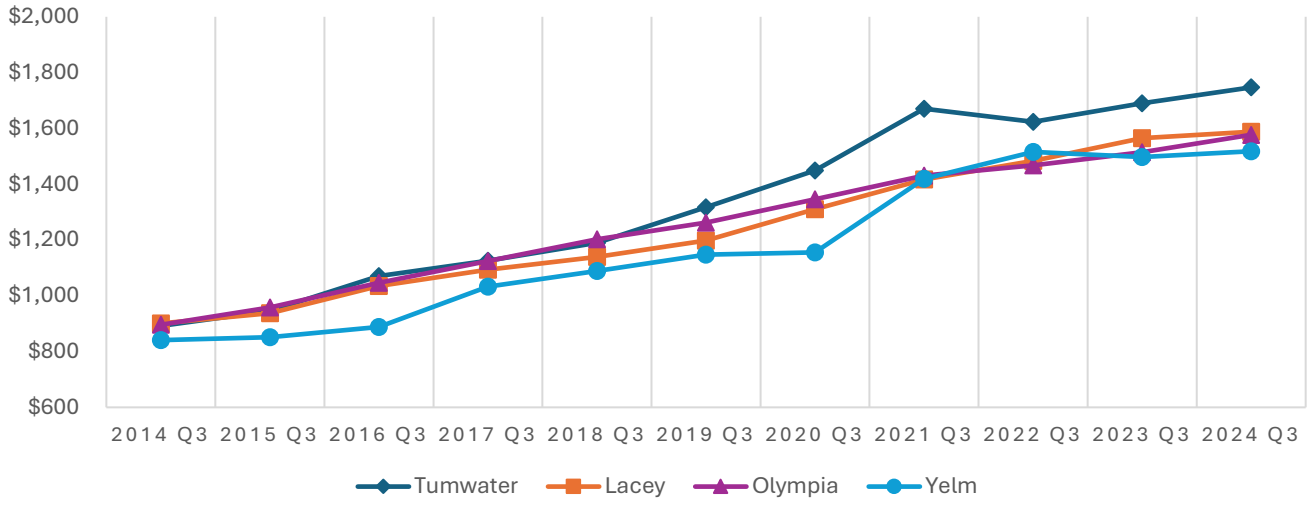
Figure H-12. Average Rent by Thurston County Cities, 2014-24.



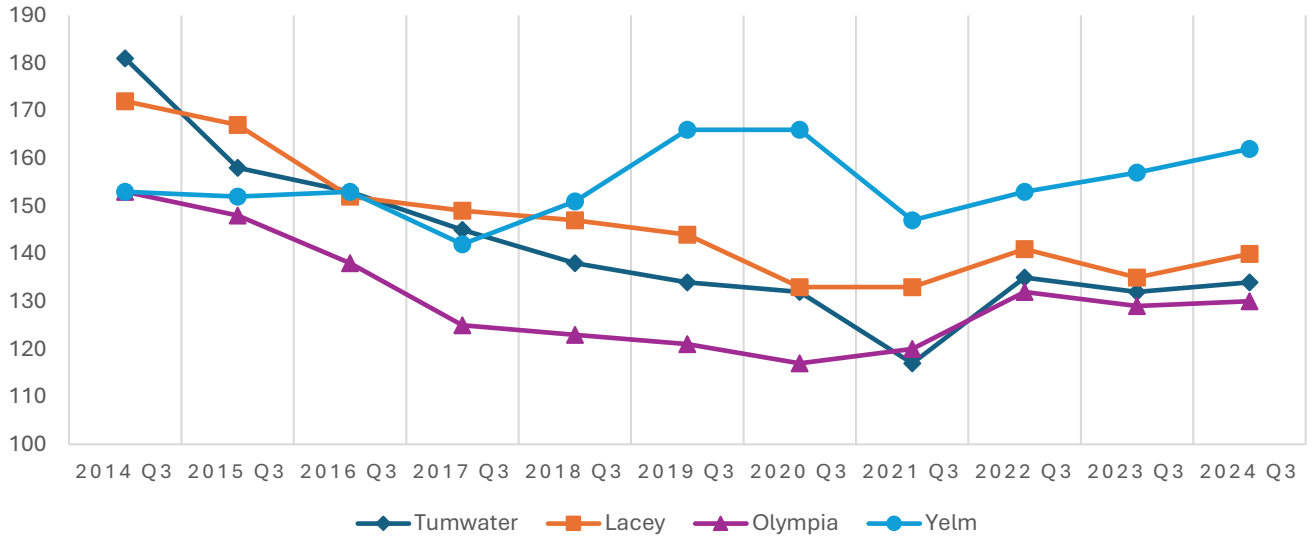
Source: Washington Center for Real Estate Research, Rents Data, 2024. Third Quarter Data, 2014-24.

7) Affordability Index for Renters

Aside from looking at estimated rental housing supply by fair market rate and income, housing affordability indexes for housing unit renters such as the one form the Housing Affordability Index maintained by the Runstad Center for Real Estate Research at the University of Washington is another way to understand the scope of the affordability issue.

Figure H-13 shows the overall ability of a median income renter to pay rent on a median price rental housing unit. When the index is 100 there is a balance between the family's ability to pay and the cost. Higher indexes indicate housing is more affordable.

Figure H-13. Median Renters Housing Affordability Index, Thurston County Cities, 2014-24.



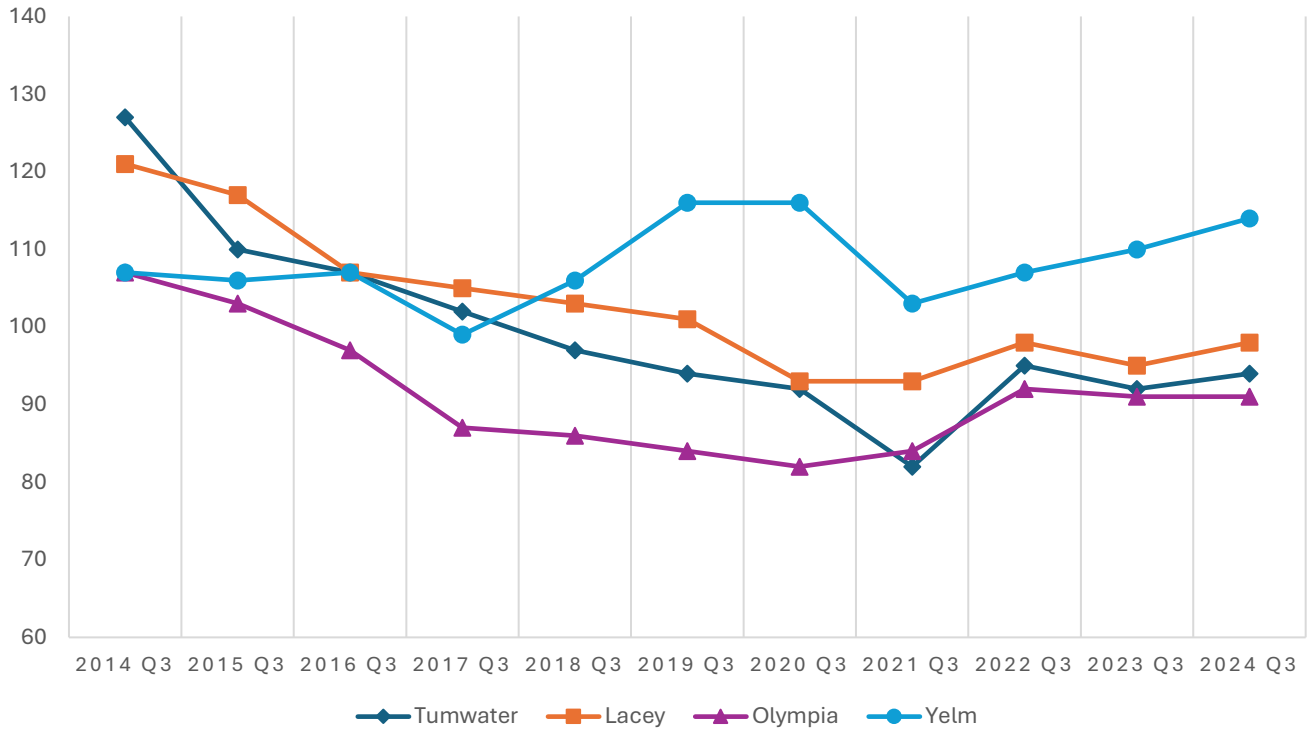
Source: Washington Center for Real Estate Research, Median Renters Housing Affordability Index, 2024. Third Quarter Data, 2014-24.

Housing Element

Part 2 – Technical Information

Figure H-14 summarizes the Housing Affordability Index for transitional renters by Thurston County and adjacent counties and Tumwater and other larger Thurston County cities.

Figure H-14. Transitional Renters Housing Affordability Index, Thurston County Cities, 2014-24.



Source: Washington Center for Real Estate Research, Transitional Renters Housing Affordability Index Data, 2024. Third Quarter Data, 2014-24.

Table H-9 shows that in 2023, Tumwater had 47.7 percent of renters paying more than 30 percent of their household income towards gross rent, which indicates a shortage of affordable rental housing and the need for new low-income rental housing.

Table H-9. Gross Rent as a Percentage of Household Income in Tumwater, 2023.

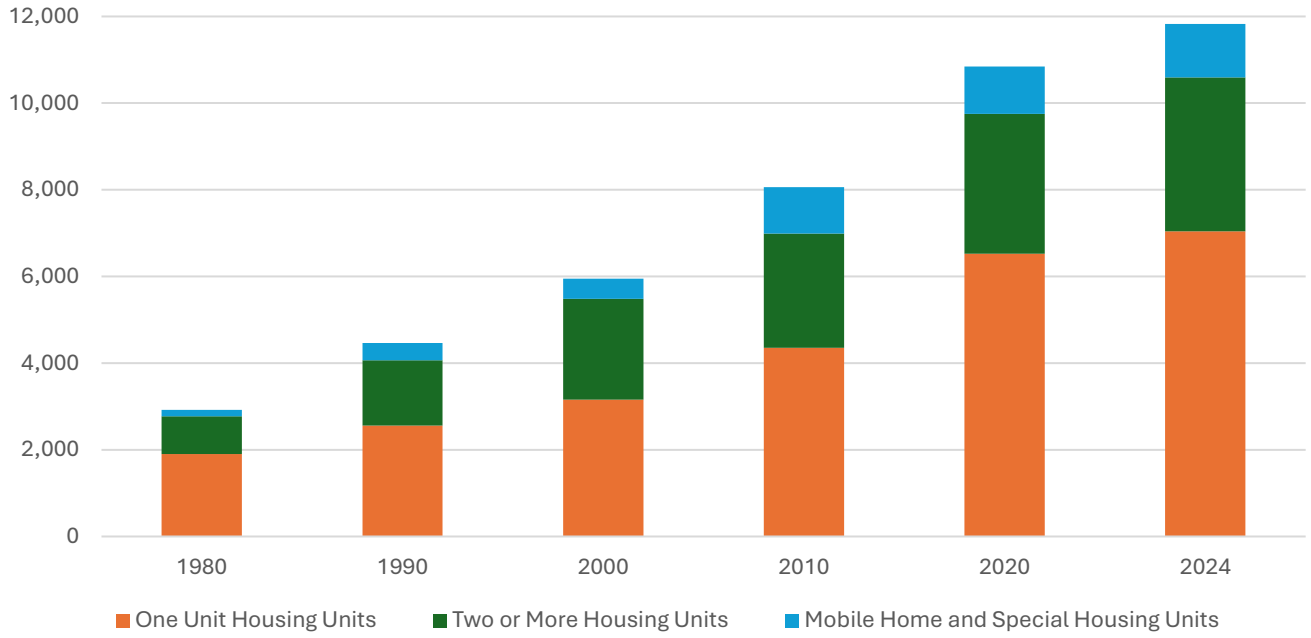
Occupied Units Paying Rent	Number of Units	Percentage
Less than 15.0 percent	417	10.00%
15.0 to 19.9 percent	732	17.50%
20.0 to 24.9 percent	406	9.70%
25.0 to 29.9 percent	630	15.10%
30.0 to 34.9 percent	455	10.90%
35.0 percent or more	1,538	36.80%

Source: 2023 U.S. Census American Community Survey 5-Year Estimates, Table DP04.

D. Housing Inventory

Tumwater had 11,830 housing units as of 2024, a 47 percent increase from 2010. Figure H-15 and Table H-10 break down the number of housing units in Tumwater by housing type, such as single family, duplexes, or multifamily since 1980.

Figure H-15. U.S. Census Decennial Count of Types of Housing Units in Tumwater, 1980-2024.



Source: Washington State Office of Financial Management, Intercensal Estimates of April 1 Population and Housing, 2010-20, March 21, 2024.

Table H-10. U.S. Census Decennial Count of Housing Units in Tumwater, 1980-2024.

Year	Total Housing Units	One Unit Housing Units	Two or More Housing Units	Mobile Home and Special Housing Units
1980	*2,920*	1,901	876	143
1990	*4,463*	2,563	1,504	396
2000	*5,953*	3,155	2,328	470
2010	*8,064*	4,354	2,638	1,072
2020	*10,847*	6,527	3,223	1,097
2024	*11,830*	7,045	3,552	1,233

Source: Washington State Office of Financial Management, Intercensal Estimates of April 1 Population and Housing, 2010-20, March 21, 2024.

The Thurston Regional Planning Council estimated that there were 12,280 housing units in Tumwater and 1,300 housing units in Tumwater's urban growth area in 2024. There were 1,427 housing units in Tumwater's urban growth area according the 2020 Decennial U.S. Census. Between 2020

and 2024, as part of annexations of parts of its urban growth area, Tumwater added 211 dwelling units from its urban growth area.

About 60 percent of homes in Tumwater in 2024 are single housing units, which is an increase from 54 percent in 2010. More than ten percent were mobile homes or special housing units in 2024 down from 13 percent in 2010.

According to the Washington State Office of Financial Management, special homes include traditional manufactured homes, mobile homes, recreational vehicles, vans, and boats that provide a separate and distinct living space for an individual or household.

1) Income & Affordability

The estimates of housing supply by income and affordability in Table H-11 reflects survey data from 2016 to 2020. Housing costs have increased significantly since this survey data was collected and it is likely that the supply of homes affordable at lower income levels has decreased.

Table H-11. Estimated Housing Supply by Income in Tumwater & Urban Growth Area, 2020.

	Total	PSH	Non-PSH	>30-50% AMI	>50-80% AMI	>80-100% AMI	>100-120% AMI	>120% AMI	Seasonal or Migrant Housing
City	**11,064**	0	266	1,099	4,159	2,588	1,296	1,612	45
Urban Growth Area	**1,210**	0	29	120	454	283	142	176	6
Total	**12,274**	0	295	1,219	4,614	2,870	1,437	1,788	51
Total Percentage	**100%**	**0%**	**2.4%**	**9.9%**	**37.6%**	**23.4%**	**11.7%**	**14.6%**	**0.4%**

Sources: U.S. Department of Housing and Urban Development Affordability Strategy (CHAS), 2014-18 Data, Washington State Department of Commerce, and Thurston Regional Planning Council, 2023.
Note: PSH is permanently supported housing and AMI is area median income.

2) Age of Residential Structures

Figure H-16 shows the number of residential structures that were built in Tumwater by decade. More than half of Tumwater's housing stock was built after 1990, which means that most of Tumwater is closer to current building standards.

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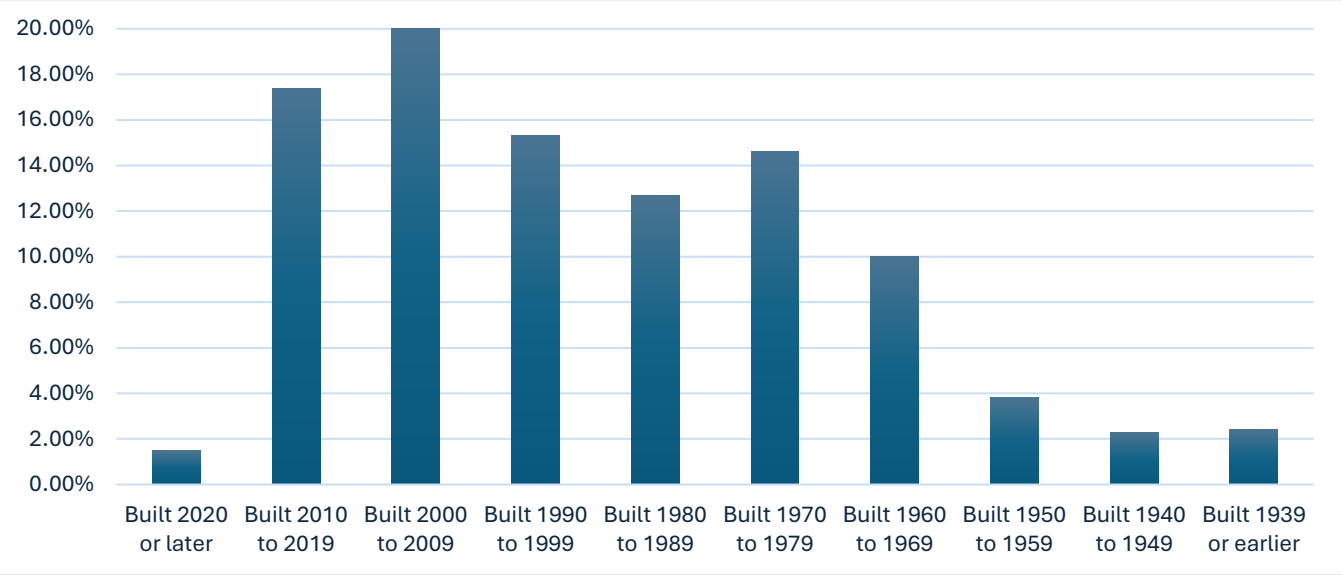
Figure H-16. Age of Residential Structures in Tumwater by Decade, 2023.



Source: 2023 U.S. Census American Community Survey 5-Year Estimates, Table DP04.

3) Housing Occupancy

According to the 2020 U.S. Census, the occupancy rate base is approximately 97 percent, which is an increase from approximately 94 percent according to the 2010 U.S. Census.[3]

Table H-12 shows the number of occupied and total housing units in Tumwater as of the 2020 U.S. Census. Housing units may be vacant for various reasons. They may be for sale or rent, or they may be used as recreational or vacation homes. Any vacancy rate of less than five percent is considered a tight rental market.

Table H-12. Occupied & Total Housing Units in Tumwater, 2020.

Occupied Housing Units	Total Housing Units	Vacant	Vacancy Rate
10,488	10,847	359	3.3%

Sources: 2020 Decennial U.S. Census, Table H3 and Washington State Office of Financial Management, Intercensal Estimates of April 1 Population and Housing, 2010-20, March 21, 2024.

4) Mobile & Manufactured Homes

Tumwater has also established a specific land use designation and zone district for mobile homes and manufactured housing parks to ensure properties containing these affordable housing units are not converted to other more expensive forms of housing or commercial land uses. This ordinance has been successfully defended in both state and federal court. While that has been successful in preventing the conversion of parks

[3] Washington State Office of Financial Management, Intercensal Estimates of April 1 Population and Housing, 2010-20, March 21, 2024.

into other uses, it cannot address the issue of the rising costs of ground leases and other fees.

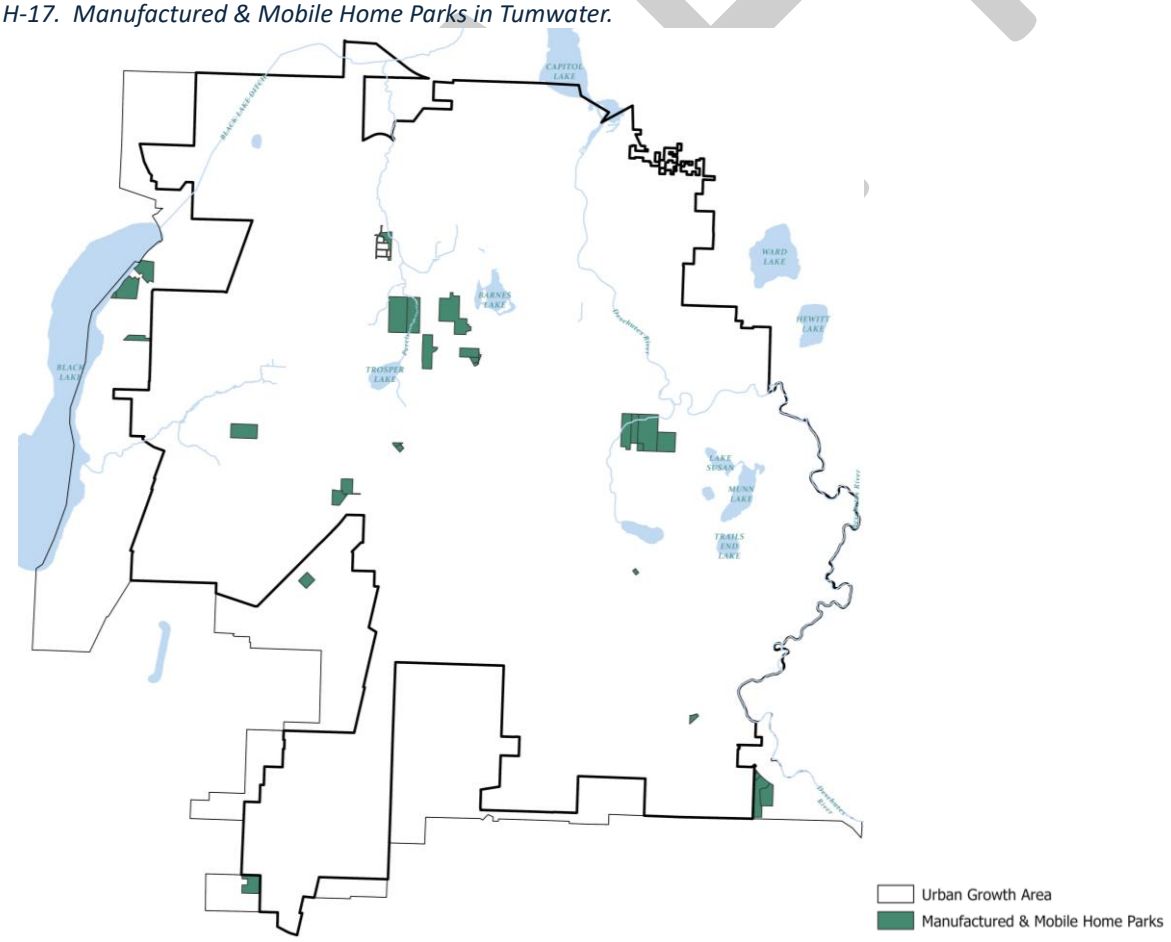
Mobile and manufactured homes are vital to Tumwater's affordable housing supply and are cheaper than homes built on site. They are often more affordable than traditional detached homes. Both mobile and manufactured housing can be found in a variety of settings, such as:

- By itself on a lot owned by the homeowner.
- An accessory unit to a primary home on a lot.
- On a leased plot in a campground or mobile home community.

According to 2024 Washington State Office of Financial Management data, there are an estimated 1,161 mobile and manufactured homes in Tumwater, half are within registered manufactured home park communities.

Figure H-17 shows the location of registered manufactured home park communities in Tumwater. There are nine registered mobile and manufactured home parks in Tumwater and six in Tumwater's urban growth area. Six are in the Manufactured Home Park land use designation and zone district in Tumwater, three are not.

Figure H-17. Manufactured & Mobile Home Parks in Tumwater.



Source: City of Tumwater, 2024.

Many of these homes park communities may offer quality, affordable housing in Tumwater. They may be cheaper than site-built homes of similar size and location. Conditions can vary, and many residents will find few or no affordable options if they have to move. Preserving existing mobile home communities and allowing new ones to be built will support affordable housing in Tumwater.

5) Subsidized Rental Housing

Table H-13 shows the subsidized rental inventory in Tumwater in 2023. Of the 177 subsidized units, 28 at two bedroom units, 16 are three bedroom units, and 133 have an unknown number of bedrooms.

Table H-13. Subsidized Rental Inventory in Tumwater, 2023.

Subsidized Rental Housing Unit Type	Number of Units
Units Funded by Washington State Department of Commerce, including Housing Trust Fund	54
Units funded by the US Department of Agriculture's Rural Housing Service Section 514 and 515 programs	44
Units funded by the US Department of Housing and Urban Development's project-based the Housing Choice Voucher program and other multi-family programs	50
Multifamily Tax Exemption Program affordable units put into service from 2020 to 2022	29
Deduplicated Total Number	**177**

Source: Washington Center for Real Estate Research, Subsidized Rental housing Inventory Data, 2023.

6) Private Subsidized Housing

Subsidized housing is made available by private building owners and through public vouchers. With private subsidized housing, an owner of housing units receives low interest loans or grants for construction or rehabilitation of housing units. In exchange, the owner agrees to make available a certain number of units at a price affordable to low income families. These agreements are made by contract for a set period.

Tumwater currently has 94 subsidized housing units of this type with 44 units reserved families and 50 units reserved for people who are elderly. Waiting lists for access to these units are kept by the individual property owners and average two years. These properties are listed in Table H-14.

Table H-14. Privately Subsidized Housing in Tumwater, 2025.

Project	Type	Location	Number of Units
Deschutes Cove	Families	7200 Henderson Blvd. SE	44 – Two and three Bedrooms
Tumwater Apartments	Seniors	5701 6th Ave SW	50 – Studio and one bedroom

Source: Housing Authority of Thurston County, 2024.

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7) Publicly Subsidized Housing

The Housing Authority of Thurston County owns a number of residential properties in Tumwater that offer affordable rents that are below market, but they are not directly subsidized. These properties are listed in Table H-15.

Table H-15. Housing Authority of Thurston County Residential Properties in Tumwater, 2024.

Project	Location	Number of Units
Allen Orchard	202 - 256 Allen Orchard Lane SE	14 – Two bedrooms 10 – Three bedrooms
Trails End Duplexes	7440 - 7446 Trails End Dr. SE	8 – Two bedrooms
Sequoia Landing Apartments	7132 - 7142 Littlerock Rd. SW	10 – One bedroom 4 – Two bedrooms 18 – Two bedroom townhouse 8 – Three bedrooms
McKena Lane Townhomes	206 - 226 McKena Lane SW	6 – Three bedrooms
Lake Park Apartments	1233 Lake Park Drive SW	8 – Two bedrooms
Spring Court Apartments	5765 Linderson Way SW	8 – Two bedrooms
Falls Pointe Apartments	411 Lee Street SW	60 – One bedroom 48 – Two bedrooms

Source: Housing Authority of Thurston County, 2024.

8) Public Voucher Programs

In addition to subsidized housing properties in the community, there are housing voucher programs that serve Tumwater residents earning 50 percent or less of area median income by providing a subsidy to cover the cost of rent above 30 percent of income towards rent and utilities.

Assistance is also available from the Housing Choice Voucher program, which is funded by the US Department of Housing and Urban Development and managed by the Housing Authority of Thurston County. The Housing Choice Voucher program works like rental assistance where you find a private owner and then the voucher pays part of the rent, usually 70 percent if income qualified. Currently the Housing Authority of Thurston County is serving 1,850 households countywide through the program.

The Housing Authority of Thurston County also works with other partners on the Foster Youth to Independence and the Veterans Administration Supportive Housing voucher programs.

Foster Youth to Independence vouchers provide dedicated rental assistance to support youth exiting foster care who are at risk of homelessness and youth who have become homeless or at risk of homelessness after having been in foster care.

The Veterans Administration Supportive Housing voucher program assists homeless veterans in cooperation with the U. S. Veterans Administration.

E. Emergency & Supportive Housing

Emergency and supportive housing are vital for those at risk of homelessness as they help individuals and family who are homeless or are at risk of becoming homeless. These individuals may become homeless due to affordability issues. Life events, like domestic violence, racial discrimination, and mental and physical health problems also play a role. These specific types usually support those with incomes less than 30 percent of area median income.

By strict U.S. Department of Housing and Urban Development standards, Thurston County has one emergency shelter, the Union Gospel Mission in Olympia, which has a reported 60 openings nightly. The Salvation Army in Olympia has 38 beds but it is not considered to meet the technical definition of an emergency shelter as it holds beds for continuous shelter.

The same situation applies to the transitional shelter Catholic Community Services Westminster facility, which manages a ten bed transitional housing program community. Community Youth Services also offers emergency shelter and transitional housing with a total of 34 beds at Haven House and Young Adult Shelter.

During cold weather events, select providers expand by about 40 beds collectively with more beds opening during emergency events with staff capacity.

Based on the Thurston County preliminary 2025 Point-in-Time Count data with 465 individuals marked as experiencing unsheltered homelessness homeless services in Thurston County could shelter 11 percent of those individuals assuming that there were 60 people in Union Gospel Mission, 38 in long term night by night bed placements at the Salvation Army and 20 meet the criteria for the Young Adult Shelter.

The Thurston County Homeless Response System is a primarily a tiered system for access shelter going from Emergency Shelter to Transitional Shelter to Long term Shelter to Permanent Supportive Housing to Vouchered Permanent Housing.

The Tumwater Municipal Code was amended in 2022 to allow for the placement of emergency housing and shelters, permanent supportive housing, and transitional housing in multiple land use designations as required by state law. While in 2024, there was no emergency housing or shelters located in Tumwater, Planning for and Accommodating Housing Needs in Thurston County: Implementing the Housing Affordability Requirements of HC 1220 found that there was sufficient land capacity in Tumwater to allow the placement of such uses.

While no emergency shelters currently exist in Tumwater, there are a number of transitional and permanent publicly subsidized housing units. These include units managed by the Community Action Council, the Thurston County Housing Authority, HomesFirst, and Habitat for Humanity.

Behavioral Health Resources operates several subsidized permanent housing facilities in Tumwater for individuals with mental health issues. The Tumwater Municipal Code allows for the establishment of temporary homeless encampments by sponsoring religious organizations.

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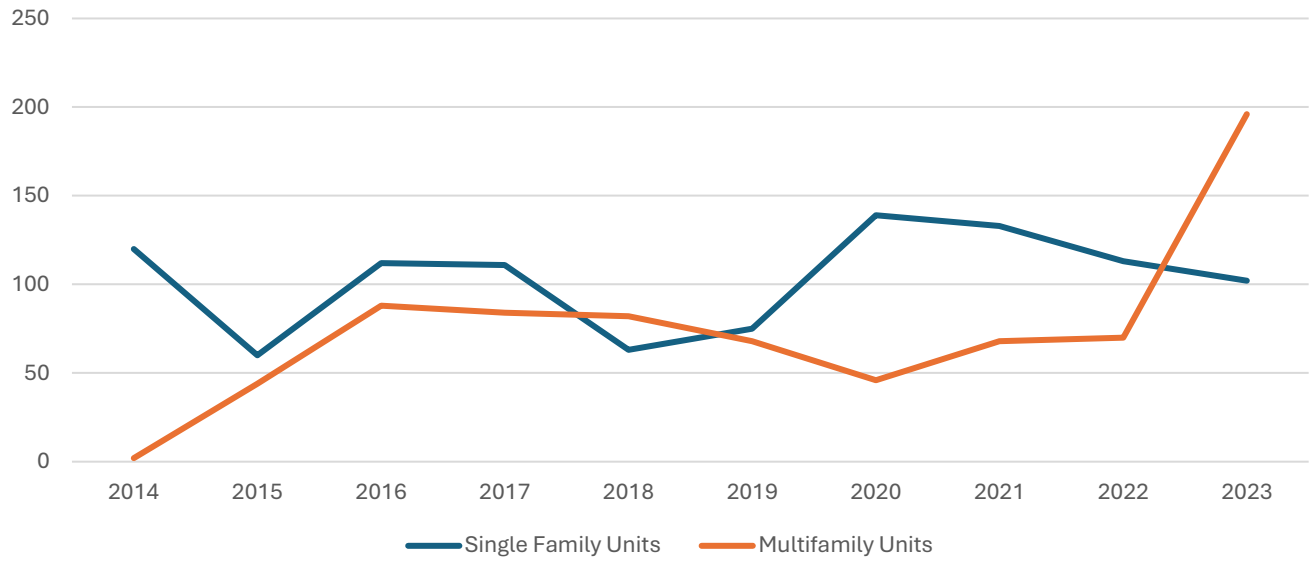
F. Housing Production Trends

Figure H-18 shows the breakdown of permitted housing units between 2014 and 2023 in Tumwater. The most permitted housing types were single-family houses. Of the multifamily buildings, there were a total of five duplexes and five triplexes permitted during this time frame which were 25 total units of middle housing out of 748 multifamily units.

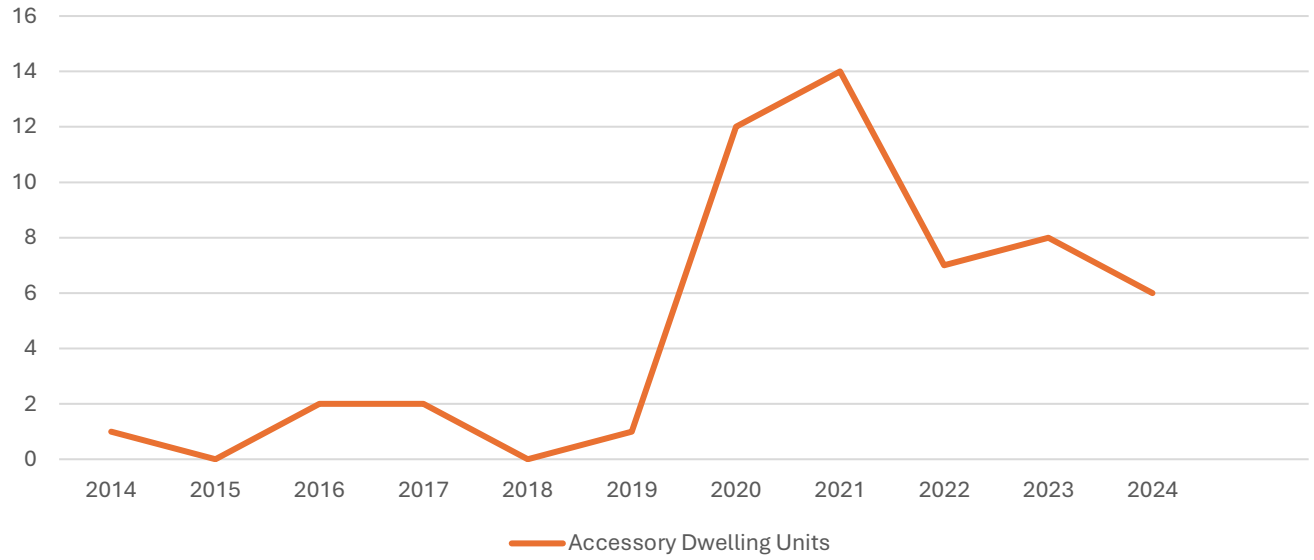
There were 53 accessory dwellings units permitted during this period and Figure H-19 shows the permits by year.

Figure H-18. Single-Family & Multifamily Residential Building Permits in Tumwater, 2014-23.



Source: Washington Center for Real Estate Research, 2024.

Figure H-19. Accessory Dwelling Unit Building Permits in Tumwater, 2014-24.



Source: City of Tumwater, 2024.

G. Funding Housing Construction

1) Background

The provision of affordable housing for all economic segments of the Tumwater population is primarily a function of private enterprise with a limited role for public agencies, such as Tumwater, and nonprofits.

2) Local Financing

Local funding from cities and Thurston County mostly takes the form of local matching funds to federal or state funding programs. In addition to this, however, Tumwater does have some limited local options for financing public housing and related social service programs. These include:

- Use of general funds to provide grants and loans to service organizations through regional partnerships.
- Use of general funds for direct funding of housing and social service programs through contract with Tumwater.
- Under RCW 84.54.105, Tumwater also has the option of asking voters to support an excess property tax levy of up to 50 cents per $1,000 valuation to support affordable housing and related programs.

3) Affordable Housing Sales Tax Fund

In 2019 the State Legislature passed Substitute House Bill 1406 which allows Tumwater to impose a local state-shared sales and use tax to fund affordable or supportive housing. The consumer does not pay this tax, and the effective sales tax rate remains the same. Instead, this tax is credited against the 6.5% state sales tax.

Depending on Tumwater's population, funds from this tax must be used for the following:

- Acquisition, rehabilitation, or construction of affordable housing.
- Funding the operations and maintenance costs of new units of affordable or supportive housing, or
- Provide rental assistance to tenants.

Tumwater, along with Thurston County and the cities of Olympia, Lacey, and Yelm, entered into an interlocal agreement to pool their resources and create the Regional Housing Council. Thurston County is the lead agency of the Regional Housing Council and administers the affordable housing program county-wide. Each jurisdiction has an elected official on the Board of Directors of the Regional Housing Council. The 1406 funds from each jurisdiction are pooled to increase the efficiency and effectiveness of the affordable housing program.

4) Multifamily Tax Exemption Program

The state's multifamily property tax exemption program (Chapter 84.14 RCW) provides opportunities for cities and counties to encourage the development of multifamily housing in designated areas. When originally codified by the state in 1995, the program focused on economic development and the creation of new multifamily housing. Over time, the program became an important tool to support the development of affordable housing and implementation of the goals of the Growth Management Act.

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The program is intended to encourage the construction of new, rehabilitated, or converted multifamily housing within designated areas. It is limited to multifamily housing developments with four or more housing units.

Tumwater's multifamily property tax exemption program serves multiple purposes. It is an economic development tool identified in Tumwater's Brewery District Plan and Capitol Boulevard Corridor Plan to spur private investment for redevelopment of these areas. In addition, it is one of the many tools identified in the Tumwater Housing Action Plan to support the development of more affordable housing in specific areas of Tumwater served by transit.

In 2017, the City Council adopted the Multifamily Housing Tax Exemption program to stimulate desired housing development within key areas of Tumwater, such as the Brewery District and Capitol Boulevard Corridor. The Multifamily Housing Tax Exemption program includes both an eight-year exemption for providing multifamily housing in the designated areas and a twelve-year exemption for development providing a minimum of 20 percent of units designated for low or moderate-income households.

In 2019, the City Council approved expanding the Multifamily Housing Tax Exemption program to the Town Center and Littlerock Subarea for just the twelve-year exemption to encourage the development of permanent affordable housing.

5) Community Development Block Grants

Tumwater has an agreement with Thurston County that allows Tumwater to receive Federal Community Development Block Grants every third year. Under this agreement, Tumwater gets to decide how to allocate these funds once every three years. In the first cycle of this agreement, Tumwater allocated a majority of this funding for affordable housing programs.

H. Homeless Population & Trends

1) Point-in-Time Count

The Point-in-Time Count is conducted annually to assess the number of individuals experiencing homelessness as mandated by the U.S. Department of Housing and Urban Development.

Findings from the 2024 Point-in-Time Count indicate trends consistent with those observed in previous annual counts. Notably, the number of individuals experiencing unsheltered homelessness remains high, while the availability of shelter beds has not significantly increased. The high rate of unpermitted housing reflects a severe shortage of emergency shelters and housing, transitional housing, and permanent supportive housing in Thurston County.

In Thurston County, the homeless population rose nearly 98 percent from 2015 to 2024 as shown in Figure H-20, while it was down 17 percent from a high in 2021. Note the 2021 data was collected differently than the counts in other years because of the pandemic.

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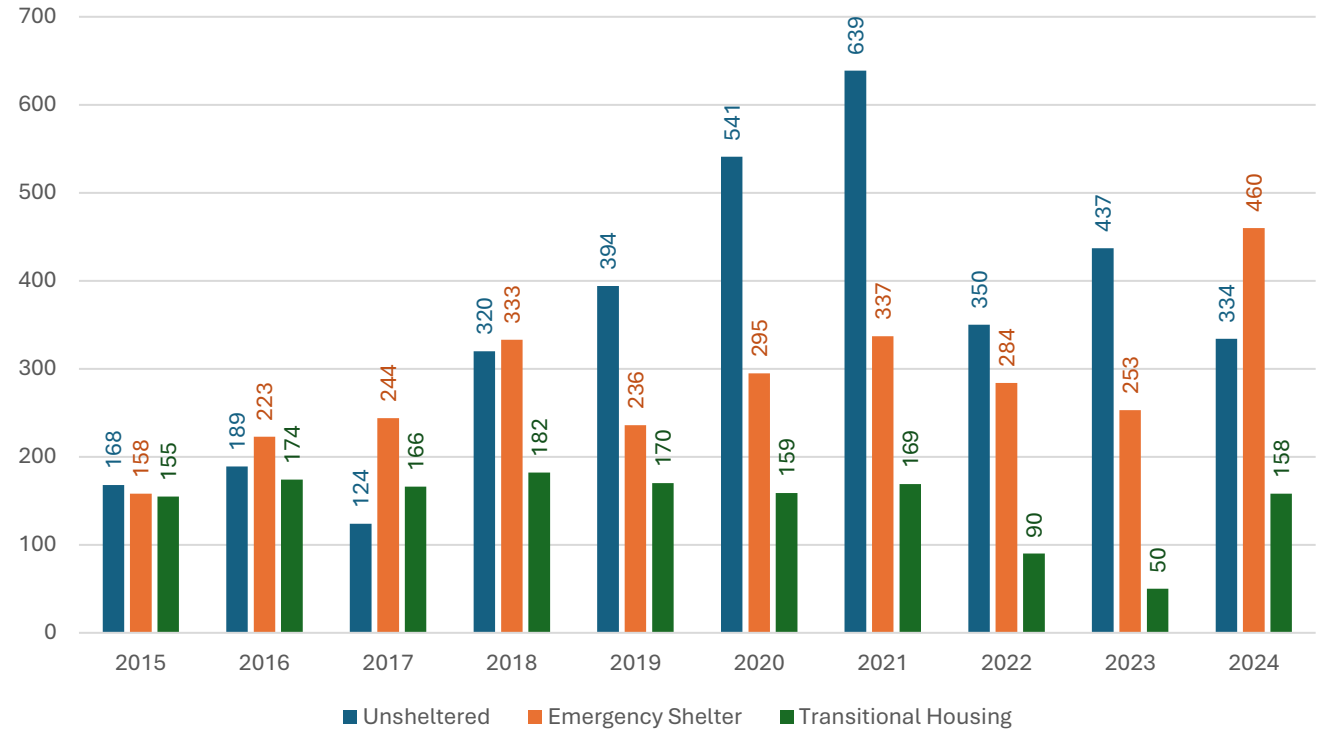
Figure H-20. Thurston Point-in-Time Counts Over the Past Decade, 2015-24.



Source: 2024 Point-in-Time County: Homeless Census Report, Thurston County, WA, 2024.

The overall number for the Thurston Point-in-Time count in 2024 of 952 is similar overall number for the Thurston Point-in-Time count in 2010 of 976, which was during the last major recession.

Individuals have been observed in Tumwater living in cars, recreational vehicles, or unpermitted structures. While thirteen occupied vehicles were observed in Tumwater during the 2025 Point-in-Time count, there is not a more accurate estimate of how many people are living in these situations.

2) McKinney-Vento Act Reporting

Following the requirements of the federal McKinney-Vento Education of Homeless Children and Youth Assistance Act, School Districts report the number of students from pre-kindergarten through 12th grade that experience homelessness during the school year to the Washington State Office of Superintendent of Public Instruction. While the number of students experiencing homelessness does fluctuate throughout the year, the Office of Superintendent of Public Instruction reports the number on October 1 of each school year. Consequently, the total number of students that have experienced homelessness at some point during the year is not reflected.

The Office of Superintendent of Public Instruction reported that 2.7 percent of the Tumwater School District's 6,370 enrolled students were experiencing homelessness as shown in Table H-16. The Tumwater School District serves most of Tumwater and a portion of Thurston County west and south of Tumwater.

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Table H-16. Tumwater School District – Students Experiencing Homelessness, 2024-25.

Student Homelessness	Number of Students	Percentage of Students
Students Experiencing Homelessness	~172	2.7%
Total Student Population	6,370	100%

Sources: Thurston Regional Planning Council, Students Experiencing Homelessness by Thurston County School District, 2025. Washington Office of Superintendent of Public Instruction, Washington State Report Card, Tumwater School District, Report Card Enrollment *2024-25* School Year.

I. Projected Housing Need

The Growth Management Act requires Tumwater to "plan for and accommodate housing affordable to all economic segments of the population."

Housing is one of the most important parts of the everyday lives of Tumwater residents. One of Tumwater's top priorities is to work to provide opportunities for residents to have a range of housing options within their budget so that their home is suitable and affordable.

Thurston County and the cities of Lacey, Olympia, Tenino, Tumwater, and Yelm contracted with the Thurston Regional Planning Council to facilitate the process required by HB 1220 (Chapter 254, Laws of 2021) and do data analysis. The process consists of the steps shown in Figure H-21 that were conducted countywide and then specifically for each jurisdiction, including Tumwater.

Figure H-21. HB 1220 (Chapter 254, Laws of 2021) Process.

Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, 2025.

According to the U.S. Department of Housing and Urban Development, a moderate income at 100 percent of area median income for a Thurston County household of four in 2025

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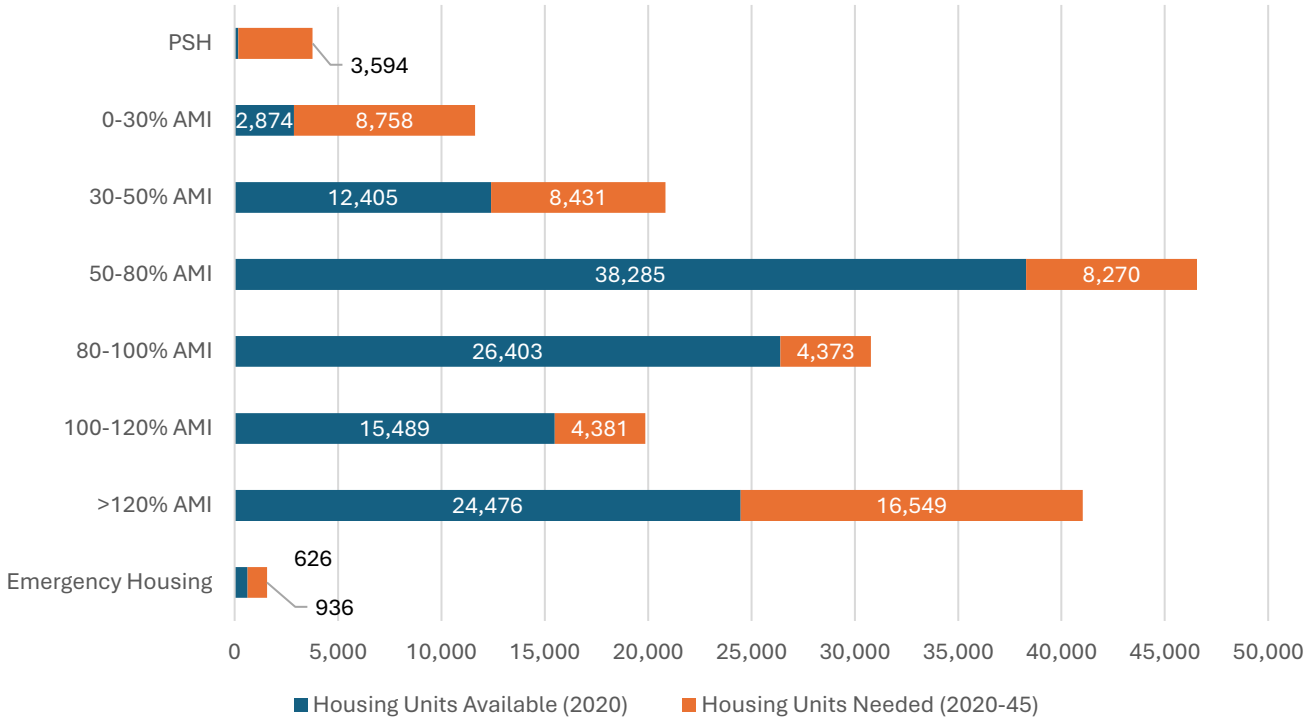
would be $116,688. In 2020, there were 121,438 housing units available and by 2045 an addition 54,356 housing units would be needed countywide. The countywide need for housing units by income in Thurston County is shown in Figure H-22.

Figure H-22. Countywide Housing Need for Thurston County, 2045.



Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, 2025.
Notes: PSH is permanently supported housing and AMI is area median income. Numbers may not add to totals due to rounding.

HB 1220 (Chapter 254, Laws of 2021) allowed Thurston County jurisdictions to determine the housing need they planned for as part of the 2025 Comprehensive Update process. The jurisdictions agreed to the following guidelines for the housing allocation:

- The process should be multijurisdictional and collaborative.
- The need for each jurisdiction should sum up to the countywide need.
- The Thurston Regional Planning Council would accept the jurisdiction's recommended housing allocation.

Based on that process, the Thurston Regional Planning Council forecasted that Tumwater and its urban growth area will need to add 9,192 net new housing units between 2020 and 2045 in Tumwater and its urban growth area as shown in Table H-17.

The difference between Tumwater's 2020 low-income housing supply and need in 2045 for households earning between zero and 80

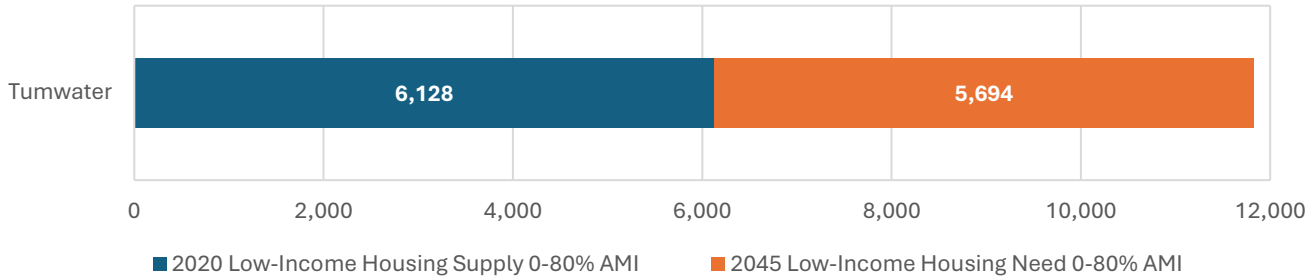
percent area median income is shown in Figure H-23.

Table H-17. Allocation of Projected Tumwater Housing Needs, 2020-45.

	Housing Units Available in 2020	Projected Housing Units Needed in 2045	2020-45 Projected Housing Need
City	11,064	17,740	6,676
Urban Growth Area	1,210	3,726	2,516
Total	**12,274**	**21,466**	**9,192**

Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, 2025.

Figure H-23. Low-Income Housing Need in Tumwater, 2020-45.

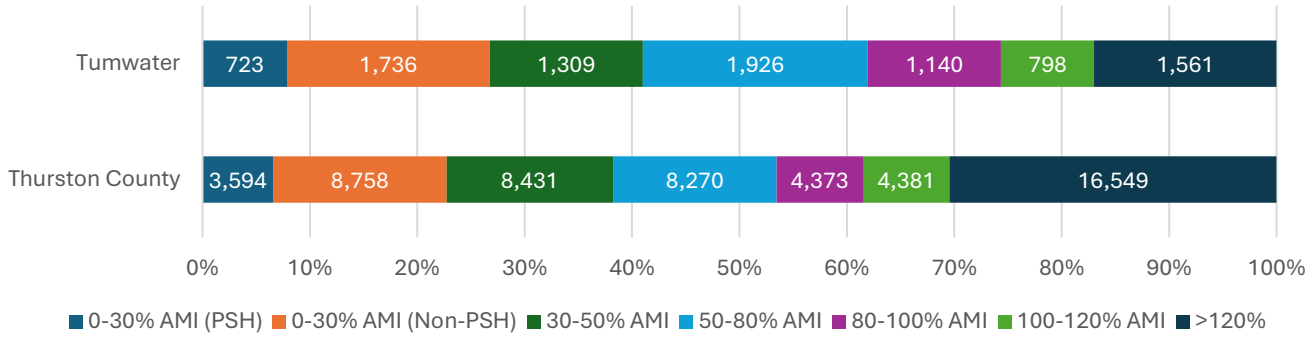


Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, 2025.

The allocation includes breakdowns by percentage of area median income as shown in Figure H-24 and Table H-18, consistent with projections in Commerce's Housing for All Planning Tool.

Under the Growth Management Act, Tumwater must plan for and accommodate future housing, which includes meeting housing need allocations for each income level. Tumwater must show how much land is available to build homes to meet these needs and identify barriers to housing production and the ways they will be overcome. This will be shown in more detail in Chapter 5.

Figure H-24. Comparison of Housing Need Allocation for Tumwater & All of Thurston County, 2020-45.



Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, 2025.
Notes: PSH is permanently supported housing and AMI is area median income. Numbers may not add to totals due to rounding

Housing Element

Part 2 – Technical Information

Table H-18. Housing Need Allocation for Tumwater, 2020-45.

	Housing Units								Beds
	Total	Income Level (Percent of Area Median Income)							Emergency Housing
		0-30%		30-50%	50-80%	80-100%	100-120%	>120%	
		PSH	Non-PSH						
City	6,676	554	1,320	1,002	1,129	806	627	1,238	133
UGA	2,516	170	415	307	797	333	171	323	50
Total City and UGA	**9,192**	**723**	**1,736**	**1,309**	**1,926**	**1,140**	**798**	**1,561**	**184**
Thurston County	54,356	3,594	8,758	8,431	8,270	4,373	4,381	16,549	936

Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, 2025.

Notes: PSH is permanently supported housing and UGA is Tumwater's urban growth area. Numbers may not add to totals due to rounding.

3. Land Capacity Analysis

A. Analysis

After identifying Tumwater's Housing Need allocation in Chapter 2, Tumwater must show that there is sufficient land for a variety of housing types appropriate for each of the area median income groups in Tumwater and its urban growth area for the next 20 years.

This is done by completing a land capacity analysis, which identifies if there is sufficient capacity based on zoning and development regulations to accommodate the identified housing need.

"Capacity" refers to the potential number of new dwelling units that could be built on a parcel based on zoning, development regulations, development trends, and market factors. Capacity includes greenfield development, infill development, and redevelopment.

Based on the results of the land capacity analysis, Housing Element works with the Land Use Element to ensure a sufficient supply of suitable land for all types of residential development.

1) Thurston Regional Planning Council Report

Because of the nature of joint planning in Thurston County for urban growth areas, the jurisdictions in the county partnered with the Thurston County Regional Planning Council to prepare a land capacity analysis. As part of that work, the jurisdictions asked that the land capacity analysis combine data for cities and their unincorporated urban growth areas, because the Housing Element will address both together and the Tumwater Housing Element will become part of the joint plan Tumwater has with Thurston County.

The final Thurston County Regional Planning Council April 2025 report, Planning for and Accommodating Housing Needs in Thurston County, can be found in Appendix C.

The Washington State Department of Commerce's guidance for updating housing elements outlined five steps for completing a land capacity analysis, which are described in more detail in Appendix C.

The five steps were:

1. Summarize Land Capacity by Zone.
2. Categorize Zones by Allowed Housing Types and Density Category.
3. Relate Zone Categories to Potential Income Levels and Housing Types.
4. Summarize Capacity by Zone Category.
5. Compare Allocated Housing Need to Capacity.

Step 1: Summarize Land Capacity by Zone District

The land capacity analysis used the land capacity model developed for the Thurston County Regional Planning Council's most recently adopted forecast and the 2021 Buildable Lands Report with documentation and modifications noted in the report.

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1) Bush Prairie Habitat Conservation Plan

Tumwater and the Port of Olympia are working on the Bush Prairie Habitat Conservation Plan, which will mitigate the impacts of development on four species protected under the Endangered Species Act as part of an incidental take permit application with the U.S. Fish and Wildlife Service.

Because the latest draft of the Habitat Conservation Plan identifies the need for significant mitigation land within Tumwater and its urban growth area, the land capacity analysis reduced capacity in the zones where mitigation is most likely to occur by the factors shown in Table H-19.

Table H-19. Capacity Reduction Factors for Bush Prairie Habitat Conservation Plan.

Zone District	Acres Removed for Mitigation	Total Area (Vacant Parcels)	Capacity Reduction Factor
Multifamily High Residential	5	18.7	26.8%
Multifamily Medium Residential	30	83.1	36.1%
Mixed Use	30	27.0	100.0%
Single Family Medium Residential	40	227.2	17.6%
Single Family Low Residential	190	354.6	53.6%

Source: Planning for and Accommodating Housing Needs in Thurston County, Thurston Regional Planning Council, April 2025.
Notes: Acres removed for mitigation provided by Tumwater staff. The total area is from the Thurston Regional Planning Council's land capacity model. Reduction only applied to capacity on vacant parcels.

2) Accessory Dwelling Units

The land capacity analysis included an estimate for the development of new accessory dwelling units over the 20 year period of the Comprehensive Plan. For Tumwater, the adopted forecast was for 73 new accessory dwellings units in Tumwater and 10 new accessory dwellings units in its urban growth area by 2045 on 1,536 potential accessory dwelling units lots.

Step 2: Categorize Zones by Allowed Housing Types & Density Category

The State Department of Commerce's housing element guidance recommended that jurisdictions assign a density category to each of their zone districts based on the density and types of housing allowed. In the land capacity analysis, the Thurston County Regional Planning Council used the example zone categories and the typical housing types from Commerce's guidance that are shown in Table H-20.

Table H-20. Categories for Classifying Zone Districts by Housing Types Allowed.

Zone Category	Typical Housing Types Allowed
Low Density	Detached single-family homes
Moderate Density	Townhomes, duplexes, triplexes, or quadplexes
Low-rise Multifamily	Walk-up apartments (up to 3 floors)
Mid-rise Multifamily	Apartments in buildings with ~4-8 floors (~40-85 feet in height)

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Zone Category	Typical Housing Types Allowed
High-rise/Tower	Apartments in buildings with ~9 or more floors (>85 feet in height) and requiring steel frame construction

Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, Implementing the Housing Affordability Requirements of HB 1220, April 2025.
Notes: Adapted from the State Department of Commerce's guidance. Manufactured homes are not listed as a housing type because by law they should be allowed in all zones that permit residential uses. High-Rise/Tower zones are likely to be relevant only in major metropolitan cities. Condominiums are omitted since they are a type of ownership, not housing.

Step 3: Relate Zone Categories to Potential Income Levels & Housing Types

For the land capacity analysis, zone categories and housing types were tied to an affordability level. The State Department of Commerce's guidance provided examples of this relationship for moderate- and high-cost communities in Washington State, which was used in the land capacity analysis as a more detailed market analysis was not available.

The Thurston County Regional Planning Council used the relationship for moderate-cost communities shown in Table H-21 for the land capacity analysis. Note that the assigned affordability levels were intended to indicate the potential for that zone category to accommodate housing affordable to different income levels, not a guarantee that any housing in those zone districts actually will be affordable at specific household income levels.

The land capacity analysis noted that in some situations, low-income housing may be built in low or moderate density zones.

Table H-21. The Relationship of Zone Categories to Housing Income Levels Served in Moderate-Cost Communities.

Zone Category	Lowest Potential Income Level Served		Assumed Affordability Level for Capacity Analysis
	Market Rate	With Subsidies and/or Incentives	
Low Density	Higher income (>120% AMI)	Not typically feasible at scale	Higher income (>120% AMI)
Moderate Density	Moderate income (>80-120% AMI)	Not typically feasible at scale	Moderate income (>80-120% AMI)
Low-rise Multifamily	Low income (>50-80% AMI)	Extremely low and Very low income (0-50% AMI)	Low income and PSH (0-80% AMI)
Mid-rise Multifamily	Low income (>50-80% AMI)	Extremely low and Very low income (0-50% AMI)	Low income and PSH (0-80% AMI)
Accessory Dwelling Units (all zones)	Low income (>50-80% AMI)	N/A	Group with Low-rise and/or Mid-rise Multifamily

Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, 2025.

Note: Adapted from the State Department of Commerce's housing element development guidance. PSH is permanently supported housing.

Step 4: Summarize Capacity by Zone Category

In Step 4 the total capacity in each zone category was summarized. This provided the total capacity that could accommodate housing in each income level in Tumwater and its urban growth area. These totals are shown in Table H-22. The more detailed capacity by zone is found in Appendix II of the land capacity analysis under the "Total Capacity" columns.

Table H-22. Housing Capacity by Zone Category in Tumwater& Its Urban Growth Area.

Total	ADUs	Midrise Multifamily	Lowrise Multifamily	Moderate Density		Low Density
	0-80% AMI	0-80% AMI	0-80% AMI	0-80% AMI	80-120% AMI	>120% AMI
11,861	83	1,455	3,148	1,043	3,692	2,441

Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, 2025.
Note: ADU is accessory dwelling unit. Adapted from the State Department of Commerce's housing element development guidance.

Step 5: Compare Allocated Housing Need to Capacity

The final step of the land capacity analysis was to compare the allocated housing need allocated to Tumwater and its urban growth area to its capacity for new housing.

A summary of the difference between the allocated housing need and the capacity for potential number of new dwelling units that could be built on a parcel based on zoning, development regulations, development trends, and market factors is shown in Table H-23.

A positive number indicates that there is a surplus in Tumwater's capacity for new housing units, which is sufficient capacity to accommodate the allocated housing need for a given income level while a negative number indicates that there is a deficit, which is insufficient capacity.

Table H-23. Summary of Housing Surplus or Deficit in Tumwater& Its Urban Growth Area in 2045.

Aggregate Housing		Capacity		Need Surplus / Deficit	
0-80% AMI	80-120% AMI	0-80% AMI	80-120% AMI	0-80% AMI	80-120% AMI
5,694	1,937	5,729	3,692	35	1,755

Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, 2025.
Note: A positive number (surplus) indicates that there is sufficient capacity to accommodate the allocated housing need for a given income level while a negative number (deficit) indicates that there is insufficient capacity. AMI is area median income.

While the land capacity analysis found no deficits in the Tumwater and its urban growth areas in the ability for Tumwater's current land use designations to accommodate future housing demand, in looking at the detailed findings shown in Table H-24 under the "Surplus

or Deficit" columns the margin between aggregate housing need and the total capacity to accommodate the housing needs for those less than 80 percent area median income was very small.

Table H-24. Details of Housing Surplus or Deficit in Tumwater& Its Urban Growth Area in 2045.

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs (Housing Units)	723	5,694	5,729	35
0-30% Other		1,736			
30-50%		1,309			
50-80%		1,926			
80-100%	Moderate Density (Housing Units)	1,140	1,937	3,692	1,755
100-120%		798			
Emergency Housing (beds)		184	184	2,842	2,658

Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, 2025.
Note: Income level is the area median income level. A positive number indicates that there is a surplus, which is sufficient capacity to accommodate the allocated housing need for a given income level while a negative number indicates that there is a deficit, which is insufficient capacity. ADU is accessory dwelling unit.

Given this small margin, the uncertainty around the amount of developable land that will be available without the Endangered Species Act restrictions, and the limited zoning categories that could accommodate housing for this category, under the Land Use Element residential densities for land use designations have been increased and the range of potential uses allowed have been expanded.

HB 1220 (Chapter 254, Laws of 2021) does not require jurisdictions to plan for or accommodate housing for high-income households; data for that income range is excluded.

B. Emergency Housing

Following State Department of Commerce housing element guidance, the Thurston Regional Planning Council used a seven-step selection process in their report to identify potential emergency housing sites in Tumwater and its urban growth area.

Emergency housing includes both indoor emergency shelters and indoor emergency housing as referenced in HB 1220 (Chapter 254, Laws of 2021) and excludes permanent supportive housing, which is addressed in the land capacity analysis.

The Thurston Regional Planning Council found that there was sufficient land capacity for emergency housing in Tumwater and its urban growth area.

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C. Area Median Income, Housing Type, & Tenure

Figure H-25 shows the relationship in Tumwater and its urban growth area between area median income, the housing allocation for each of the income groups, the housing types most affordable for the income groups, and housing tenure.

This information informs the density ranges and permitted types of residential uses in land use designations and zone districts in the Land Use Element and Tumwater's development regulations.

Figure H-25. 2045 Tumwater & Urban Growth Area Housing Need Allocation by Area Median Income, Housing Type, & Tenure.

0-30% AMI	30-50% AMI	50-80% AMI	80-120% AMI	Above 120% AMI
Housing Allocation: **1,724 units** 26% of total	**Housing Allocation:** **1,033 units** 15% of total	**Housing Allocation:** **541 units** 8% of total	**Housing Allocation:** **1,036 units** 16% of total	**Housing Allocation:** **2,342 units** 35% of total
Housing Type: Low-rise and Mid-rise Multifamily (5+ housing Units)	**Housing Type:** Low-rise and Mid-rise Multifamily (5+ housing Units	**Housing Type:** Low-rise and Mid-rise Multifamily (5+ housing Units) or Middle Housing	**Housing Type:** Low-rise and Mid-rise Multifamily (5+ housing Units) or Middle Housing	**Housing Type:** Single- Family or Middle Housing
Rental: Public support needed	**Rental:** Public support needed	**Rental:** Incentives needed **Home Ownership:** Subsidy or incentives needed	**Rental or Home Ownership:** Incentives or zoning flexibility needed	**Market Rent and Home Ownership**

Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, 2025.
Notes: PSH is permanently supported housing and AMI is area median income. Numbers may not add to totals due to rounding.

1) Changes from 2020 to 2045

Figure H-26 and Table H-25 compare housing demand for Tumwater and its urban growth area from 2020 to 2045 for each household income type.

The primary change between 2020 and 2045 in terms of housing demand by area median income groups is a greater proportion of housing for households under 50 percent and above 120 percent and a reduction in the proportion of housing for households between 50 percent and 120 percent.

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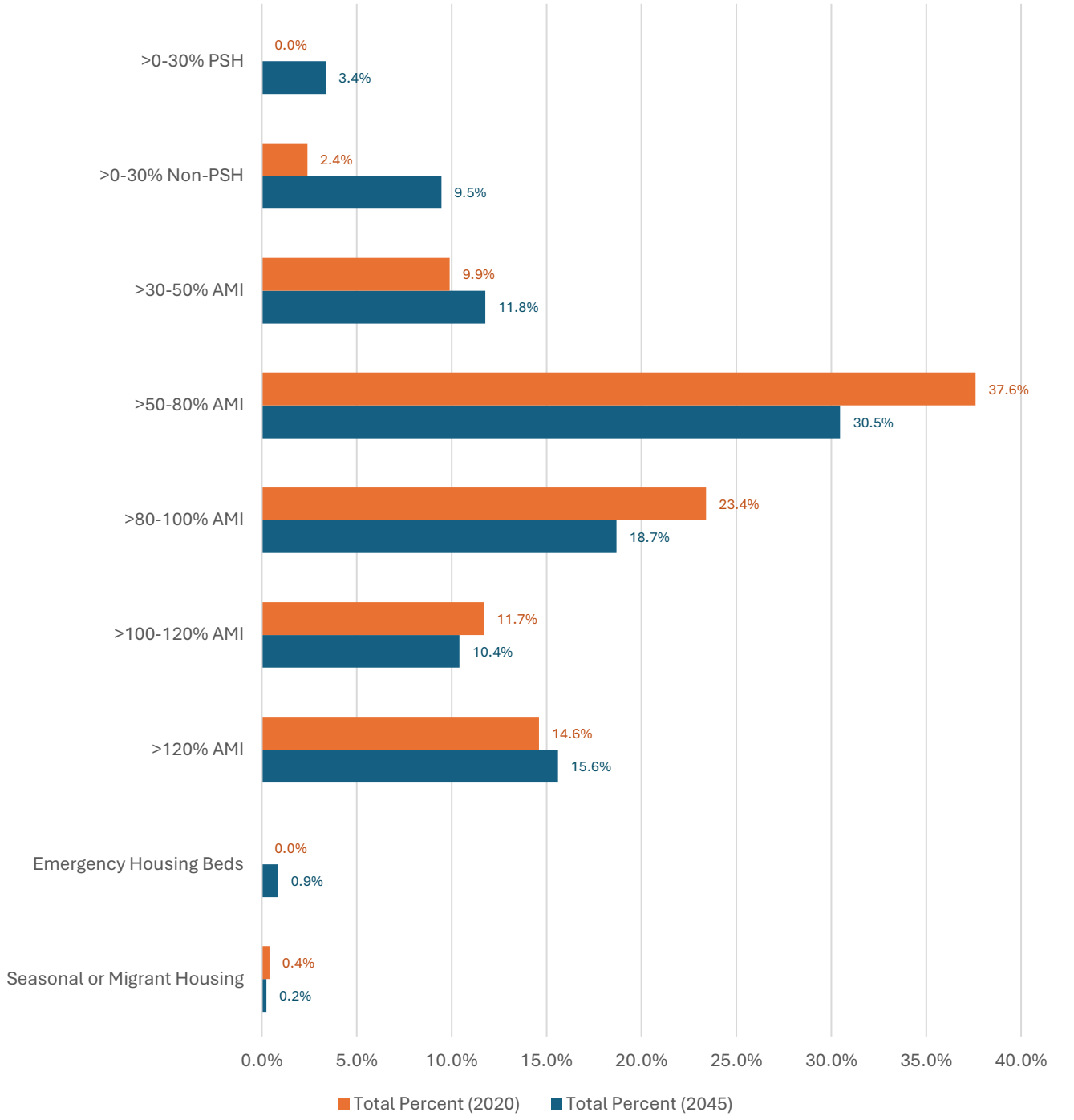
Figure H-26. Projected Housing Demand by Income in Tumwater & Urban Growth Area, 2020 to 2045.



Sources: U.S. Department of Housing and Urban Development Affordability Strategy (CHAS), 2014-18 Data, Washington State Department of Commerce, and Thurston Regional Planning Council, 2023.
Note: PSH is permanently supported housing and AMI is area median income.

Housing Element

Part 2 – Technical Information

Table H-25. Projected Housing Demand by Income in Tumwater & Urban Growth Area, 2020 to 2045.

	Total	PSH	Non-PSH	>30-50% AMI	>50-80% AMI	>80-100% AMI	>100-120% AMI	>120% AMI	Emergency Housing Beds	Seasonal or Migrant Housing
City and UGA (2020)	**12,274**	0	295	1,219	4,614	2,870	1,437	1,788	0	51
Total Percentage (2020)	**100%**	**0%**	**2.4%**	**9.9%**	**37.6%**	**23.4%**	**11.7%**	**14.6%**	**0.0%**	**0.4%**
City and UGA (2045)	**21,466**	723	2,031	2,528	6,540	4,010	2,235	3,349	184	0
Total Percentage (2045)	**100%**	**3.4%**	**9.5%**	**11.8%**	**30.5%**	**18.7%**	**10.4%**	**15.6%**	**0.9%**	**0.2%**

Sources: U.S. Department of Housing and Urban Development Affordability Strategy (CHAS), 2014-18 Data, Washington State Department of Commerce, and Thurston Regional Planning Council, 2023.

Note: PSH is permanently supported housing, AMI is area median income, and UGA is Tumwater's urban growth area.

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2) Housing Types and Income

Not all housing types are appropriate for meeting all housing needs. New housing affordability depends partly on its type, which varies with land and construction costs per unit.

For instance, a new single-family house on a large lot is the most expensive type of home to produce per unit. New homes often need an income of over 150 percent area median income to afford. Multifamily homes, such as apartment buildings, can be produced at a much lower cost per unit.

Table H-26 lists the housing types by income level for Tumwater. It shows the lowest income level that typically can be served.

Table H-26. Housing Types with Tumwater Income Thresholds.

Income Level and Housing Type	Percent of Tumwater Area Median Income	Equivalent 2024 Household Income for a Household of Four
Extremely Low Income – Multifamily with Subsidies and/or Incentives	Less than 30%	Less than $35,000
Very Low Income – Multifamily with Subsidies and/or Incentives	30 to 50%	$35,000 to $58,350
Low Income – Multifamily with Subsidies and/or Incentives	50 to 80%	$58,350 to $93,350
Moderate Income - Middle Housing or Multifamily at Market Rate	80 to 120%	$93,350 to $116,688
Higher Income – Detached Single Family Units, Middle Housing, or Multifamily	More than 120%	More than $116,688
Permanent Supportive Housing	Subsidized, leased housing with no limit on length of stay that prioritizes people who need comprehensive support services to retain tenancy and utilizes admissions practices designed to use lower barriers to entry than would be typical for other subsidized or unsubsidized rental housing, especially related to rental history, criminal history, and personal behaviors.	

Income Level and Housing Type	Percent of Tumwater Area Median Income	Equivalent 2024 Household Income for a Household of Four
Emergency Housing	Temporary indoor accommodations for individuals or families who are homeless or at imminent risk of becoming homeless that is intended to address the basic health, food, clothing, and personal hygiene needs of individuals or families. Emergency housing may or may not require occupants to enter into a lease or an occupancy agreement.	
Emergency Shelter	Facilities that provide a temporary shelter for individuals or families who are currently homeless Emergency shelter may not require occupants to enter into a lease or an occupancy agreement. Emergency shelter facilities may include day and warming centers that do not provide overnight accommodations.	

Source: Equivalent household income for a family of four is from U.S. Department of Housing and Urban Development Income Eligibility Limits, 2025.

3) Accessory Dwelling Units

Within urban areas of Thurston County, including cities, towns, and unincorporated urban areas, the land capacity analysis projected 565 accessory dwelling units across 11,886 potential accessory dwelling unit lots. Potential lots have only one single-family unit and no additional dwellings and are located in areas platted prior to 1970.

For the land capacity analysis, Tumwater requested revisions to the accessory dwelling unit assumptions in its urban areas based on observed or expected trends. These are shown in Table H-27.

Table H-27. Estimate of Accessory Dwelling Unit Capacity in Tumwater.

	Accessory Dwelling Units		Potential Accessory Dwelling Unit Lots
	Adopted Forecast	Adjustments to Land Capacity Analysis	
City	73	No Change	1,536
Urban Growth Area	0	10	0
Total	73	10	1,536

Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, 2025.

D. Other Specific Housing Needs

The Growth Management Act requires that Tumwater provide sufficient land for government assisted housing, group homes, and foster care homes.

1) Government Assisted Housing

Government assisted housing means federal, state, local, or some combination of funding that

makes the housing possible. This usually takes the form of the Housing Choice Voucher program housing through the federal government or federal low interest construction loans for low-income people.

Sufficient land for residential housing ensures that sufficient land is available for government-assisted housing.

When possible, this type of housing should be located on or near public transit routes, because very often those using government assisted housing are dependent on public transportation.

2) Manufactured Housing

Manufactured housing refers to housing that is mobile in nature and permitted under federal Housing and Urban Development standards, which are less restrictive than the Uniform Building Code standards. These houses can be less expensive than conventional "stick-built" homes. Historically, these housing units looked more like trailers than houses, but this has changed dramatically.

Because of the design changes and recent housing cost increases, the Housing Element recommends continuing to allowing manufactured housing on low density residential lots as a means to open up the supply of vacant land for this use and increase housing options, which will help control prices.

3) Group & Foster Care Homes

Group homes are facilities that care for people with a variety of disabilities, including adult family homes, which make it possible for them to live with assistance. Foster care homes provide homes for children that for some reason are unable to live with their biological parents.

TMC Title 18 Zoning allows group and foster care homes as a permitted use in all zoning classifications, as required by the State of Washington. Because of these amendments, land for group and foster care facilities is provided for adequately.

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4. Racially Disparate Impacts, Exclusion, & Displacement

A. Background

1) State Assessment Process

In 2021, the Washington State Legislature passed HB 1220 (Chapter 254, Laws of 2021) as an amendment to the Growth Management Act. The law required that Tumwater assess the racially disparate impacts of existing housing policies as part of its Comprehensive Plan update. Conditions that indicate that housing policies have racially disparate impacts include segregation, cost burden, displacement, educational opportunities, and health disparities.

According to state guidance, there are five steps to understanding and addressing racially disparate impacts:

Step 1: Engage the Community

Step 2: Gather & Analyze Data

Step 3: Evaluate Policies

Step 4: Revise Policies

Step 5: Review & Update Regulations

This chapter addresses Step 2 and Step 3. Step 1 was addressed as part of the Comprehensive Plan and Housing Element community outreach and stakeholder process. The goals, policies, and draft implementation actions that are the results of the process completed in Step 4 are found in Part 1 of the Housing Element. Step 5 is a part of the Development Code update process that occurred at the same time as the update of the Housing Element.

This chapter includes a summary of findings of Step 2 and Step 3 based on data from the U.S. Census Bureau, U.S. Department of Housing and Urban Development, and other sources. These findings in turn inform the policy evaluations and recommendations in the Housing Element.

2) Intended Results

Housing in Tumwater is the product of many forces including policies, regulations, macroeconomic changes, lending practices, costs of development, and individual preferences. HB 1220 (Chapter 254, Laws of 2021) requires that Tumwater undo policies and practices that cause racial disparities, displacement, and housing exclusion and create policies and actions to mitigate these impacts.

Examples of the effects of these policies and practices include:

- Past practices like redlining and restrictive covenants have denied many minorities and low-income households the opportunity to share in wealth building offered by homeownership, resulting in lasting racial and economic inequities seen today.
- Homeownership is out of reach of many minorities and low-income households, making these households particularly susceptible to housing insecurity and displacement caused by rising rents.
- Higher poverty rates in certain lower income and minority neighborhoods

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have contributed to disinvestment of capital, businesses, and services from these neighborhoods.

- Compared to wealthier neighborhoods, residents in lower income and minority neighborhoods are often less engaged and less represented in local government processes and decisions that directly affect their neighborhoods and quality of life.

While all households are impacted by the higher house buying and rental costs identified in the housing needs assessment in Chapter 2, communities of color often spend more of their income on housing. They tend to live in lower quality housing and are less likely to own their homes. These communities are often more susceptible to housing shortages and rising costs.

Land use and related policies contribute to housing conditions in Tumwater as they can impact who has access to "areas of opportunity" in our communities, including access to healthy and safe environments, recreational opportunities, education, jobs, nutrition, and other basic needs. Land use decisions also shape the cost to produce housing, by defining the location, types, and sizes of housing that can be built. Most directly, land use decisions shape the cost to produce housing, and thus the affordability and accessibility of housing for different households, and, more specifically, determine if and where households can live within a community, based on their income.

Increasing housing supply and opportunity to housing, specifically at prices affordable to Black, Indigenous, and People of Color households, is one approach to reduce equity-related effects that discriminatory practices have created.

As part of the update of the Housing Element, Tumwater reviewed the history of racially disparate impacts, exclusion, and displacement, and has taken actions to begin to undo patterns of racial segregation and exclusion in housing and land use policy making. Part of this work was done in the regional Displacement Study found in Appendix E.

Tumwater's review and updates to housing and land use policies and regulations are intended to provide equitable opportunities for safe and healthy housing for all members of the community.

B. Historical Context

Throughout the history of the United States, a combination of laws and practices have determined where specific groups of people live, what opportunities they have access to, and their ability to build wealth through stable housing. Unfortunately, many of these policies explicitly or implicitly benefited white residents at the expense of all others.

The legacy of policies like redlining, which used racial criteria in determining which neighborhoods were suitable for government-backed loans and racial covenants explicitly excluding certain groups from owning specific properties continues to impact non-white communities today.

While Tumwater has acknowledged the harm of these policies, many of which are no longer legal,

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there are still policies in effect today that hold Tumwater back from correcting these systemic harms. These can include policies that reference general concepts like "neighborhood character," as well as practices such as downzoning which resulted in exclusive single-family residential zoning in place of middle or higher density zoning that prevented the continued construction of housing types affordable across incomes.

1) Racial Covenants

This section contains a historical review of the racial covenants that caused racially disparate impacts in Tumwater as a starting point in understanding present-day conditions.

Throughout the United States, racial covenants were used to exclude certain races and religious groups from residing in specific neighborhoods, creating exclusive areas for white, Christian residents. These were legally enforceable from 1927 to 1968.

The University of Washington Racial Restrictive Covenants Project mapped and documented neighborhoods in Washington state where racial restrictive covenants were imposed in the decades when they were legal.

Most restrictions in Thurston County date from 1928 to 1955 and covered a large percentage of subdivisions developed in that period. The project documented more than 1,600 restricted properties in 35 subdivisions in Thurston County. Table H-28 shows the subdivisions or plats identified with racial restrictive covenants in Tumwater.

Table H-28. Subdivisions or Plats with Historical Racial Restrictive Covenants in Tumwater.

Subdivision or Plat	Date Approved	Properties Covered	Document Type
Brewer Extension to Mountain View	1940	20	Deed
Des Chutes Addition	1946	54	CCR
Fred W. Carlyon's Sunset Addition[1]	1940	55	Deed
F.W. Carlyon Fair Ground Acres Tracts Division Number 1[1]	1935	7	Deed
F.W. Carlyon Fair Ground Acres Tracts Division Number 3[1]	1927	16	Deed
F.W. Carlyon Sunset Addition[1]	1940	55	Deed
Glennwood Park	1941	59	Deed
Manschraek's	1940	18	Deed
Mountain View Addition[1]	1938	105	Deed
Scott's Addition	1951	29	Plat

Source: https://depts.washington.edu/covenants/map_restrictions_thurston.shtml, Racial Restrictive Covenants Project Washington State, 2025.
Note: [1.] Partly in Tumwater and partly in Olympia.

Neighborhoods without covenants often practiced racial exclusion by other means. 1940, Thurston's population of 37,285 included only 33 Black people and 315 other nonwhites, including members of the Nisqually nation. As the population increased to 55,049 by 1960, the

proportion of 690 non-white residents remained miniscule and exclusionary practices ensured that Thurston County remained 98.7 percent white.

C. Communities of Interest

The population of Tumwater has changed from 81.5 percent White in 2013 to 74.6 percent White in 2023, as shown in Table H-34, The percentage White residents has been dropping since 1970 as the population has become more diverse over time.

Table H-29 shows the number and percentage for each race and ethnicity in Tumwater and Thurston County and Tables H-30 and H-31, and Figures H-27 and H-28 show the change in Tumwater and Thurston County from 2013 to 2023.

Table H-29. Individual Race or Ethnic Origin in Tumwater and Thurston County, 2023.

Race and Hispanic or Latino Origin	Tumwater		Thurston County	
	Total	Percent	Total	Percent
Race	**26,519**	**100.00%**	**299,003**	**100.00%**
One Race	23,176	87.40%	261,875	87.60%
White	19,782	74.60%	213,717	71.50%
Black or African American	997	3.80%	11,202	3.70%
American Indian and Alaska Native	304	1.10%	3,833	1.30%
Asian	1,120	4.20%	18,889	6.30%
Native Hawaiian and Other Pacific Islander	109	0.40%	3,419	1.10%
Some Other Race	864	3.30%	10,815	3.60%
Two or More Races	3,343	12.60%	37,128	12.40%
Ethnicity	**26,519**	**100.00%**	**299,003**	**100.00%**
Hispanic or Latino	2,409	9.10%	32,779	11.00%
Not Hispanic or Latino	**24,110**	**90.90%**	**266,224**	**89.00%**

Source: 2023 U.S. Census American Community Survey 5-Year Estimates, Table DP05, Thurston County and Tumwater.

Table H-30. Individual Race or Ethnic Origin in Tumwater, 2013 and 2023.

Race and Hispanic or Latino Origin	2013		2023	
	Total	Percent	Total	Percent
Race	**17,813**	**100.0%**	**26,519**	**100.0%**
One Race	16,506	92.7%	23,176	87.4%
White	14,521	81.5%	19,782	74.6%
Black or African American	665	3.7%	997	3.8%
American Indian and Alaska Native	382	2.1%	304	1.1%

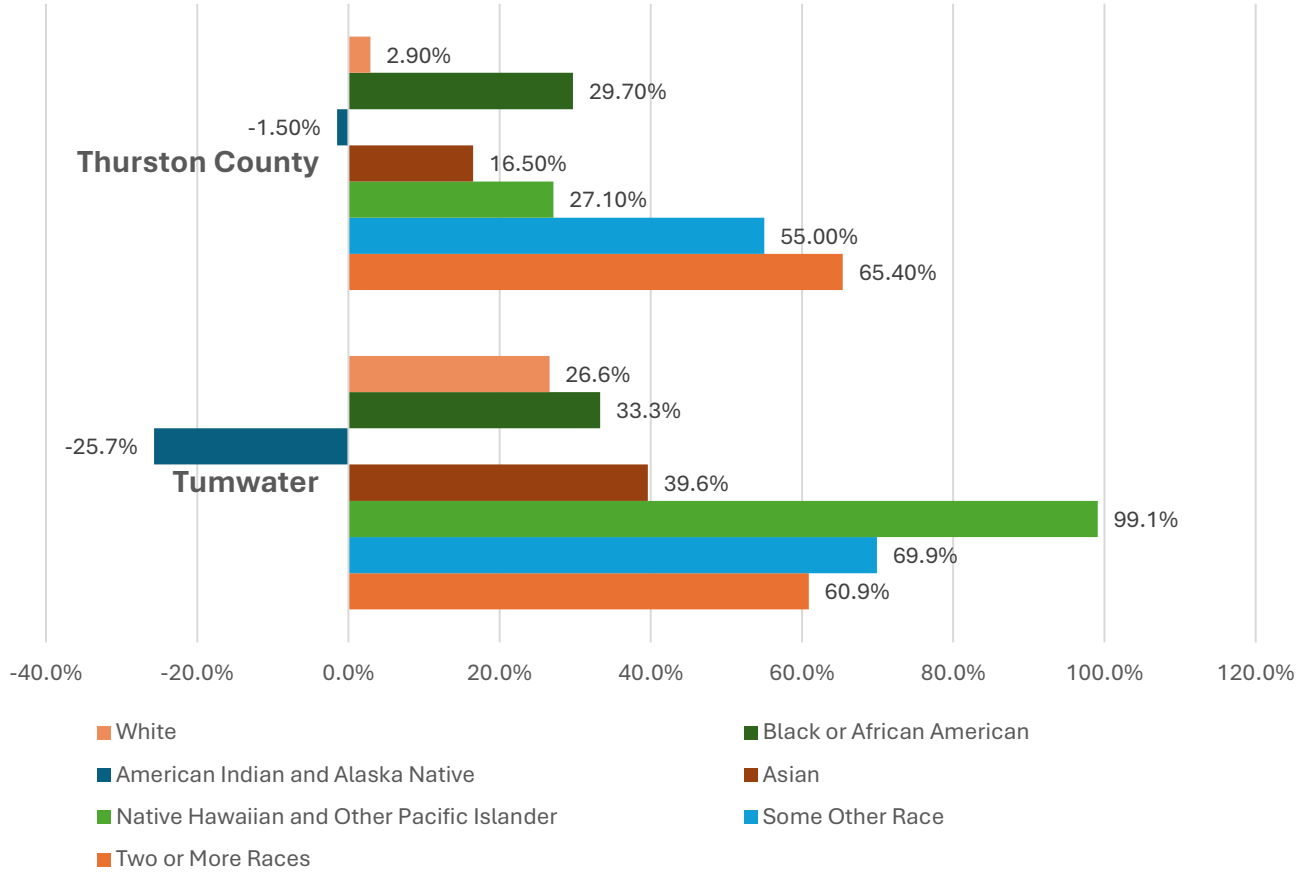
Housing Element

Part 2 – Technical Information

Race and Hispanic or Latino Origin	2013		2023	
	Total	Percent	Total	Percent
Asian	677	3.8%	1,120	4.2%
Native Hawaiian and Other Pacific Islander	1	0.0%	109	0.4%
Some Other Race	260	1.5%	864	3.3%
Two or More Races	1,307	7.3%	3,343	12.6%
Ethnicity	**17,813**	**100.0%**	**26,519**	**100.0%**
Hispanic or Latino	836	4.7%	2,409	9.1%
Not Hispanic or Latino	16,977	95.3%	24,110	90.9%

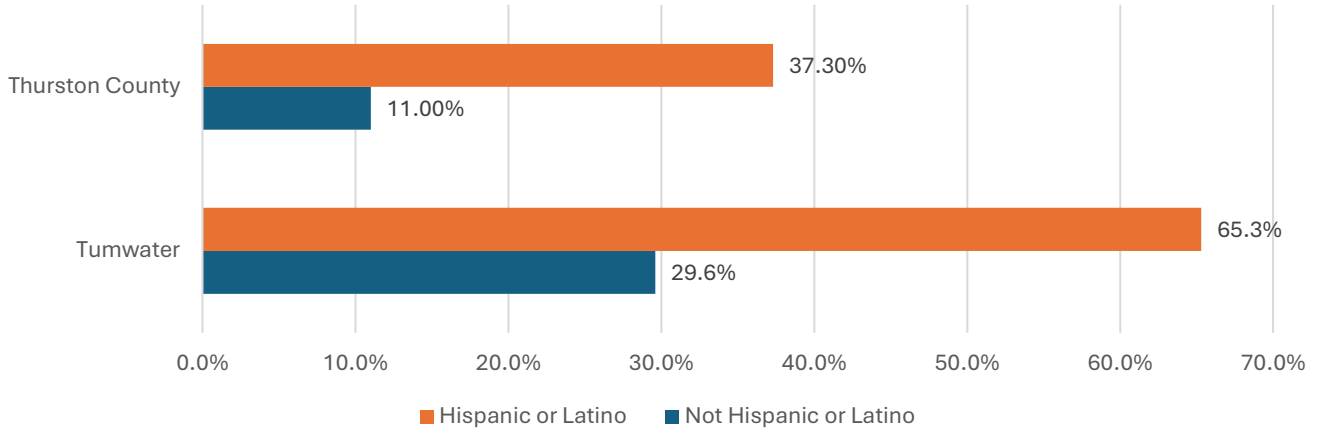
Source: 2023 U.S. Census American Community Survey 5-Year Estimates, Table DP05.

Figure H-27. Change in Individual Race in Tumwater and Thurston County, 2013 and 2023.



Source: 2013 and 2023 U.S. Census American Community Survey 5-Year Estimates, Table DP05, Thurston County and Tumwater.

Figure H-28. Change in Individual Ethnic Origin in Tumwater and Thurston County, 2013 and 2023.



Source: 2013 and 2023 U.S. Census American Community Survey 5-Year Estimates, Table DP05, Thurston County and Tumwater.

Table H-31. Change in Individual Race or Ethnic Origin in Tumwater and Thurston County, 2013 and 2023.

Race and Hispanic or Latino Origin	Tumwater			Thurston County		
	2013	2023	Change	2013	2023	Change
Race	**17,813**	**26,519**	**8,706**	**256,080**	**296,640**	**40,560**
One Race	16,506	23,176	**6,670**	243,731	260,918	**17,187**
White	14,521	19,782	**5,261**	213,281	219,738	**6,457**
Black or African American	665	997	**332**	6,935	9,863	**2,928**
American Indian and Alaska Native	382	304	**-78**	3,494	3,444	**-50**
Asian	677	1,120	**443**	14,360	17,198	**2,838**
Native Hawaiian and Other Pacific Islander	1	109	**108**	2,240	3,072	**832**
Some Other Race	260	864	**604**	3,421	7,603	**4,182**
Two or More Races	1,307	3,343	**2,036**	12,349	35,722	**23,373**
Ethnicity	**17,813**	**26,519**	**8,706**	**256,080**	**296,640**	**40,560**
Hispanic or Latino	836	2,409	**1,573**	19,128	30,528	**11,400**
Not Hispanic or Latino	16,977	24,110	**7,133**	236,952	266,112	**29,160**

Source: 2013 and 2023 U.S. Census American Community Survey 5-Year Estimates, Table DP05, Thurston County and Tumwater.

Tumwater and Thurston County are both become more diverse and share similar population percentages for individual groups, with Tumwater having slightly higher percentage of White and Black or African Americans and smaller percentage of Asian and those of Hispanic or Latino ethnicity.

Among Black, Indigenous, and People of Color residents, the largest groups in Tumwater in 2023 are those who identify as Two or More Races at 12.6 percent followed by Hispanic or

Latino residents of any race which make up 9.1 percent of the population.

Note that many people with native ancestry identify as two or more races. Tumwater has three tribal communities: the Nisqually Indian Tribe, the Confederated Tribes of the Chehalis Reservation, and the Squaxin Island Tribe.

D. Racially Disparate Impacts

1) Poverty Level

Tables H-32 and H-33 show the percentage of race and ethnic groups below the poverty line in Thurston County and Tumwater as individuals and as households. While there is a margin of error in the survey data, it is apparent that some race and ethnic groups are doing less well than others relative to the overall County numbers, notably Black or African Americans in Tumwater, while others, such as Asians, or those of Hispanic or Latino origin of any race are doing better.

Table H-32. Percent Below Poverty Level of Individuals by Race or Ethnic Origin in Tumwater and Thurston County, 2023.

Race and Hispanic or Latino Origin	Tumwater		Thurston County	
	Total	Total	Percent Below Poverty Level	Percent Below Poverty Level
Race				
One Race				
White	19,522	210,208	8.1%	7.7%
Black or African American	972	10,932	14.9%	24.0%
American Indian and Alaska Native	289	N/A	N/A	18.0%
Asian	1,120	18,429	20.0%	2.6%
Native Hawaiian and Other Pacific Islander	97	N/A	N/A	0.0%
Some Other Race	858	N/A	N/A	25.6%
Two or More Races	3,308	36,943	13.5%	0.3%
Ethnicity				
Hispanic or Latino origin (of any race)	2,370	32,200	9.9%	4.2%
White alone, not Hispanic or Latino	18,638	201,502	8.3%	7.8%

Source: 2023 U.S. Census American Community Survey 5-Year Estimates, Table S1701.
Note: N/A means no data was available.

Table H-33. Percentage Below Poverty Level of Households by Race or Ethnic Origin in Tumwater and Thurston County, 2023.

Families with a Householder Who Is –	Tumwater		Thurston County	
	Total	Total	Percent Below Poverty Level	Percent Below Poverty Level
Race				
One Race				
White	5,251	57,994	4.9%	5.7%
Black or African American	193	N/A	N/A	23.3%
American Indian and Alaska Native	44	N/A	N/A	0.0%
Asian	236	N/A	N/A	0.0%
Native Hawaiian and Other Pacific Islander	0	N/A	N/A	-
Some Other Race	257	N/A	N/A	26.1%
Two or More Races	675	8,206	11.8%	0.0%
Ethnicity				
Hispanic or Latino origin (of any race)	580	N/A	N/A	3.1%
White alone, not Hispanic or Latino	5,100	56,042	5.0%	5.5%

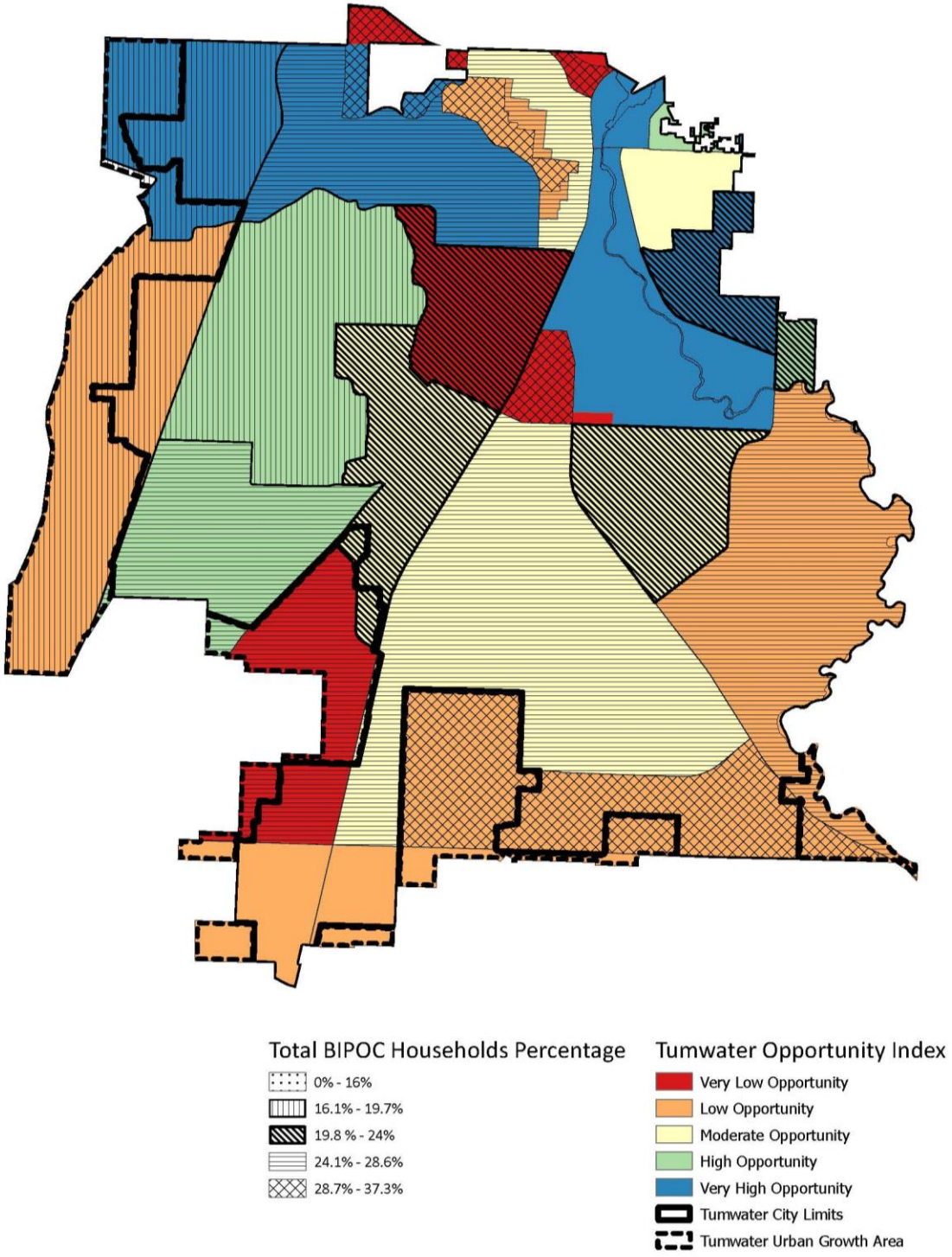
Source: 2023 U.S. Census American Community Survey 5-Year Estimates, Table S1702.
Notes: N/A means no data was available. The grouping of households by race or ethnicity is based on the racial and ethnic status of the householder, or the person in whose name the home is owned or rented.

2) Disparities in Household Income

In Tumwater, Black, Indigenous, and People of Color households earn less than Thurston County and White alone averages.

Figure H-29 combines the percentage of Tumwater's Black, Indigenous, and People of Color Households with an income below poverty level with the Tumwater Opportunity Index.

Figure H-29. Percentage of Black, Indigenous, and People of Color Households by Census Block Groups & the Tumwater Opportunity Index.

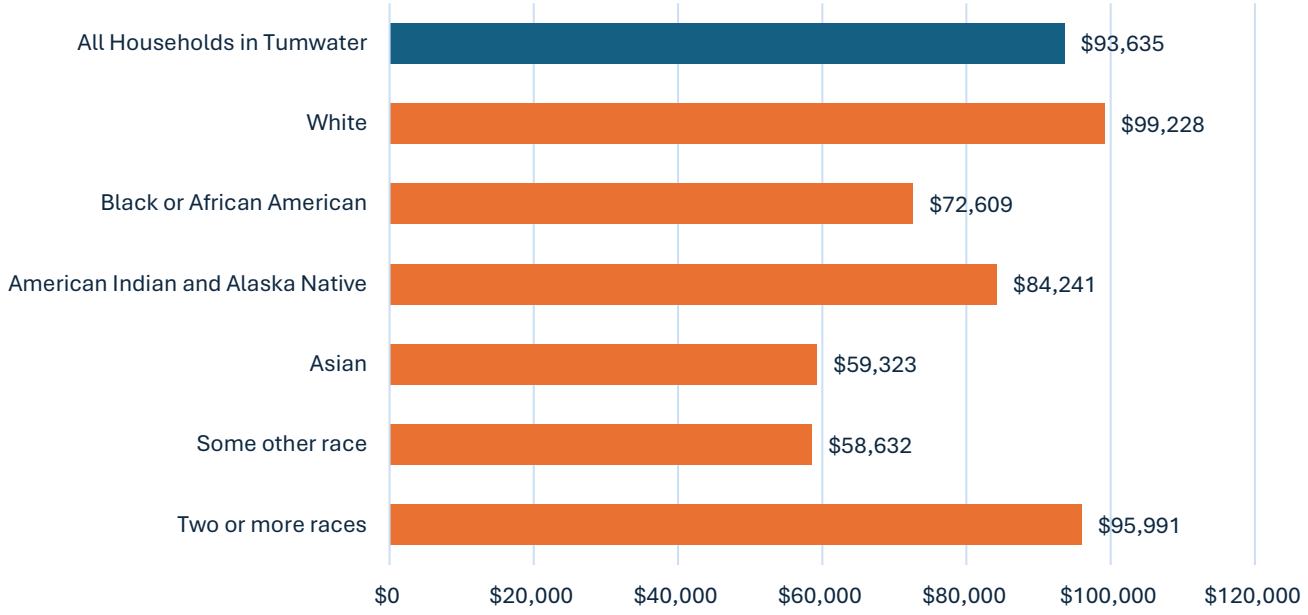


Sources: Tumwater Transportation and Engineering Department and 2020 Decennial U.S. Census.

Figures H-30 and H-31 and Table H-34 show the median income by race and ethnicity in Tumwater.

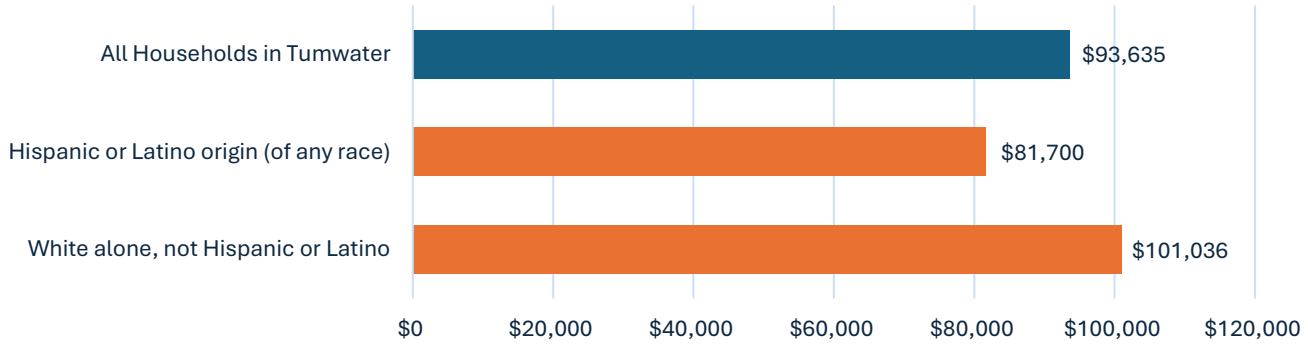
White alone households, not Hispanic or Latino, have the highest median income. They are followed by American Indian, Alaska Native, Hispanic and Latino, Black or African American, and Asian households. Some other race households have the lowest median income.

Figure H-30. Household Income by Race of Householder in Tumwater, 2023.



Source: 2023 U.S. Census American Community Survey 5-Year Estimates, Table S1903.
Note: The grouping of households by race or ethnicity is based on the racial and ethnic status of the householder, or the person in whose name the home is owned or rented.

Figure H-31. Household Income by Hispanic or Latino Origin of Householder in Tumwater, 2023.



Source: 2023 U.S. Census American Community Survey 5-Year Estimates, Table S1903.
Note: The grouping of households by race or ethnicity is based on the racial and ethnic status of the householder, or the person in whose name the home is owned or rented.

Table H-34. Household Income by Race & Hispanic or Latino Origin of Householder in Tumwater and Thurston County, 2023.

Race and Hispanic or Latino Origin	Tumwater			Thurston County		
	Number	Percent	Median income	Number	Percent	Median income
All Households	10,863	100.0%	$93,635	119,786	100.0	$93,170
One Race						
White	8,632	79.50%	$99,228	92,374	77.10%	$95,663
Black or African American	362	3.30%	$72,609	N/A	N/A	$100,945
American Indian and Alaska Native	122	1.10%	$84,241	N/A	N/A	$81,403
Asian	379	3.50%	$59,323	N/A	N/A	$89,728
Native Hawaiian and Other Pacific Islander	50	0.50%	-	N/A	N/A	$110,775
Some other race	310	2.90%	$58,632	N/A	N/A	$67,602
Two or more races	1,008	9.30%	$95,991	12,007	10.00%	$88,163
Hispanic or Latino origin (of any race)	918	8.50%	$81,700	N/A	N/A	$82,485
White alone, not Hispanic or Latino	8,292	76.30%	$101,036	89,469	74.70%	$95,802

Source: 2023 U.S. Census American Community Survey 5-Year Estimates, Table S1903.
Notes: N/A means no data was available. The grouping of households by race or ethnicity is based on the racial and ethnic status of the householder, or the person in whose name the home is owned or rented.

3) Housing Cost Burden Disparities

Households with lower incomes are more likely to experience housing affordability challenges. Analyzing housing cost burdens by race and ethnicity reveals systemic disparities in housing affordability. These may come from discrimination, segregation, and unequal access to economic opportunities among different racial and ethnic groups.

Figure H-32 shows the housing cost burden as a percent of household income by racial and ethnic groups in Tumwater.

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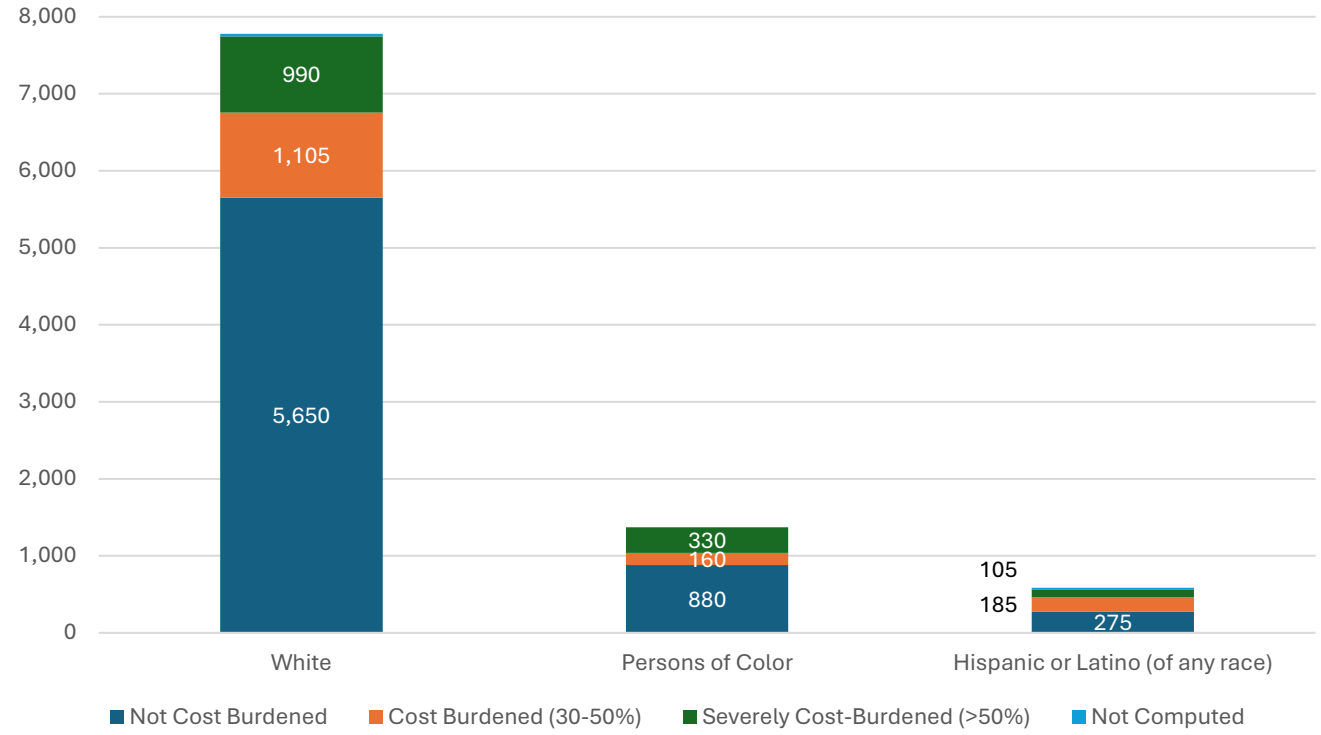
Figure H-32. Total Housing Cost Burden (Percent of Household Income) by Racial & Ethnic Group in Tumwater, 2021.



Source: U.S. Department of Housing and Urban Development Affordability Strategy (CHAS), Table 9, 2021

Figures H-33 and Table H-35 show the cost burdens for owner and rental households in Tumwater by income level for several racial and ethnic groups.

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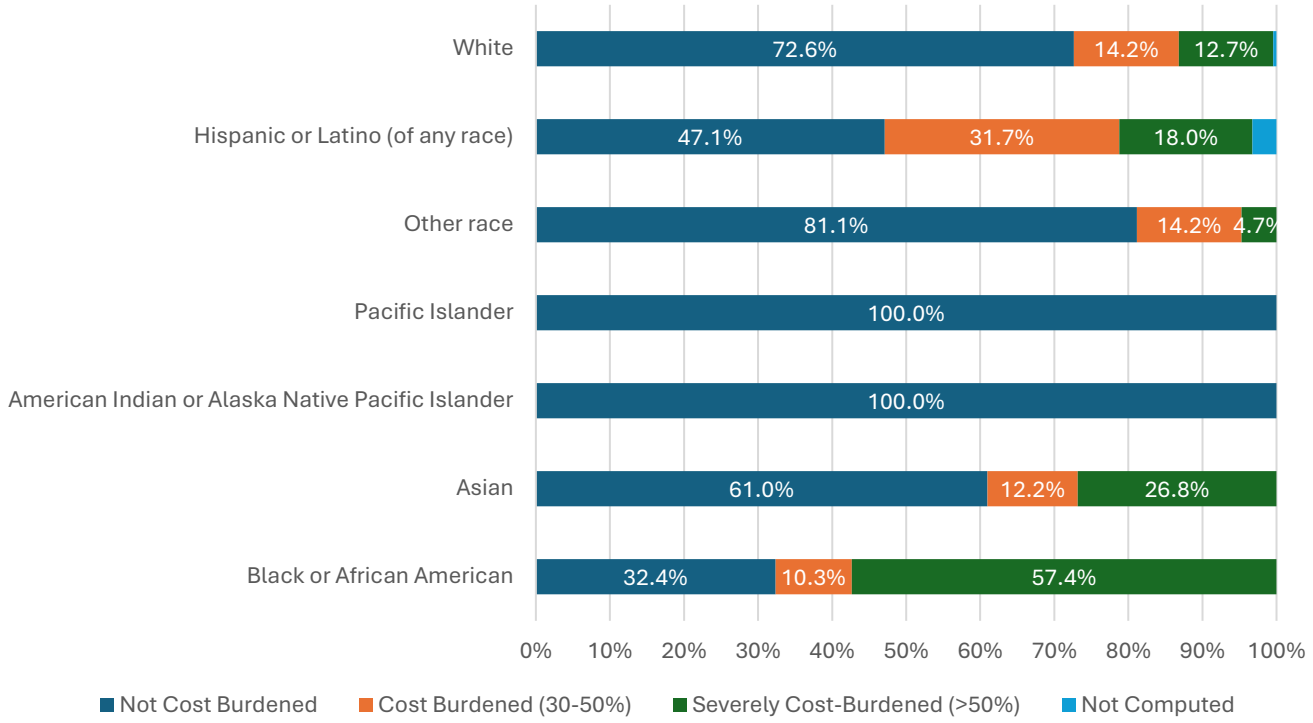
Figure H-33. Number of All Households by Cost Burden in Tumwater, 2021.



Source: U.S. Department of Housing and Urban Development Affordability Strategy (CHAS), Table 9, 2021

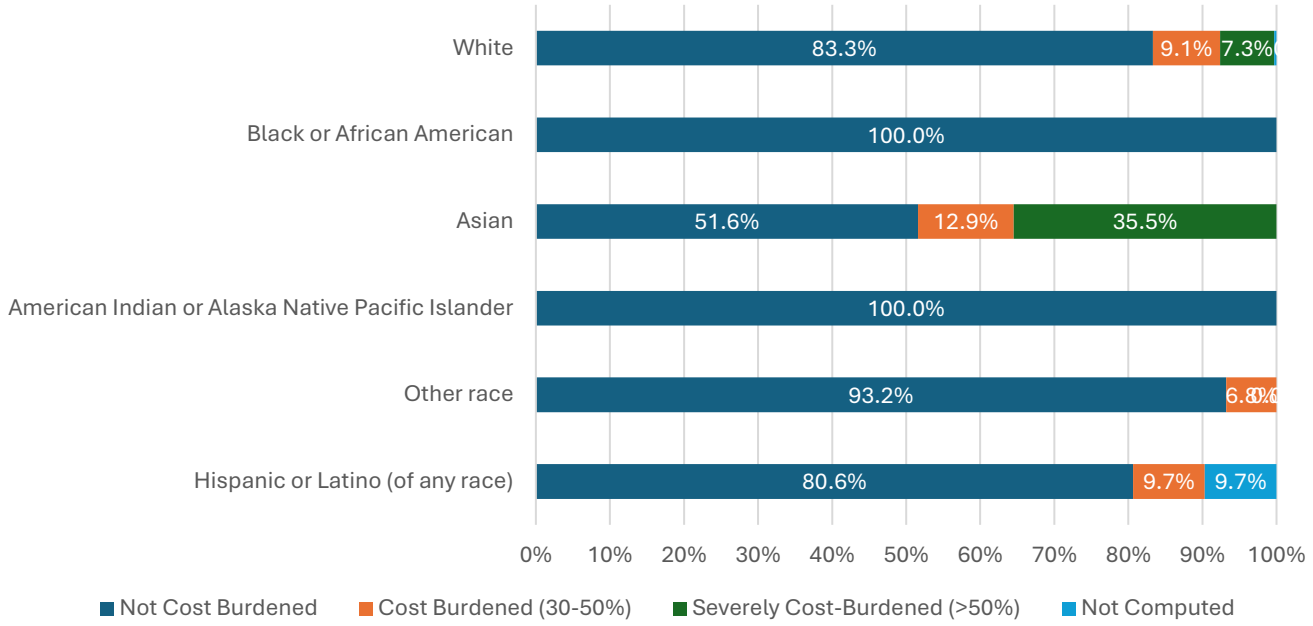
Table H-35. Number of All Households by Cost Burden in Tumwater, 2021.

All Households	White	Black or African American	Asian	American Indian or Alaska Native Pacific Islander	Pacific Islander	Other race	Hispanic or Latino (of any race)	Total
Not Cost Burdened	5,650	110	250	35	55	430	275	**6,805**
Cost Burdened (30-50%)	1,105	35	50	0	0	75	185	**1,450**
Severely Cost-Burdened (>50%)	990	195	110	0	0	25	105	**1,425**
Not Computed	35	0	0	0	0	0	19	**54**
Total	**7,780**	**340**	**410**	**35**	**55**	**530**	**584**	**9,734**

Source: U.S. Department of Housing and Urban Development Affordability Strategy (CHAS), Table 9, 2021

Figures H-34 and H-35 and Tables H-36 and H-37 and show the cost burdens for owner and rental households in Tumwater by income level for several racial and ethnic groups.

Figure H-34. Number of Owner Households by Cost Burden in Tumwater, 2021.



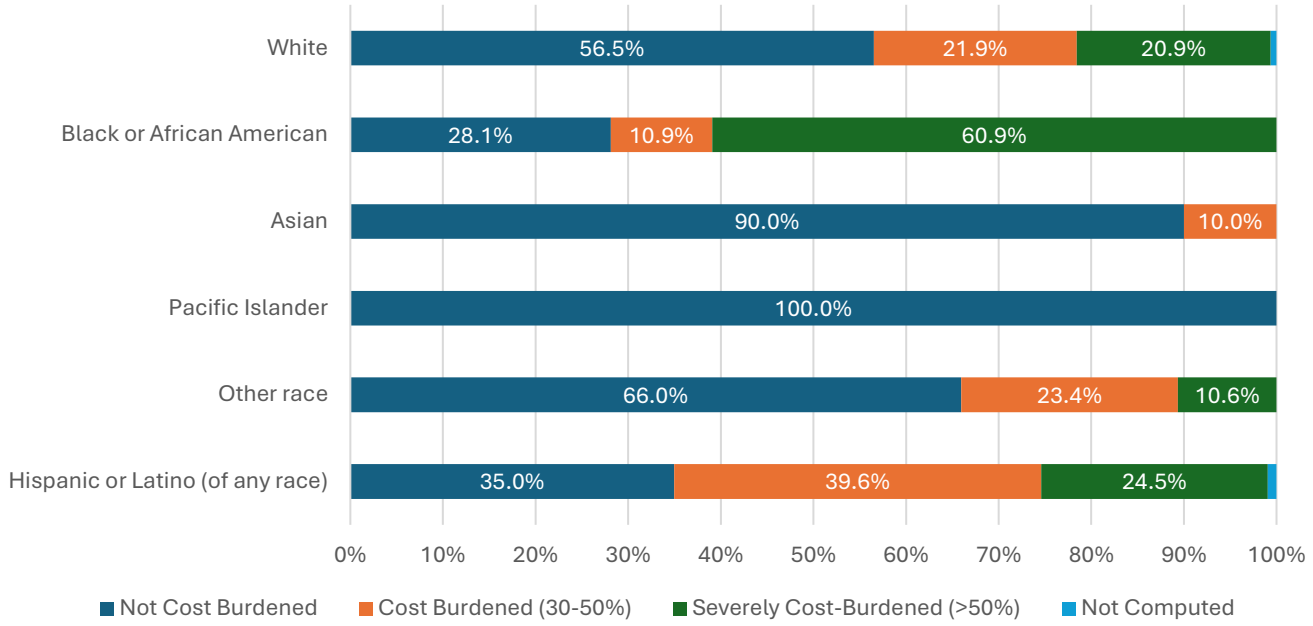
Source: U.S. Department of Housing and Urban Development Affordability Strategy (CHAS), Table 9, 2021

Table H-36. Number of Owner Households by Cost Burden in Tumwater, 2021.

Owner Households	White	Black or African American	Asian	American Indian or Alaska Native Pacific Islander	Pacific Islander	Other race	Hispanic or Latino (of any race)	Total
Not Cost Burdened	3,895	20	160	35	0	275	125	**4,510**
Cost Burdened (30-50%)	425	0	40	0	0	20	15	**500**
Severely Cost-Burdened (>50%)	340	0	110	0	0	0	0	**450**
Not Computed	15	0	0	0	0	0	15	**30**
Total	**4,675**	**20**	**310**	**35**	**0**	**295**	**155**	**5,490**

Source: U.S. Department of Housing and Urban Development Affordability Strategy (CHAS), Table 9, 2021

Figure H-35. Number of Renter Households by Cost Burden in Tumwater, 2021.



Source: U.S. Department of Housing and Urban Development Affordability Strategy (CHAS), Table 9, 2021

Table H-37. Number of Renter Households by Cost Burden in Tumwater, 2021.

Renter Households	White	Black or African American	Asian	American Indian or Alaska Native Pacific Islander	Pacific Islander	Other race	Hispanic or Latino (of any race)	Total
Not Cost Burdened	1,755	90	90	0	55	155	150	**2,295**
Cost Burdened (30-50%)	680	35	10	0	0	55	170	**950**
Severely Cost-Burdened (>50%)	650	195	0	0	0	25	105	**975**
Not Computed	20	0	0	0	0	0	4	**24**
Total	**3,105**	**320**	**100**	**0**	**55**	**235**	**429**	**4,244**

Source: U.S. Department of Housing and Urban Development Affordability Strategy (CHAS), Table 9, 2021

4) Disparities in Homeownership

In Tumwater, 60.1 percent of White and 75.6 percent Asian households own their homes. Homeownership is much lower for Black or African American (5.9 percent) and Hispanic or Latino (26.5 percent) households.

E. Exclusion

Exclusion means shutting out certain populations from housing in a specified area. This can be intentional or unintentional. It leads to non-inclusive impacts. One important indicator of exclusion is.

This can be seen in patterns of housing types as well as housing units that are owned or rented. While there are not clear neighborhood boundaries for racial or ethnic segregation in Tumwater, there is evidence to suggest in Tumwater that there is racial or ethnic segregation based on income and housing types after considering the margins of error in the data.

F. Displacement Risk

Displacement happens when a household is forced to move from its community due to things beyond their control. The Washington State Department of Commerce defines three types of displacement:

- **Economic Displacement:** Residents must move because of rising rent, property tax, or other costs.
- **Cultural Displacement:** Residents must move because their cultural community has left.
- **Physical Displacement:** Residents must move because of eviction, foreclosure, natural disasters, or poor housing quality.

1) State Requirements

The Growth Management Act requires Tumwater to assess displacement risk and to establish policies and regulations to mitigate displacement risk. A household is considered displaced if its place of residence is disrupted due to forces outside of its control and it is unable to find suitable replacement housing in the neighborhood.

Displacement risk analysis should inform land use policymaking to encourage redevelopment and reinvestment in existing neighborhoods while ensuring that existing neighborhood residents share in benefits of that redevelopment and reinvestment.

While a data-driven displacement risk analysis such as this demonstrates where there is an increased risk of displacement, community engagement with neighborhood representatives to confirm that the data analysis adequately reflects local experience is important.

2) Displacement Risk Analysis

The Housing Displacement Risk Analysis for the Cities of Lacey, Olympia, Tumwater, and Yelm in Appendix E analyzed the housing displacement risks in Tumwater.

The report analyzed historical policies, current trends, and community dynamics to arrive at actions that Tumwater can take to enhance housing security and promote equitable living conditions. The development of the analysis was informed by engagement with community stakeholders.

The Housing Displacement Risk Analysis focused on three areas in Tumwater:

1. Describing the populations at risk of housing displacement.
2. Evaluating the housing displacement risk metrics.
3. Outlining risk reduction policy avenues.

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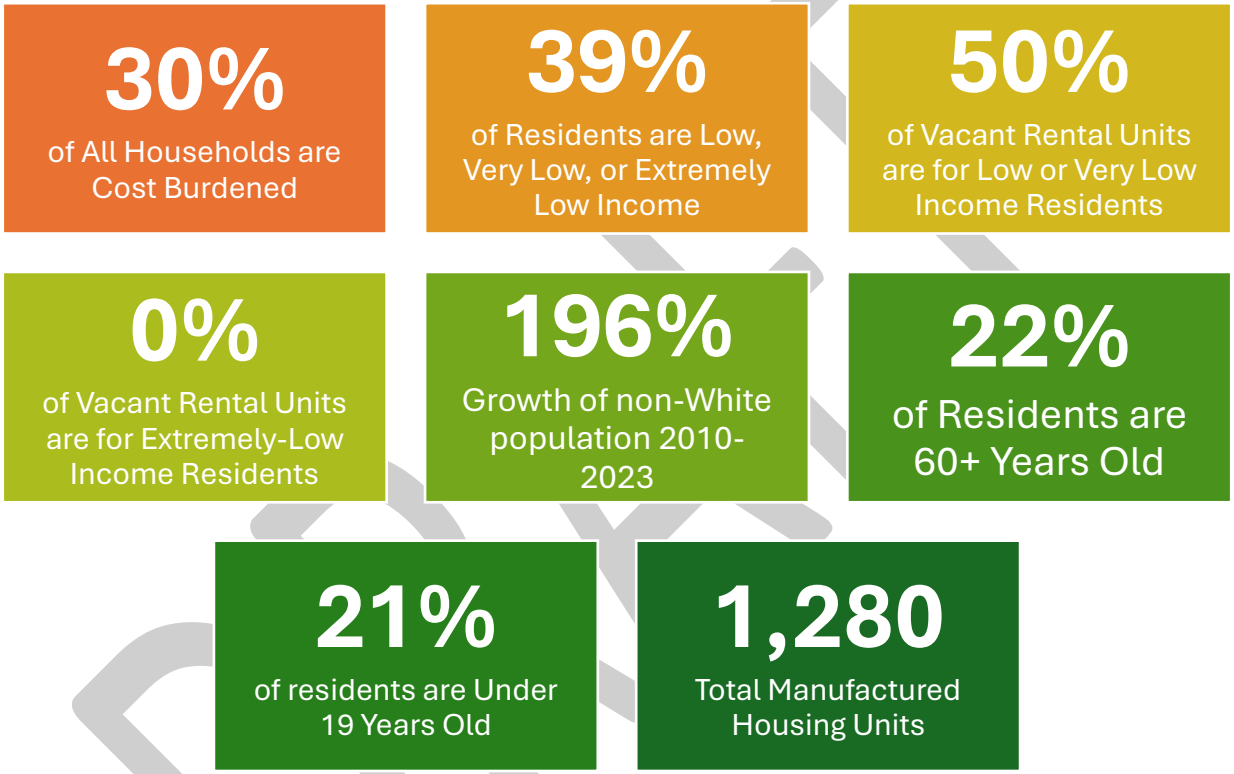
Economic displacement was the most prominent displacement risk identified in the report in Tumwater.

3) Tumwater Populations at Risk

Tumwater has experienced a significant growth in population diversity accompanied by an increase in income variability where four in ten residents are low, very low, or extremely low-income. Figure H-36 shows some of the demographic information related to that analysis.

Figure H-36. Areas of Housing Displacement Risk in Tumwater.



Source: Housing Displacement Risk Analysis for the Cities of Lacey, Olympia, Tumwater, and Yelm, 2025.

4) Policies to Reduce Housing Displacement

The Housing Displacement Risk Analysis identified the following policy avenues to reduce housing displacement risk in the Housing Element:

- A Community Land Trust style program for mobile home communities.
- A Tumwater program to support private, local, small scale ownership of mobile home communities. This builds on the Tumwater's mobile home housing stock and helps to preserve existing affordable stock.
- Increased staffing capacity to process accessory dwelling units quickly and reduce costs under Tumwater's control.

The following additional policy areas will be considered in the Housing Element to address displacement:

- Increasing homeownership opportunities for BIPOC communities to promote equity and help generational wealth.

5) Policy Evaluation Criteria

The Housing Displacement Risk Analysis proposed the following criteria to evaluate Housing Element policies:

- Does the policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?
- Does the policy incentivize and support the development of affordable and deeply affordable housing?
- Does the policy encourage adaptive reuse of existing residential units or other buildings where feasible?
- Does the policy incentivize or reduce barriers to developing diverse housing types including smaller homes?

G. Policy Evaluation

Based on the analysis in the sections above, there is a need for improvements to policies in Tumwater to reduce racially disparate impacts. Based on guidance provided by the Washington State Department of Commerce, Appendix F Policy Evaluation Matrix includes an analysis of drafts of new Housing Element and adopted Housing Action Plan policies to determine whether they reinforce historical patterns of segregation, displacement, and inequitable outcomes.

Taking a proactive approach in shaping policy to address these challenges will benefit all community members as Tumwater seeks to build a more equitable future.

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5. Housing Provisions

The Growth Management Act requires that Tumwater identify provisions for existing and future housing needs.

Chapter 5 summarizes the provisions identified for addressing the housing needs identified in the Housing Element.

A. Protection of Existing Housing Stock

One of the most important methods to maintain an adequate supply of housing is to retain existing housing. The existing housing stock in Tumwater is in good condition.

Policies to protect the quality of existing neighborhoods and encourage maintenance and improvement of the housing stock are addressed in the goals, policies, and implementation actions in Part 1 of the Housing Element.

B. Low & Moderate Income Provisions

There is increasing demand in Tumwater for affordable housing serving those with incomes under 80 percent of area median income. Federal, state, and local funding for both the construction of new units and subsidies for residents to live in these types of housing and related services is limited.

It is difficult for the private sector to build these types of housing and make a profit and for the public sector to obtain the funding needed for construction and ongoing rental supports, maintenance, and other support services.

Low and moderate income households have a variety of needs in addition to the provision of adequate shelter. Of course, lack of adequate shelter is usually foremost among a multitude of needs. Having this exceedingly small income makes obtaining shelter difficult.

In addition, there are many reasons for this low income status, such as mental and physical challenges that require assistance. This assistance is typically provided through public and private human service agencies. The most effective way for Tumwater to assist the needs of low income people in the Tumwater community is through funding assistance to established human resource agencies.

C. Employment & Unemployment

Employment quantity and quality are important considerations when considering housing affordability. The availability of jobs that pay a wage adequate to enable people to afford housing is of paramount importance. The Land Use Element addresses the adequate provision of land for employment and their physical relationship to housing the Tumwater.

The unemployment rate is important for the obvious reason that unemployed people have a challenging time obtaining and retaining housing. Unemployment trends in Thurston County have closely mirrored national unemployment figures.

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D. Gaps in Local Funding

Tumwater has some tools to address affordable housing funding gaps, including revenue sources and incentives to reduce costs for developers.

Tumwater has implemented these tools to generate revenue for affordable housing:

- Affordable housing property tax levy (RCW 84.52.105). From July 1, 2023, through June 30, 2024, Tumwater collected $63,703.51.[4]
- Application fee waivers for affordable housing projects (RCW 36.70A.540).
- Impact fee waivers for affordable housing projects (RCW 82.02.060).
- Multifamily tax exemption program (RCW 84-14.010).

Some additional tools that Tumwater can use to reduce the cost of affordable housing production include:

- Donating surplus public lands for affordable housing projects (RCW 39.33.015).
- Housing and related services sales tax (RCW 82.14.530).
- Lodging Tax (RCW 67.28.150 and RCW 67.28.160) to repay general obligation bonds or revenue bonds.
- REET 2 (RCW 82.46.035).
- Treatment Sales Tax (RCW 82.14.460).

E. Regulatory Barrier Assessment

1) Introduction

The Growth Management Act (RCW 36.70) seeks to control growth by channeling it into urban growth areas in order to provide more orderly and efficient service provision and to reduce sprawl. The Act also specifically authorizes charging impact fees in order to offset the costs of new development.

The Growth Management Act requires that Tumwater ensure that its Comprehensive Plan policies and regulations allow for housing availability for all members of the community at all income levels. Tumwater has reviewed and updated its Housing Element to address the issues identified through the update process.

A number of local, state, and federal regulations make housing more expensive. These regulations are designed to make housing safer or address other community concerns such as climate change. However, there are instances where the benefit received from a particular regulation may not be worth the corresponding cost.

This section of the Housing Element focuses on those regulations under Tumwater's control and will recommend changes to certain regulations in order to promote affordable housing. There

[4] Source: Affordable and Supportive Housing Sales and Use Tax – Collection and use of revenue: Annual report on the collection and use of revenues pursuant to RCW 82.14.540(11).

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are also state and federal regulations that may increase the cost of housing that may be influenced by Tumwater working cooperatively with other jurisdictions and partners to address.

2) Community Perceptions

For a variety of reasons, the community remains concerned about the fast rate of growth in the Puget Sound region.

Community members have opposed projects during the permitting process that would increase the supply of housing, thus tending to drive housing costs higher. While these housing applications are often ultimately approved, they are often approved with additional conditions and time delays.

In some instances, these delays and conditions can make it unfeasible to proceed with the project or at least drive up project costs and subsequent rents or housing costs. Depending upon your point of view, these conditions could be perceived as a vital step in the process, or of little or no value.

3) Permitting

The Community Development Department is a full service, one stop department, composed of planners, engineers, and building and fire inspectors. The department guiding applicants through the approval process and responding quickly to development requests.

While a slow permitting process can add to housing costs, research of permit application history in Tumwater has shown that the average permit processing time is very good. Those that require public hearings are inherently more time consuming than those that do not. Similarly, a more straightforward application, such as a single-family house on a lot of record, is much simpler and less involved than a 50-lot subdivision and associated construction permits.

Tumwater has taken major steps to streamline the development process while taking the views of community members into consideration. The most significant single action taken in this regard was the implementation of a hearing examiner system.

Tumwater has employed a hearing examiner to conduct hearings and make decisions on all discretionary land use permits, such as rezones, conditional use permits, and preliminary plats. The hearing examiner considers the staff report, public hearing testimony, environmental information, and the site itself to issue a decision based on applicable policies and codes. This process allows a more objective approach to site specific land use decisions, which reduces time delays and costs.

In addition Tumwater updated its development review code in 2024 to meet State permitting requirements and expanded the range of State Environmental Policy Act exemptions as allowed by the State to reduce duplicative permit review processes.

4) Infrastructure

Development standards, adopted through the Tumwater Development Guide Manual, set standards for various road, water, and sewer projects. For example, a residential subdivision is required to install water and sewer lines of a certain type and dimension. Likewise, roads and sidewalks are required to be a certain width, and so forth.

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Alternate street designs are allowed under the Tumwater Development Guide Manual, which is based on guidance provided in the National Association of City Transportation Officials, Urban Streets Design Guide, and by other organizations. These optional design methods for Neighborhood Collector and Local Residential Streets allow reduced right-of-way widths, which should reduce development costs while improving the human scale of neighborhoods.

5) Zoning Code

Zoning regulates the use of land through controls on density, lot sizes, setbacks, storm water management, and the placement and mix of residential, commercial, and industrial uses. Zoning codes have been used since the late 1800s to ensure an orderly arrangement of land uses within a jurisdiction.

TMC Title 18 Zoning provides for increased density measured by the number of units per acre in target areas to support a greater range of housing options. Minimum lot sizes are supportive of diversity in housing stock. Similarly, zero lot line developments, where the structure is located directly on the lot line on one side of the lot in order to provide more usable side yard space on a smaller lot, are currently allowed in all residential zones.

The expansion of the range of middle housing uses and accessory dwelling units in most residential land use designations will also help expand location and the types of housing.

6) Building Code

The International Residential Code regulates the construction of all structures in Tumwater by setting minimum standards for building construction to ensure safety. The International Residential Code is adopted by all jurisdictions in the State, with no or minor changes.

For residential construction, Tumwater does have the option of increasing or decreasing the regulations by ordinance for residential structures of more than three dwelling units. Any change to the regulations for single-family and duplex units does require approval by the State Building Code Council, which amounts to significant disincentive to following this route.

As mentioned previously, however, the International Residential Code is designed to be a minimum standard. As such, any minimization of those standards would have a corresponding impact on life safety.

There are cost saving measures that meet the International Residential Code standards. For example, the use of pre-engineered building components can significantly cut labor costs. While many of these components are as much as ten percent more expensive to purchase, they can save 25 percent of labor costs in installation.

Engineered roof trusses are a good example of this type of component. Designing houses to take maximum advantage of lumber and truss span capabilities, such as 24-inch on-center rather than 16-inch on-center framing, and two instead of three stud corners. These and other simple measures can result in substantial cost savings to the builder and subsequent buyer of housing.

There are many options for housing construction available in the International Residential Code that are rarely used. This may be because

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builders are unaware of these possibilities or are simply accustomed to building in a certain way.

Another reason may be that the perception is that the housing market will not bear such design innovations. There is an opportunity for the builders and Tumwater building and permitting officials to innovate to help contain or reduce housing prices. This could be facilitated through ongoing meetings or exchanges.

F. Programs & Actions to Achieve Housing Availability

1) Housing Action Plan

The City Council adopted the Tumwater Housing Action Plan in 2021. The Plan was intended to inform the Tumwater's Comprehensive Plan policies and development regulations and to guide implementation strategies to help Tumwater meet its housing needs and strategic objectives.

The Plan was built on the affordable housing work the City Council had started in 2018. It was the next step in the process of identifying actions to increase the amount of affordable housing in Tumwater.

The Plan consolidated all affordable housing action items into one document that the Mayor and City Council use to support the development of more affordable housing in Tumwater. Many of the actions from the Housing Action Plan have been incorporated as implementation actions in the update of the Housing Element.

2) Tumwater Actions

Tumwater will take the following steps to improve the availability of housing:

- Update the zoning code to allow for more housing types.
- Increase minimum and maximum densities to support new housing types, which will include combining the Single Family Low and Single Family Medium land use designations and zone districts.
- Invest in infrastructure to support higher density housing construction.
- Expand the provision of bonus density or additional building height allowances and permit application fee, impact fee, and connection charge waivers for projects that include income-restricted affordable housing.
- Update the development code to align with HB 1337 (Chapter 334, Laws of 2023), which requires Tumwater to allow up to two accessory dwelling units per residential lot, in addition to the primary home.
- Reduce parking requirements for middle-housing types and multifamily housing types.
- Update impact fee calculations to use square footage or bedroom counts.
- Update the Citywide Design Guidelines for consistency with state law.

3) Regional Actions

Tumwater is a part of the Regional Housing Council, which is intended to help in the process of seeking solutions to homelessness and affordable housing on a regional level. While it

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provides a useful forum for addressing the needs of residents of the County who are below 80 percent area median income, like Tumwater, it struggles with the necessary funding to address these issues.

The primary purpose of the Regional Housing Council is to leverage resources and partnerships through policies and projects that promote equitable access to safe and affordable housing. It considers issues specifically related to funding a regional response to homelessness and affordable housing and coordinating existing funding programs.

These programs may include RCW 36.22.179 funds, HOME Investment Partnership Program, Consolidated Homeless Grant (CHG), Housing and Essential Needs, RCW 82.14.540 funds, Community Development Block Grant, and other related funding sources such as a regional home fund to help implement the five-year Homeless Crisis Response Plan and increase affordable housing options.

To achieve this purpose, the Regional Housing Council assists in monitoring the implementation of the County's five-year Homeless Crisis Response Plan by setting priorities and making funding decisions on projects and programs that implement the Homeless Crisis Response Plan.

Additionally, the Regional Housing Council provides a forum for consideration of policy options related to homelessness and encourages development of regional approaches to planning for, responding to, and funding homeless services and facilities and expanding affordable housing options.

The Interlocal Agreement establishes procedures for governance, scope of work, funding, and other related items for the Regional Housing Council. The term of the Interlocal Agreement is five years.

The jurisdictions comprising five percent or more of the County population allocate a minimum annual amount equal to not less than one half of a percent of the last full year of general sales and use taxes pursuant to RCW 82.14.030(1) for projects, programs, and activities providing direct support to the Jurisdictions' front line communities. In addition, Tumwater makes an in-kind contribution of up to 0.25 FTE staff to support the work of the Regional Housing Council.

4) Conclusions

Based on the data available, it is clear that the need for affordable housing and human services far exceeds the available supply. In addition, the process of drafting a Housing Element requires that the various jurisdictions meet and discuss the salient issues involved with affordable housing provision. This also raises the level of awareness of the decision-makers in Thurston County.

It is difficult to fill gaps in the web of service provision to low and moderate income groups at the local level through public action. Funding for low and moderate income families in Tumwater must compete with all services provided by a municipality, such as streets, police, and fire.

In summary, while direct public action can fill some of the gaps in affordable housing, these are broader societal issues that cannot be solved by Tumwater alone. Additional efforts will be needed at regional, state, and federal levels to

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make progress in the underlying causes of lack of affordable housing.

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Appendix A Foundational Documents

Table H-38 identifies the foundational planning documents that form the basis for the Housing Element of the Comprehensive Plan.

Table H-38. Foundational Documents for the Housing Element

Topic Index	Supporting Plan and Materials
General Policy	• See also the Land Use Element • City of Tumwater Housing Action Plan (2021) • Thurston County County-Wide Planning Policies (2025)
Homelessness	• Accountability Audit Report, Housing Authority of Thurston County (2025) • Point-in-Time Count Homeless Census Report, Thurston County, WA (2024)
Housing Trends and Projections	• See also the Land Use Element • Annual Population Estimates, Washington Office of Financial Management (2025) • Buildable Lands Report for Thurston County, Thurston Regional Planning Council (2021) • Consolidated Housing Action Strategy (CHAS) Data, U.S. Department of Housing and Urban Development (2021) • Housing Displacement Risk Analysis for the Cities of Lacey, Olympia, Tumwater, and Yelm (2025) • Housing Market Report and Apartment Market Survey, Washington Center for Real Estate Research (2024) • Housing Needs Assessment: Lacey, Olympia, and Tumwater (September 2020) • Housing Sales Data for Tumwater, Zillow Real Estate (2024) • Planning for and Accommodating Housing Needs in Thurston County: Implementing the Housing Affordability Requirements of HB 1220, Thurston Regional Planning Council (April 2025) • Profile and Population, Housing, and Employment Data, Thurston Regional Planning Council (2024) • U.S. Census Data (2020 (Decennial) and 2023 (American Community Survey))

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Appendix B Housing Needs Assessment

The Housing Needs Assessment is attached as a separate document.

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Appendix C Planning for and Accommodating Housing Needs in Thurston County

Planning for and Accommodating Housing Needs in Thurston County is attached as a separate document.

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Appendix D Tumwater Housing Action Plan

The Tumwater Housing Action Plan is attached as a separate document.

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Appendix E Housing Displacement Risk Analysis

The Housing Displacement Risk Analysis is attached as a separate document.

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Appendix F Housing Displacement Analysis and Comprehensive Plan Recommendations for the cities of Lacey, Olympia, Tumwater, and Yelm

The Housing Displacement Analysis and Comprehensive Plan Recommendations for the cities of Lacey, Olympia, Tumwater, and Yelm is attached as a separate document.

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Appendix G Policy Evaluation Matrix

The Tumwater Policy Evaluation Matrix is attached as a separate document.

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Appendix H Additional Data

1. Introduction

Table H-39. Tumwater Median Income, 2014-24.

Period	Tumwater Median Income
2014 Q3	$64,618
2015 Q3	$59,623
2016 Q3	$65,643
2017 Q3	$65,480
2018 Q3	$65,629
2019 Q3	$70,831
2020 Q3	$76,333
2021 Q3	$78,442
2022 Q3	$87,963
2023 Q3	$89,316
2024 Q3	$93,513
Grand Total	$73,504

Source: Washington Center for Real Estate Research, Median Income Data. Third Quarter Data, 2014-24.

2. Housing Needs Assessment

a) Household Characteristics

Table H-40. Age by Race/Ethnicity in Tumwater, 2023.

Age	White Alone, Non-Hispanic	Black/ African American Alone	AIAN Alone[5]	Asian Alone	NHPI Alone[6]	Some Other Race Alone	Two or More Races	Hispanic/ Latino
Under 18	3,228	184	34	91	0	148	1280	745
18-24	1,333	182	0	153	50	236	379	226
25-34	3,378	90	195	101	26	260	527	617
35-44	3,169	160	25	186	6	93	480	307
45-54	2,204	243	1	128	0	207	358	329
55-64	2,900	5	31	285	15	35	158	127
65-74	1,942	0	18	130	12	18	132	14

[5] "AIAN Alone" are people who are American Indian and Alaska Native alone.
[6] "NHPI Alone" are people who are Native Hawaiian and Other Pacific Islander alone.

Age	White Alone, Non-Hispanic	Black/ African American Alone	AIAN Alone[5]	Asian Alone	NHPI Alone[6]	Some Other Race Alone	Two or More Races	Hispanic/ Latino
75-84	1,149	0	0	31	0	0	29	44
85+	479	0	0	15	0	0	0	0
Total	**19,782**	**864**	**304**	**1,120**	**109**	**997**	**3,343**	**2,409**

Sources: 2023 U.S. Census American Community Survey 5-Year Estimates, Tables B01001A - B01001I.

Table H-41. Share of Age by Race/Ethnicity in Tumwater, 2023.

Age	White Alone, Non-Hispanic	Black/ African American Alone	AIAN Alone	Asian Alone	NHPI Alone	Some Other Race Alone	Two or More Races	Hispanic/ Latino
Under 18	16%	21%	11%	8%	0%	15%	38%	31%
18-24	7%	21%	0%	14%	46%	24%	11%	9%
25-34	17%	10%	64%	9%	24%	26%	16%	26%
35-44	16%	19%	8%	17%	6%	9%	14%	13%
45-54	11%	28%	0%	11%	0%	21%	11%	14%
55-64	15%	1%	10%	25%	14%	4%	5%	5%
65-74	10%	0%	6%	12%	11%	2%	4%	1%
75-84	6%	0%	0%	3%	0%	0%	1%	2%
85+	2%	0%	0%	1%	0%	0%	0%	0%

Sources: 2023 U.S. Census American Community Survey 5-Year Estimates, Tables B01001A - B01001I.

Notes: "AIAN Alone" are people who are American Indian and Alaska Native alone. NHPI Alone" are people who are Native Hawaiian and Other Pacific Islander alone.

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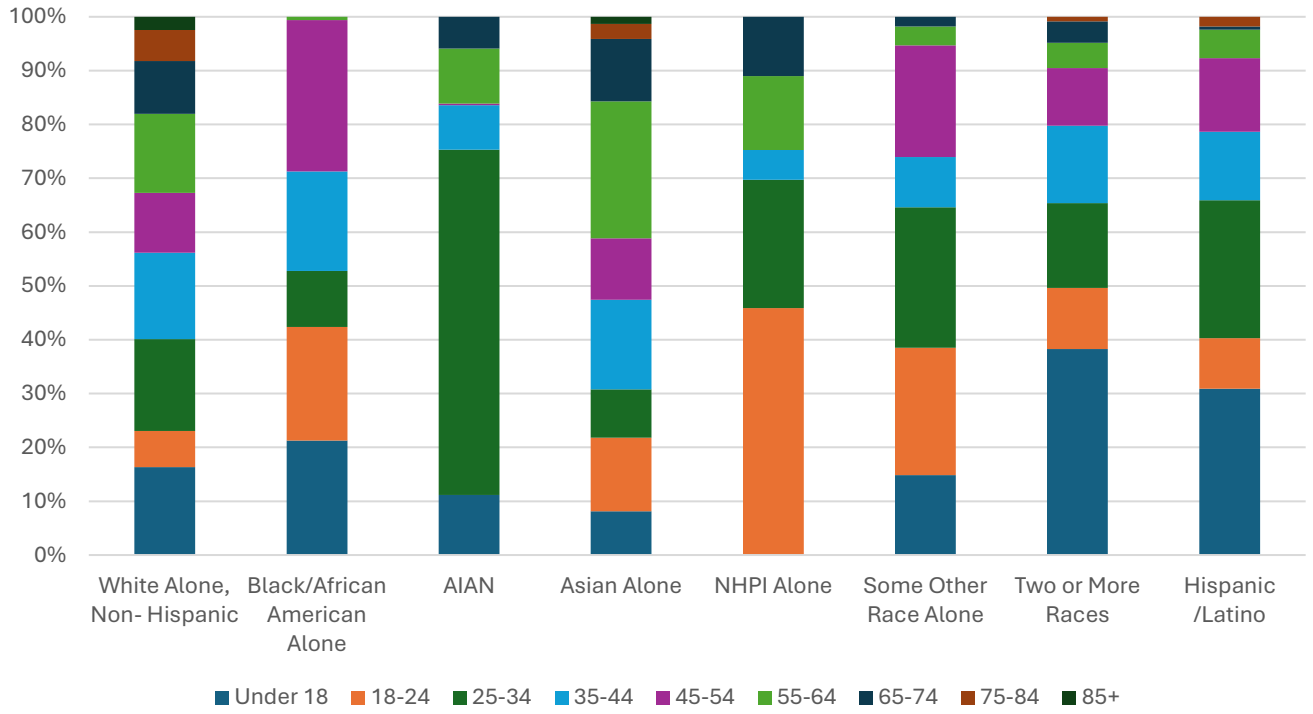
Figure H-37. Share of Age by Race/Ethnicity in Tumwater, 2023.



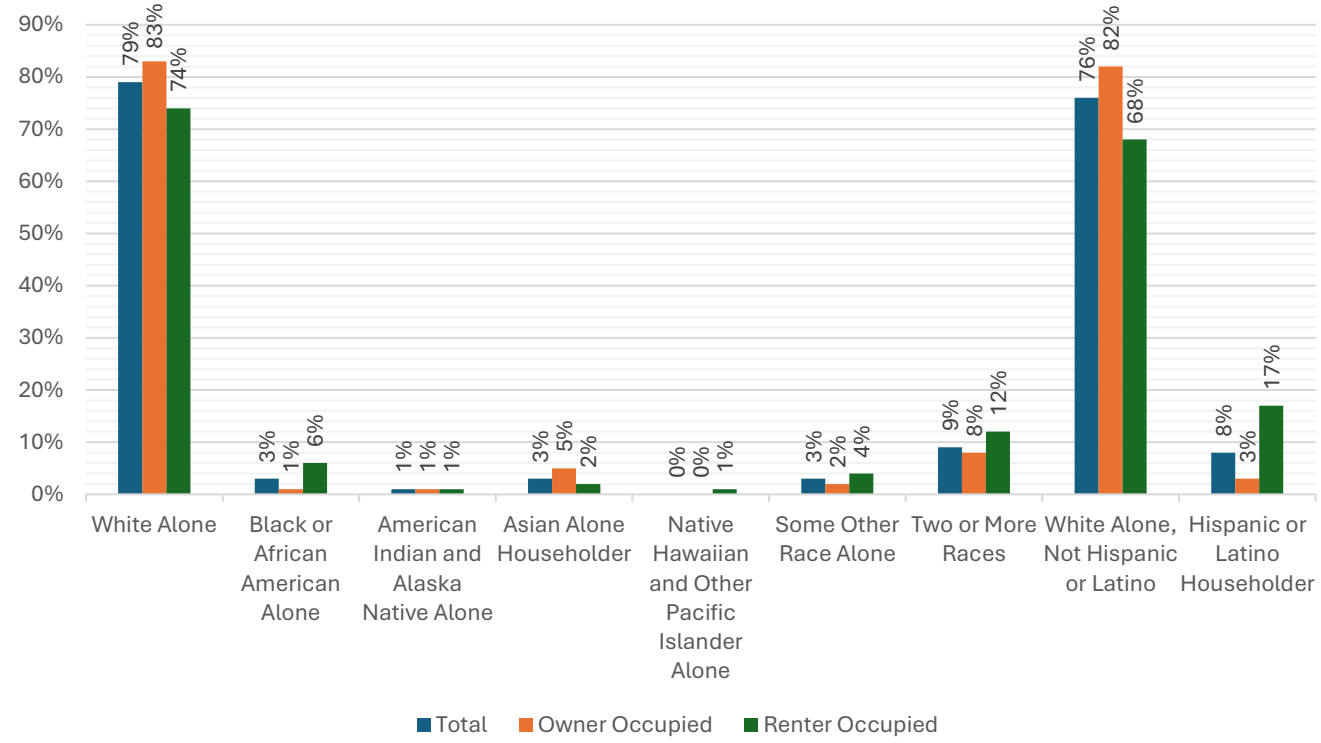
Sources: 2023 U.S. Census American Community Survey 5-Year Estimates, Tables B01001A - B01001I.

Table H-42. Percentage of Household Tenure & Race in Tumwater, 2023.

Householders	Total Units	Owner Occupied Units	Renter Occupied Units
White Alone	79%	83%	74%
Black or African American Alone	3%	1%	6%
American Indian and Alaska Native Alone	1%	1%	1%
Asian Alone Householder	3%	5%	2%
Native Hawaiian and Other Pacific Islander Alone	0%	0%	1%
Some Other Race Alone	3%	2%	4%
Two or More Races	9%	8%	12%
White Alone, Not Hispanic or Latino	76%	82%	68%
Hispanic or Latino Householder	8%	3%	17%

Sources: 2023 U.S. Census American Community Survey 5-Year Estimates, Tables B25003 and B25003A - B25003I.

Figure H-38. Percentage of Household Tenure & Race in Tumwater, 2023.



Sources: 2023 U.S. Census American Community Survey 5-Year Estimates, Tables B25003 and B25003A - B25003I.

Table H-43. Household Income by Area Median Income Categories in Tumwater 2021 & 2024.

Household Income Category	Percent of Area Median Income	Percentage of Households
Extremely Low-Income	0-30% AMI	10%
Very Low-Income	30-50% AMI	11%
Low-Income	50-80% AMI	18%
Moderate-Income	80-100% AMI	9%
Above Median Income	>100% AMI	52%

Sources: U.S. Department of Housing and Urban Development Affordability Strategy (CHAS), 2021.

b) Housing Affordability

Table H-44. House Price Data for Tumwater, 2021-24.

			Sales by Number of Bedrooms				Median Price by Number of Bedrooms			
Quarter	Total Sales	Median Price	0 or 1	2	3	4 plus	0 or 1	2	3	4 Plus
2021 Q1	106	$401,969		20	50	36		$329,500	$397,000	$447,500
2021 Q2	142	$444,764	3	16	62	61	$280,000	$361,000	$441,250	$470,000
2021 Q3	201	$473,828	2	17	97	85	$467,500	$325,000	$447,317	$504,393
2021 Q4	185	$478,000	1	14	84	86	$225,000	$342,500	$446,468	$505,199

Housing Element

Part 2 – Technical Information

			Sales by Number of Bedrooms				Median Price by Number of Bedrooms			
Quarter	Total Sales	Median Price	0 or 1	2	3	4 plus	0 or 1	2	3	4 Plus
2022 Q1	124	$505,000	3	13	59	49	$370,000	$385,000	$489,771	$540,000
2022 Q2	117	$505,000	1	16	63	37	$475,000	$440,000	$505,000	$575,000
2022 Q3	98	$510,000	1	10	55	32	$510,000	$382,500	$490,000	$629,975
2022 Q4	67	$494,950		10	34	23		$332,500	$492,475	$559,900
2023 Q1	76	$487,475	2	7	45	22	$227,500	$370,000	$474,900	$577,500
2023 Q2	88	$529,990		5	39	44		$395,000	$489,980	$572,490
2023 Q3	89	$525,000		8	56	25		$298,500	$494,950	$610,000
2023 Q4	64	$505,000		10	31	23		$316,500	$509,000	$555,000
2024 Q1	69	$534,000		9	33	27		$364,999	$492,000	$579,980
2024 Q2	100	$517,750	1	10	49	40	$328,000	$425,950	$495,000	$572,495
2024 Q3	104	$515,500	2	6	66	30	$232,500	$315,000	$499,990	$582,500

Source: Washington Center for Real Estate Research, City House Price Report, 2024.
Note: Data was not available for all quarters.

Table H-45. Annual Median Home Prices in Thurston County, 2017-24.

2017	2018	2019	2020	2021	2022	2023	2024
$285,800	$315,800	$341,200	$383,600	$460,500	$502,500	$506,600	$518,400

Source: Washington Housing Market Report, Fourth Quarter 2024, Washington Center for Real Estate Research.

Table H-46. Housing Cost Burden By Area Median Income in Tumwater, 2021.

Housing Cost Burden	Owners	Renters	Total
Cost Burden <=30% Area Median Income	4,510	2,290	**6,800**
Cost Burden >30% to <=50% Area Median Income	495	950	**1,445**
Cost Burden >50% Area Median Income	450	975	**1,425**
Cost Burden not available	30	25	**55**
Total	**5,490**	**4,240**	**9,730**

Source: U.S. Department of Housing and Urban Development Affordability Strategy (CHAS), 2021.

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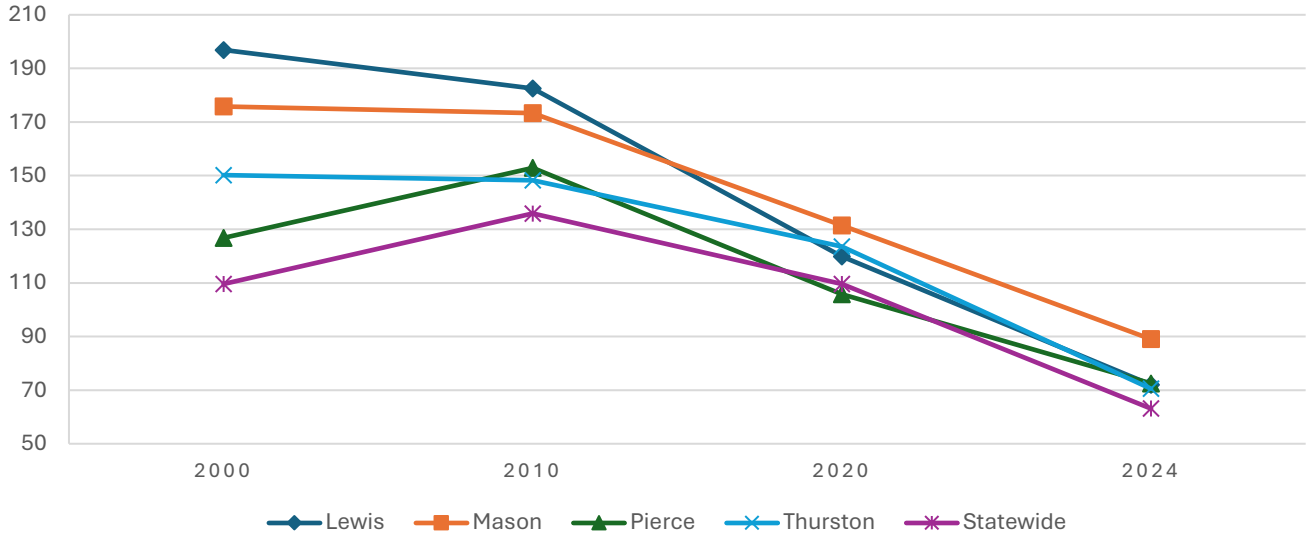
Figure H-39. All Home Buyers Housing Affordability Index, Thurston & Nearby Counties, 2000-14.



Source: Runstad Center for Real Estate Research, 2024.
Note: Based on First Quarter Data.

Table H-47. All Home Buyers Housing Affordability Index, Thurston & Nearby Counties, 2000-24.

Period	Lewis	Mason	Pierce	Thurston	Statewide
2000	196.9	175.8	126.8	150.2	**109.6**
2010	182.5	173.3	152.9	148.3	**135.9**
2020	119.8	131.4	105.8	123.5	**109.6**
2024	72.0	89.0	72.5	70.5	**63.1**

Source: Runstad Center for Real Estate Research, 2024. Based on First Quarter Data.

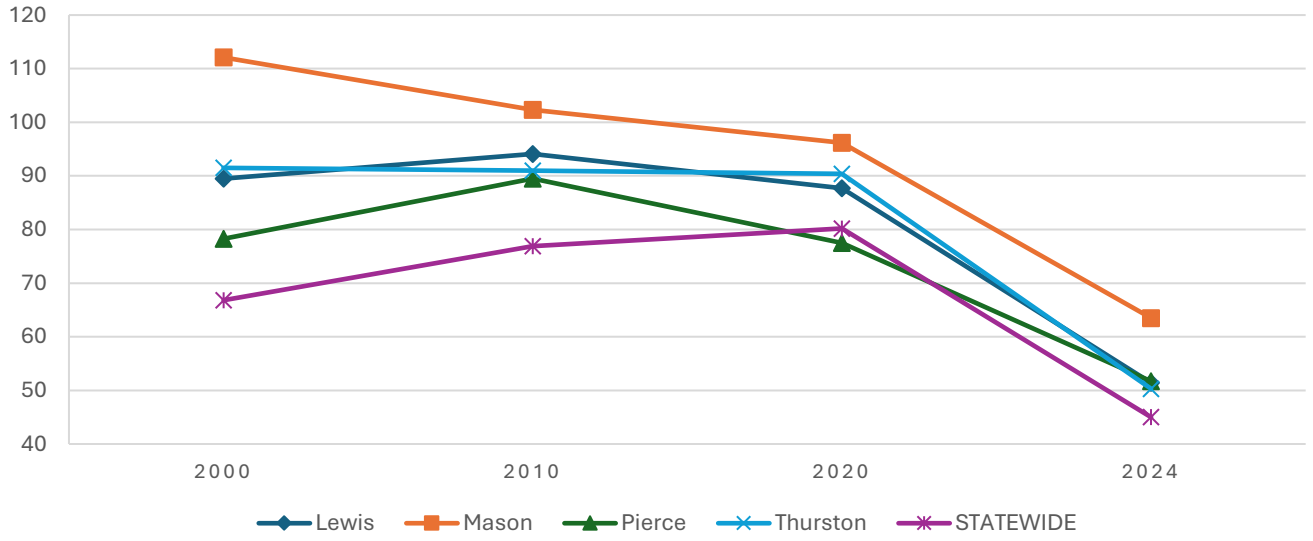
Table H-48. Median Home Buyers Housing Affordability Index, Thurston County Cities, 2021-24.

Period	Yelm	Tumwater	Lacey	Olympia	Grand Total
2021 Q1	132	124	106	96	114
2021 Q2	127	108	101	92	107
2021 Q3	125	104	101	91	105
2021 Q4	126	105	102	91	106
2022 Q1	107	88	87	78	90
2022 Q2	90	79	72	65	76
2022 Q3	97	78	76	68	80
2022 Q4	88	71	70	60	72
2023 Q1	97	75	73	62	77
2023 Q2	81	67	68	59	69
2023 Q3	81	66	65	57	67

Period	Yelm	Tumwater	Lacey	Olympia	Grand Total
2023 Q4	76	68	67	58	67
2024 Q1	87	70	71	62	72
2024 Q2	81	69	67	59	69
2024 Q3	82	75	71	61	72

Source: Washington Center for Real Estate Research, Median Home Buyers Housing Affordability Index Data, 2024.
Note: Data was not available for all quarters.

Figure H-40. First Time Home Buyers Housing Affordability Index for Thurston & Nearby Counties, 2021-24.



Source: Runstad Center for Real Estate Research, 2024. Based on First Quarter Data.

Table H-49. First Time Home Buyers Housing Affordability Index, Thurston & Nearby Counties, 2021-24.

Period	Lewis	Mason	Pierce	Thurston	STATEWIDE
2000	89.5	112.1	78.3	91.5	**66.8**
2010	94.1	102.3	89.5	91.0	**76.9**
2020	87.7	96.2	77.5	90.4	**80.2**
2024	51.4	63.5	51.7	50.3	**45.0**

Source: Runstad Center for Real Estate Research, 2024. Based on First Quarter Data.

Table H-50. First Time Home Buyers Housing Affordability Index, Thurston County Cities, 2021-24.

Period	Lacey	Olympia	Tumwater	Yelm	Grand Total
2021 Q1	84	77	99	105	**91**
2021 Q2	80	74	86	102	**85**
2021 Q3	81	72	83	99	**84**
2021 Q4	81	73	84	101	**85**
2022 Q1	69	62	70	85	**72**

Period	Lacey	Olympia	Tumwater	Yelm	Grand Total
2022 Q2	57	52	63	72	**61**
2022 Q3	61	55	63	77	**64**
2022 Q4	56	48	57	71	**58**
2023 Q1	59	50	60	77	**61**
2023 Q2	54	47	54	65	**55**
2023 Q3	52	45	53	65	**54**
2023 Q4	54	47	55	61	**54**
2024 Q1	57	50	56	70	**58**
2024 Q2	54	47	55	65	**55**
2024 Q3	57	49	60	66	**58**
Grand Total	**64**	**57**	**67**	**79**	**66**

Source: Washington Center for Real Estate Research, First Time Home Buyers Housing Affordability Index Data, 2024.
Note: Data was not available for all quarters.

Table H-51. Average Rent, Thurston County Cities, 2014-24.

Period	Tumwater	Olympia	Lacey	Yelm	Total Average
2014 Q3	$892	$896	$901	$841	**$883**
2015 Q3	$946	$958	$937	$852	**$923**
2016 Q3	$1,071	$1,046	$1,035	$888	**$1,010**
2017 Q3	$1,126	$1,124	$1,093	$1,033	**$1,094**
2018 Q3	$1,190	$1,203	$1,139	$1,089	**$1,155**
2019 Q3	$1,317	$1,262	$1,198	$1,147	**$1,231**
2020 Q3	$1,449	$1,346	$1,310	$1,156	**$1,315**
2021 Q3	$1,670	$1,431	$1,417	$1,419	**$1,484**
2022 Q3	$1,623	$1,467	$1,483	$1,516	**$1,522**
2023 Q3	$1,690	$1,514	$1,565	$1,497	**$1,567**
2024 Q3	$1,747	$1,577	$1,588	$1,518	**$1,608**

Source: Washington Center for Real Estate Research, Rents Data. Third Quarter Data, 2014-24.

Table H-52. Median Renters Housing Affordability Index, Thurston County Cities, 2014-24.

Period	Tumwater	Lacey	Olympia	Yelm	Grand Total
2014 Q3	181	172	153	153	**165**
2015 Q3	158	167	148	152	**156**
2016 Q3	153	152	138	153	**149**
2017 Q3	145	149	125	142	**140**

Period	Tumwater	Lacey	Olympia	Yelm	Grand Total
2018 Q3	138	147	123	151	**140**
2019 Q3	134	144	121	166	**141**
2020 Q3	132	133	117	166	**137**
2021 Q3	117	133	120	147	**129**
2022 Q3	135	141	132	153	**140**
2023 Q3	132	135	129	157	**139**
2024 Q3	134	140	130	162	**142**
Grand Total	**141**	**146**	**130**	**155**	**143**

Source: Washington Center for Real Estate Research, Median Renters Housing Affordability Index, 2024. Third Quarter Data, 2014-24.

Table H-53. Transitional Renters Housing Affordability Index, Thurston County Cities 2014-24.

Period	Tumwater	Lacey	Olympia	Yelm	Grand Total
2014 Q3	127	121	107	107	**115**
2015 Q3	110	117	103	106	**109**
2016 Q3	107	107	97	107	**104**
2017 Q3	102	105	87	99	**98**
2018 Q3	97	103	86	106	**98**
2019 Q3	94	101	84	116	**99**
2020 Q3	92	93	82	116	**96**
2021 Q3	82	93	84	103	**91**
2022 Q3	95	98	92	107	**98**
2023 Q3	92	95	91	110	**97**
2024 Q3	94	98	91	114	**99**
Grand Total	**99**	**102**	**91**	**108**	**100**

Source: Washington Center for Real Estate Research, Transitional Renters Housing Affordability Index Data, 2024. Third Quarter Data, 2014-24.

c) Housing Inventory

Table H-54. Age of Residential Structures in Tumwater by Decade, 2023.

Decade Residential Structure Built	Estimate
Built 2020 or later	172
Built 2010 to 2019	1,945
Built 2000 to 2009	2,236
Built 1990 to 1999	1,704

Decade Residential Structure Built	Estimate
Built 1980 to 1989	1,423
Built 1970 to 1979	1,625
Built 1960 to 1969	1,117
Built 1950 to 1959	423
Built 1940 to 1949	253
Built 1939 or earlier	264

Source: 2023 U.S. Census American Community Survey 5-Year Estimates, Table DP04.

d) Housing Production Trends

Table H-55. All Residential Building Permits in Tumwater, 2014-23.

Survey Date	Total Buildings	Total Units	Total Value
2014	121	122	$29,660,549
2015	62	104	$19,246,632
2016	121	200	$32,795,117
2017	116	195	$31,873,855
2018	66	145	$14,285,235
2019	84	143	$18,852,069
2020	147	185	$33,320,790
2021	145	201	$32,594,435
2022	126	183	$28,303,472
2023	108	298	$38,295,510
Totals	**1,096**	**1,776**	**$279,227,664**

Source: Washington Center for Real Estate Research, 2024.

Table H-56. Single-Family & Multifamily Residential Building Permits in Tumwater, 2014-23.

Survey Date	Single Family Units	Single Family Value	Multifamily Buildings	Multifamily Units	Multifamily Value
2014	120	$29,335,021	1	2	$325,528
2015	60	$14,594,798	2	44	$4,651,834
2016	112	$22,275,525	9	88	$10,519,592
2017	111	$23,631,646	5	84	$8,242,209
2018	63	$12,819,629	3	82	$1,465,606
2019	75	$15,959,533	9	68	$2,892,536
2020	139	$31,364,076	8	46	$1,956,714

Survey Date	Single Family Units	Single Family Value	Multifamily Buildings	Multifamily Units	Multifamily Value
2021	133	$29,701,901	12	68	$2,892,534
2022	113	$25,325,863	13	70	$2,977,609
2023	102	$23,116,428	6	196	$15,179,082
Totals	**1,028**	**$2228,124,420**	**68**	**748**	**$51,103,244**

Source: Washington Center for Real Estate Research, 2024.

Table H-57. Middle Housing (Two to Four Units) Building Permits in Tumwater, 2014-23.

Survey Date	2 Unit Buildings	2 Unit Value	2 Units Value	3-4 Unit Buildings	3-4 Unit Units	3-4 Unit Value
2014	1	2	$325,528	0	0	$0
2015	0	0	$0	0	0	$0
2016	3	6	$1,118,773	0	0	$0
2017	0	0	$0	0	0	$0
2018	1	2	$335,400	0	0	$0
2019	0	0	$0	0	0	$0
2020	0	0	$0	0	0	$0
2021	0	0	$0	0	0	$0
2022	0	0	$0	0	0	$0
2023	0	0	$0	5	15	$3,677,850
Totals	**5**	**10**	**$1,779,701**	**5**	**15**	**$3,677,850**

Source: Washington Center for Real Estate Research, 2024.

Table H-58. Multifamily (5+ Units) Building Permits in Tumwater, 2014-23.

Survey Date	5+ Units Buildings	Number of 5+ Unit Units	5+ Units Value
2014	0	0	$0
2015	2	44	$4,651,834
2016	6	82	$9,400,819
2017	5	84	$8,242,209
2018	2	80	$1,130,206
2019	9	68	$2,892,536
2020	8	46	$1,956,714
2021	12	68	$2,892,534

Survey Date	5+ Units Buildings	Number of 5+ Unit Units	5+ Units Value
2022	13	70	$2,977,609
2023	1	181	$11,501,232
Totals	**58**	**723**	**$45,645,693**

Source: Washington Center for Real Estate Research, 2024.

Table H-59. Accessory Dwelling Unit Building Permits in Tumwater, 2014-24.

Period	Accessory Dwelling Units
2014	1
2015	0
2016	2
2017	2
2018	0
2019	1
2020	12
2021	14
2022	7
2023	8
2024	6
Total	**53**

Source: City of Tumwater Permit Data, 2025.

DRAFT

HOUSING NEEDS ASSESSMENT

Lacey, Olympia, and Tumwater

September 2020

Thurston Regional Planning Council

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Americans with Disabilities Act (ADA) Information

Materials can be provided in alternate formats by contacting the Thurston Regional Planning Council at 360.956.7575 or email info@trpc.org.

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CONTENTS

Executive Summary 1

Chapter 1. Introduction 3
- Report Organization 4
- Geography 4
- Sources of Data 5

Chapter 2. Population Characteristics 7
- Estimates and Forecast 7
- Age 9
- Race and Ethnicity 10
- Disability 11
- Poverty 13

Chapter 3. Household Characteristics 15
- Household Size and Composition 15
- Group Quarters 20
- Ownership and Tenancy 22
- Income 24

Chapter 4. Unique Housing Needs 28
- Seniors 28
- Military Personnel and Veterans 31
- People Experiencing Homelessness 32
- College Students 34

Chapter 5. Housing Supply 36
- Trends and Projections 36
- Building Types and Density 37
- Unit Size 39
- Market Conditions 42
- Subsidized Housing Units 46

Chapter 6. Local Workforce Characteristics 48
- Estimates and Forecast 48
- Wages and Self-Sufficiency 50
- Unemployment 52
- Commuting 53

Chapter 7. Gap Analysis 56
- Housing Affordability 57
- Housing Size 61
- Substandard Housing 62
- Other Needs 63

Experiencing Homelessness 63

Chapter 8. Land Capacity Analysis 66

Residential Capacity 67

Unique Housing Needs 68

Appendix A. Development Trends by Zoning District 69

Lacey 70

Olympia 71

Tumwater 72

Appendix B. Household Income Forecast 73

Introduction 73

What Factors Affect Income? 73

Income Forecast Methodology 80

Results 83

Appendix C. Detailed Source Information 87

LIST OF FIGURES

Figure 1-1. Jurisdictions in this plan 5
Figure 2-1. Thurston County population, 1980-2045 7
Figure 2-2. Population in cities including their unincorporated urban growth areas, 2010-2045 8
Figure 2-3. Age of Thurston County population, 2020 and 2045 9
Figure 2-4. Racial and ethnic diversity in Thurston County, 2014-2018 average 10
Figure 2-5. Disability status in Thurston County by age, 2014-2018 average 12
Figure 2-6. Disability by age, 2014-2018 average 12
Figure 2-7. Poverty rates, 2014-2018 average 14
Figure 3-1. Average household size in Thurston County, 1960-2018 15
Figure 3-2. Thurston County households by type, 1970-2018 17
Figure 3-3. Households by type, 2014-2018 average 18
Figure 3-4. Households with children, 2014-2018 average 19
Figure 3-5. Household size in Lacey, Olympia, and Tumwater combined, 2014-2018 average 19
Figure 3-6. Thurston County household size by race and ethnicity, 2010 20
Figure 3-7. Population in group quarters in Lacey, Olympia, and Tumwater by facility type, 2010 20
Figure 3-8. Population in group quarters in Lacey, Olympia, and Tumwater, 1980-2045 21
Figure 3-9. Owner occupied households by census tract, 2014-2018 average 22
Figure 3-10. Ownership and tenancy, 2014-2018 average 23
Figure 3-11. Household size by tenure in Lacey, Olympia, and Tumwater combined, 2014-2018 average 23
Figure 3-12. Tenure by race and ethnicity in Lacey, Olympia, and Tumwater combined, 2014-2018 average 24
Figure 3-13. Median family and household incomes, 2014-2018 average 24
Figure 3-14. Percent of households by income, 2014-2018 average 25
Figure 3-15. Median household income by census tract, 2014-2018 average 26
Figure 3-16. Household income in Lacey, Olympia, and Tumwater combined by race and ethnicity, 2014-2018 average 27
Figure 4-1. Thurston County senior population, 2020 29
Figure 4-2. Thurston County senior population, 2045 29
Figure 4-3. Percent of population 65 or older by census tract, 2014-2018 average 29
Figure 4-4. Senior households in Thurston County by tenure, 1980-2018 30
Figure 4-5. Senior households in Thurston County by type of dwelling, 2014-2018 average 30
Figure 4-6. Adult family homes in Thurston County offering specialized care, 2020 31
Figure 4-7. Homelessness in Thurston County, 2015-2019 32
Figure 4-8. Where the homeless shelter in Thurston County, 2019 32
Figure 4-9. Chronic homelessness in the Thurston County homeless, 2019 33
Figure 4-10. Age of those experiencing homelessness in Thurston County, 2019 33
Figure 4-11. Disability among those experiencing homelessness in Thurston County, 2019 34
Figure 4-12. Types of disabilities among those experiencing homelessness, 2019 34
Figure 4-13. Household type for college students, 2014-2018 average 35
Figure 4-14. Residents enrolled in college, 2014-2018 average 35

Figure 5-1. Estimated and projected housing units in Lacey, Olympia, Tumwater, and their UGAs, 2010-2045 36
Figure 5-2. Occupied housing units in Lacey, Olympia, and Tumwater combined by building type and tenancy, 2014-2018 average 37
Figure 5-3. Housing types permitted in Lacey, Olympia, and Tumwater, 2000-2019 38
Figure 5-4. Density of new residential development, 2000-2019 38
Figure 5-5. Occupied housing units in Lacey, Olympia, and Tumwater combined by number of bedrooms and tenancy, 2014-2018 average 39
Figure 5-6. Housing units built in Lacey, Olympia, and Tumwater combined by number of bedrooms, 1980-2019 40
Figure 5-7. Average number of bedrooms in housing units by decade 40
Figure 5-8. Home size in Lacey, Olympia, and Tumwater combined, 1980-2019 41
Figure 5-9. Average home size by decade 42
Figure 5-10. Average housing unit sale price in Thurston County, 2018 42
Figure 5-11. Housing units sold in Thurston County, 2018 42
Figure 5-12. Median home sale price in July, 2010-2020 43
Figure 5-13. Thurston County Homeownership Affordability Index, 1995-2020 44
Figure 5-14. Median home sale price (adjusted for inflation), 2006-2019 44
Figure 5-15. Average rent in Thurston County (inflation-adjusted), 2001-2020 45
Figure 5-16. Median gross rent, 2014-2018 average 45
Figure 5-17. Apartment vacancy rate in Thurston County, 2018-2020 46
Figure 5-18. Thurston County income limits for receiving federal housing assistance, 2020 46
Figure 5-19. Subsidized housing units in Thurston County by owner, 2020 47
Figure 6-1. Thurston County employment, 1980-2045 48
Figure 6-2. Thurston County total employment by industry, 2017 49
Figure 6-3. Thurston County average wage, 2002-2019 (adjusted for inflation) 51
Figure 6-4. Median earnings, 2014-2018 average 51
Figure 6-5. Annual average unemployment for Thurston County, 1990-2019 52
Figure 6-6. Place of work for residents of Lacey, Olympia, Tumwater, and Thurston County, 2014-2018 53
Figure 6-7. Commutes from Thurston County (outbound), 2002-2017 54
Figure 6-8. Commutes to Thurston County (inbound), 2002-2017 54
Figure 7-1. Cost burdened households in Thurston County, 2012-2016 average 57
Figure 7-2. Cost burdened households by jurisdiction, 2012-2016 average 58
Figure 7-3. Current and projected 25-year housing need 60
Figure 7-4. Household size in Lacey, Olympia, and Tumwater by tenure, 2014-2018 average 61
Figure 7-5. Number of bedrooms in Lacey, Olympia, and Tumwater dwelling units by tenure, 2014-2018 average 61
Figure 7-6. Household size in Lacey, Olympia, and Tumwater, 2014-2018 average 61
Figure 7-7. Number of bedrooms in Lacey, Olympia, and Tumwater dwelling units, 2014-2018 average 61
Figure 7-8. Plumbing facilities in occupied Thurston County dwelling units, 2014-2018 average 62
Figure 7-9. Kitchen facilities in occupied Thurston County dwelling units, 2014-2018 average 62
Figure 7-10. Thurston County households leaving a housing program to a permanent housing situation, 2015-2019 64
Figure 8-1. Developable land 68

LIST OF TABLES

Table 2-1. Population, 2020 8
Table 2-2. Age of Population, 2014-2018 average 9
Table 2-3. Age of Thurston County population as a percent of total, 2020-2045 10
Table 2-4. Racial and Ethnic Diversity in Lacey, Olympia, and Tumwater, 2000 and 2014-2018 average 11
Table 2-5. Types of disability in the Thurston County population, 2014-2018 average 11
Table 2-6. Disability by age, 2014-2018 average 13
Table 3-1. Average household size, 2014-2018 average 16
Table 3-2. Average household size by race and ethnicity, 2010 16
Table 3-3. Households by type, 2014-2018 average 17
Table 3-4. Households with children, 2014-2018 average 18
Table 3-5. Household size by location, 2014-2018 average 19
Table 3-6. Types of group quarters 21
Table 3-7. Households by income, 2014-2018 average 25
Table 3-8. Household Income in Lacey, Olympia, and Tumwater combined by race and ethnicity, 2014-2018 average 27
Table 4-1. Thurston County senior population, 2020-2045 28
Table 4-2. Adult family and nursing homes in Thurston County, 2020 30
Table 4-3. Military personnel and veterans, 2014-2018 average 31
Table 4-4. Race and ethnicity of those experiencing homelessness in Thurston County, 2019 34
Table 4-5. Poverty rate for Thurston County college students, 2014-2018 average 35
Table 5-1. Occupied housing units by building type, 2014-2018 average 37
Table 5-2. Occupied housing units by number of bedrooms, 2014-2018 average 39
Table 5-3. Housing units built in Lacey, Olympia, and Tumwater combined by number of bedrooms, 1980-2019 40
Table 5-4. Housing units in Lacey, Olympia, and Tumwater combined by home size and decade 41
Table 6-1. Thurston County covered employment and wages, 2019 50
Table 6-2. Wages (per adult) needed for self-sufficiency, 2020 52
Table 6-3. Unemployment rate, 2014-2018 average 53
Table 6-4. Average wage earnings by county of residence and county of work, 2014-2018 average 55
Table 7-1. Cost burdened households by jurisdiction, 2012-2016 average 57
Table 7-2. Maximum rent and housing costs at various income levels, 2020 59
Table 7-3. Number of households by income range, 2045 projection 59
Table 8-1. Residential capacity by generalized zoning district, 2017 67
Table 8-2. Residential capacity by type of developable parcel, 2020 67

Executive Summary

Today, Thurston County is home to more than 294,000 people. By 2045, this is expected to grow to more than 380,000 people, and 64 percent will live in Lacey, Olympia, and Tumwater or their respective unincorporated urban growth areas. This housing needs assessment is intended to provide an inventory of the current housing stock, household characteristics, the population's housing needs, and any gaps in housing availability.

COVID-19 Pandemic and the Housing Needs Assessment

In response to the outbreak of the COVID-19 pandemic, Governor Inslee issued a series of proclamations and declarations aimed at reducing the spread of the virus in Washington State, including requiring all non-essential workers to stay home and stay healthy and extending a moratorium on evictions to protect renters. As a result, significant changes in the Lacey, Olympia, and Tumwater area occurred, affecting businesses and residents alike. Much of the data and statistics used in this assessment were established prior to the outbreak. The estimates, forecasts, and gap analysis do not take into account the radical impacts in employment and housing that continues to occur in the Thurston Region as of the writing of this report.

The cities of Lacey, Olympia, and Tumwater will continue to monitor the impact of the pandemic on housing in the coming months.

A Growing (Older) Population

In the next 25 years, the Washington Office of Financial Management forecasts the county's population will grow to more than 380,000 people, and the overall population is aging. Today, 18 percent of the population is 65 or older, and 20 percent of seniors are 80 or older. By 2045, nearly one in four residents will be 65 or older – and 38 percent of seniors will be 80 or older. This has ramifications for housing affordability for the region's population as well as the types of housing needed to meet their needs.

Do I Rent or Do I Buy?

More than 83,000 housing units are found in Lacey, Olympia, Tumwater, and their unincorporated urban growth areas. Thurston Regional Planning Council (TRPC) projects 34,000 new units will need to be built

to accommodate the region's growing population. Half of all occupied housing units in Lacey, Olympia, and Tumwater are rented, and the other half are owned by an occupant of the unit. However, the smaller the household income, the fewer options there are for home ownership – a key factor for many households in building wealth. Housing units with two or fewer bedrooms are typically rented, and renters are more likely to be cost burdened, meaning they spend more than 30 percent of their income on rent and other housing expenses.

Smaller Households, Larger Homes

Over the last forty years, the average household in Thurston County has gotten smaller – about 2.5 people per household in 2014-2018. During the same period of time, homes have gotten bigger. In the 1980s, more than half of all houses built were less than 1,500 square feet. In the 2010s, only 11 percent were less than 1,500 square feet.

Higher Wages – and Higher Rents and Mortgages

According to the U.S. Bureau of Economic Analysis, Thurston County is home to more than 148,000 jobs. TRPC estimates this will grow to about 200,000 by 2045. Employment Security Department figures indicate wages have generally increased over the last 17 years when adjusted for inflation – about 0.6 percent per year. However, so has the cost of housing – whether you rent or own. Between 2001 and 2018, average rents increased about 1.7 percent per year while the average sale price for a home increased by about 4.1 percent per year. Today, Thurston County is not considered affordable for first-time home buyers, although it is still more affordable than either King or Pierce counties.

All Things Not Being Equal

About one in four Thurston County residents is a person of color – those who are Hispanic or Latino of any race and those who are any race other than white alone. Those who are Hispanic or Latino, Asian, Black, and multiracial are the largest minority populations in Thurston County. People of color generally have more people in their household, are less likely to own their own home, have a smaller household income, and are more likely to experience homelessness than their white, non-Hispanic counterparts.

The Challenge: Meeting the Greatest Need

More than 6,000 households in Lacey, Olympia, and Tumwater are extremely low income – earning less than 30 percent of the area median family income. By 2045, another 3,000 households are expected to fall into this category. There are approximately 1,857 units available at below-market rents – far fewer than the 6,000 plus households with extremely low income, who are those most at risk of becoming homeless – and there are at least 800 people experiencing homelessness today, according to the 2019 Point in Time Count. Both subsidized and permanent supportive housing are needed to support these vulnerable populations.

Chapter 1. Introduction

In 2019, the Washington State Legislature passed HB 1923, aimed at encouraging cities planning under the state Growth Management Act to take actions to increase residential building capacity. These actions include developing a housing action plan "…to encourage construction of additional affordable and market rate housing in a greater variety of housing types and at prices that are accessible to a greater variety of incomes, including strategies aimed at the for-profit single-family home market" (RCW 36.70A.600).

In recognition of the cross-jurisdiction need for affordable housing, the cities of Lacey, Olympia, and Tumwater choose to collaborate with Thurston Regional Planning Council to develop a regional Housing Action Plan. Funding was provided by the Department of Commerce. The project includes four components:

- A regional housing needs assessment
- A household income forecast to identify future housing needs
- A survey of landlords and rental property owners to better understand housing costs
- A Housing Action Plan – to be adopted by the cities – identifying a list of actions for the cities to implement to encourage development of a housing stock adequate and affordable for current and future residents

This report – the Housing Needs Assessment – is intended to provide an inventory of the current housing stock, household and workforce characteristics, the population's housing needs, and any gaps in housing availability. This information will be used to develop actions for the final Housing Action Plan. The Household Income Forecast, used in the gap analysis, is included in Appendix B.

Report Organization

The Housing Needs Assessment covers the following topics:

Community Profile Chapter 2: Population Characteristics Chapter 3: Household Characteristics Chapter 4: Unique Housing Needs	**Workforce Profile** Chapter 6: Local Workforce Characteristics
Housing Inventory Chapter 5: Housing Supply	**Needs Assessment** Chapter 7: Gap Analysis Chapter 8: Land Supply

Chapters 2 through 4 – the Community Profile – provide an overview of residents of the cities of Lacey, Olympia, and Tumwater, their demographics, households types and housing choices. It also includes a summary of groups with special housing needs, such as people who experience homelessness, seniors, veterans and military personnel, and students.

Chapter 5 – The Housing Inventory – articulates the state of the region's current housing stock, including the types of housing, size of units and number of bedrooms, and the cost of housing.

Chapter 6 – the Workforce Profile – discusses employment and wage-earning opportunities in the region, as well as unemployment. It also includes information on the minimum income needed to afford households' basic needs.

Chapters 7 and 8 – the Needs Assessment – look at the region's current and future housing needs and the availability of land to accommodate new housing.

Geography

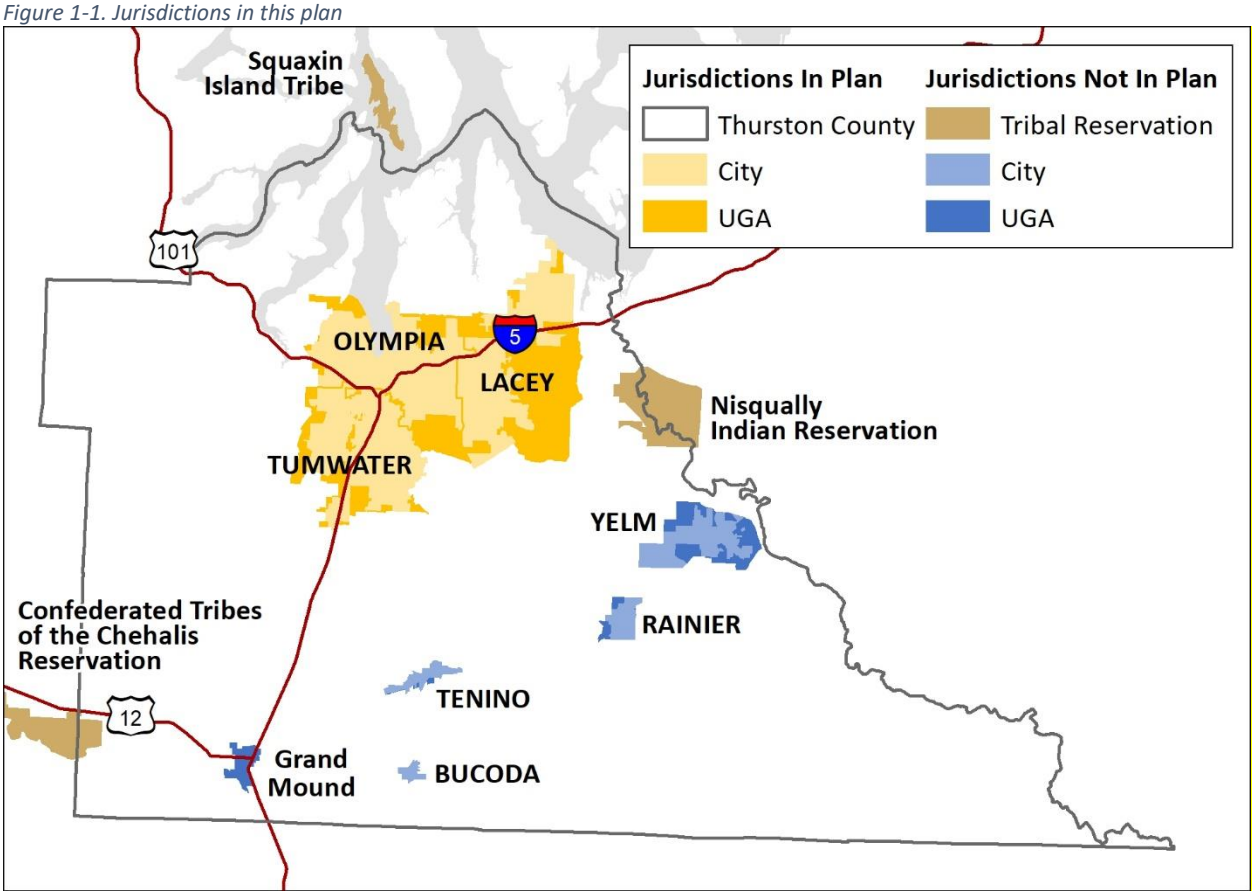
This assessment explores data for the cities of Lacey, Olympia, and Tumwater. For some tables and figures, data for the three cities are combined ("Cities Combined") to enhance readability. City-level data, if available, can be acquired using the source information provided in Appendix C.

When data for the unincorporated urban growth areas is available, it is included with the city data ("Cities plus UGAs").

When key data are not available at the city level, countywide data are presented ("Thurston County"). Thurston County data include data for all seven incorporated cities and towns in Thurston County, unincorporated areas, and tribal reservations within the county border.

Figure 1-1 shows jurisdictions within Thurston County, differentiating the areas addressed in this plan and those that are not.

Figure 1-1. Jurisdictions in this plan



Sources of Data

This assessment combines data from a range of sources. Key sources include:

- **U.S. Census Bureau:** The 2010 Census and 2014-2018 American Community Survey provide key data on population, households, and housing characteristics.
- **Washington Center for Real Estate Research (WCRER):** Based in the University of Washington's College of Built Environments, WCRER's quarterly Housing Market Report and Apartment Market Survey supply timely data on housing costs and vacancy rates.
- **Thurston County Assessor's Office:** Property assessment data furnish useful information on housing types, sizes, and other characteristics at the parcel level.
- **Washington Office of Financial Management (OFM):** OFM provides population forecasts for Washington counties and annual population estimates for cities and counties.
- **Thurston Regional Planning Council (TRPC):** TRPC contributes annual population, housing, and employment estimates for cities, UGAs, and other geographies, as well as 25-year projections.
- **Northwest Multiple Listing Service:** The Northwest Multiple Listing Service specifies annual data on the number, types, and cost of real estate transactions across Thurston County

- **U.S. Department of Housing and Urban Development (HUD):** HUD's Consolidated Housing Action Strategy (CHAS) data provided information on cost burden and other housing challenges faced by low-income residents.

Additional sources were included as needed.

Appendix C presents sources for the figures and tables presented in this assessment. Since many of the data are updated on an annual basis, the appendix also includes information on how to access the most recent data.

Many of the data shown in this report are based on surveys. All survey data contain a margin of error – a measure of uncertainty around an estimate. The American Community Survey publishes margins of error with their tables. While not included in the figures and tables in this report, they can be accessed using the source information in Appendix C.

Several tables and figures show dollar values (costs, incomes, etc.) over time. These have been adjusted for inflation using the implicit price deflator for Washington State provided by the Washington State Economic and Revenue Forecast Council.

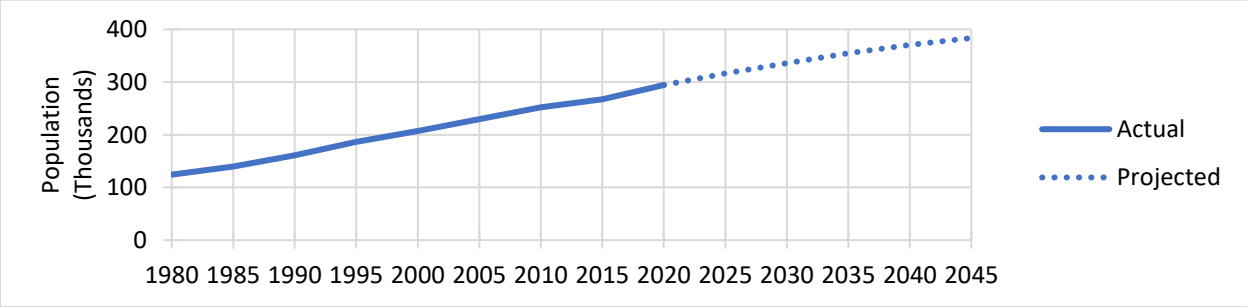
Chapter 2.
Population Characteristics

This chapter of the housing needs assessment investigates population estimates and forecasts. It also explores demographic information such as age, race and ethnicity, and disability status of the population.

Estimates and Forecast

The Washington Office of Financial Management estimates Thurston County's 2020 population is 294,300. Figure 2-1 shows the change in Thurston County's population since 1980. Between 1980 and 2020, Thurston County's population more than doubled, growing 137 percent over 40 years. For the same period of time, the average annual rate of population change was 2.2 percent. Over the next 25 years, Thurston County's population is anticipated to grow by another 89,200 people at a rate of 1.1 percent per year on average – to about 383,500 people.

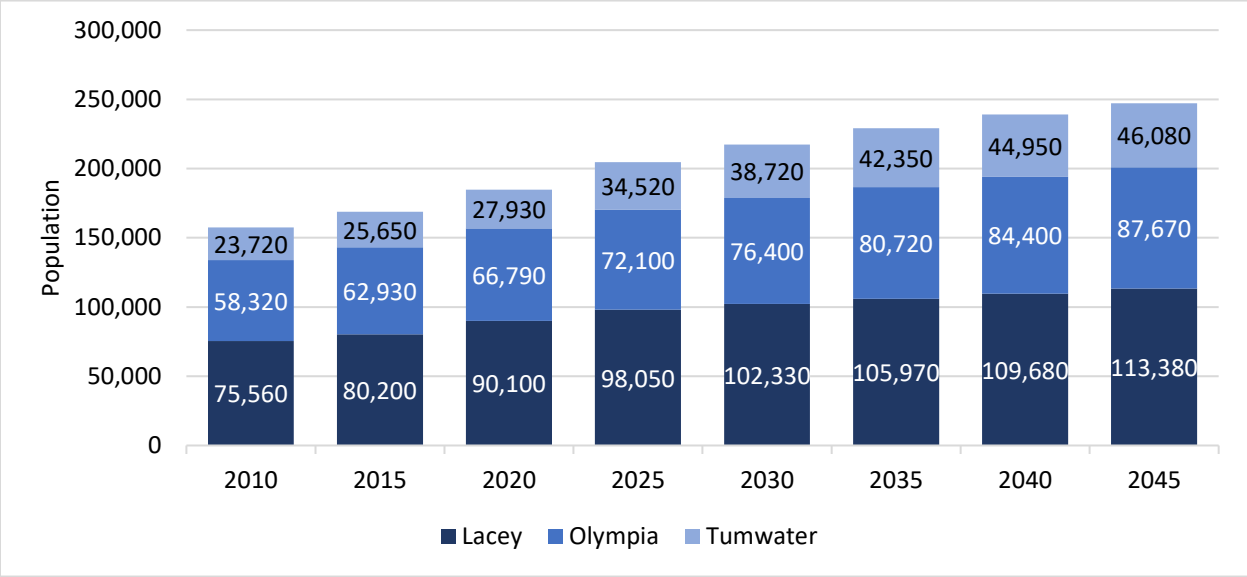
Figure 2-1. Thurston County population, 1980-2045



Source: Washington Office of Financial Management

In 2020, approximately 184,820 people in Thurston County live in in the combined areas of Lacey, Olympia, Tumwater, and their respective unincorporated urban growth areas (UGAs) – representing 64 percent of Thurston County's population (Figure 2-2).

Figure 2-2. Population in cities including their unincorporated urban growth areas, 2010-2045



Source: Thurston Regional Planning Council

Table 2-1 shows the total population for the cities in 2020 and their respective unincorporated urban growth areas (UGAs). Lacey's estimated population was 52,910, slightly less than that of Olympia. However, when looking at Lacey's population and including future annexation areas in the city's urban growth area, Lacey has 90,100 people – 35 percent more than Olympia. Tumwater's population is less than half that of Lacey and Olympia, even when including their respective UGAs.

Table 2-1. Population, 2020

Population	Lacey	Olympia	Tumwater	Cities Combined
City	52,910	54,150	24,600	131,660
Unincorporated UGA	37,190	12,640	3,330	53,160
Total	**90,100**	**66,790**	**27,930**	**184,820**

Source: Thurston Regional Planning Council

Age

Table 2-2 shows the age of Thurston County's population, both in terms of count and percent of population. Approximately one in two Thurston County residents are under the age of 40; one in three is between the ages of 40 and 64. Only about one in six people are 65 or older. Olympia residents skew slightly older than the other communities, with a median age of 38.3. Lacey's population is the youngest, with a median age of 35.3.

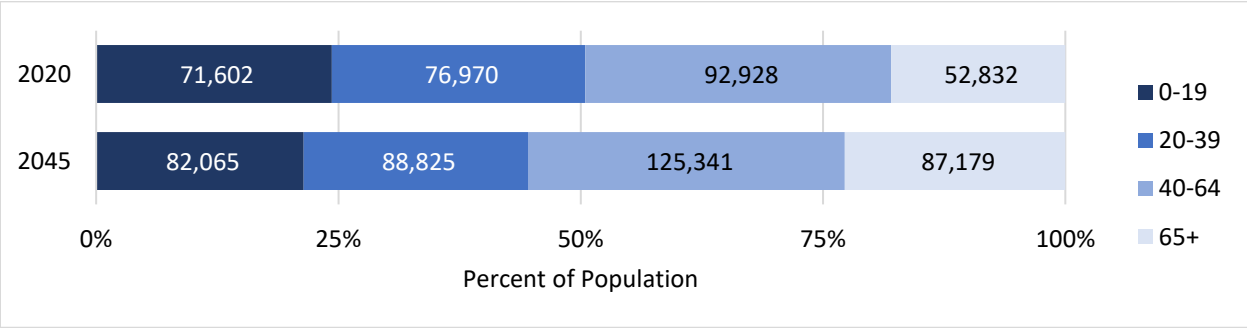
Table 2-2. Age of Population, 2014-2018 average

Age Cohort	Lacey	Olympia	Tumwater	Cities Combined	Thurston County
Count of Population					
0-19	12,381	10,105	5,274	27,760	65,788
20-39	14,903	16,598	7,140	38,641	75,426
40-64	12,826	15,415	6,946	35,187	88,856
65+	7,742	8,718	3,140	19,600	44,614
TOTAL	**47,852**	**50,836**	**22,500**	**121,188**	**274,684**
Percent of Population					
0-19	26%	20%	23%	23%	24%
20-39	31%	33%	32%	32%	27%
40-64	27%	30%	31%	29%	32%
65+	16%	17%	14%	16%	16%
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**
Median Age	35.3	38.3	36.7	n/a	39.0

Source: U.S. Census Bureau American Community Survey

Figure 2-3 and Table 2-3 (next page) show the distribution of the population based on age, comparing 2020 to 2045. The portion of Thurston County's population under the age of 40 is projected to shrink over the next 25 years. The portion of the population between age 40 and 64 is projected to remain relatively constant, while the portion 65 and older will grow.

Figure 2-3. Age of Thurston County population, 2020 and 2045



Source: Washington Office of Financial Management

Table 2-3. Age of Thurston County population as a percent of total, 2020-2045

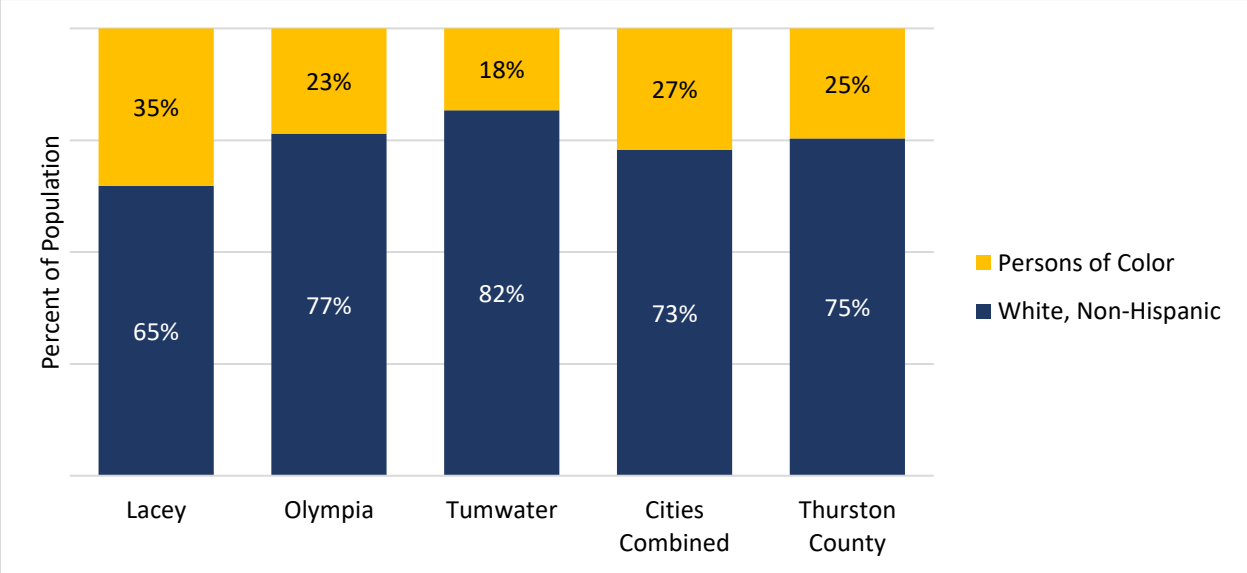
Age Cohort	2020	2025	2030	2035	2040	2045
0-19	24%	24%	23%	22%	22%	21%
20-39	26%	25%	24%	24%	23%	23%
40-64	32%	31%	32%	32%	33%	33%
65+	18%	20%	21%	22%	22%	23%
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Washington Office of Financial Management

Race and Ethnicity

About one in four Thurston County residents is a person of color (Figure 2-4). For the purposes of this report, persons of color include those who identify as Hispanic or Latino of any race and persons who identify as any race other than white alone. Of the three communities, Lacey is the most diverse while Tumwater is the least diverse.

Figure 2-4. Racial and ethnic diversity in Thurston County, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

Those who are Hispanic or Latino of any race represent the largest minority population (9 percent) (Table 2-4). For persons who are not Hispanic or Latino, those who are Asian (7 percent), Black (4 percent), and identified themselves as multiracial (5 percent) are also significant minority populations in the three-city area. Thurston County is becoming more diverse. Between 2000 and 2014-2018, the percent of the population identifying as a person of color increased from 19 to 27 percent.

Table 2-4. Racial and Ethnic Diversity in Lacey, Olympia, and Tumwater, 2000 and 2014-2018 average

	2000		2014-2018	
Race and Ethnicity	**Count**	**Percent**	**Count**	**Percent**
White, Non-Hispanic	69,857	81%	88,289	73%
Asian, Non-Hispanic	5,330	6%	8,892	7%
Black, Non-Hispanic	2,394	3%	4,397	4%
Native American, Non-Hispanic	1,038	1%	1,216	1%
Native Hawaiian/Pacific Islander, Non-Hispanic	480	1%	1,108	1%
Other Race, Non-Hispanic	252	<1%	2,466	<1%
Multiracial, Non-Hispanic	2,863	3%	6,083	5%
Hispanic of Any Race	4,224	5%	11,061	9%
TOTAL	**86,438**	**100%**	**121,188**	**100%**

Source: U.S. Census Bureau American Community Survey

Disability

Approximately 15 percent of Thurston County's population lives with a disability. Measuring disability is a complex concept, and there are many ways to look at what it means to live, work, or play with a disability. Data concerning disability status in this report comes from the U.S. Census Bureau's American Community Survey (ACS) and is limited to the civilian noninstitutionalized population. The ACS measures disability based on whether a person experiences a functional limitation in at least one of six different areas: hearing, vision, cognition, ambulation, self-care, and independent living. Each of these areas has implications for the type of housing needed by that individual. Of the six functional limitations, the most common reported in Thurston County are ambulatory (6.7 percent) and independent living (5.3 percent) (Table 2-5).

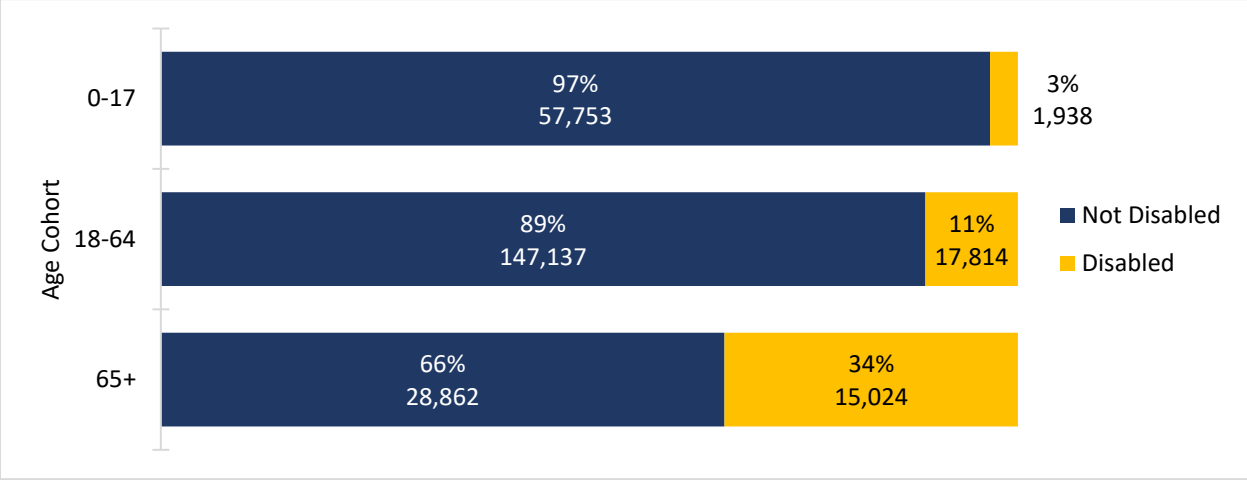
Table 2-5. Types of disability in the Thurston County population, 2014-2018 average

Type of Disability	Count	Percent
Hearing	11,509	4.3%
Vision	6,111	2.3%
Cognitive	12,040	4.8%
Ambulatory	16,991	6.7%
Self-care	5,915	2.3%
Independent living	10,991	5.3%

***Note:** A person may have more than one type of disability.*
Source: U.S. Census Bureau American Community Survey

Figure 2-5 looks at disability status for the entire Thurston County population, breaking it into three age cohorts: children age 0 to 17, adults age 18 to 64, and adults age 65 and older. Only three percent of children and 11 percent of adults age 18-64 have a disability while 34 percent of adults 65 and older have at least one disability.

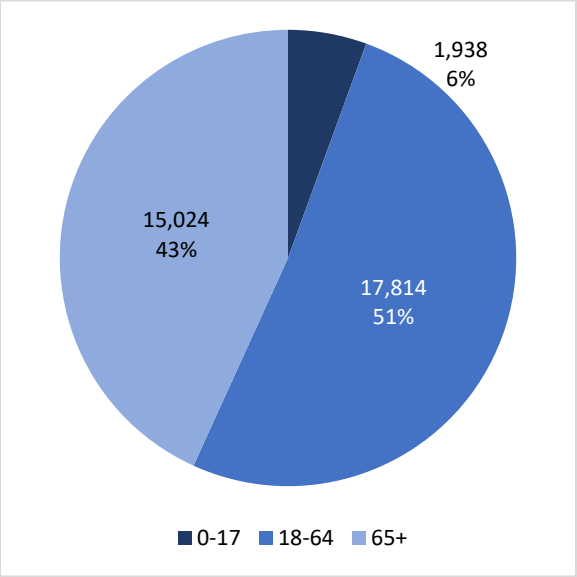
Figure 2-5. Disability status in Thurston County by age, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

Figure 2-6 and Table 2-6 (next page) look at only those with disabilities. More than 15,000 seniors make up 43 percent of people with disabilities, and 43 percent of people with disabilities in Thurston County live in Lacey, Olympia, and Tumwater.

Figure 2-6. Disability by age, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

Table 2-6. Disability by age, 2014-2018 average

Age Cohort	Lacey	Olympia	Tumwater	Cities Combined	Thurston County
0-17	367	240	124	731	1,938
18-64	2,837	3,534	1,258	7,629	17,814
65+	2,632	2,898	1,088	6,618	15,024
TOTAL	**5,836**	**6,672**	**2,470**	**14,978**	**34,776**

Source: U.S. Census Bureau American Community Survey

Poverty

Approximately 15,139 people in Lacey, Olympia, and Tumwater combined live in poverty, and more than half live in Olympia (Table 2-7). Of the three cities, Olympia has the highest poverty rate, at 16.7 percent (Figure 2-7, next page). While poverty rates for Lacey, Tumwater, and Thurston County have all fallen since the Great Recession, Olympia's poverty rate has actually increased. Tumwater has the lowest poverty rate at 9.6 percent. A significant demographic of those living in poverty in Olympia are college and university students. According to a 2013 Census Bureau report, when college students – specifically those living off campus and not with their families – are excluded, the poverty rate decreases. For 2009-2011, Olympia's poverty rate decreased from 16.5 percent to 13.2 percent while Lacey's poverty rate decreased from 10.8 percent to 10.5 percent[1]. No information was available for Tumwater.

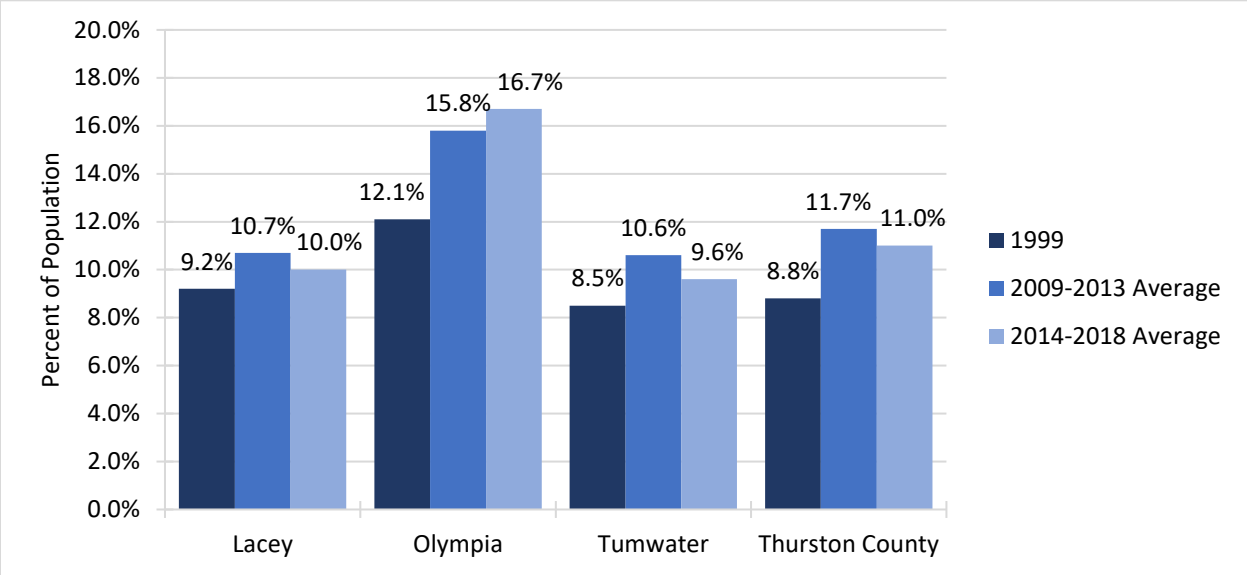
Table 2-7. People living in poverty, 2014-2018 average

	Lacey	Olympia	Tumwater	Cities Combined	Thurston County
1999	2,798	4,982	1,060	8,840	17,992
2009-2013 Average	4,574	7,330	1,881	13,785	29,545
2014-2018 Average	4,675	8,300	2,164	15,139	29,718

Source: U.S. Census Bureau American Community Survey

[1] Bishaw, Alemayehu 2013 "Examining the Effect of Off-Campus College Students on Poverty Rates" (https://www.census.gov/content/dam/Census/library/working-papers/2013/acs/2013_Bishaw_01.pdf).

Figure 2-7. Poverty rates, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

Chapter 3.
Household Characteristics

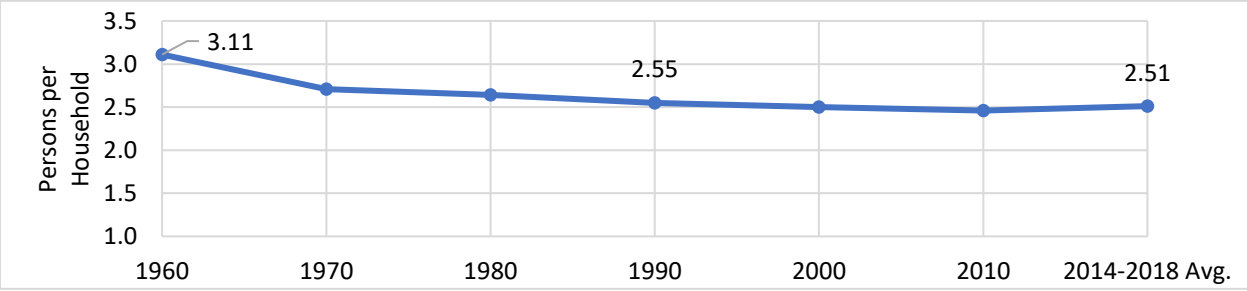
"Households" are groups of people living together in a single home. Members of households can be related ("family households") or unrelated ("non-family households"). Thurston County is home to more than 100,000 households with nearly half in Lacey, Olympia, and Tumwater.

This chapter of the housing needs assessment looks at household characteristics, including household size and composition, homeownership and tenancy, and household income. It also includes a discussion of people who live in group quarters.

Household Size and Composition

Household size has generally fallen – from a high of 3.11 persons per household in 1960 to just 2.51 in 2018 (Figure 3-1). For the last thirty years, average household size has remained at or close to 2.5 persons per household.

Figure 3-1. Average household size in Thurston County, 1960-2018



Source: U.S. Census Bureau 1960 through 2010 Decennial Census, American Community Survey

Slight variations in average household size exist between Lacey, Olympia, and Tumwater (Table 3-1). Olympia has the smallest households with just 2.21 persons per household while Lacey has the largest (2.50). Household size also varies by race and ethnicity (Table 3-2). Households headed by a person of color are, on average, larger than those headed by a person who is white and not Hispanic.

Table 3-1. Average household size, 2014-2018 average

Jurisdiction	Persons per Household
Lacey	2.50
Olympia	2.21
Tumwater	2.39
Thurston County	2.51

Source: U.S. Census Bureau American Community Survey

Table 3-2. Average household size by race and ethnicity, 2010

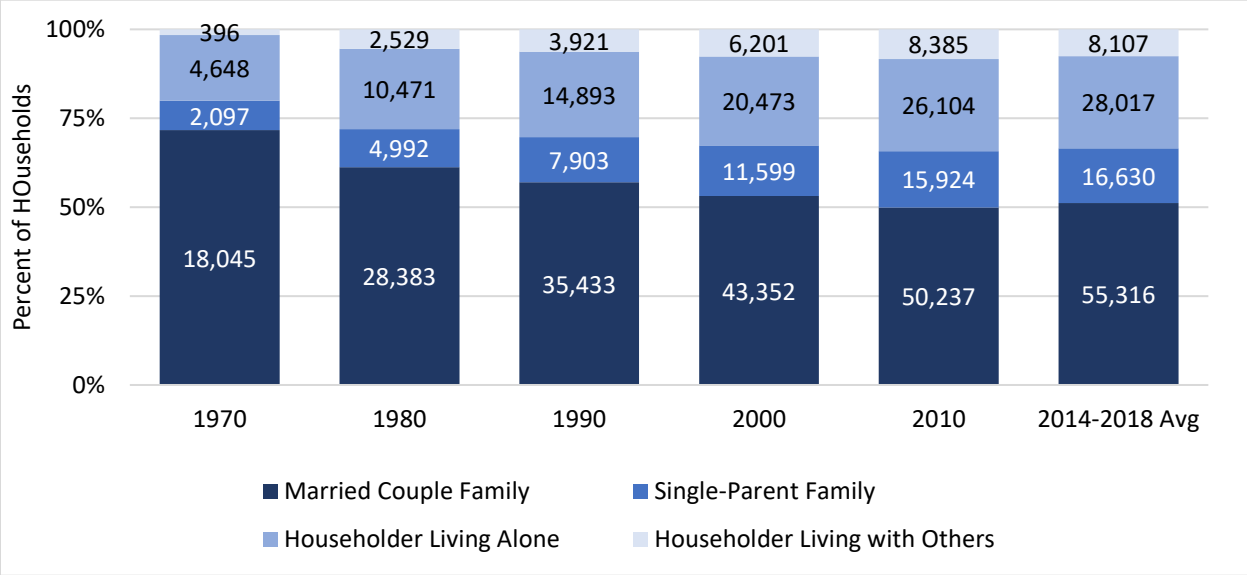
Householder Race and Ethnicity	Persons per Household
White, Non-Hispanic	2.38
Person of Color	2.91

Source: U.S. Census Bureau American Community Survey

What is a Householder?
According to the U.S. Census Bureau's American Community Survey, one person in each household is designated as the householder. In most cases, this is the person or one of the people in whose name the home is owned, being bought, or rented and who is listed on line one of the survey questionnaire. If there is no such person in the household, any adult household member 15 years old and over could be designated as the householder.

Figure 3-2 shows the types of households found in Thurston County since 1970. Household types include married couple families, single-parent families, persons living alone, and unrelated persons living together. A family consists of two or more people living in the same household who are related by birth, marriage, or adoption. All people in a household who are related to the householder are regarded as members of the family. "Householder living with others" indicates two or more unrelated people living together. The makeup of individual households has changed over the last 50 years. In 1970, only 20 percent of households were nonfamily households (householders living alone or with others they are not related to) compared to 33 percent for the 2014-2018 average.

Figure 3-2. Thurston County households by type, 1970-2018



Source: U.S. Census Bureau

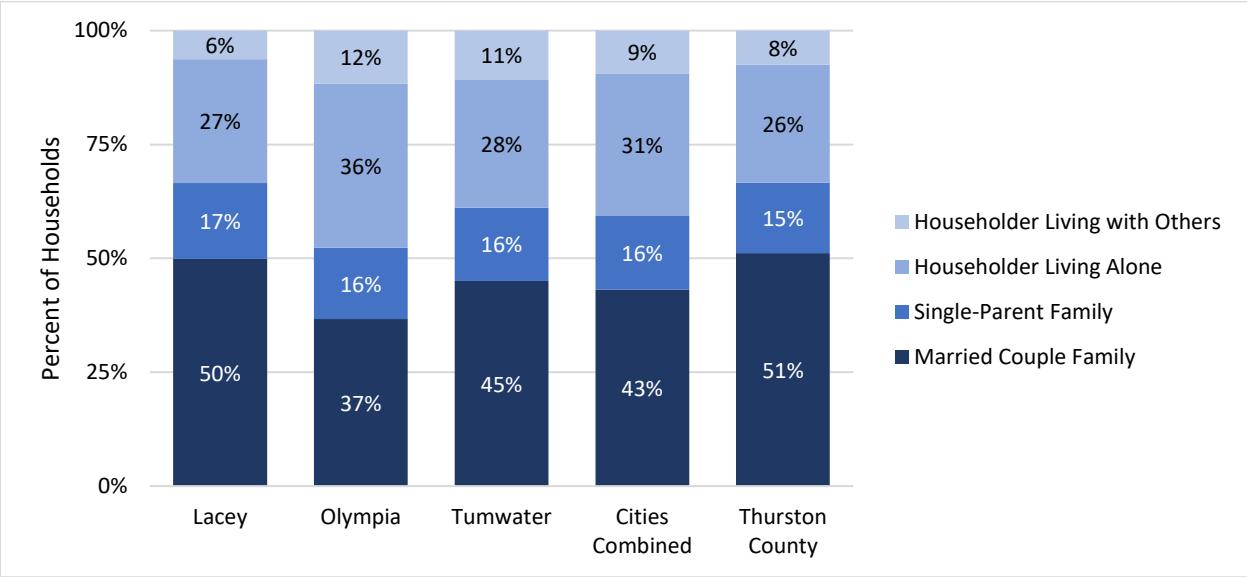
Table 3-3 and Figure 3-3 (next page) show the types of households found in Lacey, Olympia, Tumwater, the three cities combined, and Thurston County. Half of all Lacey households are married couple families compared to only 37 percent of households in Olympia. Householders living alone make up 36 percent of households in Olympia, but only 27 percent in Lacey and 28 percent in Tumwater. Measured as a percentage, Lacey has half as many householders living with others (six percent) than either Tumwater (11 percent) or Olympia (12 percent).

Table 3-3. Households by type, 2014-2018 average

Household Type	Lacey	Olympia	Tumwater	Cities Combined	Thurston County
Married Couple Family	9,331	8,196	4,203	21,730	55,316
Single-Parent Family	3,125	3,507	1,507	8,139	16,630
Householder Living Alone	5,084	8,055	2,613	15,752	28,017
Householder Living with Others	1,171	2,593	1,013	4,777	8,107
TOTAL	**18,711**	**22,351**	**9,336**	**50,398**	**108,070**

Source: U.S. Census Bureau American Community Survey

Figure 3-3. Households by type, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

Nonfamily households are more likely to be found in Olympia than either Lacey or Tumwater. Table 3-4 and Figure 3-4 (next page) look at households with children. Only 24 percent (5,410) of Olympia households include children, compared to 30 percent (2,814) for Tumwater and 32 percent (6,036) for Lacey. Olympia is also less likely to have family households without children than either Lacey or Tumwater.

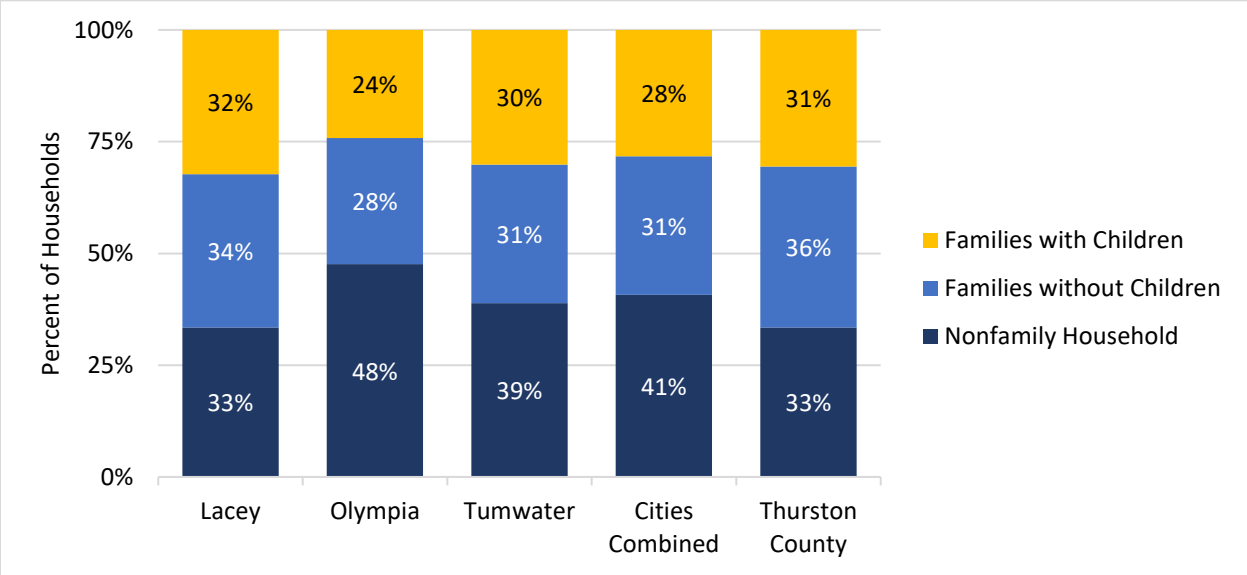
Table 3-4. Households with children, 2014-2018 average

Household Type	Lacey	Olympia	Tumwater	Cities Combined	Thurston County
Family Households with Children	6,036	5,410	2,814	14,260	33,011
Family Households without Children	6,420	6,293	2,896	15,609	38,935
Nonfamily Households	6,255	10,648	3,626	20,529	36,124
TOTAL	**18,711**	**22,351**	**9,336**	**50,398**	**108,070**

NOTE: *Some nonfamily households may contain children, such as a foster child living with a single adult. It is not clear how many children reside with one or more persons they are not related to.*

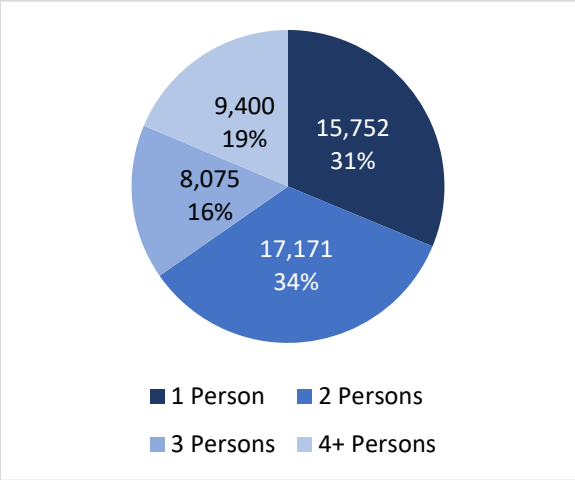
Source: U.S. Census Bureau American Community Survey

Figure 3-4. Households with children, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

Figure 3-5. Household size in Lacey, Olympia, and Tumwater combined, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

Of the total households in Lacey, Olympia, and Tumwater, 65 percent (32,923) have only one or two people (Figure 3-5). Olympia has more one-person households (8,055) than Lacey and Tumwater combined (5,084 and 2,613 respectively) while Lacey has the most households (4,257) with four or more people (Table 3-5).

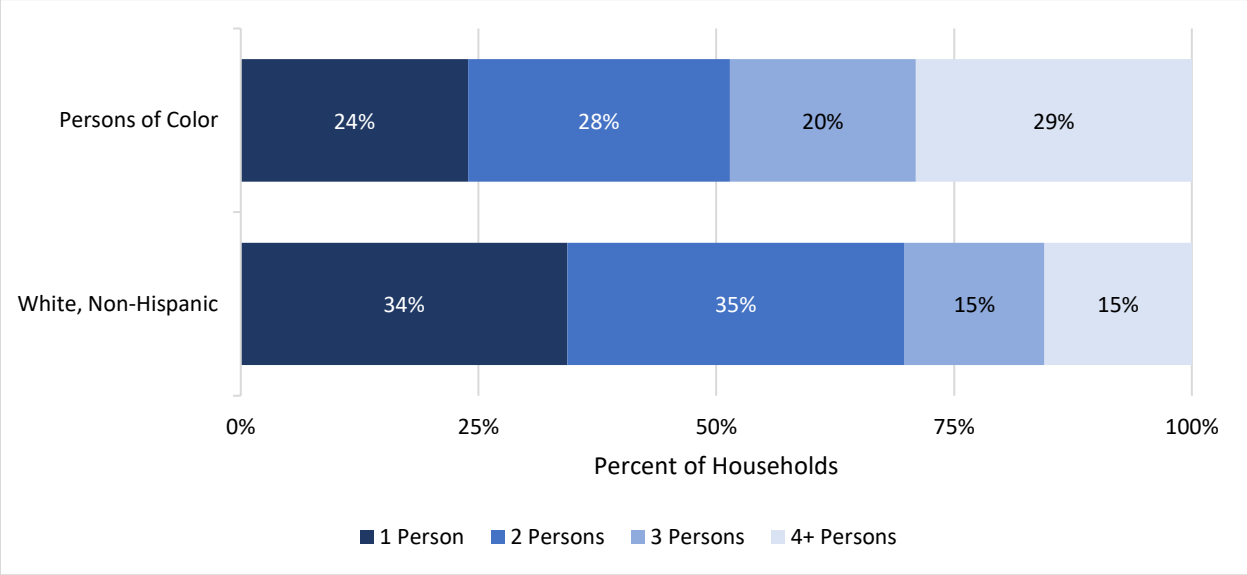
Table 3-5. Household size by location, 2014-2018 average

Persons per Household	Lacey	Olympia	Tumwater	Cities Combined	Thurston County
1 Person	5,084	8,055	2,613	15,752	28,017
2 Persons	6,227	7,522	3,422	17,171	39,147
3 Persons	3,143	3,343	1,589	8,075	17,563
4+ Persons	4,257	3,431	1,712	9,400	23,343
All Households	**18,711**	**22,351**	**9,336**	**50,398**	**108,070**

Source: U.S. Census Bureau American Community Survey

Taking into consideration the householder's race (Figure 3-6), people of color in Thurston County are less likely to live in one- or two-person households than people who are white and not Hispanic. Forty-nine percent of households headed by a person of color contain three or more people compared to 30 percent for households headed by a person who is white and not Hispanic.

Figure 3-6. Thurston County household size by race and ethnicity, 2010



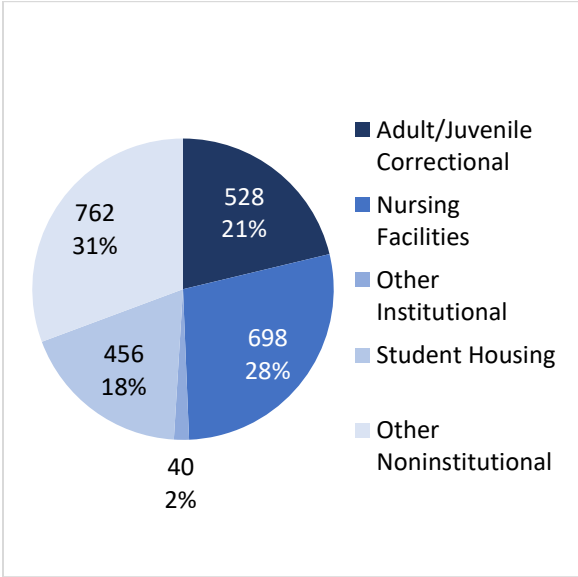
Source: U.S. Census Bureau American Community Survey

Group Quarters

In 2010, 2,484 Lacey, Olympia, and Tumwater residents lived in an institutional or noninstitutional group quarters setting (Figures 3-7 and 3-8, next page). This includes nursing facilities, adult group homes, homeless shelters, rehabilitation centers, and other types of group quarters (Table 3-6, next page). The remaining group quarters population is split between correctional facilities and college student dormitories.

The group quarters population is expected to increase by 1,700 people – 69 percent – between 2010 and 2045. Most of this increase is likely to be driven by nursing facilities, adult family homes, and other care facilities for an aging population.

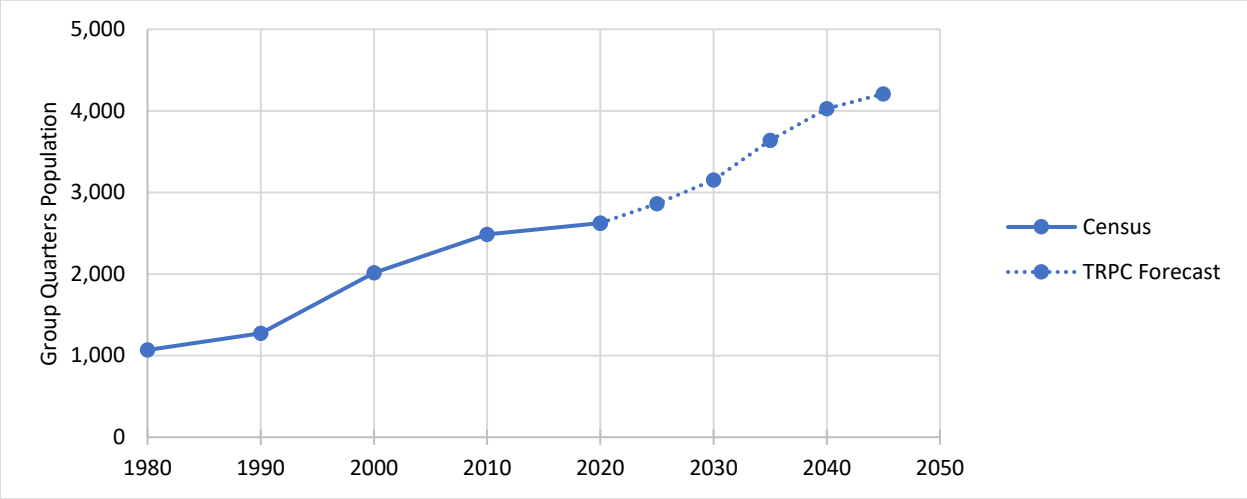
Figure 3-7. Population in group quarters in Lacey, Olympia, and Tumwater by facility type, 2010



Source: U.S. Census Bureau

The population experiencing homelessness is poorly reflected in these numbers. See Chapter 4 for more information on characteristics of the population experiencing homelessness.

Figure 3-8. Population in group quarters in Lacey, Olympia, and Tumwater, 1980-2045



Source: University of Minnesota IPUMS NHGIS, Thurston Regional Planning Council

Table 3-6. Types of group quarters

Institutional Group Quarters	Non-Institutional Group Quarters
Correctional Facilities for Adults • Federal Detention Centers • Federal and State Prisons • Local Jails and Other Municipal Confinement Facilities • Correctional Residential Facilities • Military Disciplinary Barracks and Jails **Juvenile Facilities** • Group Homes for Juveniles • Residential Treatment Centers for Juveniles • Correctional Facilities Intended for Juveniles **Nursing Facilities/Skilled-Nursing Facilities** **Other Institutional Facilities** • Mental (Psychiatric) Hospitals and Psychiatric Units in Other Hospitals • Hospitals with Patients Who Have No Usual Home Elsewhere • In-Patient Hospice Facilities • Military Treatment Facilities with Assigned Patients • Residential Schools for People with Disabilities	**College/University Student Housing** **Military Quarters** • Military Quarters • Military Ships **Other Non-Institutional Group Quarters** • Emergency and Transitional Shelters (With Sleeping Facilities) for People Experiencing Homelessness • Domestic Violence Shelters • Soup Kitchens • Regularly Scheduled Mobile Food Vans • Targeted Non-Sheltered Outdoor Locations • Group Homes Intended for Adults • Residential Treatment Centers for Adults • Maritime/Merchant Vessels • Worker's Group Living Quarters and Job Corps Centers • Religious Group Quarters • Living Quarters for Victims of Natural Disaster

Source: U.S. Census Bureau 2010 Decennia Census

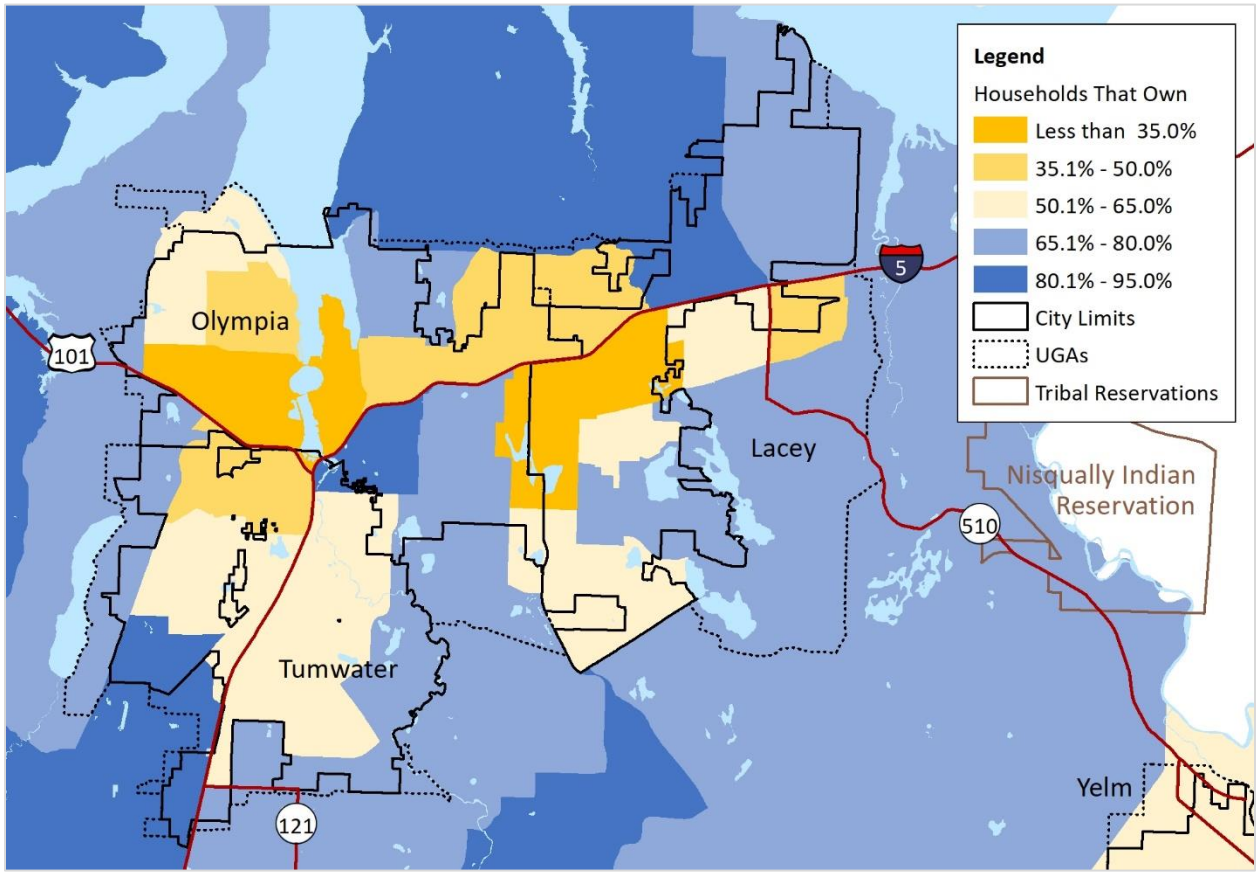
Ownership and Tenancy

Homeownership can help a household build equity and move out of poverty, providing long-term stability. Renting offers households flexibility – whether for military personnel who may be posted in the region only for a few years, someone re-entering society after having been incarcerated, a person with developmental disabilities that has limited income opportunities, or a senior who no longer wants the maintenance responsibilities that come with home ownership.

Census Tracts
Census tracts are small, relatively permanent statistical subdivisions of a county, the primary purpose of which is to provide a stable set of geographic units for the presentation of statistical data. Census tracts generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people.

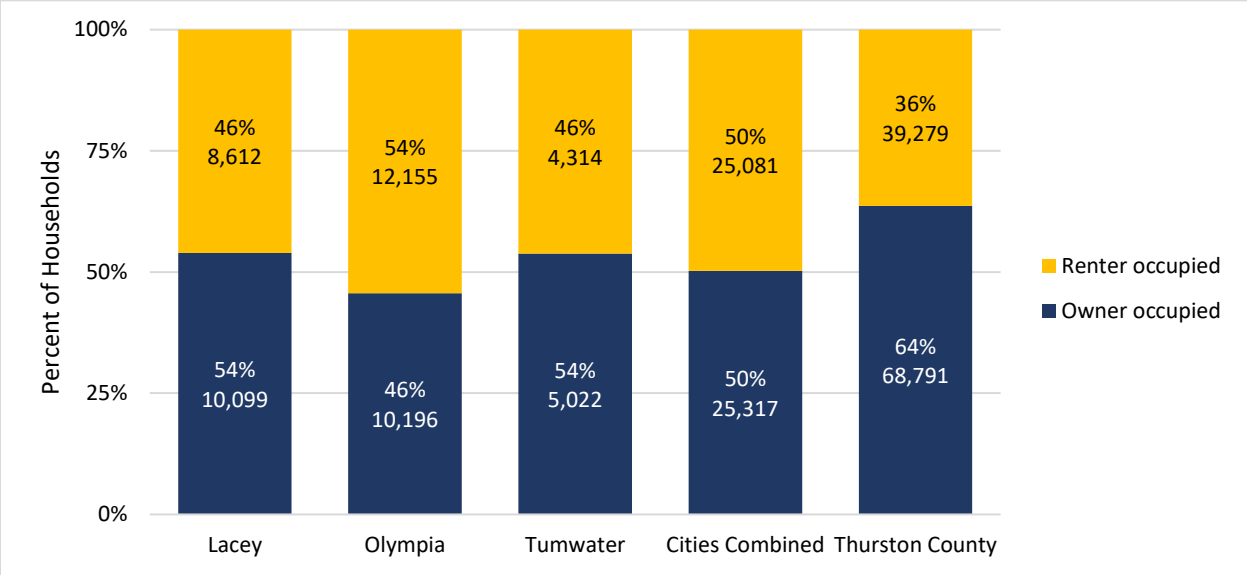
Figure 3-9 shows where households own their housing unit at the census tract level. Half of all occupied dwelling units in Lacey, Olympia, and Tumwater combined are owned by a member of the household (Figure 3-10, next page) compared to Thurston County where 64 percent are owner-occupied. Ownership varies among the three communities: in Olympia, 54 percent are renter occupied compared to 46 percent in Lacey and Tumwater.

Figure 3-9. Owner occupied households by census tract, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

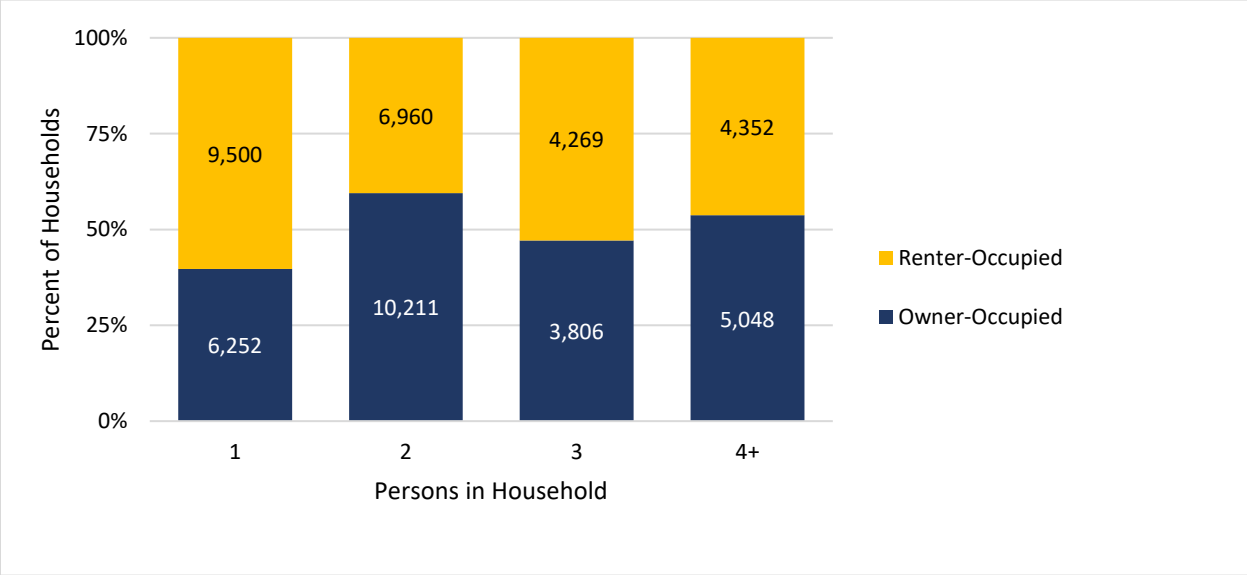
Figure 3-10. Ownership and tenancy, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

Most one-and three-person households in Lacey, Olympia, and Tumwater are renter-occupied while most households with two people or households with four or more people are owner-occupied (Figure 3-11).

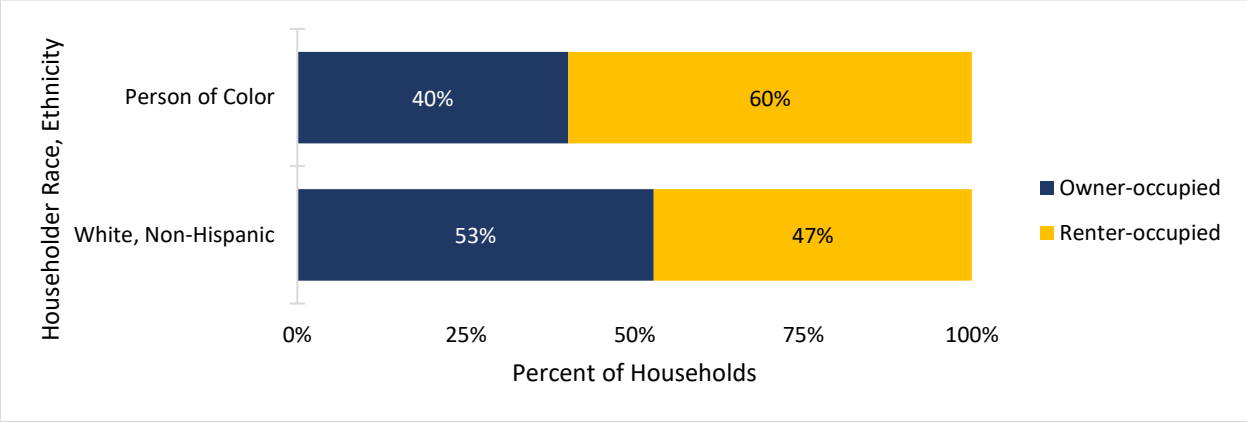
Figure 3-11. Household size by tenure in Lacey, Olympia, and Tumwater combined, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

Tenure also changes based on the race and ethnicity of the householder (Figure 3-12). Forty percent of householders who are people of color own their home compared to 53 percent for householders who are white and not Hispanic.

Figure 3-12. Tenure by race and ethnicity in Lacey, Olympia, and Tumwater combined, 2014-2018 average



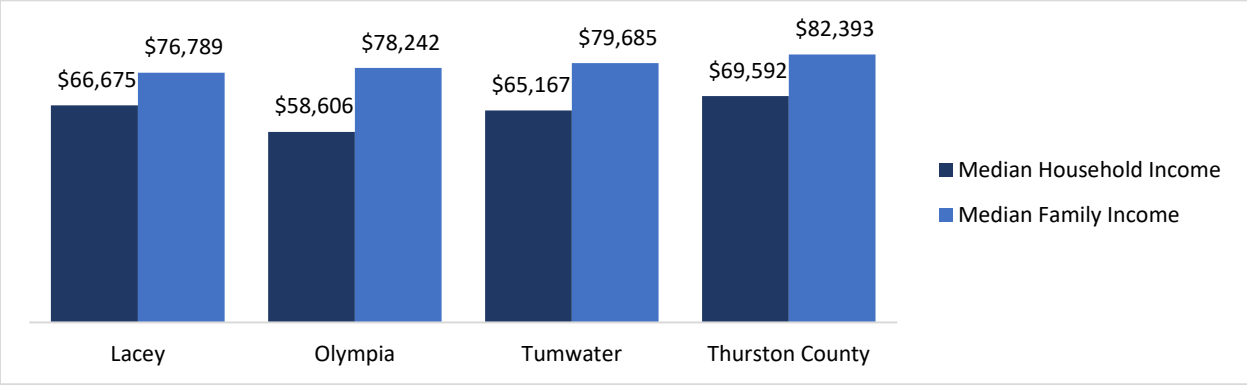
Source: U.S. Census Bureau American Community Survey

Income

A household's income includes wage and self-proprietor earnings, earnings from interest and rental property, social security and retirement income, and other forms of public assistance for all members of the household. Median household income is commonly used to compare incomes for different populations or areas. Half of households earn more and half earn less than the median household income. Median household income is based on the total number of households including those with no income. This is typically lower than the median family income (Figure 3-13). Family households tend to be larger (at least two people) and have more income earners. Olympia has the lowest median household income ($58,606) while Lacey has the highest ($66,675).

HUD Area Median Family Income
This section generally looks at household income. For a discussion of housing needs by HUD income levels (30, 50, 80, 100, and 120 percent of the area median family income) see Chapter 7, Gap Analysis.

Figure 3-13. Median family and household incomes, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

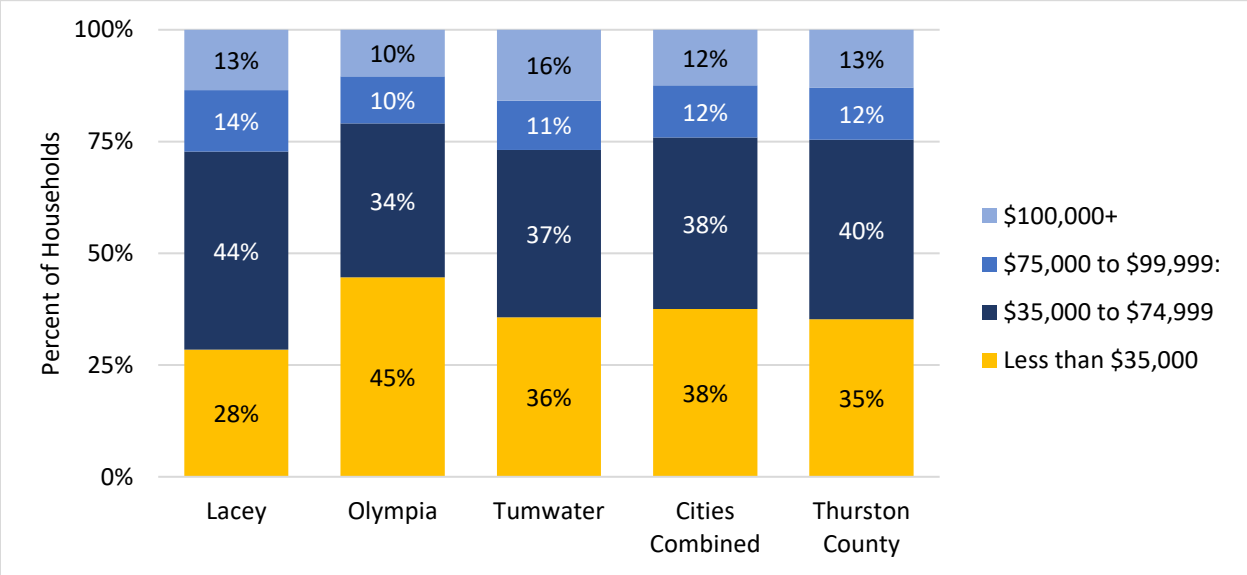
Table 3-7 and Figure 3-14 examine the actual income of households across the jurisdictions. In Olympia, 45 percent (5,420) of all households have an annual income of less than $35,000. Twenty-seven percent of households in both Lacey and Tumwater have an annual income of $75,000 or more compared to 20 percent in Olympia.

Table 3-7. Households by income, 2014-2018 average

Household Income	Lacey	Olympia	Tumwater	Cities Combined	Thurston County
Less than $35,000	2,452	5,420	1,539	9,411	13,833
$35,000 to $74,999	3,816	4,189	1,614	9,619	15,778
$75,000 to $99,999:	1,184	1,275	478	2,937	4,578
$100,000 or more	1,160	1,271	683	3,114	5,090
TOTAL Households	**8,612**	**12,155**	**4,314**	**25,081**	**39,279**

Source: U.S. Census Bureau American Community Survey

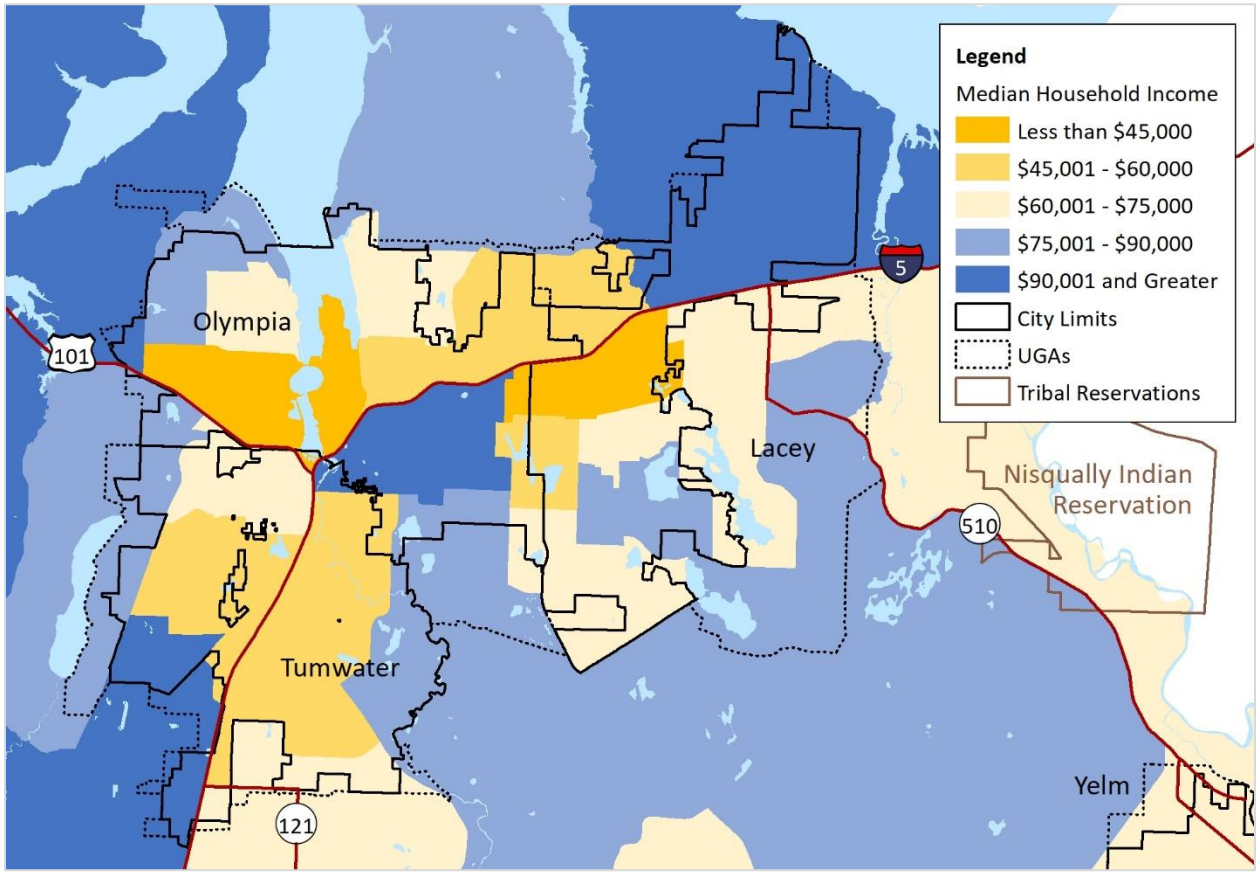
Figure 3-14. Percent of households by income, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

Figure 3-15 shows median household income by census tract.

Figure 3-15. Median household income by census tract, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

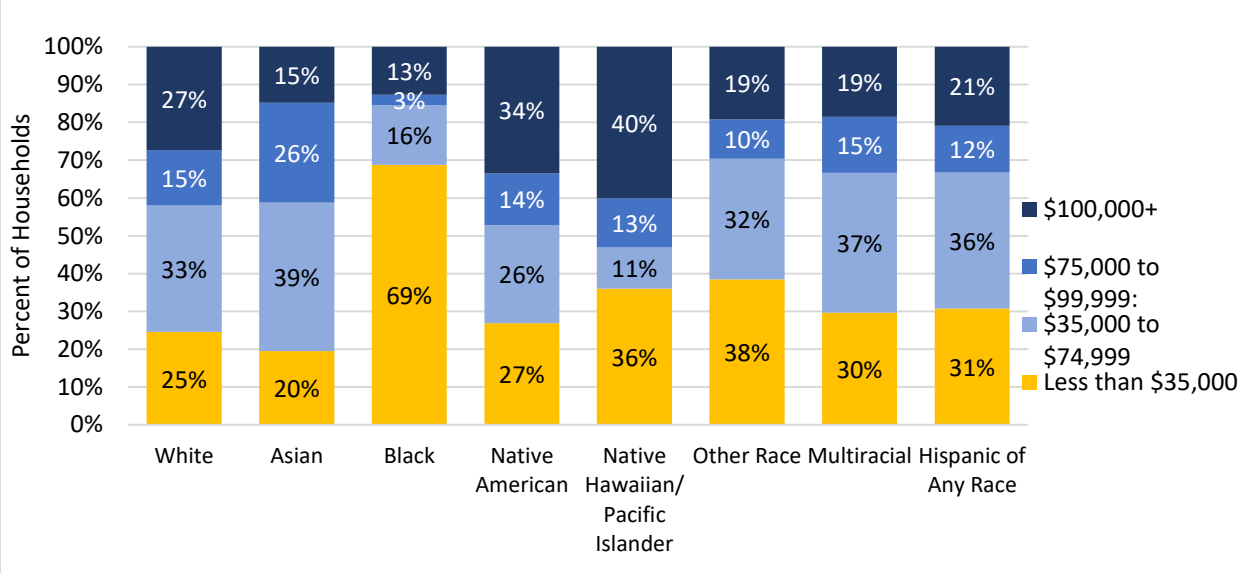
Table 3-8 and Figure 3-16 (next page) examine household income based on the race and ethnicity of the householder. Households headed by a person of color are frequently more likely to have an income less than $35,000 than a white, non-Hispanic householder. In Lacey, Olympia, and Tumwater, 69 percent of households headed by a person who is Black or African American have a household income less than $35,000 compared to just 25 percent of white, non-Hispanic households.

Table 3-8. Household Income in Lacey, Olympia, and Tumwater combined by race and ethnicity, 2014-2018 average

Household Income	White	Asian	Black	Native American	Native Hawaiian/ Pacific Islander	Other Race	Multiracial	Hispanic of Any Race
Less than $35,000	18,505	511	608	1,164	260	420	1,069	2,003
$35,000 to $74,999	28,438	1,032	368	1,436	248	311	1,330	2,104
$75,000 to $99,999:	14,016	702	129	663	51	213	579	951
$100,000 or more	27,326	611	287	1,734	247	213	884	1,368
TOTAL Households	**88,285**	**2,856**	**1,392**	**4,997**	**806**	**1,157**	**3,862**	**6,426**

NOTE: *In the table above, persons who are Latino or Hispanic are only represented in "Hispanic of Any Race."*
Source: U.S. Census Bureau American Community Survey

Figure 3-16. Household income in Lacey, Olympia, and Tumwater combined by race and ethnicity, 2014-2018 average



NOTE: *In the figure above, persons who are Latino or Hispanic are only represented in "Hispanic of Any Race."*
Source: U.S. Census Bureau American Community Survey

Chapter 4.
Unique Housing Needs

This chapter looks at the unique needs for housing for people who are elderly, those experiencing homelessness, veterans and military personnel, and college students.

Seniors

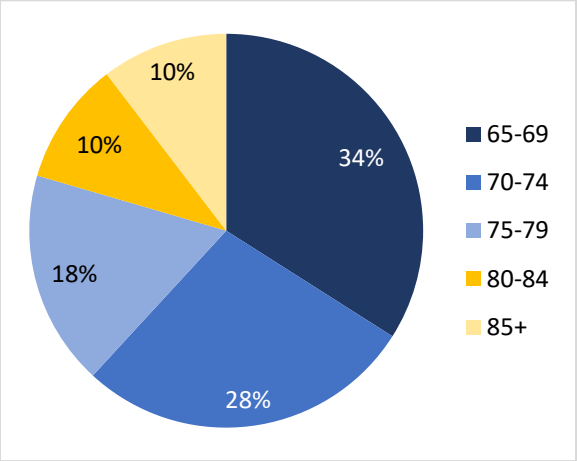
Approximately 52,800 seniors (age 65 or older) live in Thurston County in 2020, making up 18 percent of the total population. The senior population is forecasted to grow to 87,200 by 2045 and comprise 23 percent of the total population. In addition, the senior population will skew older in 2045 than it does today. Table 4-1 and Figures 4-1 and 4-2 (next page) show the breakdown of Thurston County's senior population today and forecasted for 2045. The proportion of seniors who are between the ages of 65 and 74 will shrink over the next 25 years while those who are 80 and older will grow. The growth in the number of older seniors has implications for the types of care and housing needed, including assisted living facilities, nursing homes, and adult family homes.

Table 4-1. Thurston County senior population, 2020-2045

Age Cohort	2020	2025	2030	2035	2040	2045
65-69	17,967	18,497	18,354	17,889	18,459	20,541
70-74	14,707	17,098	17,571	17,518	17,118	17,613
75-79	9,336	13,300	15,478	15,974	16,015	15,667
80-84	5,338	7,823	11,211	13,150	13,624	13,723
85+	5,484	6,452	8,897	12,849	16,823	19,635
TOTAL	**52,832**	**63,170**	**71,511**	**77,380**	**82,039**	**87,179**

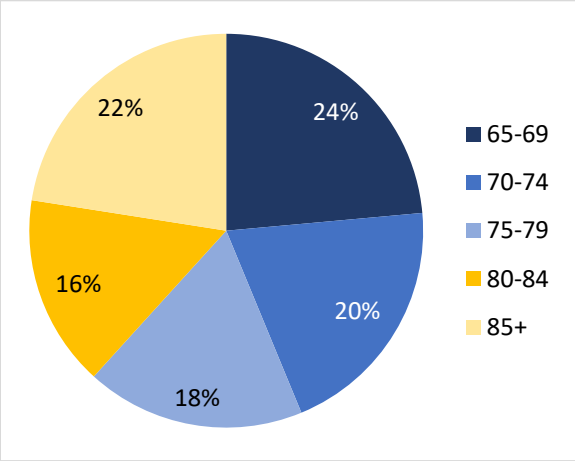
Source: Washington Office of Financial Management

Figure 4-1. Thurston County senior population, 2020



Source: Washington Office of Financial Management

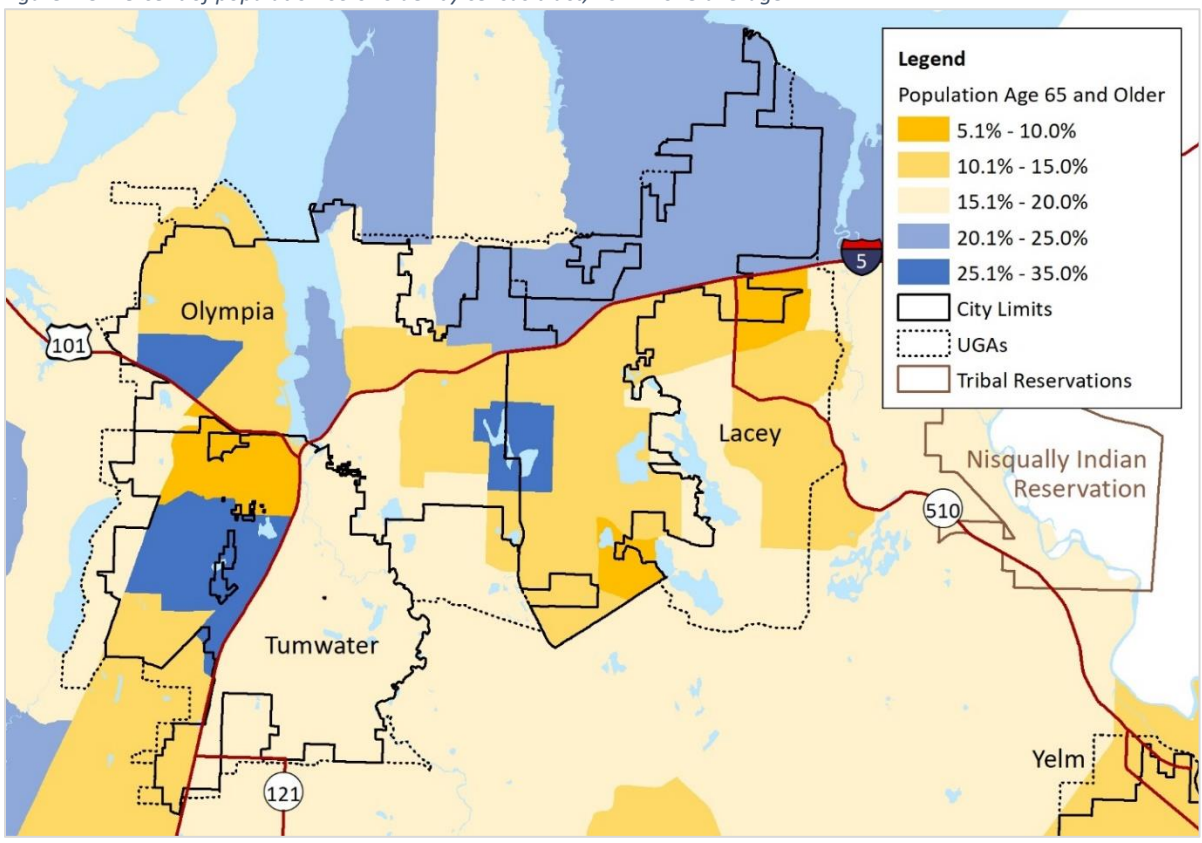
Figure 4-2. Thurston County senior population, 2045



Source: Washington Office of Financial Management

Figure 4-3 shows where the senior population lives based on census tracts. The census tracts near the Capital Medical Center in West Olympia, the Littlerock/Trosper Road area of Tumwater, and the Chambers Lake area in Lacey. There are also higher concentrations of seniors living in Lacey north of the freeway.

Figure 4-3. Percent of population 65 or older by census tract, 2014-2018 average

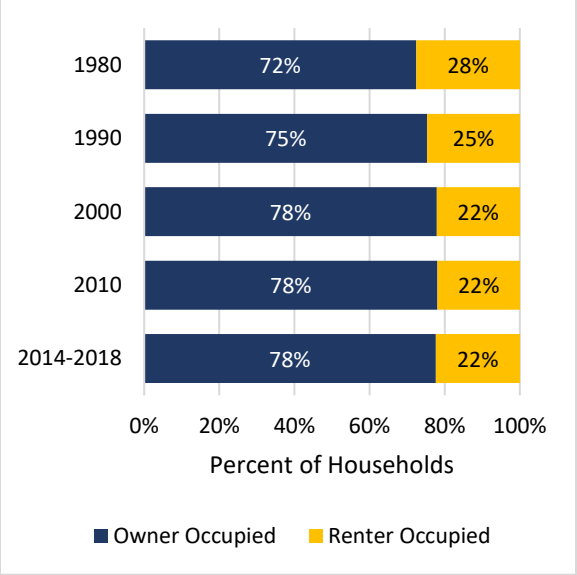


Source: U.S. Census Bureau American Community Survey

Since 2000, about 22 percent of the noninstitutionalized senior population in Thurston County rents their housing unit while 78 percent own it (Figure 4-4). While the percent of seniors renting has remained stable, the total number has increased. There are several apartment complexes and assisted living facilities in Lacey, Olympia in Tumwater targeted to people age 55 and older.

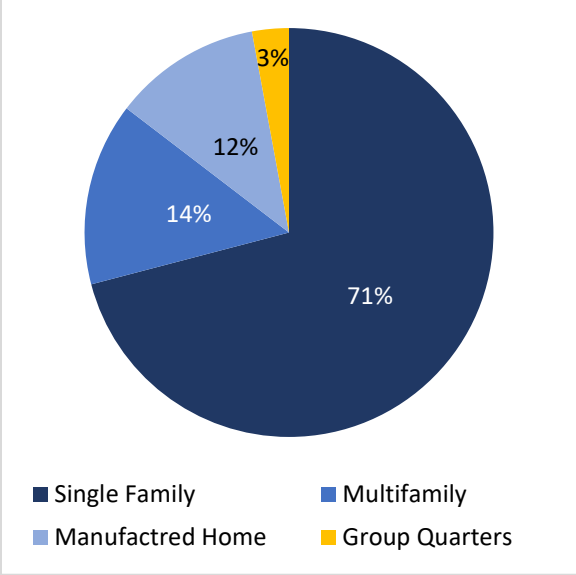
About 12 percent of seniors countywide live in manufactured housing or mobile homes (Figure 4-5) compared to nine percent for the county population as a whole. There are several manufactured home communities in Lacey, Olympia in Tumwater targeted to people age 55 and older.

Figure 4-4. Senior households in Thurston County by tenure, 1980-2018



Source: U.S. Census Bureau

Figure 4-5. Senior households in Thurston County by type of dwelling, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

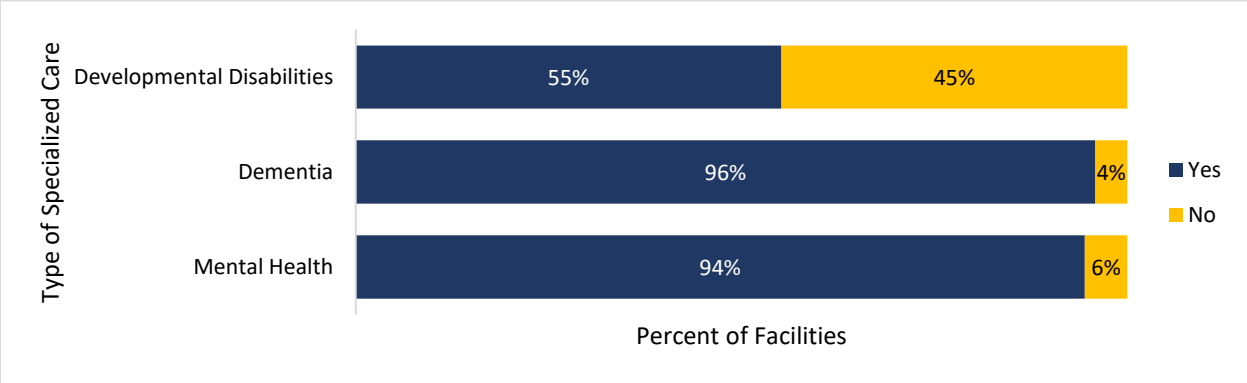
As of July 2, 2020, Thurston County is home to seven nursing home facilities with a total client capacity of 790 and 145 adult family homes with a total client capacity of 794 (Table 4-2). Some adult family homes offer specialized care for those with dementia, mental health issues, and developmental disabilities (Figure 4-6, next page). Specialized care is defined under state law, which sets standards a provider must meet to be classified as delivering such care.

Table 4-2. Adult family and nursing homes in Thurston County, 2020

Facility Statistics	Adult Family Homes	Nursing Homes
Total Facilities:	145	7
Total Beds:	794	790
Average Beds per Facility:	5.5	112.9

Source: Washington State Dept. of Social and Health Services

Figure 4-6. Adult family homes in Thurston County offering specialized care, 2020



Source: Washington State Dept. of Social and Health Services

Military Personnel and Veterans

The proximity of Joint Base Lewis-McChord (JBLM) to Thurston County impacts the number of military personnel and veterans who live in the region. Approximately 13,475 military personnel and veterans live in Lacey, Olympia, and Tumwater (Table 4-3). Service members who live off base are eligible to receive a basic housing allowance, ranging between $1,386 and $2,622 per month in 2020. The allowance varies based on the service member's location, rank, and the number of military dependents in their household. The basic housing allowance can be used for rental costs or a mortgage.

Forthcoming Military Housing Studies

There are two military-related housing studies anticipated to be released in 2020:

- *Housing Market Study by JBLM*
- *Off-Base Housing Study for Service Members by South Sound Military Communities Partnership*

These studies should provide clearer data on the housing needs of service members and their impact on the local housing market.

Table 4-3. Military personnel and veterans, 2014-2018 average

	Lacey	Olympia	Tumwater	Cities Combined	Thurston County
Veterans	5,858	3,646	1,968	11,472	28,992
Military Personnel	1,388	280	335	2,003	3,900
TOTAL	**7,246**	**3,926**	**2,303**	**13,475**	**32,892**

Source: U.S. Census Bureau American Community Survey

People Experiencing Homelessness

Thurston County conducts a census of those experiencing homelessness each year at a single point in time. Between 2015 and 2019, those experiencing homelessness grew from 476 to 800 people – a 68 percent increase (Figure 4-7) during the same period. The number of people who are unsheltered – sleeping outside, in a tent, car, or other place not meant for human habitation – increased from 34 percent of those experiencing homelessness in 2015 to 49 percent in 2019.

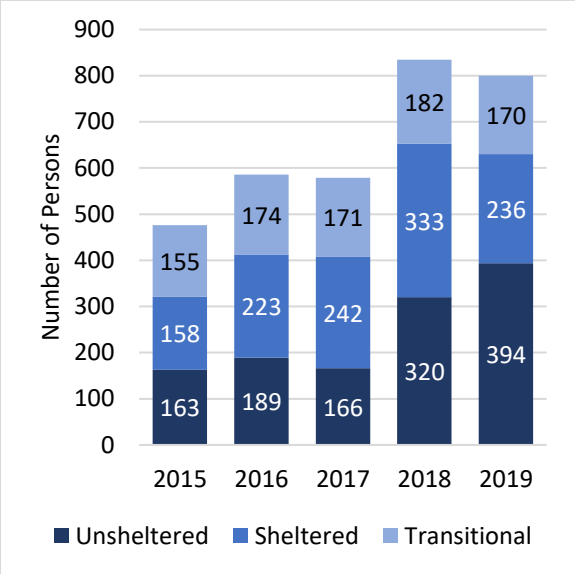
Figure 4-8 examines where those who experience homelessness shelter and includes two more categories of people who are housing insecure: those living in a jail or medical institution that will be released to a homeless situation and those who are temporarily staying with friends or family. When taking into consideration these additional populations whose housing may be tenuous, an additional 344 people could be considered to experience homelessness.

About 34 percent of those experiencing homelessness are unsheltered. Another 21 percent can be found in shelters and 15 percent in transitional housing. Thirty percent are incarcerated, in a medical institution, or are temporarily staying with friends or family.

Counting Those Experiencing Homelessness

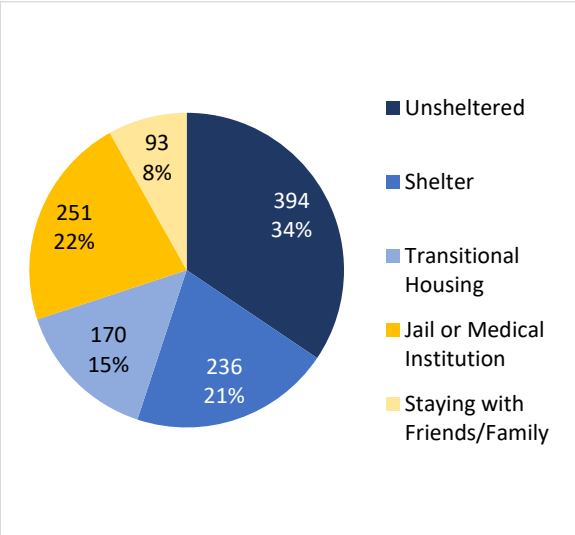
Not everyone experiencing homelessness can be found or chooses to participate in the annual Point-in-Time census. Counting those staying in shelters or an institution is easier than counting those living in a tent, in a car, or another unsheltered location. According to the Thurston County Homeless Crisis Response Plan, there are likely 800-1,000 unsheltered people countywide – 2-3 times as many unsheltered people as reported in the 2019 point-in-time census.

Figure 4-7. Homelessness in Thurston County, 2015-2019



Source: Thurston County Public Health and Social Services

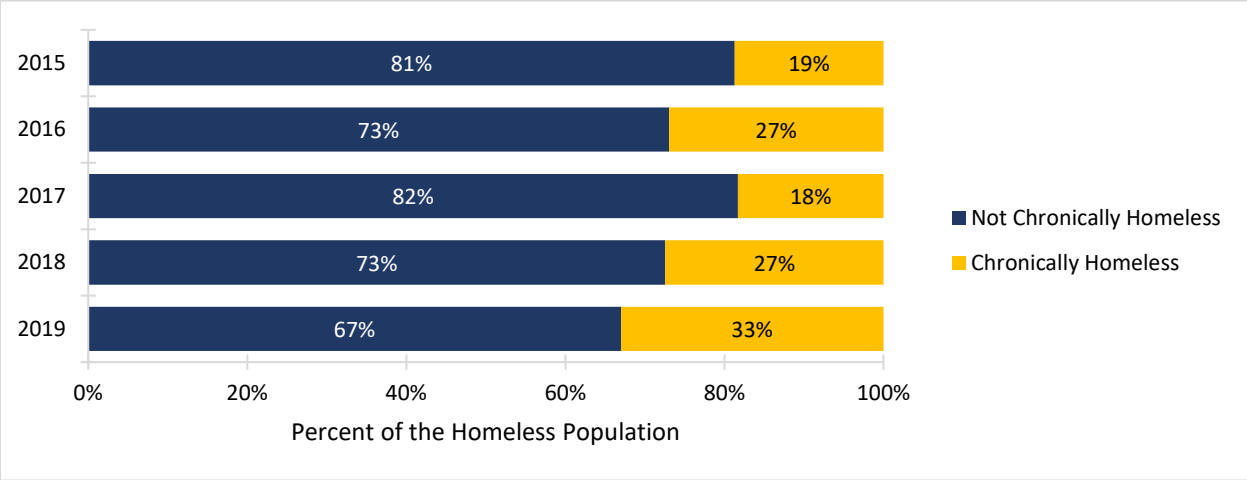
Figure 4-8. Where the homeless shelter in Thurston County, 2019



Source: Thurston County Public Health and Social Services

In 2019, 33 percent of people experiencing homelessness were considered chronically homeless (Figure 4-9). To be chronically homeless means a person has a disability and has also either been homeless for more than one year or has been homeless at least four times in the last three years.

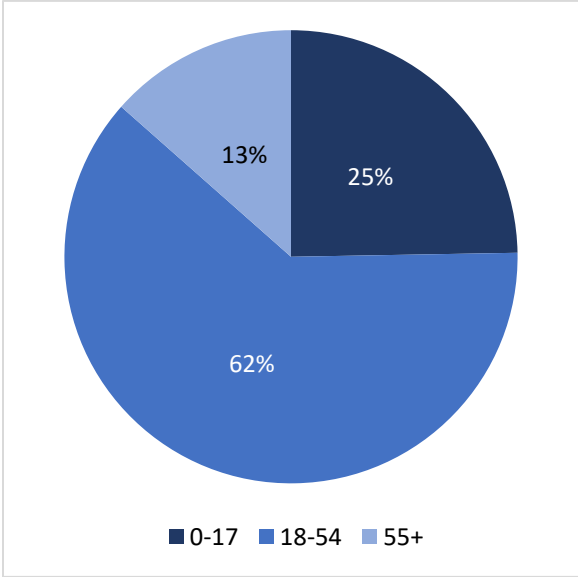
Figure 4-9. Chronic homelessness in the Thurston County homeless, 2019



Source: Thurston County Public Health and Social Services

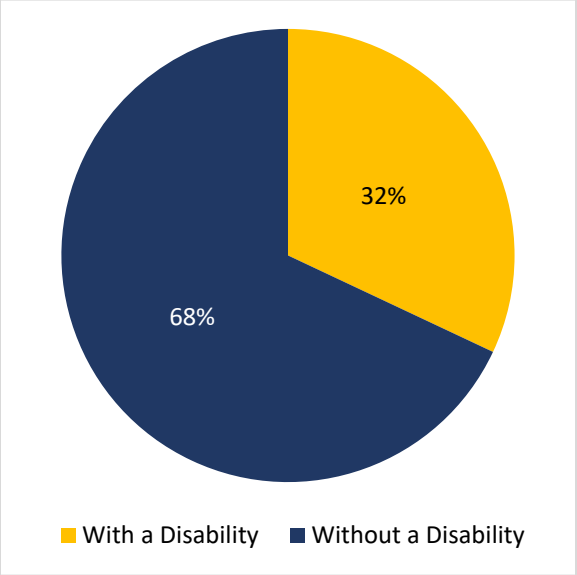
Thurston County reports that between July 2018 and June 2019, 1,886 households (2,345 people total) received assistance through a housing program. Housing programs include emergency shelter placement, rapid re-housing and homeless prevention assistance, transitional housing placement, or a permanent housing placement with or without supportive services. Of those that received assistance through a housing program, one in four was a minor (Figure 4-10), but the majority were single adults without children. Nearly one in three had some kind of disability (Figure 4-11, next page) with mental health issues and substance use being the most common types of reported (Figure 4-12, next page).

Figure 4-10. Age of those experiencing homelessness in Thurston County, 2019



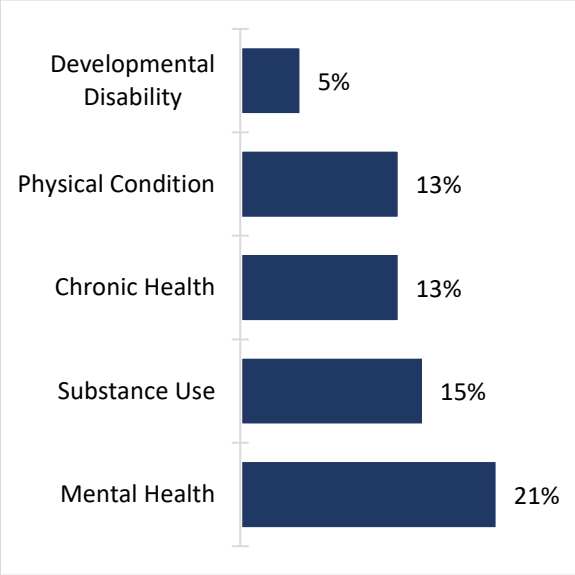
Source: Thurston County Public Health and Social Services

Figure 4-11. Disability among those experiencing homelessness in Thurston County, 2019



Source: Thurston County Public Health and Social Services

Figure 4-12. Types of disabilities among those experiencing homelessness, 2019



NOTE: *A person can report more than one disability.*
Source: Thurston County Public Health and Social Services

People of color are disproportionally represented in housing assistance programs (Table 4-4).

Table 4-4. Race and ethnicity of those experiencing homelessness in Thurston County, 2019

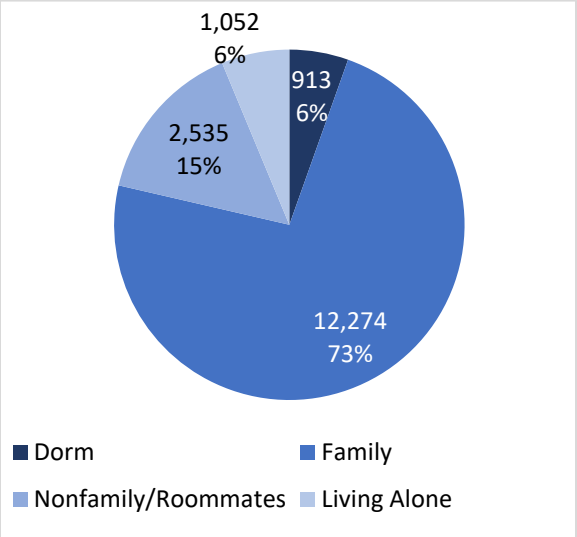
Race and Ethnicity	Population Experiencing Homelessness	Thurston County Population
White, Non-Hispanic	63%	73%
Asian, Non-Hispanic	1%	7%
Black, Non-Hispanic	10%	4%
Native American, Non-Hispanic	3%	1%
Native Hawaiian/Pacific Islander, Non-Hispanic	3%	1%
Multiracial, Non-Hispanic	9%	5%
Hispanic of Any Race	11%	9%
TOTAL	**100%**	**100%**

NOTE: *Data does not include individuals who did not report their race and ethnicity. Such persons account for 16 percent of all individuals served by housing programs in Thurston County.*
Source: Thurston County Public Health and Social Services

College Students

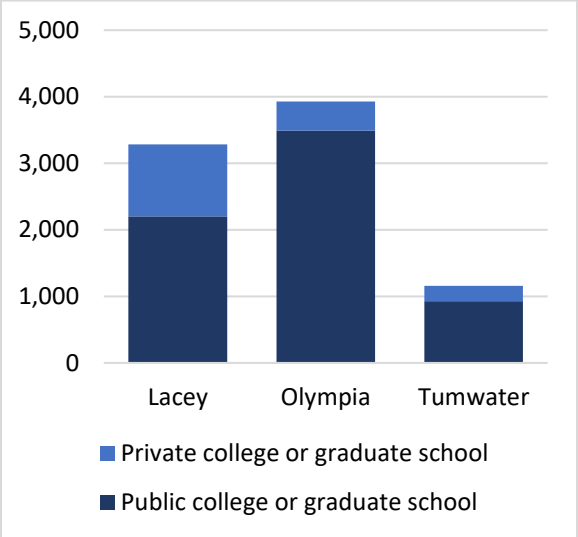
Approximately 16,800 Thurston County residents are currently enrolled in a college or university. Only a small percent of students (about 6 percent) live in a dormitory or other group quarters setting (Figure 4-13). Over 12,000 students – nearly three quarters – live in a family household (i.e. with another relative). The remainder live in non-family households, either alone (6 percent) or with one or more unrelated persons (15 percent). Most college students live in Olympia and Lacey (Figure 4-14).

Figure 4-13. Household type for college students, 2014-2018 average



Source: U.S. Census Bureau American Community Survey PUMS

Figure 4-14. Residents enrolled in college, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

About 2,600 college students in Thurston County live below the poverty level (Table 4-5). This is especially true for students living in non-family households; more than 40 percent live below the poverty line. Countywide, only five percent of the population live in poverty. While many students living on their own may still receive support from a parent or guardian – a form of income not included in poverty calculations – this still underscores the need for affordable housing for students living off campus.

Table 4-5. Poverty rate for Thurston County college students, 2014-2018 average.

Household Type	Total Households	Households in Poverty	Poverty Rate
Dorm or Other Group Quarter	913	35	4%
Family	12,274	1,114	9%
Non-family 2+ Person	2,535	1,032	41%
Living Alone	1,052	417	40%
TOTAL	**16,774**	**2,598**	**100%**

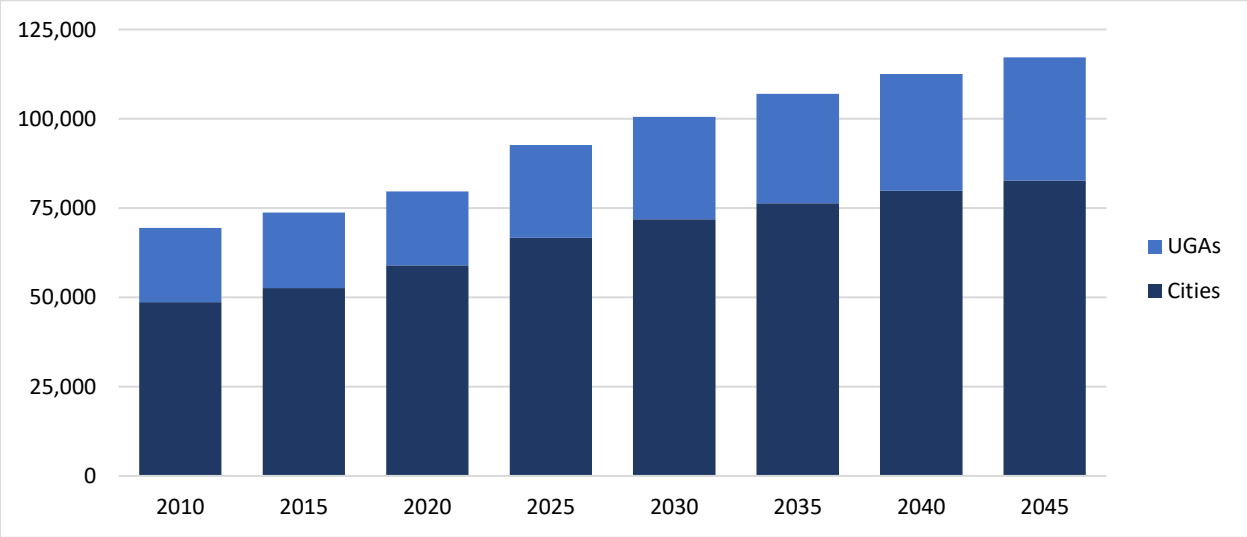
Source: U.S. Census Bureau American Community Survey

Chapter 5. Housing Supply

Trends and Projections

Lacey, Olympia, and Tumwater, and their unincorporated urban areas have a combined housing inventory of 83,200 dwelling units (Figure 5-1). This is about two-thirds of Thurston County's housing stock. Between 2020 and 2045, Thurston Regional Planning Council (TRPC) projects 34,000 new units will be built to accommodate the region's growing population.

Figure 5-1. Estimated and projected housing units in Lacey, Olympia, Tumwater, and their UGAs, 2010-2045



Source: Thurston Regional Planning Council

Building Types and Density

The Lacey, Olympia, and Tumwater urban area is generally suburban in nature. Most dwellings units – 64 percent – are detached single family or townhouse (single-family attached) units (Table 5-1). TRPC projects that the single-family units will continue to be the primary housing type over the next 25 years, although multifamily units will make up an increasing share of new housing.

Roughly half of Lacey, Olympia, and Tumwater households rent. About 60 percent of renters are in multifamily units (duplex, triplexes, and apartments) with the remainder in single-family or manufactured homes. Single family dwellings, townhouses, and manufactured and mobile homes are predominantly owner-occupied while buildings with two or more units are almost exclusively rented (Figure 5-2).

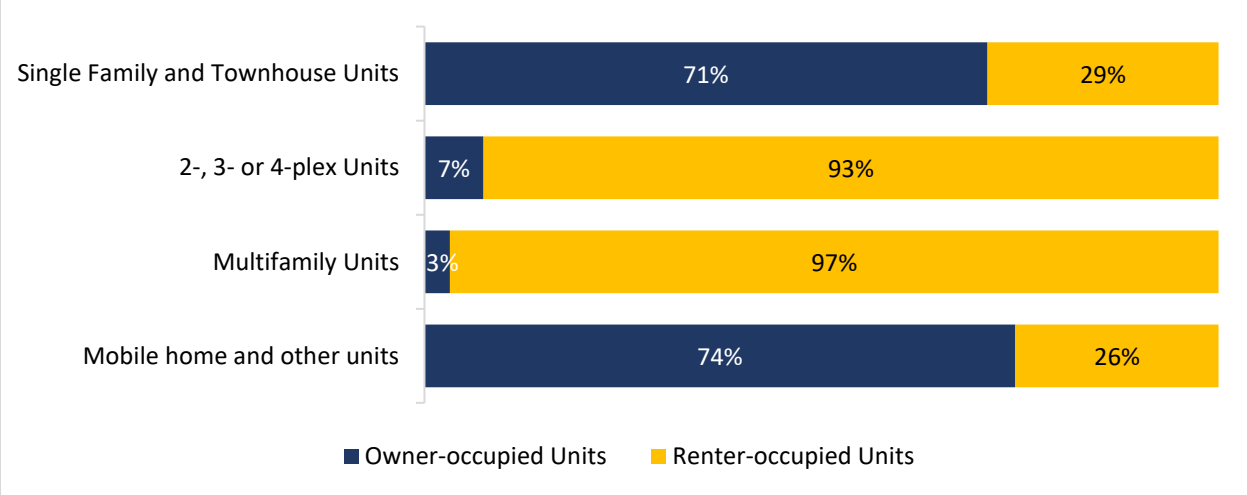
Manufactured homes make up a small percentage of Lacey, Olympia, and Tumwater's housing stock but are and important form of housing for many seniors and low-income households. TRPC estimates that about 75 percent of manufactured homes are in manufactured home communities where 10 or more units are on the same property. Since they do not own the land the manufacture home is sited on, many unit owners are vulnerable to displacement should the landowner decide to sell the property.

Table 5-1. Occupied housing units by building type, 2014-2018 average

Building Type	Lacey	Olympia	Tumwater	Cities Combined	Thurston County
Single Family and Townhouse Units	13,288	13,025	6,105	32,418	78,390
2-, 3- or 4-plex Units	1,795	2,174	676	4,645	6,561
Multifamily Units	2,735	6,493	1,906	11,134	13,277
Mobile home and other units	893	659	649	2,201	9,842
Total Occupied Units	**18,711**	**22,351**	**9,336**	**50,398**	**108,070**

Source: U.S. Census Bureau American Community Survey

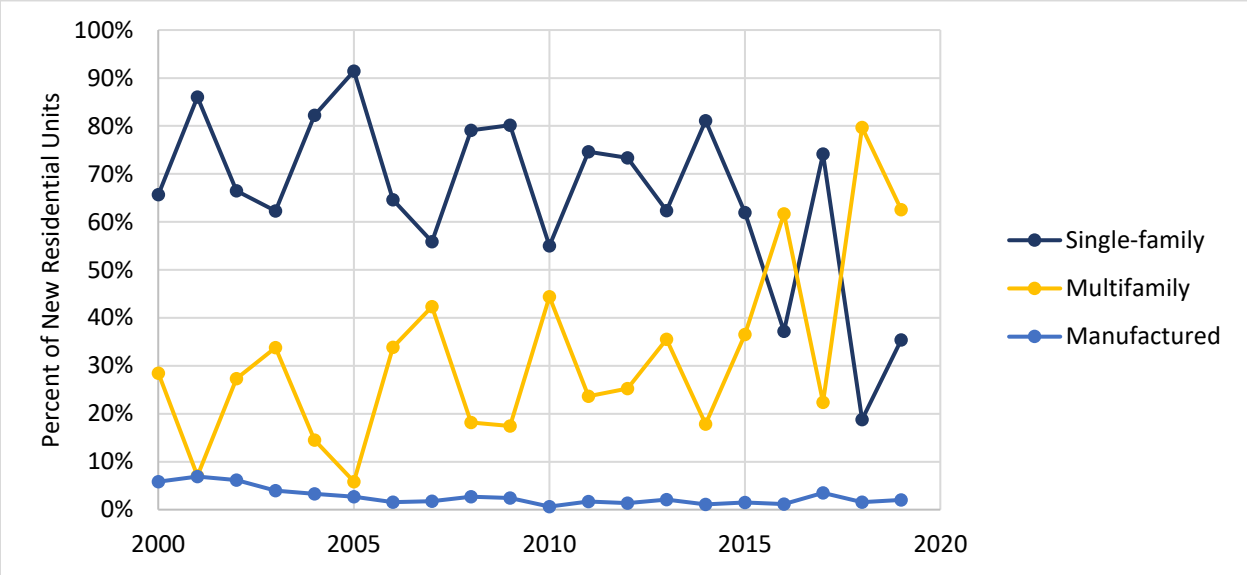
Figure 5-2. Occupied housing units in Lacey, Olympia, and Tumwater combined by building type and tenancy, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

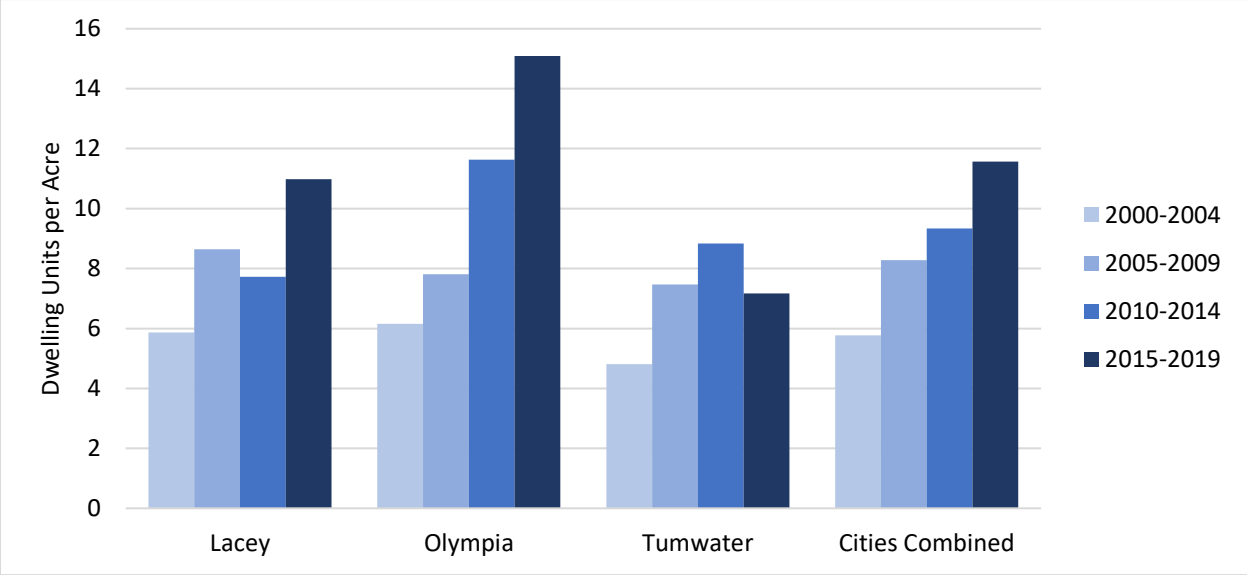
There has been a general trend towards development in zones that allow higher densities of development over the past 20 years (see Appendix A for more information). Multifamily unit construction has increased from about 30 percent of new units in 2000 to over 60 percent in 2019 (Figure 5-3). In addition to the increasing number of multifamily units being constructed, changes to zoning to allow more homes per acre and more infill and redevelopment projects have led to an overall increase in housing densities across the three cities and their urban growth areas (UGAs) (Figure 5-4).

Figure 5-3. Housing types permitted in Lacey, Olympia, and Tumwater, 2000-2019



NOTE: *Multifamily includes townhomes and condominiums.*
Source: Thurston Regional Planning Council

Figure 5-4. Density of new residential development, 2000-2019



Source: Thurston Regional Planning Council

Unit Size

Bedrooms

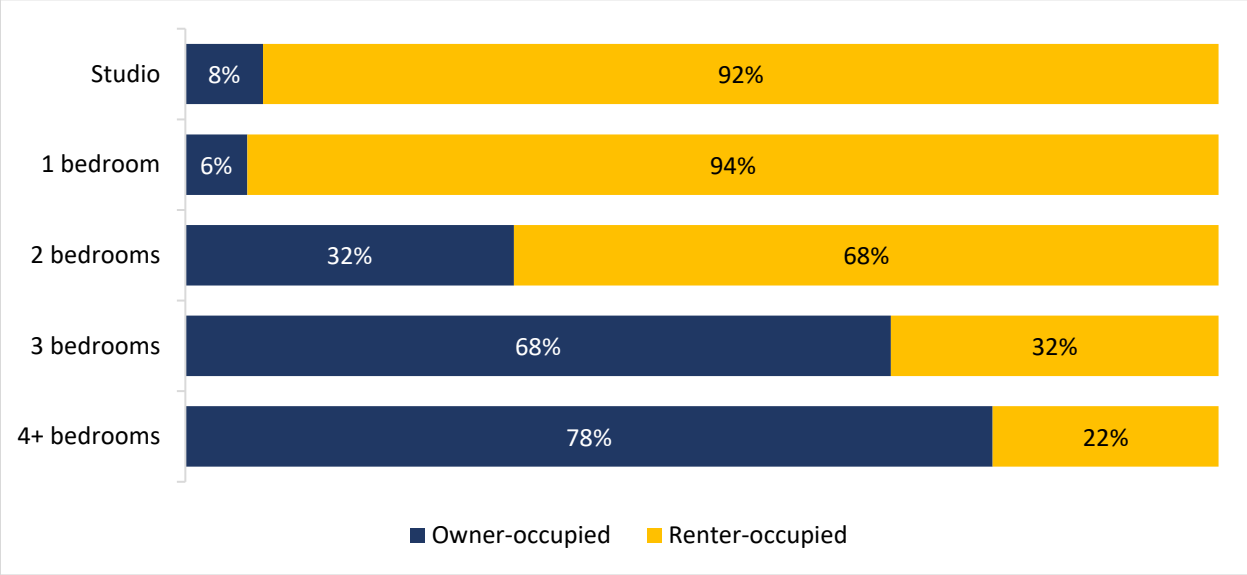
About 39 percent (19,465) of the housing stock in Lacey, Olympia, and Tumwater consists of three-bedroom units (Table 5-2). About 30 percent (15,031) is two-bedroom units. Nearly all studio and one bedroom units are rented as are most two bedroom units (Figure 5-5).

Table 5-2. Occupied housing units by number of bedrooms, 2014-2018 average

	Lacey	Olympia	Tumwater	Cities Combined	Thurston County
Studio	241	907	154	1,302	1,915
1 bedroom	1,547	3,301	1,053	5,901	9,024
2 bedrooms	5,348	7,206	2,477	15,031	25,912
3 bedrooms	8,201	7,402	3,862	19,465	50,232
4+ bedrooms	3,374	3,535	1,790	8,699	20,987
TOTAL	**18,711**	**22,351**	**9,336**	**50,398**	**108,070**

Source: U.S. Census Bureau American Community Survey

Figure 5-5. Occupied housing units in Lacey, Olympia, and Tumwater combined by number of bedrooms and tenancy, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

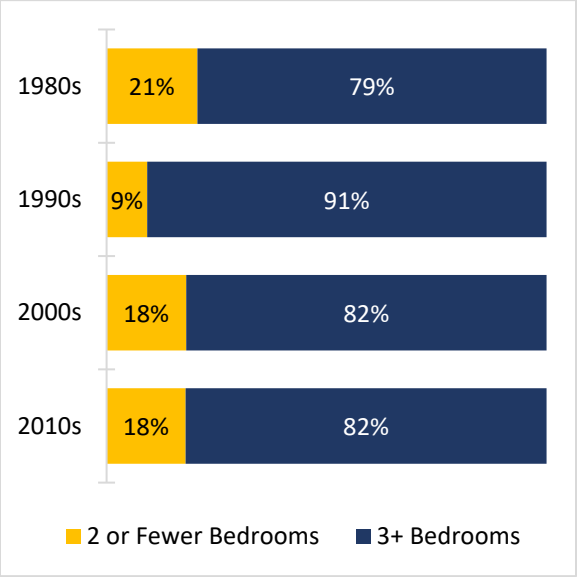
The Thurston County Assessor's Office provides data on the number of bedrooms for single-family, duplex, triplex, and fourplex units (Table 5-3). Since the 1980s, the percent of two-bedroom or smaller units has declined slightly, and the average number of bedrooms per dwelling unit increased over the same time period (Figures 5-6 and 5-7).

Table 5-3. Housing units built in Lacey, Olympia, and Tumwater combined by number of bedrooms, 1980-2019

Decade	One or Fewer Bedroom	Two Bedrooms	Three Bedrooms	Four or More Bedrooms	TOTAL Units
1980s	280	1,097	4,718	585	**6,680**
1990s	215	648	7,206	1,279	**9,348**
2000s	285	1,629	5,520	3,151	**10,585**
2010s	234	797	2,357	2,352	**5,740**

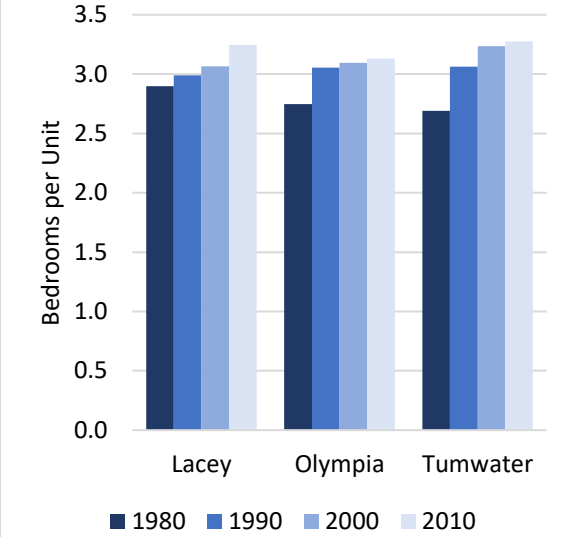
NOTE: *Data excludes manufactured homes and apartments with five or more units.*
Source: Thurston County Assessor's Office

Figure 5-6. Housing units built in Lacey, Olympia, and Tumwater combined by number of bedrooms, 1980-2019



NOTE: *Data excludes manufactured homes and apartments with five or more units.*
Source: Thurston County Assessor's Office

Figure 5-7. Average number of bedrooms in housing units by decade

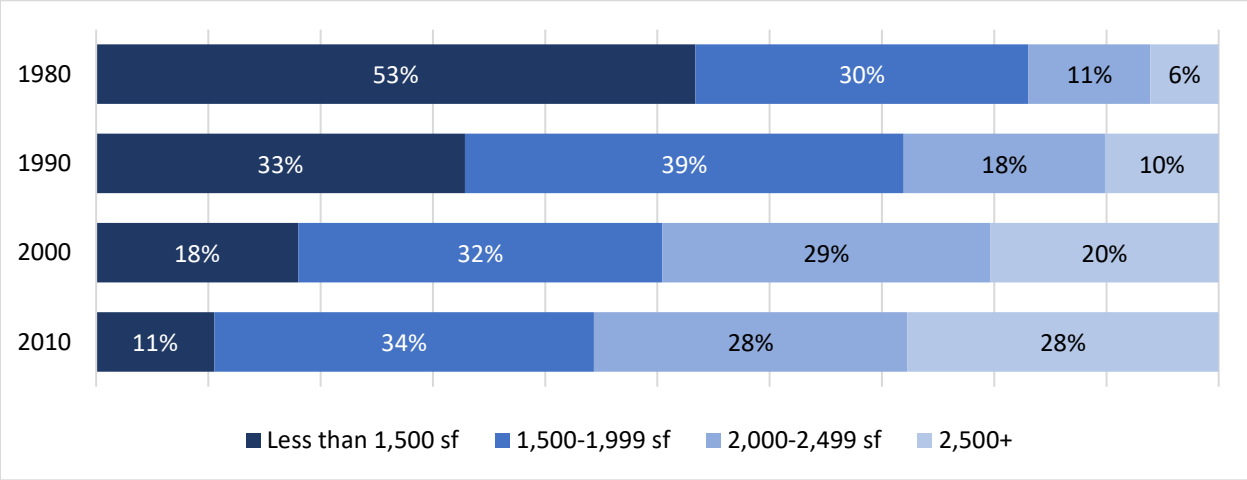


NOTE: *Data excludes manufactured homes and apartments with five or more units.*
Source: Thurston County Assessor's Office

Square Footage

In the 1980s, more than half of all homes constructed were less than 1,500 square feet in size (Figure 5-8 and Table 5-4). In the 2010s, this dropped to just 11 percent of the total dwelling units built that decade. The total number of homes with 2,000 square feet or more have increased from just 17 percent in the 1980s to 56 percent during the 2010s. Over the last four decades, the average home size in Lacey has grown the most – from 1,475 square feet in the 1980s to 2,211 in the 2010s (Figure 5-9, next page). Tumwater saw a slight decrease in home size between the 2000s and the 2010s, but average home size remains more than 2,000 square feet.

Figure 5-8. Home size in Lacey, Olympia, and Tumwater combined, 1980-2019



NOTE: *Data excludes manufactured homes and apartments with five or more units.*
Source: Thurston County Assessor's Office

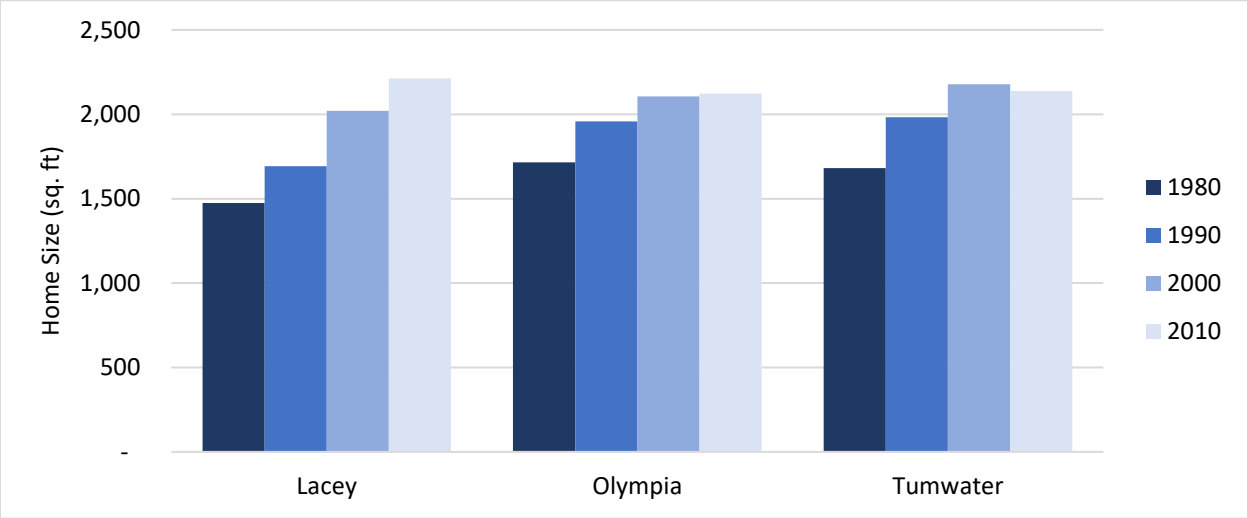
According to the University of Washington's Washington Center for Real Estate Research (WCRER), the average size of a one bedroom apartment is 678 square feet while a two bedroom apartment is 859 square feet in 2020. The average apartment size is less than half that of single-family, duplex, triplex, or fourplex units.

Table 5-4. Housing units in Lacey, Olympia, and Tumwater combined by home size and decade

Unit Size (square feet)	1980s	1990s	2000s	2010s
Less than 1,500	3,566	3,072	1,905	604
1,500-1,999	1,983	3,654	3,436	1,942
2,000-2,499	725	1,675	3,090	1,602
2,500 or more	406	947	2,154	1,592
TOTAL Units	**6,680**	**9,348**	**10,585**	**5,740**

NOTE: *Data excludes manufactured homes and apartments with five or more units.*
Source: Thurston County Assessor's Office

Figure 5-9. Average home size by decade



NOTE: *Data excludes manufactured homes and apartments with five or more units.*
Source: Thurston County Assessor's Office

Market Conditions

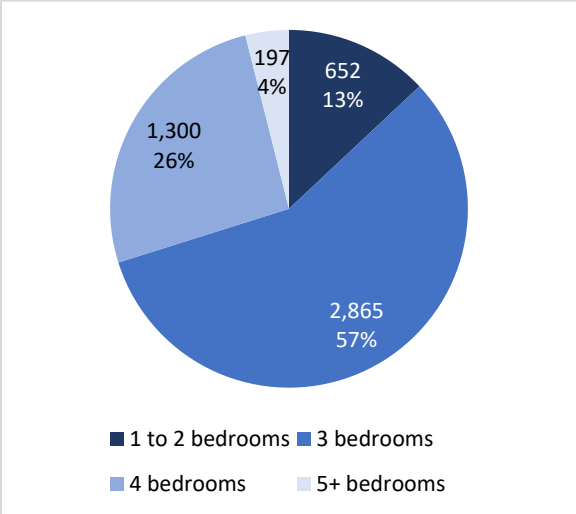
Home Values and Affordability

The Northwest Multiple Listing Service (NWMLS) reports that the average home sale price in Thurston County was $340,200 in 2018, with prices ranging from $291,700 for a two-bedroom home to $442,700 for a home with five or more bedrooms (Figure 5-10). Zillow – which also tracks home sale prices – estimates that sale prices have continued to increase, by about 8 percent per year – since 2018. Only 13 percent of the housing units sold in Thurston County in 2018 were one- or two-bedroom units (Figure 5-11).

Figure 5-10. Average housing unit sale price in Thurston County, 2018

Source: Northwest Multiple Listing Service

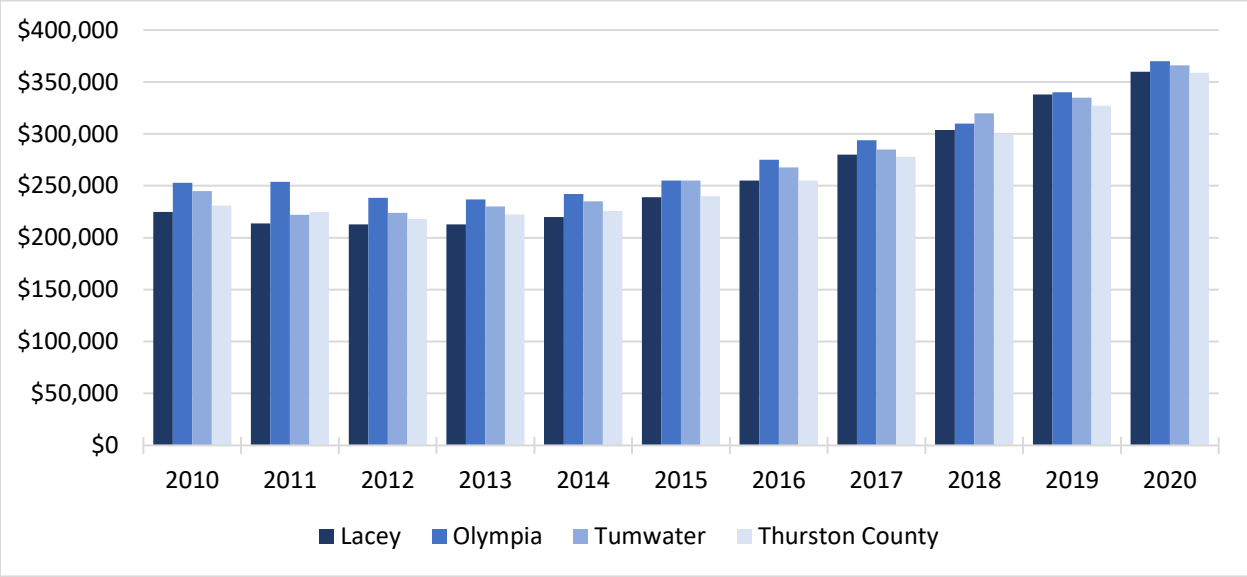
Figure 5-11. Housing units sold in Thurston County, 2018



Source: Northwest Multiple Listing Service

The median home sale price in Thurston County has been on an upward trajectory (Figure 5-12). As of July 2020, Thurston County's median home sale price was $359,000. Median home sale prices were highest in Olympia followed by Tumwater. Both exceed the county average, by 7.9 percent and 2.1 percent respectively. Home sale prices in Tumwater are about 2.6 percent below the county average. Adjusted for inflation, the average home sale price has more than doubled since 1990, increasing about 2.8 percent per year.

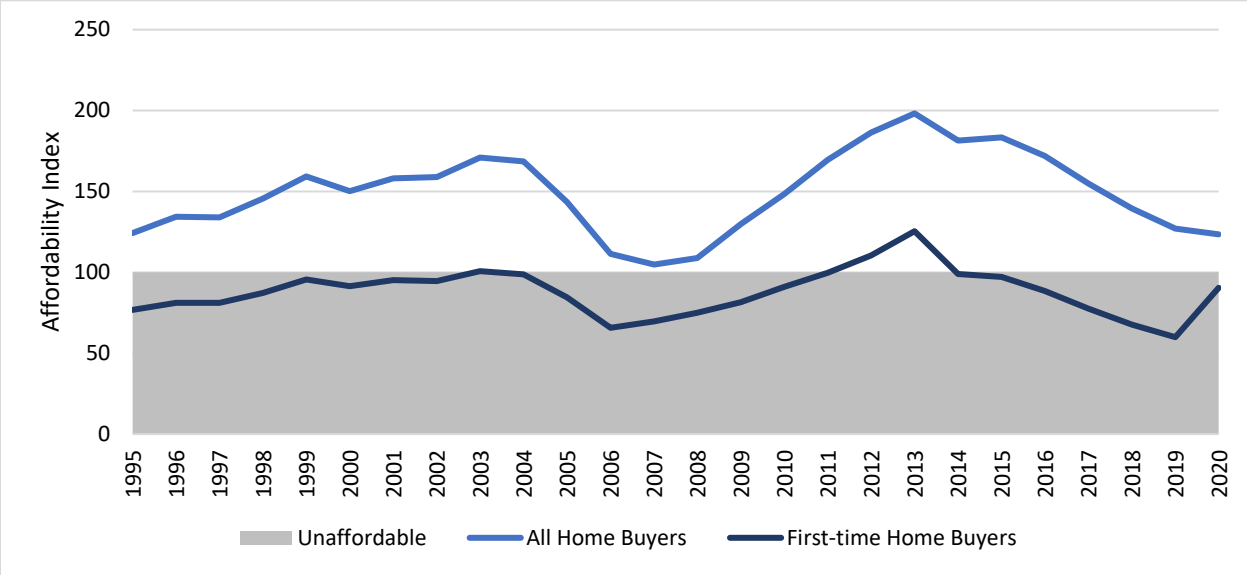
Figure 5-12. Median home sale price in July, 2010-2020



NOTE: *Figures are for July of each year and are not adjusted for inflation. Location of sale is based on the address entered by the listing agent. Location of homes sold may not be within the actual city limits.*
Source: Northwest Multiple Listing Service

Increasing home prices have affected housing affordability. The Washington Center for Real Estate Research's (WCRER) Homeownership Affordability Index tracks the ability for a household earning the median income to afford a median-priced home. WCRER also tracks the index of first-time home buyers, assuming a lower income (70 percent of the median), lower home price (85 percent of the median), and lower down payment (10 percent). For most of the past 20 years, Thurston County's housing has been considered affordable overall, but not for first-time home buyers (Figure 5-13, next page).

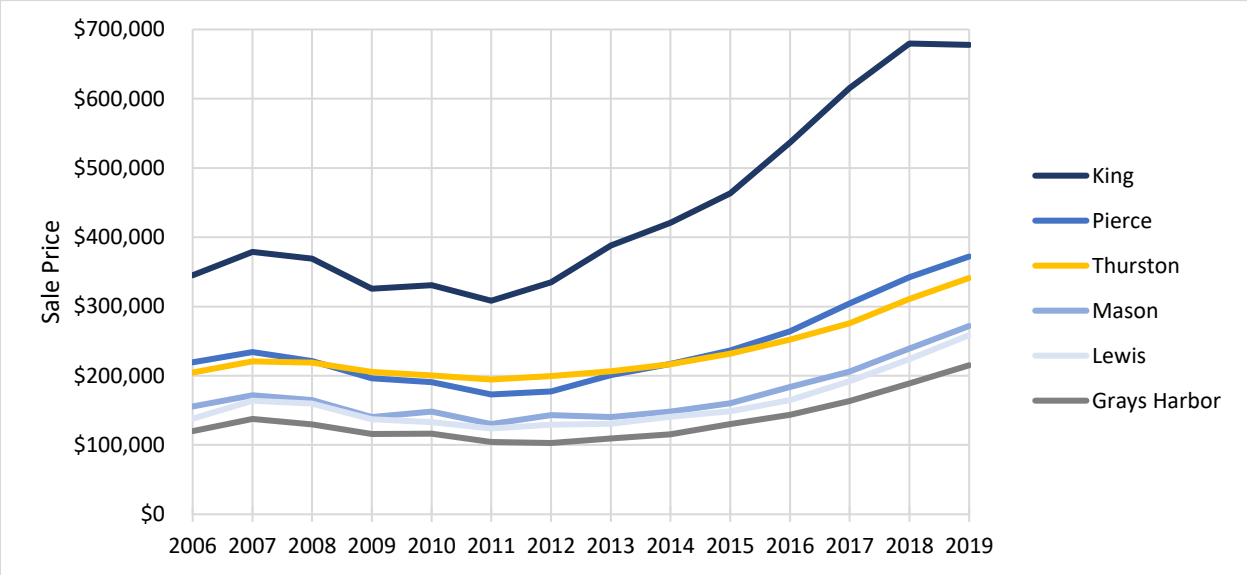
Figure 5-13. Thurston County Homeownership Affordability Index, 1995-2020



Source: University of Washington

Figure 5-14 shows inflation-adjusted home sale prices for Thurston and adjacent counties since 2006. Historically, home sale prices in Thurston County have been very close to those in Pierce County. Since 2014 that trend has shifted, with prices in Pierce rising slightly faster than Thurston. Home prices in both counties are highly influenced by the Seattle housing market. The dramatic increase in prices in King County (up 120 percent since 2011) forces Seattle workers to look for more affordable housing further south. This increased pressure in Tacoma's housing market subsequently affects demand further south in Thurston County.

Figure 5-14. Median home sale price (adjusted for inflation), 2006-2019

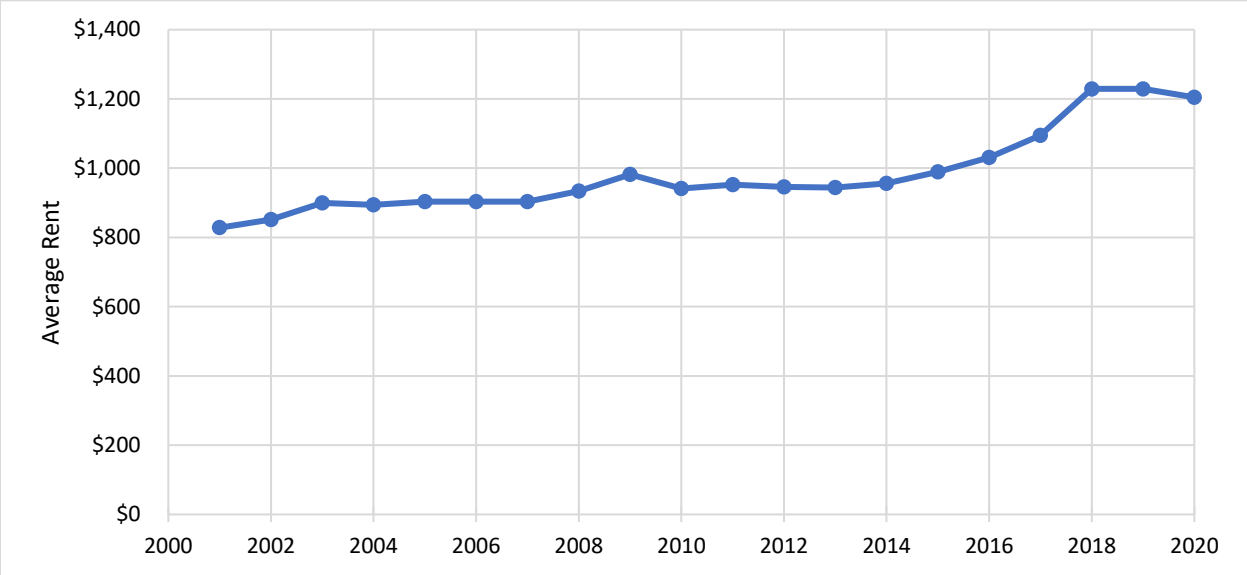


Source: University of Washington

Rents and Apartment Vacancy Rates

In 2020, the average apartment rent in Thurston County is $1,124 for a one-bedroom unit and $1,212 for a two-bedroom unit. Like home prices, rents have been increasing faster than inflation (Figure 5-15). Since 2001, average rents increased by over $370 in constant 2020 dollars, about 2.0 percent per year. Unlike housing prices, rents did not decrease significantly during the great recession.

Figure 5-15. Average rent in Thurston County (inflation-adjusted), 2001-2020

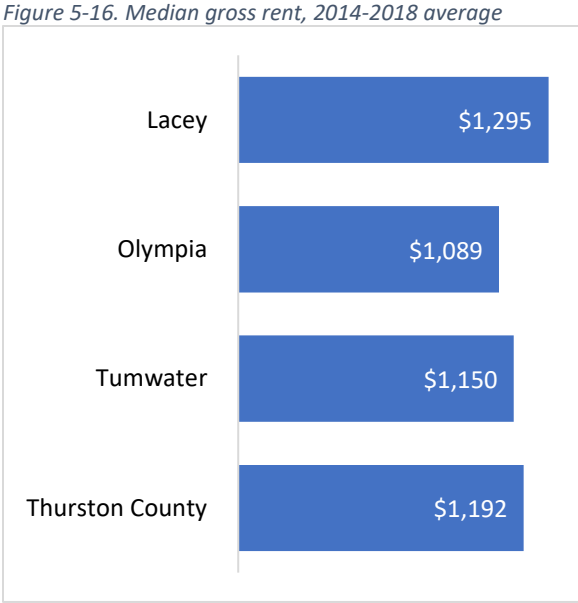


NOTE: *Due to a change in methodology, 2018-2020 data is not directly comparable to data from previous years.*
Source: University of Washington

Figure 5-16 examines the median gross rent. Gross rent is the contract rent plus the estimated average monthly cost of utilities and fuels if paid by the renter (or paid for the renter by someone else). Lacey has the highest median gross rent while Olympia had the lowest.

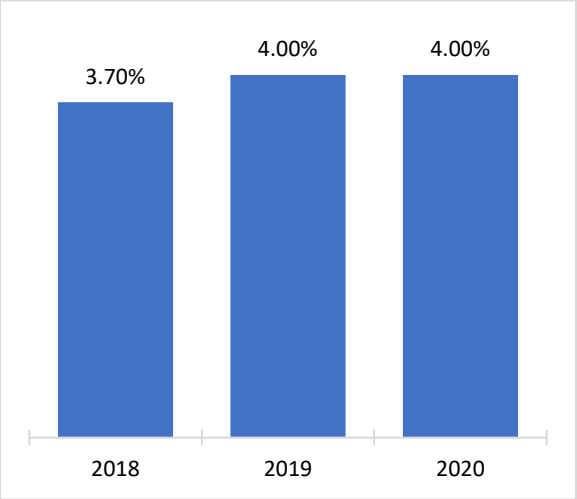
A healthy rental market has about a five percent vacancy rate, with lower vacancy rates indicating a shortage of housing. A five percent vacancy rate allows people options to move as needed and allows for a healthy level of competition. The average vacancy rate for apartments in Thurston County is 4 percent indicating there is unmet demand (Figure 5-17, next page). Vacancy rates are lower (3.2 percent) for one-unit apartments.

Figure 5-16. Median gross rent, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

Figure 5-17. Apartment vacancy rate in Thurston County, 2018-2020

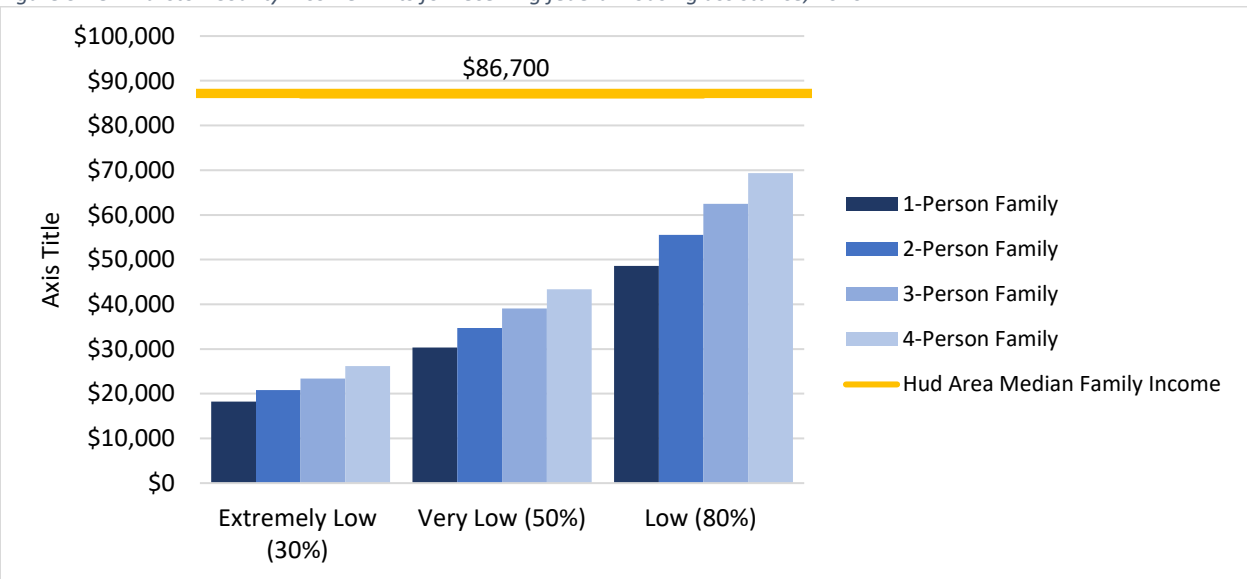


Source: University of Washington

Subsidized Housing Units

Subsidized housing is a critical resource for the lowest income households. The Department of Housing and Urban Development (HUD) sets income limits that determine eligibility for assisted housing programs including: Public Housing; Section 8 project-based; Section 8 Housing Choice Voucher; Section 202 housing for the elderly; and Section 811 housing for persons with disabilities programs. HUD develops income limits based on median family income estimates and fair market rent area definitions for each metropolitan area, parts of some metropolitan areas, and each non-metropolitan county. In 2020, Thurston County's area median family income is $86,700, meaning a family of four with extremely low income – has an income less than $30,000 (Figure 5-18).

Figure 5-18. Thurston County income limits for receiving federal housing assistance, 2020

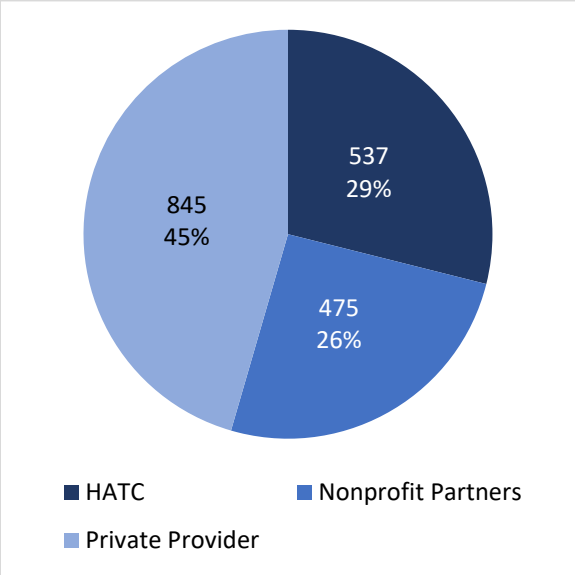


Source: U.S. Dept. of Housing and Urban Development

Currently, the Housing Authority of Thurston County (HATC) assists 1,989 households with rental assistance vouchers. The number of households HATC assists is limited by two factors: the number of rental assistance vouchers and funding. HATC currently has 2,045 rental assistance vouchers but cannot use them all due to limited federal funding. This is because rents rise faster than incomes, and it costs more to support the average household. According to HATC, the average monthly subsidy cost per housing unit is more than $650. About 75 percent of voucher holders are either elderly or disabled, and more than 85 percent have an income of 30 percent or less of the area median family income.

Due to the high demand for housing assistance, HATC operates a waiting list. The list was last opened in January 2020 to new listees; prior to this, the list last opened in 2015. In Thurston County, there are approximately 1,857 units available at below-market rents. Nearly half of all units are supplied by a private provider (Figure 5-19). Washington State provides incentives – in the form of tax breaks or loans – for developers to include low-income housing in their projects. Unlike HATC housing, these units may be converted to market-rate housing after the incentives expire, typically after 20-30 years.

Figure 5-19. Subsidized housing units in Thurston County by owner, 2020



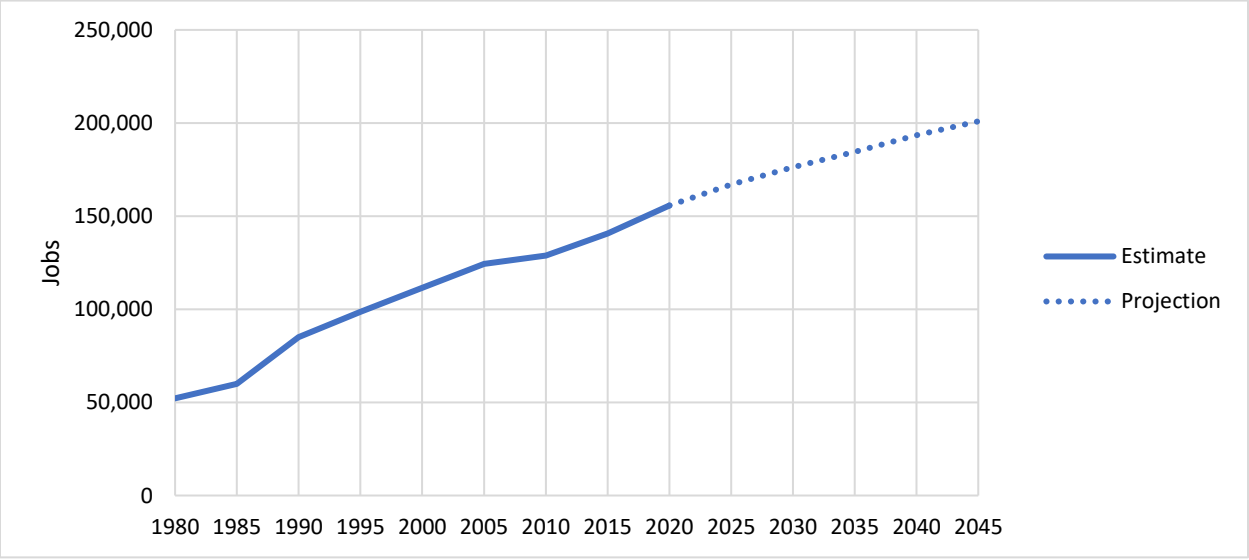
Source: Housing Authority of Thurston County

Chapter 6.
Local Workforce Characteristics

Estimates and Forecast

Total 2017 employment in Thurston County was 148,700 jobs (Figure 6-1). Eighty-two percent of jobs – 121,800 – are located in Lacey, Olympia, and Tumwater and their unincorporated urban growth areas. By 2045, total employment is projected to increase 1.1 percent per year.

Figure 6-1. Thurston County employment, 1980-2045

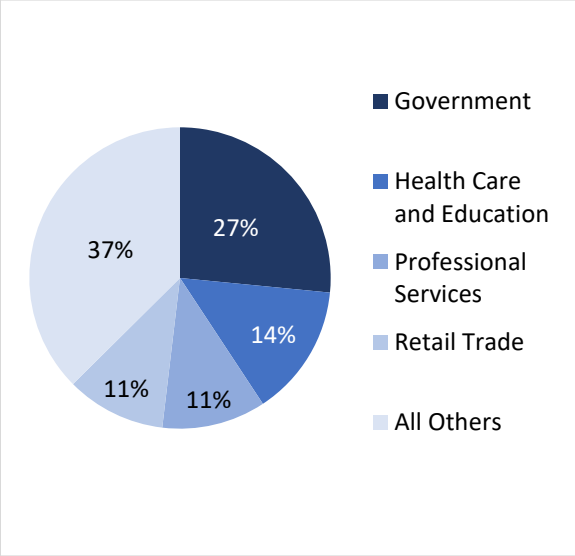


Source: U.S. Bureau of Economic Analysis, Thurston Regional Planning Council

Government employment, including federal, state, local, and public education, makes up over a quarter of Thurston County's employment (Figure 6-2). The next largest industries are health care and education, professional services, and retail trade. The remaining industries make up just one third of county employment.

Employment industry varies by jurisdiction. Lacey has the largest number of transportation and warehousing employees, Olympia has a greater number and proportion of health care workers, and Tumwater has the most manufacturing and wholesale trade employees. While Olympia has the most state employees, state employment as a proportion of total employment is greatest in Tumwater.

Figure 6-2. Thurston County total employment by industry, 2017



Source: U.S. Census Bureau Economic Analysis

Wages and Self-Sufficiency

Wages vary considerably by employment industry. Average wages for employees affected by state and federal unemployment insurance laws were $54,500 in 2019 (Table 6-1). Government – Thurston County's largest employment industry – paid out over $2.5 billion in wages, about $66,212 per employee. Some of the lowest paying industries include retail trade, accommodation and food services, and arts, entertainment, and recreation. Overall, wages are highest in Tumwater, followed by Lacey and Olympia.

Covered Employment

Covered employment measures all employed persons covered under the Unemployment Insurance Act. The measure accounts for approximately 75% of the total employment in Thurston County, and includes both part-time and temporary positions. Job categories not measured in the count include self-employed workers, proprietors, CEOs, military, and other non-insured workers. If a worker holds more than one job, each position is reported separately.

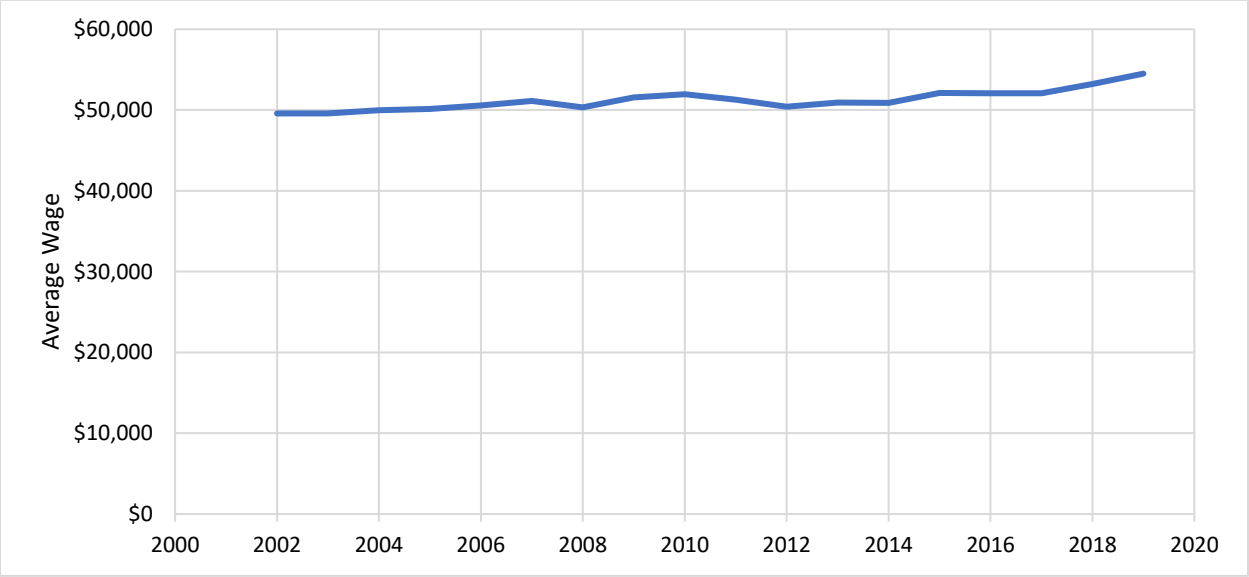
Table 6-1. Thurston County covered employment and wages, 2019

NAICS Industry Category	Total Wages Paid	Covered Employment	Covered Wage
Government	$2,562,598,405	38,703	$66,212
Healthcare and social assistance	$856,430,847	15,655	$54,707
Retail trade	$430,509,161	12,663	$33,997
Construction	$397,748,304	6,184	$64,319
Professional and technical services	$365,230,721	4,829	$75,633
Accommodation and food services	$205,407,281	9,341	$21,990
Administrative and waste services	$259,394,779	6,288	$41,252
Finance and insurance	$190,168,264	2,504	$75,946
Information	$156,197,850	1,685	$92,699
Management of companies and enterprises	$70,055,637	915	$76,564
Utilities	$21,670,912	196	$110,566
Other 9 Industries	$932,341,966	19,341	$48,205
Total	**$6,447,754,127**	**118,304**	**$54,502**

Source: Employment Security Department

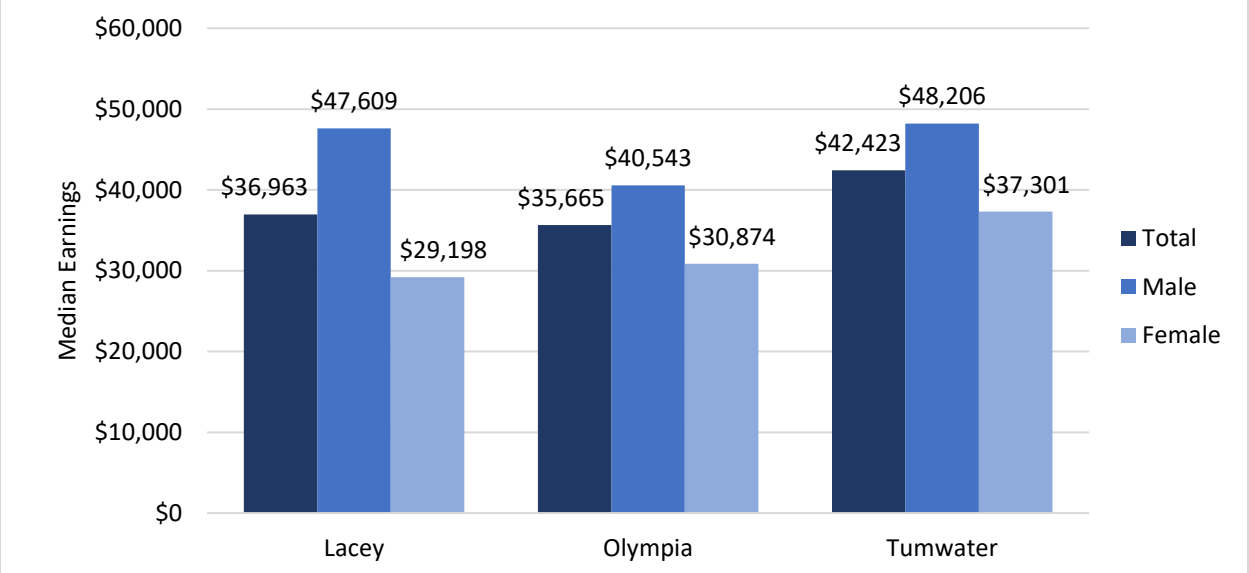
When adjusted for inflation, wages have risen 9.9 percent over the past 17 years (about 0.6 percent per year) (Figure 6-3). Median earnings are highest for people living in Tumwater (Figure 6-4).

Figure 6-3. Thurston County average wage, 2002-2019 (adjusted for inflation)



Source: Employment Security Department

Figure 6-4. Median earnings, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

The University of Washington publishes a "Self-Sufficiency Standard," defined as the amount of income necessary to meet basic needs (including taxes) without public subsidies (e.g., public housing, food

stamps, Medicaid, or child care) and without private/informal assistance (e.g., free babysitting by a relative or friend, food provided by churches or local food banks, or shared housing).

The 2020 standard estimated that a four-person household (two adults and two children) would need to earn between $40,000 and $73,000 per year, depending on the age of the children (Table 6-2). For comparison, a household with one worker each in retail trade and accommodation or food services would earn $56,000, on average.

Table 6-2. Wages (per adult) needed for self-sufficiency, 2020

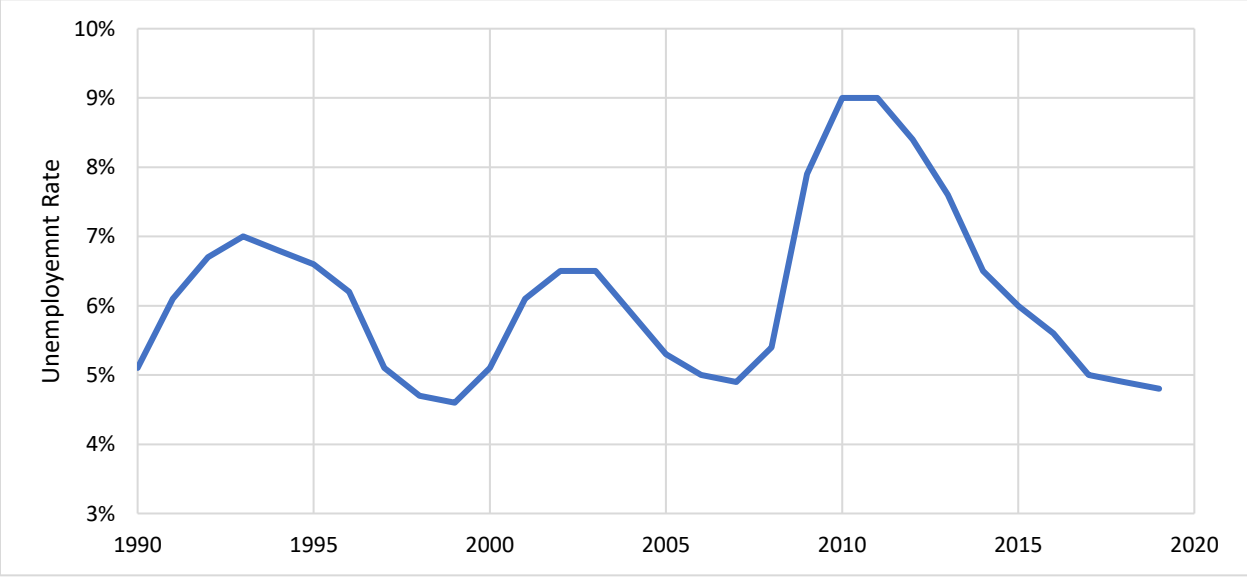
Household Composition	Hourly	Monthly	Annual	Monthly Housing Cost
One Adult, No Children	$12.06	$2,122	$25,466	$960
One Adult, One Child	$15.35-$23.09	$2,702-$4,064	$32,430-$48,762	$1,171
One Adult, Two Children	$15.23-$30.84	$2,680-$5,428	$32,159-$65,141	$1,171
Two Adults, No Children	$8.85	$3,115	$37,381	$960
Two Adults, One Child	$9.80-$13.53	$3,450-$4,761	$51,406-$57,135	$1,171
Two Adults, Two Children	$9.68-$17.33	$3,407-$6,100	$40,882-$73,206	$1,171

NOTE: *Caring for infants and young children requires more income than caring for school-aged children and teenagers.*
Source: University of Washington

Unemployment

Preliminary estimates for April 2020 estimated unemployment in Thurston County at 15.9 percent, the highest rate recorded by the Bureau of Labor Statistics since 1990. Prior to the COVID-19 pandemic, unemployment rates had been declining from their previous high of 9.0 percent in 2010 and 2011 during the Great Recession (Figure 6-5).

Figure 6-5. Annual average unemployment for Thurston County, 1990-2019



Source: U.S. Bureau of Labor Statistics

Estimates from the American Community Survey show that unemployment for residents of Lacey, Olympia, and Tumwater are 0.5 percent less than Thurston County as a whole, with Tumwater residents having the lowest rate (Table 6-3).

Table 6-3. Unemployment rate, 2014-2018 average

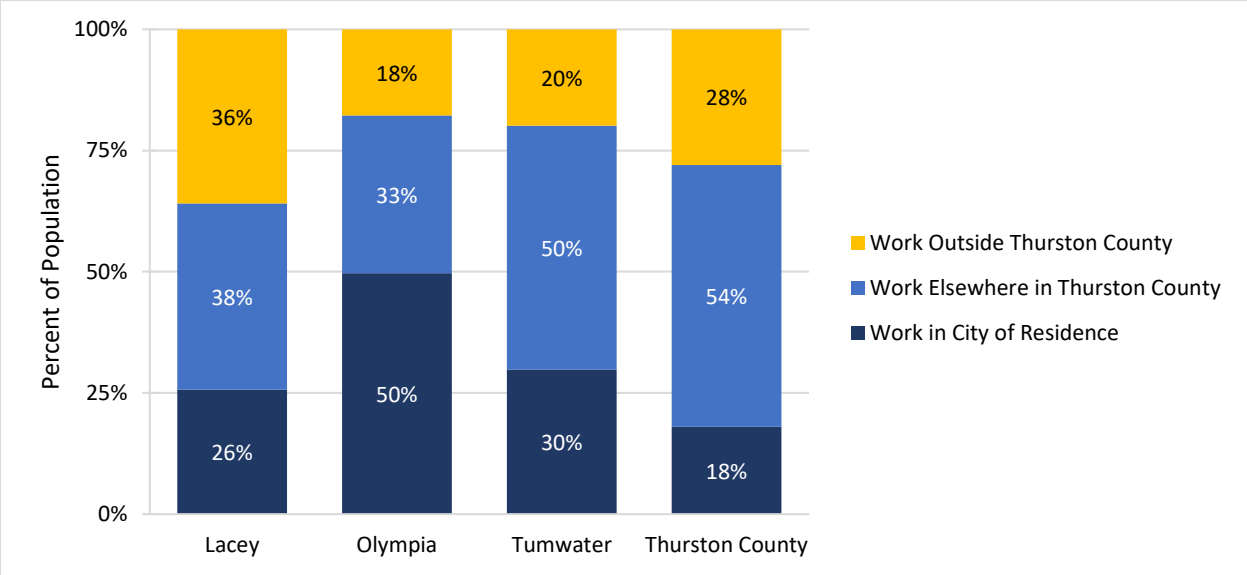
	Unemployment Rate
Lacey	6.8%
Olympia	6.3%
Tumwater	5.8%
Cities Combined	6.4%
Thurston County	6.9%

Source: U.S. Census Bureau American Community Survey

Commuting

Approximately 28 percent of Thurston County residents commute out of county for work. At 36 percent, Lacey has the highest proportion of its workforce commuting out of Thurston County (Figure 6-6). Olympia has the highest percentage of residents who live and work in the same city – 50 percent.

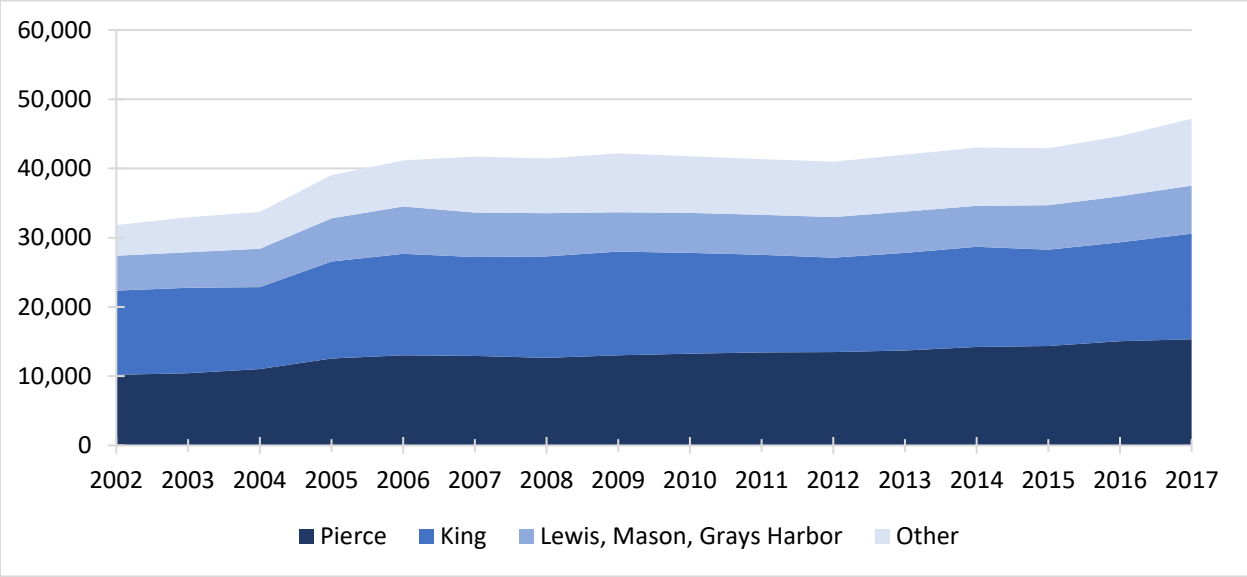
Figure 6-6. Place of work for residents of Lacey, Olympia, Tumwater, and Thurston County, 2014-2018



Source: U.S. Census Bureau American Community Survey

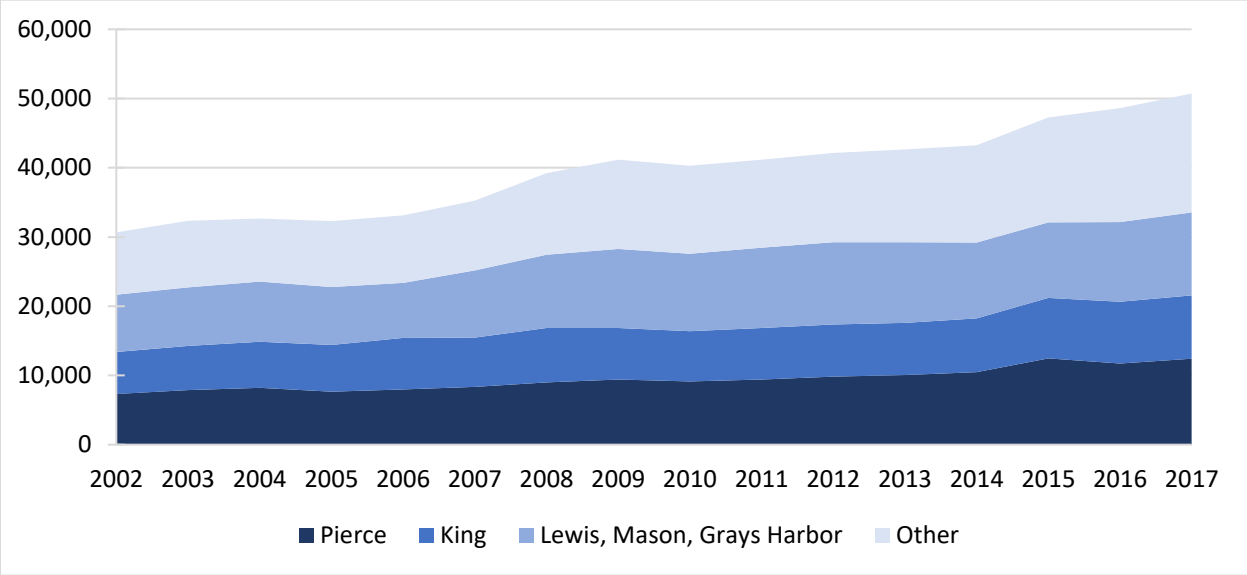
The number of both inbound and outbound commutes increased steadily between 2002 and 2017. Outbound commutes increased by 15,000 while inbound commutes increased by 20,000 during this time (Figures 6-7 and 6-8). In 2017, Pierce County was both the largest destination for outbound commuters (13.8 percent) and the largest source of inbound commuters (10.9 percent). King County matched Pierce County as a significant destination for outbound commuters (13.8 percent) but is a less significant source of inbound commuters (8.0 percent).

Figure 6-7. Commutes from Thurston County (outbound), 2002-2017



Source: U.S. Census Bureau LODES

Figure 6-8. Commutes to Thurston County (inbound), 2002-2017



Source: U.S. Census Bureau LODES

People typically commute out of county for higher wage jobs. Average earnings for Thurston County residents who work in county were about $46,200 in 2014-2018 compared to $56,800 for commuters to Pierce County, and $63,600 for commuters to King County (Table 6-4).

Table 6-4. Average wage earnings by county of residence and county of work, 2014-2018 average

County of Residence	County of Work	Average Earnings
Outbound Commuters		
Thurston	Pierce	$56,800
Thurston	King	$63,600
Inbound Commuters		
Pierce	Thurston	$51,300
King	Thurston	$69,900
Non-Commuters		
Thurston	Thurston	$46,200
Pierce	Pierce	$45,700
King	King	$71,000

Source: U.S. Census Bureau American Community Survey PUMS

Chapter 7. Gap Analysis

The gap analysis evaluates the alignment between Lacey, Olympia, and Tumwater's housing inventory and the housing needs of the three cities' residents. The gap analysis helps planners identify the amount and the type of housing needed over the next 25 years to ensure residents will have access to affordable housing.

A household's current housing may not meet their needs for several reasons, including:

- **Affordability**. The household may not be able to afford the unit. This could result from a lack of more affordable housing options or a change in income or employment.
- **Housing Size**: The dwelling may be too small (overcrowding) or too large for the household's current needs.
- **Substandard Housing**. The unit may lack key plumbing or kitchen facilities to make it fit for habitation.
- **Other Needs**: The household may be looking for a unit that better suits their needs, such as one with lower maintenance costs, ADA accessibility, or one that allows them to build equity.
- **Experiencing Homelessness:** The household may currently lack housing.

This chapter examines some of these factors and provides estimates of the number of households whose housing does not meet their needs for one reason or another. This information can then be used to identify actions to reduce the gap between housing needed and available housing when developing the Housing Action Plan.

Housing Affordability

This section provides an estimate on the number of households that cannot afford their current housing and an estimate of future housing needs for different affordability price points.

Current Housing Affordability Needs

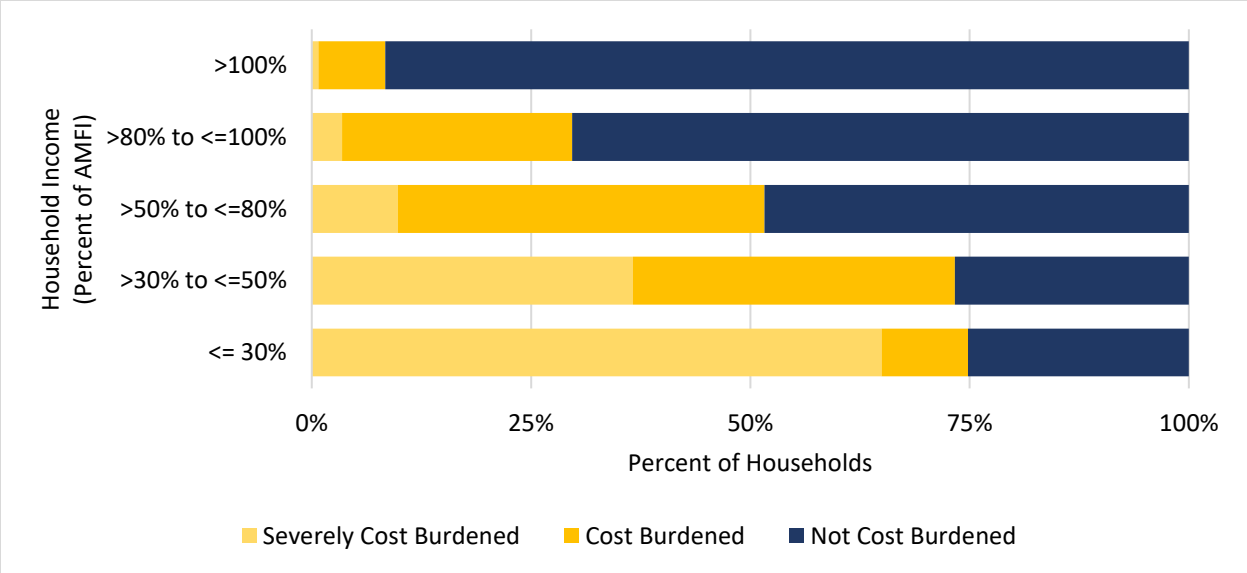
Over 34,650 Thurston County households are cost burdened, meaning they spend more than 30 percent of their income on rent, mortgage payments, and other housing expenses (Table 7-1 and Figure 7-1). Of these, 13,900 are severely cost burdened, spending more than half of their income on housing expense. The percent of households that are cost burdened increases as income declines.

Table 7-1. Cost burdened households by jurisdiction, 2012-2016 average

Percent of Area Median Family Income	Lacey	Olympia	Tumwater	Cities Combined	Thurston County
<=30%	1,375	2,375	1,030	4,780	9,025
>30% to <=50%	1,290	2,185	685	4,160	7,180
>50% to <= 80%	2,135	1,955	620	4,710	8,970
>80% to <= 100%	760	475	1,910	3,145	5,055
More than 100%	735	615	460	1,810	4,420
Total Households	**6,295**	**7,605**	**4,705**	**18,605**	**34,650**

Source: U.S. Dept. of Housing and Urban Development

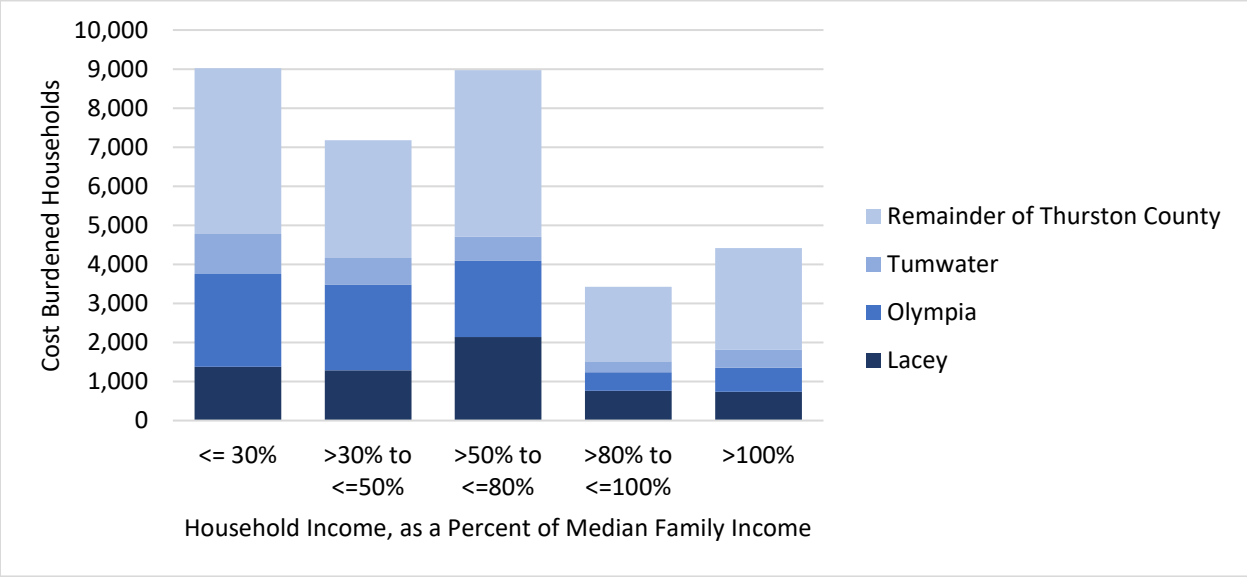
Figure 7-1. Cost burdened households in Thurston County, 2012-2016 average



Source: U.S. Dept. of Housing and Urban Development
Note: AMFI is the area median family income

While some households may opt to spend more than 30 percent of their income on housing expenses, most – especially at lower income brackets – do so because there is not enough affordable housing available. This makes the number of cost-burdened households a good indicator of the current gap between the supply and demand for housing at a given price point. Figure 7-2 shows the estimated affordable housing needed at five income brackets based on the current number of cost burdened households.

Figure 7-2. Cost burdened households by jurisdiction, 2012-2016 average



Source: U.S. Dept. of Housing and Urban Development

Table 7-2 (next page) shows the estimated maximum housing costs that households at three income levels could afford, assuming no more than 30 percent of their income is spent on housing. For example, a 4-person household earning $43,350 annually – 50 percent of the median family household income in 2020 – could afford $1,100 a month for rent or a monthly mortgage payment on a $300,000 home (assuming a 30-year 3.5 APR mortgage with 20 percent down payment). However, these costs do not account for other housing-related expenses such as utilities, property taxes, and insurance. For many low-income households, a down payment is not possible and interest rates are higher due to little or poor credit. For those able to qualify for a home loan despite these circumstances, private mortgage insurance may be required, adding further to the monthly housing cost. To overcome some of these barriers, the Washington State Housing Finance Commission (WSHFC) offers several programs that assist low income households with down payments. Between 1983 and 2019, down payment assistance through WSHFC served 3,018 households.

Table 7-2. Maximum rent and housing costs at various income levels, 2020

HUD Income Limit for a:	Yearly Income	Hourly Wage (Full Time)**	Monthly Rent or Mortgage Payment	Home Value 20% Down	Home Value 10% Down
2-Person Family					
Extremely Low Income (30%)	$20,800	$10.00	$500	$140,000	$130,000
Very Low Income (50%)	$34,700	$16.70	$900	$240,000	$210,000
Low Income (80%)	$55,500	$26.70	$1,400	$390,000	$340,000
4-Person Family					
Extremely Low Income (30%)	$26,200	$12.60	$700	$180,000	$160,000
Very Low Income (50%)	$43,350	$20.80	$1,100	$300,000	$270,000
Low Income (80%)	$69,350	$33.30	$1,700	$480,000	$430,000

NOTE: **For 2020, HUD income limits are based on a median family income of $86,700 for Thurston County. Assumes 3.5 percent fixed interest rate over a 30-year mortgage. Costs do not account for other housing-related expenses such as utilities, property taxes, and insurance.*

***Assumes one household member works full time at 40 hours per week.*

Source: Thurston Regional Planning Council

Future Housing Affordability Need

Thurston Regional Planning Council (TRPC) used data on population growth, employment growth, and changing wages and demographics to develop 2045 projections of the number of households in five income brackets.

Table 7-3 looks at the projected number of households at five income brackets from TRPC's Household Income Forecast and the change from the 2012-2016 average. TRPC projects that there will be 66,100 low, very low, or extremely low-income households (those earning less than 80 percent of the median family income) in Thurston County in 2045. This is an increase of more than 26,000 from the 2012-2016 average. The number of extremely low income households – those earning less than 30 percent of the median family income – will increase by over 6,000 units.

Table 7-3. Number of households by income range, 2045 projection

	2045				Increase from 2012/2016			
Household Income*	Lacey	Olympia	Tumwater	Thurston County	Lacey	Olympia	Tumwater	Thurston County
<= 30%	2,200	5,200	1,900	17,800	500	1,900	700	5,700
30% - 50%	3,000	5,200	1,700	17,800	1,100	2,500	800	8,000
50% - 80%	5,500	6,500	2,800	30,100	1,900	3,000	1,400	12,700
80% - 100%	3,500	3,600	2,000	20,700	1,300	1,700	1,000	9,200
>100%	11,400	15,700	8,100	78,000	2,700	5,800	3,200	25,300
TOTAL	**25,600**	**36,200**	**16,500**	**164,400**	**7,600**	**14,900**	**7,200**	**60,900**

NOTE: **Household income as a percent of the area median family income. Excludes people experiencing homelessness and other group quarters populations. Estimates are only for current city limits and do not include unincorporated UGAs.*

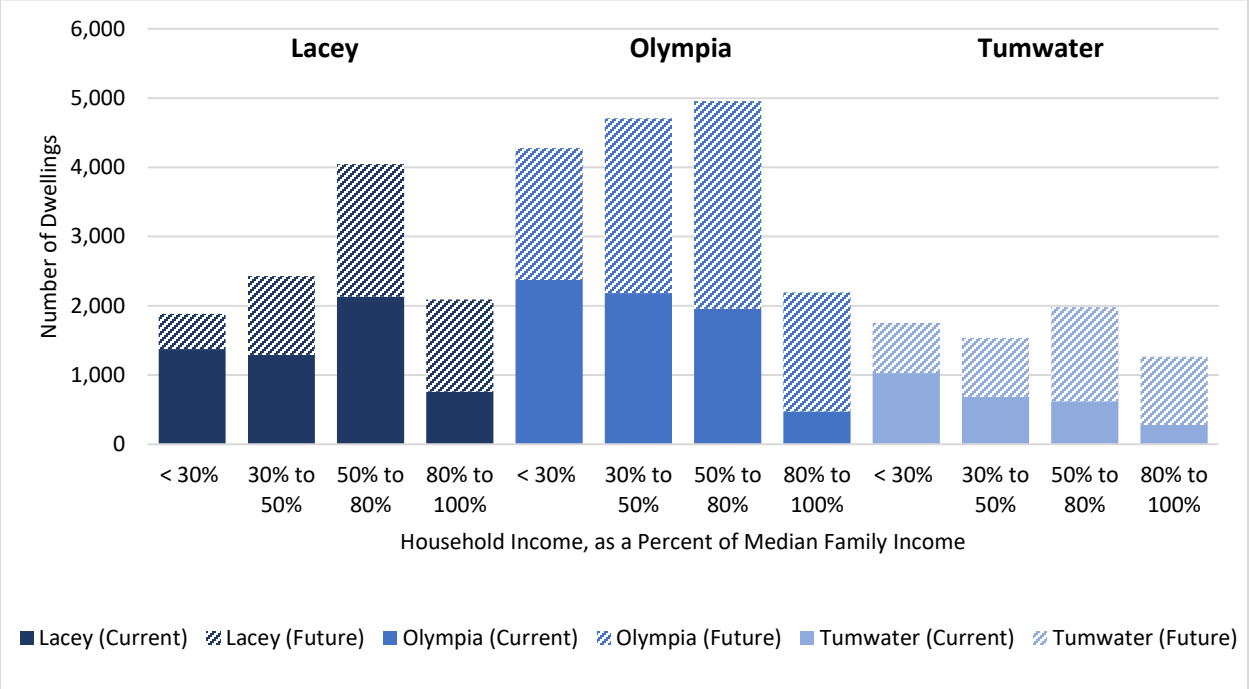
Source: Thurston Regional Planning Council

Combined Affordability Needs

Figure 7-3 shows the combined current and projected housing need at the four lowest income brackets over the next 25 years. The solid bars show the current number of households who cannot afford their housing, while the hashed bars show the projected growth in households in each income group. Estimates are for current city limits only. Additional need should be considered for the unincorporated UGAs.

While the housing need is identified for each jurisdiction, it is important that affordable housing addresses the need at a regional scale. Projections for housing needs for the five income groups are based on current distributions. When planning for new affordable housing, other factors should also be considered such as the cost of transportation, access to public transportation, and proximity to social services and medical facilities.

Figure 7-3. Current and projected 25-year housing need



Source: U.S. Dept. of Housing and Urban Development, Thurston Regional Planning Council

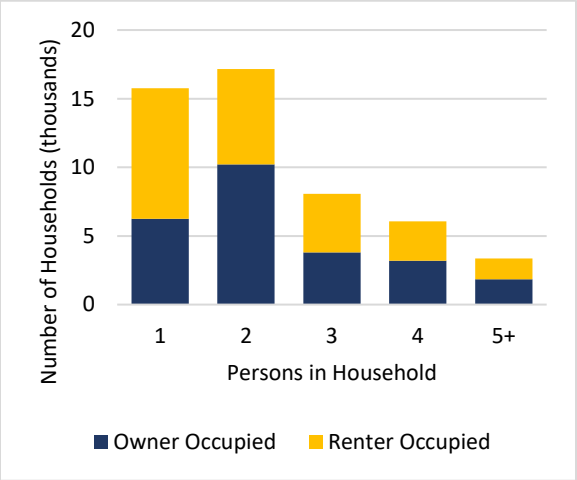
Strategies needed to decrease the housing gap will depend on a household's income, and constructing new units is not the only way to meet the housing need identified in Figure 7-3 above. Housing vouchers and other forms of subsidized housing can make the current housing stock affordable for lower-income households. Actions that reduce the cost of utilities – such as energy efficiency upgrades – can also reduce housing costs. When lower income households find housing that better meets their budgets and needs, more units are freed up that higher income households can afford. Finally, as the current housing stock ages, it becomes more affordable and depreciates in value compared to new construction. This is known as "filtering."

While the forthcoming Housing Action Plan will identify the best actions to take for each housing type and household income, it will also be important to track the number of cost burdened households over time. This will help to evaluate whether the three cities' housing stock is moving closer into alignment with residents' needs.

Housing Size

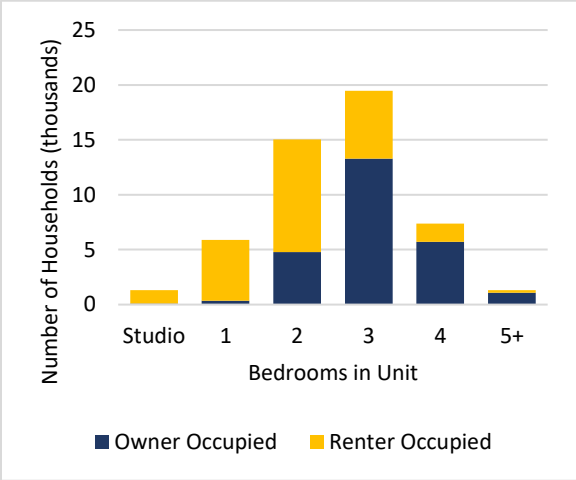
Another way to evaluate whether Lacey, Olympia, and Tumwater's housing inventory is meeting residents' needs is to compare household size to home size (Figures 7-4 through 7-7).

Figure 7-4. Household size in Lacey, Olympia, and Tumwater by tenure, 2014-2018 average



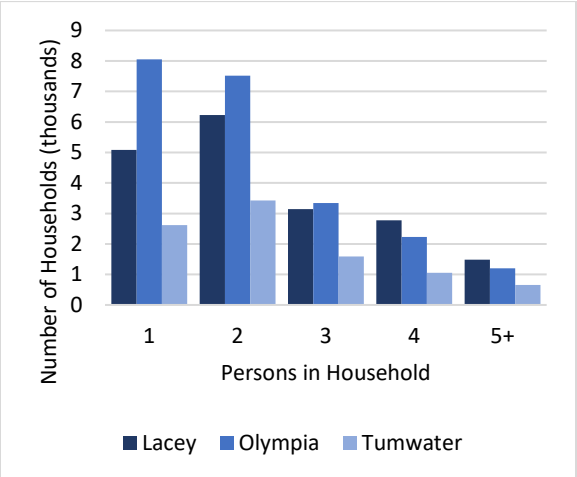
Source: U.S. Census Bureau American Community Survey

Figure 7-5. Number of bedrooms in Lacey, Olympia, and Tumwater dwelling units by tenure, 2014-2018 average



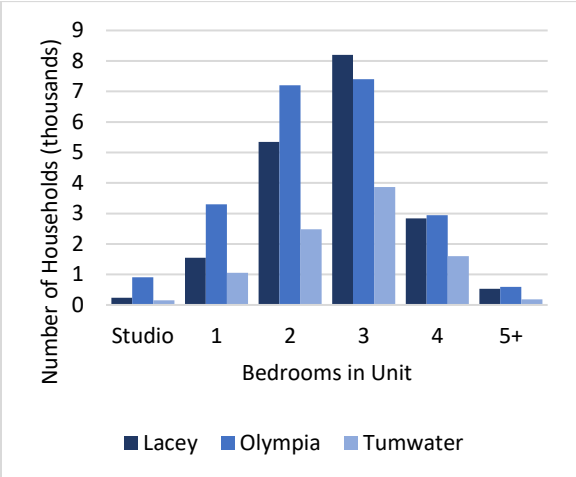
Source: U.S. Census Bureau American Community Survey

Figure 7-6. Household size in Lacey, Olympia, and Tumwater, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

Figure 7-7. Number of bedrooms in Lacey, Olympia, and Tumwater dwelling units, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

While no standard measure exists that defines overcrowding in housing, one common measure is the number of people per room. In 2014-2018, only about 1.7 percent of Lacey, Olympia, and Tumwater's households had more than one person per room. This suggests that few households struggle to find housing that is large enough for their household's size.

Households may be struggling to find more affordable, smaller units. There are 32,900 one- or two-person households in Lacey, Olympia, and Tumwater. However, only 22,200 housing units have two or fewer bedrooms. The problem is more pronounced for one person households, with only 7,200 units for 15,800 households.

Most units with two or fewer bedrooms are rental units, limiting opportunities for those interested in home ownership.

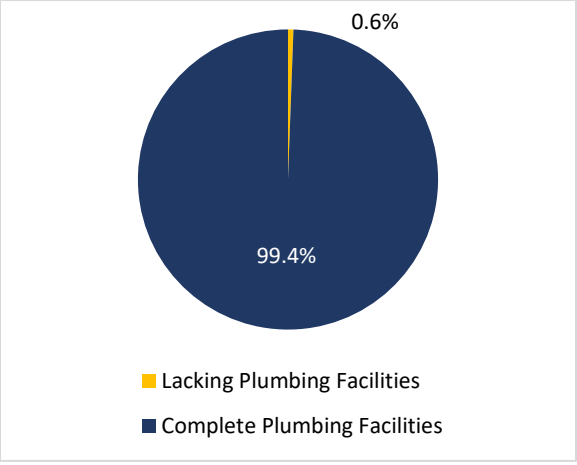
Substandard Housing

Substandard housing lacks basic facilities needed to make it habitable. The American Community Survey asks respondents whether they have basic plumbing and kitchen facilities. A dwelling unit is considered to have complete plumbing and kitchen facilities if it has:

- For plumbing facilities
  - Hot and cold running water
  - Bathtub or shower
- For kitchen facilities
  - Sink with a faucet
  - Stove or range
  - Refrigerator

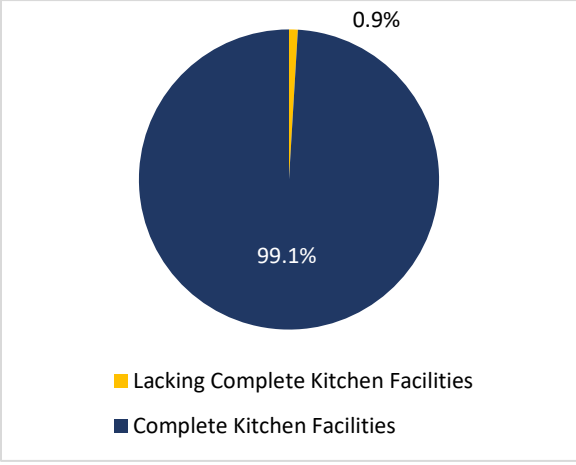
Lack of basic plumbing and kitchen facilities is a small problem in Lacey, Olympia, and Tumwater (Figures 7-8 and 7-9). About 290 occupied units (0.6 percent) lack at least one of the basic plumbing facilities while 480 (0.9 percent) lack at least one of the basic kitchen facilities.

Figure 7-8. Plumbing facilities in occupied Thurston County dwelling units, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

Figure 7-9. Kitchen facilities in occupied Thurston County dwelling units, 2014-2018 average



Source: U.S. Census Bureau American Community Survey

Data are limited on other types of substandard housing in Thurston County. Some known concerns include:

- Indoor air quality, including exposure to mold
- Peeling paint and lead exposure
- Mice, rats, and other vermin
- Maintenance issues, including electrical, plumbing, and heating

Mold is of particular concern in western Washington. Many options for mitigating mold – including weatherization – have co-benefits in increasing efficiency and reducing heating costs.

Other Needs

For many households, housing may not meet their needs, even if it is affordable and up to building standards. These needs are difficult to quantify but important to consider. Some issues include:

- **ADA Accessibility:** Limit information is available on the number of accessible dwellings units in Thurston County. Ensuring that some percent of new housing is accessible and current housing is upgraded will help house an aging population.
- **Building Wealth:** While many households prefer the flexibility renting offers, homeownership is a means of building a household's wealth. Affordable housing opportunities for low-income households – who are disproportionately persons of color – can help reduce the wealth gap between disadvantaged populations.
- **Transportation Costs:** Many households may be unable to find affordable housing near their place of work. Living farther away from job opportunities may decrease housing costs but it also increases transportation costs. This has implications for time dedicated to commuting, the presence of congestion, and the amount of vehicle emissions.

Experiencing Homelessness

At least 800 individuals experienced homelessness in 2019 (Chapter 4). Thurston County's 2019-2024 Homeless Crisis Response Plan identified approximately 1,692 households without a permanent housing solution. According to the office of the Superintendent of Public Instruction, more than 1,700 students in Thurston County schools experienced homelessness at some point during the 2018-2019 school year. Because of the difficulties in counting the population experiencing homelessness, these numbers are believed to be an undercount of the total population.

Finding adequate housing solutions for those who do not have a home requires both short- and long-term strategies. The 2019-2024 Thurston County Homeless Crisis Response Plan identifies short-term actions that are needed to address homelessness (such as emergency shelters) but makes it clear that the ultimate goal is to find permanent housing solutions.

Thurston County's ability to address homelessness in both the short- and long-term is hindered by a lack of emergency sheltering options and the availability of permanent supportive and affordable housing units. Provided affordable housing is available, most people experiencing homelessness can be assisted through rapid re-housing, which provides those who are newly homeless or on the verge of homelessness with quick resources such as money to pay a security deposit or first month's rent. However, some have higher needs related to physical, mental health or developmental disabilities. In such cases, permanent supportive housing may be required to prevent such individuals from becoming homeless in the first place or exit a homeless situation.

Over the last five years, between 20 and 30 percent of households served by a housing program left such assistance for a permanent housing situation (a rental unit, home ownership, or permanent tenure with friends or family) (Figure 7-4). This means that 70 to 80 percent of households served by housing programs do not have permanent housing by the time the leave a housing program. Factors that affect this include low rental unit vacancy rates, increasing rent costs, and limited supportive housing programs.

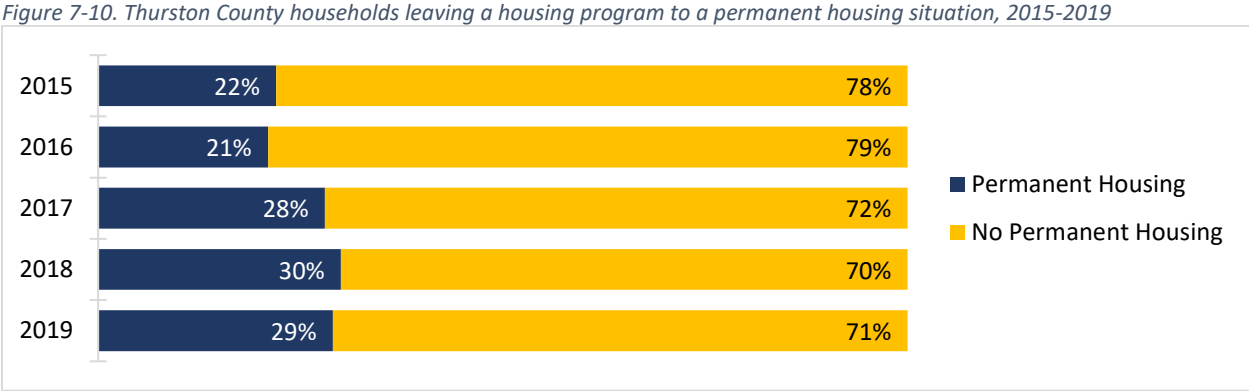
Permanent Supportive Housing

According to the 2019-2024 Homeless Crisis Response Plan, permanent supportive housing is vulnerability based, non-coercive, non-judgmental, low-barrier, permanent housing for chronically homeless and permanently disabled individuals and families.

Supportive services including but not limited to holistic health and medical, mental health, substance use, enrichment programs and case management are available on site for people who wish to engage in services or coordinated closely to reduce all possible barriers to residents accessing services once they are ready.

As a costly intervention, permanent supportive housing must be targeted to the people who are most likely to die if they are left on the streets using an objective, standardized assessment tool and placed through a coordinated entry system. An ideal candidate for permanent supportive housing is a household or individual experiencing chronic homelessness, permanent physical, mental health or substance use related disability, chronic illness and high rates of interaction with law enforcement and emergency rooms.

Figure 7-10. Thurston County households leaving a housing program to a permanent housing situation, 2015-2019



Source: Thurston County Public Health and Social Services

Because not everyone is counted in the Point-in-Time Census and the dynamic variables in the homeless experience, it is difficult to pinpoint exactly how many people experience homelessness in Thurston County. These factors, in addition to the economic impacts of the COVID-19 pandemic, it is also difficult to forecast how many people will experience homelessness in the future. Regardless, it is clear there are two critical housing gaps that require focus in order address homelessness in Thurston County:

- Permanent supportive housing for those who need services in order to maintain their housing.
- Affordable housing for households that make 30 percent or less of the area median family income, who are those most likely to be cost burdened or severely cost burdened by their housing, and thus at greater risk of becoming homeless.

Chapter 8.
Land Capacity Analysis

Thurston County is one of seven Washington Counties affected by the review and evaluation provision of the Growth Management Act (GMA). This provision requires counties to periodically review their growth to ensure that development is in line with the GMA's land use goals, and that there is sufficient land to accommodate 20 years' worth of projected growth. This review – known as the "Buildable Lands Report" – is due three years prior to city and county Comprehensive Plan updates. Ensuring that the zoning and size of the urban areas is appropriate for the projected growth helps keep new development affordable.

Thurston Regional Planning Council (TRPC) is responsible for the Buildable Lands Program in Thurston County. As part of the program, TRPC maintains an inventory of developable land. For each parcel in the county, the inventory estimates the number of new dwellings that could be built on the property, taking into account:

- Current land use, including any existing development
- The parcel's zoning and average densities achieved for each zone
- Environmental constraints, such as wetlands or steep slopes.

The most recent inventory was completed in 2019. Documentation is available at https://www.trpc.org/236. The inventory will be used to develop the next Buildable Lands Report, expected in 2021.

Appendix A shows estimates of developable land and residential capacity by zoning designation.

Residential Capacity

TRPC's land supply model estimates sufficient capacity in the Lacey, Olympia, and Tumwater urban areas for about 40,000 new dwelling units in 2020, with about one third of the capacity in each urban area (Table 8-1). Capacity is split among a range of zoning types: about 41 percent in primarily multifamily zones; 26 percent in mixed single-family/multifamily zones; and 33 percent in primarily single-family zones.

Having capacity in a range of zoning types is important since different household types tend to gravitate towards different housing and ownership types.

Table 8-1. Residential capacity by generalized zoning district, 2017

Density Category	Lacey	Olympia	Tumwater	TOTAL
Commercial, Mixed Use, and High Density Multifamily	3,500	7,100	1,800	12,400
Moderate Density Multifamily	2,000	300	1,700	4,000
Mixed Residential and Planned Communities	6,600	1,700	2,300	10,500
Medium Density	2,200	5,000	4,600	11,800
Low Density and Sensitive	0	1,000	500	1,600
TOTAL	**14,400**	**15,100**	**10,800**	**40,300**

Source: Thurston Regional Planning Council

Table 8-2 describes the amount of residential development capacity by the type of developable parcel. About 600 units are on lots that have been recently permitted or subdivided and will be constructed over the next few months. A number of projects are in the development pipeline or part of master planned communities. These projects represent about 9,100 units that will most likely be built over the next few years. The remaining capacity is on parcels with no plans for development. These include vacant parcels (about 13,100 units), subdividable parcels with at least one existing dwelling (13,800 units), and redevelopable parcels (about 3,700 units). These parcels will most likely develop over the next few decades.

Table 8-2. Residential capacity by type of developable parcel, 2020

Capacity Type	Lacey	Olympia	Tumwater	TOTAL
Recently Permitted or Subdivision Lots	400	100	100	600
Planned Projects and Master Planned Communities	4,200	1,900	3,000	9,100
Vacant Single Lots	100	400	100	600
Vacant Subdividable Lands	3,600	5,800	3,100	12,500
Partially Used, Subdividable Lands	4,900	4,500	4,300	13,800
Redevelopment	1,100	2,400	300	3,700
TOTAL	**14,400**	**15,100**	**10,800**	**40,300**

Source: Thurston Regional Planning Council

Since some types of capacity are more likely to develop than others, it is important to have development potential on parcels of all types. Too much capacity on parcels that are more expensive (such as redevelopment parcels) or slow to enter the market (partially used, subdividable parcels) could constrict the supply of housing.

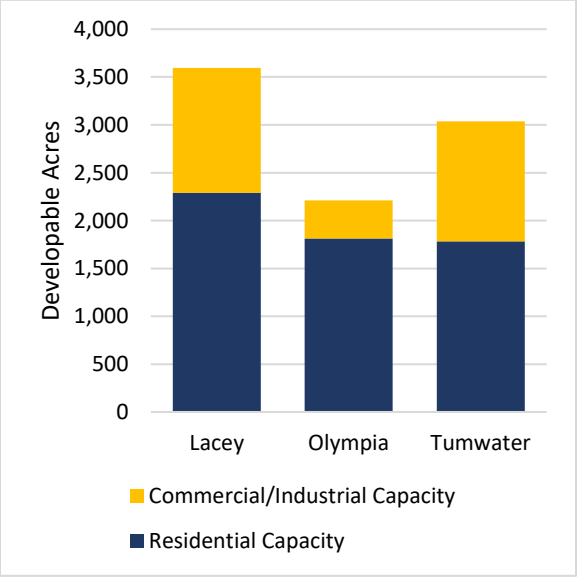
Unique Housing Needs

Apart from single-family, multifamily, and manufactured homes, Lacey, Olympia, and Tumwater's zoning regulations permit – either outright or conditionally – a range of unique housing needs important for specific populations. These include:

- Housing for those experiencing homelessness including shelters, emergency housing, transitional housing, and permanent supportive housing
- Facilities for people with medical needs such as nursing homes, adult family homes, and mental health facilities
- Correctional and rehabilitation facilities

Lacey, Olympia, Tumwater, and their unincorporated urban growth areas contain about 8,800 acres of developable land, plus additional land suitable for infill or redevelopment (Figure 8-1). About a third is suitable for commercial or industrial development with the remainder residential. Based on this assessment, the region should have sufficient land capacity for future housing needs for populations with unique needs.

Figure 8-1. Developable land



Source: Thurston Regional Planning Council

Appendix A. Development Trends by Zoning District

The following tables include a summary of permit trends and development capacity for zoning districts in Lacey, Olympia, Tumwater, and their unincorporated Urban Growth Areas (UGAs).

Permit trend data come from Thurston Regional Planning Council's (TRPC) building permit database. TRPC compiles permits for new dwelling units annually from data provided by city, town, county, and tribal reservation building departments. For larger subdivision and mixed-use projects, data are entered as permits are issued, which will occur after the project is approved.

Data on buildable land and residential capacity come from TRPC Population and Employment Forecast work program. Using average densities based on recent development trend in each zone, TRPC estimates the buildable area on each parcel plus the number of dwelling units that the parcel could likely accommodate, should the parcel develop. Estimates take into account any exiting development, wetlands and other critical areas, and probability of redevelopment. Data support the Buildable Lands Report for Thurston County. Documentation is available at www.trpc.org/236.

Lacey

Zone	Location	Permitting Trends					Buildable Land (Acres)		Residential Capacity (Number of Units) on:	
		1995-1999	2000-2004	2005-2009	2010-2014	2015-2019	Res.	Comm.	Vacant Land	Redev. Land
Aquatic	City	0	0	1	0	0	0	0	0	0
Central Business District 4	City	56	62	0	1	0	1	10	13	46
Central Business District 5	City	0	1	156	0	244	0	7	304	71
Community Office District	City	0	150	296	0	0	2	44	46	0
General Commercial	City	0	2	0	0	0	0	30	0	0
High Density Residential	City	20	167	500	202	834	66	0	1,156	0
High Density Residential	UGA	1	182	0	1	277	88	0	852	0
Lacey Historic Neighborhood	City	9	3	3	1	1	16	2	29	0
Low Density Residential (LD 0-4)	City	637	227	522	282	131	230	2	770	0
Low Density Residential (LD 0-4)	UGA	254	296	121	54	160	362	5	1,669	0
Low Density Residential (LD 3-6)	City	802	290	1,442	424	145	45	0	265	0
Low Density Residential (LD 3-6)	UGA	359	597	222	159	286	561	7	3,520	0
McAllister Geologically Sensitive Area	UGA	61	111	126	72	36	516	24	2,824	0
Mixed Use High Density Corridor	City	190	7	1	1	589	17	19	551	117
Mixed Use High Density Corridor	UGA	2	164	1	0	257	16	22	322	643
Mixed Use Moderate Density Corridor	City	0	0	0	0	28	8	12	69	4
Mixed Use Moderate Density Corridor	UGA	0	2	59	0	0	7	11	136	58
Moderate Density Residential	City	564	208	939	392	295	111	0	1,024	0
Moderate Density Residential	UGA	98	199	104	14	137	168	0	998	0
Natural	City	1	2	0	0	0	0	0	1	0
Open Space (Institutional)	City	4	5	1	17	36	0	0	64	0
Open Space (Institutional)	UGA	1	0	0	0	0	0	0	0	0
Open Space (Park)	UGA	2	0	0	0	0	0	0	0	0
Shoreline Residential	City	5	3	4	4	3	1	0	4	0
Urban Conservancy	City	1	1	0	0	0	0	0	2	0
Village (Urban) Center	City	0	0	0	10	76	15	12	198	0
Village (Urban) Center	UGA	0	0	95	100	0	0	29	372	0
Woodland District	City	0	0	101	0	0	3	6	135	1,583
TOTAL		**3,067**	**2,679**	**4,694**	**1,734**	**3,535**	**2,233**	**242**	**15,324**	**2,522**

Olympia

Zone	Location	Permitting Trends					Buildable Land (Acres)		Residential Capacity (Number of Units) on:	
		1995-1999	2000-2004	2005-2009	2010-2014	2015-2019	Res.	Comm.	Vacant Land	Redev. Land
Community Oriented Shopping Center	UGA	0	0	28	10	0	3	7	31	0
Downtown Business	City	43		5	58	356	3	9	398	1539
High Density Corridor-4	City	0	0	0	0	166	4	48	572	2931
Manufactured Housing Park	City	2	0	0	0	0	1	0	7	0
Medical Service	City	60	80	24	0	0	8	37	171	100
Mixed Residential (MR-10-18)	City	0	23	11	3	4	19	0	129	0
Neighborhood Retail	City	0	0	1	0	0	0	2	1	2
Neighborhood Retail	UGA	0	0	0	0	2	0	2	7	2
Neighborhood Village	City	0	0	9	149	257	33	7	446	0
Planned Unit Development	City	1	2	64	36	0	1	1	14	103
Professional Office/Residential Multifamily	City	260	2	80	400	1	28	46	611	386
Residential (R 1/5)	City	5	0	1	0	0	6	0	5	0
Residential (R 1/5)	UGA	11	3	30	11	3	33	0	28	0
Residential (R-4)	City	1	5	0	0	0	9	0	16	0
Residential (R-4)	UGA	72	19	25	25	12	71	5	136	0
Residential (R-4-8)	City	573	395	231	117	94	737	22	3,882	0
Residential (R-4-8)	UGA	289	349	186	100	35	293	4	1,395	0
Residential (R-6-12)	City	142	118	142	147	24	154	4	1,053	0
Residential (R-6-12)	UGA	16	87		48	86	9	0	97	0
Residential Low Impact	City	7	130	294	179	205	131	3	509	0
Residential Low Impact	UGA	105	299	2	1	2	46	2	129	0
Residential Mixed Use	City	0	29	0	0	0	0	1	23	0
Residential Multifamily (RM-18)	City	45	16	18	138	37	59	2	919	0
Residential Multifamily (RM-18)	UGA	0	0	198	0	0	10	0	174	0
Residential Multifamily (RM-24)	City	89	1	30	580	126	50	0	984	0
Single-Family Residential (Chambers Basin)	City	0	2	1	0	1	68	0	285	0
Urban Residential	City	4	32		0		2	3	184	0
Urban Village	City	2	0	62	130	238	25	10	366	0
Urban Waterfront	City	284	0	12	0	116	4	14	572	343
Urban Waterfront - Housing	City	0	0	0	0	140	2	1	301	380
TOTAL		**2,011**	**1,592**	**1,454**	**2,132**	**1,905**	**1,809**	**230**	**13,445**	**5,786**

Tumwater

Zone	Location	Permitting Trends					Buildable Land (Acres)		Residential Capacity (Number of Units) on	
		1995-1999	2000-2004	2005-2009	2010-2014	2015-2019	Res.	Comm.	Vacant Land	Redev. Land
Airport Related Industry	City	1	0	0	0	0	0	9	0	0
Brewery District	City	1	2	0	0	0	2	12	632	49
Capitol Boulevard Community	City	0	0	1	7	0	3	7	401	507
Commercial Development	UGA	1	0	0	1	0	0	12	0	1
General Commercial	City	5	3	3	3	2	6	138	124	43
Greenbelt	UGA	0	1	0	0	0	0	0	0	0
Light Industrial	City	5	4	2	1	0	0	664	0	0
Light Industrial	UGA	11	7	3	2	4	0	212	0	0
Manufactured Home Park	City	42	21	22	7	10	6	0	44	0
Mixed Use	City	2	0	0	40	0	5	35	65	26
Multifamily High Density Residential	City	0	0	229	0	322	14	0	544	0
Multifamily Medium Density Residential	City	2	131	152	134	165	128	10	1,018	0
Multifamily Medium Density Residential	UGA	21	20	10	3	11	72	11	599	0
Neighborhood Commercial	UGA	1	0	0	0	0	0	2	0	0
Open Space	City	2	2	1	0	0	0	0	0	0
Open Space	UGA			2	0	0	0	0	0	0
Residential/Sensitive Resource	City	31	52	66	14	11	113	0	369	0
Residential/Sensitive Resource	UGA	4	3	0	0	2	48	0	124	0
Single-Family Low Density Residential	City	319	205	292	216	215	530	2	2,736	0
Single-Family Low Density Residential	UGA	54	29	10	2	12	419	18	1,985	0
Single-Family Medium Density Residential	City	150	383	237	409	127	341	25	1,841	0
Single-Family Medium Density Residential	UGA	10	3	1	1	2	97	0	446	0
Town Center Multifamily Residential	City	2	0	0	0	0	1	1	11	33
TOTAL		**664**	**866**	**1,031**	**840**	**883**	**1,785**	**1,158**	**10,939**	**659**

Appendix B. Household Income Forecast

Introduction

In 2019, the state Department of Commerce awarded a grant to the cities of Lacey, Olympia, and Tumwater to develop a Housing Action Plan. The plan includes four components:

- A Regional Housing Needs Assessment, with an inventory of the current housing stock, household characteristics, the population's housing needs, and any gaps in housing availability.
- A household income forecast to identify future housing needs
- A survey of landlords and rental property owners to better understand housing costs
- A Housing Action Plan—to be adopted by the cities—which provides a list of actions for the cities to implement to promote the development of a housing stock that meets the needs of current and future residents

This report documents the methodology and results of the household income forecast, which provides jurisdictions with a projection of the number of households in different income brackets. This information can be used to identify actions that encourage development of housing over the next 25 years that is adequate and affordable to households of all incomes.

Preparation of the household income forecast occurred during the COVID-19 pandemic. The pandemic resulted in high levels of unemployment and reduced wages for many residents of Thurston County. The baseline forecast uses pre-pandemic sources of data and assumes a full recovery. However, given the uncertainty around the long-term impacts of the pandemic, five scenarios were also prepared to look at alternative growth projections.

What Factors Affect Income?

Household income is complex and influenced by a number of factors. The household income forecast focuses on four factors.

Total Employment by Industry Employment affects the number of wage earners in a county.	**Wages by Industry** Wages affect how much individuals earn, and the amount of income they contribute to the households.
Commuting The number of commuters impacts how much income is moved between counties.	**Population and Age** The number of people in each age bracket reflects the size of the labor force versus the number of people too young to work or who have retired.

These factors are discussed in more detail below.

Sources of Data

Numerous data sources of data are available on population, age, employment, wages, and commuting. These include:

- Washington State Office of Financial Management (OFM): Population estimates and projections by age for counties. Statewide employment projections.
- Thurston Regional Planning Council (TRPC): Employment projections for Thurston County.
- Washington State Employment Security Department (ESD): Average annual employment counts and wages by industry.
- U.S. Bureau of Economic Analysis (BEA)
- U.S. Census Bureau American Community Survey (ACS): Estimates of population, age, employment, and earnings by county.
- Census Transportation Planning Products (CTPP): County-to-county commute flows using a special tabulation of American Community Survey Data.

TRPC used these sources were to develop 25-year projections for population, age, employment, wages, and commuting that were input into the housing income forecast. The following sections explore some of those topics and how they relate to income and wages.

Employment by Industry

TRPC projects that employment in Thurston County will add over 60,000 new jobs between 2015 and 2045, a growth rate of about 1.4 percent per year. This is slightly faster than the state Office of Financial Management's projections for Washington State (Table 1).

The two fastest growing industries are projected to be educational services, health care and social assistance; and professional and business services. Both are projected to increase by about 1.6 percent per year. Finance and insurance, and real estate and rental leasing is expected to be a close third at 1.4 percent per year.

The industries seeing the largest growth in terms of total numbers are also the largest industries: educational services, and health care and social assistance; public administration and government employment; and professional and business services.

Fastest Growing Industries in Thurston County (projected)

- Educational services, and health care and social assistance
- Professional and business services
- Finance and insurance, and real estate and rental and leasing

Largest Industries in Thurston County

- Educational services, and health care and social assistance
- Public administration (government)
- Professional and business services

Table 1: Total Employment Estimates and Projections

		Thurston County			Washington State		
NAICS	**Industry**	**2015**	**2045**	**Rate**	**2015**	**2045**	**Rate**
11,21	Agriculture, forestry, fishing and hunting, and mining	3,321	3,700	0.4%	209,500	257,800	0.8%
22,48-49	Transportation and warehousing, and utilities	3,053	4,000	0.9%	100,900	115,600	0.5%
23	Construction	6,334	8,600	1.0%	173,300	219,800	1.0%
31-33	Manufacturing	4,152	5,100	0.7%	291,900	299,300	0.1%
42	Wholesale trade	3,857	5,300	1.1%	132,000	143,100	0.3%
44-45	Retail trade	15,555	22,100	1.2%	355,000	463,900	1.1%
51	Information	1,344	1,600	0.6%	114,400	157,000	1.3%
52-53	Finance and insurance, and real estate and rental and leasing	10,028	15,300	1.4%	147,700	161,400	0.4%
54-56	Professional and business services	15,951	25,400	1.6%	389,700	620,400	1.9%
61-62	Educational services, and health care and social assistance	19,375	31,100	1.6%	448,500	630,400	1.4%
71-72	Arts, entertainment, recreation, accommodation, and food services	11,982	17,600	1.3%	310,100	409,500	1.1%
81	Other services, except public administration	8,183	12,100	1.3%	115,000	120,800	0.2%
	Government / Public administration	37,640	49,000	0.9%	562,000	778,700	1.3%
	Total	**140,775**	**200,900**	**1.2%**	**3,350,000**	**4,377,700**	**1.1%**

Sources: OFM; TRPC Forecast

Wages

Wages make up about 71 percent of total income for Thurston County households. For lower-income households specifically, Social Security, Supplemental Social Security, and other forms of public assistance can make up over 30 percent of a household's income. Figure 1 shows sources of income by household income level.

Average wage earnings for employed Thurston County residents are $54,500 (Table 2). Average wages vary widely by industry, from a high of $110,600 for the utility industry to a low of $20,700 for arts, entertainment, and recreation. Nominal wages (wages not adjusted for inflation) increased 2.4 percent per year between 2001 and 2018. This is in line with inflation (Table 3). For many industries, wage increases can vary widely on a year-to-year basis making projections of future wages difficult.

Thurston County Industries with the Highest Wages

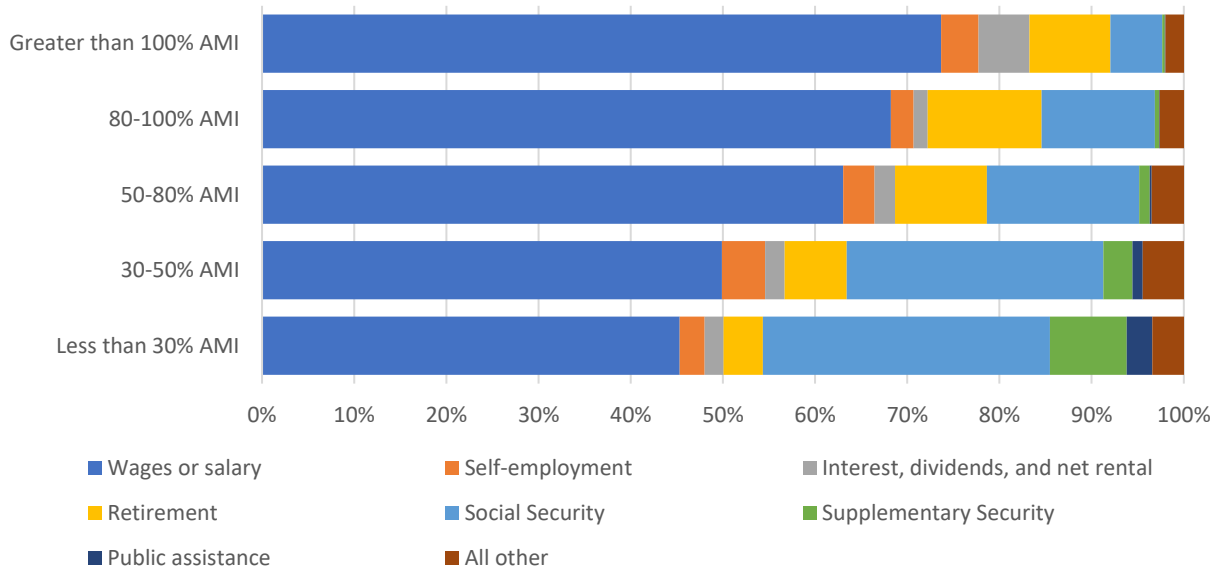
- Utilities
- Information
- Management of companies and enterprises

Table 2: 2019 Average Wage Earnings by Industry for Covered Employment

NAICS	Industry subsectors	Thurston County	Washington State	Percent Difference
11	Agriculture, forestry, fishing, and hunting	$39,800	$33,700	18%
21	Mining	56,100	74,900	-25%
22	Utilities	110,600	105,300	5%
23	Construction	64,300	67,800	-5%
31-33	Manufacturing	58,500	81,300	-28%
42	Wholesale trade	73,600	82,400	-11%
44-45	Retail trade	34,000	62,300	-45%
48-49	Transportation & warehousing	45,900	64,700	-29%
51	Information	92,700	207,000	-55%
52	Finance and insurance	75,900	101,000	-25%
53	Real estate, rental and leasing	43,000	58,400	-26%
54	Professional, scientific, and technical services	75,600	104,000	-27%
55	Management of companies and enterprises	76,600	123,400	-38%
56	Administrative and waste management services	41,300	53,100	-22%
61	Educational services	33,800	40,200	-16%
62	Healthcare and social assistance	54,700	54,700	0%
71	Arts, entertainment, and recreation	20,700	33,200	-38%
72	Accommodation and food services	22,000	25,300	-13%
81	Other services (except public administration)	46,000	42,600	8%
	Government	66,200	66,900	-1%
	Total	**$54,500**	**$69,600**	**-22%**

Source: ESD Quarterly Census of Employment and Wages (2019 Annual Average)

Figure 1: Sources of Income in Thurston County by Household Income Bracket



Source: 2014-2018 ACS PUMS. AMI is the Area Median Family Income.

Table 3: Average Annual Increase in Wages (2001-2018)

NAICS	Industry	Average	Minimum	Maximum
11, 21	Agriculture, forestry, fishing and hunting, and mining	6.5%	-14.7%	63.7%
22, 48-49	Transportation and warehousing, and utilities	-0.8%	-11.4%	5.9%
23	Construction	2.3%	-9.7%	31.9%
31-33	Manufacturing	2.3%	-3.5%	8.6%
42	Wholesale trade	2.7%	-22.0%	40.9%
44-45	Retail trade	1.1%	-11.6%	5.4%
51	Information	2.4%	-23.4%	24.3%
52-53	Finance and insurance, and real estate, rental and leasing	1.4%	-12.6%	29.3%
54	Professional, scientific, and management, and administrative and waste management services	3.3%	-4.5%	8.7%
61-62	Educational services, and health care and social asst.	2.6%	-6.7%	5.8%
71-72	Arts, entertainment, and recreation, and accommodations and food services	3.4%	-3.1%	10.2%
81	Other services except public administration	3.0%	-3.4%	8.6%
	Government / Public administration	3.0%	0.0%	7.8%
	All Wages	**2.4%**	**0.1%**	**4.4%**
	Inflation	**2.3%**	**0.3%**	**4.2%**

Source: BEA tables CAEMP25 and CAINC5; Consumer Price Index for Seattle-Tacoma-Bremerton Metropolitan Statistical Area

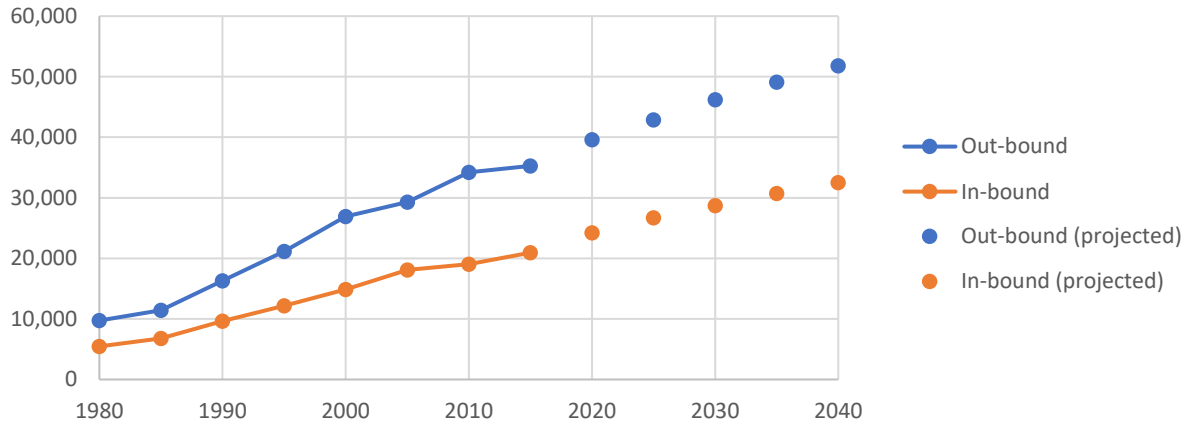
Commuting

TRPC projects that between 2020 and 2045, the number of commuters to or from Thurston County will increase by about 40 percent. Out-bound commuters will continue to make up about 60 percent of all county-to-county commuters (Figure 2).

The ratio of outbound commuters to inbound commuters affects how much income is brought into the County. More people leave Thurston County than commute to it for work which brings income to our communities.

People tend to commute out of county for higher-wage jobs. Most out-of-county commuters have higher incomes that those who live and work in the same county (Table 4). Average wage earnings for Thurston County residents who work within the County is about $46,200. When outbound commuters are included, the average increases to $49,500.

Figure 2: Commute Forecast



Source: TRPC Population and Employment Forecast (2018 Update)

Table 4: Average Wage Earnings by Place of Residence and Place of Work

	Place of Work						
Place of Residence	**Thurston County**	**Pierce County**	**Southwest WA**	**Olympic Peninsula**	**Northwest WA**	**Eastern WA**	**Total**
Thurston County	46,200	56,800	56,500	56,700	62,900	–	**49,500**
Pierce County	51,300	45,700	–	60,500	60,200	–	**49,800**
Southwest WA	41,100	–	43,400	–	64,500	43,000	**43,500**
Olympic Peninsula	46,800	48,000	–	42,500	84,500	–	**46,000**
Northwest WA	–	55,200	–	54,300	64,800	–	**64,600**
Eastern WA	–	–	49,400	–	71,000	43,100	**43,400**
Total	**46,700**	**47,300**	**43,700**	**43,600**	**64,700**	**43,200**	**55,500**

Source: 2014-2018 ACS PUMS.
Note: Excludes out of state commutes and county pairs with fewer than 100 records

Age

Age affects income in a number of ways, including:

- The number of people in the labor force (generally age 18 through 65)
- Length of employment, amount of job experience, and compensation
- Type of employment and industry

Increase in Working-Age Population
(Age 20-64)

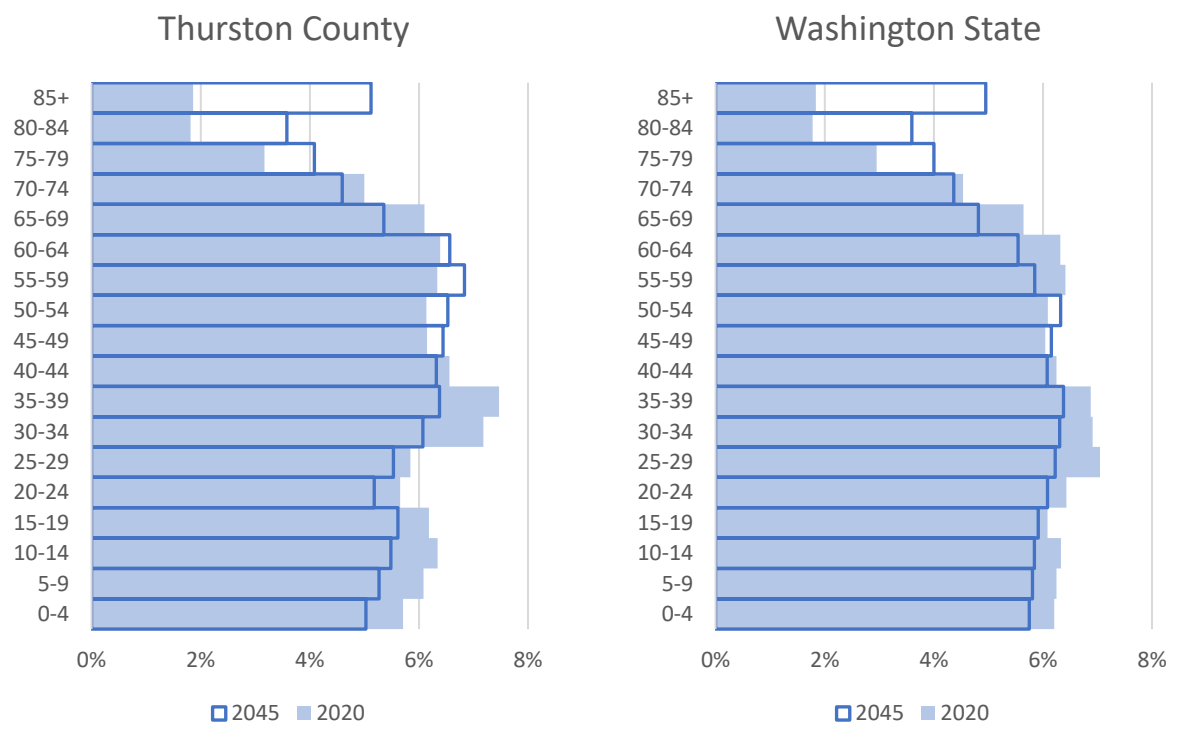
+ 44,300

2020-2045

Thurston County's working age population is projected to increase by over 44,300 people over the next 25 years (Figure 3). Thurston County however, like most counties in Washington State, has an aging population. The population age 65 and older is expected to increase by over 65 percent between 2020 and 2045. The main source of income for this group is retirement savings and Social Security, not wages.

As the baby-boomer population retires, many higher-wage jobs this will open up for the younger age cohorts. This is particularly true for state employment, which has an older workforce compared to the county average.

Figure 3: Percent of Population in Five-Year Age Cohorts



Source: OFM Growth Management Act County Projections (2017)

Income Forecast Methodology

TRPC modified microdata available from the U.S. Census Bureau to simulate a theoretical 2045 population. This population could then be used to calculate the future median family income and number of households in defined income brackets.

American Community Survey

The U.S. Census Bureau's American Community Survey (ACS) is an ongoing survey that collects data on all the drivers of income—place of work and residence, age, wages, and employment industry. Data are released on a yearly basis and are available as one-year or five-year averages, depending on the population for the geography of interest.

Public Use Microdata Sample

The Public Use Microdata Sample (PUMS) is a unique subset of ACS data. The Census Bureau releases the complete survey responses for about 5 percent of the population. Data are only available for unique geographies with at least 100,000 people – called Public Use Microdata Areas (PUMAs). The sample is chosen so that it is representative of the population as a whole, without identifying a single individual. Additional modifications are made to preserve the confidentiality of individuals' responses. Each record is given a weight that identifies the estimated number of people it represents in the overall population.

The advantage of the PUMS data is that they allow for summarization in ways that are not available through the standard pretabulated ACS tables. This gives researchers more flexibility in the types of analyses they can perform.

Modifying the PUMS Weights

For the income forecast, the weights were adjusted to represent a projected 2045 population. Weights were adjusted to control for two factors:

- Total population by six geographic regions (Thurston County, Pierce County, Northwest Washington, Southwest Washington, Olympic Peninsula, and Eastern Washington) and five age brackets. Population estimates for 2045 came from the Office of Financial Management's 2017 Growth Management Act supplemental projections.
- Total 2045 employment by 13 industry categories for Thurston County and the remainder of Washington State, plus the unemployed population. Statewide projections came from the Office of Financial Management. Thurston County projections came from TRPC's Population and Employment Forecast.

Since growth rates are different for each industry, population in each county, and population in each age group, iterative proportional fitting was used to ensure the expanded population matched the totals (marginals) in each county, age, and employment industry category.

"Stretching" the 2014-2018 ACS PUMS data to fit a 2045 population and workforce provides a conservative estimate of that population. It assumes no major changes in wage distribution of employment industries, employment industry chosen by different age groups, or commute patterns, for example.

Table 5 shows the percent change in population for each of the county, age, and industry groups between the 2014-2018 American Community Survey data and 2045 projections.

Iterative Proportional Fitting

Iterative Proportional Fitting — also known as IPF — is a statistical procedure used to estimate the values of a crosstab table when only the marginal totals are known.

In the example below, the total number of people in each age group and employment industry is known. However, the number of people in age group employed in each industry is not known. What if the number of people age 30-45 who work in retail is needed? IPF can be used to estimate the missing data.

Job Industry	Age <30	Age 30-45	Age 45-60	Total
Services	?	?	?	52
Retail	?	?	?	28
Construction	?	?	?	11
Resources	?	?	?	9
Total	31	37	32	100

IPF Example. The totals for each row and column are known, but not the individual cells.

The accuracy of the procedure can be improved by "seeding" the table, for example, with survey data. Through an iterative process, the initial seed values are refined until they equal the known totals for each row and column.

For the income forecast, the population growth in 30 place of residence/age group categories are the columns, and the rows are the employment growth in 27 employment industry/place of work categories. 2014-2018 PUMS data are used as the seed.

Table 5: Population Expansion Factors

Place of Residence	Place of Work	Age	Employment Industry NAICS Code: 11-21	22, 48-49	23	31-33	42	44-45	51	52-53	54-56	61-62	71-72	81	92	Not Employed
Thurston	Thurston	0-19	20%	–	51%	35%	50%	56%	25%	58%	68%	69%	66%	59%	40%	23%
Thurston	Thurston	20-34	-7%	9%	16%	4%	15%	20%	-3%	22%	30%	30%	28%	23%	8%	-5%
Thurston	Thurston	35-49	12%	31%	40%	26%	39%	45%	16%	47%	56%	57%	54%	48%	30%	14%
Thurston	Thurston	50-64	17%	37%	46%	31%	45%	51%	21%	53%	62%	63%	60%	54%	35%	19%
Thurston	Thurston	65+	81%	112%	126%	103%	–	134%	88%	138%	152%	153%	148%	139%	109%	85%
Thurston	Other	0-19	31%	22%	38%	11%	16%	42%	–	13%	71%	48%	45%	9%	51%	–
Thurston	Other	20-34	1%	-6%	7%	-15%	-10%	10%	15%	-13%	32%	14%	12%	-16%	16%	–
Thurston	Other	35-49	21%	13%	28%	3%	8%	32%	39%	5%	59%	38%	35%	2%	40%	–
Thurston	Other	50-64	26%	18%	34%	7%	12%	38%	45%	10%	66%	43%	40%	6%	46%	–
Thurston	Other	65+	96%	83%	107%	66%	74%	114%	124%	70%	157%	122%	118%	64%	126%	–
Other	Thurston	0-19	21%	–	–	–	–	54%	–	–	61%	–	64%	52%	40%	–
Other	Thurston	20-34	2%	20%	22%	11%	28%	27%	1%	24%	39%	39%	34%	34%	14%	–
Other	Thurston	35-49	18%	28%	37%	24%	34%	42%	13%	43%	52%	54%	51%	50%	29%	–
Other	Thurston	50-64	6%	25%	25%	16%	27%	39%	15%	42%	49%	47%	48%	46%	18%	–
Other	Thurston	65+	51%	–	144%	107%	147%	147%	–	162%	152%	143%	144%	–	115%	–

Note: Table shows the percent increase in that group's population between 2014-2018 and 2045. Employment Industry NAICS codes are shown in Table 2. "Other" includes five regions (Pierce County, Northwest Washington, Southwest Washington, Olympic Peninsula, and Eastern Washington) aggregated here for simplicity.

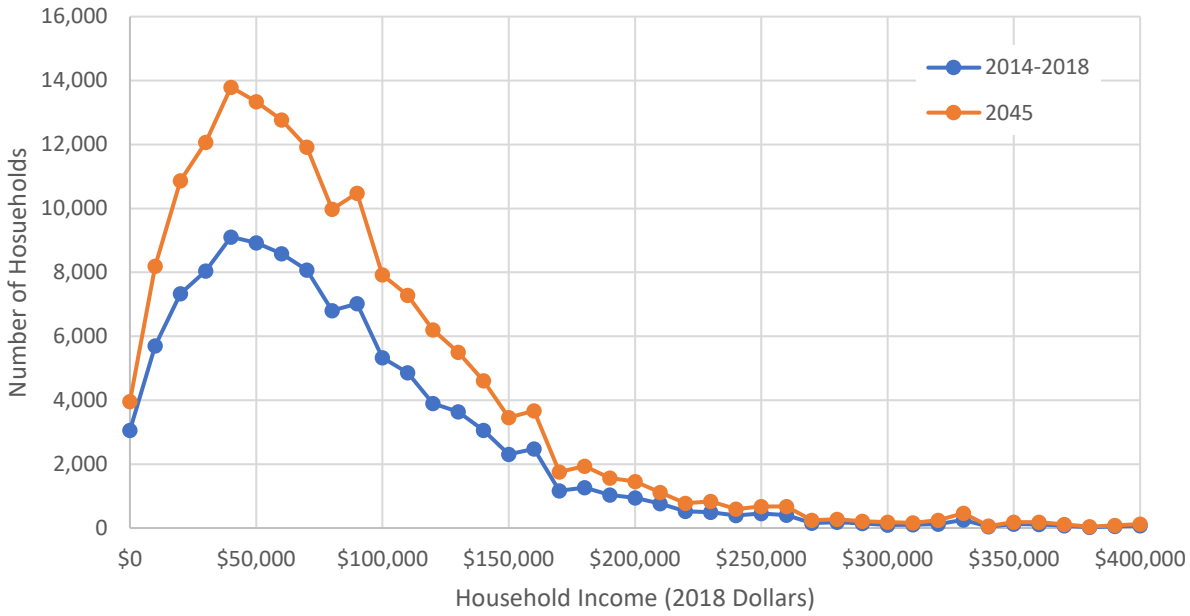
Results

Median Family Income

Median family income is the threshold at which half of family households earn more and half of family households earn less. Without accounting for inflation, median family income is projected to increase 1.3 percent, from $82,400 to $83,400 in real 2018 dollars. This change is well within the margin of error, suggesting that future households' income will not differ significantly from now.

From the projected 2045 median family income, new income thresholds can be calculated. These values, which vary by household size, are shown in Table 6.

Figure 4: Projected Income Distribution (All Households)



Source: U.S. Census Bureau 2014-2018 ACS; TRPC Income Forecast

Table 6: Income Limits in Real 2018 Dollars

		1-person		2-Person		4-Person	
		2014-18	2045	2014-18	2045	2014-18	2045
Extremely Low Inc.	30% AMFI	$17,300	$17,500	$19,800	$20,000	$24,700	$25,000
Very Low Income	50% AMFI	$28,800	$29,200	$33,000	$33,400	$41,200	$41,700
Low Income	80% AMFI	$46,100	$46,700	$52,700	$53,400	$65,900	$66,700
Median Income	100% AMFI	$57,700	$58,400	$65,900	$66,700	$82,400	$83,400
	120% AMFI	$69,200	$70,100	$79,100	$80,100	$98,900	$100,100

Note: AMFI is the Area Median Family Household Income. 2045 income limits are shown in real 2018 dollars. Nominal values will be higher due to inflation. Documentation on how HUD calculates income limits, including for household sizes not show here, is available at www.huduser.gov/portal/datasets/il.html.

Countywide Income Forecast

With the projected median family income, the number of households in different income brackets can be calculated. By 2045, an additional 22,300 low-income households are expected, including 11,600 very low-income households, and 5,400 extremely low-income households (Table 7).

Table 7: Households by Income Bracket

	# Households			% Households	
Income Group	**2014-2018**	**2045**	**Change**	**2014-2018**	**2045**
Less than 30% AMI	12,400	17,800	5,400	11.5%	10.8%
30 to 50% AMI	11,600	17,800	6,200	10.7%	10.8%
50 to 80% AMI	19,400	30,100	10,700	18.0%	18.3%
80 to 100% AMI	13,700	20,700	7,000	12.6%	12.6%
100% to 120% AMI	10,500	15,800	5,300	9.7%	9.6%
Greater than 120% AMI	40,500	62,200	21,700	37.5%	37.9%
Total	**108,100**	**164,400**	**56,300**	**100.0%**	**100.0%**

Note: AMI is the Area Median Household Income

Since there is considerable uncertainty in what the future holds, especially given the ongoing COVID-19 pandemic, TRPC looked at five alterative scenarios:

- **COVID-19:** 10 percent reduction in retail trade employment. 15 percent reduction in leisure and hospitality employment. 5 percent reduction in all other service employment
- **New and Emerging Industries:** 5 percent increase in manufacturing. 10 percent increase in manufacturing wages
- **Decrease in Public Assistance:** 10 percent decrease in public assistance (Social Security, Supplemental Social Security, and other Public Assistance)
- **Increased Government Wages:** Government wages increased 10 percent over inflation
- **Minimum Wage:** 25 percent increase in wage earnings if hourly wage is less than $12/hour

The scenarios are included not to describe scenarios that are likely or expected, but to better understand how sensitive the forecast methodology is to possible changes and the relative importance of different inputs.

Changes to median family income were within the margin of error of current estimates. However, the scenarios do show the importance of programs targeting the lowest-income households. Increasing the minimum wage showed the greatest reduction in the number of very low-income households (those earning less than 50 percent of the median). A 10 percent decrease in public assistance programs (including Social Security, Supplemental Social Security, and other forms of public assistance) saw the largest increase in the number of very low-income households.

Table 8 shows a summary of the scenario results.

Table 8: Change in Income and Cost-Burdened Households for Scenarios

	Change in Median Household Income	Change in Number of Extremely Low and Very Low-Income Households*	
		Number	Percent
COVID-19	− 0.7%	+ 400	+ 1.1%
New and Emerging Industries	+ 0.2%	− 200	− 0.6%
Decrease in Public Assistance	− 1.2%	+ 500	+ 1.4%
Increased Government Wages	+ 1.4%	+ 200	+ 0.6%
Minimum Wage	+ 0.3%	− 900	− 2.5%

Note: *Households earning less than 50 percent of the household median income
Change in cost burdened households may be due in part due to a change in income thresholds.

City/UGA Income Forecast

The Dept. of Housing and Urban Development receives a custom data tabulation of ACS data from the U.S. Census Bureau. This dataset — known as the Comprehensive Housing Affordability Strategy (CHAS) data — are intended to demonstrate the extent of housing problems and housing needs in communities, particularly for low income households. CHAS data include city-level estimates of households for the income brackets used in the Thurston County housing income forecast.

Since the income forecast showed only small changes in the overall distribution of households by income, it was assumed that there would also be little change at the city level from the CHAS estimates. Numbers were adjusted so that the totals for each jurisdiction match TRPC's 2045 housing forecast.

Table 9 shows the current number of households in the five income brackets (2012-2016 average) compared to the projected number of households in 2045.

Table 9: Current and Projected Income Distributions by Jurisdiction

2012-2016 CHAS	Lacey	Olympia	Tumwater	Remainder	Thurston
Less than 30% AMFI	1,690	3,300	1,175	5,900	12,065
30 to 50% AMFI	1,860	2,680	850	4,400	9,790
50 to 80% AMFI	3,590	3,500	1,440	8,850	17,380
80 to 100% AMFI	2,170	1,880	1,015	6,470	11,535
Greater than 100%	8,695	9,920	4,865	29,220	52,700
Total	**18,010**	**21,275**	**9,340**	**54,845**	**103,470**

2045 Projection	Lacey	Olympia	Tumwater	Remainder	Thurston
Less than 30% AMFI	2,200	5,200	1,900	8,500	17,800
30 to 50% AMFI	3,000	5,200	1,700	7,900	17,800
50 to 80% AMFI	5,500	6,500	2,800	15,300	30,100
80 to 100% AMFI	3,500	3,600	2,000	11,600	20,700
Greater than 100%	11,400	15,700	8,100	42,800	78,000
Total	**25,600**	**36,200**	**16,500**	**86,100**	**164,400**

2012-2016 to 2045 Change	Lacey	Olympia	Tumwater	Remainder	Thurston
Less than 30% AMFI	500	1,900	700	2,600	5,700
30 to 50% AMFI	1,100	2,500	800	3,500	8,000
50 to 80% AMFI	1,900	3,000	1,400	6,400	12,700
80 to 100% AMFI	1,300	1,700	1,000	5,100	9,200
Greater than 100%	2,700	5,800	3,200	13,600	25,300
Total	**7,600**	**14,900**	**7,200**	**31,300**	**60,900**

Note: AMFI is the area median family income. HUD combines the 100-120% and 120%+ AMFI categories in the CHAS dataset.

Appendix C. Detailed Source Information

Chapter 2. Population Characteristics

Figures

- **Figure 2-1. Thurston County population, 1980-2045**
  Washington Office of Financial Management
  2017 Growth Management Act county projections
  https://ofm.wa.gov/washington-data-research/population-demographics/population-forecasts-and-projections/growth-management-act-county-projections

- **Figure 2-2. Population in cities including their unincorporated urban growth areas, 2010-2045**
  Thurston Regional Planning Council
  Population and Employment Forecast (2018 Update): Table 3
  https://www.trpc.org/480/Population-Housing-Employment-Data

- **Figure 2-3. Age of Thurston County population, 2020 and 2045**
  Washington Office of Financial Management
  2017 Growth Management Act county projections
  https://ofm.wa.gov/washington-data-research/population-demographics/population-forecasts-and-projections/growth-management-act-county-projections

- **Figure 2-4. Racial and ethnic diversity in Thurston County, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B03002
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B03002

- **Figure 2-5. Disability status in Thurston County by age, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B03002
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B18101

- **Figure 2-6. Disability by age, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B03002
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B18101

Tables

- **Table 2-1. Population, 2020**
  Thurston Regional Planning Council
  Population and Employment Forecast (2018 Update): Table 3
  https://www.trpc.org/480/Population-Housing-Employment-Data

- **Table 2-2. Age of Population, 2014-2018 average**
  U.S. Census Bureau American Community Survey Tables B01001 and B01002
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B01001
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B01002

- **Table 2-3. Age of Thurston County population as a percent of total, 2020-2045**
  Washington Office of Financial Management
  2017 Growth Management Act county projections
  https://ofm.wa.gov/washington-data-research/population-demographics/population-forecasts-and-projections/growth-management-act-county-projections

- **Table 2-4. Racial and Ethnic Diversity in Lacey, Olympia, and Tumwater, 2000 and 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B03002
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B03002

- **Table 2-5. Types of disability in the Thurston County population, 2014-2018 average**
  U.S. Census Bureau American Community Survey Tables B18102 to B18107
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B18102
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B18103
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B18104
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B18105
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B18106
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B18107

- **Table 2-6. Disability by age, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B18101
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B18101

Chapter 3. Household Characteristics

Figures

- **Figure 3-1. Average household size in Thurston County, 1960-2018**
  U.S. Census Bureau 1960 through 2010 Decennial Census Table H12
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=DECENNIALSF12010.H12
  U.S. Census Bureau American Community Survey Table B25010
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25010

- **Figure 3-2. Thurston County households by type, 1970-2018**
  Historical: University of Minnesota IPUMS NHGIS
  Current: U.S. Census Bureau American Community Survey Table B11001
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B11001

- **Figure 3-3. Households by type, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B11001
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B11001

- **Figure 3-4 Households with children, 2014-2018 average**
  U.S. Census Bureau American Community Survey Tables B11001 and B11004
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B11001
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B11004

- **Figure 3-5. Household size in Lacey, Olympia, and Tumwater combined, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B25009
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25009

- **Figure 3-6. Thurston County household size by race and ethnicity, 2010**
  U.S. Census Bureau 2010 Decennial Census Tables P28 and P28I
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=DECENNIALSF12010.P28
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=DECENNIALSF12010.P28I

- **Figure 3-7. Population in group quarters in Lacey, Olympia, and Tumwater by facility type, 2010**
  U.S. Census Bureau 2010 Decennial Census: Table P42
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=DECENNIALSF12010.P42

- **Figure 3-8. Population in group quarters in Lacey, Olympia, and Tumwater, 1980-2045**
  Historical: University of Minnesota IPUMS NHGIS
  Table: AU9 Persons in Group Quarters by Group Quarters Type
  https://data2.nhgis.org/main
  Projections: Thurston Regional Planning Council
  Population and Employment Forecast (2018 Update): Special Query/Unpublished

- **Figure 3-9. Owner occupied households by census tract, 2014-2018**
  U.S. Census Bureau American Community Survey Table B25003
  https://data.census.gov/cedsci/table?g=0500000US53067.140000&tid=ACSDT5Y2018.B25003

- **Figure 3-10. Ownership and tenancy, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B25003
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25003

- **Figure 3-11. Household size by tenure in Lacey, Olympia, and Tumwater combined, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B25009
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25009

- **Figure 3-12. Tenure by race and ethnicity in Lacey, Olympia, and Tumwater combined, 2014-2018 average**
  U.S. Census Bureau American Community Survey Tables B25003 and B25003I
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25003
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25003I

- **Figure 3-13. Median family and household incomes, 2014-2018 average**
  U.S. Census Bureau American Community Survey Tables B19013 and B19113
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19013
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19113

- **Figure 3-14. Percent of households by income, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B19001
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001

- **Figure 3-15. Median household income by census tract, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B19013
  https://data.census.gov/cedsci/table?g=0500000US53067.140000&tid=ACSDT5Y2018.B19013

- **Figure 3-16. Household income in Lacey, Olympia, and Tumwater combined by race and ethnicity, 2014-2018 average**
  U.S. Census Bureau American Community Survey Tables B19001A to B19001I
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001A
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001B
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001C
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001D
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001E
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001F
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001G
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001H
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001I

Tables

- **Table 3-1. Average household size, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B25010
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25010

- **Table 3-2. Average household size by race and ethnicity, 2010**
  U.S. Census Bureau 2010 Decennial Census Tables P16, P16I, P18, P18I
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=DECENNIALSF12010.P16
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=DECENNIALSF12010.P16I
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=DECENNIALSF12010.P18
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=DECENNIALSF12010.P18I

- **Table 3-3. Households by type, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B11001
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B11001

- **Table 3-4. Households with children, 2014-2018 average**
  U.S. Census Bureau American Community Survey Tables B11001 and B11004
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B11001
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B11004

- **Table 3-5. Household size by location, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B25009
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25009

- **Table 3-6. Types of group quarters**
  U.S. Census Bureau 2010 Decennial Census Tables P28, P28I
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=DECENNIALSF12010.P16

- **Table 3-7. Households by income, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B19001
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001

- **Table 3 8. Household Income in Lacey, Olympia, and Tumwater combined by race and ethnicity, 2014-2018 average**
  U.S. Census Bureau American Community Survey Tables B19001A to B19001I
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001A
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001B
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001C
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001D
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001E
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001F
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001G
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001H
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B19001I

Chapter 4. Unique Housing Needs

Figures

- **Figure 4-1. Thurston County senior population, 2020**
  Washington Office of Financial Management
  2017 Growth Management Act county projections
  https://ofm.wa.gov/washington-data-research/population-demographics/population-forecasts-and-projections/growth-management-act-county-projections

- **Figure 4-2. Thurston County senior population, 2045**
  Washington Office of Financial Management
  2017 Growth Management Act county projections
  https://ofm.wa.gov/washington-data-research/population-demographics/population-forecasts-and-projections/growth-management-act-county-projections

- **Figure 4-3. Percent of population 65 or older by census tract, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B01001
  https://data.census.gov/cedsci/table?g=0500000US53067.140000&tid=ACSDT5Y2018.B01001

- **Figure 4-4. Senior households in Thurston County by tenure, 1980-2018**
  U.S. Census Bureau American Community Survey Table B25007
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25007

- **Figure 4-5. Senior households in Thurston County by type of dwelling, 2014-2018 average**
  U.S. Census Bureau American Community Survey
  2014-2018 PUMS Data: Special Query/Unpublished

- **Figure 4-6. Adult family homes in Thurston County offering specialized care, 2020**
  Washington State Department of Social and Health Services
  https://fortress.wa.gov/dshs/adsaapps/lookup/AFHAdvLookup.aspx

- **Figure 4-7. Homelessness in Thurston County, 2015-2019**
  Thurston County Public Health and Social Services
  Point-In-Time Homeless Census Reports for Thurston County
  https://www.co.thurston.wa.us/health/sscp/reports.html

- **Figure 4-8. Where the homeless shelter in Thurston County, 2019**
  Thurston County Public Health and Social Services
  Point-In-Time Homeless Census Reports for Thurston County
  https://www.co.thurston.wa.us/health/sscp/reports.html

- **Figure 4-9. Chronic homelessness in the Thurston County homeless, 2019**
  Thurston County Public Health and Social Services
  Point-In-Time Homeless Census Reports for Thurston County
  https://www.co.thurston.wa.us/health/sscp/reports.html

- **Figure 4 10. Age of those experiencing homelessness in Thurston County, 2019**
  Thurston County Public Health and Social Services
  2019 Thurston County Homeless Housing Summary

- **Figure 4 11. Disability among those experiencing homelessness in Thurston County, 2019**
  Thurston County Public Health and Social Services
  2019 Thurston County Homeless Housing Summary

- **Figure 4 12. Types of disabilities among those experiencing homelessness, 2019**
  Thurston County Public Health and Social Services
  2019 Thurston County Homeless Housing Summary

- **Figure 4-13. Household type for college students, 2014-2018 average**
  U.S. Census Bureau American Community Survey
  2014-2018 PUMS Data: Special Query/Unpublished

- **Figure 4-14. Residents enrolled in college, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B14004
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B14004

Tables

- **Figure 4-1. Thurston County senior population, 2020-2045**
  Washington Office of Financial Management
  2017 Growth Management Act county projections

https://ofm.wa.gov/washington-data-research/population-demographics/population-forecasts-and-projections/growth-management-act-county-projections

- **Table 4-2. Adult family and nursing homes in Thurston County, 2020**
  Washington State Department of Social and Health Services
  https://fortress.wa.gov/dshs/adsaapps/lookup/AFHAdvLookup.aspx

- **Table 4-3. Military personnel and veterans, 2014-2018 average**
  U.S. Census Bureau American Community Survey Tables B21001 and B23025
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B21001
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B23025

- **Table 4-4. Race and ethnicity of those experiencing homelessness in Thurston County, 2019**
  Thurston County Public Health and Social Services
  Homeless Management Information System: Special Query/Unpublished

- **Table 4-5. Poverty rate for Thurston County college students, 2014-2018 average**
  U.S. Census Bureau American Community Survey
  2014-2018 PUMS Data: Special Query/Unpublished

Chapter 5. Housing Supply

Figures

- **Figure 5-1. Estimated and projected housing units in Lacey, Olympia, Tumwater, and their UGAs, 2010-2045**
  Thurston Regional Planning Council
  Population and Employment Forecast (2018 Update): Table 4
  https://www.trpc.org/480/Population-Housing-Employment-Data

- **Figure 5-2. Occupied housing units in Lacey, Olympia, and Tumwater combined by building type and tenure, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B25032
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25032

- **Figure 5-3. Housing types permitted in Lacey, Olympia, and Tumwater, 2000-2019**
  Thurston Regional Planning Council: Annual Population Estimates Work Program
  https://www.trpc.org/480/Population-Housing-Employment-Data (Table 6)

- **Figure 5-4. Density of new residential development, 2000-2019**
  Thurston Regional Planning Council: Buildable Lands Work Program
  Special Query/Unpublished

- **Figure 5-5. Occupied housing units in Lacey, Olympia, and Tumwater combined by number of bedrooms and tenancy, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B25042
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25042

- **Figure 5-6. Housing units built in Lacey, Olympia, and Tumwater combined by number of bedrooms, 1980-2019**
  Thurston County Assessor Office: Assessor's Property Table Extended (6/12/2020)
  Special Query/Unpublished
  Note: Excludes manufactured homes and apartments with five or more units.

- **Figure 5-7. Average number of bedrooms in housing units by decade**
  Thurston County Assessor: Assessor's Property Table Extended (6/12/2020)
  Special Query/Unpublished
  Note: Excludes manufactured homes and apartments with five or more units.

- **Figure 5-8. Home size in Lacey, Olympia, and Tumwater combined, 1980-2019**
  Thurston County Assessor: Assessor's Property Table Extended (6/12/2020)
  Special Query/Unpublished
  Note: Excludes manufactured homes and apartments with five or more units.

- **Figure 5-9. Average home size by decade**
  Thurston County Assessor's Office: Assessors Property Table Extended (6/12/2020)
  Special Query/Unpublished
  Note: Excludes manufactured homes and apartments with five or more units.

- **Figure 5-10. Average housing unit sale price in Thurston County, 2018**
  Northwest Multiple Listing Service
  Special query provided for Thurston Regional Planning Council
  https://www.trpc.org/455/Thurston-County-Home-Sales

- **Figure 5-11. Housing units sold in Thurston County, 2018**
  Northwest Multiple Listing Service
  Special query provided for Thurston Regional Planning Council
  https://www.trpc.org/455/Thurston-County-Home-Sales

- **Figure 5-12. Median home sale price in July, 2010-2020**
  Northwest Multiple Listing Service
  Special query provided for Thurston Regional Planning Council by Mark Kitabayashi

- **Figure 5-13. Thurston County Homeownership Affordability Index, 1995-2020**
  University of Washington
  Washington Center for Real Estate Research: Housing Market Report
  http://wcrer.be.uw.edu/archived-reports/

- **Figure 5-14. Median home sale price (adjusted for inflation), 2006-2019**
  University of Washington
  Washington Center for Real Estate Research: Housing Market Report
  http://wcrer.be.uw.edu/archived-reports/

- **Figure 5-15. Average rent in Thurston County (inflation-adjusted), 2001-2020**
  University of Washington

Washington Center for Real Estate Research: Apartment Market Survey
http://wcrer.be.uw.edu/archived-reports/

- **Figure 5-16. Median gross rent, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B25064
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25064
- **Figure 5-17. Apartment vacancy rate in Thurston County, 2018-2020**
  University of Washington
  Washington Center for Real Estate Research: Housing Market Snapshot
  http://wcrer.be.uw.edu/archived-reports/
- **Figure 5-18. Thurston County income limits for receiving federal housing assistance, 2020**
  U.S. Dept. of Housing and Urban Development
  https://www.huduser.gov/portal/datasets/il.html (See Data/Income Limits)
- **Figure 5-19. Subsidized housing units in Thurston County by owner, 2020**
  Housing Authority of Thurston County
  Data provided for Thurston Regional Planning Council by Craig Chance

Tables

- **Table 5-1. Occupied housing units by building type, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B25024
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25024
- **Table 5-2. Occupied housing units by number of bedrooms, 2014-2018 average**
  Thurston County Assessor: Assessor's Property Table Extended (6/12/2020)
  Special Query/Unpublished
  Note: Excludes manufactured homes and apartments with five or more units.
- **Table 5-3. Housing units built in Lacey, Olympia, and Tumwater combined by number of bedrooms, 1980-2019**
  Thurston County Assessor: Assessor's Property Table Extended (6/12/2020)
  Special Query/Unpublished
  Note: Excludes manufactured homes and apartments with five or more units.
- **Table 5-4. Housing units in Lacey, Olympia, and Tumwater combined by home size and decade**
  Thurston County Assessor: Assessor's Property Table Extended (6/12/2020)
  Special Query/Unpublished
  Note: Excludes manufactured homes and apartments with five or more units.

Chapter 6. Local Workforce Characteristics

Figures

- **Figure 6-1. Thurston County employment, 1980-2045**
  Historical: U.S. Bureau of Economic Analysis Table CAEMP25
  https://apps.bea.gov/iTable/iTable.cfm?reqid=70&step=1&isuri=1
  Projections: Thurston Regional Planning Council
  Population and Employment Forecast (2018 Update): Table 1
  https://www.trpc.org/480/Population-Housing-Employment-Data

- **Figure 6-2. Thurston County total employment by industry, 2017**
  U.S. Bureau of Economic Analysis Table CAEMP25
  https://apps.bea.gov/iTable/iTable.cfm?reqid=70&step=1&isuri=1

- **Figure 6-3. Thurston County average wage, 2002-2019 (adjusted for inflation)**
  Employment Security Department Quarterly Census of Employment and Wages (QCEW)
  https://esd.wa.gov/labormarketinfo/covered-employment

- **Figure 6-4. Median earnings, 2014-2018 average**
  Employment Security Department Quarterly Census of Employment and Wages (QCEW)
  https://esd.wa.gov/labormarketinfo/covered-employment

- **Figure 6-5. Annual average unemployment for Thurston County**
  U.S. Bureau of Labor Statistics: Local Area Unemployment Statistics
  https://data.bls.gov/cgi-bin/dsrv?la

- **Figure 6-6. Place of work for residents of Lacey, Olympia, Tumwater, and Thurston County, 2014-2018**
  U.S. Census Bureau American Community Survey Tables B08007 and B08008
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B08007
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B08008

- **Figure 6-7. Commutes from Thurston County (outbound), 2002-2017**
  U.S. Census Bureau LEHD Origin-Destination Employment Statistics (LODES7)
  https://lehd.ces.census.gov/data/

- **Figure 6-8. Commutes to Thurston County (inbound), 2002-2017**
  U.S. Census Bureau LEHD Origin-Destination Employment Statistics (LODES7)
  https://lehd.ces.census.gov/data/

Tables

- **Table 6-1. Thurston County covered employment and wages, 2019**
  Employment Security Department Quarterly Census of Employment and Wages (QCEW)
  https://esd.wa.gov/labormarketinfo/covered-employment

- **Table 6-2. Wages (per adult) needed for self-sufficiency, 2020**
  University of Washington Self-Sufficiency Standard
  http://www.selfsufficiencystandard.org/Washington

- **Table 6-3. Unemployment rate, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B23025
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B23025
- **Table 6-4. Average wage earnings by county of residence and county of work, 2014-2018 average**
  U.S. Census Bureau American Community Survey
  2014-2018 PUMS Data: Special Query/Unpublished

Chapter 7. Gap Analysis

Figures

- **Figure 7-1. Cost burdened households in Thurston County, 2012-2016 average**
  U.S. Dept. of Housing and Urban Development: CHAS Data
  https://www.huduser.gov/portal/datasets/cp.html
- **Figure 7-2. Cost burdened households by jurisdiction, 2012-2016 average**
  U.S. Dept. of Housing and Urban Development: CHAS Data
  https://www.huduser.gov/portal/datasets/cp.html
- **Figure 7-3. Current and projected 25-year housing need**
  Current Need: U.S. Dept. of Housing and Urban Development: CHAS Data
  https://www.huduser.gov/portal/datasets/cp.html
  Projected Need: Thurston Regional Planning Council: Housing Income Forecast (Appendix B of this report)
- **Figure 7-4. Household size in Lacey, Olympia, and Tumwater by tenure, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B25009
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25009
- **Figure 7-5. Number of bedrooms in Lacey, Olympia, and Tumwater dwelling units by tenure, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B25042
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25042
- **Figure 7-6. Household size in Lacey, Olympia, and Tumwater dwelling units, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B25009
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25009
- **Figure 7-7. Number of bedrooms in Lacey, Olympia, and Tumwater dwelling units, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B25042
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25042
- **Figure 7-8. Plumbing facilities in occupied Thurston County dwelling units, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B25049
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25049

- **Figure 7-9. Kitchen facilities in occupied Thurston County dwelling units, 2014-2018 average**
  U.S. Census Bureau American Community Survey Table B25053
  https://data.census.gov/cedsci/table?g=0500000US53067&tid=ACSDT5Y2018.B25053
- **Figure 7-10. Thurston County households leaving a housing program to a permanent housing situation, 2015-2019**
  Thurston County Public Health and Social Services
  2019 Thurston County Homeless Housing Summary

Tables

- **Table 7-1. Cost burdened households by jurisdiction, 2012-2016 average**
  U.S. Dept. of Housing and Urban Development: CHAS Data
  https://www.huduser.gov/portal/datasets/cp.html
- **Table 7-2. Maximum rent and housing costs at various income levels, 2020**
  Income limits for extremely low, very low, and low-income households are the U.S. Dept. of Housing and Urban Development's FY2020 Income Limits for four-person households. (https://www.huduser.gov/portal/datasets/il.html). The remaining fields were calculated using the following assumptions:
  - Hourly Wage: Assumes one person working a 40-hour work week for 52 weeks a year
  - Monthly Rent: 30 percent of yearly income divided by twelve
  - Home Value 20 percent down: Value of a home with a monthly mortgage payment equal to 30 percent of yearly income divided by twelve, assuming a 20 percent down payment and 3.5 percent fixed interest rate over 30 years.
  - Home Value 10 percent down: Value of a home with a monthly mortgage payment equal to 30 percent of yearly income divided by twelve, assuming a 10 percent down payment and 3.5 percent fixed interest rate over 30 years.
- **Table 7-3. Number of households by income range, 2045 projection**
  Thurston Regional Planning Council: Housing Income Forecast (Appendix B of this report)

Chapter 8. Land Capacity Analysis

Figures

- **Figure 8-1. Developable land**
  Thurston Regional Planning Council
  Population and Employment Forecast (2018 Update): Special Query/Unpublished

Tables

- **Table 8-1. Residential capacity by generalized zoning district, 2017**
  Thurston Regional Planning Council
  Population and Employment Forecast (2018 Update): Special Query/Unpublished

- **Table 8-2. Residential capacity by type of developable parcel, 2017**
  Thurston Regional Planning Council
  Population and Employment Forecast (2018 Update): Special Query/Unpublished

Planning for and Accommodating Housing Needs in Thurston County

Implementing the Housing Affordability Requirements of HB 1220
April 2025

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Title VI Notice

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THURSTON REGIONAL PLANNING COUNCIL is a 23-member intergovernmental board made up of local governmental jurisdictions within Thurston County, plus the Confederated Tribes of the Chehalis Reservation and the Nisqually Indian Tribe. The Council was established in 1967 under RCW 36.70.060, which authorized creation of regional planning councils.

TRPC's mission is to "Provide visionary, collaborative leadership on regional plans, policies, and issues for the benefit of all Thurston region residents." To support this mission, we:

- Support **regional transportation** planning consistent with state and federal funding requirements.
- Address **growth management, environmental quality**, and other topics determined by the Council.
- **Assemble** and **analyze data** that support local and regional decision making
- Act as a **"convener"**, build regional **consensus** on issues through information and citizen involvement.
- Build **intergovernmental consensus** on regional plans, policies, and issues, and advocate local implementation.

2025 Membership

Government Jurisdiction	Name of Representative
Town of Bucoda	Miriam Gordon
City of Lacey	Robin Vazquez, Chair
City of Olympia	Dani Madrone
City of Rainier	Dennis McVey
City of Tenino	John O'Callahan
City of Tumwater	Eileen Swarthout, Secretary
City of Yelm	Joe DePinto
Thurston County	Carolina Mejia
Intercity Transit	Robert Vanderpool
LOTT Clean Water Alliance	Carolyn Cox, Vice Chair
Port of Olympia	Amy Evans Harding
PUD No. 1 of Thurston County	Chris Stearns
Olympia School District	Hilary Seidel
North Thurston Public Schools	Esperanza Badillo-Diiorio
Tumwater School District	Mel Murray
Confederated Tribes of the Chehalis Reservation	Amy Loudermilk
Nisqually Indian Tribe	Mike Mason

Associate Members

Thurston County Economic Development Council	Michael Cade
Lacey Fire District #3	Liberty Hetzler
Puget Sound Regional Council	Josh Brown
Timberland Regional Library	Cheryl Heywood
The Evergreen State College	William Ward
Thurston Conservation District	Marianne Tompkins and Doug Rushton

Executive Director
Marc Daily

Project Partners

City of Lacey	Vanessa Dolbee, Community and Economic Development Director
	Ryan Andrews, Planning Manager
City of Olympia	Leonard Bauer, Community Planning and Development Director
	Tim Smith, Interim Community Planning and Development Director
	Casey Schaufler, Associate Planner
City of Tenino	Cristina Haworth, SCJ Alliance
	Dan Penrose, SCJ Alliance
City of Tumwater	Brad Medrud, Long Range Planning Manager
	Mike Matlock, Community Development Director
City of Yelm	Gary Cooper, Planning and Building Manager
Thurston County	Ashley Arai, Interim Community Planning and Economic Development Director

Thurston Regional Planning Council Staff

	Allison Osterberg, Planning Manager
	Michael Ambrogi, Senior Planner

This project was funded by an interlocal agreement between TRPC and the project partner jurisdictions.

CONTENTS

Executive Summary **1**

Introduction **5**

Housing Need Allocations **7**

Countywide Housing Needs 7
Baseline Housing Supply 9
Preferred Allocation Method 10

Land Capacity Analysis **13**

Summarize Land Capacity by Zone 13
Categorize Zones by Allowed Housing Types and Density Category 16
Relate Zone Categories to Potential Income Levels and Housing Types 16
Summarize Capacity by Zone Category 18
Compare Allocated Housing Need to Capacity 19
Emergency Housing 20

References **27**

Appendixes **29**

Appendix I: Housing Need Allocation Method 29
Appendix II: Estimated Capacity and Density Category by Zone 31

Revision Notes

The April 2025 revision of this report added data for the Town of Bucoda and a land capacity analysis for emergency housing.

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EXECUTIVE SUMMARY

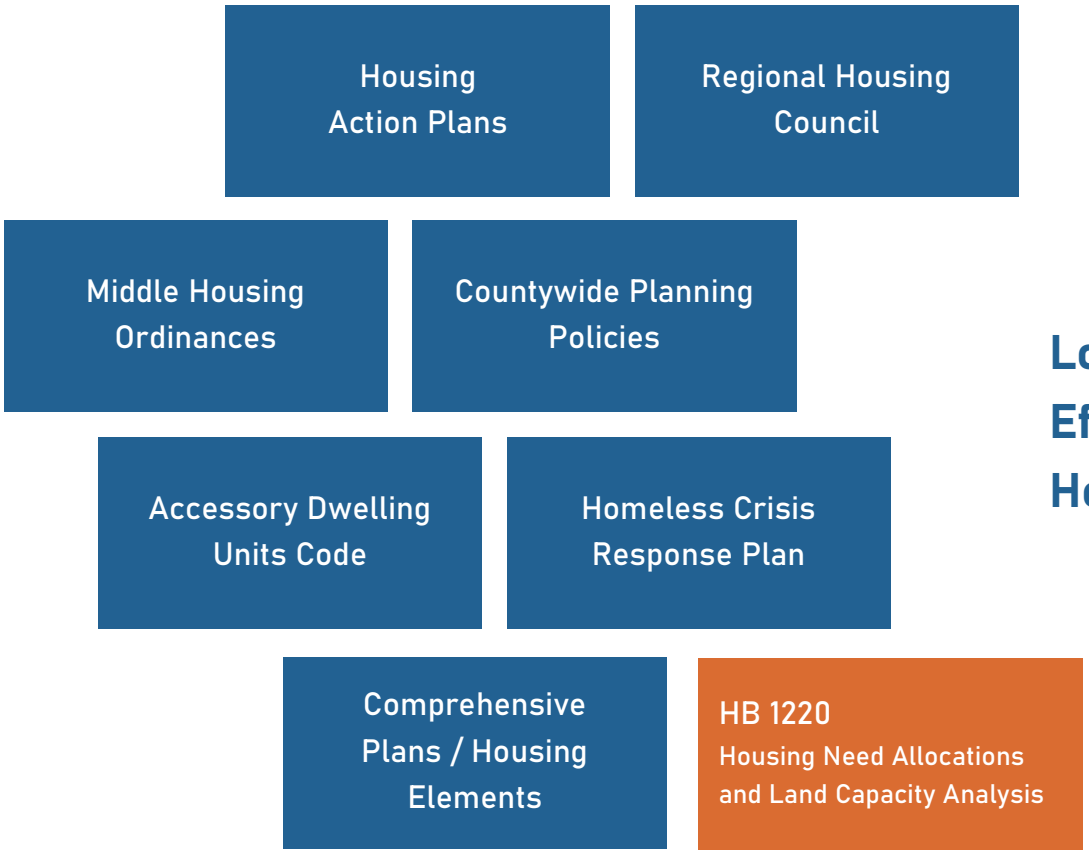
New GMA Requirements

House Bill 1220 — passed by the state legislature in 2021— added new requirements to the Growth Management Act for jurisdictions to **"plan for and accommodate housing affordable to all economic segments of the population of this state."** Thurston County and the cities of Lacey, Olympia, Tenino, Tumwater, and Yelm contracted with Thurston Regional Planning Council (TRPC) to facilitate a process and provide data analysis support to implement this law.

The Thurston region has a long history of planning for affordable housing and much has been done at both the local and regional level. HB 1220 addresses just a small piece of the affordable housing problem — whether land, and how it is zoned, is a barrier to new affordable housing.

HB 1220 requires jurisdictions to ensure zoning is not a barrier to affordable housing. On its own, the law will not lead to more affordable housing.

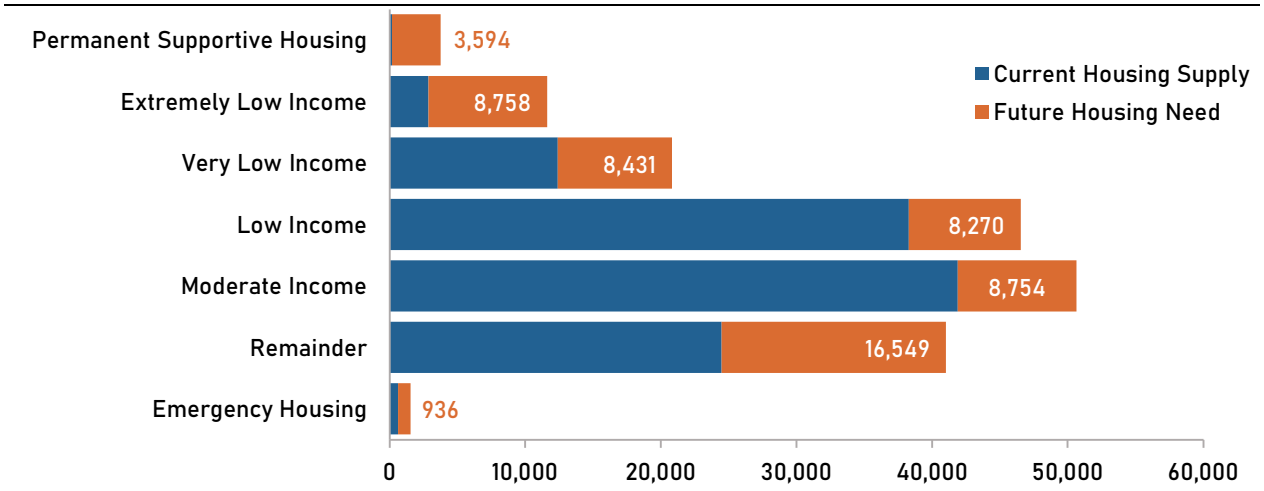
Local and Regional Efforts to Address Housing Affordability



A Growing Need for Affordable Housing

Data from TRPC and the state Dept. of Commerce identify a need for 54,356 new housing units to accommodate our region's growing population. To address the current housing affordability crisis — and to ensure future residents can afford housing — **29,053 additional units will need to be affordable to low-income households**. An additional 936 emergency housing units and beds are needed for the population experiencing homelessness.

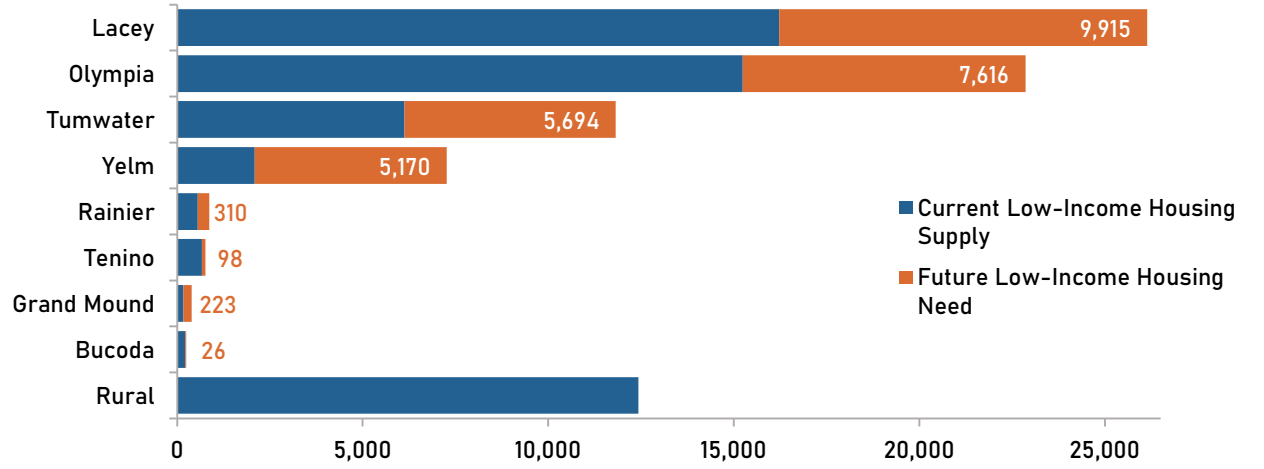
Figure 1
Countywide Housing Need by Income



Where Should Affordable Housing Go?

HB 1220 gives jurisdictions discretion to decide how much low-income housing each jurisdiction should plan for, as long as the countywide need is addressed. The project partners recommended TRPC accept an allocation that met the three values they identified: **fair, clear, and cooperative**.

Figure 2
Low-Income Housing Need (0-80% AMI) Allocated to Each Jurisdiction and its UGA

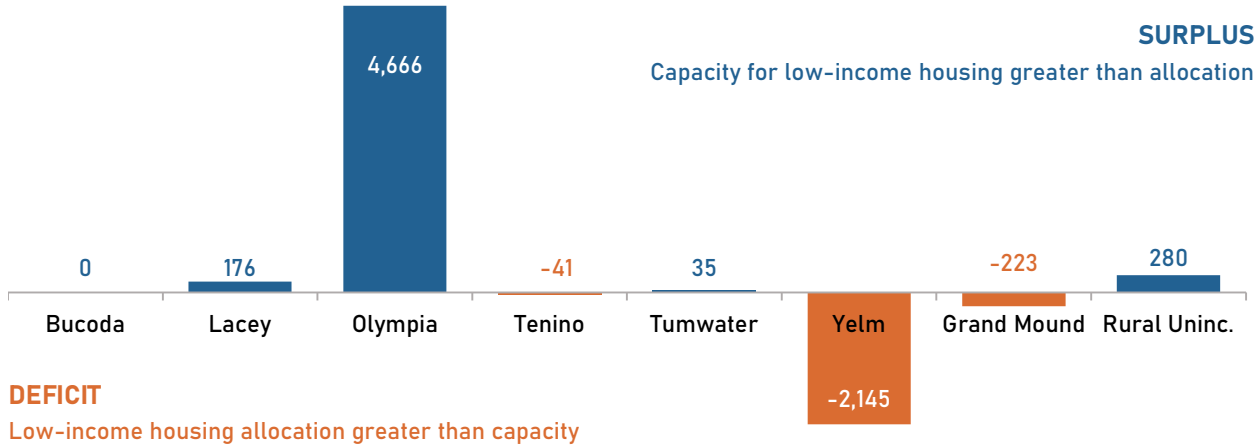


Thurston County's urban areas generally allow a wide range of housing types that can accommodate affordable housing, including accessory dwellings, duplexes, triplexes, manufactured homes, and apartments.

Is Land the Barrier?

The project included a land capacity analysis that compared the low-income housing need allocated to each jurisdiction to the amount of buildable land in zones that can accommodate low-income housing types. **For most jurisdictions, land — and how it is zoned — is not the barrier to accommodating low-income housing.** Deficits were only found in three jurisdictions: Tenino, Yelm, and the Grand Mound UGA.

Figure 3
Low-Income Housing Need Compared to Capacity for Jurisdictions and Their UGAS



Findings and Next Steps

The land capacity analysis found that:

- The Bucoda, Lacey, Olympia, and Tumwater urban areas, and the rural unincorporated County have sufficient capacity to accommodate future low-income housing needs, as allocated regionally.
- The Tenino, Yelm, and Grand Mound urban areas have deficits in capacity to accommodate future low-income housing needs, as allocated regionally. These jurisdictions will need to include strategies in their comprehensive plan update that will eliminate these deficits.
- All jurisdictions have sufficient capacity to accommodate future needs for emergency housing.

While HB 1220 requires jurisdictions to ensure zoning is not a barrier to affordable housing, on its own, the law will not lead to more affordable housing. All jurisdictions will need to identify policies, programs, and funding gaps to achieve the region's affordable housing goals in the housing elements of their comprehensive plans. Jurisdictions will also need to implement the other requirements of HB 1220 not discussed in this report, including addressing policies with racially disparate impacts and establishing anti-displacement policies.

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INTRODUCTION

In 2021, the Washington State Legislature passed HB 1220 which requires cities, towns, and counties to "plan for and accommodate" future housing affordable to a range of incomes and to document the projected housing need each jurisdiction is planning for in the housing element of its comprehensive plan. Specifically, jurisdictions must estimate the number of housing units needed for moderate, low, very low, and extremely low-income households; and emergency housing, emergency shelters, and permanent supportive housing (Table 1). Jurisdictions must also show that there is sufficient land available to accommodate the housing need identified.

The state Dept. of Commerce (Commerce) provided guidance for jurisdictions to implement HB 1220[1]. The guidance recommends that jurisdictions work collaboratively to implement the law. In that spirit, Thurston County and the cities of Lacey, Olympia, Tenino, Tumwater, and Yelm (the "project partners") contracted with Thurston Regional Planning Council (TRPC) to facilitate a process among the project partners and provide the necessary data analysis. The city of Rainier and town of Bucoda were also invited to participate.

The project was completed in two phases. In Phase 1, the project partners reviewed options for allocating the countywide housing need to jurisdictions. In Phase 2, TRPC completed a land capacity analysis identifying any zoning constraints to accommodating those allocations.

HB 1220 also established requirements for jurisdictions to identify local policies and regulations that result in racially disparate impacts, displacement, and exclusion in housing and identify and implement policies and regulations to undo them; and identify areas at higher risk of displacement and establish anti-displacement policies. These requirements are being addressed by the jurisdictions in a separate process and are not included in this report.

Table 1: Housing Types Called out in HB 1220, and Thurston County Income Thresholds

Housing Type	Percent of Thurston Area Median Income*	Equivalent 2023 Household Income*
Extremely Low Income	Less than 30%	Less than $30,750
Very Low Income	30 to 50%	$30,750 to $51,250
Low Income	50 to 80%	$51,250 to $82,000
Moderate Income	80 to 120%	$82,000 to $102,500
Permanent supportive housing	Subsidized, leased housing with no limit on length of stay that prioritizes people who need comprehensive support services to retain tenancy and utilizes admissions practices designed to use lower barriers to entry than would be typical for other subsidized or unsubsidized rental housing, especially related to rental history, criminal history, and personal behaviors.	
Emergency housing	Temporary indoor accommodations for individuals or families who are homeless or at imminent risk of becoming homeless that is intended to address the basic health, food, clothing, and personal hygiene needs of individuals or families. Emergency housing may or may not require occupants to enter into a lease or an occupancy agreement.	
Emergency shelter	Facilities that provide a temporary shelter for individuals or families who are currently homeless Emergency shelter may not require occupants to enter into a lease or an occupancy agreement. Emergency shelter facilities may include day and warming centers that do not provide overnight accommodations.	

*Note: Housing types are defined in RCW 36.70A.030. *Income thresholds are based on HUD estimates for a family of four.*

Income Ranges

HB 1220 uses information from the U.S. Department of Housing and Urban Development (HUD) to define income levels. While the percent of the area median income (e.g. 30-50% AMI) is used as shorthand for the income ranges in this report, these values refer to a four-person reference household. HUD adjusts income thresholds based on household size.

HOUSING NEED ALLOCATIONS

The first step in implementing HB 1220 is to identify the housing need allocation for each jurisdiction — the number of units apportioned to each jurisdiction to meet the countywide need for moderate, low, very low, and extremely low-income households; and emergency housing, emergency shelters, and permanent supportive housing. While HB 1220 requires Commerce to identify the countywide number of units in each income range, it gives jurisdictions discretion in how that need is allocated to cities, unincorporated urban growth areas (UGAs), and the rural unincorporated County.

Between August and October 2023, TRPC convened a project team that included planning directors and staff from Thurston County and the cities of Lacey, Olympia, Tumwater, and Yelm. This group identified the following shared values to assess different housing need allocation methods and select a preferred approach:

Fair

- Distributes new low-income units across all jurisdictions
- Recognizes the differences among jurisdictions and existing housing distribution
- Recognizes needs of community members – especially people who rely on permanent supportive housing and emergency housing

Clear

- Easy to communicate to public and elected officials
- Tailored to jurisdiction boundaries (including UGAs)
- Uses established methods to limit risk of legal challenges

Cooperative

- Builds on existing structures and processes – including the Regional Housing Council, Comprehensive Plan updates, Countywide Planning Policies
- Supported by all workgroup members

The project partners also agreed that the total number of housing units allocated to each jurisdiction should be consistent with the jurisdiction population, employment, and housing projections adopted by TRPC in September 2019.[2]

Countywide Housing Needs

HB 1220 builds on existing requirements for jurisdictions to plan for population growth. TRPC's most recent population and employment forecast estimates that 54,356 new housing units will be needed between 2020 and 2045 to support projected population growth (88,707 new people).[2] Table 2 shows the number of housing units projected for each jurisdiction. These projections were developed consistent with Thurston County's Countywide Planning Policies.

Table 2: TRPC Projected Housing Need by Jurisdiction

		Housing Units		
		2020 Census	**2045 TRPC Projection**	**2020-2045 Projected Need**
Bucoda	Town	241	375	134
Lacey	City	23,042	28,196	5,154
	UGA	13,562	22,532	8,970
Olympia	City	25,642	38,286	12,644
	UGA	5,093	6,744	1,651
Rainier	City	850	1,421	571
	UGA	54	77	23
Tenino	City	780	1,299	519
	UGA	5	14	9
Tumwater	City	11,064	17,740	6,676
	UGA	1,210	3,726	2,516
Yelm	City	3,456	10,960	7,504
	UGA	515	659	144
Grand Mound	UGA	424	734	310
Rural Unincorporated		35,500	43,031	7,531
Total		**121,438**	**175,794**	**54,356**

Note: TRPC forecast adopted September 6, 2019, for jurisdiction boundaries as of September 1, 2023. Numbers may not add to total due to rounding.

HB 1220 adds a requirement that jurisdictions plan for a specific number of housing units affordable for moderate, low, very low, and extremely low-income households; and emergency housing, emergency shelters, and permanent supportive housing. Commerce's Housing for All Planning Tool (HAPT)[2] provided the estimated housing need for each income range and housing type shown in Table 3. Income ranges are expressed as a percent of the area median income; the equivalent household incomes for the Thurston region in 2023 are shown in Table 3. While HB 1220 does not require jurisdictions to plan for housing affordable to households earning more than 120% of the area median income, this need is included so the number of units can be summed up to the total (identified as "Remainder" in tables).

While cities, towns, and counties have discretion over how this need is allocated among the jurisdictions, the countywide housing need identified by Commerce for each income range cannot be changed.

Table 3: Dept. of Commerce Housing Needs by Income Level for Thurston County

	Estimated Supply (2020)	Total Future Supply (2045)	Net Need (2020-2045)	Estimated Supply (2020)	Total Future Supply (2045)	Net Need (2020-2045)
Housing Units						
0-30% AMI (PSH)	180	3,774	3,594	0.1%	2.1%	6.6%
0-30% AMI (Non-PSH)	2,874	11,632	8,758	2.4%	6.6%	16.1%
30-50% AMI	12,405	20,836	8,431	10.2%	11.9%	15.5%
50-80% AMI	38,285	46,555	8,270	31.5%	26.5%	15.2%
80-100% AMI	26,403	30,776	4,373	21.7%	17.5%	8.0%
100-120% AMI	15,489	19,870	4,381	12.8%	11.3%	8.1%
Remainder	24,476	41,025	16,549	20.2%	23.3%	30.4%
Other	1,327	1,327	0	1.1%	0.8%	0.0%
Total	**121,438**	**175,794**	**54,356**	**100.0%**	**100.0%**	**100.0%**
Emergency Housing (Beds)	**626**	**1,562**	**936**	**—**	**—**	**—**

Note: "AMI" refers to the area median family income, which HUD estimates was $102,500 in 2023 for Thurston County. Income ranges are expressed relative to the AMI; income ranges are for a family of four. "PSH" is permanent supportive housing. "Other" includes recreational, seasonal, or migrant labor housing. Numbers may not add up to totals due to rounding. Housing types are defined in RCW 36.70A.030.

Baseline Housing Supply

The project partners agreed that it was important to plan for housing in both the incorporated and unincorporated urban growth areas of each jurisdiction. Since the tools provided by Commerce did not provide estimates for UGAs, TRPC revised the baseline housing supply estimates provided by Commerce using the assumptions listed below. In addition, TRPC revised the baseline supply to reflect current (September 1, 2023) jurisdiction boundaries.

- Use TRPC's parcel-level housing estimates where newly annexed jurisdiction boundaries do not align with 2020 Census blocks.
- The percentage of housing by income range in each UGA is the same as what Commerce estimated in the HAPT tool for its adjacent incorporated area.
- There is no permanent supportive housing or emergency housing in the unincorporated UGA.
- Any permanent supportive housing units where Commerce was unable to determine the jurisdiction (68 units total) were assumed to be in Olympia based on data provided by Olympia staff in the 2023-2027 Thurston-Olympia Consolidated Plan.
- The revised housing supply uses newly released 2020 decennial census data on seasonal and migrant housing instead of American Community Survey (ACS) estimates used in the Commerce HAPT tool. (While HB 1220 does not require jurisdictions to plan for seasonal and migrant housing, these units are removed from the available housing supply.)

HB 1220 only requires housing need allocations for cities, towns, and the unincorporated areas. However, the partners requested housing allocations for the unincorporated UGAs to inform how they plan for housing needs in areas likely to be annexed over the next 20 years. These UGA estimates are for informational purposes only; Thurston County — in consultation with the cities — has discretion over how

the housing need is allocated between urban and rural unincorporated areas as long as the total housing units align with Table 2.

Preferred Allocation Method

The project partners reviewed several methods for allocating the countywide housing need to jurisdictions. Two methods were developed by Commerce in its HAPT tool. TRPC staff also meet with staff from King, Kitsap, Pierce, and Snohomish Counties to discuss their method. Due to their earlier periodic Comprehensive Plan update deadline, all four counties had made progress implementing HB 1220.

The project partners ultimately preferred a variation of the method used by Snohomish County, because it best achieves the shared values identified on Page 7. The preferred method modifies the Snohomish County method so that no low-income housing or emergency housing is allocated to the rural unincorporated County. The partners developed this modification in response to feedback from Commerce that **residential zoning in rural areas — predominantly large, single-family lots — cannot accommodate the housing types and utilities required for low-income housing, permanent supportive housing, and emergency housing**.

The preferred method:

- Begins with an expectation that each jurisdiction should plan for the same share of the new housing need in each income range, but credits jurisdictions that currently have a higher-than-average share of low-income housing.
- Results in allocations that are positive and consistent with the housing need projected for each jurisdiction (Table 2) and for each income range countywide (Table 3).
- Is consistent with the Countywide Planning Policies and is supported by all project partners.
- Limits allocation of low-income housing to rural areas, in line with Commerce guidance.

The preferred housing need allocation is shown in Table 4; the process for calculating it is described in Appendix I. The housing need allocations were adopted by TRPC on December 6, 2024. These allocations replace numbers provisionally accepted by TRPC on March 1, 2024.

Table 4: 2020-2045 Housing Need Allocations

		Housing Units								Beds
		Total	Income Level (Percent of Area Median Income)							Emergency Housing
			0-30%		30-50%	50-80%	80-100%	100-120%	Remainder	
			PSH	Non-PSH						
Bucoda	Town	134	6	12	0	8	67	20	21	3
Lacey	City	5,154	424	1,086	1,199	515	0	540	1,390	103
	UGA	8,970	684	1,698	1,468	2,841	0	721	1,558	179
	Total	14,124	1,108	2,784	2,667	3,357	0	1,261	2,948	282
Olympia	City	12,644	942	2,339	2,877	590	2,093	1,144	2,660	253
	UGA	1,651	156	278	435	0	235	152	395	33
	Total	14,295	1,098	2,617	3,312	590	2,328	1,296	3,055	286
Rainier	City	571	43	107	0	161	44	103	114	11
	UGA	23	0	0	0	0	0	0	23	0
	Total	594	43	107	0	161	44	103	137	12
Tenino	City	519	33	65	0	0	220	96	105	10
	UGA	9	0	0	0	0	0	0	9	0
	Total	528	33	65	0	0	220	96	114	11
Tumwater	City	6,676	554	1,320	1,002	1,129	806	627	1,238	133
	UGA	2,516	170	415	307	797	333	171	323	50
	Total	9,192	723	1,736	1,309	1,926	1,140	798	1,561	184
Yelm	City	7,504	557	1,373	1,090	2,085	518	757	1,125	150
	UGA	144	10	25	30	0	0	41	38	3
	Total	7,648	567	1,398	1,120	2,085	518	798	1,163	153
Grand Mound	UGA	310	16	40	23	143	57	11	19	6
Rural Unincorporated		7,531	0	0	0	0	0	0	7,531	0
Thurston County		**54,356**	**3,594**	**8,758**	**8,431**	**8,270**	**4,373**	**4,381**	**16,549**	**936**

Adopted by TRPC on December 6, 2024.

Note: Numbers may not add to totals due to rounding. "PSH" refers to permanent supportive housing.

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LAND CAPACITY ANALYSIS

The second step in implementing HB 1220 is a land capacity analysis to identify if there is sufficient capacity — based on zoning and development regulations — to accommodate the identified housing need. Commerce's guidance for updating housing elements[1] outlines five steps for completing the land capacity analysis, which are described in this report:

1. Summarize Land Capacity by Zone
2. Categorize Zones by Allowed Housing Types and Density Category
3. Relate Zone Categories to Potential Income Levels and Housing Types
4. Summarize Capacity by Zone Category
5. Compare Allocated Housing Need to Capacity

These steps are described below. The land capacity analysis was completed as part of Phase 2 of the project.

Due to the unique nature of joint planning in Thurston County, the partners requested that the land capacity analysis combine data for cities and their unincorporated urban growth areas. How low-income housing is allocated within unincorporated urban areas will be addressed in the cities' comprehensive plans and the joint plans the cities have with Thurston County.

Summarize Land Capacity by Zone

"Capacity" refers to the potential number of new dwelling units that could be built on a parcel based on zoning, development regulations, development trends, and market factors. Capacity includes greenfield development, infill development, and redevelopment. Under the ILA for Phase 2, the partners agreed to use the land capacity model developed for TRPC's most recently adopted forecast and the 2021 Buildable Lands report. The documentation for that model — including the assumptions that went into it — can be found in TRPC's forecast documentation[4] and the Buildable Lands report[5].

The capacity estimates for each zone are shown in Appendix II.

Changes from Adopted Forecast

While TRPC used the same land capacity model to develop TRPC's adopted forecast and the 2021 Buildable Lands Report, the capacity estimates differ from those published in 2021 Buildable Lands Report for the following reasons:

Extension of Planning Horizon to 2045. The planning horizon for the Buildable Lands Report was 2040 while the planning horizon for Comprehensive Plans is 2045. The capacity for housing need allocations includes additional capacity due to:

- Land expected to be redevelopable after 2040
- Accessory dwelling units expected to be built between 2040 and 2045
- Development of some master planned communities projected to occur after 2040

- Difficult-to-sewer areas and areas without sewer expected to have sewer after 2040

Recent development. TRPC also adjusted the capacity to account for recent housing development. If a project was permitted that exceeded the capacity estimate in TRPC's model, the capacity was revised to the permitted number of units.

TRPC did not revise capacity to account for changes in market trends, zoning, or development regulations that have occurred since the last forecast was updated. Doing so would require substantial updates to the population and housing forecast adopted by TRPC in 2019 that serves as the foundation for the housing need allocations and was not included in the scope of work of the current ILA.

Bush Prairie Habitat Conservation Plan. The City of Tumwater and the Port of Olympia are working on a habitat conservation plan (the "Bush Prairie HCP") to mitigate the impacts of development on four species protected under the Endangered Species Act. TRPC's adopted forecast includes assumptions that mitigation in the Bush Prairie HCP (and other jurisdiction HCPs) would reduce capacity in the rural unincorporated County. However, the latest draft of the Bush Prairie HCP identifies significant mitigation within Tumwater's city limits. Therefore, the land capacity analysis reduced capacity in the zones where mitigation is most likely to occur by the factors show in Table 5. The estimated acres removed for mitigation were provided by Tumwater staff.

Table 5. Capacity Reduction Factors for Bush Prairie HCP

Zone	Acres Removed for Mitigation	Total Area (Vacant Parcels)	Reduction Factor
MFH	5	18.7	26.8%
MFM	30	83.1	36.1%
MU	30	27.0	100.0%
SFL	190	354.6	53.6%
SFM	40	227.2	17.6%

Note: Acres removed for mitigation provided by Tumwater staff. Total area is from TRPC's land capacity model. Reduction only applied to capacity on vacant parcels.

Capacity for Accessory Dwelling Units

TRPC's method for projecting accessory dwelling units (ADUs) mirrors Commerce's guidance. TRPC projects the number of ADUs likely to be built over the next 20 to 25 years based on past trends and recent changes to development regulations. The units are then allocated to "potential ADU lots." The estimated number of ADUs for each jurisdiction is shown in Table 6.

Within urban areas of Thurston County (including cities, towns, and unincorporated urban areas), TRPC projects 565 ADUs across 11,886 potential ADU lots — a participation rate of about five percent. Potential lots have only one single-family unit and no additional dwellings and are located in areas platted prior to 1970 (referred to as "infill areas"). For the rural unincorporated county, TRPC projects 280 ADUs across 24,271 potential ADU lots — a participation rate of about one percent. Potential lots have one single-family unit and no additional dwellings.

For the land capacity analysis, Tumwater and Yelm requested revisions to the ADU assumptions in their urban areas based on observed or expected trends. These are shown in Table 6.

Table 6: Estimates of Accessory Dwelling Units by Jurisdiction.

Jurisdiction		Accessory Dwellings		Potential ADU Lots
		Adopted Forecast	For LCA	
Bucoda	City	9	No Change	195
Lacey	City	97	No Change	2,045
	UGA	43	No Change	906
Olympia	City	309	No Change	6,502
	UGA	1	No Change	16
Rainier	City	5	No Change	104
	UGA	0	No Change	0
Tenino	City	19	No Change	395
	UGA	0	No Change	0
Tumwater	City	73	No Change	1,536
	UGA	0	10	0
Yelm	City	9	100	185
	UGA	0	20	2
Grand Mound	UGA	0	No Change	0
Urban Total		**565**	**686**	**11,886**
Rural Total		**280**	**No Change**	**24,271**
Countywide		**845**	**966**	**36,157**

Categorize Zones by Allowed Housing Types and Density Category

Step 2 of Commerce's guidance recommends that jurisdictions assign a density category to each zone based on the density and types of housing allowed. The partners agreed to use the example categories in Commerce's guidance shown in Table 7. In May 2024, TRPC met with jurisdiction staff to review the housing types allowed in each zone and assign a density category; this information is shown in Appendix II.

Table 7: Categories for Classifying Zones by Housing Types Allowed

Zone Category	Typical housing types allowed
Low Density	Detached single-family homes
Moderate Density	Townhomes, duplex, triplex, quadplex
Low-rise Multifamily	Walk-up apartments (up to 3 floors)
Mid-rise Multifamily	Apartments in buildings with ~4-8 floors (~40-85 feet in height)
High-rise/Tower	Apartments in buildings with ~9 or more floors (>85 feet in height) and requiring steel frame construction

Note: Adapted from Commerce's guidance. Manufactured homes are not listed as a housing type because by law they should be allowed in all zones that permit residential uses. High-Rise/Tower zones are likely to be relevant only in major metropolitan cities. Condominiums are omitted since they are a type of ownership, not housing.

Relate Zone Categories to Potential Income Levels and Housing Types

For the land capacity analysis, housing types are tied to an affordability level. Commerce's guidance provides examples of this relationship for moderate- and high-cost communities in Washington State which may be used in the land capacity analysis if a more detailed market analysis is not available. The project partners agreed to use the relationship for moderate-cost communities (Table 8) for this analysis.

Note that the assigned affordability levels are intended to indicate the potential for that zone to accommodate housing affordable to different income levels, not a guarantee that any housing in those zones actually will be affordable at specific household income levels.

Table 8: Relationship of Zone Categories to Housing Income Levels Served in Moderate-Cost Communities

Zone category	Lowest potential income level served		Assumed affordability level for capacity analysis
	Market Rate	With subsidies and/or incentives	
Low Density	Higher income (>120% AMI)	Not typically feasible at scale	Higher income (>120% AMI)
Moderate Density	Moderate income (>80-120% AMI)	Not typically feasible at scale	Moderate income (>80-120% AMI)
Low-rise Multifamily	Low income (>50-80% AMI)	Extremely low and Very low income (0- 50% AMI)	Low income and PSH (0-80% AMI)
Mid-rise Multifamily	Low income (>50-80% AMI)	Extremely low and Very low income (0- 50% AMI)	Low income and PSH (0-80% AMI)
ADUs (all zones)	Low income (>50-80% AMI)	N/A	Group with Low-rise and/or Mid-rise Multifamily

Note: Adapted from Commerce's guidance

Capacity for Low-Income Housing in Moderate Density Zones

The project partners noted that in some situations, low-income housing may be built in low or moderate density zones. This could include:

- Housing built by Habitat for Humanity or similar organizations. Table 9 shows the number of recently constructed Habitat for Humanity projects in Thurston County.
- Under HB 1110, cities between 25,000 and 75,000 are required to allow duplexes in residential zones, and quadplexes if at least one unit is affordable to a low-income household.

The land capacity analysis used HB 1110 as a guide for estimating how much capacity in moderate-density zones could accommodate low-income housing. The land capacity model found 1,104 parcels in Lacey, Olympia, and Tumwater — the three jurisdictions affected by the law — with capacity for four or more units. Total capacity on those parcels is 18,697, or 4,674 low-income units assuming one in four is an income-restricted unit (Table 10).

Table 9: Recent or Upcoming Habitat for Humanity Projects

Jurisdiction	Project	Units	Zone	Density Category
Lacey	Deyoe Vista Subdivision	33	MD	Low-rise Multifamily
Tumwater	Tâlícn Housing Development	28	MFM	Low-rise Multifamily
Yelm	—	22	R-4	Moderate Density
Olympia	3900 Boulevard Rd	112	RM-18	Low-rise Multifamily
Olympia	Fairview	16	R-4-8	Moderate Density
Olympia	Trinity Court	6	R-4-8	Moderate Density
Olympia	Covenant Court	20	RM-24	Mid-rise Multifamily
Total		**237**		

Table 10: Parcels with Capacity for Four or More Units in Moderate Density Zones

Jurisdiction		Parcels	Capacity	
			Total	Low-Income
Lacey	City	92	1,540	385
	UGA	334	8,376	2,094
Olympia	City	333	3,144	786
	UGA	114	1,466	366
Tumwater	City	205	3,737	934
	UGA	26	435	109
Total		**1,104**	**18,697**	**4,674**

Summarize Capacity by Zone Category

In Step 4, the total capacity in each zone category is summarized. This provides the total capacity that could accommodate housing in each income level. These totals are shown in Table 11; detailed capacity by zone is in Appendix II ("Total Capacity" columns).

Table 11: Housing Capacity by Zone Category

	ADUs	Midrise Multifamily	Lowrise Multifamily	Moderate Density		Low Density	Total
	0-80% AMI	0-80% AMI	0-80% AMI	0-80% AMI	80-120% AMI	>120% AMI	
Bucoda	9	0	17	0	210	0	237
Lacey and UGA	140	2,387	5,085	2,479	8,256	50	18,397
Olympia and UGA	310	3,468	7,352	1,152	5,404	1,255	18,941
Tenino and UGA	19	39	0	0	376	211	644
Tumwater and UGA	83	1,455	3,148	1,043	3,692	2,441	11,861
Yelm and UGA	120	0	2,655	0	5,610	745	9,130
Rainier UGA	0	0	0	0	0	108	108
Grand Mound UGA	0	0	0	0	406	0	406
Rural Unincorporated	280	0	0	0	0	17,744	18,024
All Partner Jurisdictions	**952**	**7,349**	**18,239**	**4,674**	**23,744**	**22,554**	**77,512**

Compare Allocated Housing Need to Capacity

The final step of the land capacity analysis is to compare the allocated housing need allocated to each jurisdiction to the capacity for new housing. A summary of the difference between the allocated housing need and capacity is shown in Table 12; detailed findings are shown in Tables 14 through 22 ("Surplus or Deficit" columns). A positive number (surplus) indicates that there is sufficient capacity to accommodate the allocated housing need for a given income level while a negative number (deficit) indicates that there is insufficient capacity. HB 1220 does not require jurisdictions to plan for or accommodate housing for high-income households; data for that income range is excluded.

The land capacity analysis found no deficits in the Bucoda, Lacey, Olympia, and Tumwater urban areas. Deficits were found in Tenino, Yelm, and Grand Mound. The project partners agreed that they would identify strategies to eliminate these deficits as part of their periodic Comprehensive Plan updates. All deficits were found in the low-income categories; no deficits were found in the moderate-income range.

No deficits were found in the rural unincorporated County. Per Commerce guidance, the low-density residential zoning in rural areas — predominantly large lots — cannot accommodate the housing types and utilities required for low-income housing, permanent supportive housing, and emergency housing.

Table 12: Summary of Housing Surplus/Deficit by Jurisdiction

Jurisdiction	Aggregate Housing Need		Capacity		Surplus / Deficit	
	0-80% AMI	80-120% AMI	0-80% AMI	80-120% AMI	0-80% AMI	80-120% AMI
Bucoda	26	87	26	210	0	124
Lacey and UGA	9,915	1,261	10,091	8,256	176	6,995
Olympia and UGA	7,616	3,623	12,282	5,404	4,666	1,781
Tenino and UGA	98	316	58	376	-41	60
Tumwater and UGA	5,694	1,937	5,729	3,692	35	1,755
Yelm and UGA	5,170	1,316	3,025	5,860	-2,145	4,545
Rainier UGA	0	0	0	0	0	0
Grand Mound UGA	223	68	0	406	-223	338
Rural Unincorporated	0	0	280	0	280	0

Note: A positive number (surplus) indicates that there is sufficient capacity to accommodate the allocated housing need for a given income level while a negative number (deficit) indicates that there is insufficient capacity

Yelm Master Planned Community

Yelm is the community with the largest deficit in the land capacity analysis. However, 60 percent of Yelm's capacity for future housing — an estimated 5,000 units — is on 1,250 vacant acres zoned Master Planned Community (MPC). The land capacity analysis assumes that 2,000 low-rise multifamily units that could accommodate low-income households, and 3,000 moderate density units that could accommodate moderate-income households. However, exactly how much affordable housing this area could accommodate will depend on the master plan the City approves.

Emergency Housing

In August 2023, Commerce released updated guidance requiring that all jurisdictions complete a land capacity analysis for emergency housing to meet the intent of HB 1220. TRPC used a seven-step selection process to identify potential emergency housing sites consistent with Commerce's guidance. In this section, "emergency housing" is inclusive of both indoor emergency shelters and indoor emergency housing as referenced in HB 1220; it excludes permanent supportive housing which is addressed in the previous section.

Selection 1

Identify all parcels in zones that allow emergency housing and indoor emergency shelters.

Jurisdiction staff provided a list of zones that allow emergency housing for use in the land capacity analysis (Table 13). By law, emergency housing must be allowed in any zone that allows hotels (RCW 35A.21.430 and 35.21.683). The list of zones is not comprehensive; other zones may allow emergency housing on an emergency or conditional basis, or may allow emergency housing with spacing or intensity restrictions. Trust lands held for the Confederated Tribes of the Chehalis or Nisqually Indian Tribe in were excluded.

Selection 2

From the parcels identified in Selection 1, narrow the search to vacant parcels, hotels, and motels, significantly under-developed or under-utilized parcels, developed parcels with no active business licenses, and those sites that have been declared a nuisance.

For the purposes of the land capacity analysis, only vacant parcels were included. In addition, only the parcel area outside of critical areas or their buffers was included. Vacant parcels were defined as:

- Having an assessor's use code of '91,' a property type of 'LND,' and a property subtype not equal to '46'
- Having at least 0.2 acres outside of critical areas or their buffers
- Having an assessed building to land value less than 0.1 and an assessed land value greater than $100,000 ($10,000 in Bucoda).

Selection 3

Add any parcels that have pending development permits for emergency housing and remove any parcels that have pending development for uses other than emergency housing.

Staff identified four projects currently under consideration:

- Behavioral Health Resources' B&B Apartments Phase 1: Replace eight existing units with eight studio and ten one-bedroom units at State Ave site.
- LIHI Maple Court PSH: Transition current Maple Court facility in Lacey into traditional permanent supportive housing with 124 studio units.
- LIHI Franz Anderson PSH: Construct 71 permanent supportive housing studio units on Franz Anderson Rd.

- New Horizon Communities ("Panza"): 30 studio units in tiny home village. Site yet to be determined.

Because the identified projects are adding permanent supportive housing (addressed in the previous sections) or a site has not been identified, the analysis did not add them to the capacity estimates. The analysis did remove any parcels expected to be developed for non-emergency housing purposes using TRPC's permit and subdivision databases.

Selection 4

Apply any adopted spacing or intensity requirements to the parcels.

The City of Olympia allows emergency housing in some residential zones if it meets spacing requirements. To simplify the analysis, only zones that did not have spacing or intensity limits for emergency housing were included.

Selection 5

Determine how many emergency shelter beds or emergency housing units could be accommodated.

Commerce's guidance provides two options for determining the amount of emergency housing that could be accommodated on each site: a site-specific analysis and assumed density method. TRPC took the latter approach, using an assumed density of 50 beds per acre for future emergency housing, excluding critical areas and buffers. This assumption was based on the Quince Street Village in Olympia, which has 100 units on 1.4 acres (71 units per acre). In addition, the analysis assumed that no more than 150 units or beds would be built on a single parcel.

Selection 6

Add up the capacity from all available sites identified in Step 5.

Table 13 shows the estimated capacity for emergency housing by zone.

Selection 7

Document the capacity for emergency shelter and emergency housing in the jurisdiction compared to the allocated emergency housing need.

Tables 14 through 22 show the identified capacity for emergency housing compared to the allocated emergency housing need. No deficits were identified.

Table 13: Emergency Housing Capacity by Zone

Jurisdiction	Zone	City/UGA	Parcels	Acres	Emergency Housing Capacity
Bucoda	COM	Town	5	2.7	132
Lacey	CBD 4	City	8	6.7	333
Lacey	CBD 5	City	6	3.3	164
Lacey	CBD 6	City	5	38.4	375
Lacey	CBD 6	UGA	1	4.8	75
Lacey	GC	City	4	6.7	229
Lacey	HPBD-BC	City	18	238.1	1,113
Lacey	HPBD-C	City	14	59.9	884
Lacey	LI-C	City	3	17.6	225
Lacey	MHDC	City	11	16.5	617
Lacey	MHDC	UGA	8	12.7	432
Lacey	WD	City	14	7.5	367
Olympia	CSH	City	1	0.7	36
Olympia	DB	City	16	5.1	248
Olympia	GC	City	12	7.0	343
Olympia	HDC-4	City	41	49.3	1,317
Olympia	UW	City	10	5.7	279
Tenino	C-1	City	1	0.3	16
Tenino	C-3	City	1	0.5	23
Tumwater	CBC	City	6	5.7	211
Tumwater	GC	City	23	103.9	1,395
Tumwater	GC	UGA	4	23.6	300
Tumwater	MU	City	13	12.3	563
Tumwater	MU	UGA	3	3.0	148
Tumwater	TC-MU	City	3	19.6	225
Yelm	C-1	City	28	87.1	1,576
Yelm	C-2	City	3	16.3	225
Yelm	C-3	City	2	9.2	150
Yelm	CBD	City	7	3.2	157
Yelm	I	City	5	16.8	286
Yelm	MPC	City	9	964.3	662
Yelm	R-16	City	6	12.6	362
Yelm	R-4	City	8	43.3	455
Yelm	R-6	City	12	55.5	696
Grand Mound UGA	AC	UGA	20	54.8	1,235

Table 14: Town of Bucoda

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs (Housing Units)	6	26	26	0
0-30% Other		12			
30-50%		0			
50-80%		8			
80-100%	Moderate Density (Housing Units)	67	87	210	124
100-120%		20			
Emergency Housing (Beds)		3	3	132	129

Table 15: Lacey City and UGA

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs (Housing Units)	1,108	9,915	10,091	176
0-30% Other		2,784			
30-50%		2,667			
50-80%		3,357			
80-100%	Moderate Density (Housing Units)	0	1,261	8,256	6,995
100-120%		1,261			
Emergency Housing (Beds)		282	282	4,814	4,532

Table 16: Olympia City and UGA

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs (Housing Units)	1,098	7,616	12,282	4,666
0-30% Other		2,617			
30-50%		3,312			
50-80%		590			
80-100%	Moderate Density (Housing Units)	2,328	3,623	5,404	1,781
100-120%		1,296			
Emergency Housing (Beds)		286	286	2,223	1,937

Table 17: Tenino City and UGA

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs (Housing Units)	33	98	58	-41
0-30% Other		65			
30-50%		0			
50-80%		0			
80-100%	Moderate Density (Housing Units)	220	316	376	60
100-120%		96			
Emergency Housing (Beds)		11	11	39	28

Table 18: Tumwater City and UGA

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs (Housing Units)	723	5,694	5,729	35
0-30% Other		1,736			
30-50%		1,309			
50-80%		1,926			
80-100%	Moderate Density (Housing Units)	1,140	1,937	3,692	1,755
100-120%		798			
Emergency Housing (Beds)		184	184	2,842	2,658

Table 19: Yelm City and UGA

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs (Housing Units)	567	5,170	3,025	-2,145
0-30% Other		1,398			
30-50%		1,120			
50-80%		2,085			
80-100%	Moderate Density (Housing Units)	518	1,316	5,860	4,545
100-120%		798			
Emergency Housing (Beds)		153	153	4,569	4,416

Table 20: Rainier UGA

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs (Housing Units)	0	0	0	0
0-30% Other		0			
30-50%		0			
50-80%		0			
80-100%	Moderate Density (Housing Units)	0	0	0	0
100-120%		0			
Emergency Housing (Beds)		0	0	0	0

Note: Rainier did not participate in the project so data for the city are not available

Table 21: Grand Mound UGA

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs (Housing Units)	16	223	0	-223
0-30% Other		40			
30-50%		23			
50-80%		143			
80-100%	Moderate Density (Housing Units)	57	68	406	338
100-120%		11			
Emergency Housing (Beds)		6	6	1,235	1,229

Table 22: Rural Unincorporated County

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs (Housing Units)	0	0	280	280
0-30% Other		0			
30-50%		0			
50-80%		0			
80-100%	Moderate Density (Housing Units)	0	0	0	0
100-120%		0			
Emergency Housing (Beds)		0	0	0	0

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APPENDIXES

Appendix I: Housing Need Allocation Method

The project partners preferred the method used by Snohomish County to allocate the housing need to jurisdictions best achieved the values the group identified: fair, clear, and cooperative.

The Snohomish County method was modified so that no low-income housing or emergency housing was allocated to the rural unincorporated County. This was in response to feedback from Commerce that residential zoning in rural areas — predominantly large lots — could not accommodate the housing types and utilities required for low-income housing, permanent supportive housing, and emergency housing.

The allocation method follows a four-step process. Examples for the city of Lacey are include.

Step 1: Same-Share Housing Need (HAPT Method A)

Calculate each jurisdiction's 2020-2045 housing need, assuming the same percentage is affordable in every jurisdiction. This is the same as Allocation Method A in Commerce's HAPT tool.

16.1% of the countywide 2020-2045 housing need needs to be affordable to a very low-income household. For the city of Lacey, that would equate to 799 housing units.

Step 2: Theoretical Housing Baseline

Calculate the theoretical 2020 housing supply if every jurisdiction had the same share of housing in each income range.

Currently, 10.3% of housing units in Thurston County are affordable to a very low-income household. If the percentage of housing affordable in each income range was the same in every jurisdiction, Lacey would have 2,371 housing units affordable to a very low-income household.

Step 3: Housing Need Adjustment Factor

Subtract the theoretical 2020 housing supply (Step 2) from the actual 2020 housing supply to get an adjustment factor.

Lacey currently has 1,832 housing units affordable to a very low-income household — less than the theoretical equal-share distribution (Step 2). Lacey's housing need adjustment factor for the very-low-income range is 539 housing units (2,371 minus 1,832).

Step 4: Initial Housing 2020-2045 Need

Add the housing need adjustment (Step 3) to the same-share allocation (Step 1). Set any negative allocations in Step 4 to zero. Set any low- or moderate-income housing (0 to 120% AMI) allocated to the rural unincorporated County to zero.

Lacey's initial housing need is 1,338 housing units (799 plus 539). If this number had been negative, it would be set to zero.

Step 5: Final 2020-2045 Housing Need

Removing the negative allocations results in total housing numbers that are higher than Commerce's estimate of housing need. Step 5 reduces the allocations generated in Step 4 proportionally to match both TRPC's housing unit projections for each jurisdiction and the countywide housing need in each income range identified by Commerce. An iterative process is used — called "Iterative Proportional Fitting" — to ensure that all rows and columns sum to the correct total.

After the negative allocations in Step 4 are set to zero, the total low-income housing allocation for all jurisdictions is 159 units higher than the countywide need. The initial allocations are reduced to match the housing totals (Table 2 and Table 3).

Table 23: Preferred Method Sample Calculation of the Very-Low-Income (30-50% AMI) Housing Need.

Jurisdiction		2020 Housing Supply	Step 1 Equal-Share Housing Need	Step 2 Theoretical 2020 Supply	Step 3 Adjustment Factor	Step 4 Initial Allocation	Step 5 Final Allocation
Bucoda	Town	120	21	25	-96	Less Than 0	0
Lacey	City	1,832	799	2,371	539	1,338	1,199
	UGA	1,075	1,391	1,391	316	1,707	1,468
Olympia	City	1,782	1,961	2,635	853	2,814	2,877
	UGA	356	256	522	167	423	435
Rainier	City	211	89	88	-123	Less than 0	0
	UGA	13	4	5	-8	0	0
Tenino	City	211	80	81	-130	Less than 0	0
	UGA	1	1	1	-1	0	0
Tumwater	City	1,099	1,036	1,138	39	1,075	1,002
	UGA	120	390	124	4	394	307
Yelm	City	247	1,164	356	109	1,273	1,090
	UGA	37	22	53	16	39	30
Grand Mound	UGA	52	48	43	-9	39	23
Rural		5,249	1,168	3,573	-1,677	Less than 0	0
Total		**12,405**	**8,431**	**12,405**	**0**	**9,103***	**8,431**

*Notes: *Sum of positive values.*

Appendix II: Estimated Capacity and Density Category by Zone

Notes: P: housing type is permitted; C: housing type is conditionally allowed. Information is included to support the density category assigned to each zone. Consult jurisdiction code for specifics on which housing types are allowed. The city of Rainier was not included in the interlocal agreement so are omitted from the TRPC analysis. Per Dept. of Commerce guidance, manufactured homes are omitted since they should be permitted in all zones. Capacity in this table excludes accessory dwelling units.

Zone		Capacity for Future Housing Units	Density Category	Select Housing Types				
				Single-Family	Townhome	2, 3, or 4-Plex	Apartment	ADU
Bucoda								
COM	Town	9	Low-rise Multifamily				C	C
IND	Town	0	Nonresidential					C
MF	Town	9	Low-rise Multifamily	P	P	P	P	
PU	Town	0	Nonresidential					
RES	Town	210	Moderate Density	P	P	P		P
Lacey								
AG	UGA	11	Low Density	P				P
AQUATC	City	0	Nonresidential					
AQUATC	UGA	0	Nonresidential					
C	City	0	Nonresidential					
CBD 4	City	44	Mid-rise Multifamily	P	P	P	P	P
CBD 5	City	110	Mid-rise Multifamily		P		P	
CBD 6	City	55	Mid-rise Multifamily				P	
CBD 6	UGA	0	Mid-rise Multifamily				P	
CBD 7	City	12	Mid-rise Multifamily				P	
CCD	City	144	Low-rise Multifamily		P		P	
CO	City	227	Mid-rise Multifamily		P		P	
GC	City	0	Nonresidential					
HD	City	1,598	Mid-rise Multifamily		P	P	P	P
HD	UGA	386	Mid-rise Multifamily		P	P	P	P
HPBD-BC	City	68	Mid-rise Multifamily		P		P	
HPBD-C	City	17	Mid-rise Multifamily		P		P	
LD	City	1,666	Moderate Density	P	P	P		P
LD	UGA	4,933	Moderate Density	P	P	P		P
LHN	City	31	Low Density	P				P
LI	City	0	Nonresidential					
LI	UGA	0	Nonresidential					
LI-C	City	0	Nonresidential					
MD	City	1,338	Low-rise Multifamily	P	P	P	P	P
MD	UGA	906	Low-rise Multifamily	P	P	P	P	P

Zone		Capacity for Future Housing Units	Density Category	Select Housing Types				
				Single-Family	Townhome	2, 3, or 4-Plex	Apartment	ADU
ME	UGA	0	Nonresidential					
MGSA	UGA	3,166	Moderate Density	P	P			P
MHDC	City	525	Mid-rise Multifamily		P		P	
MHDC	UGA	710	Mid-rise Multifamily		P		P	
MMDC	City	73	Moderate Density	P	P	P	P	P
MMDC	UGA	172	Moderate Density	P	P	P	P	P
NATURL	City	1	Low Density	P				P
NC	City	0	Nonresidential				P	
NC	UGA	0	Nonresidential				P	
OS-I	City	1	Nonresidential					
OS-I	UGA	0	Nonresidential					
OSI-P	City	0	Nonresidential					
OSI-P	UGA	0	Nonresidential					
OSI-S	City	0	Nonresidential					
OSI-S	UGA	0	Nonresidential					
SHORES	City	3	Low Density	P	P	P		P
SMU	City	0	Nonresidential					
URBCON	City	3	Low Density	P				P
V(U)C	City	178	Moderate Density	P	P	P	P	P
V(U)C	UGA	547	Moderate Density	P	P	P	P	P
WD	City	1,332	Mid-rise Multifamily		P		P	
Olympia								
AS	City	0	Nonresidential					
CAP	City	0	Nonresidential					
COSC	UGA	31	Low-rise Multifamily	P	P	P	P	P
CSH	City	0	Nonresidential	P	P	P	P	P
DB	City	1,442	Mid-rise Multifamily	P	P	P	P	P
GC	City	168	Low-rise Multifamily	P	P	P	P	P
HDC-1	City	3	Moderate Density	P	P	P	P	P
HDC-2	City	4	Moderate Density	P	P	P	P	P
HDC-3	City	37	Moderate Density	P	P		P	P
HDC-4	City	3,019	Mid-rise Multifamily	P	P	P	P	P
I	City	0	Nonresidential					
LI-C	City	0	Nonresidential					
LI-C	UGA	0	Nonresidential					
MHP	City	0	Moderate Density	P	P	P		P
MR-10-18	City	117	Low-rise Multifamily	P	P	P	P	P

Zone		Capacity for Future Housing Units	Density Category	Select Housing Types				
				Single-Family	Townhome	2, 3, or 4-Plex	Apartment	ADU
MR-7-13	UGA	0	Moderate Density	P	P	P	P	P
MS	City	217	Mid-rise Multifamily	P	P	P	P	P
NR	City	2	Moderate Density	P	P	P	P	P
NR	UGA	10	Moderate Density	P	P	P	P	P
NV	City	410	Low-rise Multifamily	P	P	P	P	P
PO/RM	City	688	Low-rise Multifamily	P	P	P	P	P
PUD	City	83	Mid-rise Multifamily	C	C	C	C	C
R-1/5	City	4	Low Density	P	P	P		P
R-1/5	UGA	39	Low Density	P	P	P		P
R-4	City	16	Low Density	P	P	P		P
R-4	UGA	154	Low Density	P	P			P
R-4-8	City	3,758	Moderate Density	P	P	P		P
R-4-8	UGA	1,553	Moderate Density	P	P			P
R-4CB	City	445	Low Density	P		P		P
R-6-12	City	1,141	Moderate Density	P	P	P		P
R-6-12	UGA	51	Moderate Density	P	P	P		P
RLI	City	464	Low Density	P	P	P	P	P
RLI	UGA	133	Low Density	P	P	P	P	P
RM-18	City	945	Low-rise Multifamily	P	P	P	P	P
RM-18	UGA	837	Low-rise Multifamily	P	P	P	P	P
RM-24	City	999	Mid-rise Multifamily	P	P	P	P	P
RM-H	City	0	Mid-rise Multifamily	P	P	P	P	P
RMU	City	23	Mid-rise Multifamily	P	P	P	P	P
UR	City	187	Mid-rise Multifamily	P	P	P	P	P
UV	City	271	Low-rise Multifamily	P	P	P	P	P
UW	City	778	Mid-rise Multifamily				P	
UWH	City	604	Mid-rise Multifamily		P		P	
Rainier								
All Zones	City	—	N/A					
NC	UGA	0	Low Density					
RRR1/5	UGA	108	Low Density	P	P			P
Tenino								
C-1	City	2	Low-rise Multifamily		C		C	
C-2	City	2	Low-rise Multifamily		C		C	
C-3	City	26	Low-rise Multifamily	C	C		C	
I	City	0	Nonresidential					

Zone		Capacity for Future Housing Units	Density Category	Select Housing Types				
				Single-Family	Townhome	2, 3, or 4-Plex	Apartment	ADU
MF	City	8	Low-rise Multifamily	P	P	P	P	C
P/SP	City	0	Nonresidential					
PO	City	1	Moderate Density	P				C
RRR1/5	UGA	27	Low Density	P	P			P
SF	City	346	Moderate Density	P				C
SF-D	City	28	Moderate Density	P		P		C
SF-ES	City	69	Low Density	P				C
WT	City	115	Low Density	P				C
Tumwater								
ARI	City	0	Nonresidential					
BD	City	666	Mid-rise Multifamily	P	P	P	P	P
CBC	City	742	Mid-rise Multifamily				P	
CS	City	0	Nonresidential					
GB	City	0	Nonresidential	P				
GB	UGA	0	Nonresidential	P				
GC	City	1,344	Mid-rise Multifamily				P	
GC	UGA	0	Mid-rise Multifamily				P	
HC	City	0	Mid-rise Multifamily				P	
HI	City	0	Nonresidential					
HI	UGA	0	Nonresidential					
LI	City	0	Nonresidential					
LI	UGA	-1	Nonresidential					
MFH	City	356	Mid-rise Multifamily		P	P	P	P
MFM	City	822	Low-rise Multifamily		P	P	P	P
MFM	UGA	615	Low-rise Multifamily	P	P	P	P	P
MHP	City	46	Moderate Density	P				
MU	City	17	Low-rise Multifamily		P	P	P	P
MU	UGA	1	Low-rise Multifamily		P	P	P	P
NC	City	0	Low Density		P	P	P	
NC	UGA	0	Low Density					
OS	City	3	Nonresidential	P				
OS	UGA	0	Nonresidential	P				
R/SR	City	465	Low Density	P		P		P
R/SR	UGA	53	Low Density	P				P
SFL	City	2,413	Moderate Density	P		P		P
SFL	UGA	1,923	Low Density	P				P
SFM	City	1,836	Moderate Density	P	P	P		P

Zone		Capacity for Future Housing Units	Density Category	Select Housing Types				
				Single-Family	Townhome	2, 3, or 4-Plex	Apartment	ADU
SFM	UGA	440	Moderate Density	P	P	P		P
TC-C	City	0	Nonresidential					
TC-MU	City	7	Mid-rise Multifamily				P	
TC-PO	City	0	Nonresidential					
TC-R	City	33	Mid-rise Multifamily				P	
Yelm								
AC	UGA	2	Low Density			P		
C-1	City	91	Mid-rise Multifamily				C	P
C-2	City	58	Mid-rise Multifamily				C	P
C-3	City	15	Mid-rise Multifamily				C	P
CBD	City	99	Mid-rise Multifamily	P		C		P
I	City	0	Nonresidential					P
LI	UGA	0	Nonresidential					
MPC	City	3,776	Low-rise Multifamily	Multiple housing types/densities likely in planned community. Capacity split into two categories for the land capacity analysis.				
		2,000	Moderate Density					
OS/ID	City	0	Nonresidential					
R-16	City	390	Mid-rise Multifamily	P	P	P	P	P
R-4	City	928	Moderate Density	P	P	P	P	P
R-6	City	906	Moderate Density	P	P	P	P	P
RR1/5	UGA	243	Low Density	Single-family, townhome, and ADUs currently permitted. Joint plan allows for higher densities after annexation.				
		250	Moderate Density					
		250	Low-rise Multifamily					
Grand Mound								
AC	UGA	120	Moderate Density	P	P	P	P	P
LI	UGA	0	Nonresidential					
PID	UGA	0	Nonresidential					
R3-6/1	UGA	239	Moderate Density	P	P	P	P	P
R4-16/1	UGA	47	Moderate Density	P	P	P	P	P
County								
HC		0	Nonresidential					
LTA		359	Low Density	P				P
LTF		1	Nonresidential	P				
MEI		0	Nonresidential					
MGSA		724	Low Density	P				P
MR		0	Nonresidential					

Zone		Capacity for Future Housing Units	Density Category	Select Housing Types				
				Single-Family	Townhome	2, 3, or 4-Plex	Apartment	ADU
NA		0	Nonresidential					
NC		0	Nonresidential					
PP		0	Nonresidential					
R 1/10		209	Low Density	P				P
R 1/20		374	Low Density	P				P
RCC		1	Nonresidential					
RL1/1		836	Low Density	P	P			P
RL1/2		347	Low Density	P	P			P
RL2/1		588	Low Density	P	P			P
RR1/5		257	Low Density	P	P			P
RRI		0	Nonresidential					
RRR1/5		13,817	Low Density	P	P			P
UR 1/5		235	Low Density	P				P

City of Tumwater

HOUSING ACTION PLAN

City of Tumwater

Adopted September 21, 2021 by Ordinance No. 2021-007

Contents

Executive Summary 5
What are the Housing Gaps? 5
How can We Create an Equitable Housing Market? 5
Taking Action Locally 6
Setting a Legislative Agenda 6

Chapter 1. Introduction 7
Sources of Actions 8
Addressing Housing Gaps and Needs 8
Equity in Housing Affordability 9
Defining Terms Used 10
Assumptions 11
Housing Element Policies 12
Development Regulations 12

Chapter 2. Actions Implemented 13

Chapter 3. Local Actions 16
Local Actions to be Undertaken by the City 16
Strategy 1: Increase the Supply of Permanent, Income-Restricted Affordable Housing. 18
Strategy 2: Make It Easier for Households to Access Housing and Stay Housed. 28
Strategy 3: Expand the Overall Housing Supply by Making It Easier to Build All Types of Housing Projects. 33
Strategy 4: Increase the Variety of Housing Choices. 37
Strategy 5: Continually Build on Resources, Collaboration, and Public Understanding to Improve Implementation of Housing Strategies. 40
Strategy 6: Establish a Permanent Source of Funding for Low-Income Housing. 45

Chapter 4. Legislative Needs 51

Appendix A. Action Details 53
Strategy 1: Increase the supply of permanent, income-restricts affordable housing. 53
Strategy 2: Make It Easier for Households to Access Housing and Stay Housed. 57
Strategy 3: Expand the Overall Housing Supply by Making It Easier to Build All Types of Housing Projects. 59
Strategy 4: Increase the Variety of Housing Choices. 61
Strategy 5: Continually Build on Resources, Collaboration, and Public Understanding to Improve Implementation of Housing Strategies. 62
Strategy 6: Establish a Permanent Source of Funding for Low-Income Housing. 63

Appendix B. Considered Actions 67

Appendix C. Policy Evaluation Summary 80
Evaluation of the Policies in the City's Comprehensive Plan Housing Element 80

Appendix D. Regulations Evaluation Summary 130
Evaluation of the Regulations in the City's Municipal Code 130
Regulations Evaluation #1 – Housing Types 130
Regulations Evaluation #2 – Density, and Bulk and Dimensional Regulations 148
Regulations Evaluation #3 – Housing Innovation Program 154
Regulations Evaluation #4 – Development Code and Other Barrier Summary 161

Appendix E. Previous Work 166
Background 166
2016 Comprehensive Plan Update 166
2018 Resolution No. R2018-016 Homelessness and Affordable Housing 166
2019 Housing Affordability Work Plans 168

Tables

Table 1. Metrics for equity in housing. 9
Table 2. Strategy 1: Increase the supply of permanent, income-restricted affordable housing. 20
Table 3. Strategy 2: Make it easier for households to access housing and stay housed. 29
Table 4. Strategy 3: Expand the overall housing supply by making it easier to build all types of housing projects. 34
Table 5. Strategy 4: Increase the variety of housing choices. 39
Table 6. Strategy 5: Continually build on resources, collaboration, and public understanding to improve implementation of housing strategies. 41
Table 7. Maximum rent and housing costs at various income levels, 2020. 45
Table 8. Example of monthly costs associated with developing an apartment complex. 46
Table 9. Strategy 6: Establish a permanent source of funding for low-income housing. 48
Table 10. Adopted SEPA Exemptions as of January 2021. 60
Table 11. Additional costs to households with a $0.50 per $1,000 property tax levy. 64
Table 12. Potential affordable housing funding from maximum property tax levy. 64
Table 13. Potential affordable housing funding from maximum affordable housing sales tax in 2019. 65
Table 14. Actions considered but not included in the Housing Action Plan. 67
Table 15. Housing Element policy and action evaluation – Goal H-1. 83
Table 16. Housing Element policy and action evaluation – Goal H-2. 86
Table 17. Housing Element policy and action evaluation – Goal H-3. 89
Table 18. Housing Element policy and action evaluation – Goal H-4. 96
Table 19. Housing Element policy and action evaluation – Goal H-5. 99
Table 20. Housing Element policy and action evaluation – Goal H-6. 102
Table 21. Housing Element policy and action evaluation – Goal H-7. 109
Table 22. Housing Element policy and action evaluation – Goal H-8. 113
Table 23. Housing Element policy and action evaluation – Goal H-9. 118
Table 24. Housing Element policy and action evaluation – Goal H-10. 121
Table 25. Housing Element policy and action evaluation – Goal H-11 123
Table 26. Housing Element policy and action evaluation – Goal H-12. 125
Table 27. Housing Element policy and action evaluation – Goal H-13. 128

Table 28. Development code housing type summary (1 of 3). 131
Table 29. Development code housing type summary (2 of 3). 136
Table 30. Development code housing type summary (3 of 3). 141
Table 31. Development code density, and bulk and dimensional regulation summary (1 of 3). 149
Table 32. Development code density, and bulk and dimensional regulation summary (2 of 3). 151
Table 33. Development code density, and bulk and dimensional regulation summary (3 of 3). 152
Table 34. Housing innovation program review. 154
Table 35. Development code barrier summary. 161
Table 36. Other potential barriers summary. 165

Figures

Figure 1. Household income in the Cities of Lacey, Olympia, and Tumwater combined by race and ethnicity, 2014-2018 average. 19
Figure 2. Tenure by race and ethnicity in the Cities of Lacey, Olympia, and Tumwater combined, 2014-2018 average. 28
Figure 3. Relationship between housing types, price, and rent, household income in the Cities of Lacey, Olympia, and Tumwater combined by race and ethnicity, 2014-2018 average 38

Executive Summary

The City of Tumwater Housing Action Plan began as a collaborative effort between the Cities of Lacey, Olympia, and Tumwater to develop a Regional Housing Needs Assessment and Housing Gap Analysis, a Landlord Survey, and a draft set of actions to address the gaps identified in the housing gap analysis. The City Council adopted the City's Housing Action Plan to reflect the specific conditions and concerns of the City. The plan is intended to inform the City's Comprehensive Plan policies and development regulations and to guide implementation strategies to help the City meet its housing needs and strategic objectives.

COVID-19 Pandemic and the Housing Action Plan

In response to the outbreak of the COVID-19 pandemic, Governor Inslee issued a series of proclamations and declarations aimed at reducing the spread of the virus in Washington state, including requiring all non-essential workers to stay home and stay healthy and extending a moratorium on evictions to protect renters. As a result, significant changes in the Lacey, Olympia, and Tumwater area occurred, affecting businesses and residents alike.

The City of Tumwater will continue to monitor the impact of the pandemic on housing in the coming months and develop plans for implementing appropriate actions whether included in this plan or not.

What are the Housing Gaps?

The following seven housing gaps were identified through the Housing Needs Assessment:

1. Reduce housing costs for low-income and cost-burdened households.
2. Increase the overall housing supply.
3. Increase the variety of housing sizes and types.
4. Increase senior housing options.
5. Maintain in good condition and improve the existing housing stock.
6. Provide safe, stable options for both renters and homeowners.
7. Increase permanent housing options for people with disabilities and those at risk of or experiencing homelessness.

How can We Create an Equitable Housing Market?

About one in four Thurston County residents is a person of color, those who are Hispanic or Latino of any race, and those who are any race other than white alone. People of color generally have more people in their household, are less likely to own their own home, have a smaller household income, and are more likely to experience homelessness than their white, non-Hispanic counterparts. Increasing housing equity is not a single action but an overarching theme in this plan. Affordable housing opportunities cannot be created without also reducing housing-related inequities faced by people of

color. Each strategy in this report includes a discussion of how it, and the actions associated with it, will reduce inequity in our community.

Taking Action Locally

Since the City Council adopted Resolution No. R2018-016 "Actions to Address Homelessness and Increase Affordable Housing in the City" in the summer of 2018 and approved the 2019 Housing Affordability Text and Fee Work Plans, the City has been working on a number of actions to reduce homelessness, increase affordable housing, and collaborate with other jurisdictions and agencies to explore regional solutions to these issues. A summary of that work may be found in Appendix E *Previous Work*.

The Housing Action Plan builds on the affordable housing work the City has completed to date or that is underway, which was guided by Resolution No. R2018-016 and the 2019 City Council Housing Affordability Text and Fee Work Plans. The Housing Action Plan is the next step in the process of identifying actions to increase the amount of affordable housing in the City. The Plan will consolidate all affordable housing action items into one document that the City will use going forward to support the development of more affordable housing in the City.

The City is actively implementing actions that remove barriers and encourage appropriate housing development. Of the actions considered in developing this plan, the City has already implemented 31 actions, including making strategic investments in infrastructure, reducing setback requirements, relaxing ground floor retail requirements, and simplifying requirements for accessory dwelling units.

In addition to the work the City has already accomplished, this plan identifies a menu of 39 more actions the City will take to address housing gaps, needs, and equity:

- Thirteen actions that help increase the supply of permanent, income-restricted affordable housing.
- Eight actions that make it easier for households to access housing and stay housed.
- Five actions that help expand the overall housing supply.
- Two actions that help increase housing variety.
- Six actions that help the City maintain forward momentum in implementing housing strategies.
- Five actions that help establish a permanent source of funding for low-income housing.

Some of these actions are in the process of development/implementation and some have not been implemented. In addition, actions that were reviewed by the City as part of the development of Plan, but were not included in the final list of actions, may be found in Appendix B *Considered Actions*.

Setting a Legislative Agenda

While this plan outlines actions the City can take to address housing gaps, needs, and equity, barriers also exist at the state and federal levels. By far, the largest barrier is a lack of funding for low-income and income-restricted housing, whether it is construction, improvement, rehabilitation, or rental subsidies. Other barriers include condominium liabilities for builders, tariffs on construction materials imported to the United States, and the impact of prevailing wage requirements tied to federal funding for small, non-profit housing developers. Chapter 4 *Legislative Needs* addresses this in more detail.

Chapter 1. Introduction

Thurston County is one of the fastest growing counties in Washington State. The pressure to ensure all households have affordable access to housing is also growing and it represents a significant challenge for all stakeholders. The challenge to provide sufficient affordable housing is complicated by rising construction costs, insufficient inventory, and a greater need for coordinated responses between jurisdictions.

Since the City Council adopted Resolution No. R2018-016 "Actions to Address Homelessness and Increase Affordable Housing in the City" in the summer of 2018 and approved the 2019 Housing Affordability Text and Fee Work Plans, the City of Tumwater has been working on a number of actions to reduce homelessness, increase affordable housing, and collaborate with other jurisdictions and agencies to explore regional solutions to these issues. A summary of that work may be found in Appendix E *Previous Work*.

In 2019, the Washington State Legislature passed HB 1923 encouraging cities planning under the state Growth Management Act to take actions to increase residential building capacity. These actions include developing a housing action plan *"…to encourage construction of additional affordable and market rate housing in a greater variety of housing types and at prices that are accessible to a greater variety of incomes, including strategies aimed at the for-profit single-family home market"* (RCW 36.70A.600).

In recognition of the cross-jurisdiction need for affordable housing, the Cities of Lacey, Olympia, and Tumwater chose to collaborate with Thurston Regional Planning Council to develop a Regional Housing Needs Assessment and Housing Gap Analysis, a Landlord Survey, and a draft set of actions to address the housing gaps identified in the gap analysis. The draft set of actions was used as the basis for developing this local Housing Action Plan for adoption by the City Council. The Washington State Department of Commerce provided funding.

The project included four components:

- A regional housing needs assessment.
- A household income forecast to identify future housing needs.
- A survey of landlords and rental property owners to understand rental housing costs better.
- A draft housing action plan framework, to be modified to reflect current conditions and concerns adopted by the City, identifying a menu of actions for the City to implement to encourage development of a housing stock adequate and affordable for current and future residents.

The Housing Action Plan identifies a menu of actions for the City to implement. These actions are intended to encourage development of a housing stock adequate and affordable for current and future residents of all income levels. This information will be used by the City to update the Housing Element of the Comprehensive Plan and the Tumwater / Thurston County Joint Plan covering the urban growth areas in collaboration with Thurston County, as well as the implementing regulations.

Appendix A *Action Details* provides more detailed information on each action, while Appendix B *Considered Actions* lists all the actions considered through the development of this plan. Where appropriate, explanations as to why an action was not included in the plan are provided.

Sources of Actions

The plan combined data and action ideas from a range of sources. Key sources included:

- **Washington State Department of Commerce.** Actions identified in Commerce's **"**Guidance for Developing a Housing Action Plan (public review draft)" were used as a starting point for the action list.
- **Comprehensive Plans.** Staff reviewed housing elements in the City's Comprehensive Plan and those of the cities of Lacey and Olympia for actions to include. See Appendix C *Policy Evaluation Summary* for more information.
- **Development Codes.** Staff reviewed the City's development code and those of the cities of Lacey and Olympia for actions to include. See Appendix D *Regulations Evaluation Summary* for more information.
- **Stakeholder Committee.** A stakeholder committee that included the Housing Authority of Thurston County, other low-income housing providers, real estate professionals, housing developers (low-income and market rate), and representatives of the Thurston Thrives Housing Action Team reviewed and added to the action list.
- **Staff from the Cities of Lacey, Olympia, and Tumwater.** City staffs provided feedback on actions that have already been completed or are underway, added actions that were local priorities, and removed actions that were outside of the Cities' authority.
- **Previous City Work on Affordable Housing.** City staff incorporated actions completed, underway, or not yet started from the City Council's 2019 Housing Affordability Text and Fee Work Plans. See Appendix E *Previous Work* for more information.
- **City Elected and Advisory Bodies.** The Mayor, City Council, and Planning Commission reviewed, discussed, and proposed amendments to the Housing Action Plan before adoption.
- **Other Sources.** Outreach was done to additional stakeholders as needed, including Habitat for Humanity, the Low-Income Housing Institute, Northwest Cooperative Development Center, and the Thurston Housing Land Trust.

Addressing Housing Gaps and Needs

The Regional Housing Needs Assessment preceded the Housing Action Plan. The Regional Housing Needs Assessment reviewed data available on the region's housing needs and the available housing stock to identify gaps. The most pressing needs identified were the following:

Affordability. Reduce the cost of housing for low-income and cost-burdened households.

Supply. Increase the inventory of housing for all households.

Variety. Increase the variety of housing sizes and types

Seniors. Increase the stock of housing options needed for aging seniors.

Improvements. Maintain the existing housing stock, including improving energy efficiency and air quality.

Stability. Increase household wealth by providing safe, stable options for rental housing and pathways to homeownership.

Supportive Housing. Increase permanent housing options for people with disabilities and those at risk of or experiencing homelessness.

Many actions included in this plan address multiple housing gaps or needs, and each action in this plan identifies which area of need it addresses.

Equity in Housing Affordability

Not all households have access to affordable housing. Across Thurston County, people of color, those identifying as Hispanic or a race other than white alone, have lower incomes, are less likely to own their own home, are more likely to be housing cost-burdened, and are more likely to be homeless (Table 1).

Table 1. Metrics for equity in housing.

Metric	Person of Color	White, Non-Hispanic
Cost Burdened Households	37%	31%
Homeowners	52%	66%
People Experiencing Homelessness	~ 4.4 per 1,000	~2.4 per 1,000
Household with an Income Less than $50,000	41%	33%

Across the United States, including Thurston County and its communities, policies have led to and reinforce housing inequities faced by people of color:

- **Redlining.** Neighborhoods with a large number of people of color were denied access to financing for home improvement and construction. This made it harder for people of color to build financial equity and stay or move out of poverty. While redlining is now illegal, people of color are still more likely to have mortgage applications denied or pay higher interest rates.
- **Zoning.** Zoning regulations explicitly barred racial and ethnic minorities. While this is illegal, zoning regulations today may implicitly bar people of color by placing restrictions on the sizes and types of housing that are affordable and accessible to disadvantaged populations. Zoning that exclusively allows single-family neighborhoods, an estimated 75 percent of all residential-zoned land across major cities in the United States, perpetuates this legacy of barring racial and ethnic minorities.
- **Covenants.** Privately enforced housing covenants used to exclude racial and ethnic minorities from predominantly white neighborhoods. Racial covenants became more common after the United States Supreme Court deemed racial zoning ordinances unconstitutional. Such covenants excluding racial and ethnic minorities are now illegal.

The City can help reverse the disparities caused by these problems by creating more opportunities for affordable housing. The City is also responsible for ensuring that new policies, which are not just around housing, do not exacerbate inequities. Resources like the Government Alliance on Race and Equity's "Racial Equity Toolkit" can help the City incorporate equity considerations in policymaking.

How is Equity Addressed in the Plan?

Because creating affordable housing opportunities goes hand-in-hand with reducing housing-related inequities faced by people of color, increasing equity is not a single action but an overarching theme in this plan. Each strategy in this plan includes a discussion of how it and the actions associated with it work to reduce inequity in our community.

An action that promotes affordable housing, especially for the most vulnerable in our community, is an action that will promote equity.

Defining Terms Used

The following terms are used in this plan.

Affordable Housing. Housing for which the household pays no more than 30 percent of its gross income for housing costs, including utilities.

Income Restricted Housing. Housing for which the occupancy of the units is restricted to households making 80 percent or less of the area median family income, as defined by the United States Department of Housing and Urban Development.

Low-Income Housing. Housing that is affordable for households making 80 percent or less of the area median family income, as defined by the United States Department of Housing and Urban Development. Low-income housing can take the form of income-restricted housing units or subsidized housing. Subsidized housing can take the form of the unit itself being subsidized or the household receiving a housing voucher to subsidize market-rate rent conditions.

Manufactured Home Park. A site under single ownership where ground space is made available for mobile homes, manufactured homes, or a combination of the two. Mobile homes and manufactured homes are both factory-built and considered dwellings for habitation rather than vehicles, such as a recreational vehicle. Mobile homes refer to those units that were factory-constructed prior to June 15, 1976, while manufactured homes are units were factory-constructed after that date.

Permanent Supportive Housing. Permanent housing intended specifically for chronically homeless and permanently disabled individuals and families. Supportive services, such as medical, mental health, enrichment programs, etc., and case management are available on site or closely coordinated to reduce barriers the inhibit households from accessing such services.

Assumptions

Four primary assumptions guided development of this plan:

Menu of options. This plan is intended as a menu of actions for the City to implement. Actions that have already been implemented by the City are found in Chapter 2 *Actions Implemented*. Actions that considered by the City, but not implemented are found in Appendix B *Considered Actions*. Actions that can only be taken by other entities are not included in this plan.

Analysis before implementation. The City is a unique community with different priorities, development patterns, and resources that changes over time. This plan cannot respond to every future issue and need, but it does provide a framework for the City to consider how best to act. Further analysis on an action should be undertaken to determine how well it would respond to the specific need or gap the City attempts to fill.

People experiencing homelessness. This action plan addresses permanent housing solutions. The Thurston County Homeless Crisis Response Plan guides the region's emergency response to homelessness. Although there will be some overlap, this plan is limited to actions that result in or support the creation or preservation of affordable and low-income housing, including permanent supportive housing. Permanent housing is a fundamental part of solving the homelessness crisis our region is experiencing. Despite having a coordinated entry system designed to connect people experiencing homelessness quickly to housing, being responsive to needs is hampered by high housing costs and a lack of housing units.

The City also participates in the newly formed Regional Housing Council with the cities of Lacey, Olympia, and Yelm and Thurston County, created to leverage resources and partnerships to promote equitable access to safe and affordable housing in Thurston County. The Regional Housing Council looks at funding issues for responding to homelessness and housing affordability in the region.

Addressing household income. This plan does not address the income side of the housing equation. Attracting living wage jobs, increasing the minimum wage, and other actions affecting a household's income could help make housing more affordable. The City's Economic Development Plan and the Thurston Economic Development Council guide the region's response to economic development, which has a direct impact on household incomes. Although there will be some overlap, this plan is limited to actions that result in or support the creation and preservation of affordable and low-income housing units.

Housing Element Policies

Appendix C *Policy Evaluation Summary* reviewed the City's current Comprehensive Plan housing policies in the Housing Element for connections to the gaps identified in the housing needs assessment and the status of policy implementation.

All the Housing Element goals, policies, and actions were reviewed and updated as part of 8-year GMA Comprehensive Plan Update in 2016 in Ordinance No. O2016-012. The Housing Element has been amended since the update. The next required eight-year Growth Management update of the Comprehensive Plan is expected to begin in 2022.

The City's housing policies are relevant to the housing needs assessment findings. Some minor adjustments may be appropriate for consideration as part of the 2021 annual Comprehensive Plan amendment docket.

See Appendix C *Policy Evaluation Summary* for complete details.

Development Regulations

Appendix D *Regulations Evaluation Summary* reviewed the City's development regulations for connections to the gaps identified in the housing needs assessment.

The City's Development Code is in the process of being reviewed and updated as part of the work on the 2019 Housing Affordability Text and Fee Work Plans.

The City's development regulations are relevant to the housing needs assessment findings. Some adjustments may be appropriate for consideration in a future development code amendment docket.

See Appendix D *Regulations Evaluation Summary* for complete details.

Chapter 2.
Actions Implemented

As of August 1, 2021, the following 31 actions have been implemented by the City of Tumwater.

- **Adopt design standards that assist new forms of high-density housing and promote infill.** The City adopted the Citywide Design Guidelines in 2016.
- **Allow accessory dwelling units in all residential zones.** Accessory dwelling units allow for increased density on existing residential lots.
- **Simplify requirements for accessory dwelling units (ex: title notification, owner living on site, etc.).** In cooperation with the cities of Lacey and Olympia, the City has developed pre-approved accessory dwelling unit plans free for residents.
- **Allow group homes in all residential zones and commercial zones that allow residential uses.** Group homes are a source of housing for people with disabilities, seniors, those undergoing treatment for a variety of medical concerns, children in foster care, etc.
- **Establish a multifamily tax exemption (MFTE) program.** The Multifamily Tax Exemption (MFTE) Program is intended to encourage the construction of new, rehabilitated, or converted multifamily housing within designated areas. MFTE is limited to multifamily units with four or more units. Eligible projects typically receive an eight-year tax break or twelve years if the property owner/developer commits to renting or selling at least 20 percent of the units to households with an income at or below 115 percent of the median family income during the same period. Once the period lapses, the owner/developer is free to rent or sell units at market rate. The City adopted the MFTE program for the Brewery District and Capitol Boulevard Corridor for eight- and twelve-year projects in 2017 and expanded the MFTE program to include the Town Center and Littlerock Road Subarea for twelve-year projects in 2020.
- **Make strategic investments in infrastructure expansion to reduce development costs.** The City makes a concerted effort to invest in infrastructure expansion where it makes the most sense, thereby reducing development costs and spurring needed development in the right locations. Although the City makes such strategic investments, new development constructs the majority of infrastructure, affecting the overall cost of housing in that development.
- **Process short plat applications administratively.** Short platting is the division of land into a limited number of lots. Typically, approving land divisions is a legislative function of the City Council. However, state law requires cities to have a short plat process and approve such requests administratively. As of 2021, the City allows administrative approvals of short plats for land divisions of nine or fewer lots, the state's current limit for short platting.
- **Recognize modular/manufactured housing as a viable form of housing construction.** Since 2004, state law has recognized the value manufactured housing has on housing affordability. Cities must treat manufactured housing the same as it does traditionally built housing and must allow mobile and manufactured homes to locate in existing manufactured home parks.

- **Reduce setbacks and increase lot coverage/impervious area standards.** The City has reduced setback standards and high increase lot coverage/impervious area standards in residential zone districts.
- **Relax ground floor retail requirements to allow residential units.** In commercial zones, retail uses are often required on the ground floor for mixed-use developments. The City has never established a requirement for ground floor retail in a mixed-use development.
- **Require minimum residential densities.** The City has required minimum residential densities since the approval of the Growth Management Act.
- **With major comprehensive plan updates, confirm land is suitably zoned for development of all housing types.** The City is required to include a Housing Element in its Comprehensive Plan. The Growth Management Act requires the Housing Element to include information on the types of housing available in the City and to confirm there is enough land available for such uses. As part of these updates, the City confirms whether the land itself is zoned properly to sufficiently allow the types of units envisioned in the community in the quantities necessary to meet housing needs. The City is undertaking a similar exercise now with Thurston County to update the Tumwater / Thurston County Joint Plan for the urban growth areas of the City.
- **Support compact development.** The City's Comprehensive Plan supports compact urban development to reduce urban sprawl and reduce the costs of public services.
- **Support low-income senior housing.** The City provides property tax and utility fee discounts for low income seniors.
- **Process development applications expeditiously**. The City is subject to deadlines under the GMA for processing housing plat applications. In general, these deadlines are being met. In addition, the City uses a hearing examiner for hearings related to larger new development projects and subdivisions, taking the politics out of these decisions and administratively approves final plats, reducing approval time.
- **Support transit oriented development** The City is served by public transit, operated by Intercity Transit. Public transit is an important component of affordable housing because parking requirements can be reduced, reducing construction costs, and income not spent on buying and maintaining vehicles means more of that income is available for housing.
- **Support place making.** According to TRPC's Urban Corridors Task Force (Dec 2011 report), place making is an important element of attracting high-density housing along urban corridors. The City is engaged in extensive place making such as restoration of the Historic Brewhouse and construction of the Deschutes Valley Trail to attract high-density residential development to the Brewery District and along Capitol Blvd.
- **Use design guidelines to manage higher intensity uses**. The City has adopted design guidelines for higher density housing to better integrate new development into existing neighborhoods.
- **Regional Housing Council.** In addition to these actions, the City is also taking advantage of a local revenue-sharing program established by HB 1406, which allows the cities to receive a portion of the State's existing sales and use tax to fund affordable housing programs and services. The cities of Lacey, Olympia, Tumwater, and Yelm and Thurston County pool their resources with guidance from the Regional Housing Council to help pay for housing supportive services.

- **Provide funding for renovating and maintaining existing housing that serves low-income households or residents with disabilities.** The City has implemented this action through funding to nonprofits, CDBG funding, and work through the Regional Housing Council.
- **Offer density bonuses for low-income housing.** The City implemented this action through Ordinance No. O2020-005 Housing Affordability Text Amendments.
- **Rezone manufactured home parks to a manufactured home park zone to promote their preservation.** The City has implemented this action through Ordinance O2008-009, which established the Manufactured Home Park (MHP) zone district in the City.
- **Offer developers density and/or height incentives for desired unit types.** The City implemented this action through Ordinance No. O2020-005 Housing Affordability Text Amendments.
- **Reduce parking requirements for residential uses, including for multifamily developments near frequent transit routes.** The City implemented this action through Ordinance No. O2020-005 Housing Affordability Text Amendments. The City needs to see how things work under Ordinance No. O2020-005 before proposing additional changes.
- **Identify strategically placed but underdeveloped properties and determine what barriers exist to developing desired housing types.** The City has implemented this action in the Brewery District and Capitol Boulevard Corridor, specifically the WSDOT property.
- **Reduce minimum lot sizes.** The City implemented this action through Ordinance No. O2020-005 Housing Affordability Text Amendments.
- **Expand the multifamily tax exemption to make it available in all transit corridors.** The City has implemented this action. Ordinance No. O2017-004 established the multi-family tax exemption program at the City. Resolution No. R2017-002 established the Brewery District and the Capitol Boulevard Corridor as the initial target areas. Following the 2019 Housing Affordability Work Plan Development Fee Amendment 3) *Expand the multifamily tax exemption program to other areas of the City, such as the Town Center, and the Littlerock Road Subarea, and look at expanding the percentage of permanently affordable units that would need to be provided*, Resolution No. R2019-022 expanded the target areas to include the Littlerock Subarea and the Town Center.
- **With major comprehensive plan updates, confirm land is suitably zoned for development of all housing types.** The City has implemented this action as part of every required eight-year GMA Comprehensive Plan update.
- **Increase the types of housing allowed in low-density residential zones (duplexes, triplexes, etc.).** The City implemented this action through Ordinance No. O2020-005 Housing Affordability Text Amendments.
- **Allow more housing types in commercial zones.** The City has implemented this action. The City currently allows residential development in all commercial and mixed-use zone districts.
- **Allow single-room occupancy (SRO) housing in all multifamily zones.** The City has implemented this action. The City currently allows single-room occupancy in all multifamily zone districts.

Chapter 3. Local Actions

Local Actions to be Undertaken by the City

This chapter discusses the specific local actions that the City of Tumwater will be implementing as part of the Housing Action Plan.

The Housing Action Plan identifies six strategies for addressing housing needs in the City:

1. Increase the supply of permanent, income-restricted affordable housing.
2. Make it easier for households to access housing and stay housed.
3. Expand the overall housing supply by making it easier to build all types of housing projects.
4. Increase the variety of housing choices.
5. Continually build on resources, collaboration, and public understanding to improve implementation of housing strategies.
6. Establish a permanent source of funding for low-income housing.

Thirty-nine actions are associated with one of the six strategies in the Housing Action Plan, and each action is associated with filling one or more of the seven gaps identified in the Housing Needs Assessment:

Affordability. Reduce the cost of housing for low-income and cost-burdened households.

Supply. Increase the inventory of housing for all households.

Variety. Increase the variety of housing sizes and types

Seniors. Increase the stock of housing options needed for aging seniors.

Improvements. Maintain the existing housing stock, including improving energy efficiency and air quality.

Stability. Increase household wealth by providing safe, stable options for rental housing and pathways to homeownership.

Supportive Housing. Increase permanent housing options for people with disabilities and those at risk of or experiencing homelessness.

Table of Actions

The table of actions associated with each strategy includes key information to know:

- Gaps or needs addressed by the action (as indicated by the above icons)
- Implementation status for the City, as represented by the following symbols:

The action is pending – the City has begun the work necessary to implement the action, but it is not yet fully implemented.

The action will be considered – the City will consider the work necessary to implement the action, but the work has not been scheduled.

Detailed information on each action is provided in Appendix A *Action Details*. For a complete list of actions considered as part of the development of this plan, see Appendix B *Considered Actions*.

Neither the strategies nor the actions associated with them are in in priority order. Not all actions will be implemented by the City, and actions that can only be taken by other entities are not included in this plan.

Effort to Implement

High – Action would require significant resources to implement (funding, staff, political effort, etc.)

Medium – Action would require moderate resources to implement (funding, staff, political effort, etc.)

Low – Action would require few resources to implement (funding, staff, political effort, etc.)

N/A – Action not applicable to the City

Effect on Housing Supply

High – Action would result in a significant increase in desired housing units

Medium – Action would result in a moderate increase in desired housing units

Low – Action would result in a small increase in desired housing units

N/A – Action not applicable to the City

Strategy 1: Increase the Supply of Permanent, Income-Restricted Affordable Housing.

Strategy 1 includes actions that increase the supply of housing affordable to low-income households (those making 80 or less percent of the area median family income) and actions that support the providers of low-income housing.

Why is this strategy important?

Demand for housing is straining the limited supply of affordable options. For households with the lowest incomes, such as those headed by a retail clerk, a home health aide, or a childcare provider, market rate housing is unlikely to be an affordable option. For these households, even home maintenance costs, let alone rent or mortgage payment costs, can be unaffordable.

How do these actions reduce housing costs?

Increasing opportunities for developing housing affordable to households with the lowest incomes increases housing affordability for these households. The need is great: according to the needs assessment, about 11,700 households in the Cities of Lacey, Olympia, and Tumwater have an income of 50 percent or less of the median family income. Another 7,500 households in the same category are anticipated over the 25 years.

Reducing the cost of renting and owning a home are both part of the solution. For households looking towards homeownership, the up-front costs associated with purchasing a home can put this option out of reach. Low-income households, however, can benefit from the stabilization in housing costs owning a home offers, in general, monthly mortgage payments stay the same over 30 years while monthly rent payments increase.

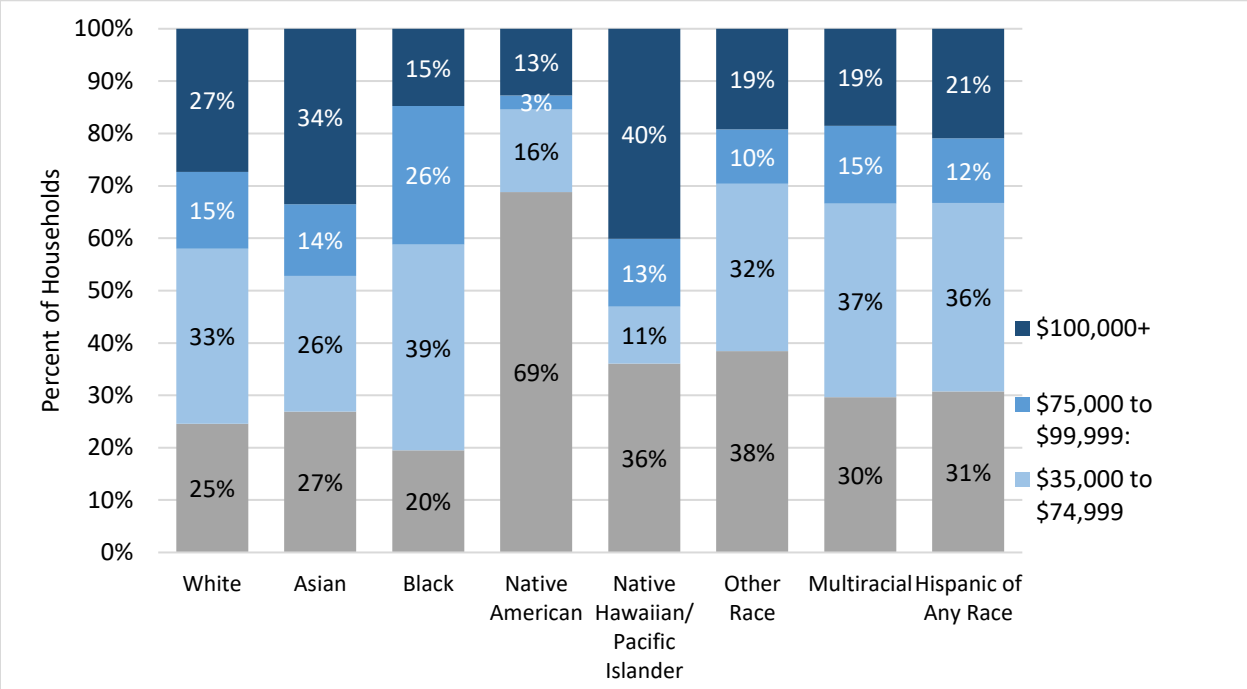
These actions also address the need for permanent supportive housing. For people moving out of emergency housing situations, such as a homeless shelter, permanent supportive housing provides not only affordable housing but also access to health and social services. These services build stability and decrease the likelihood residents experience homelessness again.

How do these actions address equity?

People of color (Figure 1) disproportionately head the lowest income households in Thurston County. The same is true for people experiencing homelessness. Permanent, income restricted housing directly benefits both of these populations by providing affordable, stable housing options. Housing affordable to households with the lowest incomes can be rental or owner units, both of which help stabilize

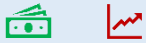
households. Programs that expand homeownership opportunities can significantly improve a household's wealth; this is especially important to addressing inequities for households of color stemming from historical policies like redlining and zoning.

Figure 1. Household income in the Cities of Lacey, Olympia, and Tumwater combined by race and ethnicity, 2014-2018 average.



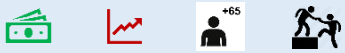
NOTE: *In the figure above, householders who are Latino or Hispanic are only represented in "Hispanic of Any Race."*
Source: U.S. Census Bureau American Community Survey

Table 2. Strategy 1: Increase the supply of permanent, income-restricted affordable housing.

Strategy 1: Increase the supply of permanent, income-restricted affordable housing. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
1.a. Donate or lease surplus or underutilized jurisdiction-owned land to developers that provide low-income housing and establish a process for accepting or coordinating the acceptance of land donations from others this action. *Gaps/Needs Addressed:* 		**M**	**M**	The City will consider the work necessary to implement the action, but the work has not been scheduled. While the City does not have any land to donate for housing that is not already committed to other uses, the City could accept or coordinate the acceptance of land donations from others this action.	• Time for staff to develop and manage a program.
1.b. Where a Planned Unit Development is used for residential development, consider requiring a portion of the housing be low-income housing. *Gaps/Needs Addressed:* 		**H**	**M**	The City will consider the work necessary to implement the action, but the work has not been scheduled.	• Time for staff to review and develop ordinance updating development code. • Time for the Planning Commission to review and the City Council to review and approve an ordinance.

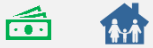
Strategy 1: Increase the supply of permanent, income-restricted affordable housing. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
1.c. Adopt a "Notice of Intent to Sell" ordinance for multifamily developments. *Gaps/Needs Addressed:*		H	L	The City will consider the work necessary to implement the action, but the work has not been scheduled.	• Time for staff to review and develop ordinance updating development code. • Time for the Planning Commission to review and the City Council to review and approve an ordinance.
1.d. Provide funding for the Housing Authority of Thurston County and other non-profit organizations to buy income-restricted units proposed to be converted to market rate housing. *Gaps/Needs Addressed:*		H	M	The City will consider the work necessary to implement the action, but the work has not been scheduled. Could be part of the Regional Housing Council discussions as well.	• Funding through the City Council's biennial budgeting process.

Strategy 1: Increase the supply of permanent, income-restricted affordable housing. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
1.e. As part of Comprehensive Plan and development code changes, include an evaluation of the impact such changes will have on housing affordability, especially for low-income households. *Gaps/Needs Addressed:*		**M**	**L**	The City will consider the work necessary to implement the action, but the work has not been scheduled. It is important to recognize that sometimes impacts are unavoidable when trying to balance multiple priorities, such as implementation of the Thurston Climate Mitigation Plan, Building Code updates, and the Housing Action Plan.	• Additional time for staff to include such reviews during the preparation of amendments to the Comprehensive Plan and the development code.
1.f. Provide funding for low-income and special needs residents to purchase housing through community land trusts. *Gaps/Needs Addressed:*		**H**	**L**	The City will consider the work necessary to implement the action, but the work has not been scheduled. This should be explored on a regional level through the Regional Housing Council, nonprofits, and whether the HATC could do this.	• Funding through the City Council's biennial budgeting process.

Strategy 1: Increase the supply of permanent, income-restricted affordable housing. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
1.g. Offer and/or expand fee waivers for low-income housing developments. *Gaps/Needs Addressed:* 		**H**	**M**	The City has begun the work necessary to implement the action, but it is not yet fully implemented as part of Ordinance No. O2021-001 Housing Affordability Fee Amendments.	• Time for staff to review and develop ordinance updating development code. • Time for the Planning Commission to review and the City Council to review and approve an ordinance.
1.h. Encourage low-income housing units as part of new developments. *Gaps/Needs Addressed:*		**H**	**H**	The City will consider the work necessary to implement the action, but the work has not been scheduled. This could be required if the residential market can support it. As a requirement, there is concern that it could negatively affect new residential developments. This could also consider allowing density bonuses in the Single Family Medium Density Residential (SFM) zone district for permanent low-income housing in the form of triplexes and quads. In a related discussion, the Planning Commission suggested considering removing “single-family” and “multifamily” from residential zone district titles.	• Time for staff to review and develop ordinance updating development code. • Time for the Planning Commission to review and the City Council to review and approve an ordinance.

Strategy 1: Increase the supply of permanent, income-restricted affordable housing. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
1.i. Fund development projects that increase low-income housing through grants or loans. *Gaps/Needs Addressed:* 		**H**	**M**	The City is currently implementing this action through funding to nonprofits, CDBG funding, and work through the Regional Housing Council. Need to document what is done with City of Tumwater funds.	• Time for staff to manage the annual reporting for such projects.

Strategy 1: Increase the supply of permanent, income-restricted affordable housing. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
1.j. Establish a program to preserve and maintain healthy and viable manufactured home parks. *Gaps/Needs Addressed:* 		**M**	**M**	The City will consider the work necessary to implement the action, but the work has not been scheduled. Resolution No. R2018-016 Homelessness and Affordable Housing identified Action 6) *Assess actions for assuring mobile home parks continue to provide affordable housing toward a goal of property ownership by residents* under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this policy. The City has discussed how to get manufactured home parks into a land trust arrangement and inventorying existing manufactured home parks in the City to develop a list of needs.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program. • Time for staff to manage the annual reporting for such projects.

Strategy 1: Increase the supply of permanent, income-restricted affordable housing. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
1.k. Enhance enforcement of property maintenance codes to keep housing in good repair. *Gaps/Needs Addressed:*		**H**	**M**	The City is currently implementing this action and may look at moving beyond the current complaint driven process, to consider periodic inspections of rental property such as mold/vermin inspections. Suggest starting as a voluntary program. Review City of Lacey and City of Aberdeen's programs.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program.
1.l. Partner with low-income housing developers (such as Habitat for Humanity) to expand homeownership opportunities. *Gaps/Needs Addressed:* 		**M**	**M**	The City is currently implementing this action through funding to nonprofits, CDBG funding, and work through the Regional Housing Council.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program.

Strategy 1: Increase the supply of permanent, income-restricted affordable housing. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
1.m. Extend public water and sewer to unserved areas to allow infill development in underdeveloped areas. *Gaps/Needs Addressed:* 		**H**	**M**	The City Council's 2019 Housing Affordability Fee Amendment Work Plan included the item "making infrastructure investment for infill areas needing upgrades." The Comprehensive Plan describes where the City expects, and is trying to direct, growth over the next twenty years. The private sector has traditionally done utility extension and upgrades as areas grow. For infill development, the City could invest to promote development in areas where new housing is desired, but upgrades to infrastructure, such as utilities and sidewalks, would be needed to support it.	• Funding through the City Council's biennial budgeting process. • New funding source will need to be confirmed and may not be from ratepayers. • Time for staff to develop and run such a program. • Amendments to the Comprehensive Plan Lands for Public Purposes and Transportation Elements • Amendments to the priorities of the Capital Facilities Plan

Strategy 2: Make It Easier for Households to Access Housing and Stay Housed.

Strategy 2 actions address housing stability by preventing evictions and displacement and creating opportunities to build financial equity through homeownership.

Why is this important?

Housing stability is an important component of housing affordability. When households face housing insecurity due to income or other issues, there can be a fine line between being housed and being homeless. Evictions and foreclosures are both destabilizing and can lead to long-term poverty. These events also make it more likely a household will experience homelessness.

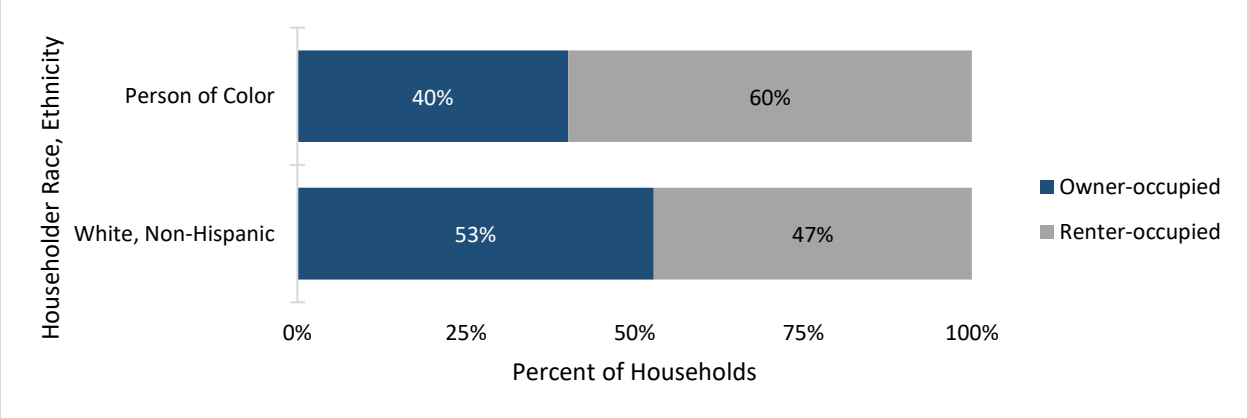
How do these actions reduce housing costs?

For housing service providers, preventing homelessness in the first place is more cost-effective than housing someone experiencing homelessness. Households that can avoid evictions and foreclosures also avoid likely increases in their monthly housing costs, if they are even able to find a new home to live in. For renters, this can also include application fees, deposits, and other costs associated with finding new rental housing.

How do these actions address equity?

People of color are more likely to rent (Figure 2) and more likely to have a lower income than their white, non-Hispanic counterparts. This makes them particularity vulnerable to eviction when rent increases exceed their ability to pay. This concern is reflected in the population experiencing homelessness, which are also disproportionately people of color.

Figure 2. Tenure by race and ethnicity in the Cities of Lacey, Olympia, and Tumwater combined, 2014-2018 average.



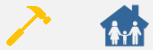
Source: U.S. Census Bureau American Community Survey

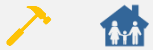
Homeownership is an important way for a household to build financial equity, move people out of poverty, and create generational wealth. Creating these opportunities for people of color, who were historically denied access to mortgages and loans, is particularity important.

Table 3. Strategy 2: Make it easier for households to access housing and stay housed.

Strategy 2: Make it easier for households to access housing and stay housed. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
2.a. Have developers provide tenants displaced by redevelopment with relocation assistance. *Gaps/Needs Addressed:*		**H**	**M**	The City will consider the work necessary to implement the action, but the work has not been scheduled. More details would need to be provided for the action. It may be best implemented through funding to nonprofits, CDBG funding, and work through policies from the Regional Housing Council.	• Funding for displacement assistance from developers. • Funding for running program through the City Council's biennial budgeting process • Time for staff to develop and run such a program.
2.b. Partner with local trade schools to provide renovation and retrofit services for low-income households as part of on-the-job-training. *Gaps/Needs Addressed:*		**M**	**L**	The City will consider the work necessary to implement the action, but the work has not been scheduled. The City would like to see how to get more people into the building trades to help alleviate the labor shortage. Furthermore, the City could ask EDC to focus on helping people who want to start a construction company.	• Funding through the City Council's biennial budgeting process • Time for staff to develop and run such a program.

Strategy 2: Make it easier for households to access housing and stay housed. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
2.c. Adopt short-term rental regulations to minimize impacts on long-term housing availability. *Gaps/Needs Addressed:* 		**H**	**L**	The City will consider the work necessary to implement the action if we start to see a problem, but the work has not been scheduled. Consider requiring on site ownership for accessory dwelling units used as short-term rentals.	• Time for staff to review and develop ordinance updating development code. • Time for the Planning Commission to review and the City Council to review and approve an ordinance. • Time for staff to develop and run such a program.
2.d. Support down payment assistance programs for homeownership and programs that assist people entering the rental market. *Gaps/Needs Addressed:* 		**H**	**M**	The City will consider the work necessary to implement the action if we start to see a problem, but the work has not been scheduled. While it is beyond the financial capacity of the City to manage such programs and it would be better as state or regional programs, the City could support regional programs with non-profit management.	• Time for staff to review and develop ordinance updating development code. • Time for staff to develop and run such a program.

Strategy 2: Make it easier for households to access housing and stay housed. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
2.e. Identify and implement appropriate tenant protections that improve household stability. *Gaps/Needs Addressed:* 		**H**	**M**	The City has begun the work necessary to implement the action, but it is not yet fully implemented as part of Rental Housing Amendments. Resolution No. R2018-016 Homelessness and Affordable Housing identified Action 9) *Enact policies to protect tenants experiencing housing instability* under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this action. Tenant protections can mean putting a burden on small owners, who often are unable to afford to subsidize their rental property. Start this program with larger rental properties.	• Time for staff to review and develop ordinance updating development code. • Time for the Planning Commission to review and the City Council to review and approve an ordinance. • Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program.
2.f. Develop a technical assistance or education program for small landlords. *Gaps/Needs Addressed:* 		**M**	**M**	The City will consider the work necessary to implement the action, but the work has not been scheduled.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program.

Strategy 2: Make it easier for households to access housing and stay housed. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
2.g. Assist non-profits in the process of acquiring mobile home parks to turn them into public trusts so that lot rental fees can be controlled. *Gaps/Needs Addressed:* 		**H**	**M**	The City will consider the work necessary to implement the action, but the work has not been scheduled.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program.
2.h. Fund an energy assistance program for rental housing/make landlords do upgrades when the unit is sold. *Gaps/Needs Addressed:* 		**M**	**L**	The City will consider the work necessary to implement the action, but the work has not been scheduled.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program.

Strategy 3: Expand the Overall Housing Supply by Making It Easier to Build All Types of Housing Projects.

Strategy 3 includes actions that streamline the development and construction of market rate housing, both owner and renter-occupied homes.

Why is this important?

Between 2020 and 2045, the population of the Cities of Lacey, Olympia, and Tumwater and their urban growth areas is projected to increase by over 60,000 people. This growth will require nearly 30,000 new housing units. When demand for housing is high, as it is now, but supply remains low, housing costs increase, reducing affordability. The increase in costs affects both renters, and those looking to buy.

How do these actions reduce housing costs?

The Housing Needs Assessment showed that we would likely see a growth of households in all income categories, from the lowest earning ones to those earning well above the median income. This will require the construction of housing affordable to a wide range of incomes.

Expanding the housing supply also means people can find housing better suited to their needs. For example: high prices for condos and rentals means empty nesters who want to downsize are more likely to stay in their single-family home. A young family looking to buy their first home may continue to rent or pay more than 30 percent of their household income on a mortgage if home sale prices are too high.

How do these actions address equity?

When demand for housing is high but supply remains low, housing costs rise, decreasing affordability. Those with the lowest incomes, who are disproportionately people of color, are most affected. Rising rents are correlated with increased evictions and homelessness.

Rising home prices mean homeownership, a way for disadvantaged households to build equity, becomes more difficult. Increasing costs can also lead to cultural displacement as people move to new neighborhoods that lack the businesses and institutions important to their community. While this process may be voluntary, it can be destabilizing for communities of color. When higher income households, those that can afford to rent or purchase at market rates, find housing that better meets their needs and budgets, more units are freed up that lower income households can afford. Expanding the overall housing stock also slows the rent/housing price increases that disproportionately affect people of color.

Market rate housing alone will not address the needs of the most disadvantaged populations, and pressure to develop market rate housing in communities of color can cause displacement. Strategy 1 includes actions to increase the supply of housing for the lowest-income households while Strategy 2 includes actions to make it easier for households to access housing and stay housed.

Table 4. Strategy 3: Expand the overall housing supply by making it easier to build all types of housing projects.

Strategy 3: Expand the overall housing supply by making it easier to build all types of housing projects. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
3.a. Lower transportation impact fees for multifamily developments near frequent transit service routes. *Gaps/Needs Addressed:*		**H**	**M**	The City has begun the work necessary to implement the action for low-income households, but it is not yet fully implemented as part of Ordinance No. O2021-001 Housing Affordability Fee Amendments. Discuss with Intercity Transit.	• Time for staff to review and develop ordinance updating development code. • Time for the Planning Commission to review and the City Council to review and approve an ordinance.
3.b. Allow deferral of impact fee payments for desired unit types. *Gaps/Needs Addressed:*		**M**	**L**	The City has begun the work necessary to implement the action, but it is not yet fully implemented as part of Ordinance No. O2021-001 Housing Affordability Fee Amendments.	• Time for staff to review and develop ordinance updating development code. • Time for the Planning Commission to review and the City Council to review and approve an ordinance.

Strategy 3: Expand the overall housing supply by making it easier to build all types of housing projects. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
3.c. Maximize use of SEPA threshold exemptions for residential and infill development. *Gaps/Needs Addressed:* 		**H**	**M**	The City has begun the work necessary to implement the action in support the City's affordable housing goals of raising the SEPA categorical exemption thresholds for multifamily residential development from 25 to 60 multifamily residential units to reduce duplicative environmental review. Ordinance No. O2017-008 raised the SEPA exemption level for short plats to the maximum allowed by state law (9 lots) and to 25 for multifamily dwelling units. Ordinance No. O2019-022 raised the SEPA exemption level for multifamily dwelling units to the maximum allowed by state law (60 for multifamily dwelling units). Focus on reviewing SEPA exemptions and planned actions that support residential development in the Brewery District, Capitol Boulevard Corridor, and Town Center.	• Funding through the City Council's biennial budgeting process. • Revise TMC Chapter 15.48 *Transportation Concurrency Requirements* to allow for review of traffic impacts and ensure concurrency. • Time for staff to review and develop ordinance updating development code. • Time for the Planning Commission to review and the City Council to review and approve an ordinance. • Consider reviewing SEPA exemptions that support residential development in the Brewery District, Capitol Boulevard Corridor, and Town Center. • Align with MFTE program.

Strategy 3: Expand the overall housing supply by making it easier to build all types of housing projects. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
3.d. Continue to look for place-making opportunities along urban corridors. *Gaps/Needs Addressed:*		L	L	The City will consider the work necessary to implement the action, but the work has not been scheduled.	• Time for staff to develop and run such a program. • Funding through the City Council's biennial budgeting process.
3.e. Mix market rate and low-income housing to avoid creating areas of concentrated low-income housing. *Gaps/Needs Addressed:*		L	L	The City will consider the work necessary to implement the action, but the work has not been scheduled.	• Time for staff to review and develop ordinance updating development code. • Time for the Planning Commission to review and the City Council to review and approve an ordinance.

Strategy 4: Increase the Variety of Housing Choices.

Strategy 4 actions address way to increase the variety of housing options, including duplexes, triplexes, accessory dwellings, and other housing forms that are not as common in the Cities of Lacey, Olympia, and Tumwater.

Why is this important?

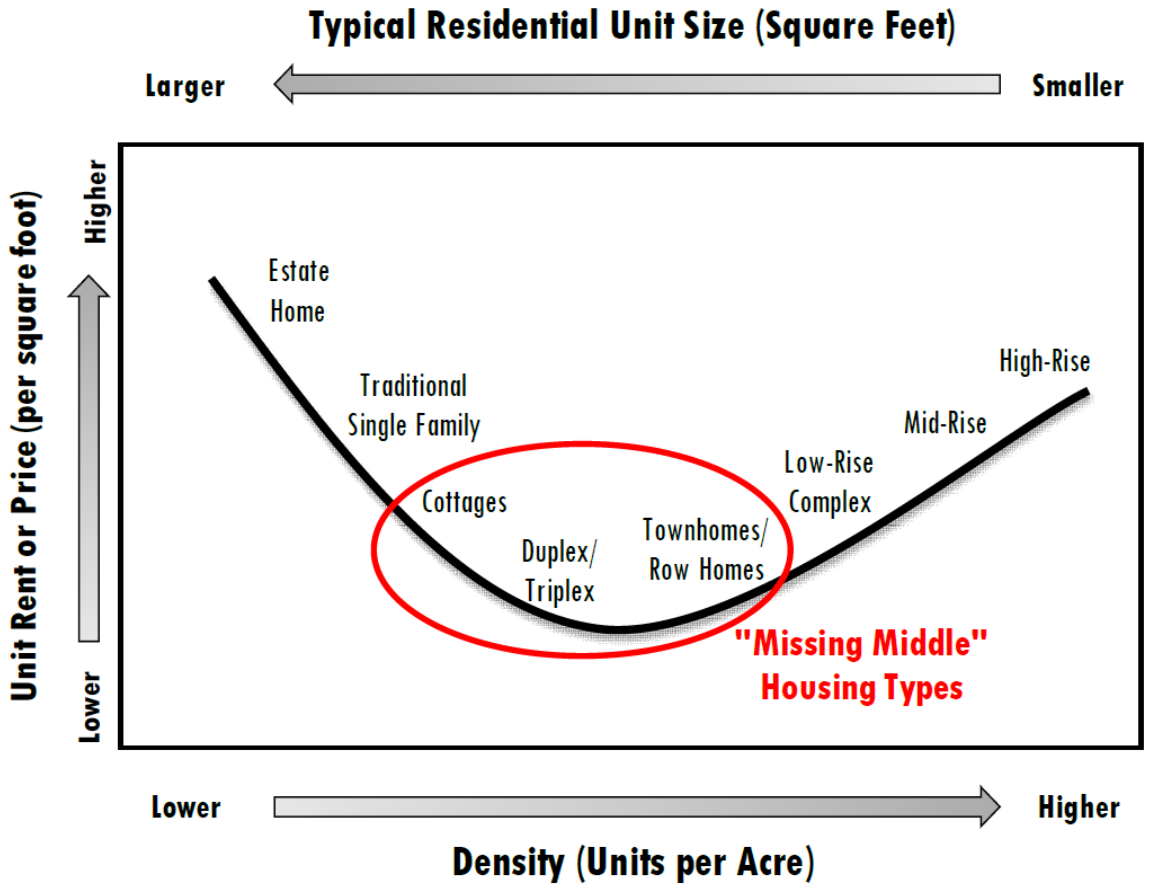
Household sizes in Thurston County have gotten smaller, an average of 2.5 people per household today. There are more single-parent families and householders living alone. As household formation and composition have changed over time, so have their housing needs. Increasing the variety of housing types allows households more choices and creates a dynamic housing market better able to meet the needs of people living in the Cities of Lacey, Olympia, and Tumwater.

How do these actions reduce housing costs?

"Middle density" housing, a small part of the Cities of Lacey, Olympia, and Tumwater's current housing stock, is an important part of an affordable housing strategy. Middle density housing includes small multifamily housing (duplexes and triplexes), attached townhomes, cottage housing, and accessory dwellings. Per unit costs tend to be lower than single-family homes, because the homes are smaller and developers can benefit from economies of scale. Per unit costs are also less than high-density multifamily because they are stick built (they do not require structured parking or other concrete and steel structures) and are typically in neighborhoods with existing infrastructure. This leads to lower costs for both homeowners and renters (Figure 3).

Diversifying the housing stock also recognizes that households are unique and have a wide range of housing needs. This is particularly true as our population ages. Middle density housing provides seniors a way to downsize while remaining in the neighborhoods they love.

Figure 3. Relationship between housing types, price, and rent, household income in the Cities of Lacey, Olympia, and Tumwater combined by race and ethnicity, 2014-2018 average.



Source: Washington State Department of Commerce, Housing Memorandum: Issues Affecting Housing Availability and Affordability (2019), p. 85. https://deptofcommerce.app.box.com/s/npwem3s3rvcsya15nylbroj18e794yk7.

How do these actions address equity?

Increasing the variety of housing options provides more affordable housing options for low-income households, who are disproportionately people of color. Middle density housing can be both rental and owner-occupied. Affordable owner-occupied units would be a potential way to build financial equity.

Middle density housing also expands the housing options available in predominantly single-family neighborhoods, leading to a mix of household incomes. This allows low-income households to access some of the resources, such as better school districts or healthier neighborhoods, available to higher-income households.

Table 5. Strategy 4: Increase the variety of housing choices.

Strategy 4: Increase the variety of housing choices. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
4.a. Adopt a form-based code for mixed-use zones to allow more housing types and protect the integrity of existing residential neighborhoods. *Gaps/Needs Addressed:*		**H**	**M**	The City will consider the work necessary to implement the action, but the work has not been scheduled.	• Funding through the City Council's biennial budgeting process. • Time for staff to review and develop ordinance updating development code. • Time for the Planning Commission to review and the City Council to review and approve an ordinance.
4.b. Strategically allow live/work units in nonresidential zones. *Gaps/Needs Addressed:*		**M**	**L**	The City will consider the work necessary to implement the action, but the work has not been scheduled.	• Funding through the City Council's biennial budgeting process. • Time for staff to review and develop ordinance updating development code. • Time for the Planning Commission to review and the City Council to review and approve an ordinance.

Strategy 5: Continually Build on Resources, Collaboration, and Public Understanding to Improve Implementation of Housing Strategies.

Strategy 5 actions recognize the need for the Cities of Lacey, Olympia, and Tumwater to engage with the community and establish strong partnerships with affordable housing providers to address housing affordability.

Why is this important?

While the City does not build or manage low-income housing, the policies they enact can affect how much housing can be built and at what cost.

How do these actions reduce housing costs?

By establishing partnerships and collaborations with organizations who serve low-income households, the City can ensure that they are directing their resources and enacting policies that best serve low-income households.

For some, changes brought on by growth and new development in their established neighborhoods can be seen as difficult. As a result, residents may support more affordable housing while at the same time seek to prevent actions needed to increase affordable options. By also engaging with the community, the City can build a shared understanding of the challenges faced by low-income households and develop informed consent around the strategies needed to increase housing affordability.

How do these actions address equity?

Building public understanding around the challenges faced by low-income households includes recognizing the historical reasons why they are disproportionately people of color.

The people who typically engage in public review processes, especially land use processes, are often white and of higher income. Developing relationships with organizations that work with or represent communities of color and disadvantaged groups can help the City better:

- Identify who benefits or is burdened by an action.
- Examine potential unintended consequences of taking an action.
- Mitigate unintended negative consequences of taking an action.
- Build in strategies to advance racial equity.

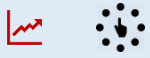
Proactive efforts to ensure engagement in decision-making processes are broadly inclusive and grounded in achieving equity is necessary. With broader input representative of the whole community, decisions are better balanced and actions the City take can be more successfully implemented in an equitable fashion.

Inviting and bringing in people of all walks of life into the community conversation provides the most direct. Collaborating with leaders of disadvantaged populations can help make this happen and ensure government action does not increase inequities faced by people of color.

Table 6. Strategy 5: Continually build on resources, collaboration, and public understanding to improve implementation of housing strategies.

Strategy 5: Continually build on resources, collaboration, and public understanding to improve implementation of housing strategies. **Action**		Implementation Status	Effort to Implement	Effect on Housing Supply	Comment	City Resources Needed
5.a	Conduct education and outreach around city programs that support affordable housing. *Gaps/Needs Addressed:* 		M	M	The City will consider the work necessary to implement the action, but the work has not been scheduled. Need to define clearly the purposes and expected outcomes of such programs. Begin by clearly defining the purposes and expected outcomes of programs and use trained volunteers were possible.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program.
5.b.	Fund Housing Navigators to assist households, renters, homeowners, and landlords with housing issues. *Gaps/Needs Addressed:* 		H	M	The City will consider the work necessary to implement the action, but the work has not been scheduled. It would be good to have an ombudsperson resource for renters established through the Regional Housing Authority or another regional organization. Use trained volunteers were possible.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program.

Strategy 5: Continually build on resources, collaboration, and public understanding to improve implementation of housing strategies. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
5.c. Identify and develop partnerships with organizations that provide or support low-income, workforce, and senior housing as well as other populations with unique housing needs. *Gaps/Needs Addressed:* 		**M**	**M**	The City has begun the work necessary to implement the action through partnerships with low-income housing providers and work through the Regional Housing Council.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program.

Strategy 5: Continually build on resources, collaboration, and public understanding to improve implementation of housing strategies. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
5.d. Establish a rental registration program to improve access to data and share information with landlords. Gaps/Needs Addressed: 		**H**	**L**	The City has begun the work necessary to implement the action, but it is not yet fully implemented as part of Rental Housing Amendments. Resolution No. R2018-016 Homelessness and Affordable Housing identified Action 9) *Enact policies to protect tenants experiencing housing instability* under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this action. This may be best considered as a regional action. A rental registration program will give the City a way to educate landlords about issues.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program.
5.e. Partner with a public or private developer to build a townhouse or row house demonstration project. *Gaps/Needs Addressed:* 		**H**	**L**	The City will consider the work necessary to implement the action, but the work has not been scheduled.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program.

Strategy 5: Continually build on resources, collaboration, and public understanding to improve implementation of housing strategies. **Action**	**Implementation Status**	**Effort to Implement**	**Effect on Housing Supply**	**Comment**	**City Resources Needed**
5.f. Track data on affordable housing at the regional level. *Gaps/Needs Addressed:* 		**L**	**L**	The City will consider the work necessary to implement the action, but the work has not been scheduled.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program.

Strategy 6: Establish a Permanent Source of Funding for Low-Income Housing.

The actions address the need to increase funding for low-income housing and to provide a regional strategy for distributing funds.

Why is this important?

While the private sector will build most of the housing needed to meet demand in the Cities of Lacey, Olympia, and Tumwater, a significant portion of households earn less than 80 percent of the median area income. Paying market rate rents or mortgages may not be affordable for them (Table 7).

Table 7. Maximum rent and housing costs at various income levels, 2020.

HUD Income Limit* for a:	Yearly Income	Hourly Wage (Full Time)**	Monthly Rent or Mortgage Payment
2-Person Family			
Extremely Low Income (30%)	$20,800	$10.00	$500
Very Low Income (50%)	$34,700	$16.70	$900
Low Income (80%)	$55,500	$26.70	$1,400
4-Person Family			
Extremely Low Income (30%)	$26,200	$12.60	$700
Very Low Income (50%)	$43,350	$20.80	$1,100
Low Income (80%)	$69,350	$33.30	$1,700

NOTE: **For 2020, HUD income limits are based on a median family income of $86,700 for Thurston County. Assumes 3.5 percent fixed interest rate over a 30-year mortgage. Costs do not account for other housing-related expenses such as utilities, property taxes, and insurance.*

***Assumes one household member works full time at 40 hours per week.*

Source: Thurston Regional Planning Council

Whether you are a nonprofit or a for-profit developer, there are real costs to consider in making a development project feasible. Table 8 provides an example of the monthly costs associated with developing a 100-unit apartment complex. This example is intended to give readers an idea of the costs associated with multifamily development; actual numbers for a real project will vary based on variety of factors.

Overall, each apartment unit costs $250,000 to develop and includes acquiring land, engineering and architectural fees, environmental review, appraisals, city fees, construction costs, etc. Most developers do not have the cash to develop a project without financing. Some may not have funds for even a down payment to qualify for the development loan. Developers must also consider the ongoing costs once the development is up and running, costs for managing the property, taxes, and insurance, reserving funds for basic and more extensive repairs, etc. Monthly costs per unit could be $1,695 just to cover the

financing and ongoing operating costs; this does not take into account any profit, just the cost to break even on the project and ensure the developer does not lose any money.

If a non-profit developer has the down payment covered through grant funding (about 25 percent of the total project cost), the cost can be reduced to $1,395 per month. If the non-profit developer were able to obtain grant funding for the total cost of development, the developer would still need about $500 per unit per month to cover maintenance and operation costs. For households with extremely low incomes, those making less than $21,000 per year, this is a hard ask.

Table 8. Example of monthly costs associated with developing an apartment complex.

	Per Unit Cost – Not Grant Funded	Per Unit Cost – 25% Grant Funded	Per Unit Cost – 100% Grant Funded
Total Cost of Development *Covers the total cost of development including land acquisition, engineering and architectural fees, environmental reports, appraisals, city fees, construction, etc.*	$250,000	$250,000	$250,000
Monthly Cost for Down Payment Financing *approximately 25% of overall development cost. Assumes 5.8% return on investment.*	$300	$0	$0
Monthly Cost for Loan Payment *approximately 75% of overall development cost. Assumes 4% interest rate.*	$895	$895	$0
Monthly Cost for Ongoing Operating Costs and Reserves* *Covers property taxes and insurance; utilities; landscaping and general maintenance; basic repairs; property management; and maintenance reserves for painting, new roofs, appliance replacements, etc.*	$500	$500	$500
TOTAL Cost per month over 30-year loan term	**$1,695**	**$1,395**	**$500**

**Per the Housing Authority of Thurston County, $500 per unit is likely a modest amount for well-maintained properties*

Note: This example is intended to give readers an idea of the costs associated with development; actual numbers for real project will vary.

Source: Housing Authority of Thurston County

How do these actions reduce housing costs?

Providing affordable housing for the lowest income households and those experiencing homelessness requires significant resources; right now, those resources are scarce, leaving many households unable to afford a decent and affordable place to live that does not have unsafe or unhealthy living conditions. Many of the actions identified in this plan will not be possible without more funding. The Cities of Lacey, Olympia, and Tumwater can play a significant role in leveraging local, state, and federal dollars for low-income housing. The City also recognizes the need to collaborate regionally on a funding strategy so that funds are used efficiently and distributed to the areas of greatest need. With more funding, housing units become more affordable for households, when costs for developing and maintaining units are reduced.

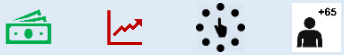
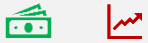
While the City has some capacity to increase funding, Chapter 4 recognizes the need for action at the state and federal level to increase funding for affordable housing.

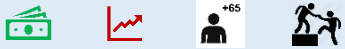
How do these actions address equity?

People of color are disproportionately low-income, at risk of experiencing homelessness, or homeless. However, many of the actions in this plan to address these issues will be impossible to implement without additional funding.

Table 9. Strategy 6: Establish a permanent source of funding for low-income housing.

Strategy 6: Establish a permanent source of funding for low-income housing. Action		Implementation Status	Effort to Implement	Effect on Housing Supply	Comment	City Resources Needed
6.a.	Develop a comprehensive funding strategy for affordable housing that addresses both the sources of funding and how the funds should be spent. *Gaps/Needs Addressed:* 		H	H	The City has begun the work necessary to implement the action, but work is needed through the Regional Housing Council and other regional forums to determine overall allocation goals for shelters, transitional and permanent low income housing. Otherwise, we will continue to spend most of our money on shelters and never build any affordable units. Continue to provide funding for shelters and transitional housing through non-profits.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program.
6.b.	Establish an affordable housing property tax levy to finance affordable housing for very low-income households. *Gaps/Needs Addressed:* 		H	H	The City will consider the work necessary to implement the action, but the work has not been scheduled. The City would need to survey taxpayers and our large property tax generators first. Push to early in schedule.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program. • Requires public vote.

Strategy 6: Establish a permanent source of funding for low-income housing. Action	Implementation Status	Effort to Implement	Effect on Housing Supply	Comment	City Resources Needed
6.c. Establish an affordable housing sales tax. *Gaps/Needs Addressed:* 		H	H	The City will consider the work necessary to implement the action, but the work has not been scheduled. The City would need to survey taxpayers and our big sales tax generators first. Push to early in schedule.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program. • Requires councilmatic or commissionmatic action.
6.d. Capture the value of city investments (utilities, roads, etc.) that increase private investments in neighborhoods, especially in areas with planned or existing transit. *Gaps/Needs Addressed:* 		H	M	The City will consider the work necessary to implement the action, but the work has not been scheduled. We would need to do more research on what this involved or how to do it other than what we already do via latecomer agreements.	• Funding through the City Council's biennial budgeting process. • Time for staff to develop and run such a program.

Strategy 6: Establish a permanent source of funding for low-income housing. Action	Implementation Status	Effort to Implement	Effect on Housing Supply	Comment	City Resources Needed
6.e. Encourage the Housing Authority of Thurston County to take greater advantage of State and Federal housing grants and tax incentives. *Gaps/Needs Addressed:* 		L	M	The City will consider the work necessary to implement the action, but the work has not been scheduled.	• Time for staff to develop and run such a program.

Chapter 4. Legislative Needs

The Housing Action Plan identified a number of barriers to affordable housing that need to be addressed at the state or federal level. Cities that are Tumwater's size are not the best suited to leverage sufficient funding to meet the needs identified in this plan. They need state and federal government relief to fill the gap. Loss of funding at either the state or federal level can have severe impacts at the local level. A joint legislative agenda developed by the Cities of Lacey, Olympia, and Tumwater will be necessary to address these issues.

Many of the actions in this plan require funding, especially actions to create affordable housing for the lowest income households and people moving out of emergency and temporary housing situations. Therefore, an important part of this legislative agenda is the need for funding for the construction and maintenance of low-income housing and permanent supportive housing.

State Legislative Agenda

- Increase funding for low-income housing construction.
- Increase funding for permanent supportive housing for those recently experiencing homelessness and moving out of emergency/transitional housing.
- Increase funding for renovating low-income housing to address accessibility upgrades, energy efficiency retrofits, and indoor health (e.g. lead and mold).
- Reform Washington's condominium liability laws.
- Amend the Manufactured/Mobile Home Landlord-Tenant Act, such as in HB 2610, to provide protections for tenants in the event of a sale.
- Allow tax increment financing.
- Require a portion of the Washington State Housing Trust Fund to be used for affordable homeownership projects.
- Update the multifamily tax exemption program to include projects that support homeownership opportunities.
- Encourage local manufacturing of construction products
- Review how state law regulates homeowner associations about affordable housing issues, such as whether accessory dwelling units are allowed in covenants.

Federal Legislative Agenda

- Reduce tariffs that raise housing construction costs, making it more expensive to build housing.

Example: the cost of softwoods (heavily used in construction) from Canada are up by about 25 percent.

- Increase federal Housing and Urban Development (HUD) funding for affordable housing, including housing vouchers and funding for the Community Development Block Grant (CDBG) program, the Self-Help Homeownership Opportunity Program (SHOP), and the Home Investment Partnerships Program (HOME).
- Increase funding for down payment assistance. This could include providing tax credits for first-time homebuyers with low-income, targeted down payment assistance for disadvantaged populations and communities of color, and increased funding for homeownership savings programs like Assets for Independence and the Family Self-Sufficiency initiative.
- Support the Neighborhood Homes Improvement Act tax credit, which would make it economically feasible to rehabilitate distressed homes for homeownership and expand affordable homeownership opportunities for local residents.

Appendix A. Action Details

This appendix includes a fuller description of what each action included in this plan entails. Where appropriate, the appendix includes applicable information on what the City of Tumwater can do or has done as well as resources with more information. The actions are grouped into their strategy categories:

1. Increase the supply of permanently affordable housing for households that make 80 percent or less of the area median income.
2. Make it easier for households to access housing and stay housed.
3. Expand the overall housing supply by making it easier to build all types of housing projects.
4. Increase the variety of housing choices.
5. Continually build on resources, collaboration, and public understanding to improve implementation of housing strategies.
6. Establish a permanent source of funding for low-income housing.

Strategy 1: Increase the supply of permanent, income-restricts affordable housing.

1.a. Donate or lease surplus or underutilized jurisdiction-owned land to developers that provide low-income housing and establish a process for accepting or coordinating the acceptance of land donations from others this action.

In areas with high land costs, acquiring suitable land can add significant expense to an affordable housing project. Public lands can be donated or leased to affordable housing developers, thereby reducing the cost of development. In this case, affordable housing means housing for households with incomes 80 percent or less of the area median income.

When a jurisdiction does not own land appropriate for housing development, purchasing such land may be an appropriate measure. The land can then be donated or leased to developers that provide low-income housing.

For more information on donating public lands, see RCW 39.33.015.

1.b. Where a Planned Unit Development is used for residential development, require a portion of the housing be low-income housing.

Planned Unit Developments are intended to provide a developer flexibility when designing very large subdivisions. Generally, flexibility is provided in terms of lot size and housing types. Requiring low-income housing as part of low-density Planned Unit Developments can introduce a greater variety of housing of low-density housing types (duplexes, small apartment buildings, cottage housing, etc.) into a new neighborhood and ensure the neighborhood is affordable for a wider range of households. This

may also encourage the private sector to partner with non-profits such as Habitat for Humanity to develop detached single-family homes for low-income households.

Low-density developments are more likely to consist only of detached single-family homes. Requiring Planned Unit Developments for low-density development can encourage more housing types in such developments. Requiring low-income housing in Planned Unit Developments proposals is a type of inclusionary zoning (income-restricted affordable housing must be included as part of new developments).

1.c. Adopt a "Notice of Intent to Sell" ordinance for multifamily developments.

Requiring notice to the city, housing officials, and tenants when the owner of a multifamily development intends to sell gives the city the opportunity to preserve low-income units for the same purpose and tenants ample additional time to prepare for a potential move. Not every multifamily development is appropriate for purchase to preserve affordability, but the notice allows jurisdiction staff the time to consider it. The City may consider developing a list of criteria to determine the types of multifamily developments they want to preserve, including units currently required to be dedicated for use by low-income households, but which may be converted to market-rate units in the future.

Resources

- National Housing Preservation Database. Provides information on developments that have received housing subsidies. As of December 2020, more than 3,000 multifamily units (two or more units in a building) in Thurston County have active subsidies.

1.d. Provide funding for the Housing Authority of Thurston County and other non-profit organizations to buy income-restricted units proposed to be converted to market rate housing.

Income-restricted housing units developed or rehabilitated with federal money may in the future be converted to market-rate units. Partnering with HATC and other nonprofit organizations to purchase such units can help preserve housing options for low-income households.

1.e. As part of comprehensive plan and development code changes, include an evaluation of the impact such changes will have on housing affordability, especially for low-income households.

Changes to comprehensive plans and development codes should include an evaluation of how they would affect the amount of housing, the types of housing allowed, and the cost to permit, construct, and renovate housing. Evaluating the potential for displacement when affordable units are likely to be lost to redevelopment (such as a mobile home park that is redeveloped) is also appropriate. Particular attention should be given to areas of need identified in the Housing Needs Assessment, including low-income and permanent supportive housing, housing for seniors, and improving and retrofitting existing low-income housing.

1.f. Provide funding for low-income and special needs residents to purchase housing through community land trusts.

Community land trusts provide permanently affordable housing opportunities by holding land on behalf of a place-based community. As non-profit organizations, housing land trusts help to make

homeownership both possible and affordable for low-income households. Locally, the Thurston Housing Land Trust serves all of Thurston County.

1.g. Offer and/or expand fee waivers for low-income housing developments.

Impact fees, utility connection fees, project review fees, and other fees increase the cost of housing construction. Reducing or waiving fees for low-income housing developments reduces their development costs and acknowledges that providing low-income housing has a positive impact on a community by:

- Ensuring vulnerable households can afford a home.
- Preventing individuals and families from becoming homeless.
- Reducing the cost of providing social services for households in crisis.

The costs for such offsets must be made up elsewhere. According to the Washington State Department of Commerce, reducing or waiving impact fees are most effective when paired with other housing affordability incentives.

See also Action 3.b.

For more information on fee waivers for low-income housing, see:

- RCW 82.02.060 for exempting impact fees for low-income housing.
- RCW 35.92.380 and RCW 35.92.020 for waiving utility connection and other utility fees for low-income persons.
- RCW 36.70A.540 for waiving or exempting fees for affordable housing.

1.h. Encourage low-income housing units as part of new developments.

Future Thurston County households will have a range of incomes, and a portion of residential development will need to be affordable to low-income households. Encouraging low-income housing units, whether for rent or ownership, helps to ensure such units will be built as part of development. Consideration should be given to the number of low-income units required, how they are integrated with market-rate units, and whether thresholds should be enacted that exempt smaller developments from this requirement. This policy is best implemented in coordination with low-income housing providers. Once housing market has further evolved, consider making this a requirement of new developments. If implemented now, there is a concern that it would discourage residential development.

1.i. Fund development projects that increase low-income housing through grants or loans.

The City can provide funding directly to low-income and permanent supportive housing providers through grants or loans. This recognizes the need for public funding to build low-income housing beyond what market-driven incentives can provide. This action can be best implemented for projects located close to transit and with good access to organizations and agencies that serve low-income households.

1.j. Establish a program to preserve and maintain healthy and viable manufactured home parks.

Manufactured home parks can be prime locations for higher density redevelopment in communities with strong demand for new housing. However, they also serve as one of the most affordable housing options for households in the region. A program that seeks to preserve and maintain healthy and viable manufactured home parks may consider ways to assist:

- Unit owners to purchase the park outright.
- Unit owners to maintain and repair individual manufactured homes.
- Unit owners with funding to replace units that would be better replaced than repaired.
- Unit owners with funding for relocation when a park cannot be preserved.
- Park owners with making service and utility upgrades.
- Park owners with converting from septic to sewered service.

1.k. Enhance enforcement of property maintenance codes to keep housing in good repair.

Property maintenance codes are intended to ensure the health, safety, and welfare of the public is adequately protected. Improved enforcement can help ensure pest infestations, lack of sanitary conditions, presence of mold, and structural issues are addressed in a timely fashion, thereby protecting homeowners, tenants, and the public at large. Enforcing adopted property maintenance codes is difficult due to the time, staffing, and funding needed to identify and address issues as they arise.

This strategy could have a negative impact on low-income households if resources are not also made available to such households (or their landlords) to make required repairs.

1.l. Partner with low-income housing developers (such as Habitat for Humanity) to expand homeownership opportunities.

Affordable homeownership opportunities allow low-income households to build wealth. Local jurisdictions can go beyond their own capabilities to encourage affordable homeownership opportunities by partnering with local housing groups and non-profit developers. This may include providing funding, gifting publicly owned property, supporting grant applications, assisting property owners, and other programs that increase affordable homeownership opportunities. See also Action 1.a.

1.m. Extend public water and sewer to unserved areas to allow infill development in underdeveloped areas.

The Comprehensive Plan describes where the City expects, and is trying to direct, growth over the next twenty years. The private sector has traditionally done utility extension and upgrades as areas grow. For infill development, the City could invest to promote development in areas where new housing is desired, but upgrades to infrastructure, such as utilities and sidewalks, would be needed to support it.

Advantages:

- City could direct improvements where it would like to see development

- Attract private development with public investments - public/private partnerships

Disadvantages:

- Administrative requirements
- Need to refocus Capital Facilities Plan development processes
- Changes existing City investment priorities

Strategy 2: Make It Easier for Households to Access Housing and Stay Housed.

2.a. Provide tenants displaced by redevelopment with relocation assistance.

Displacement can happen for a variety of reasons through no fault of the tenant. As redevelopment becomes a more attractive option than keeping a development as is, households, especially low-income households, can be displaced. Moving costs money, and low-income households may not have the funds available for making a required move. State law authorizes local governments to adopt an ordinance requiring developers to provide displaced tenants with relocation assistance to households that have an income of 50 percent or less of the area median income. Cities and counties can also dedicate public funds or use a combination of public and private funds for relocation assistance. When public action results in tenant displacement, relocation assistance is required.

For more information on relocation assistance, see RCW 59.18.440 (developer action) and RCW 8.26 (public action).

2.b. Partner with local trade schools to provide renovation and retrofit services for low-income households as part of on-the-job-training.

According to a 2019 housing memorandum prepared by PNW Economics, LLC and LDC, Inc. for the Washington State Department of Commerce, the majority of general contracting firms struggle to find skilled tradespeople (Issues Affecting Housing Availability and Affordability, p. 71.) Trade schools, apprenticeship programs, and other professionals that provide repair, retrofit, and renovation services to homeowners can scale up training with the help of homeowners who are in need of services at reduced rates.

This action may require additional assistance to the household to accomplish.

2.c. Adopt short-term rental regulations to minimize impacts on long-term housing availability.

When a property owner rents out an entire living unit on a short-term basis, generally a period less than 30 days, that housing unit cannot be used for the community's long-term housing needs. Regulating short-term rentals can reduce negative impacts to the housing market as well as the neighborhood where the short-term unit is located. While this action is most effective in communities that attract a robust tourism base, establishing regulations/registration for this use ensures the city can track the impact short-term rentals have on long-term rentals.

2.d. Support down payment assistance programs for homeownership and programs that assist people entering the rental market.

Washington State has a number of programs that provide down payment assistance to first time and low-income homebuyers. Establishing a down payment assistance program at the local level can assist more households in the Thurston County community towards the goal of homeownership. Down payment assistance typically takes the form of a low- or no-interest loan to the homebuyer, which can be paid back as part of the mortgage or at the time the mortgage is paid off, the home is sold/transferred to a new owner, or the property is refinanced.

For more information on state down payment assistance programs, see the Washington State Housing Finance Commission.

The City would like to expand this to include supporting programs that assist people in entering the rental market.

2.e. Identify and implement appropriate tenant protections that improve household stability.

Tenant protections help avoid or slow the process of displacement for households by preserving housing units, a household's tenancy, or access to information and assistance. Examples of tenant protections include but are not limited to the following:

- Adopting a just cause eviction ordinance that requires landlords to provide tenants with a legally justifiable reason for the eviction.
- Adopting a preservation ordinance, requiring developers to replace affordable housing units demolished as part of redevelopment.
- Adopting an eviction mitigation ordinance to find ways to end a rental agreement mutually rather than evicting tenants.
- Adopting an opportunity to purchase policy that better involves tenants in the decision-making process when a dwelling unit is to be sold.
- Developing a program to incentivize landlords to accept tenants with poor credit or criminal history.
- Improving enforcement of landlord/tenant laws.
- Increasing a tenant's access to legal assistance for landlord/tenant issues.
- Limiting or regulating fees associated with rental housing applications.
- Requiring landlords to establish payment plans for tenants that get behind on rent.

Each tenant protection has positive and negative aspects that should be reviewed and considered before implementing, and both tenants and landlords should be involved in the review process. For more information on protections offered by the Residential Landlord Tenant Act, see Chapter 59.18 RCW.

2.f. Develop a technical assistance or education program for small landlords.

As shown by the Landlord Survey, a large number of the rental properties in the City are owned and operated by small landlords. To maintain this local ownership and maintain these properties, a technical assistance or education program would be useful for training such landlords in basic maintenance activities and help them to know where to look for support if needed.

2.g. Assist non-profits in the process of acquiring mobile home parks to turn them into public trusts so that lot rental fees can be controlled.

This action would support of Resolution No. R2018-016 Housing Affordability Action #6, "Assess actions for assuring mobile home parks continue to provide affordable housing toward a goal of property ownership by residents." This action would help preserve a large source of existing affordable housing in the future and help to protect residents from dramatic shifts in lot rental fees.

2.h. Fund an energy assistance program for rental housing/make landlords do upgrades when the unit is sold.

This action would support actions in the Thurston Climate Mitigation Plan to reduce energy use in older housing, and support local landlords maintaining their properties without passing the costs to their tenants.

Strategy 3: Expand the Overall Housing Supply by Making It Easier to Build All Types of Housing Projects.

3.a. Lower transportation impact fees for multifamily developments near frequent transit service routes.

Transportation impact fees are one-time charges assessed by a local government against a new development project to help pay for establishing new or improving existing public streets and roads. The streets and roads must be included in a community's Comprehensive Plan. The fee must directly address the increased demand on that road created by the development. For multifamily developments near frequent transit service routes, the idea is that many residents and visitors are able to utilize the public transit system, thereby reducing the impact of the development on public streets and roads.

January 2021 Transportation Impact Fees (rounded to the nearest dollar)

- **Lacey:** $610-$3,989 per dwelling unit. Varies according to unit type with detached single-family dwellings having the highest fees.
- **Olympia:** $728-$3,219 per dwelling unit. Varies according to unit type with detached single-family dwellings having the highest fees.
- **Tumwater:** $497-$3,919 per dwelling unit. Varies according to unit type with detached single-family dwellings having the highest fees. Assisted living facilities have a fee of $439 per bed.

3.b. Allow deferral of impact fee payments for desired unit types.

New development affects existing municipal and community investments, and impact fees are a way to ensure new development pays their fair share. Impact fees may be delayed, but they must be paid before the impact is realized. Delaying payment of such fees allows a developer building desired unit types to spread the costs of a development over a longer period. State law already requires the City to establish a system for deferring impact fee payments for small, single-family residential developments. This action would expand the deferral program to developments with desired unit types.

Desired unit types depend on the neighborhood or policy context and could include defining the type of building (courtyard apartment or manufactured home, for example), the need for income-restricted units, units of a certain size, or units containing a certain number of bedrooms.

See also Action 1.g.

3.c. Maximize use of SEPA threshold exemptions for residential and infill development.

The State Environmental Policy Act (SEPA) review process is intended to ensure government actions have fully taken into consideration the environment before a decision is made. Actions that will likely result in an adverse impact on the environment must go through a more rigorous review (an environmental impact statement or EIS). Some projects are exempt from the SEPA review process because their impact on the environment is generally considered minimal and not adverse, but developments must still meet environmental standards. Single-family and multifamily developments with four or fewer units are automatically exempt from review under SEPA, and state law allows cities to adopt exemptions that are more flexible. The Cities of Lacey, Olympia, and Tumwater may exempt single-family developments with up to 30 units and multifamily developments with up to 60 units from SEPA review.

Table 10. Adopted SEPA Exemptions as of January 2021.

Exemptions	Development Type	
	Single-Family	Multifamily
Allowed per SEPA	30 units	60 units
Lacey	4 units	60 units
Olympia	9 units	No exemption
Tumwater	9 units	60 units

Infill Exemptions

In order to accommodate infill development, the Cities of Lacey, Olympia, and Tumwater may adopt SEPA exemptions for infill development to help fill in urban growth areas.

To qualify for the infill exemption:

- An EIS must already be issued for the comprehensive plan or the city must prepare an EIS that considers the proposal's use or density/intensity in the exempted area.
- The density of the area to be infilled must be roughly equal to or lower than what the adopted comprehensive plan calls for.
- The development must be residential, mixed-use, or non-retail commercial development. Commercial development that exceeds 65,000 square feet does not qualify for the exemption.
- Impacts to the environment from the proposed development must be adequately addressed by existing regulations.

If a city takes action to adopt an infill exemption before April 1, 2023, the city's action cannot be appealed through SEPA or the courts.

Planned Actions

Up front review and analysis of impacts to the environment can help streamline the process for developments. Individual developments projects associated with an adopted plan (subarea plan or master planned development, for example) can be exempted from further SEPA review when a threshold determination or EIS has been issued for the adopted plan. The threshold determination or EIS for the adopted plan must detail the project-level impacts of the proposed development, thereby forgoing the need for review when the specific project applies for permitting. The City did a planned action for the historic brewery complex part of the former brewery property.

For more information, see:

- RCW 43.21C.229 (infill exemptions).
- RCW 43.21C.440 (planned actions).

3.d. Continue to look for place-making opportunities along urban corridors.

In support of actions identified in the Sustainable Thurston Plan and the Thurston Climate Mitigation Plan, this action would help incentivize new residential developments in areas of the City, such as the Brewery District and the Capitol Boulevard Communities where redevelopment is encouraged to meet land use and economic goals and provide more residential development opportunities.

3.e. Mix market rate and low-income housing to avoid creating areas of concentrated low-income housing.

The action would ensure that not only market rate and low-income housing is created in the City, but residents of both would be able to intermix and create more opportunities for all economic classes.

Strategy 4: Increase the Variety of Housing Choices.

4.a. Adopt a form-based code for mixed-use zones to allow more housing types and protect the integrity of existing residential neighborhoods.

A form-based code uses the physical form and design of the public realm (building façade and streetscape) as the framework for regulation rather than the need to separate uses. Because of this, form-based codes are most useful in mixed-use zones where the widest variety of uses are already allowed and encouraged. Form-based codes are also useful when the goal is to protect an existing neighborhood character or where developing a cohesive character is desired.

4.b. Strategically allow live/work units in nonresidential zones.

A live/work unit is a single dwelling unit consisting of both a commercial/office space and a residential component that is occupied by the same resident who has the unit as their primary dwelling. The intent is to provide both affordable living and business space for a resident/business owner. The configuration of the live/work unit can vary:

- Live-within. The workplace and living space completely overlap.

- Live-above. The workplace is below the living space with complete separation between the two.
- Live-behind. The workplace is in front of the living space with complete separation between the two possible.
- Live-in-front. The workplace is behind the living space (typically a single-family dwelling) with some overlap between the two possible.

Although home occupations are a type of live/work unit, the emphasis here is on a more intensive nonresidential component (size, traffic generation, employees on site, etc.) that may not be appropriate to classify as a home occupation. Live/work units may also be appropriate in residential zones. In either case, cities will need to conduct additional analysis to determine the locations and types of uses appropriate for live/work units.

Strategy 5: Continually Build on Resources, Collaboration, and Public Understanding to Improve Implementation of Housing Strategies.

5.a. Conduct education and outreach around city programs that support affordable housing.

Providing the public and developers information about affordable housing programs can help households in need find assistance and developers identify resources for building desired unit types. Desired unit types depend on the neighborhood or policy context and could include defining the type of building (triplex or single-room occupancy building, for example), the need for income-restricted units, units of a certain size, or units containing a certain number of bedrooms. Education and outreach can also invite community dialogue on the need for diverse housing options in the community.

5.b. Fund Housing Navigators to assist households, renters, homeowners, and landlords with housing issues.

Housing issues are complex, and so are the resources available to households and landlords. When problems arise or a party needs to find information, having a designated resource to navigate issues and identify resources (development funding, tax assistance, housing opportunities, legal aid, weatherization programs, etc.) gives people more tools to reach their goals.

5.c. Identify and develop partnerships with organizations that provide or support low-income, workforce, and senior housing as well as other populations with unique housing needs.

Both for-profit and non-profit agencies provide or support low-income, workforce, and senior households. They often have expertise to deliver programs and housing the Cities of Lacey, Olympia, and Tumwater do not have as well as access to funding streams unavailable to the cities. Identifying shared vision and goals can help each organization to leverage funding and improve household access to assistance.

5.d. Establish a rental registration program to improve access to data and share information with landlords.

Understanding how many dwelling units are being rented, the types of units being rented, and the cost of rent is important information needed to understand the impacts on landlords and tenants of many of the actions in this plan. It also provides the Cities of Lacey, Olympia, and Tumwater with an easy way to

reach out to landlords and tenants, who are both important stakeholders when enacting many of the actions in this plan. This action is particularly suited to being implemented at the regional level and may be appropriate for the cities to develop through the Regional Housing Council. Doing so would ensure the same data is collected across the jurisdictions effectively and economically.

5.e. Partner with a public or private developer to build a townhouse or a row house demonstration project.

The action would encourage townhouse or row house development in the City.

5.f. Track data on affordable housing at the regional level.

In order to understand if the actions in this Plan are working, regional housing data needs to be collected annually. The Regional Housing Needs Assessment and Housing Gap Analysis were valuable tools in the development of this Plan and maintaining an annual collection of data would be very useful.

Strategy 6: Establish a Permanent Source of Funding for Low-Income Housing.

6.a. Develop a comprehensive funding strategy for affordable housing that addresses both the sources of funding and how the funds should be spent.

Without a comprehensive funding strategy, it will be difficult to ensure dollars earmarked for developing affordable housing in the community are used to their full effect and meet the greatest need. A comprehensive funding strategy takes into consideration how the funds can be used, whether they can be leveraged to obtain other funding (grants, loans, etc.), and the types of projects the funding can support. This action is particularly suited to being implemented at the regional level and may be appropriate for the cities to develop through the Regional Housing Council.

6.b. Establish an affordable housing property tax levy to finance affordable housing for very low-income households.

The Cities of Lacey, Olympia, and Tumwater may impose a property tax levy up to $0.50 per $1,000 of a property's assessed value to fund affordable housing. The levy must be used for low-income households.

The levy, which lasts for up to 10 years, can only be enacted if:

- The city declares an emergency exists concerning the availability of affordable housing for households served by the levy.
- A majority of voters approve it.
- The city adopts a financial plan for spending the money.

If a property tax levy were enacted at the maximum rate of $0.50 per $1,000 of assessed value, homeowners can expect their property taxes to go up. This amounts to $175 per year for a home valued at $350,000 (Table 11). Households that rent can expect their monthly rent to increase on average between $6.71 and $11.91 each month, depending on the type of unit rented.

Table 11. Additional costs to households with a $0.50 per $1,000 property tax levy.

Owner-Occupied*		Renter-Occupied	
Assessed Value	**Additional Property Taxes (annual)**	**Building Size**	**Additional Monthly Rent (average) per unit**
$350,000	$175	Single-Family Dwelling	$11.91
$450,000	$225	Duplex, Triplex, and Fourplex units	$9.04
$550,000	$275	5+ Unit Apartments	$6.71

Note: Rates for owners only apply to detached single-family homes. Costs, which are rounded, are based on the 2017 total assessed value of all taxable non-exempt properties and are adjusted for inflation to 2020 dollars.

Source: Thurston County Assessor.

Thurston County also has the ability to establish a property tax levy. If both cities and Thurston County impose the levy, the last jurisdiction to receive voter approval for the levies must be reduced or eliminated so that the combined rate does not exceed the $0.50 per $1,000 of assessed property value.

If the Cities of Lacey, Olympia, and Tumwater each enact the levy, nearly $9.7 million could be collected for affordable housing in 2021 (Table 12). If the tax levy were adopted countywide, more than $30 million would be available to serve low-income households in 2021. This includes developing new housing, enabling affordable homeownership, and making home repairs.

Table 12. Potential affordable housing funding from maximum property tax levy.

Jurisdiction	2020 Assessed Property Values	Potential Affordable Housing Funds
Lacey	$7.4 billion	$3.7 million
Olympia	$8.2 billion	$4.1 million
Tumwater	$3.9 billion	$1.9 million
TOTAL (cities only)	**$19.5 billion**	**$9.7 million**
TOTAL (Countywide)	**$31.5 billion**	**$31.5 million**

Note: Values, which are rounded, are based on the 2020 total assessed value of taxable non-exempt properties. Potential affordable housing funds are based on the total assessment of all properties combined.

Source: Thurston County Assessor.

Property Tax Levies

- **Lacey:** has not established a property tax levy.

- **Olympia:** has not established a property tax levy.
- **Tumwater:** has not established a property tax levy.
- **Thurston County:** has not established a property tax levy.

For more information, see RCW 84.52.105.

6.c. Establish an affordable housing sales tax.

Beginning in 2020, cities may establish a 0.1 percent affordable housing sales tax by legislative authority or by voter approval. At least 60 percent of the revenue must be used for one or more of the following:

- Constructing affordable housing (new construction or retrofitting an existing building).
- Constructing facilities providing housing-related services.
- Constructing mental and behavioral health-related facilities.
- Funding the operations and maintenance costs of the three projects above.

Thurston County can also establish the affordable housing sales tax. If it does so before the Cities of Lacey, Olympia, and Tumwater, the cities will not be able to establish their own funds. If the cities and Thurston County impose the sales tax, the County must provide a credit to the cities for the amount they would have collected. If the Cities of Lacey, Olympia, and Tumwater had been able to enact an affordable housing sales tax in 2019, nearly $5 million would be available to serve low-income households (Table 13).

For more information, see RCW 82.14.530.

Table 13. Potential affordable housing funding from maximum affordable housing sales tax in 2019.

Jurisdiction	2019 Taxable Retail Sales	Potential Affordable Housing Funds
Lacey	$1.5 billion	$1.5 million
Olympia	$2.4 billion	$2.4 million
Tumwater	$0.9 billion	$0.9 million
TOTAL (cities only)	**$4.8 billion**	**$4.8 million**
TOTAL (countywide)	**$6.2 billion**	**$6.2 million**

Note: Taxable retail sales are rounded.

Source: Washington State Department of Revenue, Taxable Retail Sales.

Affordable Housing Sales Tax

- **Lacey:** has not established an affordable housing sales tax.

- **Olympia:** established an affordable housing sales tax in 2018, referred to as the "Home Fund." Approximately 65 percent of funds are dedicated to construction projects and 35 percent to housing program operations. Must be re-authorized by voters in 2028.
- **Tumwater:** has not established a sales tax.
- **Thurston County:** has not established an affordable housing sales tax.

6.d. Capture the value of city investments (utilities, roads, etc.) that increase private investments in neighborhoods, especially in areas with planned or existing transit.

Value capture is a type of public financing that recovers some or the entire value public infrastructure generates for private landowners. When roads are improved, water and sewer lines extended, or new parks or public amenities developed, property values tend to increase. Value capture is best planned for from the outset of a project and it can include developer contributions and special taxes and fees.

6.e. Encourage the Housing Authority of Thurston County to take greater advantage of State and Federal housing grants and tax incentives.

The Housing Authority of Thurston County is the primary source of low-income housing in community. Being able to take greater advantage of all federal and state housing grants and incentives would help support the production of more affordable housing.

Appendix B. Considered Actions

In developing this plan, many actions were considered, though not all were included. This appendix provides a full list of the actions considered in the plan's development. Where appropriate, explanations for why an action was excluded are included. Actions were developed and refined over six months and the wording may not match previous versions.

Table 14. Actions considered but not included in the Housing Action Plan.

Action Status (Plan Reference)	Action	Explanation for Exclusion
Included (1.a)	Donate or lease surplus or underutilized jurisdiction-owned land to developers that provide low-income housing.	Not excluded, included.
Excluded	Create shovel-ready housing developments that can be handed off to a developer to construct.	Action is out of scale with what our region can reasonably accomplish. Cities do not have the budgets or expertise to perform this action.
Excluded	Purchase property with the intent to donate or lease to developers that provide income-restricted affordable housing.	Combined with Action 1.a.
Implemented	Offer developers density and/or height incentives for desired unit types.	Not excluded, implemented.
Included (1.b)	Where a Planned Unit Development is used for residential development, require a portion of the housing be low-income housing.	Not excluded, included.
Excluded	Make regulations and permit processing more predictable, to remove some uncertainty for both builders and lenders.	Action not specific enough. Other actions more specifically address the need to improve predictability of regulations and permit processing.

Action Status (Plan Reference)	Action	Explanation for Exclusion
Excluded	Allow third-party review and approval of development projects (anytime OR when cities are backlogged).	Note included for implementation by the City, as there are concerns about the partiality of third-party reviewers. The City would rather intergovernmental agreement where we can share development review staff when things slowdown in one jurisdiction.
Excluded	Allow third-party review of building permits for development projects.	Note included for implementation by the City, as there are concerns about the partiality of third-party reviewers. The City would rather intergovernmental agreement where we can share development review staff when things slowdown in one jurisdiction.
Excluded	Adopt a single development code for The Cities of Lacey, Olympia, Tumwater, and their urban growth areas to make regulations and permit processing more predictable.	Each community has a different identity with a desire for different standards.
Excluded	Waive reviews for energy code compliance when a project receives a green building certification.	It does not appear that a green building certification actually makes housing more affordable versus complying with energy code. In the right market conditions, may be an incentive to buy.
Excluded	Require shot clocks for permit processing.	State law already requires timelines for review, and the City is able to accomplish their reviews in a timely manner.
Included (1.c)	Adopt a “Notice of Intent to Sell” ordinance for multifamily developments.	Not excluded, included.
Included (1.d)	Provide funding for the Housing Authority of Thurston County and other non-profit organizations to income-restricted units proposed to be converted to market rate housing.	Not excluded, included.
Included (2.a)	Provide tenants displaced by redevelopment with relocation assistance.	Not excluded, included.
Implemented	With major comprehensive plan updates, confirm land is suitably zoned for development of all housing types.	Not excluded, implemented.

Action Status (Plan Reference)	Action	Explanation for Exclusion
Excluded	On a regular basis, hold a series of community meetings to discuss how housing and zoning regulations affect equity goals.	See Action 5.a.
Implemented	Increase the types of housing allowed in low-density residential zones (duplexes, triplexes, etc.).	Not excluded, implemented.
Excluded	Allow more housing types in commercial and industrial zones.	Creates inappropriate conflicts between uses.
Implemented	Allow more housing types in commercial zones.	Not excluded, implemented.
Included (4.a)	Adopt a form-based code for mixed-use zones to allow more housing types and protect the integrity of existing residential neighborhoods.	Not excluded, included.
Excluded	Develop a plan for adapting vacant commercial space into housing.	Action not implemented by the City, as it may raise questions about a gift of public funds. Every property is unique. If the there is a problem property, the City can focus resources on it. The City may want to consider a checklist of issues to address in such situations
Excluded	Expand allowance of residential tenant improvements without triggering land use requirements.	City had concerns about life and safety issues regarding this action and recommended that the action not be implemented.
Excluded	Prior to finalizing a draft for public review, vet comprehensive plans and development code changes with the development community to ensure desired housing types and locations are supported by market conditions.	See Action 1.e.

Action Status (Plan Reference)	Action	Explanation for Exclusion
Included (1.e)	As part of comprehensive plan and development code changes, include an evaluation of the impact such changes will have on housing affordability, especially for low-income households.	Not excluded, included.
Implemented	Recognize modular/manufactured housing as a viable form of housing construction.	Not excluded, implemented.
Excluded	Provide for a dynamic mix of residential land uses and zones in order to create a diverse mix of sites available for different housing types.	This action is already implemented.
Implemented	Simplify requirements for accessory dwelling units (ex: title notification, owner living on site, etc.).	Not excluded, implemented.
Implemented	Allow accessory dwelling units in all residential zones.	Not excluded, implemented.
Excluded	Allow accessory dwelling units in commercial zones.	Not an issue that has ever been raised to staff; need to focus on actions that have real and lasting impacts.
Implemented	Reduce parking requirements for residential uses, including for multifamily developments near frequent transit routes.	Not excluded, implemented.
Implemented	Identify strategically placed but underdeveloped properties and determine what barriers exist to developing desired housing types.	Not excluded, implemented.
Implemented	Identify strategically placed properties where up zoning is appropriate.	Not excluded, implemented.
Implemented	Require minimum residential densities.	Not excluded.
Excluded	Increase minimum residential densities.	The City already has reasonable minimum residential densities.

Action Status (Plan Reference)	Action	Explanation for Exclusion
Implemented	Reduce minimum lot sizes.	Not excluded, implemented.
Excluded	Support and plan for assisted housing opportunities using federal, state, or local aid.	Action not clear/specific enough
Excluded	Support diverse housing alternatives and ways for older adults and people with disabilities to remain in their homes and community, as their housing needs change.	Action not specific enough. Other actions more specifically address the need to support diverse housing alternatives for seniors.
Excluded	Retain existing subsidized housing.	None of the cities has subsidized units at this time, so it is not an action they would pursue. Other actions can support other entities in retaining existing subsidized housing.
Excluded	Encourage new housing on transportation arterials and in areas near public transportation hubs.	Action not specific enough. See Actions 3.a for actions that more specifically address the issue of housing near transportation facilities.
Included (3.a)	Lower transportation impact fees for multifamily developments near frequent transit service routes.	Not excluded, included.
Implemented	Reduce parking requirements for multifamily developments near frequent transit routes.	Not excluded, implemented.
Implemented	Allow group homes in all residential zones and commercial zones that allow residential uses.	Not excluded, implemented.
Excluded	Limit the density of group homes in residential areas to prevent concentration of such housing in any one area.	May create a hindrance to ensuring there are enough housing opportunities for seniors. There are nearly 150 adult family homes in Thurston County now; their concentration in any one area is not known to be an issue.

Action Status (Plan Reference)	Action	Explanation for Exclusion
Implemented	Provide funding for renovating and maintaining existing housing that serves low-income households or residents with disabilities.	Not excluded, implemented.
Excluded	Support programs to improve energy efficiency, health conditions and public recognition of improvements in low-income rental housing	Statewide need - not just a local need.
Excluded	Fund programs that improve the energy efficiency and health conditions in low-income rental housing.	Statewide need - not just a local need.
Excluded	Encourage self-help housing efforts and promote programs in which people gain home equity in exchange for work performed in renovation or construction.	Action not specific enough. See Action 1.l.
Included (1.l)	Partner with local trade schools to provide renovation and retrofit services for low-income households as part of on-the-job-training.	Not excluded, included.
Excluded	Establish a manufactured home park zone to promote their preservation.	Already in place in the City.
Implemented	Rezone manufactured home parks to a manufactured home park zone to promote their preservation.	Not excluded, implemented.
Excluded	Allow manufactured home parks in multifamily and commercial areas.	The City has enacted Ordinance No. O2008-009, which established the Manufactured Home Park (MHP) zone district in the City as the means to address this action and manufactured home parks are an inefficient use of land in multifamily and commercial zone districts.
Included (1.f)	Provide funding for low-income and special needs residents to purchase housing through community land trusts.	Not excluded, included.
Excluded	Fund programs that prevent homelessness for persons returning to the community from institutional or other sheltered settings (including foster care).	Action better suited to the Thurston County Homeless Response Plan.

Action Status (Plan Reference)	Action	Explanation for Exclusion
Excluded	Fund self-sufficiency and transitional housing programs that help break the cycle of homelessness.	Deals with a temporary/emergency housing situation better addressed through the Regional Housing Council and other, more targeted efforts to address homelessness.
Excluded	Provide funding to the Regional Housing Council for temporary emergency housing programs.	Deals with a temporary/emergency housing situation better addressed through the Regional Housing Council and other, more targeted efforts to address homelessness.
Implemented	Adopt design standards that assist new forms or high-density housing and promote infill.	Not excluded, implemented.
Implemented	Allow single-room occupancy (SRO) housing in all multifamily zones.	Not excluded, implemented.
Included (4.b)	Strategically allow live/work units in nonresidential zones.	Not excluded, included.
Excluded	Promote Planned Unit Developments and cluster subdivisions.	See Action 1.b.
Implemented	Establish a multifamily tax exemption.	Not excluded, implemented.
Included (6.a)	Develop a comprehensive funding strategy for affordable housing that addresses both sources of funding and how the funds should be spent.	Not excluded, included.
Excluded	On a regular basis, evaluate the effectiveness of how the multifamily tax exemption is being used to further affordable housing goals.	Required by state law that an annual review be done for multifamily tax exemption projects.
Included (6.b)	Establish an affordable housing property tax levy to finance affordable housing for very low-income households.	Not excluded, included.
Included (6.c)	Establish an affordable housing sales tax.	Not excluded, included.
Implemented	Expand the multifamily tax exemption to make it available in all transit corridors.	Not excluded, implemented.

Action Status (Plan Reference)	Action	Explanation for Exclusion
Implemented	Offer density bonuses for low-income housing.	Not excluded, implemented.
Excluded	Require developers to provide income-restricted units as part of low-density developments.	The Thurston Region does not have the market to implement this action. Requires a market evaluation before implementing.
Excluded	Require property owners to provide an affordable housing fee when building homes over a certain size.	The Thurston Region does not have the market to implement this action. Requires a market evaluation before implementing.
Excluded	Establish alternative development standards for affordable housing. (standards in the zoning code to support affordable housing)	Action not specific enough.
Excluded	Define income-restricted housing as a different use from other forms of housing in the zoning code.	The City considered this action as part of Ordinance No. O2020-005 Housing Affordability Text Amendments discussions, but determined that defining income-restricted housing as a different use in Title 18 Zoning created more potential complications and restrictions on the use.
Included (1.g)	Offer and/or expand fee waivers for low-income housing developments.	Not excluded, included.
Excluded	Expand fee waivers for affordable housing developments.	Combined w/ Action 1.g.
Included (3.b)	Allow deferral of impact fee payments for desired unit types.	Not excluded, included.
Included (1.h)	Require low-income housing units as part of new developments.	Not excluded, included.
Included (1.i)	Fund development projects that increase low-income housing through grants or loans.	Not excluded, included.
Excluded	Establish a regional housing trust fund to provide dedicated funding for affordable housing.	This should be what the Thurston Housing Authority does. The City should not create another entity.

Action Status (Plan Reference)	Action	Explanation for Exclusion
Excluded	Establish a local housing trust fund to provide dedicated funding for low-income housing.	Coordination at the regional scale will have more of an impact than developing individual plans.
Excluded	Create partnerships with local housing groups to increase affordable housing options for seniors and other populations with unique needs.	Combined w/ Action 5.c.
Implemented	Make strategic investments in infrastructure expansion to reduce development costs.	Not excluded, implemented.
Excluded	Simplify land use designation maps in the comprehensive plan to help streamline the permitting process.	The City currently has six residential zone district and allows residential development in all other zone districts, except for industrial zone districts. This has not been raised as an issue by residential developers in the City.
Excluded	Inventory housing units dedicated for seniors, low-income households, and ADA-accessible units.	Data should support the actions that result in change.
Excluded	Inventory substandard housing units (units with poor energy efficiency, indoor air quality/mold issues, etc.).	Data should support the actions that result in change.
Included (5.d)	Establish a rental registration program to improve access to data and share information with landlords.	Not excluded, included.
Excluded	Require the owners of rental properties to obtain a business license.	Data should support the actions that result in change.
Excluded	On a regular basis, inventory rental housing.	Data should support the actions that result in change.
Excluded	Integrate or adjust floor area ratio standards.	The City uses floor area ratios in a very limited way for residential uses in the Capitol Boulevard Corridor – North Trosper District for mixed-use commercial and residential developments.
Implemented	Relax ground floor retail requirements to allow residential units.	Not excluded, implemented.
Implemented	Reduce setbacks and increase lot coverage/impervious area standards.	Not excluded, implemented.

Action Status (Plan Reference)	Action	Explanation for Exclusion
Excluded	Maximize SEPA threshold exemptions for single-family and multifamily development proposals.	See Action 3.c.
Included (3.c)	Maximize use of SEPA threshold exemptions for residential and infill development.	Not excluded, included.
Excluded	Utilize SEPA exemptions to encourage infill development in urban growth areas	See Action 3.c.
Excluded	Create subarea plans with non-project environmental impact statements.	See Action 3.c.
Excluded	Develop SEPA-authorized "planned actions" to streamline permitting process in designated areas.	See Action 3.c.
Excluded	Consult with Washington State Department of Transportation as part of the SEPA review process to reduce appeals based on impacts to the transportation element for residential, multifamily, or mixed-use projects.	This has not been an issue for the City.
Implemented	Process short plat applications administratively.	Not excluded, implemented.
Excluded	Process preliminary long plat applications that meet specific requirements administratively.	Can implement this but if even one person requests a public hearing, a public hearing must be held. May not be worth implementing if a public hearing is always anticipated and it has different noticing requirements from the norm (administrative headaches).
Excluded	Market available housing incentives.	See Action 5.a.
Excluded	Establish a foreclosure intervention counseling program.	Already existing programs that fill this need.
Included (1.j)	Establish a program to preserve and maintain healthy and viable manufactured home parks.	Not excluded, included.

Action Status (Plan Reference)	Action	Explanation for Exclusion
Excluded	Require developers to provide relocation assistance when a manufactured home park cannot be preserved.	No seen as an issue in the City.
Excluded	Help residents convert manufactured home parks into cooperatives.	See Action #63
Excluded	Adopt a just cause eviction ordinance.	See Action 2.e.
Excluded	Adopt a “right to return” policy for tenants if displaced by redevelopment.	Planning Commission and City Council decided that the action should not be implemented by the City, because this would involve the City too much in market decisions.
Included (2.c)	Adopt short-term rental regulations to minimize impacts on long-term housing availability.	Not excluded, included.
Included (2.d)	Establish a down payment assistance program.	Not excluded, included.
Excluded	Establish a property tax assistance program for low-income homeowners.	This may not be in the cities’ purview.
Excluded	Establish a property tax assistance program for homeowners with disabilities.	This may not be in the cities’ purview.
Excluded	Require an impact analysis for new housing and land use proposals.	This action will lead to an increase in housing costs. Transportation impact analyses are already required where needed.
Excluded	Require subsidized housing be integrated with unsubsidized housing.	See Action 1.h.
Excluded	Develop and implement an education and outreach plan for affordable housing options	See Action 5.a.
Included (5.a)	Conduct education and outreach around city programs that support affordable housing.	Not excluded, included.

Action Status (Plan Reference)	Action	Explanation for Exclusion
Included (5.b)	Fund Housing Navigators to assist households, renters, homeowners, and landlords with housing issues.	Not excluded, included.
Excluded	Review and, if necessary, update property maintenance codes (including standards for mold/moisture) to keep housing in good repair.	Enforcement of property maintenance codes is really the issue.
Included (1.k.)	Enhance enforcement of property maintenance codes to keep housing in good repair.	Not excluded, included.
Excluded	Co-locate emergency, transitional, and permanent affordable housing.	This is an action taken by the developer; may not be appropriate for the city to require.
Excluded	Working through the Regional Housing Council, identify appropriate locations for emergency housing within each jurisdiction.	This action deals with a temporary/emergency housing situation better addressed through the Regional Housing Council and other, more targeted efforts to address homelessness.
Included (5.c)	Identify and develop partnerships with organizations that provide or support for low-income, workforce, and senior housing as well as other populations with unique housing needs.	Not excluded, included.
Excluded	Look at options for creating workforce housing.	Action is not specific enough. Need to define what exactly should the cities be doing.
Implemented	Explore creating dormitory-style housing, similar to what colleges have, with common bathrooms and communal kitchens for transitional housing.	Not excluded, implemented.
Implemented	Identify underutilized properties ripe for redevelopment.	Not excluded, implemented.
Excluded	Review the recommendations in the Urban Corridors Task Force Report (TRPC, 2012).	Data should support the actions that result in change.
Excluded	Adopt a preservation ordinance.	Combined with Action 2.e.

Action Status (Plan Reference)	Action	Explanation for Exclusion
Included (1.1)	Partner with low-income housing developers (such as Habitat for Humanity) to expand homeownership opportunities.	Not excluded, included.
Excluded	Identify and remove code and fee impediments/disincentives to affordable housing.	Like equity, need to review all actions through an affordable housing lens. See Action 1.e.
Included (6.d)	Use value capture to generate and reinvest in neighborhoods experiencing increased private investment (with a focus on areas with planned or existing transit).	Not excluded, included.
Excluded	Limit or regulate fees associated with rental housing applications.	See Action 2.e.
Excluded	Require landlords to establish payment plans for tenants that get behind on rent.	See Action 2.e.
Excluded	Eviction mitigation to find mutual termination of rental agreement instead of evicting tenants.	See Action 2.e.
Excluded	Improve access to enforcement landlord/tenant laws (court enforcement is a barrier).	See Action 2.e.
Excluded	Increase access to legal assistance for landlord/tenant issues (free or sliding scale).	See Action 2.e.
Excluded	Program to incentivize landlords to accept tenants with poor credit or criminal history.	See Action 2.e.
Included (2.e)	Identify and implement appropriate tenant protections that improve household stability.	Not excluded, included.

Appendix C.
Policy Evaluation Summary

Evaluation of the Policies in the City's Comprehensive Plan Housing Element

This appendix evaluates the City's current Comprehensive Plan housing policies for connections to the gaps identified in the housing needs assessment and the status of policy implementation.

All the Housing Element goals, policies, and actions were reviewed and updated as part of 8-year GMA Comprehensive Plan Update in 2016 in Ordinance No. O2016-012 and there have been amendments to the Housing Element through the annual Comprehensive Plan amendment process since then.

As noted in Chapter 3 *Local actions*, some minor adjustments to the Housing Element goals, policies, and actions may be appropriate for consideration in a future Comprehensive Plan amendment docket to support the six strategies for addressing housing needs in the City.

Criteria

Connections to Housing Needs Assessment and HAP Objectives

V Valid, continuing need for goal/policy to meet identified gap in Housing Needs Assessment (HNA) and/or Housing Action Plan (HAP) objectives.

A Amend to address:

1) One of the seven gaps identified in the Housing Needs Assessment:

Affordability. Reduce the cost of housing for low-income and cost-burdened households.

Supply. Increase the inventory of housing for all households.

Variety. Increase the variety of housing sizes and types

Seniors. Increase the stock of housing options needed for aging seniors.

Improvements. Maintain the existing housing stock, including improving energy efficiency and air quality.

Stability. Increase household wealth by providing safe, stable options for rental housing and pathways to homeownership.

Supportive Housing. Increase permanent housing options for people with disabilities and those at risk of or experiencing homelessness.

2) One of the six Housing Action Plan strategies:

1 Increase the supply of permanent, income-restricted affordable housing.

2 Make it easier for households to access housing and stay housed.

3 Expand the overall housing supply by making it easier to build all types of housing projects.

4 Increase the variety of housing choices.

5 Continually build on resources, collaboration, and public understanding to improve implementation of housing strategies.

6 Establish a permanent source of funding for low-income housing.

N Not directly related to housing needs or objectives.

Achievement of goals and policies

1) Goals and policies, progress in implementation:

E Early/initiated

M Moderate progress/maturing implementation through funding/code/program development

C Completed

2) Compatibility with Growth Management Act and County-Wide Planning Policies since Adoption:

R Retain, still compatible and valid

U Update to recognize recent city initiatives, clarity, or ease of implementation

Housing Element

Table 15. Housing Element policy and action evaluation – Goal H-1.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
GOAL H-1	**To conserve and improve the existing city housing stock and quality of life of neighborhoods.**				
Policy H-1.1	Assist city neighborhoods in maintaining and rehabilitating the existing housing stock as decent, safe, sanitary, and affordable housing.	Resolution No. R2018-016 Homelessness and Affordable Housing identified Action 8) *Encourage abandoned houses moving back into the active housing inventory* under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this policy.	**V**	**E** **R**	The City could consider a formal maintenance and rehabilitation program beyond the current code enforcement procedures. This would be in coordination with its actions with the Regional Housing Council. See Action H-3.1.2 and Policy 7.2.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-1.2	Encourage a range of housing, economic development, and community revitalization in the city.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified a number of actions under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this policy. 2. The 2019 Housing Affordability Work Plans identified a number of text and fee amendments to support this policy. 3. Ordinance No. O2019-004 updated the Economic Development Plan. 4. Ordinance No. O2020-005 addressed a number of housing text amendments to increase the range of housing in the City.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. Continue implementation of the policy. See Policies H-4.1 and H-6.2.
Policy H-1.3	Promote the quality of life of existing communities and implementation of community housing goals through the preparation of comprehensive plans and the development review process.	Ongoing evaluation process through amendments to the Comprehensive Plan and development regulations. The next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022.	**V**	**M** **R**	Continue implementation of the policy. The eight-year GMA update is on proposed 2022 Long Range Planning work program.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-1.4	Provide assistance to improve community surroundings and infrastructure in residential areas.	The 2019 Housing Affordability Work Plans identified Development Fee Amendment Action #6 *Make infrastructure investments for infill areas needing upgrades with follow-up by City staff to develop potential scenarios with emphasis on areas where affordable housing is most likely to occur* to address this policy.	**V**	**E** **R**	Continue implementation of the policy. Development Fee Amendment Action #6 is on proposed 2022 Long Range Planning work program.
Policy H-1.5	Encourage and facilitate economic development as an important part of provision of housing by providing jobs.	Policy not directly related to housing needs or objectives. Ordinance No. O2019-004 updated the Economic Development Plan.	**N**	**M** **R**	Continue implementation of the policy. While the Economic Development Plan is not directly tied to housing, but it plays an important role in raising wages, which have not kept pace with housing costs.
Action H-1.5.1	Continue implementation of economic development efforts to provide jobs in Tumwater.	Policy not directly related to housing needs or objectives. Ordinance No. O2019-004 updated the Economic Development Plan.	**N**	**M** **R**	Continue implementation of the action. While the Economic Development Plan is not directly tied to housing, but it plays an important role in raising wages, which have not kept pace with housing costs.

Table 16. Housing Element policy and action evaluation – Goal H-2.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
GOAL H-2:	**To provide a sufficient number of single family dwelling units, multi-family dwelling units, manufactured homes, and group housing to provide an affordable selection of housing to each economic segment of the Tumwater population.**				
Policy H-2.1	Provide sufficient, suitably zoned land for development of all housing types to accommodate the future needs for each type of housing, including single family, multi-family, and manufactured homes in manufactured home parks and on single lots.	Ongoing evaluation process through amendments to the Comprehensive Plan and development regulations. The next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022. Draft 2021 Buildable Lands Report indicates that there is sufficient, suitably zoned land for development of all housing types.	**V**	**M** **U**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. Continue implementation of the policy. Consider expanding the types of housing listed in the policy. Eight-year GMA update of the Comprehensive Plan is on proposed 2022 Long Range Planning work program.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-2.2	Provide opportunities for a range of housing types to provide for all economic segments of Tumwater's population.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified a number of actions under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this policy. 2. The 2019 Housing Affordability Work Plans identified a number of text and fee amendments to support this policy. 3. Ordinance No. O2020-005 addressed a number of housing text amendments to increase the range of housing in the City	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. Continue implementation of the policy.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-2.2.1	Monitor the Land Use Element and Zoning Code to ensure an adequate supply of suitably zoned land.	Ongoing evaluation process through amendments to the Comprehensive Plan and development regulations. The next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022. The draft 2021 Buildable Lands Report indicates that there is sufficient, suitably zoned land for development of all housing types.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. Continue implementation of the action. Eight-year GMA update is on proposed 2022 Long Range Planning work program. See Action H-5.1 and H-6.2.1.

Table 17. Housing Element policy and action evaluation – Goal H-3.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
GOAL H-3	**To provide adequate, affordable housing for residents of all income groups, including sufficient housing affordable to low and moderate-income groups.**				
Policy H-3.1	Encourage the development of innovative plans, codes, standards, and procedures in order to take advantage of new private and public sector approaches to housing provision.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified a number of actions under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this policy. 2. The 2019 Housing Affordability Work Plans identified a number of text and fee amendments to support this policy. 3. Ordinance No. O2020-005 addressed a number of housing text amendments to increase the range of housing in the City.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. Continue implementation of the policy.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-3.1.1	The Zoning Code allows manufactured homes on single-family lots in all residential zones. It is the intent of the Housing Element to promote the designation of a sufficient supply of land for traditional mobile/ manufactured home parks and to recognize that modular/manufactured housing on single family lots and in manufactured home parks is a viable form of housing construction.	Resolution No. R2018-016 Homelessness and Affordable Housing identified Action 6) *Assess actions for assuring mobile home parks continue to provide affordable housing toward a goal of property ownership by residents under* B) *Boost Housing Affordability – Actions to increase affordable housing* to address this policy.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. Continue implementation of the action.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-3.1.2	Increase code enforcement efforts and build pubic private partnerships to encourage renovations of unfit structures for use as transitional or affordable housing.	Resolution No. R2018-016 Homelessness and Affordable Housing identified Action 8) *Encourage abandoned houses moving back into the active housing inventory* under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this policy.	**V**	**E** **U**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. The City could consider a formal maintenance and rehabilitation program beyond the current code enforcement procedures. This would be in coordination with its actions with the Regional Housing Council. See Policies H-1.1 and H-7.2.
Policy H-3.2	Encourage provision of adequate building sites through appropriate land use planning and zoning codes, infrastructure supply, and overall regulatory climate.	Ongoing evaluation process through amendments to the Comprehensive Plan and development regulations. The draft 2021 Buildable Lands Report indicates that there is sufficient, suitably zoned land for development of all housing types.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. Continue implementation of the policy.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-3.3	Tumwater should assume its "fair share" of housing for low and moderate income groups, in cooperation with other jurisdictions in Thurston County.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified Action C) *Ongoing Regional Actions – Continue work with other jurisdictions and agencies to explore regional solutions to homelessness and affordable housing*. 2. The City began formally working with the cities of Lacey, Olympia, and Yelm and Thurston County as part of the Regional Housing Council to address such issues in 2019.	**V**	**E** **R**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. Continue work with the Regional Housing Council and on implementation of the policy.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-3.3.1	Monitor land supply, census data, and housing policies to ensure Tumwater accommodates its fair share of housing for low and moderate income groups.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified Action C) *Ongoing Regional Actions – Continue work with other jurisdictions and agencies to explore regional solutions to homelessness and affordable housing*. 2. The City began formally working with the cities of Lacey, Olympia, and Yelm and Thurston County as part of the Regional Housing Council to address such issues in 2019, including data collection. 3. Resolution No. R2018-016 Homelessness and Affordable Housing identified Action 10) *Inventory and track affordable housing units in Tumwater* under B) *Boost Housing Affordability – Actions to increase affordable housing.*	**V**	**E** **R**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. Continue work with the Regional Housing Council on implementation of the action.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-3.3.2	Work with Tumwater School District, Housing Authority, and other agencies and organizations to pursue grant funding and implement transitional housing strategies for families with children.	Resolution No. R2018-016 Homelessness and Affordable Housing identified Action 2) *Develop strategies with the Tumwater School District and nonprofit partners to house homeless students/families* under A) *Reduce Homelessness – Increase resources/actions to combat/decrease regional homelessness* to address this action. The City has been working with Together! in the Tumwater School District to address these issues.	**V**	**E** **R**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. Continue implementation of the action.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-3.3.3	Establish a multi-family tax exemption program that gives financial incentive for developers to create multi-family structures in target areas and to set aside a percentage of units as low-income housing.	1. Ordinance No. O2017-004 established the multi-family tax exemption program at the City. 2. Resolution No. R2017-002 established the Brewery District and the Capitol Boulevard Corridor as the initial target areas. 3. The 2019 Housing Affordability Work Plan Development Fee Amendment 3) noted *Expand the multifamily tax exemption program to other areas of the City, such as the Town Center, and the Littlerock Road Subarea, and look at expanding the percentage of permanently affordable units that would need to be provided*. 4. Resolution No. R2019-022 expanded the target areas to include the Littlerock Subarea and the Town Center.	**V**	**C** **U**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. No further action needed on the action, beyond monitoring implementation of the programs.

Table 18. Housing Element policy and action evaluation – Goal H-4.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
GOAL H-4	**To provide adequate opportunities for housing for all persons regardless of age, race, color, national origin, ancestry, sex, sexual orientation, familial status, marital status, ethnic background, source of income use of federal housing assistance, or other arbitrary factors.**				
Policy H-4.1	Support the inclusion of living opportunities for families with children throughout the city.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified a number of actions under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this policy. 2. The 2019 Housing Affordability Work Plans identified a number of text and fee amendments to support this policy. 3. Ordinance No. O2020-005 addressed a number of housing text amendments to increase the range of housing in the City.	**V**	**E** **R**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. Continue implementation of the policy.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-4.2	Support and encourage a variety of housing types and price ranges through appropriate policies and regulations.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified a number of actions under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this policy. 2. The 2019 Housing Affordability Work Plans identified a number of text and fee amendments to support this policy. 3. Ordinance No. O2020-005 addressed a number of housing text amendments to increase the range of housing in the City.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. Continue implementation of the policy. See Policies H-1.2 and H-6.2.
Action H-4.2.1	Continue the requirement for reasonable maximum lot sizes in order to create smaller lots that are more affordable and that allow a more efficient use of City services.	The draft 2021 Buildable Lands Report indicates that the new development is occurring on smaller lot sizes than the previous report.	**V**	**M** **R**	Continue implementation of the action.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-4.2.2	Encourage homeowner associations to adopt Covenants, Conditions, and Restrictions (CCRs) consistent with this policy.	Part of the final project review and approval process.	**V**	**E** **U**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. Continue implementation of the action.

Table 19. Housing Element policy and action evaluation – Goal H-5.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
GOAL H-5	**To supply sufficient, safe, suitable housing sites and housing supply to meet projected future housing needs for Tumwater over the next 20 years.**				
Policy H-5.1	Ensure appropriate land use designations and Zoning Code designations to provide sufficient land for housing construction.	Ongoing evaluation process through amendments to the Comprehensive Plan and development regulations. The next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022. The draft 2021 Buildable Lands Report indicates that there is sufficient, suitably zoned land for development of all housing types	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. Continue implementation of the policy.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-5.1.1	Monitor the Land Use Element and Zoning Code to ensure an adequate supply of suitably zoned vacant land. (2.1.1)	Ongoing evaluation process through amendments to the Comprehensive Plan and development regulations. The next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022. The draft 2021 Buildable Lands Report indicates that there is sufficient, suitably zoned land for development of all housing types.	**V**	**M** **R**	Continue implementation of the action. See Actions H-2.2.1 and H-6.2.1.
Action H-5.1.2	Continue joint planning with Thurston County to plan for future growth in Tumwater.	The City is currently working with Thurston County on an update to the Tumwater / Thurston County Joint Plan.	**V**	**E** **R**	Continue implementation of the action.
Policy H-5.2	Lands not suitable for development due to site constraints such as wetlands, steep slopes, geologically hazardous areas, etc., should be identified and considered when determining sufficient land for new housing in accordance with Tumwater's Conservation Plan.	Policy not directly related to housing needs or objectives. Ongoing evaluation process through amendments to the Comprehensive Plan and development regulations. The next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022.	**N**	**M** **R**	Continue implementation of the policy.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-5.3	Encourage construction practices, which exceed minimum standards. Tumwater will support the use of alternative building designs and methods that exceed the minimum standards set by Tumwater.	Ongoing evaluation process through amendments to the Development Guide and Building Codes. 2018 Building Codes adopted by Ordinance No. O2021-005.	**V**	**E** **R**	As noted in the City's 2019 policy analysis, this policy directly supports the City's work to expand the range of housing options. Continue implementation of the policy.

Table 20. Housing Element policy and action evaluation – Goal H-6.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
GOAL H-6	**To promote a selection of housing that is decent, safe, and sound, in close proximity to jobs and daily activities, and varies by location, type, design, and price.**				
Policy H-6.1	Protect residential areas from undesirable activities and uses through aggressive enforcement of adopted City codes.	Ongoing code enforcement of the City's nuisance code (TMC 8.04) and the International Property Maintenance Code (TMC 15.18) by the City Police Department in cooperation with the Community Development Department. Same as Action H-8.2.1.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued expansion of the City's design guidelines to balance increase in densities. During the next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022, eliminate duplication in policies and actions.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-6.2	Provide for a dynamic mix of residential land uses and zones in order to create a diverse mix of sites available for different housing types.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified a number of actions under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this policy. 2. The 2019 Housing Affordability Work Plans identified a number of text and fee amendments to support this policy. 3. Ordinance No. O2020-005 addressed a number of housing text amendments to increase the range of housing in the City.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued expansion of the City's design guidelines to balance increase in densities. Continue implementation of the policy. See Policies H-1.2 and H 4.2.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-6.2.1	Continue to monitor the available land supply, census data, and City policies to ensure a diverse mix of land for residential housing stock.	Ongoing evaluation process through amendments to the Comprehensive Plan and development regulations. The next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022. The draft 2021 Buildable Lands Report indicates that there is sufficient, suitably zoned land for development of all housing types	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued expansion of the City's design guidelines to balance increase in densities. Continue implementation of the action. See Actions H-2.2.1 and H-5.1.1.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-6.2.2	Continue to implement innovative design techniques, such as zero lot line developments, architectural design standards, alley houses, and attached single-family housing. Zero lot line developments are residential real estate in which the structure comes up to or very near to the edge of the property. Zero-lot-line houses are built very close to the property line in order to create more usable space.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified a number of actions under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this policy. 2. The 2019 Housing Affordability Work Plans identified a number of text and fee amendments to support this policy. 3. Ordinance No. O2020-005 addressed a number of housing text amendments to increase the range of housing in the City.	**V**	**M** **U**	As noted in the City's 2019 policy analysis, this policy directly supports continued expansion of the City's design guidelines to balance increase in densities. Continue implementation of the action. Update language to reflect current design techniques.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-6.3	Support increasing housing opportunities along urban corridors and centers.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified Action 2) *Strengthen incentives for affordable housing within the Capital Corridor and Brewery District and explore extending these incentives to the entire InterCity Transit #13 bus corridor* under Action B) *Boost Housing Affordability – Actions to increase affordable housing*. 2. Ordinance No. O2017-004 established the multi-family tax exemption program at the City. 3. Resolution No. R2017-002 established the Brewery District and the Capitol Boulevard Corridor as the initial target areas. 4. Resolution No. R2019-022 expanded the target areas to include the Littlerock Subarea and the Town Center.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued expansion of the City's design guidelines to balance increase in densities and continued implementation of land use and transportation connections. Continue implementation of the policy.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-6.4	Encourage provision of affordable housing near public transit routes to promote efficient transportation networks.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified Action 2) *Strengthen incentives for affordable housing within the Capital Corridor and Brewery District and explore extending these incentives to the entire InterCity Transit #13 bus corridor* under Action B) *Boost Housing Affordability – Actions to increase affordable housing*. 2. Ordinance No. O2017-004 established the multi-family tax exemption program at the City. 3. Resolution No. R2017-002 established the Brewery District and the Capitol Boulevard Corridor as the initial target areas. 4. Resolution No. R2019-022 expanded the target areas to include the Littlerock Subarea and the Town Center.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued implementation of land use and transportation connections. Continue implementation of the policy.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-6.4.1	Continue to involve Intercity Transit in Tumwater's development review process.	Action not directly related to housing needs or objectives.	**N**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued implementation of land use and transportation connections. Continue implementation of the action.
Policy H-6.5	Tumwater will maintain current Building Code standards and will use the most up to date future Code editions.	Ongoing evaluation process through amendments to the Development Guide and Building Codes. 2018 Building Codes adopted by Ordinance No. O2021-005.	**V**	**M** **R**	Continue implementation of the policy.
Action H-6.5.1	Host training with developers and staff on implementation of Low Impact Development.	Completed in 2017.	**V**	**C** **U**	Completed action. Propose removing action.

Table 21. Housing Element policy and action evaluation – Goal H-7.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
GOAL H-7	**To ensure that housing is compatible in quality, design, and density with surrounding land uses, traffic patterns, public facilities, and environmentally sensitive areas.**				
Policy H-7.1	Support the stability of established residential neighborhoods through appropriate plans and codes.	Ongoing evaluation process through amendments to the Comprehensive Plan and development regulations. The next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022. Similar to Policy H-8.1 below.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued expansion of the City's design guidelines to balance increase in densities. Continue implementation of the policy. During the next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022, eliminate duplication in policies and actions.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-7.1.1	Continue to implement design standards for multi-family and attached single-family dwellings in order to ensure compatibility with existing neighborhoods.	Citywide Design Guidelines implemented by Ordinance No. O2016-013. Ongoing evaluation process through amendments to the Comprehensive Plan and development regulations. The next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued expansion of the City's design guidelines to balance increase in densities. Continue implementation of the action.
Policy H-7.2	Assure housing will be well maintained and safe.	Ongoing code enforcement of the City's nuisance code (TMC 8.04) and the International Property Maintenance Code (TMC 15.18) by the City Police Department in cooperation with the Community Development Department. Resolution No. R2018-016 Homelessness and Affordable Housing identified Action 8) *Encourage abandoned houses moving back into the active housing inventory* under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this policy. Same as Policy H-8.2 below.	**V**	**M** **R**	Continue implementation of the policy. The City could consider a formal maintenance and rehabilitation program beyond the current code enforcement procedures. This would be in coordination with its actions with the Regional Housing Council. See Policy 1.1 and Action 3.1.2. During the next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022, eliminate duplication in policies and actions.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-7.3	Enhance the appearance of and maintain public spaces in residential areas.	Ongoing code enforcement of the City's nuisance code (TMC 8.04) and the International Property Maintenance Code (TMC 15.18) by the City Police Department in cooperation with the Community Development Department. Same as Policy H-8.3 below.	**V**	**E** **U**	Continue implementation of the policy. The City could consider a formal maintenance and rehabilitation program beyond the current code enforcement procedures. This would be in coordination with its actions with the Regional Housing Council. During the next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022, eliminate duplication in policies and actions.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-7.4	Promote community involvement to achieve neighborhood improvement.	Ongoing program. Same as Policy H-8.4 below.	**V**	**E** **R**	Continue implementation of the policy. The City could consider a formal maintenance and rehabilitation program beyond the current code enforcement procedures. This would be in coordination with its actions with the Regional Housing Council. During the next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022, eliminate duplication in policies and actions.

Table 22. Housing Element policy and action evaluation – Goal H-8.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
GOAL H-8	**To support healthy residential neighborhoods which continue to reflect a high degree of pride in ownership or residency.**				
Policy H-8.1	Support the stability of established residential neighborhoods.	Ongoing evaluation process through amendments to the Comprehensive Plan and development regulations. The next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022. Similar to Policy H-7.1 above.	**V**	**M** **R**	Consider update of the policy to support Goal H-8. During the next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022, eliminate duplication in policies and actions.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-8.2	Assure housing will be well maintained and safe.	Resolution No. R2018-016 Homelessness and Affordable Housing identified Action 8) *Encourage abandoned houses moving back into the active housing inventory* under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this policy. Ongoing code enforcement of the City's nuisance code (TMC 8.04) and the International Property Maintenance Code (TMC 15.18) by the City Police Department in cooperation with the Community Development Department. Same as Policy H-7.2 above.	**V**	**M** **R**	Update of the policy to support Goal H-8. The City could consider a formal maintenance and rehabilitation program beyond the current code enforcement procedures. This would be in coordination with its actions with the Regional Housing Council. See Policy 1.1 and Action 3.1.2. During the next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022, eliminate duplication in policies and actions.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-8.2.1	Protect residential areas from undesirable activities and uses through aggressive enforcement of adopted City codes.	Ongoing code enforcement of the City's nuisance code (TMC 8.04) and the International Property Maintenance Code (TMC 15.18) by the City Police Department in cooperation with the Community Development Department. Same as Policy H-6.1 above.	**V**	**M** **R**	Update of the policy to support Goal H-8. The City could consider a formal maintenance and rehabilitation program beyond the current code enforcement procedures. This would be in coordination with its actions with the Regional Housing Council. During the next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022, eliminate duplication in policies and actions.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-8.3	Enhance the appearance of and maintain public spaces in residential areas.	Ongoing code enforcement of the City's nuisance code (TMC 8.04) and the International Property Maintenance Code (TMC 15.18) by the City Police Department in cooperation with the Community Development Department. Same as Policy H-7.3 above.	**V**	**M** **R**	Update of the policy to support Goal H-8. The City could consider a formal maintenance and rehabilitation program beyond the current code enforcement procedures. This would be in coordination with its actions with the Regional Housing Council. During the next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022, eliminate duplication in policies and actions.
Policy H-8.4	Promote community involvement to achieve neighborhood improvement.	Ongoing program. Same as Policy H-7.4	**V**	**E** **U**	Update of the policy to support Goal H-8. During the next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022, eliminate duplication in policies and actions.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-8.4.1	Encourage neighborhood meetings to discuss community issues as situations and concerns arise.	Ongoing program.	**V**	**E** **U**	Continue implementation of the action.
Policy H-8.5	Encourage home ownership for Tumwater residents.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified a number of actions under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this policy. 2. The 2019 Housing Affordability Work Plans identified a number of text and fee amendments to support this policy.	**V**	**E** **U**	Continue implementation of the policy.

Table 23. Housing Element policy and action evaluation – Goal H-9.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
GOAL H-9	**To encourage a variety of housing opportunities for those with special needs, particularly those with problems relating to age or disability.**				
Policy H-9.1	Require housing to meet the needs of those with special housing requirements without creating a concentration of such housing in any one area.	City is addressing this policy subject to the state requirements for location of special housing.	**V**	**E** **U**	As noted in the City's 2019 policy analysis, this policy directly supports continued efforts to address a range of special housing needs, including homelessness. Continue implementation of the policy.
Policy H-9.2	Assist social service organizations in their efforts to seek funds for construction and operation of emergency, transitional, and permanent housing.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified Action C) *Ongoing Regional Actions – Continue work with other jurisdictions and agencies to explore regional solutions to homelessness and affordable housing*. 2. The City began formally working with the cities of Lacey, Olympia, and Yelm and Thurston County as part of the Regional Housing Council to address such issues in 2019.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued efforts to address a range of special housing needs, including homelessness. Continue implementation of the policy through Council action and the Regional Housing Council.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-9.3	Support and plan for assisted housing opportunities using federal, state, or local aid.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified Action C) *Ongoing Regional Actions – Continue work with other jurisdictions and agencies to explore regional solutions to homelessness and affordable housing*. 2. The City began formally working with the cities of Lacey, Olympia, and Yelm and Thurston County as part of the Regional Housing Council to address such issues in 2019.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued efforts to address a range of special housing needs, including homelessness. Continue implementation of the policy through Council action and the Regional Housing Council.
Policy H-9.4	Encourage and support social and health service organizations, which offer support programs for those with special needs, particularly those programs that help people remain in the community.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified Action C) *Ongoing Regional Actions – Continue work with other jurisdictions and agencies to explore regional solutions to homelessness and affordable housing*. 2. The City began formally working with the cities of Lacey, Olympia, and Yelm and Thurston County as part of the Regional Housing Council to address such issues in 2019.	**V**	**E** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued efforts to address a range of special housing needs, including homelessness. Continue implementation of the policy through Council action and the Regional Housing Council.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-9.5	Encourage alternative housing strategies for homeless youth, which may include Host Homes.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified Action C) *Ongoing Regional Actions – Continue work with other jurisdictions and agencies to explore regional solutions to homelessness and affordable housing*. 2. The City began formally working with the cities of Lacey, Olympia, and Yelm and Thurston County as part of the Regional Housing Council to address such issues in 2019. 3. City funding work with school aged children by Together! in the Tumwater School District	**V**	**E** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued efforts to address a range of special housing needs, including homelessness. Continue implementation of the policy through Council action and the Regional Housing Council.

Table 24. Housing Element policy and action evaluation – Goal H-10.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
GOAL H-10	**To provide housing that is compatible and harmonious with existing neighborhood character through use of innovative designs that enhance the appearance and quality of Tumwater's neighborhoods.**				
Policy H-10.1	Encourage innovation and variety in housing design and development. Tumwater will support efforts to build housing with unique individual character, which avoids monotonous neighborhood appearance.	Citywide Design Guidelines implemented by Ordinance No. O2016-013. Ongoing evaluation process through amendments to the Comprehensive Plan and development regulations. The next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued implementation of the expansion of the City's design guidelines to balance increase in densities. Continue implementation of the policy.
Policy H-10.2	Multi-family residential housing should be subject to design criteria that relate to density, structure bulk, size and design, landscaping, and neighborhood compatibility.	Citywide Design Guidelines implemented by Ordinance No. O2016-013. Ongoing evaluation process through amendments to the Comprehensive Plan and development regulations. The next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued implementation of the expansion of the City's design guidelines to balance increase in densities. Continue implementation of the policy.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-10.2.1	Continue to implement multi-family housing design standards.	Citywide Design Guidelines implemented by Ordinance No. O2016-013. Ongoing evaluation process through amendments to the Comprehensive Plan and development regulations. The next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued implementation of the expansion of the City's design guidelines to balance increase in densities. Continue implementation of the action.

Table 25. Housing Element policy and action evaluation – Goal H-11

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
GOAL H-11	**To provide housing to accommodate Tumwater's housing needs in the urban growth area and make the most efficient use of infrastructure and services.**				
Policy H-11.1	Reference the Transportation Element and anticipated transportation impacts when making housing decisions affecting the location and density of housing.	Policy not directly related to housing needs or objectives.	**N**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued implementation of the policy supporting the land use and transportation connection. Continue implementation of the policy.
Policy H-11.2	Reference utility plans and the impact of housing decisions on capital improvements planning.	Policy not directly related to housing needs or objectives.	**N**	**E** **R**	Continue implementation of the policy.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-11.3	Encourage the construction of affordable housing, including cottage housing and accessory dwelling units, within a half mile or twenty minute walk of an urban center, corridor or neighborhood center with access to goods and services to provide access to daily household needs.	1. The 2019 Housing Affordability Work Plans identified a number of text and fee amendments to support this policy. 2. Ordinance No. O2017-002 allowed cottage housing uses in the City. 3. Ordinance No. O2020-005 expanded where cottage housing uses could be located and reduced size and parking requirements for ADUs.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued implementation of efforts to connect new housing types and increased density to transit corridors would support many different goals. Continue implementation of the policy.

Table 26. Housing Element policy and action evaluation – Goal H-12.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
GOAL H-12	**To encourage urban growth within the city limits with gradual phasing outward from the urban core.**				
Policy H-12.1	Encourage the construction of housing on vacant property within the city and the redevelopment of underdeveloped property within residential areas to minimize urban sprawl and associated public service costs.	1. Resolution No. R2018-016 Homelessness and Affordable Housing identified a number of actions under B) *Boost Housing Affordability – Actions to increase affordable housing* to address this policy. 2. The 2019 Housing Affordability Work Plans identified a number of text and fee amendments to support this policy. 3. Ordinance No. O2020-005 addressed a number of housing text amendments to increase the range of housing in the City.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued implementation of using an expanded range of housing types to support development of the core of the City outwards. Continue implementation of the policy.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-12.1.1	Continue to review and revise, as necessary, City Development Standards deemed unnecessary and make development more expensive and/or difficult.	Ongoing evaluation process through amendments to the development regulations, Development Guide, and Building Codes. 2018 Building Codes adopted by Ordinance No. O2021-005.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued implementation of using an expanded range of housing types to support development of the core of the City outwards. Continue implementation of the action.
Action H-12.1.2	Continue to support high-density zoning within specific areas of the city that have the infrastructure and services to support high-density housing.	City has enacted high-density zoning for the Brewery District, Capitol Boulevard Corridor, and Town Center, and allows multifamily development in its commercial and mixed-use zone districts.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued implementation of using an expanded range of housing types to support development of the core of the City outwards. Continue implementation of the action.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Action H-12.1.3	Continue to implement minimum density levels for all residential zoning districts to ensure efficient use of the urban growth area.	Ongoing evaluation process through amendments to the Comprehensive Plan and development regulations. The next required eight-year GMA update of the Comprehensive Plan is expected to start in 2022.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports continued implementation of using an expanded range of housing types to support development of the core of the City outwards. Continue implementation of the action.
Action H-12.1.4	Work cooperatively with Thurston County to provide for more efficient and orderly annexations to facilitate urban service delivery.	Currently working with Thurston County on an update to the Tumwater / Thurston County Joint Plan as well as an annexation agreement to address "island" annexations.	**V**	**E** **R**	Continue implementation of the action.

Table 27. Housing Element policy and action evaluation – Goal H-13.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
GOAL H-13	**Ensure consistency with RCW 36.70A.070(2)(c) which requires sufficient land be available for all types of housing including manufactured housing.**				
Policy H-13.1	Maintain the manufactured home park district zoning in appropriate areas in order to prevent conversion of affordable housing to other uses without replacement.	Continuing implementation of the Ordinance No. O2008-009, which established the Manufactured Home Park (MHP) zone district in the City as the means to address this policy.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy directly supports manufactured housing options. Continue implementation of the policy.
Action H-13.1.1	Encourage manufactured housing park district zoning to locate near transit services.	Continuing implementation of the Ordinance No. O2008-009, which established the Manufactured Home Park (MHP) zone district in the City as the means to address this policy.	**V**	**E** **R**	As noted in the City's 2019 policy analysis, this policy directly supports manufactured housing options. Continue implementation of the action.

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to HNA or HAP	Achievement of Goals & Policies	Recommendation
Policy H-13.2	When locating zones and designations for manufactured home parks, carefully consider the risks from natural hazards, such as flooding and liquefaction, and the impacts of those hazards on the future residents of those manufactured home parks, Tumwater's emergency responders, and the city as a whole.	Part of Resolution No. R2017-013, which was an update to the Hazards Mitigation Plan for the Thurston Region.	**V**	**M** **R**	As noted in the City's 2019 policy analysis, this policy was a major focus of the City's recently adopted Hazard Mitigation Plan. Continue implementation of the policy.

Appendix D. Regulations Evaluation Summary

Evaluation of the Regulations in the City's Municipal Code

This appendix evaluates the City's current development regulations for connections to the seven gaps identified in the housing needs assessment as well as acknowledging the work the City has completed to date to address these gaps.

After the City Council adopted Resolution No. R2018-016 in the summer of 2018 and approved the 2019 Housing Affordability Work Plan, the City worked on a number of actions to reduce homelessness, increase affordable housing, and collaborate with other jurisdictions and agencies to explore regional solutions to these issues.

The evaluation of the regulations starts first summaries of the housing types allowed in the zone districts in the City and the density and bulk and dimensional regulations for those zone districts. Then there is a review of the regulations using the Puget Sound Regional Council's Housing Innovation Program and finally there is a development code barrier summary.

As noted in Chapter 3 *Local actions*, some minor adjustments to the development code may be appropriate for consideration in a future development code amendment docket to support the six strategies for addressing housing needs in the City.

Regulations Evaluation #1 – Housing Types

Tables 28 - 30 *Development code housing type summary* list all the housing types that are allowed in the City by zone district.

Table 28. Development code housing type summary (1 of 3).

Housing Types	City Definition (TMC 18.04)	RSR Residential/Sensitive Resource Zone District (2-4 DU/Acre)[1]	SFL Single-Family Low Density Residential Zone District (4-7 DU/Acre)	SFM Single-Family Medium Density Residential Zone District (6-9 DU/Acre)
Single-family detached dwellings	A building that is not attached in any way to another dwelling unit or structure providing complete, independent living facilities for a family.	Allowed	Allowed	Allowed
Manufactured Homes	A single-family dwelling built according to the Department of Housing and Urban Development Manufactured Home Construction and Safety Standards Act, which is a national, preemptive building code. A manufactured home does not meet the criteria to be classified as a "designated manufactured home	Allowed	Allowed	Allowed

[1] DU/Acre = Dwelling units per acre. For example, 2-4 DU/Acre means that the minimum allowed density in the RSR zone district is two dwelling units per acre and the maximum allowed density is four dwelling units per acre. In many zone districts, achieving the maximum listed DU/acre is dependent on the purchase of transfer of development rights in accordance with TMC Chapter 18.57. The calculation of the density requirements is based on the portion of the site devoted to residential and associated uses (e.g., dwelling units; private community clubs; open space; stormwater detention, treatment and infiltration). The following land is excluded from density calculations:

1. Land that is required to be dedicated for public use as open space, right-of-way, or land on which development is prohibited by TMC Title 16, Environment, and land that is to be used for private roads. Provided, that portion of open space/park areas that consists of stormwater facilities and that is designed for active and/or passive recreational purposes in accordance with the drainage design and erosion control manual for Tumwater shall not be excluded from density calculations;
2. Land that is intended for future phases of development created in accordance with TMC 18.14.060;
3. Land that consists of lots devoted to uses other than residential and associated uses, including but not limited to churches, schools, and support facilities (except for stormwater detention, treatment, and infiltration facilities).

Housing Types	City Definition (TMC 18.04)	RSR Residential/Sensitive Resource Zone District (2-4 DU/Acre)[1]	SFL Single-Family Low Density Residential Zone District (4-7 DU/Acre)	SFM Single-Family Medium Density Residential Zone District (6-9 DU/Acre)
Accessory Dwelling Units (ADUs)	A dwelling unit that is an accessory use or structure subordinate to a single-family detached dwelling subject to the general land use regulations found in TMC 18.42.010.	Allowed	Allowed	Allowed
Manufactured Home Parks	Any real property lot which is rented or held out for rent to others for the placement of three or more manufactured homes, designated manufactured homes, or new manufactured homes for the primary purpose of production of income, except where such real property lot is rented or held out for rent for seasonal recreational purposes only and is not intended for year-round occupancy			
Cottage Housing	A grouping of smaller than average detached single-family dwellings clustered around a common area and developed with a coherent plan for the entire site	Allowed	Allowed	Allowed

Housing Types	City Definition (TMC 18.04)	RSR Residential/Sensitive Resource Zone District (2-4 DU/Acre)[1]	SFL Single-Family Low Density Residential Zone District (4-7 DU/Acre)	SFM Single-Family Medium Density Residential Zone District (6-9 DU/Acre)
Duplexes	A building designed for and used exclusively for occupancy by two families independent of each other where both dwelling units are located on the same lot and are completely separated from each other by an unpierced wall extending from ground to roof or an unpierced ceiling and floor extending from exterior wall to exterior wall, except for common stairwell or garage exterior to both dwelling units.	Allowed[2]	Allowed[3]	Allowed[4]
Townhomes or Rowhouses	One of a line or row of dwelling units attached one to the other, having common walls between individual units, generally two stories in height (and sometimes three). Each unit occupies the space between common walls from the lowest level to the roof.			Allowed[5] Only within a residential planned unit development

[2] Duplexes are allowed in the Residential/Sensitive Resource (RSR) and Single Family Low Density Residential (SFL) zone districts. Such uses shall not occupy more than twenty percent of the total lots in a new short plat or subdivision, which was legally established after April 15, 2021. In such cases, the Community Development Director shall have the discretion to alter the percentage in order to allow the new short plat or subdivision to meet minimum required densities due to topography or other special conditions related to the site, such as critical areas.

[3] Duplexes are allowed in the Residential/Sensitive Resource (RSR) and Single Family Low Density Residential (SFL) zone districts. Such uses shall not occupy more than twenty percent of the total lots in a new short plat or subdivision, which was legally established after April 15, 2021. In such cases, the Community Development Director shall have the discretion to alter the percentage in order to allow the new short plat or subdivision to meet minimum required densities due to topography or other special conditions related to the site, such as critical areas.

[4] Duplexes are allowed in the Single Family Medium Density Residential (SFM) zone district. Such uses shall not occupy more than thirty percent of the total lots in a new short plat or subdivision, which was legally established after April 15, 2021. In such cases, the Community Development Director shall have the discretion to alter the percentage in order to allow the new short plat or subdivision to meet minimum required densities due to topography or other special conditions related to the site, such as critical areas.

[5] Townhouses and rowhouses are allowed within a residential planned unit development in the Single Family Medium Density Residential (SFM) zone district.

Housing Types	City Definition (TMC 18.04)	RSR Residential/Sensitive Resource Zone District (2-4 DU/Acre)[1]	SFL Single-Family Low Density Residential Zone District (4-7 DU/Acre)	SFM Single-Family Medium Density Residential Zone District (6-9 DU/Acre)
Triplexes	A building designed for and used exclusively for occupancy by three families independent of each other where all three dwelling units are located on the same lot and are completely separated from each other, except for common stairwells or garages.			
Fourplexes	A building designed for and used exclusively for occupancy by four families independent of each other where all four dwelling units are located on the same lot and are completely separated from each other, except for common stairwells or garages.			
Multifamily Dwellings	A building designed and used for occupancy by five or more families all living independent of each other and where all dwelling units are located on the same lot.			
Boardinghouses and roominghouses	A dwelling unit having only one kitchen and used for the lodging (with or without meals) for compensation of persons other than the related family members or operator of such dwelling unit. A roominghouse that is rented for less than thirty consecutive days at a time requires a business license per TMC Chapter 5.04. A roominghouse may allow for an unlimited stay, unlike a bed and breakfast which is limited to two weeks.			

Housing Types	City Definition (TMC 18.04)	RSR Residential/Sensitive Resource Zone District (2-4 DU/Acre)[1]	SFL Single-Family Low Density Residential Zone District (4-7 DU/Acre)	SFM Single-Family Medium Density Residential Zone District (6-9 DU/Acre)
Independent Senior Housing Facility	An independent living facility consisting of dwellings designed for and occupied by persons fifty-five years of age or older in accordance with 42 U.S.C. 3607. These facilities may consist of individual dwelling units of a barrier-free design, with separate bathroom facilities and a full kitchen. These facilities may have a communal dining area, recreation facilities (such as a library, lounge, or game room), laundry facilities, and open space. No nursing staff or assisted living staff is provided in an independent living facility.			
Assisted Senior Housing Facility	An assisted living facility, which is an establishment which provides living quarters and a variety of limited personal care and supportive health care to persons fifty-five years of age or older in accordance with 42 U.S.C. 3607 who are unable to live independently, but who do not need the skilled nursing care of a rest home, nursing home, or convalescent center. These facilities may consist of individual dwelling units of a barrier-free design, with separate bathroom facilities and a full kitchen. The facility may provide a minimal amount of supportive health care monitoring, such as assistance with medication, but is limited to health care services that do not require state or federal licensing. These facilities may have a communal dining area, recreation facilities (such as a library, lounge, or game room), laundry facilities, and open space.			

Table 29. Development code housing type summary (2 of 3).

Housing Types	City Definition (TMC 18.04)	MFM Multifamily Medium Density Residential Zone District (9-15 DU/Acre)	MFH Multifamily High Density Residential Zone District (14-29 DU/Acre)	MU Mixed Use Zone District (14 DU/Acre and greater)
Special Zone District Notes				All residential uses are allowed, provided that minimum density standards are met
Single-family detached dwellings	A building that is not attached in any way to another dwelling unit or structure providing complete, independent living facilities for a family.	Allowed[6]	Allowed[7]	See above
Manufactured Homes	A single-family dwelling built according to the Department of Housing and Urban Development Manufactured Home Construction and Safety Standards Act, which is a national, preemptive building code. A manufactured home does not meet the criteria to be classified as a "designated manufactured home	Allowed		See above

[6] Single-family detached dwellings constructed after April 15, 2021 are not allowed in the Multifamily Medium Density Residential (MFM) zone district, except as part of a PUD planned unit development overlay as regulated by TMC 18.36 if the site to be developed has more than one zone district.
[7] Single-family detached dwellings and duplexes are not allowed in the Multifamily High Density Residential (MFH) zone district, except as part of a PUD planned unit development overlay as regulated by TMC 18.36 if the site to be developed has more than one zone district.

Housing Types	City Definition (TMC 18.04)	MFM Multifamily Medium Density Residential Zone District (9-15 DU/Acre)	MFH Multifamily High Density Residential Zone District (14-29 DU/Acre)	MU Mixed Use Zone District (14 DU/Acre and greater)
Accessory Dwelling Units (ADUs)	A dwelling unit that is an accessory use or structure subordinate to a single-family detached dwelling subject to the general land use regulations found in TMC 18.42.010.	Allowed	Allowed	See above
Manufactured Home Parks	Any real property lot which is rented or held out for rent to others for the placement of three or more manufactured homes, designated manufactured homes, or new manufactured homes for the primary purpose of production of income, except where such real property lot is rented or held out for rent for seasonal recreational purposes only and is not intended for year-round occupancy	Allowed		See above
Cottage Housing	A grouping of smaller than average detached single-family dwellings clustered around a common area and developed with a coherent plan for the entire site	Allowed		Allowed
Duplexes	A building designed for and used exclusively for occupancy by two families independent of each other where both dwelling units are located on the same lot and are completely separated from each other by an unpierced wall extending from ground to roof or an unpierced ceiling and floor extending from exterior wall to exterior wall, except for common stairwell or garage exterior to both dwelling units.	Allowed		See above

Housing Types	City Definition (TMC 18.04)	MFM Multifamily Medium Density Residential Zone District (9-15 DU/Acre)	MFH Multifamily High Density Residential Zone District (14-29 DU/Acre)	MU Mixed Use Zone District (14 DU/Acre and greater)
Townhomes or Rowhouses	One of a line or row of dwelling units attached one to the other, having common walls between individual units, generally two stories in height (and sometimes three). Each unit occupies the space between common walls from the lowest level to the roof.	Allowed	Allowed	See above
Triplexes	A building designed for and used exclusively for occupancy by three families independent of each other where all three dwelling units are located on the same lot and are completely separated from each other, except for common stairwells or garages.	Allowed	Allowed	See above
Fourplexes	A building designed for and used exclusively for occupancy by four families independent of each other where all four dwelling units are located on the same lot and are completely separated from each other, except for common stairwells or garages.	Allowed	Allowed	See above
Multifamily Dwellings	A building designed and used for occupancy by five or more families all living independent of each other and where all dwelling units are located on the same lot.	Allowed	Allowed	Allowed

Housing Types	City Definition (TMC 18.04)	MFM Multifamily Medium Density Residential Zone District (9-15 DU/Acre)	MFH Multifamily High Density Residential Zone District (14-29 DU/Acre)	MU Mixed Use Zone District (14 DU/Acre and greater)
Boardinghouses and roominghouses	A dwelling unit having only one kitchen and used for the lodging (with or without meals) for compensation of persons other than the related family members or operator of such dwelling unit. A roominghouse that is rented for less than thirty consecutive days at a time requires a business license per TMC Chapter 5.04. A roominghouse may allow for an unlimited stay, unlike a bed and breakfast which is limited to two weeks.	Allowed, as an accessory use	Allowed, as an accessory use	See above
Independent Senior Housing Facility	An independent living facility consisting of dwellings designed for and occupied by persons fifty-five years of age or older in accordance with 42 U.S.C. 3607. These facilities may consist of individual dwelling units of a barrier-free design, with separate bathroom facilities and a full kitchen. These facilities may have a communal dining area, recreation facilities (such as a library, lounge, or game room), laundry facilities, and open space. No nursing staff or assisted living staff is provided in an independent living facility.	Allowed	Allowed	Allowed

Housing Types	City Definition (TMC 18.04)	MFM Multifamily Medium Density Residential Zone District (9-15 DU/Acre)	MFH Multifamily High Density Residential Zone District (14-29 DU/Acre)	MU Mixed Use Zone District (14 DU/Acre and greater)
Assisted Senior Housing Facility	An assisted living facility, which is an establishment which provides living quarters and a variety of limited personal care and supportive health care to persons fifty-five years of age or older in accordance with 42 U.S.C. 3607 who are unable to live independently, but who do not need the skilled nursing care of a rest home, nursing home, or convalescent center. These facilities may consist of individual dwelling units of a barrier-free design, with separate bathroom facilities and a full kitchen. The facility may provide a minimal amount of supportive health care monitoring, such as assistance with medication, but is limited to health care services that do not require state or federal licensing. These facilities may have a communal dining area, recreation facilities (such as a library, lounge, or game room), laundry facilities, and open space.	Allowed, as a conditional use	Allowed, as a conditional use	Allowed

Table 30. Development code housing type summary (3 of 3).

Housing Types	City Definition (TMC 18.04)	CBC Capitol Boulevard Community Zone District (30 DU/Acre and greater)	TC Town Center Mixed Use and/or Town Center Residential Subdistrict (30 DU/Acre and greater)	BD Brewery District Zone (10 DU/Acre and greater)	MHP Manufactured Home Park Zone District (6-9 DU/Acre)
Special Zone District Notes		All residential uses are allowed, provided that minimum density standards are met	Residential uses approved after June 9, 2002, provided the minimum density standards in TMC 18.23.030(B)(2) and Residential uses which were legally established prior to June 9, 2002 are met, rooming houses, and senior housing facilities are allowed	"Residential" uses are permitted in the zone district	
Single-family detached dwellings	A building that is not attached in any way to another dwelling unit or structure providing complete, independent living facilities for a family.	See above	See above	See above	Allowed

Housing Types	City Definition (TMC 18.04)	CBC Capitol Boulevard Community Zone District (30 DU/Acre and greater)	TC Town Center Mixed Use and/or Town Center Residential Subdistrict (30 DU/Acre and greater)	BD Brewery District Zone (10 DU/Acre and greater)	MHP Manufactured Home Park Zone District (6-9 DU/Acre)
Manufactured Homes	A single-family dwelling built according to the Department of Housing and Urban Development Manufactured Home Construction and Safety Standards Act, which is a national, preemptive building code. A manufactured home does not meet the criteria to be classified as a "designated manufactured home	See above	See above	See above	Allowed
Accessory Dwelling Units (ADUs)	A dwelling unit that is an accessory use or structure subordinate to a single-family detached dwelling subject to the general land use regulations found in TMC 18.42.010.	See above	See above	Allowed	
Manufactured Home Parks	Any real property lot which is rented or held out for rent to others for the placement of three or more manufactured homes, designated manufactured homes, or new manufactured homes for the primary purpose of production of income, except where such real property lot is rented or held out for rent for seasonal recreational purposes only and is not intended for year-round occupancy	See above	See above	See above	Allowed

Housing Types	City Definition (TMC 18.04)	CBC Capitol Boulevard Community Zone District (30 DU/Acre and greater)	TC Town Center Mixed Use and/or Town Center Residential Subdistrict (30 DU/Acre and greater)	BD Brewery District Zone (10 DU/Acre and greater)	MHP Manufactured Home Park Zone District (6-9 DU/Acre)
Cottage Housing	A grouping of smaller than average detached single-family dwellings clustered around a common area and developed with a coherent plan for the entire site			Allowed only in the Triangle, Bates South, Bluff, and Deschutes Subdistricts	
Duplexes	A building designed for and used exclusively for occupancy by two families independent of each other where both dwelling units are located on the same lot and are completely separated from each other by an unpierced wall extending from ground to roof or an unpierced ceiling and floor extending from exterior wall to exterior wall, except for common stairwell or garage exterior to both dwelling units.	See above	See above	See above	
Townhomes or Rowhouses	One of a line or row of dwelling units attached one to the other, having common walls between individual units, generally two stories in height (and sometimes three). Each unit occupies the space between common walls from the lowest level to the roof.	See above	See above	See above	

Housing Types	City Definition (TMC 18.04)	CBC Capitol Boulevard Community Zone District (30 DU/Acre and greater)	TC Town Center Mixed Use and/or Town Center Residential Subdistrict (30 DU/Acre and greater)	BD Brewery District Zone (10 DU/Acre and greater)	MHP Manufactured Home Park Zone District (6-9 DU/Acre)
Triplexes	A building designed for and used exclusively for occupancy by three families independent of each other where all three dwelling units are located on the same lot and are completely separated from each other, except for common stairwells or garages.	See above	See above	See above	
Fourplexes	A building designed for and used exclusively for occupancy by four families independent of each other where all four dwelling units are located on the same lot and are completely separated from each other, except for common stairwells or garages.	See above	See above	See above	
Multifamily Dwellings	A building designed and used for occupancy by five or more families all living independent of each other and where all dwelling units are located on the same lot.	See above	See above	See above	

Housing Types	City Definition (TMC 18.04)	CBC Capitol Boulevard Community Zone District (30 DU/Acre and greater)	TC Town Center Mixed Use and/or Town Center Residential Subdistrict (30 DU/Acre and greater)	BD Brewery District Zone (10 DU/Acre and greater)	MHP Manufactured Home Park Zone District (6-9 DU/Acre)
Boardinghouses and roominghouses	A dwelling unit having only one kitchen and used for the lodging (with or without meals) for compensation of persons other than the related family members or operator of such dwelling unit. A roominghouse that is rented for less than thirty consecutive days at a time requires a business license per TMC Chapter 5.04. A roominghouse may allow for an unlimited stay, unlike a bed and breakfast which is limited to two weeks.	See above	See above	See above	
Independent Senior Housing Facility	An independent living facility consisting of dwellings designed for and occupied by persons fifty-five years of age or older in accordance with 42 U.S.C. 3607. These facilities may consist of individual dwelling units of a barrier-free design, with separate bathroom facilities and a full kitchen. These facilities may have a communal dining area, recreation facilities (such as a library, lounge, or game room), laundry facilities, and open space. No nursing staff or assisted living staff is provided in an independent living facility.	Allowed	Allowed	Allowed	

Housing Types	City Definition (TMC 18.04)	CBC Capitol Boulevard Community Zone District (30 DU/Acre and greater)	TC Town Center Mixed Use and/or Town Center Residential Subdistrict (30 DU/Acre and greater)	BD Brewery District Zone (10 DU/Acre and greater)	MHP Manufactured Home Park Zone District (6-9 DU/Acre)
Assisted Senior Housing Facility	An assisted living facility, which is an establishment which provides living quarters and a variety of limited personal care and supportive health care to persons fifty-five years of age or older in accordance with 42 U.S.C. 3607 who are unable to live independently, but who do not need the skilled nursing care of a rest home, nursing home, or convalescent center. These facilities may consist of individual dwelling units of a barrier-free design, with separate bathroom facilities and a full kitchen. The facility may provide a minimal amount of supportive health care monitoring, such as assistance with medication, but is limited to health care services that do not require state or federal licensing. These facilities may have a communal dining area, recreation facilities (such as a library, lounge, or game room), laundry facilities, and open space.	Allowed	Allowed	Allowed	Allowed

Notes

- Courtyard apartments are not addressed specifically by the zoning code, but would be allowed as a triplex, fourplex, or multifamily dwelling, depending on the number of units.

- Tiny houses as defined by state law would be allowed as detached single-family dwellings or as accessory dwelling units.
- Adult family homes and residential care facilities are allowed in all residential zone districts, except for the MHP Manufactured Home Park zone district and in all commercial zone districts.
- Group foster homes are allowed in all residential zone districts and in the Neighborhood Commercial (NC) zone district as a conditional use and are allowed in all other commercial zone districts except the Historic Commercial (HC) zone district.
- Convalescent centers, rest homes, and nursing homes are allowed in the Mixed Use (MU), Capitol Boulevard Community (CBC), and General Commercial (GC) zone districts.
- High-rise residential (five stories or more) uses are permitted in the some subdistricts of the Capitol Boulevard Community (CBC), Brewery District (BD), and Town Center (TC) zone districts and it is a conditional use in the GC General Commercial zone district.
- Mid-rise multifamily residential (three or four stories) uses are permitted in the GC General Commercial zone district.
- Multifamily dwellings, adult family homes, and residential care facilities are a permitted use in the HC Historic Commercial zone district.
- Independent Senior Housing Facilities are allowed in the Neighborhood Commercial (NC) zone district and Assisted Senior Housing Facilities are allowed in the Neighborhood Commercial (NC) zone district as a conditional use.
- Dwelling or dwelling unit is defined in the TMC as a building or a portion thereof designed for occupancy by one family for residential purposes, having kitchen and bathroom facilities, and on a permanent foundation. A dwelling used as a rental unit shall not be rented for less than thirty consecutive days at a time.
- Family is defined in the TMC as an individual or two or more persons, related by blood, marriage or adoption, or two or more persons with functional disabilities as defined in TMC Chapter 18.53, or a group of not more than six unrelated persons, living together to share a single dwelling unit. **Mayor's June 6, 2021 Comment:** *The Mayor noted the legislature changed the law in 2021 limiting our ability to limit the number of unrelated persons in a house.*

Regulations Evaluation #2 – Density, and Bulk and Dimensional Regulations

Tables 31-33 *Development code density, and bulk and dimensional regulation summary* lists the density, and bulk and dimensional regulations for each of the zone districts that allow housing in the City.

Table 31. Development code density, and bulk and dimensional regulation summary (1 of 3).

Density and Bulk and Dimensional Regulations[8]	RSR Residential /Sensitive Resource Zone District	SFL Single-Family Low Density Residential Zone District	SFM Single-Family Medium Density Residential Zone District
Density (low to high number of dwelling units per acre)	2 to 4[9]	4 to 7[8]	6 to 9[8]
Lot Size (Minimum)	9,000 SF	3,200 SF	3,200 SF
Lot Size (Maximum)	None	None	None
Clustered Subdivision	Yes	Yes	Yes
Impervious Lot Coverage	Depends on lot size	60%	70%
Structure Height	35 feet	35 feet	35 feet
Front Yard	20 – 25 feet	10 feet	10 feet

[8] Table 31 is intended to be a summary for general comparison only. Refer to the Tumwater Municipal Code for additional requirements and exceptions.
[9] DU/Acre = Dwelling units per acre. For example, 2-4 DU/Acre means that the minimum allowed density in the RSR zone district is two dwelling units per acre and the maximum allowed density is four dwelling units per acre. In many zone districts, achieving the maximum listed DU/acre is dependent on the purchase of transfer of development rights in accordance with TMC Chapter 18.57. The calculation of the density requirements is based on the portion of the site devoted to residential and associated uses (e.g., dwelling units; private community clubs; open space; stormwater detention, treatment and infiltration). The following land is excluded from density calculations:

1. Land that is required to be dedicated for public use as open space, right-of-way, or land on which development is prohibited by TMC Title 16, Environment, and land that is to be used for private roads. Provided, that portion of open space/park areas that consists of stormwater facilities and that is designed for active and/or passive recreational purposes in accordance with the drainage design and erosion control manual for Tumwater shall not be excluded from density calculations;
2. Land that is intended for future phases of development created in accordance with TMC 18.14.060;
3. Land that consists of lots devoted to uses other than residential and associated uses, including but not limited to churches, schools, and support facilities (except for stormwater detention, treatment, and infiltration facilities).

Density and Bulk and Dimensional Regulations[8]	RSR Residential /Sensitive Resource Zone District	SFL Single-Family Low Density Residential Zone District	SFM Single-Family Medium Density Residential Zone District
Side Yard	7.5 feet	5 feet	5 feet
Rear Yard	20 – 25 feet	20 feet[10]	20 feet[11]
Planned Unit Development	Not Allowed	Allowed	Allowed

[10] Accessory dwelling units may be located a minimum of five feet from property line.
[11] Accessory dwelling units may be located a minimum of five feet from property line.

Table 32. Development code density, and bulk and dimensional regulation summary (2 of 3).

Density and Bulk and Dimensional Regulations[12]	MFM Multifamily Medium Density Residential Zone District	MFH Multifamily High Density Residential Zone District	MU Mixed Use Zone District
Density (low to high number of dwelling units per acre)	9 to 15[813]	14 to 29[814]	14 and greater
Lot Size (Minimum)	N/A	N/A	None
Lot Size (Maximum)	None	N/A	None
Clustered Subdivision	N/A	N/A	N/A
Impervious Lot Coverage	70%	70%	85%
Structure Height	40 feet	Lesser of 50 feet or five stories[15]	Lesser of 50 feet or five stories
Front Yard	10 feet	10 feet	No minimum
Side Yard	5 feet	5 feet	No minimum
Rear Yard	5 feet	5 feet	No minimum
Planned Unit Development	Allowed	Allowed	Allowed

[12] Table 32 is intended to be a summary for general comparison only. Refer to the Tumwater Municipal Code for additional requirements and exceptions.
[13] Note that maximum density in the Multifamily Medium Density Residential (MFM) zone district can be increased to 20 dwelling units per acre if permanently affordable housing units are provided in a new multifamily housing project ten or more dwelling units in size and meet the requirements of TMC 18.42.140.
[14] Note that maximum density in the Multifamily High Density Residential (MFH) zone district can be increased to 39 dwelling units per acre if permanently affordable housing units are provided in a new multifamily housing project ten or more dwelling units in size and meet the requirements of TMC 18.42.140.
[15] Note that maximum height in the Mixed Use (MU) zone district can be increased to the lesser of 60 feet or six stories if permanently affordable housing units are provided in a new multifamily housing project 30 or more dwelling units in size and meet the requirements of TMC 18.42.140.

Table 33. Development code density, and bulk and dimensional regulation summary (3 of 3).

Density and Bulk and Dimensional Regulations[16]	CBC Capitol Boulevard Community Zone District	TC Town Center Mixed Use and/or Town Center Residential Subdistrict	BD Brewery District Zone	MHP Manufactured Home Park Zone District
Density (low to high number of dwelling units per acre)	30 and greater	30 and greater	10 and greater	6 to 9[8]
Lot Size (Minimum)	None	None	None	N/A
Lot Size (Maximum)	None	None	None	N/A
Clustered Subdivision	N/A	N/A	N/A	N/A
Impervious Lot Coverage	None	None	75% - 100%	85%
Structure Height	50 to 65 feet[17]	55 to 85 feet[18]	35 to 55 feet[19]	40 feet
Front Yard	12 feet from curb line	0 feet	0 to 10 feet	10 feet
Side Yard	No minimum	0 feet	0 to 10 feet	5 feet
Rear Yard	No minimum	feet	0 to 10 feet	5 feet

[16] Table 33 is intended to be a summary for general comparison only. Refer to the Tumwater Municipal Code for additional requirements and exceptions.
[17] Note that maximum height in portions of the Capitol Boulevard Community (CBC) zone district can be increased to 75 feet or 50 feet if permanently affordable housing units are provided in a new multifamily housing project 30 or more dwelling units in size and meet the requirements of TMC 18.42.140.
[18] Note that maximum height in portions of the Town Center (TC) zone district can be increased to 65 feet if permanently affordable housing units are provided in a new multifamily housing project 30 or more dwelling units in size and meet the requirements of TMC 18.42.140.
[19] Note that maximum height in portions of the Brewery District (BD) zone district can be increased by 10 feet if permanently affordable housing units are provided in a new multifamily housing project 30 or more dwelling units in size and meet the requirements of TMC 18.42.140.

Density and Bulk and Dimensional Regulations[16]	CBC Capitol Boulevard Community Zone District	TC Town Center Mixed Use and/or Town Center Residential Subdistrict	BD Brewery District Zone	MHP Manufactured Home Park Zone District
Planned Unit Development	Allowed	Allowed	Allowed	Not Allowed

Notes

- The General Commercial (GC) zone district, new multifamily or mixed use projects with a total of thirty or more dwelling units that provide thirty percent of those units as permanently affordable housing units would be allowed a maximum building height increase of ten feet, subject to imaginary airspace surface limitations. This would create a new maximum height limit of 75 feet. Projects providing permanently affordable housing units by this method would have to meet the requirements of TMC 18.42.140.

Regulations Evaluation #3 – Housing Innovation Program

Table 34 *Housing innovation program review* assesses the number of housing tools that are currently used the City by comparing them to those recommended in the Puget Sound Regional Council's Housing Innovation Program. The Housing Innovation Program was created to promote housing options and affordability in local communities. This assessment of housing tools will assist in the development of Housing Action Plan strategies to increase housing options in the city.

This evaluation shows that the City utilizes 32 of the 49 Housing Innovation Program Housing Tools and the City would be willing to consider using more of the tools.

Table 34. Housing innovation program review.

HIP Housing Tools	Housing Tools Currently Available in in the City	Comments
Development Types		
Accessory dwelling units (ADU)	Yes	Accessory dwelling units have been allowed in the City with minimal restrictions. The City Council updated the codes further in 2021 by Ordinance No. O2020-005 on March 16, 2021. In addition, the City is providing free accessory dwelling unit house plans for residents wanting to build units.
Cluster development	Yes	Allowed through the transfer of development rights program.
Cottage housing	Yes	Cottage housing allowed as a use in 2017. The City Council updated the codes in 2021 by Ordinance No. O2020-005 on March 16, 2021 to allow cottage housing in all single-family zone districts.
Infill development	Yes	Encouraged and allowed.
Master planned communities	No	The City has limited areas that would be appropriate for a master planned community, but the City does use the Planned Unit Development process, as well as development agreements to meet the intent of a master planned community.

HIP Housing Tools	Housing Tools Currently Available in in the City	Comments
Mixed use development	Yes	Brewery District (BD), Capitol Boulevard Community (CBC), Town Center (TC), and Neighborhood Commercial (NC) and Mixed Use (MU) zone districts encourage these types of development as well as the General Commercial (GC) zone district.
Mobile/manufactured homes	Yes	Allowed in all residential zone districts.
Multifamily development	Yes	Allowed in multifamily zone districts as well as Brewery District (BD), Capitol Boulevard Community (CBC), Town Center (TC), and Neighborhood Commercial (NC) and Mixed Use (MU) zone districts encourage these types of development as well as the General Commercial (GC) zone district.
Planned unit development	Yes	Encouraged and allowed.
Preservation & rehabilitation	Yes	Encouraged and allowed.
Small lot single family development	Yes	The City Council updated the codes in 2021 by Ordinance No. O2020-005 on March 16, 2021 to allow 3,200 SF lots in the Single Family Low Density Residential (SFL) and Single Family Medium Density Residential (SFM) zone districts.
Townhomes	Yes	The City Council updated the codes in 2021 by Ordinance No. O2020-005 on March 16, 2021 to expand where such uses are allowed.
Zero lot line development	Yes	Part of townhouse and rowhouse developments. The City Council updated the codes in 2021 by Ordinance No. O2020-005 on March 16, 2021 to expand where such uses are allowed.

HIP Housing Tools	Housing Tools Currently Available in in the City	Comments
Other Regulatory Tools		
Design guidelines	Yes	Design guidelines adopted in 2016.
Flexible single family development regulations	No	The City would be willing to consider this tool in certain areas of the City.
Form based zoning	No	The City would be willing to consider this tool in certain areas of the City.
Inclusionary zoning	Yes	The City Council updated the codes in 2021 by Ordinance No. O2020-005 on March 16, 2021 to allow in multifamily zone districts as well as Brewery District (BD), Capitol Boulevard Community (CBC), Town Center (TC), and Neighborhood Commercial (NC) and Mixed Use (MU) zone districts encourage these types of development.
Lot size averaging	No	The City would be willing to consider this tool in certain areas of the City.
Minimum densities	Yes	In all zone districts that allow residential uses.
No maximum densities	Yes	In the Brewery District (BD), Capitol Boulevard Community (CBC), Town Center (TC), Neighborhood Commercial (NC), Mixed Use (MU), and General Commercial (GC) zone districts.
Performance zoning	No	The City would be willing to consider this tool in certain areas of the City.
Regulatory streamlining	Yes	Ongoing process of identifying and improving regulatory processes.
SEPA categorical exemptions	Yes	In November 2019, the City Council approved Ordinance No. O2019-022, which raised the SEPA categorical exemption threshold for multifamily projects to the maximum under State law.

HIP Housing Tools	Housing Tools Currently Available in in the City	Comments
Short plats	Yes	Short plats are defined as nine or fewer lots to match the maximum allowed by state law.
Transit oriented development (TOD) overlays	Yes	The Brewery District (BD), Capitol Boulevard Community (CBC), Town Center (TC) and zone districts are effectively this kind of overlay. Could be expanded to include the Littlerock Subarea.
Transfer of development rights (TDR) for affordable housing	No	The City would be willing to consider this tool. There would need to be work with Thurston County to do this.
Up-zones & rezones	Yes	The City has been exploring more options for this tool, most recently in 2020 in various locations in the City.
Incentives		
Density bonuses	Yes	The City Council updated the codes in 2021 by Ordinance No. O2020-005 on March 16, 2021 to allow for density bonuses as an incentive for permanently affordable multifamily housing as well as the already existing bonuses for transfer of development rights for rural development.
Fee waivers or reductions	Yes	The fee reductions were identified in a strategy to pursue in the 2019 City Council Affordable Housing Work Program. City is currently developing a fee resolution for review and approval by the City Council in 2021.
Incentive zoning	Yes	The City Council updated the codes in 2021 by Ordinance No. O2020-005 on March 16, 2021 to allow for permanently affordable housing to be built in exchange for density or building height increases depending on the zone district.

HIP Housing Tools	Housing Tools Currently Available in in the City	Comments
Multifamily tax exemption (MFTE)	Yes	The City Council established the Multifamily tax exemption program on April 4, 2017 by Ordinance No. O2017-004 for 8-years and the 12-year Multifamily Tax Exemption developments in the Brewery District (BD) and Capitol Boulevard Community (CBC) plan areas. On January 21, 2020, the City Council approved Ordinance No. O2019-023, which expanded the 12-year Multifamily Tax Exemption program to the Tumwater Town Center (TC) and Littlerock Road Subarea.
Parking reductions	Yes	The City Council updated the codes in 2021 by Ordinance No. O2020-005 on March 16, 2021 to reduce parking requirements for certain residential use.
Permitting priority	No	The City has considered a permitting priority system for affordable housing, but has not seen the need given the current permit approval timelines.
Planned action EIS	No	The City would be willing to consider this tool in certain areas of the City, such as the Brewery District or the Capitol Boulevard Community Plan Areas.
Other Financial Tools		
Commercial linkage fees	No	Economic conditions at not right for the City to use this tool.
Credit enhancement	No	Economic conditions at not right for the City to use this tool.
Local housing fund	Yes	The City is working with the regional Housing Council in allocating regional housing funds as well as allocating CDGB funds for housing assistance.

HIP Housing Tools	Housing Tools Currently Available in in the City	Comments
Public land for affordable housing	No	The City has considered this tool, but it did not identify any surplus public land that could be used for this purpose.
Project-Level Tools		
Affordability covenants	Yes	The City Council updated the codes in 2021 by Ordinance No. O2020-005 on March 16, 2021 to allow for permanently affordable housing to be built in exchange for density or building height increases depending on the zone district to be managed by permanent covenants and restrictions.
Development agreements	Yes	The City uses development agreements for new development now and it can be used for affordable housing projects.
Renter/Homeowner Assistance		
Displacement resources	No	The City has considered this tool, but has decided it does not have the financial or staff resources to fund and manage its use. If it is considered, it may be part of the actions of the Regional Housing Council.
Direct Household Assistance	Yes	The City has considered this tool, and has funded local non-profits to run programs for rental assistance.
Foreclosure resources	No	The City has considered this tool, but has decided it does not have the financial or staff resources to fund and manage its use. If it is considered, it may be part of the actions of the Regional Housing Council.
Partnerships		
Nonprofit partnerships	Yes	The City has a number of local non-profits it work with directly as well as regional non-profits through the Regional Housing Council.

HIP Housing Tools	Housing Tools Currently Available in in the City	Comments
Interjurisdictional cooperation	Yes	The City has worked with other jurisdictions in a number of ways, such as the development of the regional Thurston Climate Mitigation Plan and the Housing Action Plan development process, as well as formally on homelessness and affordable housing through the Regional Housing Council.
Education & Outreach		
Community outreach plans	No	The City would be willing to consider developing this tool.
Educating permitting officials	No	The City would be willing to consider developing this tool.
NIMBY, strategies to address	No	The City would be willing to consider developing this tool.
Strategic marketing	No	The City would be willing to consider developing this tool.

Regulations Evaluation #4 – Development Code and Other Barrier Summary

Table 35 *Development code barrier summary* identifies potential barriers to building housing within the City's current development codes and practices.

Table 36 *Other potential barriers summary* identifies potential barriers to building housing within the City's current development codes and practices.

The identification of these potential barriers will assist in the development of Housing Action Plan strategies to increase housing in the City.

Table 35. Development code barrier summary.

	Potential Development Code Barriers
Housing Types	
HIGH DENSITY	
Multifamily	**Pedestrian & Vehicle Access and Circulation** • Explore reciprocal access easements for adjacent developments **Parking** • Consider reducing minimum stall size for some portion of parking requirements • Re-examine required minimum parking requirements • Re-examine drive aisle minimum width • Consider shared parking provisions as a means of reducing parking requirements **Landscaping** • Explore options for alternative landscape buffer widths • Consider changes to parking lot landscaping requirements • Consider granting more flexibility in landscape chapter **Incentives** • Explore expanding incentives, including by encouraging three bedroom units

	Potential Development Code Barriers
MEDIUM DENSITY	
Triplex and Fourplex	**Allowed Uses** • Expand as a permitted use to the Single-Family Medium Density Residential (SFM) zone district **Parking** • Re-examine required minimum parking requirements • Consider shared parking provisions as a means of reducing parking requirements
Townhouse	**Allowed Uses** • Expand as a permitted use to the Single-Family Medium Density Residential (SFM) zone district without a Planned Unit Development • Expand as a permitted use to the Single-Family Low Density Residential (SFL) zone district with a Planned Unit Development **Parking** • Re-examine required minimum parking requirements • Consider shared parking provisions as a means of reducing parking requirements
Duplex	**Allowed Uses** • Expand as a permitted use without restrictions in the Single-Family Low Density Residential (SFL) and Single-Family Medium Density Residential (SFM) zone districts **Parking** • Re-examine required minimum parking requirements • Consider shared parking provisions as a means of reducing parking requirements

	Potential Development Code Barriers
LOW DENSITY	
Small Lot Single Family	**Parking** • Re-examine required minimum parking requirements • Review parking requirements to allow tandem garages or clustered parking **Other** • Consider adding a provision regarding zero-lot line development
Accessory Dwelling Units	**Parking** • Re-examine required minimum parking requirements **Other** • Consider increasing accessory dwelling unit size to 1,000 square feet • Simplify water and sewer connection requirements • Work on promotion of accessory dwelling unit options
Detached Single family	**Parking** • Re-examine required minimum parking requirements • Review parking requirements to allow tandem garages or clustered parking **Other** • Review lot coverage and setback requirements
Manufactured Homes	**Parking** • Re-examine required minimum parking requirements
Code Requirements	
GENERAL STANDARDS	
Density	**Potential Density Increases** • Explore increasing minimum densities for multifamily zone districts • Consider allowing up zones within the large lot residential low zones once utility infrastructure, such as sewers, is available

	Potential Development Code Barriers
Landscaping Standards	**Landscaping** • Consider changes to the landscaping code that would be more supportive of and complimentary to higher density and mixed use residential development types • Consider options for alternative landscape buffer widths • Consider changes to surface parking landscaping • Consider removing/reducing the non-compatible buffer requirement between residential developments of different densities, and certain commercial uses
Parking	**Parking** • Reduce required off-street parking ratios in residential areas near transit service and where there is sufficient on street parking to increase the buildable land available for housing
Incentives	**Development Incentives** • Add a development incentive chapter to Title 18 *Zoning* to explore methods to incentivize methods to incentivize a variety of different housing types
OTHER	
Design Guidelines	• Review design guidelines to determine if amendments are needed to allow for the development of more affordable housing
Parking Lots, Driveways	• Consider reducing the amount of pavement required in parking lots and driveways for multifamily developments
Planned Unit Development	• Review the Planned Unit Development requirements and consider amendments to TMC 18.36 *Planned Unit Development (PUD) Overlay*
Height Limits	• Explore increasing height limits
Neighborhood Compatibility	• Consider reducing requirements for multifamily developments near higher intensity uses • Examine setbacks and screening and consider basing it on structure height or mass as opposed to zone district

	Potential Development Code Barriers
Unit Lot Subdivision	• Explore options for subdivision of attached units (unit lot subdivision) to allow for fee-simple ownership instead of condominium ownership. This would be specifically for detached and attached housing units in multifamily residential and mixed-use zone districts
General Development Standards	• Vary development standards, such as parking, open space, and setbacks, by certain housing types to provide permanently affordable housing

Table 36. Other potential barriers summary.

	Other Potential Barriers
OTHER BARRIERS	
Infrastructure Investments	• Make infrastructure investments for infill areas needing upgrades with follow-up by City staff to develop potential scenarios with emphasis on areas where affordable housing is most likely to occur
Development Standards	• Review the City's Engineering Development Standards to identify potential barriers
Comprehensive Plan Map Amendments and Rezones	• Review the City's Comprehensive Plan and the Citywide zoning map designations and determine if there are areas in the City that could support a higher range of residential densities

Appendix E. Previous Work

Background

After the City Council adopted Resolution No. R2018-016 in July 2018, the City has been working on a number of actions to reduce homelessness, increase affordable housing, and collaborate with other jurisdictions and agencies to explore regional solutions to these issues.

The Planning Commission and the City Council undertook a significant effort from September 2018 to May 2019 to develop the Affordable Housing Work Plan for the City Council to use in make informed decisions when prioritizing the next steps to implement Resolution No. R2018-016. Since 2019, the City had spent a substantial amount of time implementing the 2019 Affordable Housing Work Plan through ordinances and process changes.

While the City was implementing the 2019 Affordable Housing Work Plan, the state legislature passed E2SHB 1923 in 2019, which created state grants through the Department of Commerce to address the need to create more affordable housing through the creation of local housing action plans. Seeing an opportunity to pool resources and work regionally to create materials to support the development of a City's Housing Action Plan, the City joined with the Cities of Lacey and Olympia in applying for the state grant.

By January 2020, the three cities were awarded the grant, agreed to an interlocal agreement to work together on the initial work products, and contracted with the Thurston Regional Planning Council (TRPC) to do the work. With the help of TRPC staff, a stakeholder group made up of developers, real estate professionals, and housing activists, as well as staff from the three jurisdictions, over the course of 2020 and into January 2021, a Regional Needs Housing Assessment, a Landlord Survey, and a draft Housing Action Plan template were completed.

2016 Comprehensive Plan Update

In 2016 to ensure the plan complied with the requirements of the GMA, Chapter 36.70A RCW as part of the Growth Management Plan requirement to update the City's Comprehensive Plan every eight years in accordance with RCW 36.70A.130(1) under Ordinance No. O2016-012, the City reviewed and revised the Housing Element of the Comprehensive Plan.

2018 Resolution No. R2018-016 Homelessness and Affordable Housing

In the first half of 2018, the City Council devoted considerable time to discussions of the causes of and resources available to address homelessness and the lack of affordable housing in the City. In July 2018, the City Council adopted Resolution No. R2018-016 Homelessness and Affordable Housing, which included a number of actions to start to reduce homelessness, increase affordable housing, and continue to work with other jurisdictions and agencies to explore regional solutions to these issues.

A. <u>Reduce Homelessness</u> – Increase resources/actions to combat/decrease regional homelessness.

Take the following actions now:

1. Review, and clarify as necessary, policies related to homelessness for first responders.
2. Develop strategies with the Tumwater School District and nonprofit partners to house homeless students/families.
3. Better understand and describe the extent and general location of Tumwater poverty and low-income areas.
4. Commit more current City resources to targeted regional homelessness actions.
5. Act to better connect people to services.
6. Continue to participate in homeless count each year.
7. Meet with Tumwater faith leaders to explore faith community's potential role addressing homelessness.
8. Assess and track homeless/low-income services in Tumwater.

Review and evaluate the following actions once the actions above are complete and their outcomes evaluated:

1. Further explore community support for a new tax/fee source for targeted homeless housing and services.
2. Evaluate Tumwater's future role in providing managed encampments, safe overnight parking areas, and shelters. May include code amendments addressing these land uses.

B. <u>Boost Housing Affordability</u> – Actions to increase affordable housing.

Take the following actions now:

1. Pursue grants for affordable housing.
2. Strengthen incentives for affordable housing within the Capital Corridor and Brewery District and explore extending these incentives to the entire InterCity Transit #13 bus corridor.
3. Evaluate and, if necessary, propose amendments to City code and zoning to support smaller scale affordable housing in neighborhoods to offer a greater variety of housing options.
4. Promote actions property owners can take to increase affordable housing such as accessory dwelling units.
5. Participate in regional discussions to understand factors affecting housing affordability and what steps can be taken to mitigate new housing costs.
6. Assess actions for assuring mobile home parks continue to provide affordable housing toward a goal of property ownership by residents.
7. Encourage more housing development overall.
8. Encourage abandoned houses moving back into the active housing inventory.

9. Enact policies to protect tenants experiencing housing instability, which may include:
    a. Review current eviction/renter protection policies, laws, and legal services and assess possible actions.
    b. Assess need for/knowledge of landlord-tenant conflict resolution services.
    c. Support renter resources (mediation, etc.).
10. Inventory and track affordable housing units in Tumwater.

Review and evaluate the following actions once the actions above are complete and their outcomes evaluated:

1. Further explore community support for a new tax/fee source to support affordable housing and low-income services.
2. Consider options for reducing fees and service charges for certified affordable housing units.
3. Focus on creating one significant affordable housing project with partners in the next five years.

C. <u>Ongoing Regional Actions</u> – Continue work with other jurisdictions and agencies to explore regional solutions to homelessness and affordable housing.

2019 Housing Affordability Work Plans

After the City Council adopted Resolution No. R2018-016 in the summer of 2018, the City worked on a number of actions to reduce homelessness, increase affordable housing, and continue to collaborate with other jurisdictions and agencies to explore regional solutions to these issues.

One of those tasks was the City Council's 2019 Housing Affordability Work Plan, which is intended to increase the amount of privately and publicly funded residential development in the City to bring the supply and demand of housing in the City more into balance.

Objective

The City Council's development text and fee work plans addressed the following actions from Resolution No. R2018-016, which support the goal of increasing housing affordability:

GOAL: Boost Housing Affordability

Action #2 – Strengthen incentives for affordable housing within the Capitol Corridor and Brewery District and explore extending these incentives to the entire InterCity Transit #13 bus corridor

Action #3 – Evaluate and, if necessary, propose amendments to City code and zoning to support smaller scale affordable housing in neighborhoods to offer a greater variety of housing options

Action #4 – Promote actions property owners can take to increase affordable housing such as accessory dwelling units

Action #7 – Encourage more housing development overall

Background

After the City Council adopted Resolution No. R2018-016, the Planning Commission studied material on homelessness and the lack of affordable housing in the City in the fall of 2018. In the winter of 2019, the Planning Commission reviewed potential implementation actions the City could take to increase its affordable housing supply by reviewing the City's land use regulations and development fee structures for barriers to affordable housing.

Staff prepared draft tables of potential implementation actions for the Planning Commission to consider, which included background information as well as a rough estimate of the complexity of enacting the change, its relative effect in increasing the affordable housing stock in the City, and potential costs to the City. The Planning Commission completed its recommended development text and fee work plans on March 12, 2019.

The City Council reviewed the Planning Commission's proposed development text and fee amendment work plans at worksessions on March 26, 2019, April 23, 2019, and May 28, 2019. At their May 28, 2019 worksession, the City Council decided to focus on specific items in the Planning Commission's proposals in the final development text and fee amendment work plans.

Development Code Text Amendments

The intent of the development code text amendments is to increase the amount of privately and publicly funded residential development in the City, which would increase the overall supply of housing. Some of the development code text amendments would focus on increasing the amount of permanently affordable housing in the City.

The City Council's final work plan for development code text amendments to provide more housing, affordable and otherwise, in the City included the following actions:

1. Review the City's Comprehensive Plan and the Citywide zoning map designations and determine if there are areas in the City that could support a higher range of residential densities.
2. Provide an affordable housing density bonus in addition to the maximum density permitted in residential zone districts in limited areas of the City, if the proposed project provides permanently affordable housing units. In addition, consider a density bonus to incentivize developers to provide specific housing types in limited areas of the City that provide permanently affordable housing units.
3. Expand the locations where special residential development types such as accessory dwelling units and cottage housing and smaller types of housing such as micro-housing, tiny homes, and smaller lot single-family development are permitted. In addition, consider incentives for including accessory dwelling units with new single-family home developments.
4. Streamline accessory dwelling unit permitting by researching what other jurisdictions such as the City of Lacey and the cities in east King County are doing and look at ways to incorporate that work into the City's processes.
5. Add duplexes or other smaller types of housing units as a permitted uses to single family residential zone districts, such as the Residential/Sensitive Resource (RSR), Single-Family Low Density Residential (SFL), and Single-Family Medium Density Residential (SFM) zone districts.

6. Increase height limits in the Knoll subdistrict of the Brewery District zone district for permanently affordable housing projects.
7. Reduce required off-street parking ratios in residential areas near transit service and where there is sufficient on street parking to increase the buildable land available for housing. In addition, consider eliminating the 1.0 parking space per dwelling unit requirement for accessory dwellings.
8. Vary development standards, such as parking, open space, and setbacks, by certain housing types to provide permanently affordable housing. Note: Council asked that a more detailed proposal be prepared for this item before it gives its approval to include in the work plan.
9. Require new housing created specifically to be affordable to remain affordable in perpetuity with protective covenants and deed restrictions.
10. Raise the SEPA categorical exemption thresholds for multifamily residential development from 25 to 60 multifamily residential units.
11. Explore options for subdivision of attached units (unit lot subdivision) to allow for fee-simple ownership instead of condominium ownership. This would be specifically for detached and attached housing units in multifamily residential and mixed-use zone districts.

Development Fee Amendments

Based on the implementation actions identified in the Brewery District and Capitol Corridor Subarea Plans, the City Council's development fee amendment work plan included actions to reduce development fees to encourage the building of more housing, which could include permanently affordable housing. The actions in the development fee amendment work plan are focused in the Brewery District and the Capitol Boulevard Corridor subareas, the Town Center, and the Littlerock Road Subarea.

The intent would be to improve the financial viability of new development by allowing private and public developers to spread out or reduce the costs of infrastructure and capital improvements over the course of the development process and in turn allow more dwelling units of all types to be built.

The City Council's final work plan for development code fee amendments to provide more housing in the Brewery District, the Capitol Boulevard Corridor, the Town Center, and the Littlerock Road Subarea of the City included the following actions:

1. Lower, delay, or adjust the timing of development fees, such as impact fees and connection charges, such as:
    a. Transportation impact fees where there is a nexus between the location of affordable housing and access to transit and after working with the Public Works Department to assess transportation demand in these neighborhoods;
    b. Park impact fees after reviewing the assumptions the City considered as part of the Metropolitan Park District ballot measure and working with the Parks and Recreation Department;
    c. Water and sewer connection fees after working with the Public Works Department; and
    d. Sewer capacity development charges for permanently affordable housing after working with the Public Works Department.

2. Exempt emergency housing from impact fees (SHB 2538).
3. Expand the multifamily tax exemption program to other areas of the City, such as the Town Center, and the Littlerock Road Subarea, and look at expanding the percentage of permanently affordable units that would need to be provided.
4. Cut, reduce, or cap fees for nonprofits building permanently affordable housing.
5. Reduce fees for private-sector development of permanently affordable homes and units.
6. Make infrastructure investments for infill areas needing upgrades with follow-up by City staff to develop potential scenarios with emphasis on areas where affordable housing is most likely to occur.
7. Reduce fees for affordable, single-family homes (under 1,500 sq. ft.) and manufactured homes.

March 31, 2025

HOUSING DISPLACEMENT RISK ANALYSIS

For the Cities of Lacey, Olympia, Tumwater, and Yelm

Prepared by:

uncommon BRIDGES & bhc CONSULTANTS

Introduction

This report analyzes housing displacement risks in the cities of Lacey, Olympia, Tumwater, and Yelm. As city populations grow and evolve, policies protecting residents from displacement are critical. Based on analysis of historical policies, current trends, and community dynamics, this report offers actionable recommendations for local governments to enhance housing security and promote equitable living conditions. The research process was informed by robust engagement with community stakeholders.

Communities face unparalleled challenges at the local level. Inflation, fentanyl, and the mental healthcare crisis all contribute to housing displacement. Housing interventions alone cannot succeed without the support of other human and social services. An analysis such as this should be considered within the context of those challenges and the unique way they play out amongst different places and people. While the social conditions for creating housing security are complex, there are policy opportunities that cities can take to reduce displacement and protect community wellbeing.

How can the cities of Lacey, Olympia, Tumwater, and Yelm use this document?

1. To **describe populations at risk** of housing displacement.
2. To explore the dynamics of **housing displacement risk metrics.**
3. To outline **risk reduction policy avenues.**

WHAT IS HOUSING DISPLACEMENT?

Displacement is the process by which a household is forced to move from its community because of conditions beyond their control. Displacement can be described through a number of lenses, including:

- **Economic Displacement -** Displacement due to inability to afford rising rents or costs of homeownership like property taxes.
- **Physical Displacement -** Displacement as a result of eviction, acquisition, rehabilitation or demolition of property, or the expiration of covenants on rent-or income-restricted housing.
- **Cultural Displacement -** Residents are compelled to move because the people and institutions that make up their cultural community have left the area.

Increasing levels of housing displacement have significant implications for communities across the United States. The following section explores how past and present housing policies have contributed to resident displacement, highlighting the disproportionate impact on specific demographic groups. By analyzing the failures of existing policies and the socio-economic dynamics at play, we aim to shed light on pathways to reform that prioritize housing security for all residents. A complete analysis of the sources referenced in the next section can be found in the Housing Displacement Academic Field Scan Memo.

WHO IS AT THE GREATEST RISK OF HOUSING DISPLACEMENT?

Older, Poorer, People of Color

Residential mobility amongst the poor is variable, unplanned, and typically involuntary. Eviction filings doubled between 2000 and 2016. Older people, African Americans, and Latinos are overrepresented across most types of displacement.

Suburban populations

Suburban poverty creates conditions ripe for displacement. With less public transit, poorer households must spend more money to get around. They have limited access to nonprofit services typically concentrated in cities, and confront a municipal infrastructure less suited to deliver holistic social services.

Manufactured Housing Residents

Households in mobile homes are over twice as likely to live in poverty. Half of all mobile homes in the US are in urban areas. There are 1.7 million mobile home renter households and 5.3 million mobile homeowners in the US. Mobile home closures should be treated as mass evictions, which are primary indicators of displacement risk. Those who own their trailers but don't have the means to move them to another location face an additional loss of a valuable household asset.

Families with Children

Households with children are at an increased risk of displacement. A Milwaukee study found that renters with two children have an 11.7% chance of being evicted and a 9.5% chance with one child.

Cost-Burdened Households

Cost-burdened households spend more than 30% of income on housing costs including rent, mortgage, and utilities. Households spending more than half of their income on housing are considered severely cost-burdened.

WHAT PAST HOUSING POLICIES RESULTED IN RESIDENT DISPLACEMENT?

Property owners have significantly more protection under the law than renters.

The de facto imbalance of power between landlords and tenants creates situations where the wellbeing of renters becomes secondary to financial profit with little to no regulation. For example, the Housing Choice Voucher Program provides choices to renters beyond government housing projects, however the lack of protection under anti-discriminatory law makes it difficult for renters to find landlords who accept vouchers, opening the door for residential self-segregation by socio-economic class.

Even when protections for renters exist, a lack of information can be exploited by property managers to coerce renters to act against their own interests.

The housing-specific COVID-19 programs are a prime example of protections put in place that many renters didn't realize they were eligible for.

Policies to improve housing stability in the US most often exacerbate housing insecurity for renters.

That is because US housing policy has a legacy of protecting, preferring, and subsidizing for homeownership and homeowners. Little is done for rent-burdened renters to alleviate displacement risk other than advocating for them to buy homes, a distant possibility for most.

The conversion of public housing projects into mixed-income communities drives housing displacement for low-income households.

Despite the opportunity intentionally designed into mixed-income, multifamily public housing projects, research shows that only one-fifth of original project residents return to experience those benefits.

WHAT TYPES OF CURRENT HOUSING POLICIES CREATE THE RISK OF RESIDENT DISPLACEMENT?

Government subsidized housing aid delivery is notoriously slow.

But it is irreplaceable in the fight to reduce housing displacement. Nesting housing aid into existing, successful, and well-known programs creates a waterfall effect by increasing household disposable income and thereby decreasing the percentage of total income a household spends on housing.

Current market trends and the existing housing policy environment are resulting in growing suburban corporate landlord conglomerates.

Governments should work to support, subsidize, and grow the amount of local small businesses that provide rental housing while incentivizing them to pass on savings to renters. Local property owners are more likely to provide support and relief to renters in financial distress, while corporate landlords are more likely to immediately resort to eviction.

Policies restricting housing development contribute to displacement.

Increasing housing supply makes housing more affordable, and housing affordability is directly correlated to an individual's housing cost burden, an indicator of displacement risk. When new housing is built and priced higher, it pushes older housing into a lower price range, creating additional housing availability for lower-income households. This concept, known as housing stock filtering, is at odds with the commonly accepted drivers of gentrification and neighborhood change.

WHAT ARE COMMUNITY STAKEHOLDERS SAYING?

To gain a locally rooted understanding of housing goals and displacement risks, the project team conducted extensive collaborative outreach. We held a series of planning staff meetings, four community affinity group roundtable discussions, and a community survey that resulted in 167 responses. Affinity groups included those with lived experience and relevant connections to **1) Manufactured housing communities**, **2) Communities of low-wage workers**, **3) Military families and households,** and **4) Accessory dwelling units**. Emergent themes collected during community feedback are outlined below. A full accounting of all engagement analysis and raw data is provided as an attachment to this report.

4
Planning Staff Meetings

4
Affinity Group Roundtables

167
Survey Responses

WHAT WE HEARD

Cities should promote educational programs that **explain the long-term investment opportunity of ADUs**, and the financial plan required to pursue.

Cities should ensure robust transportation is available to residents and **minimize land used for parking in favor of housing density.**

Affordable housing and **homelessness prevention** programs should work closer together as they share the same clientele.

Cities should work with community groups to coordinate a **one-stop shop for housing benefit explanations** and application support.

Cities should **disincentivize corporate ownership of housing** and create a program to support private ownership of mobile home communities and rental units by local, family-owned operations with on-site or local management.

Cities should promote an **educational campaign to private landlords about legal requirements, renters rights,** and renter income qualifications for those on supplemental income.

Cities should use **creative zoning overlays and innovative land use policies** to classify and protect mobile home communities, as well as other types of affordable housing.

WHAT POLICY UPDATES FOR THE REGION WOULD HELP REDUCE HOUSING DISPLACEMENT RISK?

While each jurisdiction has unique policies that support and challenge affordable housing and displacement, several common themes stand out. Every jurisdiction has policies that support various housing types for all income levels, including efforts to minimize regulatory review and unnecessary barriers to housing and support the development of housing for all needs. Jurisdictions also have policies to assist individuals experiencing homelessness and partnerships with organizations that provide assistance or resources to unhoused community members.

While many policies are supportive, crucial policy gaps remain. Broadly speaking, each city can enrich its housing policies by identifying intentional efforts to increase affordability and prevent and mitigate displacement while prioritizing low-income and historically marginalized populations. For example, every city uses the term “neighborhood character,” which could lead to exclusionary housing practices and be leveraged to maintain high-cost housing types unattainable to those with lower incomes. Rather than relying on this vague term, policies could be strengthened by specifying aspects of neighborhoods that should be maintained or enhanced while considering how those requirements may disproportionately impact low-income or historically marginalized populations.

It’s clear from this policy analysis that the cities of Lacey, Olympia, Tumwater, and Yelm are each engaged in important work to increase housing affordability and reduce displacement pressures. The next step is identifying ways these cities can build upon the work they are already doing, whether that is through increasing partnerships with local organizations, implementing additional actions in their Housing Action Plans, and developing new policies to address gaps in the cities’ housing policies to better address racially disparate impacts, displacement, and exclusion in housing.

HOW CAN WE TELL IF A POLICY REDUCES DISPLACEMENT RISK?

To assess and evaluate policy options and recommendations, we completed a policy evaluation using two sets of criteria: displacement-specific and locality-specific. The displacement specific criteria were based on the Department of Commerce's categories of displacement: economic, physical, and cultural. Through discussions with city staff, audits of the cities' Housing Needs Assessments, and stakeholder feedback, we identified additional criteria to better evaluate potential policies and recommendations based on the jurisdiction's unique needs. City specific criteria are included within the displacement risk profile section of this report.

Policy Evaluation Criteria for All Cities

Racially Disparate Impacts: Does this policy prevent racially disparate impacts or work to repair past harm?

Economic Displacement: Does this policy help prevent or mitigate economic displacement?

Physical Displacement: Does this policy help prevent or mitigate physical displacement?

Cultural Displacement: Does this policy help prevent or mitigate cultural displacement?

Housing Exclusion: Does this policy prevent the exclusion of historically marginalized or other vulnerable populations from accessing safe and affordable housing appropriate for their needs?

Implementation Considerations: Does the city have staff and resources necessary to implement this policy effectively?

DISPLACEMENT RISK PROFILES

Generally, housing displacement risk increases when:

- The population becomes more racially and ethnically diverse
- Households are spending more than 30% of income on housing
- Rental units become unaffordable for extremely low-income residents
- Poverty rates increase in a community
- Homeownership rates decline

These metrics are derived from the Racially Disparate Impacts tool created by the WA Department of Commerce. The tool has five metrics for housing displacement risk: racial diversity, cost burden, rental affordability, income levels, and homeownership.

The following pages detail the dynamics of housing displacement risk as observed in each of the four cities. Profiles include housing displacement indicator data, policy recommendation summaries, and city-specific policy evaluation criteria. Our profiles have added age and manufactured home unit metrics to reflect research findings and feedback from the community.

A full accounting of all proposed proposals and proposed policy updates can be found in the **Policy Recommendation Matrix** attachment of this report.

HOUSING DISPLACEMENT RISK PROFILE KEY

Risk Statements

Synthesized Statements of Housing Displacement Risk

Risk Factors

%
Emphasized Risk Metric

%
Risk Metric

Policy Avenues

- Policy Avenues to Reduce Housing Displacement Risk

Policy Evaluation Criteria

- City Specific Policy Evaluation Criteria

Sources: HUD Comprehensive Housing Affordability Strategy (CHAS)(2017-2021), US Census American Community Survey 5-Year Estimates (2023), Thurston Regional Planning Council Small Area Population Estimates (2024)

HOUSING DISPLACEMENT RISK PROFILE

LACEY, WA

Lacey has an aging population, where 1 in 3 households are cost burdened, and severely limited vacant units for extremely-low income residents.

Where is our risk coming from?

36%
of All Households are Cost Burdened

38%
of Residents are Low, Very Low, or Extremely Low Income

57%
of Vacant Rental Units are for Low or Very Low Income Residents

0%
of Vacant Rental Units are for Extremely-Low Income Residents

90%
Growth of non-White population 2010-2023

25%
of Residents are 60+ Years Old

23%
of residents are Under 19 Years Old

2,380
Total Manufactured Housing Units

Most Prominent Risk Type:
Economic Displacement

Policy Avenues to Reduce Housing Displacement Risk Using the Comprehensive Plan Housing Chapter

- Identify and develop partnerships with organizations that provide or support low income, workforce, and senior housing as well as other populations with unique housing needs.
- Create a manufactured home park zone type to promote preservation. Allow manufactured home parks in multifamily and commercial areas.
- Encourage housing affordable to lower wage earners so those who work in Lacey can afford to live in the city

Policy Evaluation Criteria

- Does this policy encourage or remove barriers to providing affordable housing?
- Does this policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?
- Does this policy increase overall housing supply?
- Does this policy reduce housing costs?

Sources: HUD Comprehensive Housing Affordability Strategy (CHAS)(2017-2021), US Census American Community Survey 5-Year Estimates (2023), Thurston Regional Planning Council Small Area Population Estimates (2024)

HOUSING DISPLACEMENT RISK PROFILE

OLYMPIA, WA

Housing for all income levels exists in Olympia, but nearly 40% of households are cost burdened and there is a relative lack of units for extremely-low income residents.

Where is our risk coming from?

36% of All Households are Cost Burdened

44% of Residents are Low, Very Low, or Extremely Low Income

65% of Vacant Rental Units are for Low or Very Low Income Residents

11% of Vacant Rental Units are for Extremely-Low Income Residents

91% Growth of non-White population 2010-2023

23% of Residents are 60+ Years Old

20% of residents are Under 19 Years Old

1,030 Total Manufactured Housing Units

Most Prominent Risk Type

Physical Displacement

Policy Avenues to Reduce Housing Displacement Risk Using the Comprehensive Plan Housing Chapter

- Policies for the protection and preservation of the manufactured home community.
- Additional measures to encourage the retention and maintenance of existing affordable housing, especially in high-opportunity neighborhoods or areas that have historic patterns of segregation.
- Evaluate the relationship between the Olympia and county's home fund to ensure housing goals are met.
- Expanding allowance of residential tenant improvements without triggering land use requirements
- Allowing Single Room Occupancy (SRO) housing in all multifamily zones

Policy Evaluation Criteria

- Does this policy incentivize and support the development of affordable and deeply affordable housing, including supportive?
- Does this policy increase housing supply, including middle housing and ADUs?
- Does this policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?

Sources: HUD Comprehensive Housing Affordability Strategy (CHAS)(2017-2021), US Census American Community Survey 5-Year Estimates (2023), Thurston Regional Planning Council Small Area Population Estimates (2024)

HOUSING DISPLACEMENT RISK PROFILE

TUMWATER, WA

Tumwater has experienced a significant growth in population diversity accompanied by an increase in income variability where 4 in 10 residents are low, very-low, or extremely-low income.

Where is our risk coming from?

30%
of All Households are Cost Burdened

39%
of Residents are Low, Very Low, or Extremely Low Income

50%
of Vacant Rental Units are for Low or Very Low Income Residents

0%
of Vacant Rental Units are for Extremely-Low Income Residents

196 %
Growth of non-White population 2010-2023

22%
of Residents are 60+ Years Old

21%
of residents are Under 19 Years Old

1,280
Total Manufactured Housing Units

Most Prominent Risk Type

Economic Displacement

Policy Avenues to Reduce Housing Displacement Risk Using the Comprehensive Plan Housing Chapter

- A Community Land Trust style program for mobile home communities.
- A City program to support private, local, small scale ownership of mobile home communities. This builds on the City's mobile home housing stock and also wishes to help preserve existing affordable stock
- Increased staffing capacity to process ADUs quickly and reduce costs under City control

Policy Evaluation Criteria

- Does this policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?
- Does this policy incentivize and support the development of affordable and deeply affordable housing?
- Does this policy encourage adaptive reuse of existing residential units or other buildings where feasible?
- Does this policy incentivize or reduce barriers to developing diverse housing types including smaller homes?

Sources: HUD Comprehensive Housing Affordability Strategy (CHAS)(2017-2021), US Census American Community Survey 5-Year Estimates (2023), Thurston Regional Planning Council Small Area Population Estimates (2024)

HOUSING DISPLACEMENT RISK PROFILE

YELM, WA

Yelm has experienced a significant growth in both population diversity and households with children. Affordable units are lacking as 1 in 3 households are spend more than 30% of income on housing.

Where is our risk coming from?

33%
of All Households are Cost Burdened

33%
of Residents are Low, Very Low, or Extremely Low Income

0%
of Vacant Rental Units are for Low or Very Low Income Residents

0%
of Vacant Rental Units are for Extremely-Low Income Residents

164 %
Growth of non-White population 2010-2023

10%
of Residents are 60+ Years Old

33%
of residents are Under 19 Years Old

290
Total Manufactured Housing Units

Most Prominent Risk Type

Physical Displacement

Policy Avenues to Reduce Housing Displacement Risk Using the Comprehensive Plan Housing Chapter

- Protection and preservation of the manufactured home community.
- Policies limiting long-term housing being used for transient rentals.
- Partnerships with low-income housing developers, Housing Authority of Thurston County, and other organizations that provide support for low-income, workforce, senior housing, and those with unique housing needs.
- Community Development Block Grants, Section 108 loans, and other federal resources for affordable housing.
- Offering density bonuses for low-income housing.

Policy Evaluation Criteria

- Does this policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?
- Does this policy incentivize or reduce barriers to developing diverse housing types including smaller homes?
- Does this policy incentivize and support the development of affordable and deeply affordable housing?

Sources: HUD Comprehensive Housing Affordability Strategy (CHAS)(2017-2021), US Census American Community Survey 5-Year Estimates (2023), Thurston Regional Planning Council Small Area Population Estimates (2024)

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More information is available

The executive summary provides an overall picture of housing displacement context risk and relevant approaches for each city. Specific recommendations and data are included in a full report that has been presented to the cities. Each city has been provided with a respective set of policy evaluations and recommendations for next steps.

Technical Appendix Table of Contents

A. Project Methodology
B. Housing Displacement Academic Field Scan Memo
C. Existing Comp Plan Policy Eval Framework
D. Data & Indicators Summary
E. Engagement Themes Summary
F. Risk Profiles & Policy Recommendations
1. Lacey
2. Olympia
3. Tumwater
4. Yelm

File Attachments
1. Policy Evaluation Summary Memo
2. Policy Recommendation Matrix
3. Planning Staff Meeting Summaries
4. Affinity Group Summaries
5. Engagement Survey Analysis
6. Engagement Survey Raw Data
7. Engagement Outreach Database

Technical Appendix Table of Contents

A. Project Methodology
B. Housing Displacement Academic Field Scan Memo
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Project Methodology

Housing Displacement Risk Analysis for the cities of Lacey, Olympia, Tumwater, and Yelm

Introduction

This report analyzes housing displacement risks in the cities of Lacey, Olympia, Tumwater, and Yelm. As urban areas evolve, the need for effective policies that safeguard against displacement becomes increasingly critical. This analysis aims to identify factors contributing to housing instability and displacement, especially among vulnerable populations. By examining historical policies, current trends, and community dynamics, we seek to outline actionable recommendations for local governments to enhance housing security and promote equitable living conditions for all residents. Through collaborative engagement with community stakeholders, this report underscores the importance of inclusive housing strategies that prioritize the needs of marginalized groups while fostering sustainable development.

Research

The project team submitted a Housing Displacement Academic Field Scan memo synthesizing the latest peer-reviewed journals from the last decade that responds to the lines of questioning set out within the Housing Displacement Analysis project for the cities of Lacey, Olympia, Tumwater, and Yelm, including:

- What past housing policies resulted in resident displacement?
- What types of current housing policies create the risk of resident displacement?
- What groups and communities are at the greatest risk of housing displacement?

Data Indicators

For a localized understanding of displacement risk, the project team completed a demographic analysis based on the Racially Disparate Impacts (RDI) tool published by the Washington State Department of Commerce outlining a variety of indicators to measure displacement risk. The RDI tool relies on estimates published by the U.S. Census Bureau and the Department of Housing and Urban Development (HUD). Additionally, demographic data was pulled from the American Community Survey.

Public Engagement

Affinity Groups

Uncommon Bridges coordinated four (4) affinity group conversations to gather community stakeholders for a discussion about housing displacement risk in Lacey, Olympia, Tumwater, and Yelm. Affinity group topics included:

1) Manufactured housing communities,
2) Communities of low-wage workers,
3) Military families and households, and;
4) Accessory dwelling units.

Public Survey

A key aspect of this project involves assessing community insight, perceptions, and lived experiences around the impacts of livability, affordability, and displacement in Olympia, Lacey, Tumwater, and Yelm. A robust data collection effort, including multi-lingual outreach via community anchors, focus groups, and an open-access multi-modal survey, sought to engage both those who have been frequently engaged as well as new perspectives and experiences not included in past policy and housing assessments conducted in the region.

Policy Recommendation Analysis

To assess and evaluate policy options and recommendations, we completed a policy evaluation using two sets of criteria: displacement-specific and locality-specific. The displacement-specific criteria were based on the Department of Commerce's categories of displacement: economic, physical, and cultural. Through discussions with city staff, audits of the cities' Housing Needs Assessments, and stakeholder feedback, we identified additional criteria to better evaluate potential policies and recommendations based on the jurisdiction's unique needs.

Criteria Evaluation Method and Scoring

Policies were evaluated with a set of criteria and scored based on the following scale. These were then totaled to calculate an overall impact score for each policy option.

- **Yes, positive impact** (+2): The policy option has a positive impact and directly addresses the criterion.
- **Somewhat positive impact** (+1): The policy option has a somewhat positive impact, or indirectly addresses the criterion.
- **Neutral/ No impact** (+0): The policy option does not directly address the criterion, but may benefit other housing priorities for the jurisdiction.

- **Negative impact** (-1): The policy option may exacerbate, or detract from, addressing the criterion or issue. However, while some options may have a negative impact on one element of the scoring criteria, it does not mean that they are bad options overall. For example, encouraging redevelopment may increase housing supply overall and reduce long-term displacement pressures, but also increase physical displacement pressures in the short-term.

We used the following criteria for all jurisdictions in this report as a common set.

- **Racially Disparate Impacts**: Does this policy prevent racially disparate impacts or work to repair past harm?
- **Economic Displacement**: Does this policy help prevent or mitigate economic displacement?
- **Physical Displacement**: Does this policy help prevent or mitigate physical displacement?
- **Cultural Displacement: ** Does this policy help prevent or mitigate cultural displacement?
- **Housing Exclusion**: Does this policy prevent the exclusion of historically marginalized or other vulnerable populations from accessing safe and affordable housing appropriate for their needs?
- **Implementation Considerations**: Does the city have the staff and resources necessary to implement this policy effectively?

In addition to these, each of the jurisdictions had their own, unique (yet sometimes related and similar) policy evaluation criteria.

Lacey

- Does this policy encourage or remove barriers to providing affordable housing?
- Does this policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?
- Does this policy increase the overall housing supply?
- Does this policy reduce housing costs?

Olympia

- Does this policy incentivize and support the development of affordable and deeply affordable housing, including supportive?
- Does this policy increase the housing supply, including middle housing and ADUs?
- Does this policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?

Tumwater

- Does this policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?

- Does this policy incentivize and support the development of affordable and deeply affordable housing?
- Does this policy encourage adaptive reuse of existing residential units or other buildings where feasible?
- Does this policy incentivize or reduce barriers to developing diverse housing types including smaller homes?

Yelm

- Does this policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?
- Does this policy incentivize or reduce barriers to developing diverse housing types including smaller homes?
- Does this policy incentivize and support the development of affordable and deeply affordable housing?

Identifying Policy Recommendations

After analyzing the critical issues in each jurisdiction and the challenges of housing displacement, we compiled a comprehensive inventory of potential policies and programs to address these concerns. The list also included each city's respective Housing Action Plan policies to better reflect existing programs and policies to show how these contribute to or detract from anti-displacement goals, and to help the cities prioritize future implementation actions of their HAP.

MEMORANDUM

Date: October 17, 2024
To: Planning and Community Development Departments of the Cities of Lacey, Olympia, Tumwater, and Yelm
From: Ariam Ford, AICP, Equity & Engagement Lead, Uncommon Bridges
Subject: Housing Displacement Academic Field Scan

Purpose

The following document is a synthesis of the latest peer reviewed journals from the last decade that responds to the lines of questioning set out within the Housing Displacement Analysis project for the cities of Lacey, Olympia, Tumwater, and Yelm, including:

- What past housing policies resulted in resident displacement?
- What types of current housing policies create the risk of resident displacement?
- What groups and communities are at the greatest risk of housing displacement?

What past housing policies resulted in resident displacement?

1. **Property owners have significantly more protection under the law than renters do.** The de facto imbalance of power between landlords and tenants creates situations where the wellbeing of renters becomes secondary to financial profit with little to no regulation. For example, the Housing Choice Voucher Program provides choices to renters beyond government housing projects, however the lack of protection under anti-discriminatory law makes it difficult for renters to find landlords who accept vouchers, opening the door for residential self-segregation by socio-economic class (Besbris et al. 2024, 210).
2. **Even when protections for renters exist, a lack of information can be exploited by property managers to coerce renters to act against their own interests.** The housing-specific COVID-19 programs are a prime example of protections put in place that many renters didn't realize they were eligible for (Besbris et al. 2024, 212).
3. **Policies to improve housing stability in the US most often exacerbate housing insecurity for renters.** That is because US housing policy has a legacy of protecting, preferring, and subsidizing for homeownership and homeowners. Little is done for rent-burdened renters to alleviate displacement risk other than advocating for them to buy homes, a distant possibility for most (DeLuca, Stefanie, and Eva Rosen 2022, 345).
4. **Driven by macro-level increases in income inequality, neighborhoods are becoming more segregated by income.** Contrastingly, racial integration is increasing, especially in U.S. cities (Chapple et al. 2017, 10).
5. **The definition of displacement is not universal.** Caused by investment or divestment, displacement takes many forms - direct, indirect, physical, economic, or exclusionary (Chapple et al. 2017, 27).

6. **The conversion of public housing projects into mixed-income communities drives housing displacement for low-income households.** Despite the opportunity intentionally designed into mixed-income, multifamily public housing projects, only one-fifth of original project residents return to experience those benefits (Lee and Evans 2020, 6).
7. **Market corrections and global events do little to overcome the effects of racism and socio-economic discrimination on housing displacement.** While major events such as Covid-19 may create housing uncertainty across all demographics and identities, low-income people of color remain the most likely to experience housing displacement (Lee and Evans 2020, 18).
8. **Quantitative efforts to measure displacement underrepresent the plight of disadvantaged populations by not considering lived experience.** To counter this, displacement studies must include user generated, geographically tracked content to truly understand the state of gentrification risk in a community (Chapple and Zuk 2016, 115).

What types of current housing policies create the risk of resident displacement?

1. Government aid delivery is notoriously slow but critical when trying to implement policies designed to reduce housing displacement. **Nesting housing aid into existing, successful, and well-known programs creates a waterfall effect by increasing household disposable income** and thereby decreasing the percentage of total income a household spends on housing (Besbris et al. 2024, 212).
2. **Governments should take a holistic and comprehensive approach to mapping the overlap of government aid programs in their communities.** Only 1 in 4 households eligible for rental assistance actually receives it. There are opportunities to "nest" housing-specific policies within existing and more consistent government programs to boost successful delivery (Besbris et al. 2024, 208).
3. **Housing relief is most expediently and directly delivered via a landlord or property manager.** Government aid can oftentimes fail to provide timely relief for even those who qualify for assistance (Besbris et al. 2024, 217).
4. **To reduce housing displacement risk, governments should focus on increasing household financial stability and reducing socioeconomic inequities within Suburban communities.** Today, most low-income Americans live in the inner suburbs, where evictions are increasing faster than in urban areas. (Rutan et al. 2023, 164)
5. **To fight a growing trend of suburban corporate landlord conglomerates, governments should work to support, subsidize, and grow the amount of local small businesses that provide rental housing while incentivizing them to pass on savings to renters.** Local property owners are more likely to provide support and relief to renters in financial distress, while corporate landlords are more likely to immediately resort to eviction.(Rutan et al. 2023, 166)
6. **Code enforcement and condemnation can be a policy-driven displacement factor without a comprehensive plan to support displaced tenants.** Low-income households may reside in substandard conditions, and in cases where a property owner is unable or refuses to make improvements, tenants may be forced to vacate (Lee and Evans 2020, 3).

7. **Policies restricting housing development contribute to displacement risk.** Increasing housing supply makes housing more affordable, and housing affordability is directly correlated to an individual's housing cost burden, an indicator of displacement risk (Been, Gould Ellen, and O'Regan 2019, 4).
8. **New housing is required to achieve the displacement risk reduction benefits of housing stock filtering.** When new housing is built and priced higher, older housing is pushed down into a lower price range, creating additional housing availability for lower-income households. This concept is at odds with the commonly accepted drivers of gentrification and neighborhood change (Been, Gould Ellen, and O'Regan 2019, 6).

What groups and communities are at the greatest risk of housing displacement?

1. **Suburban poverty is ripe for displacement.** With less public transit, poorer households must spend more money to get around. They have limited access to non-profit services typically concentrated in cities, and confront a municipal infrastructure less suited to deliver holistic social services support (Rutan et al. 2023, 166).
2. **Residential mobility amongst the poor is variable, unplanned, and typically involuntary.** Eviction filings doubled between 2000 and 2016 (DeLuca, Stefanie, and Eva Rosen 2022, 348).
3. **Households in mobile homes are over twice as likely to live in poverty.** Half of all mobile homes in the US are in urban areas. There are 1.7 million mobile home renter households and 5.3 million mobile homeowners in the US (DeLuca, Stefanie, and Eva Rosen 2022, 348).
4. **Mobile home closures should be treated as mass evictions, which are primary indicators of displacement risk**. Those who own their trailers but don't have the means to move them to another location face an additional loss, leading to not only displacement but also the loss of a valuable household asset (Lee and Evans 2020, 6).
5. **Older people, African Americans, and Latinos are overrepresented across most types of displacement** (Lee and Evans 2020, 9).
6. **Households with children are at an increased risk of displacement.** A Milwaukee study found that renters with two children have an 11.7% chance of being evicted and a 9.5% chance with one child (Desmond and Gershenson 2017, 8).
7. **Renters who experience job loss are more likely to be evicted.** A Milwaukee study found that renters who lost their jobs were twice as likely to be evicted (Desmond and Gershenson 2017, 8).
8. **Community character change, or gentrification, is not necessarily an indicator of displacement.** A Milwaukee study found no significant difference in eviction risk between those living in racially or economically transitioning neighborhoods and those who live in homogenous communities (Desmond and Gershenson 2017, 9).
9. **Having a more affluent support system is not necessarily a buffer to experiencing housing displacement, but decreasing poverty shocks amongst those in your social networks will decrease displacement risk.** A Milwaukee study found that while renters in social networks with others experiencing poverty shocks are more likely to experience

eviction, having a more affluent social network did not decrease a renter's risk of eviction (Desmond and Gershenson 2017, 8).

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Policy Framework Review

Evaluation Method

With the passage of HB 1220 in 2021, jurisdictions are required to make adequate provisions for housing for all economic segments of the community. This includes identifying *"local policies and regulations that result in racially disparate impacts, displacement, and exclusion in housing."*

The following evaluation table assesses the existing Comprehensive Plan's goals and policies for impacts for racially disparate impacts, including displacement and exclusion, in the Housing Element and residential goals and policies in the Land Use Element. The evaluation used the following criteria in evaluating each goal and policy, consistent with the Department of Commerce's Racially Disparate Impacts guidance:

- **Supportive**: The policy is valid and supports meeting the identified housing needs. The policy is needed and addresses identified racially disparate impacts, displacement and exclusion in housing.
- **Approaching**: The policy can support meeting the identified housing needs but may be insufficient or does not address racially disparate impacts, displacement, and exclusion in housing.
- **Challenging**: The policy may challenge the jurisdiction's ability to meet the identified housing needs. The policy's benefits and burdens should be reviewed to optimize the ability to meet the policy's objectives while improving the equitable distribution of benefits and burdens imposed by the policy.
- **Not Applicable (NA)**: The policy does not impact the jurisdiction's ability to meet the identified housing needs and has no influence or impact on racially disparate impacts, displacement, or exclusion.

All Goals and policies in the Housing Element were included in this evaluation. For the Land Use Element, only residential-use-related policies were evaluated.

City of Olympia

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Land Use and Urban Design Element, Comprehensive Plan				
PL6.1	Establish and periodically update a design review process and design criteria consistent with the goals and policies in the Comprehensive Plan for: ● Commercial and mixed use development adjacent to freeways and public streets ● Other highly-visible, non-residential development, such as the Port of Olympia, campus developments, and master planned developments ● Multifamily residential development and manufactured housing parks ● Detached homes on smaller lots (less than 5,000 square feet) and in older neighborhoods (pre-1940) ● Properties listed on a Historic Register or located within a designated historic district	**Approaching**	The policy could address that the design review process should be reviewed and updated to ensure a streamlined review process and sufficient housing production to meet capacity goals.	Establish and periodically review and update a design review process and design criteria that ensures streamlined review, encourages sufficient housing production to meet the City's housing capacity goals, and is consistent with the goals and policies in the Comprehensive Plan for: ● Commercial and mixed use development adjacent to freeways and public streets ● Other highly-visible, non-residential development, such as the Port of Olympia, campus developments, and master planned developments ● Multifamily residential development and manufactured housing parks ● Detached homes on smaller lots (less than 5,000 square feet) and in older neighborhoods (pre-1940)

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
				• Properties listed on a Historic Register or located within a designated historic district

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
PL6.4	Require multi-family housing to incorporate architectural forms and features common to nearby housing; to include porches, balconies, bay windows and similar details; to have entries oriented to streets or a courtyard, and include accessible open space; and to be reduced in size near lower density residential districts.	**Challenging**	Additional restrictions on multi-family housing types can result in less affordable rents. While design standards are not necessarily negative–they can ensure liveable spaces–this policy should be updated to balance both design and affordability goals, allowing flexibility to ensure housing production and choices.	Balance design standards for multi-family housing that require developers incorporate architectural forms and features similar to existing development, include entries oriented towards streets or a courtyard, and include accessible open space, with flexibility to ensure design standards do not increase the cost of development and prevent housing production.
PL8.4	Avoid height bonuses and incentives that interfere with landmark views.	**Challenging**	Limiting density for aesthetic reasons can result in lower housing capacity. However, this may be an acceptable compromise as long as the housing and affordability considerations are planned for elsewhere. To avoid subjective views being used as a tool for limiting housing development, this policy should be updated to specify or map viewsheds are most	Avoid height bonuses and incentives that interfere with the City's special landmark views and specify which areas of the city this applies to in the city's code.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			important to preserve through code provisions.	
PL11.2	Provide incentives for housing in commercial districts near transit stops.	**Approaching**	Providing housing near jobs can be helpful in preventing displacement while reducing overall community impacts such as traffic. The incentives could be expanded to consider affordability as well.	Provide incentives for housing and affordable housing in commercial districts near transit stops.
GL14	Olympia's neighborhoods provide housing choices that fit the diversity of local income levels and lifestyles. They are shaped by thorough public planning processes that involve community members, neighborhoods, and city officials.	**Approaching**	While this policy does address housing for the different income levels, it should be expanded to clearly call-out low income groups and prioritize housing for historically marginalized groups.	Olympia's neighborhoods provide housing choices that fit the diversity of local income levels and lifestyles. They are shaped by thorough public planning processes that involve community members, neighborhoods, and city officials, and actively seek input from historically marginalized or overburdened populations.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
PL14.2	Concentrate housing into three high-density Neighborhoods: Downtown Olympia, Pacific/Martin/Lilly Triangle; and the area surrounding Capital Mall. Commercial uses directly serve high-density neighborhoods and allow people to meet their daily needs without traveling outside their neighborhood. High-density neighborhoods are highly walkable. At least one-quarter of the forecasted growth is planned for downtown Olympia.	**Approaching**	While this policy does address the city's housing needs and demands, it does not address reducing displacement and affordability pressures.	NA
PL14.3	Preserve and enhance the character of existing Low-density Neighborhoods. Disallow medium or high-density development in existing Low-density Neighborhood areas except for Neighborhood Centers.	**Challenging**	Language that aims to preserve low-density, single-family neighborhood "character" can often be used as a proxy for prohibiting more diverse housing choices. Instead of "character," this policy could consider height and building form while allowing more flexibility for similar, yet more affordable, housing	Focus medium or high-density development in Neighborhood Centers of low-density neighborhoods.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			types such as middle housing.	
PL14.4	In low-density Neighborhoods, allow medium-density Neighborhood Centers that include civic and commercial uses that serve the neighborhood. Neighborhood centers emerge from a neighborhood public process.	**Approaching / Supporting**	Depending on how inclusive the Neighborhood Center identification and engagement process is, this policy would support anti-displacement through placemaking and housing, or it may cause further displacement.	Ensure neighborhood centers are developed around a public process that actively seeks input from all residents, prioritizing those from historically marginalized or overburdened communities.
Land Use and Urban Design Element, Comprehensive Plan - Housing Section				
GL16	The range of housing types and densities are consistent with the community's changing population needs and preferences.	**Approaching**	While the policy acknowledges different community and population needs, it could be improved by incorporating affordability and anti-displacement language.	Ensure a range of housing types and densities consistent with the community's changing population needs, preferences, and to provide housing affordable for all income brackets.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
PL16.2	Adopt zoning that allows a wide variety of compatible housing types and densities.	**Approaching**	The policy intends to allow a variety of housing types. However, “compatible” is vague and can be leveraged to maintain high-cost, low-density housing types, unattainable to those from lower incomes or historically marginalized communities.	Adopt zoning that allows a wide variety of housing types and densities to provide housing for all needs.
PL16.3	Allow 'clustering' of housing compatible with the adjacent neighborhood to preserve and protect environmentally sensitive areas.	**Approaching**	This goal would allow parcels that would be undevelopable under strict application of the zoning code to be developable. However, “compatibility” could be further defined to ensure the building types used are not exclusionary.	Allow clustering of housing to preserve and protect environmentally sensitive areas and increase the developable area of parcels with critical areas present.
PL16.4	Disperse low and moderate-income and special needs housing throughout the urban area.	**Approaching**	While this policy seeks to ensure lower income households are not isolated to certain parts of the city, it could be enhanced to go further by allowing and fostering capacity rather	Allow and increase the amount of low and moderate-income and special needs housing in the city.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			than focusing on dispersion.	
PL16.5	Support affordable housing throughout the community by minimizing regulatory review risks, time and costs and removing unnecessary barriers to housing, by permitting small dwelling units accessory to single-family housing, and by allowing a mix of housing types.	**Supportive**	This policy supports housing growth and affordability.	NA
PL16.6	Promote home ownership, including by allowing manufactured homes on individual lots, promoting preservation of manufactured home parks and allowing these parks in multi-family and commercial areas, all subject to design standards ensuring compatibility with surrounding housing and land uses.	**Approaching**	This policy could be improved by better defining compatibility. Consider identifying whether compatibility is driven by architectural massing or design styles.	Promote home ownership, including by allowing manufactured homes on individual lots, promoting the preservation of manufactured home parks, and allowing these parks in multi-family and commercial areas, with appropriate development standards.
PL16.7	Allow single-family housing on small lots, but prohibit reduced setbacks abutting conventional lots.	**Approaching**	Allowing smaller homes on smaller lots reduces land costs.	NA. The intent of this policy needs to be clarified by City staff.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			"Conventional lots" is unclear however.	
PL16.8	Encourage and provide incentives for residences above businesses.	**Supportive**	Incentivizing residences over businesses creates flexibility and a variety of units.	NA
PL16.9	In all residential areas, allow small cottages and townhouses, and one accessory housing unit per home -- all subject to siting, design and parking requirements that contribute to neighborhood character.	**Approaching**	While allowing cottages and townhouses supports housing and affordability goals, "neighborhood character" is vague and could be tied to exclusionary housing practices.	Allow small cottages, townhomes, and one accessory dwelling unit per home, all subject to design standards and parking requirements consistent with the underlying zone.
PL16.10	Require effective, but not unreasonably expensive, building designs and landscaping to blend multi-family housing into neighborhoods.	**Approaching**	Requiring additional standards for multi-family housing types ultimately hinders affordability.	Require effective, but not unreasonably expensive, building standards and landscaping to blend multi-family housing into neighborhoods, and periodically review these standards to ensure they do not prevent the development of affordable housing.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
PL16.11	Require that multi-family structures be located near a collector street with transit, or near an arterial street, or near a neighborhood center, and that they be designed for compatibility with adjacent lower density housing; and be 'stepped' to conform with topography.	**Approaching**	Requiring multi-family housing to be located near transit or neighborhood centers increases their accessibility, but this policy could be expanded to include multi-family housing throughout the city to increase the number of housing units. This policy could also be improved by better defining compatibility.	Require that multi-family structures be prioritized near a collector street with transit, near an arterial street, or near a neighborhood center, encouraged throughout the city, and be designed to conform with topography in a stepped formation.
PL16.12	Require a mix of single-family and multi-family structures in villages, mixed residential density districts, and apartment projects when these exceed five acres; and use a variety of housing types and setbacks to transition to adjacent low-density areas.	**Approaching**	Requiring a mix of single- and multi-family housing types could support housing growth and affordability, but it does not address reducing displacement and affordability pressures. This policy could be better improved by specifying the “mix” of housing.	NA
PL16.13	Encourage adapting non-residential buildings for housing.	**Supportive**	Adapting non-residential buildings for housing supports housing growth and affordability.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
PL16.14	Provide annual information on affordable homeownership and rentals in the City, including the operative definitions of affordable housing, criteria to qualify for local, state, and federal housing assistance, data on current levels of market-rate and affordable housing, demand for market-rate and affordable housing, and progress toward meeting market-rate and affordable housing goals.	**Supportive**	Reviewing affordability and funding opportunities to increase housing annually is supportive of housing growth and affordability.	NA
Land Use and Urban Design Element, Comprehensive Plan - Downtown and Other Neighborhoods - Neighborhoods Section				
GL20	Development maintains and improves neighborhood character and livability.	**Approaching**	This policy could be improved by specifying what “neighborhood character” means, as the term is vague and could be tied to exclusionary housing practices.	Ensure new developments maintain the scale and form of existing neighborhoods while increasing their livability and affordability.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
PL20.1	Require development in neighborhoods to be of a type, scale, orientation, and design that maintains or improves the character, aesthetic quality, and livability of the neighborhood.	**Challenging**	This policy could be improved by specifying “character”, which is vague and could be tied to exclusionary housing practices. This policy does not directly address housing affordability or supply. Requiring additional standards could ultimately hinder affordability.	Maintain development standards for new residential developments that balance maintaining the scale and form of existing neighborhoods with flexible standards that encourage diverse housing types.
PL20.2	Unless necessary for historic preservation, prohibit conversion of housing in residential areas to commercial use; instead, support redevelopment and rehabilitation of older neighborhoods to bolster stability and allow home occupations (except convalescent care) that do not degrade neighborhood appearance or livability, nor create traffic, noise or pollution problems.	**Approaching**	This policy preserves housing in residential areas, but it could increase displacement risk as it does not address protecting residents from potential displacement or racially disparate impacts that may result from the redevelopment and rehabilitation of older neighborhoods.	Prohibit the conversion of housing in residential areas to commercial use unless necessary for historic preservation and support the redevelopment and rehabilitation of older neighborhoods to maintain existing affordable housing stock and allow home occupations, considering and preventing the potential displacement impacts that may result from the redevelopment and rehabilitation of older neighborhoods.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
20.3	Allow elder care homes and seniors-only housing and encourage child care services everywhere except industrial areas; but limit hospice care to multi-family and commercial districts.	**Approaching**	This policy addresses housing supply and affordability by allowing housing for the elderly. It could be more equitably applied to residential zones, rather than only being allowed in multi-family and commercial districts.	NA, could consider allowing hospice care in all areas but industrial, as well.
PL20.4	Support development and public improvements consistent with healthy and active lifestyles.	**Supportive**	This policy could be improved by prioritizing investment in neighborhoods that have historically experienced a lack of investment.	NA
PL20.5	Prevent physical barriers from isolating and separating new developments from existing neighborhoods.	**Supportive**	This policy supports housing growth, affordability, and the integration of new developments.	NA
Public Services Element, Comprehensive Plan				
GS3	Affordable housing is available for all income levels throughout the community.	**Supportive**	Providing affordable housing advances housing growth. This goal should be updated to consider housing by income bracket to meet	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			the requirements of HB 1220.	
PS3.1	Promote a variety of residential densities and housing types so that housing can be available in a broad range of costs.	**Supportive**	Allowing different types of housing and affordability levels fosters a cohesive and inclusive community when it comes to housing. This policy should be updated to consider housing by income bracket to meet the requirements of HB 1220.	NA
PS3.2	Encourage preservation of existing houses.	**Approaching**	This policy is supportive of housing goals but could prevent affordable housing from being built.	Encourage the preservation of existing or naturally affordable housing units.
PS3.3	Take steps to ensure housing will be available to all income levels based on projected community needs.	**Supportive**	Allowing different types of housing and affordability levels fosters a cohesive and inclusive community when it comes to housing. This policy should be updated to consider housing by income bracket to meet the requirements of HB 1220.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
GS4	Deteriorating residential areas within the City are revitalized.	**Approaching**	This policy is supportive of housing goals but could lead to displacement or disproportionate impacts to vulnerable or historically marginalized communities.	Encourage renovation or retrofit of deteriorating residential units to maintain the quality of the existing housing stock, and partner with other organizations or create a city program to provide temporary relocation assistance where needed.
PS4.1	Support efforts to preserve the historic features or character of historic properties in City housing rehabilitation programs.	**Challenging**	This policy could place additional burdens or barriers to housing rehabilitation.	Ensure rehabilitation programs support efforts to preserve historic features of historic properties in the City where feasible and do not prevent housing rehabilitation or the provision of safe housing.
PS4.2	Provide assistance and incentives to help low-income residents rehabilitate properties they cannot afford to maintain.	**Supportive**	Providing assistance to low income residents to rehabilitate their properties is supportive of housing growth and maintaining existing affordable housing stock, while prioritizing assistance for low income groups.	NA
GS5	Special needs populations, such as people with developmental disabilities, the homeless, the frail elderly, and others who have difficulty securing housing,	**Supportive**	This goal is supportive of housing goals, especially to provide housing for vulnerable populations.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
	have adequate, safe, and affordable housing.			
PS5.1	Disperse housing for low-income, moderate-income, and special-needs residents throughout Olympia and its Urban Growth Area, and discourage concentration of such housing in any one geographic area.	**Approaching / Supportive**	This policy is supportive of housing growth and ensuring low income or other types of housing are integrated throughout the city.	NA
PS5.2	Support the Fair Share Housing allocation process and work with other jurisdictions to monitor progress toward achieving agreed upon goals.	**Approaching**	This policy helps support housing growth, but doesn't directly address affordability or displacement.	NA
PS5.3	Evaluate the possibility of providing density bonuses to builders who provide low-income housing in market-rate developments, and of tying the bonus to affordability.	**Approaching**	This policy could be strengthened by requiring low income units.	Evaluate the possibility of providing density bonuses to builders who provide low-income housing in market rate developments or requiring the provision of low-income units.
PS5.4	Encourage new housing on transportation arterials and in areas near public transportation hubs.	**Approaching**	While greater housing density and new units near transportation facilities–especially transit–can connect households to	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			employment, this policy may also result in greater densities of housing adjacent to toxic and harmful emissions near busier streets, resulting in environmental justice concerns.	
PS5.5	Encourage self-help housing efforts in which people earn home equity in exchange for renovation or construction work, such as "sweat equity" volunteer programs.	**Approaching**	This policy provides incentive and a way to build home equity but could include other ways for people who are not able bodied.	Encourage self-help housing efforts in which people earn home equity in exchange for renovation or construction work, such as “sweat equity” volunteer programs, and explore other methods of building home equity for those who are not able bodied.
PS5.6	Retain existing subsidized housing.	**Supportive**	This policy is supportive of housing goals and displacement prevention.	NA
GS6	Our community is safe and welcoming and social services are accessible to all who need them.	**Supportive**	This goal aims to provide social services to those who need them, but could be strengthened by prioritizing the most vulnerable populations in Olympia to ensure their needs are met.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
PS6.1	Support non-profit and faith-based charitable organizations that provide funding and/or oversight for social service funding.	**Supportive**	This policy aims to provide social services by assisting other organizations.	NA
PS6.2	Work with other local governments to provide financial support and oversight of social service funding.	**Supportive**	This policy aims to provide social services by working with other local governments.	NA
PS6.3	Support programs and projects that assist low-income people and those at risk of homelessness with public funding.	**Supportive**	This policy aims to provide social services by contributing public funding, which could help mitigate or prevent potential displacement.	NA
PS6.4	Identify barriers to social service, shelter and housing resources for low-income people and those at risk of becoming homeless.	**Supportive**	This policy helps to mitigate or prevent displacement by reducing barriers to providing services.	NA
GS7	There is enough emergency housing, transitional housing, permanent housing with supportive services, and independent affordable housing.	**Supportive**	This goal is supportive of housing goals and addresses housing exclusion for individuals experiencing or at risk of homelessness.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
PS7.1	Encourage a strong network of emergency shelter resources for homeless and at-risk families with children, childless adults, unaccompanied youth, and victims of sexual and domestic violence.	**Supportive**	This policy is supportive of housing goals and addresses housing exclusion for individuals experiencing or at risk of homelessness.	NA
PS7.2	Take a regional approach with other jurisdictions so that support for a broad range of social services and resources, including shelter and housing, can be maximized.	**Supportive**	This policy is supportive of housing goals and addresses housing exclusion for individuals experiencing or at risk of homelessness.	NA
PS7.3	Encourage businesses, charitable non-profit organizations, and faith-based community organizations to provide shelter and housing services.	**Approaching**	This policy is supportive of housing goals and addresses housing exclusion for individuals experiencing or at risk of homelessness, but could be strengthened by recognizing the city's role in providing shelter and housing services.	Encourage and support businesses, charitable non-profit organizations, and faith-based community organizations to provide shelter and housing services.
PS7.4	Support coordinated service delivery models to maximize the best use of public, charitable,	**Supportive**	This policy addresses housing exclusion for individuals experiencing or at risk of homelessness and	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
	and privately-funded shelter and housing resources.		helps mitigate or prevent displacement by reducing barriers to providing services.	
PS7.5	Support best practices that reflect current standards of care, and incorporate emerging models that optimize the use of public and charitable resources.	**Supportive**	This policy addresses housing exclusion for individuals experiencing or at risk of homelessness and helps mitigate or prevent displacement by reducing barriers to providing services.	NA
PS7.6	Encourage shelter and housing providers and programs to locate in the greater Olympia area, or near transportation arterial hubs, so residents can easily access them.	**Supportive**	This policy addresses housing exclusion for individuals experiencing or at risk of homelessness and helps mitigate or prevent displacement by reducing barriers to accessing services.	NA
PS7.7	Work toward making the community more aware of homelessness in Olympia and how it can be prevented as a way to encourage charitable	**Approaching**	This policy may have good intent to get community members involved, but making the community more aware of homelessness could lead to the	Raise awareness of the city's homelessness and displacement prevention efforts and resources, especially with residents at risk of displacement.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
	support and involve community members.		community not being supportive of supportive housing services or emergency housing.	
PS7.8	Use data to continually assess the community's need for shelter and housing and who it is serving. Use this data to continually improve these services.	**Supportive**	This policy is supportive of housing goals, to continually evaluate where gaps in housing are needed. It could be improved by saying "who it is serving and who is being left out" in order to evaluate any disproportionate impacts.	NA
PS7.9	Revise policies that limit or prevent the community from providing shelter and housing resources.	**Approaching**	This policy is supportive of housing goals and could be improved by addressing displacement.	Periodically review *(the City would need to specify how often)* and revise policies that limit or prevent the provision of shelter, housing resources, or that may increase displacement.
PS7.10	Coordinate land use, housing, transportation, and capital facility planning to support all aspects of shelter and housing resources, including emergency shelter,	**Supportive**	This policy is supportive of housing goals and addresses housing exclusion for individuals	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
	transitional housing, permanent housing with supportive services, and low-income housing.		experiencing or at risk of homelessness.	
PS7.11	Integrate group homes into all residential areas of the community. Set zoning standards to ensure group home sizes (number of residents and staff) are compatible with allowed densities and that transportation and other services are available.	**Supportive**	This policy is supportive of housing goals and addresses housing exclusion for individuals living in group homes.	NA
PS7.12	Evaluate regulations so the City can be more flexible in locating shelters and increasing capacity.	**Supportive**	This policy is supportive of housing goals and addresses housing exclusion for individuals experiencing or at risk of homelessness.	NA
GS8	The existing low-income housing stock is preserved.	**Supportive**	This policy is supportive of housing goals and displacement prevention.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
PS8.1	Continue to fund the repair and rehabilitation of single-family and multi-family housing using federal, state, and local funding sources.	**Supportive**	This policy is supportive of maintaining existing housing. It could be strengthened by considering potential displacement impacts and affordability.	NA
PS8.2	Support applications by the Housing Authority of Thurston County and other non-profit housing developers to construct or purchase existing units for low-rent public housing.	**Supportive**	This policy is supportive of maintaining existing affordable housing, while prioritizing opportunities for low income groups.	NA
PS8.3	Support applications from eligible non-profits to federal and state funding sources to build new, or rehabilitate existing housing to meet low-income housing needs.	**Supportive**	This policy is supportive of maintaining existing affordable housing, while prioritizing opportunities for low income groups. It could be strengthened by considering potential displacement impacts.	NA
PS8.4	Encourage and provide technical assistance to private developers and non-profits applying for below-market-rate state or federal loans to construct or	**Supportive**	This policy is supportive of housing and growth, while prioritizing opportunities for low income groups. It could be strengthened by considering potential	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
	rehabilitate low-income, multifamily rental housing.		displacement impacts from rehabilitation.	
PS8.5	When Community Development Block Grant or Housing and Urban Development-funded buildings are at risk of being converted to market-rate status, inform the tenants of any purchase and relocation options available. When possible, help the Housing Authority of Thurston County and non-profit organizations buy such housing.	**Approaching**	This policy aims to mitigate the impacts of displacement, but could be improved by prioritizing avoiding displacement.	NA
PS8.6	Enforce policies* that provide financial and relocation help to people who are displaced from their homes as a result of construction and development projects using federal funds. **(Per section 104(d) of the Housing and Community Development Act of 1974 as amended, requiring the replacement of low- and moderate-income housing units that are demolished or converted to another use, in connection with a*	**Approaching**	This policy aims to mitigate the impacts of displacement, but could be improved by prioritizing avoiding displacement.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
	Community Development Block Grant project.)			
GS9	New low-income housing is created to meet demand.	**Supportive**	This policy is supportive of housing and growth, while prioritizing opportunities for low income groups.	NA
PS9.1	Continue to support projects funded by low-income tax credits and revenue bonds.	**Supportive**	This policy is supportive of housing and growth, while prioritizing opportunities for affordable housing.	NA
PS9.2	Investigate and support appropriate multi-jurisdictional support for the Housing Authority of Thurston County bond sales.	**Approaching**	This policy helps support housing growth, but doesn't directly address affordability or displacement.	NA
PS9.3	Promote partnerships between public and private non-profit organizations to increase housing and home ownership opportunities for people with special needs, and for low- and moderate-income households.	**Supportive**	This policy encourages homeownership and is supportive of housing affordability and mitigating displacement, while prioritizing opportunities for low and middle incomes.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
PS9.4	Continue to encourage development of single-room occupancy units downtown, along urban corridors, and in other areas where high-density housing is permitted. This could include encouraging alliances between public, private, and nonprofit organizations.	**Approaching**	This policy is supportive of housing goals and displacement but could be more equitably applied throughout the city.	NA, but consider expanding this to more areas of the city.
PS9.5	Evaluate the possibility of supporting a program that would allow low-income tenants of manufactured home parks to jointly purchase and renovate permanent sites for their manufactured homes. Consider funding programs to subsidize the interest rates, loan origination fees, and/or other costs of acquiring the land.	**Supportive**	This policy is supportive of housing affordability, and could be improved to address displacement.	NA
PS9.6	Help low-income and special needs residents find ways to purchase housing, such as shared or limited-equity housing, lease-purchase options, co-housing, land trusts, and cooperatives.	**Supportive**	This policy is supportive of housing growth and affordability for potentially vulnerable or at risk populations.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
PS9.7	Work with jurisdictional partners through the county-wide Home Consortium, to fund affordable housing projects that serve low- and very low-income residents.	**Supportive**	This policy is supportive of housing growth and affordability.	NA
PS9.8	Continue to administer the Housing Tax Credit program to develop both market-rate and low-income housing.	**Approaching**	This policy is supportive of housing goals but could better address affordability and provide housing for all income bands.	NA
PS9.9	Support non-profit and faith-based organizations in their efforts to provide emergency homeless shelters.	**Supportive**	This policy is supportive of housing goals and addresses housing exclusion for individuals experiencing or at risk of homelessness.	NA

City of Lacey

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Planning Areas - Central				
Goal 2	Maintain quality and function of existing residential areas in the Central Planning Area.	**Approaching**	This policy could be improved by specifying what "quality and function" means, as the terms are vague and could be tied to exclusionary housing practices, and by addressing how this policy would prevent exclusion, disproportionate impacts, or displacement.	Maintain existing affordable housing where feasible and ensure future residential development maintains the existing scale and form of residential areas in the Central Planning Area.
Policy A	Acknowledge historical character and value of the Lacey Historic Neighborhood as a unique housing resource. Continue to require special development standards for Lacey Historic Neighbor- hood that recognize and preserve historical values and neighborhood character while allowing reasonable infill and development.	**Approaching**	This policy allows for infill and housing development in the Historic Neighborhood, but could be improved by defining what "reasonable" infill and development means, as well as "neighborhood character", as the term is vague and could be tied to exclusionary housing practices.	Acknowledge the value of the Lacey Historic Neighborhood as a unique housing resource by continuing to require development standards that recognize, preserve, or honor historical values and design while accommodating infill development.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy B	Acknowledge character and value of older residential neighborhoods adjacent to the Central Business District as an affordable housing resource.	**Supportive**	This policy addresses housing supply and affordability, but should better define “character”.	Acknowledge the value of older residential neighborhoods adjacent to the Central Business District as a potential affordable housing resource.
Policy C	Develop and implement a subarea plan for the Golf Club Road neighborhood.	**NA**	This policy could be improved by discussing goals to improve housing affordability and avoid disproportionate impacts to vulnerable communities in this neighborhood.	NA
Goal 3	Provide opportunities for infill in the Central Planning Area.	**Supportive**	This policy is supportive of housing growth and affordability, but could be strengthened to consider potential racially disparate impacts.	Provide opportunities for infill development in the Central Planning Area.
Policy A	Maintain the liberal policy on accessory residential units while maintaining quality and character of neighborhood through performance standards and design review.	**Approaching**	While allowing ADUs supports housing growth and affordability, “character” should be better defined as the term is vague and could be tied to exclusionary housing practices.	Continue to maintain the city's ADU policies while maintaining the scale and form of existing neighborhoods.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy B	Provide opportunities for duplexes, triplexes and quadraplexes to locate in lower density neighborhoods as infill mechanisms which enhance neighborhood character by requiring exceptional and rigorous design requirements.	**Approaching**	While allowing duplexes, triplexes, and quadraplexes supports housing growth and affordability, “character” should be better defined as the term is vague and could be tied to exclusionary housing practices. “Exceptional and rigorous design requirements” can be leveraged to maintain high-cost housing types, unattainable to those from lower incomes or historically marginalized communities.	Increase opportunities for locating duplexes, triplexes, and quadraplexes in low-density neighborhoods and ensure development standards and any design requirements are not overly stringent or increase the cost of development.
Policy C	Provide opportunities for single-family cluster housing on smaller lot sizes than the under- lying zone with exceptional and rigorous design requirements to maintain quality and character of neighborhood areas.	**Approaching**	While allowing cluster housing on smaller lots may reduce land costs and support housing affordability, “character” should be better defined as the term is vague and could be tied to exclusionary housing practices. Requiring “rigorous design requirements” could ultimately hinder affordability.	Develop standards for single-family cluster housing on smaller lot sizes than the underlying zoning to reduce land costs and support housing affordability.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Planning Areas – Horizons Planning Area				
Goal 1	Continue to encourage the development of a range of residential types, providing opportunity for high density residential development along arterials with transitions to existing low density residential development.	**Approaching**	This policy is supportive of housing growth and affordability, but could be strengthened to expand high density housing throughout the city and to consider affordability as well.	Continue to encourage the development of a range of residential types, providing opportunity for high density residential development throughout the Horizons Planning Area, especially in areas near existing services.
Policy A	Undeveloped property along College, Yelm, Ruddell, and Rainier Road should be zoned for moderate or high density residential development.	**Approaching**	This policy is supportive of housing growth, but could be strengthened to consider potential racially disparate impacts.	Zone undeveloped property along College, Yelm, Ruddell, and Rainier Road for moderate or high density residential development.
Policy B	Support infill development in higher density areas primarily around existing neighborhood centers, recognized nodes, and urban corridor areas.	**Supportive**	Providing housing near jobs and neighborhood centers can be helpful in preventing displacement while reducing overall community impacts such as traffic. The policy could be expanded to consider affordability as well.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy C	Encourage a full range of higher density residential uses, including single-family zero lot line developments, townhouse units, mixed residential use, planned residential developments and multifamily apartments.	**Supportive**	This policy is supportive of housing growth.	NA
Policy D	Pay careful attention to blend different land use types to minimize potential land use conflicts while maintaining walkability as a priority.	**NA**	NA	NA
Planning Areas – Lakes Planning Area				
Goal 3	Maintain existing moderate and high density housing opportunities along major arterials with convenient access to transit where no impact to environmentally sensitive areas will occur.	**Supportive**	Providing housing near transit can be helpful in reducing overall community impacts such as traffic. The incentives could be expanded to consider affordability and anti-displacement as well.	Maintain existing affordable and moderate and high density housing units along major arterials with convenient access to transit where no impact to environmentally sensitive areas will occur.
Policy A	Maintain areas for medium density development opportunities along Ruddell Road.	**Approaching**	This policy is supportive of housing growth, but could be expanded to allow high density housing or address anti-displacement in this area.	Maintain areas for medium or high density development opportunities along Ruddell Road. *(Edited to add "high density" as medium and high density options are both included in the Horizons*

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
				Planning Area policies, along the same road).
Planning Areas – Pleasant Glade Planning Area				
Goal 2	Provide opportunities for moderate and high density housing along major arterials with convenient access to potential transit, designating “urban reserve areas”, and annexing areas for public use where appropriate.	**Approaching**	Providing housing near transit can be helpful in reducing overall community impacts such as traffic. The incentives could be expanded to consider affordability and anti-displacement as well.	Provide opportunities for affordable and moderate and high density housing along major arterials with convenient access to potential transit, designating “urban reserve areas”, and annexing areas for public use where appropriate.
Policy A	Maintain existing areas for moderate and high density development opportunities along arterials of Sleater Kinney and 15th Avenue, contingent on provisions for public sewer.	**Supportive**	This policy is supportive of housing growth, but could be expanded to address anti-displacement in this area.	Maintain existing affordable housing and areas for moderate and high density development opportunities along arterials of Sleater Kinney and 15th Avenue, contingent on provisions for public sewer.
Policy B	Study and analyze designating the northwest portion of the planning area as an “urban reserve area” or “urban holding area” until sewer service can be extended.	**Supportive**	This policy is supportive of housing growth that is supported by adequate public facilities and infrastructure.	NA
Policy C	Consider the annexation of the Greg J. Cuoio Community Park property for the future completion for public access.	**NA**	NA	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Planning Areas – Seasons Planning Area				
Goal 3	Over the long term, encourage development of a range of residential types, with emphasis on providing additional moderate and high density opportunities.	**Approaching**	This policy addresses the city's housing needs and growth, but does not address affordability.	Encourage the development of a range of housing types, with an emphasis on medium and high density development as well as units affordable to low-income households.
Policy A	Maintain areas along Marvin Road for moderate density development as sewer becomes available. Review areas along Mullen, Yelm Highway, and 58th for moderate density development as sewer becomes available. Moderate and High Density zones should be planned to provide transitions to existing low density residential development.	**Approaching**	This policy supports housing growth but could be strengthened by considering impacts on vulnerable populations and racially disparate impacts.	Maintain areas along Marvin Road and review areas along Mullen, Yelm Highway, and 58th for moderate density development as sewer becomes available.
Policy B	Encourage a full range of residential uses when adequate facilities and services are available to serve them.	**Approaching**	This policy supports housing growth but could be strengthened by considering impacts on vulnerable populations and racially disparate impacts.	Encourage a full range of residential uses and housing types for all incomes when adequate facilities and services are available to serve them.
Policy C	Pay careful attention to creating effective transitions between new developments of moderate	**Approaching**	This neighborhood area allows a variety of housing types	Ensure new development fits the scale and form of existing development through development regulations.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
	density and existing low density development.		supportive of housing supply objectives.	
Housing Element, Comprehensive Plan				
Goal 1	Have a sufficient number of single-family dwelling units, multifamily units, and group and special need housing to provide a selection of rental and home ownership affordable housing opportunities for all persons.	**Supportive**	This policy is supportive of providing housing for all needs, housing growth, and affordability.	NA
Policy A	Provide opportunities for development of all housing types to accommodate future needs for each type of housing.	**Supportive / Approaching**	While supportive, this policy will need to be updated to meet HB 1220 guidance on specific household income brackets. However, providing housing across all income segments reduces displacement risk and enables housing opportunities to all, regardless of income.	Increase opportunities to develop a wide range of housing types to accommodate diverse housing needs and provide housing for all income brackets.
Policy B	Monitor the market and available land in the urban growth boundary to provide sufficient area zoned to meet the demand for various types of housing.	**Supportive**	This policy is supportive of providing housing for all needs, housing growth, and affordability.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy C	Encourage a wide variety of housing from low to high income in range to allow placement and mobility within the housing market.	**Supportive**	This policy is supportive of providing housing for all needs. It could be improved by prioritizing the provision of housing for low-moderate incomes and considering potential displacement impacts. This policy will need to be updated to meet HB 1220 guidance on specific household income brackets.	Encourage a wide variety of housing available to all income brackets to allow placement and mobility within the housing market.
Policy D	Promote preservation and improvement of existing single-family and multifamily units.	**Approaching**	This policy supports housing growth by preserving existing housing stock. It could be improved by considering anti-displacement.	Promote the preservation and maintenance of existing housing units, prioritizing those that serve low income households or provide special housing needs.
Policy E	Support neighborhood revitalization through available grants from the State, Federal and local levels to maintain and improve infrastructure.	**Approaching**	This policy supports housing growth by pursuing grant funding, but could be strengthened by prioritizing affordable housing or improving infrastructure in vulnerable neighborhoods. “Neighborhood revitalization” could be	Pursue grants to provide funding for renovating and maintaining existing affordable housing units and ensure there are anti-displacement mechanisms in place, such as the provision of relocation assistance or a right to return policy.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			better defined, as it could lead to the displacement of historically marginalized populations.	
Policy F	Support policies and programs to address the unique housing needs of the military population, including active duty, reserves, dependents and contractors.	**Supportive**	This policy is supportive of providing housing for all needs. It could be improved by addressing potential displacement impacts.	NA
Goal 2	Achieve a balanced community with each planning area accommodating a fair share of housing needs for all persons.	**Supportive**	This policy is supportive of providing housing for all needs, housing growth, and affordability. It could be improved by addressing potential disproportionate impacts.	NA
Policy A	Consider requirements and incentives designed to result in a balanced, increased supply of affordable housing in all parts of the City for very low, low and moderate income households.	**Supportive**	While supportive, this policy should be updated to take special attention to HB 1220. The policy could be improved by paying special attention to the lowest incomes, 0-30% Area Median Income, when it comes to housing capacity.	Consider requirements and incentives that result in a balanced, increased supply of affordable housing throughout the City for very low, low, and moderate income households.
Policy B	Consider programs that include mandatory requirements for new developments targeting individual planning areas until	**Approaching**	This policy supports housing growth by pursuing grant funding, but could be	Consider programs that include mandatory requirements for new developments targeting individual planning areas until housing goals

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
	housing goals for target groups are achieved.		strengthened by specifying anti-displacement goals and prioritizing vulnerable populations or those with special housing needs.	for affordability, anti-displacement, and special needs housing are met.
Goal 3	Work with regional agencies and bodies to implement affordable housing techniques consistently and on a regional scale.	**Supportive**	This policy is supportive of housing growth and affordability.	NA
Policy A	A myriad of affordable housing strategies should be implemented by all surrounding jurisdictions in Thurston County to meet housing needs on a regional scale for very low, low and moderate income households.	**Supportive**	This policy is supportive of housing growth and affordability.	Work with surrounding jurisdictions in Thurston County to implement a myriad of affordable housing strategies to meet regional housing goals to support very low, low, and moderate income households.
Policy B	Public and nonprofit agencies, such as the Housing Authority with expertise in housing practices and special needs, should be a major partner in inclusionary programs.	**Supportive**	This policy is supportive of housing growth and affordability.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy C	The Housing Authority, or other agencies, should take a lead role where its expertise and function lend itself to best accomplish program objectives. Lead responsibility might include such tasks as qualifying households by income bracket, monitoring target objectives, administration of an affordable housing trust, taking ownership of dedicated lots and units, contracting for the development of units, monitoring the sale and resale controls of designated public units, and other related tasks.	**Supportive**	This policy is supportive of housing growth and affordability.	NA
Goal 4	Achieve housing that is compatible and harmonious with existing neighborhood char-acter while allowing infill and providing for environmental sensitivity.	**Approaching**	Language that aims to preserve low-density, single-family neighborhood “character” can often be used as a proxy for prohibiting more diverse housing choices. Instead of “character,” this policy could consider height and building form while allowing more flexibility for similar, yet more affordable, housing	Ensure infill development that incorporates various housing types and sizes maintains the existing scale and form of neighborhoods and prioritizes the provision of affordable housing.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			types such as middle housing.	
Policy A	When designating areas for infill and zoning classifications, consider and place emphasis on the composition of the neighborhood, housing need, available infrastructure, principals of walk- ability and healthy communities.	**Approaching**	This policy is supportive of housing growth, but could be strengthened to address reducing displacement and affordability pressures.	NA
Policy B	When implementing infill projects in designated areas, require design of infill projects that: ● Meet the housing needs of the planning area considering variety and choice. ● Integrate successfully into the existing residential environment considering form based concepts and healthy community objectives. ● Provide a form, look and feel and social functionality that will add to the character, desirability and value of the surrounding neighborhood.	**Approaching**	This policy is supportive of housing growth, but could be strengthened to address reducing displacement and affordability pressures. Language that aims to preserve low-density, single-family neighborhood “character” can often be used as a proxy for prohibiting more diverse housing choices.	When implementing infill projects in designated areas, prioritize infill projects that meet diverse housing needs, provide affordable housing, and incorporate different housing types.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy C	Continue to utilize design review guidelines for all residential developments.	**Approaching**	The policy intends to ensure new development is integrated with the rest of the city, but additional design requirements could ultimately hinder the development of affordable housing.	Review design guidelines to ensure they are not overly stringent or disincentivize the provision of housing.
Goal 5	Provide a variety of housing opportunities for those with special needs.	**Supportive**	This policy supports housing growth and could be strengthened to address affordability.	NA
Policy A	Provide opportunities for development of various types of group housing.	**Supportive**	This policy supports housing growth and could be strengthened to address affordability.	NA
Policy B	Ensure a full range of housing and facilities for the accommodation of persons with special needs exist within each planning area, with consideration for promotion of housing in those planning areas providing the most services for such individuals.	**Supportive**	This policy supports housing growth and could be strengthened to address affordability.	NA
Policy C	Design group homes and facilities for special populations so that they are integrated, compatible, and harmonious with surrounding land uses.	**Approaching**	The policy intends to allow housing for a variety of needs. However, “compatible” is vague and can be	Ensure housing for populations with specific housing needs, such as group homes or transitional housing, are integrated with surrounding neighborhoods.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			leveraged to maintain high-cost, low-density housing types, unattainable to those from lower incomes or historically marginalized communities.	*(Recommended to delete Goal 6, Policy C for redundancy).*
Policy D	Enforce all requirements of the International Building Code that addresses the Americans with Disabilities Act and the Fair Housing amendments.	**Supportive**	This policy supports housing for all needs. It could be strengthened by addressing housing affordability.	NA
Goal 6	Work cooperatively with local jurisdictions, nonprofits and religious organizations to reduce homelessness and find ways for providing emergency and transitional shelter to serve the identified needs of this population.	**Supportive**	This policy addresses housing exclusion for individuals experiencing homelessness.	NA
Policy A	Based upon identified need, provision of facilities and services should be addressed by all local jurisdictions with fair share commitment reflected in local budgets.	**Approaching**	This policy supports services for all needs, but does not directly address ways to increase housing supply or affordability, or to mitigate racially disparate impacts.	NA
Policy B	Provide the opportunity to accommodate innovative strategies that will include	**Supportive**	This policy addresses housing exclusion for individuals	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
	emergency and transitional housing for the homeless population.		experiencing homelessness.	
Policy C	Ensure location and use of emergency and transitional housing considers, and is successfully integrated into, the surrounding neighborhood without impact to other land use activities.	**Approaching**	This policy addresses the provision of housing for individuals experiencing homelessness, but could better specify what it means to be integrated into the surrounding neighborhood without impact to other land use activities. Requiring additional standards for transitional and emergency housing types may ultimately hinder their development and affordability.	Recommended to delete for potential redundancy with Goal 5 Policy C.
Policy D	Maintain and expand linkages with the business, religious and nonprofit communities as partners in ending homelessness.	**Approaching**	This policy addresses provisions for individuals experiencing homelessness, but could be more specific in outlining what the city's role may be.	Actively maintain and expand collaborative efforts with the business, religious, and nonprofit communities as partners in ending homelessness and seek their input on housing-related decisions.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy E	An emphasis in City policy will be to reflect the Continuum of Care approach, which emphasizes supporting self-sufficiency and transitional housing programs rather than stop gap measures which fail to break the cycle of homelessness.	**Supportive**	This policy addresses housing exclusion for individuals experiencing homelessness. It could be improved by addressing housing affordability for those who are transitioning out of homelessness.	NA
Policy F	The City supports an increased role in meeting the problems of homelessness from the private sector through funds, in-kind, and volunteer support and will evaluate its funding decisions partially on the basis of other funding sources. The City will use its resources to leverage support for homeless services from the state and federal government and other funding sources.	**Approaching**	This policy addresses housing exclusion for individuals experiencing homelessness. It could be improved by better, more inclusive language, and the city could consider playing a larger role to supplement the efforts of the private sector.	The City supports an increased role in preventing homelessness by seeking private sector support through funds, in-kind donations, and volunteer support and will evaluate its funding decisions partially on the basis of other funding sources. The City will use its resources to leverage support for homelessness services from the state and federal government and other funding sources.
Policy G	As much as practical, consider the needs of the intended uses and site facilities to provide convenient access to the services the population will require.	**Approaching**	This policy aims to provide services necessary for various housing needs. It could be improved by prioritizing historically disadvantaged communities or vulnerable populations.	Ensure facilities and services are accessible to the populations they are serving, prioritizing the needs of historically marginalized or overburdened communities.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy H	Continue to review and monitor participation and experience in programs that support the homeless population, assess effectiveness in meeting the needs of Lacey's homeless individuals, and provide opportunities for programs that can better serve this demographic.	**Supportive**	This policy addresses strategies to meet the needs of individuals experiencing homelessness.It could be expanded to include housing considerations in addition to the programs mentioned.	NA
Policy I	Particular priority will be provision of services to minors without family resources and families with children. The City will place its highest priority on assisting homeless children and families with children and victims of domestic violence and other special needs groups.	**Supportive**	This policy addresses a particularly vulnerable subset of individuals experiencing homelessness. It could be expanded to include housing considerations in addition to the services mentioned.	NA
Policy J	As long as there is a demonstrated need for temporary transitional housing and the tent city program continues to operate in a fashion that is compatible with adjacent land uses, Lacey should consider continued support of the opportunity for local churches to administer to the home- less by hosting a tent city.	**Approaching**	This policy aims to provide transitional or temporary housing for houseless individuals. It could be improved by removing vague language around "compatibility", which could hinder the provision of housing for houseless individuals.	Consider ways to develop transitional housing, support the tent city program, and assist local churches that host or assist individuals experiencing homelessness.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Goal 7	Identify and support a central contact to provide a help response for the homeless and citizens at risk of becoming homeless.	**Supportive**	This policy addresses support for houseless individuals, specifically to prevent homelessness and potentially displacement.	NA
Policy A	Support Lacey's community partners in improving the community's response to the needs of the homeless with identification of a referral point of contact for people to find services. This can include a service like the 211 referral line.	**Supportive**	This policy addresses support for houseless individuals, specifically to prevent homelessness and potential displacement, or to assist those who are experiencing homelessness.	NA
Policy B	Support homeless persons or those at risk of becoming homeless by identifying referrals that can put people in contact with the organizations that provide the services that they need.	**Supportive**	This policy addresses support for houseless individuals, specifically to prevent homelessness and potentially displacement.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy C	Make technical assistance documents available to citizens and jurisdictional staff on the 211 referral line and related social services so more people will be aware of community resources and where individuals can find help. Distribution of information to publicize the 211 services should include internet information, distribution at relevant community meetings, contact phone numbers, and informational flyers to community service and religious faith-based organizations.	**Supportive**	This policy addresses support for houseless individuals, specifically to prevent homelessness and potential displacement, or to assist those who are experiencing homelessness.	NA
Policy D	Continue to take a regional perspective in addressing homelessness in the Thurston County community through support and participation in the Thurston County Home Consortium that provides coordinated planning, activities and evaluations that address homelessness.	**Supportive**	This policy addresses providing housing and services for individuals experiencing homelessness through increased coordination with other regional jurisdictions.	NA
Policy E	As supported programs formulate future budgets or experience budget growth, promote a sharpened focus on addressing priority issues	**Supportive**	This policy addresses support for houseless individuals, specifically to prevent homelessness and	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
	identified for Lacey's homeless demographic.		potentially displacement.	
Policy F	As Lacey reviews programs asking for support through the Housing Consortium, support should be prioritized based upon a program reflecting the goals and priorities identified in this Housing Element.	**Approaching**	This policy could be improved by including equity, racially disparate impacts, and anti-displacement as priorities of the housing element or this policy.	Prioritize programs asking for support through the Housing Consortium to support based on programs that work to undo racially disparate impacts, address displacement, and increase the affordability and availability of housing.
Goal 8	Strive for no net increase in the number of homeless people identified in future homeless census counts by focusing on proactive intervention.	**Supportive**	This policy addresses support for houseless individuals, specifically to prevent homelessness and potentially displacement.	NA
Policy A	Look for opportunities to strengthen outreach and engagement activities that will facilitate enrollment in treatment and service programs of individuals who are homeless or at risk of becoming homeless.	**Supportive**	This policy addresses support for houseless individuals, specifically to prevent homelessness and potentially displacement.	NA
Policy B	Promote programs designed to ensure that persons returning to the community from institutional or other sheltered settings (including foster care) do not become homeless.	**Supportive**	This policy addresses support for houseless individuals, specifically to prevent homelessness and potentially	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			displacement.It could be improved by including efforts to increase housing affordability for these individuals.	
Policy C	Encourage the use of effective prevention interventions, ranging from family strengthening and high-risk youth programs to specific discharge planning.	**Supportive**	This policy addresses disparate impacts and potential displacement through preventative strategies.	NA
Goal 9	Achieve maximum utilization of public buildings for use in the public interest by scheduling secondary uses and activities at times facilities are not being utilized for primary functions.	**Approaching**	This policy could be improved by specifying what activities are in the public interest, especially in terms of supportive housing services or emergency shelter.	NA
Policy A	Review opportunities for shared use of public facilities where it will not conflict with primary use of the structure and associated activities.	**Approaching**	This policy could be improved by specifying what activities are in the public interest, especially in terms of supportive housing services or emergency shelter.	Review opportunities for the shared use of public facilities when they do not conflict with the primary use of the facility and its associated activities, such as utilizing the facilities to support housing assistance programs or act as emergency shelters during extreme weather.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy B	When designing new public buildings and planning expansions of existing buildings, consider design to serve dual roles in providing a full range of public services, including emergency shelter, meal services, and other services that might be needed.	**Supportive**	This policy supports housing services and emergency shelter.	NA

City of Tumwater

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Land Use Element, Comprehensive Plan				
LU-2.3	Encourage innovative land use management techniques such as density bonuses, cluster housing, zero-lot-line development, planned unit developments, and transfer of development rights to create vibrant centers, corridors, and neighborhoods while accommodating growth.	**Supportive**	This policy is supportive of housing growth and affordability. It could be expanded to consider anti-displacement.	NA
LU-4.3	Continue to allow manufactured housing on individual lots within the City, as well as within mobile and manufactured home parks, to encourage affordable housing.	**Supportive**	This policy is supportive of housing growth and affordability.	NA
LU-4.4	Permit implementing regulations to experiment in new forms of residential development where amenities of open space, privacy, and visual quality can be maintained or improved, and flexible solutions to land use problems such as density, diversity, equitability, and affordability can be achieved.	**Approaching**	This policy intends to create development regulations that encourage diverse, affordable, and equitable housing types with high quality amenities. It could be rewritten to improve clarity.	Develop implementing regulations that provide flexibility for innovative forms of residential development that improve open space amenities, provide privacy, and allow for diverse housing options that are affordable and equitable.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
LU-4.5	Encourage higher density residential uses in order to provide affordable housing. These uses should blend with the existing character of the community.	**Approaching**	The policy intends to allow housing for a variety of needs. However, “character” is vague and can be leveraged to maintain high-cost housing types that are unattainable to those with lower incomes or from historically marginalized communities.	Encourage higher density residential uses that increase affordable housing stock and fit the overall scale and form of existing development.
LU-4.6	Increase housing types and densities in corridors and centers to meet the needs of a changing population.	**Supportive**	Increasing housing types and densities is supportive of housing growth, especially in areas with jobs and services.	NA
LU-4.7	Increase the variety of housing types outside of corridors and centers of appropriate intensities with supporting design guidelines to meet the needs of a changing population.	**Approaching**	The policy intends to allow housing for a variety of needs. However, extensive design guidelines can be leveraged to maintain high-cost housing types that are unattainable to those with lower incomes or from historically marginalized communities.	Increase the variety of housing types allowed in areas outside of corridors and centers to support the needs of a changing population.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
GOAL LU-9	Identify what conditions should be applied to development in residential areas.	**Approaching**	The policy intends to ensure new development is integrated with the rest of the city, but additional requirements, especially in terms of design, could ultimately hinder the development of affordable housing.	Identify appropriate conditions and requirements for development in residential areas to ensure diverse housing types can be built without rigorous standards that may increase building costs.
LU-9.1	Protect residential developments from excessive noise, odors, dirt, glare, and other nuisances emanating from commercial and industrial uses.	**NA**	NA	NA
LU-9.2	Allow for multi-family residential development in the zoning code. Consideration should be given to encouraging this type of development near centers of community services.	**Approaching**	Allowing multi-family developments in the zoning code is supportive of housing growth,especially in areas with jobs and services. It could be improved by prioritizing housing for historically disadvantaged communities or vulnerable populations.	Allow multi-family residential development in the zoning code and encourage multifamily development near centers, community services, and public transportation.
LU-9.3	Integrate design features of existing natural systems into the layout and siting of new residential dwelling units. Preserve trees and significant ecological systems, whenever possible and practical.	**Approaching**	This policy would bring health benefits from additional greenery and shade, but could ultimately hinder the	Where feasible, encourage the integration of design features that highlight the natural environment and preserve existing trees, provided that they don’t hinder the development of housing.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			development of affordable housing.	
LU-9.4	Permit experimentation in development regulations with newer forms of residential development where amenities of open space, privacy, and visual quality can be maintained or improved, and flexible solutions to land use problems can be achieved.	**Approaching**	Flexible standards for diverse housing types would support housing growth, but this policy should include emphasis on providing housing for low income or historically marginalized populations.	Develop implementing regulations that provide flexibility for innovative forms of residential development that improve open space amenities, provide privacy, and allow for diverse housing options that are affordable and equitable. (Note: may be redundant with LU-4.4)
LU-9.5	Do not permit private residential gated communities.	**Supportive**	This policy helps prevent exclusive residential communities.	NA
LU-9.6	Promote nearby access to healthy food for residential developments.	**Approaching**	This policy does not directly help the city increase housing supply, but helps increase food security for residential developments, but could be expanded to prioritize promoting access to healthy foods in historically marginalized and low-income communities.	Promote access to healthy food for residential developments, prioritizing historically marginalized or overburdened communities or low-income households.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Housing Element, Comprehensive Plan				
GOAL H-1	To conserve and improve the existing city housing stock and quality of life of neighborhoods.	**Supportive**	Preserving existing affordable housing stock can help reduce displacement pressures.	NA
H-1.1	Assist city neighborhoods in maintaining and rehabilitating the existing housing stock as decent, safe, sanitary, and affordable housing.	**Supportive**	Preserving and improving existing affordable housing stock can help reduce displacement pressures and increase housing supply.	NA
H-1.1.1	Create a formal maintenance and rehabilitation program beyond the current City code enforcement procedures to support Policy H-1.1 in coordination with the City's work with the Regional Housing Council.	**Supportive**	Preserving existing affordable housing stock can help reduce displacement pressures and increase housing supply. Special care should be taken to ensure vulnerable populations are displaced through rehabilitation of housing.	NA
H-1.2	Encourage a range of housing, economic development, and community revitalization in the city.	**Approaching**	"Revitalization" of neighborhoods could lead to displacement. This policy should be expanded to include anti-displacement language.	Encourage a range of housing, promote economic development, and ensure the existing housing stock remains in good condition to retain existing affordable housing units.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
H-1.3	Promote the quality of life of existing communities and implementation of community housing goals through the preparation of comprehensive plans and the development review process.	**Supportive**	Including affordable housing policies that prioritize anti-displacement, affordability, and equity in the comprehensive plan and development regulations supports housing growth.	NA
H-1.4	Provide assistance to improve community surroundings and infrastructure in residential areas.	**Approaching**	Improving infrastructure to better serve communities is supportive of housing growth, but “improve community surroundings” is vague and could lead to displacement or disproportionate impacts to historically marginalized communities. This policy should consider displacement impacts.	Maintain and improve infrastructure where needed to support existing residential areas and preserve existing affordable housing units.
H-1.5	Encourage and facilitate economic development as an important part of provision of housing by providing jobs.	**Approaching**	Providing jobs does not provide housing in itself, but increasing employment opportunities near housing	Encourage and facilitate economic development to increase employment opportunities near existing housing. OR Encourage the provision of affordable housing near

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
				employment opportunities and encourage economic development to increase employment opportunities near existing housing.
GOAL H-2	To provide a sufficient number of single family dwelling units, multi-family dwelling units, manufactured homes, and group housing to provide an affordable selection of housing to each economic segment of the Tumwater population.	**Approaching**	Providing land for all types of housing is important. However, this goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.	Provide a sufficient number of diverse housing types and affordable units for each income bracket to meet the City's housing targets and needs for households from all economic backgrounds.
H-2.1	Provide sufficient, suitably zoned land for development of all housing types to accommodate the future needs for each type of housing, including single-family detached dwellings, accessory dwelling units, townhouses, duplexes, triplexes, fourplexes, multi-family dwellings, cottage housing, senior housing, roominghouses, group housing, and manufactured homes in manufactured home parks and on single lots.	**Approaching**	Providing land for all types of housing is important. However, this goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.	Ensure sufficient and suitably zoned residential land to accommodate a range of housing types to meet all income levels, including those earning 0 to 40% of the Area Median Income (AMI), and update development regulations to allow these diverse housing types, such as single family detached dwellings, accessory dwelling units, townhouses, multi-family dwellings, cottage housing, senior housing, roominghouses, group housing, and manufactured home parks in manufactured home parks and on single lots, among others.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
H-2.2	Provide opportunities for a range of housing types to provide for all economic segments of Tumwater's population.	**Approaching**	Providing opportunities for diverse housing types and incomes is important.	Provide opportunities for a range of housing types to provide affordable housing for all economic segments of Tumwater's population.
H-2.2.1	Monitor the Land Use Element and Zoning Code to ensure an adequate supply of suitably zoned land.	**Approaching**	Providing land for all types of housing is important. However, this goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.	(Probably captured in edits to Policy H-2.1.)
GOAL H-3	To provide adequate, affordable housing for residents of all income groups, including sufficient housing affordable to low and moderate-income groups.	**Supportive**	Providing affordable housing advances housing growth. This goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.	NA
H-3.1	Encourage the development of innovative plans, codes, standards, and procedures in order to take advantage of new private and public sector approaches to housing provision.	**Approaching**	This policy would help the city provide additional housing using innovative methods but could be improved by considering how these innovative plans could increase affordability of housing and prevent displacement.	Encourage the development of innovative plans, codes, standards, and procedures to take advantage of new private and public sector approaches to providing housing for all needs and affordable for all household incomes.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
H-3.1.1	The Zoning Code allows manufactured homes on single-family lots in all residential zones. It is the intent of the Housing Element to promote the designation of a sufficient supply of land for traditional mobile/manufactured home parks and to recognize that modular/manufactured housing on single family lots and in manufactured home parks is a viable form of housing construction.	**Supportive**	Preserving existing affordable housing stock like manufactured homes reduces displacement risk and maintains affordable housing supply.	NA
H-3.1.2	Increase code enforcement efforts and build public private partnerships to encourage renovations of unfit structures for use as transitional or affordable housing.	**Approaching**	Retrofitting existing affordable housing stock reduces displacement risk and maintains affordable housing supply. However, this is phrased as retrofitting unfit structures for use as transitional or affordable housing, rather than retrofitting *existing* transitional or affordable housing, which could create disproportionate impacts if only buildings in need of repair are designated for transitional or affordable housing.	Increase code enforcement to ensure the existing affordable housing stock is well maintained and retrofitted where needed to provide safe housing, and build public private partnerships to identify opportunities for adapting existing buildings for transitional or deeply affordable housing.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
H-3.2	Encourage provision of adequate building sites through appropriate land use planning and zoning codes, infrastructure supply, and overall regulatory climate.	**Supportive**	Allowing for additional housing with sufficient infrastructure through land use planning and code changes contributes to housing growth.	NA
H-3.3	Tumwater should assume its "fair share" of housing for low and moderate income groups, in cooperation with other jurisdictions in Thurston County.	**Supportive**	Providing affordable housing advances housing growth and affordability. This goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.	NA
H-3.3.1	Monitor land supply, census data, and housing policies to ensure Tumwater accommodates its fair share of housing for low and moderate income groups.	**Supportive**	Providing sufficient land for housing advances housing growth. This goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.	NA
H-3.3.2	Work with Tumwater School District, Housing Authority, and other agencies and organizations to pursue grant funding and implement transitional housing strategies for families with children.	**Supportive**	Pursuing opportunities to increase transitional housing for families supports housing for vulnerable communities and could help mitigate displacement. This policy	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			could be expanded to prioritize low income families or those from historically marginalized communities.	
H-3.3.3	Establish a multi-family tax exemption program that gives financial incentive for developers to create multi-family structures in target areas and to set aside a percentage of units as low-income housing.	**Supportive**	This policy is supportive of housing growth and affordability. It could be expanded to include anti-displacement measures in the “target areas”.	NA
H-3.4	Tumwater should work with the other jurisdictions in Thurston County as part of the Regional Housing Council to share decision making responsibilities related to homelessness and affordable housing in Thurston County to allow for collaboration in expanding affordable housing options and sharing the planning for, identification of, and resource allocation to activities and programs intended to support individuals experiencing homelessness in Thurston County.	**Supportive**	This policy is supportive of housing affordability and preventing displacement, by expanding collaboration with neighboring jurisdictions to provide affordable housing and resources to support individuals experiencing homelessness.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
GOAL H-4	To provide adequate opportunities for housing for all persons regardless of age, race, color, national origin, ancestry, sex, sexual orientation, familial status, marital status, ethnic background, source of income use of federal housing assistance, or other arbitrary factors.	**Supportive**	Providing opportunities for housing for all needs advances housing growth. This goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.	NA
H-4.1	Support the inclusion of living opportunities for families with children throughout the city.	**Supportive**	Providing opportunities for housing for families with children advances housing growth. This goal should be updated to prevent displacement of these households.	NA
H-4.2	Support and encourage a variety of housing types and price ranges through appropriate policies and regulations.	**Supportive**	Providing opportunities for housing for all needs advances housing growth. This goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.	NA
H-4.2.1	Continue the requirement for reasonable maximum lot sizes in order to create smaller lots that are more affordable and that allow a more efficient use of City services.	**Supportive**	Setting maximum lot sizes increases the land available for new residential development. This policy could be expanded to reference diverse housing types	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			affordable for all income levels.	
H-4.2.2	Encourage homeowner associations to adopt Covenants, Conditions, and Restrictions (CCRs) consistent with this policy.	**Approaching**	This policy could be strengthened to require homeowner associations to not prevent affordable or diverse housing types or require strict design requirements that may hinder affordability.	Encourage homeowner associations to adopt Covenants, Conditions, and Restrictions (CCRs) that do not hinder the provision of diverse housing types or affordable housing and do not include strict design requirements that may hinder housing affordability.
GOAL H-5	To supply sufficient, safe, suitable housing sites and housing supply to meet projected future housing needs for Tumwater over the next 20 years.	**Supportive**	This goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220, and to prevent potential displacement of existing residents.	NA
H-5.1	Ensure appropriate land use designations and Zoning Code designations to provide sufficient land for housing construction.	**Approaching**	Providing land for all types of housing is important. However, this goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.	Ensure appropriate land use designations and zoning code designations to provide sufficient land for housing affordable for all household incomes.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
H-5.1.1	Monitor the Land Use Element and Zoning Code to ensure an adequate supply of suitably zoned vacant land. (2.1.1)	**Approaching**	Providing land for all types of housing is important. However, this goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.	(Probably captured in edits to Policy H-2.1.)
H-5.1.2	Continue joint planning with Thurston County to plan for future growth in Tumwater.	**Supportive**	Taking a regional approach to affordable housing goals is important given cross-jurisdiction impacts of displacement pressures.	NA
H-5.2	Lands not suitable for development due to site constraints such as wetlands, steep slopes, geologically hazardous areas, etc., should be identified and considered when determining sufficient land for new housing in accordance with Tumwater's Conservation Plan.	**Supportive**	This policy would allow the city to have an accurate determination of land available for new housing.	NA
H-5.3	Encourage construction practices, which exceed minimum standards. Tumwater will support the use of alternative building designs and methods that exceed the minimum standards set by Tumwater.	**NA**	NA	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
GOAL H-6	To promote a selection of housing that is decent, safe, and sound, in close proximity to jobs and daily activities, and varies by location, type, design, and price.	**Supportive**	Increasing diverse housing types is supportive of housing growth, especially in areas with jobs and services.	NA
H-6.1	Protect residential areas from undesirable activities and uses through aggressive enforcement of adopted City codes.	**Challenging**	This policy is at a high risk of having a disproportionate impact on lower income and historically marginalized communities, resulting in greater displacement.	(Recommended to delete this policy)
H-6.2	Provide for a dynamic mix of residential land uses and zones in order to create a diverse mix of sites available for different housing types.	**Approaching**	Providing land for all types of housing is important. However, this goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.	Provide for a dynamic mix of residential land uses and zones in order to allow a diverse mix of sites available for different housing types affordable for all household income levels and to meet residents' diverse housing needs.
H-6.2.1	Continue to monitor the available land supply, census data, and City policies to ensure a diverse mix of land for residential housing stock.	**Supportive**	Providing land for a mix of housing advances housing growth. This goal should be updated to consider displacement and affordability concerns and housing by income bracket to meet the requirements of HB 1220.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
H-6.2.2	Continue to implement innovative design techniques, such as zero lot line developments, architectural design standards, alley houses, and attached single-family housing. Zero lot line developments are residential real estate in which the structure comes up to or very near to the edge of the property. Zero-lot-line houses are built very close to the property line in order to create more usable space.	**Supportive**	This policy is supportive of housing growth. Ensuring clear and predictable standards for housing and building codes supports housing production goals. Strict design requirements can be leveraged to maintain high-cost housing types, unattainable to those from lower incomes or historically marginalized communities.	NA
H-6.3	Support increasing housing opportunities along urban corridors and centers.	**Supportive**	Increasing housing supply is supportive of housing growth, especially in areas with jobs and services.	NA
H-6.4	Encourage provision of affordable housing near public transit routes to promote efficient transportation networks.	**Approaching**	Ensuring that neighborhoods encourage active transportation is important for inclusive communities. However, this goal could be edited to pay special attention to underserved neighborhoods.	Encourage the provision of affordable housing near public transit routes, prioritizing neighborhoods that are underserved by affordable housing.
H-6.4.1	Continue to involve Intercity Transit in Tumwater's development review process.	**NA**	NA	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
H-6.5	Tumwater will maintain current Building Code standards and will use the most up to date future Code editions.	**Supportive**	Ensuring clear and predictable standards for housing and building codes supports housing production goals.	NA
H-6.6	Increase the variety of housing types outside of corridors and centers of appropriate intensities with supporting design guidelines to meet the needs of a changing population.	**Supportive**	Ensuring clear and predictable standards for housing and building codes supports housing production goals.	NA
GOAL H-7	To ensure that housing is compatible in quality, design, and density with surrounding land uses, traffic patterns, public facilities, and environmentally sensitive areas.	**Approaching**	“Compatible” as it relates to design is vague and can be leveraged to maintain high-cost, low-density housing types, unattainable to those from lower incomes or historically marginalized communities.	Ensure new housing development maintains the existing scale and form of surrounding land uses, traffic patterns, public facilities, and prevents impacts to environmentally sensitive areas.
H-7.1	Support the stability of established residential neighborhoods through appropriate plans and codes.	**Approaching**	This policy may help prevent residential displacement, but may also provide a barrier to increasing housing diversity and affordability in existing neighborhoods.	Support the stability of existing affordable housing through appropriate plans and codes.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
H-7.1.1	Continue to implement design standards for multi-family and attached single-family dwellings in order to ensure compatibility with existing neighborhoods.	**Approaching**	The policy intends to allow a variety of housing types. However, “compatible” is vague and can be leveraged to maintain high-cost, low-density housing types, unattainable to those from lower incomes or historically marginalized communities.	Continue to implement design standards for multi-family and attached single-family dwellings, ensuring they are not overly stringent or increasing the cost of housing development.
H-7.2	Assure housing will be well maintained and safe.	**Supportive**	Ensuring housing is well-maintained and safe is supportive of housing goals, but should prioritize low income or other historically marginalized communities.	NA
H-7.3	Enhance the appearance of and maintain public spaces in residential areas.	**NA**	NA	NA
H-7.4	Promote community involvement to achieve neighborhood improvement.	**Approaching**	This policy could be strengthened to ensure the concerns of historically marginalized communities are prioritized.	Promote community involvement and opportunities to increase a sense of community by prioritizing historically marginalized neighborhoods and actively seeking their input on city decisions.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
GOAL H-8	To support healthy residential neighborhoods which continue to reflect a high degree of pride in ownership or residency.	**Approaching**	This policy could be strengthened by addressing affordability and to prevent displacement of existing residents.	NA
H-8.1	Support the stability of established residential neighborhoods.	**Approaching**	This policy may help prevent residential displacement, but may also provide a barrier to increasing housing diversity and affordability in existing neighborhoods.	(Redundant with H-7.1.)
H-8.2	Assure housing will be well maintained and safe.	**Supportive**	Ensuring housing is well-maintained and safe is supportive of housing goals, but should prioritize low income or other historically marginalized communities.	NA
H-8.2.1	Protect residential areas from undesirable activities and uses through aggressive enforcement of adopted City codes.	**Challenging**	This policy is at a high risk of having a disproportionate impact on lower income and historically marginalized communities, resulting in greater displacement.	(Recommended to delete this policy, redundant with H-6.1 as well.)
H-8.3	Enhance the appearance of and maintain public spaces in residential areas.	**NA**	NA	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
H-8.4	Promote community involvement to achieve neighborhood improvement.	**Approaching**	This policy could be strengthened to ensure the concerns of historically marginalized communities are prioritized.	(Redundant with H-7.4.)
H-8.4.1	Encourage neighborhood meetings to discuss community issues as situations and concerns arise.	**Approaching**	This policy could be strengthened to ensure the concerns of historically marginalized communities are prioritized.	(May be redundant with proposed edits for H-7.4.)
H-8.5	Encourage home ownership for Tumwater residents.	**Approaching**	Encouraging homeownership helps mitigate displacement, but should prioritize opportunities for low and middle incomes.	Encourage home ownership for Tumwater residents of all household incomes and provide assistance for low-income households, where feasible.
GOAL H-9	To encourage a variety of housing opportunities for those with special needs, particularly those with problems relating to age or disability.	**Supportive**	This policy is supportive of providing housing for all needs, housing growth, and affordability. It could be improved by preventing the potential displacement of those with special housing needs.	NA
H-9.1	Require housing to meet the needs of those with special housing requirements without creating a concentration of such housing in any one area.	**Supportive**	This policy is supportive of providing housing for all needs throughout the city. It could be improved by preventing the	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			potential displacement of those with special housing needs.	
H-9.2	Assist social service organizations in their efforts to seek funds for construction and operation of emergency, transitional, and permanent housing.	**Supportive**	This policy addresses support for housing for individuals experiencing homelessness, and could help mitigate displacement.	NA
H-9.3	Support and plan for assisted housing opportunities using federal, state, or local aid.	**Supportive**	This policy addresses pursuing funding to support assisted housing opportunities which could mitigate displacement and increase the amount of affordable housing in the city.	NA
H-9.4	Encourage and support social and health service organizations, which offer support programs for those with special needs, particularly those programs that help people remain in the community.	**Supportive**	This policy addresses services to support populations with special needs to help mitigate displacement.	NA
H-9.5	Encourage alternative housing strategies for homeless youth, which may include Host Homes.	**Supportive**	This policy addresses the provision of housing for homeless youth.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
GOAL H-10	To provide housing that is compatible and harmonious with existing neighborhood character through use of innovative designs that enhance the appearance and quality of Tumwater's neighborhoods.	**Approaching**	The policy intends to allow a variety of housing types. However, "neighborhood character" is vague and can be leveraged to maintain high-cost, low-density housing types, unattainable to those from lower incomes or historically marginalized communities.	Provide innovative housing that reflects the existing scale and form of Tumwater's neighborhoods and provides housing affordable for all household incomes.
H-10.1	Encourage innovation and variety in housing design and development. Tumwater will support efforts to build housing with unique individual character, which avoids monotonous neighborhood appearance.	**Approaching**	Encouraging diverse and innovative design could ultimately hinder housing affordability or supply by requiring additional, subjective design standards.	Encourage diverse and innovative housing design that incorporates diverse housing types that are affordable for all household income brackets.
H-10.2	Multi-family residential housing should be subject to design criteria that relate to density, structure bulk, size and design, landscaping, and neighborhood compatibility.	**Approaching**	Design standards intend to integrate new housing developments with existing ones, but can be leveraged to maintain high-cost housing types, which are unattainable to those from lower incomes or historically marginalized communities.	Ensure design standards for multi-family housing maintain the existing scale and form of development and landscaping in Tumwater without increasing the cost to develop housing.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
H-10.2.1	Continue to implement multi-family housing design standards.	**Approaching**	Design standards intend to integrate new housing developments with existing ones, but can be leveraged to maintain high-cost housing types, which are unattainable to those from lower incomes or historically marginalized communities.	(Redundant with H-10.2 above.)
GOAL H-11	To provide housing to accommodate Tumwater's housing needs in the urban growth area and make the most efficient use of infrastructure and services.	**Supportive**	This policy supports housing growth by ensuring there are adequate services and infrastructure.	NA
H-11.1	Reference the Transportation Element and anticipated transportation impacts when making housing decisions affecting the location and density of housing.	**Supportive**	This policy supports housing growth by ensuring there are adequate services and infrastructure. It should also prioritize affordability.	NA
H-11.2	Reference utility plans and the impact of housing decisions on capital improvements planning.	**Supportive**	This policy supports housing growth by ensuring there are adequate services and infrastructure. It should also prioritize equity in the provision of services.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
H-11.3	Encourage the construction of affordable housing, including cottage housing and accessory dwelling units, within a half mile or twenty minute walk of an urban center, corridor or neighborhood center with access to goods and services to provide access to daily household needs.	**Supportive**	Providing housing near transit supports housing supply goals and reduces impacts to transportation and provides access to jobs.	NA
GOAL H-12	To encourage urban growth within the city limits with gradual phasing outward from the urban core.	**Approaching**	This policy could be improved by addressing affordability and encouraging increased density throughout the city.	NA
H-12.1	Encourage the construction of housing on vacant property within the city and the redevelopment of underdeveloped property within residential areas to minimize urban sprawl and associated public service costs.	**Approaching**	This policy supports housing growth, but could better address affordability and anti displacement, especially related to the redevelopment of underdeveloped property to ensure people are not displaced.	Encourage the construction of affordable, transitional, or supportive housing on vacant properties within the city to minimize urban sprawl and associated public service costs.
H-12.1.1	Continue to review and revise, as necessary, City Development Standards deemed unnecessary and make development more expensive and/or difficult.	**Supportive**	This policy supports housing growth and affordability.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
H-12.1.2	Continue to support high-density zoning within specific areas of the city that have the infrastructure and services to support high-density housing.	**Supportive**	This policy supports housing growth by ensuring there are adequate services and infrastructure.	NA
H-12.1.3	Continue to implement minimum density levels for all residential zoning districts to ensure efficient use of the urban growth area.	**Supportive**	This policy supports housing growth. It could be improved by addressing affordability.	NA
H-12.1.4	Work cooperatively with Thurston County to provide for more efficient and orderly annexations to facilitate urban service delivery.	**NA**	Consider moving to Land Use Element	NA
GOAL H-13:	Ensure consistency with RCW 36.70A.070(2)(c) which requires sufficient land be available for all types of housing including manufactured housing.	**Approaching**	Providing land for all types of housing is important. However, this goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.	Ensure consistency with RCW 36.70A.070(2)(c) which requires sufficient land be available for all types of housing including manufactured housing, in order to provide housing affordable for all income brackets.
H-13.1	Maintain the manufactured home park district zoning in appropriate areas in order to prevent conversion of affordable housing to other uses without replacement.	**Supportive**	Preserving existing affordable housing stock reduces displacement risk.	NA
H-13.1.1	Encourage manufactured housing park district zoning to locate near transit services.	**Supportive**	Providing access to services such as transit reduces community vulnerabilities and dependence on car travel,	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			especially for vulnerable community members such as elderly and youth.	
H-13.2	When locating zones and designations for manufactured home parks, carefully consider the risks from natural hazards, such as flooding and liquefaction, and the impacts of those hazards on the future residents of those manufactured home parks, Tumwater's emergency responders, and the city as a whole.	**Supportive**	Renters and lower income communities often have higher risk and vulnerabilities to natural hazards and events. Ensuring that zoning does not push manufactured home parks into high-risk areas reduces displacement and threats to community member safety.	NA

City of Yelm

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Land Use Element, Comprehensive Plan				
Policy 3.3	Adopt two categories of residential single family land use to meet community needs: • Single Family - 4 units per acre; and	**NA - Dependent on Land Capacity Analysis**	See Land Capacity Analysis Report	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
	• Single Family - 6 units per acre.			
Policy 3.4	Adopt two categories of residential multifamily land use to meet community needs: • Multifamily - Medium Density — 6 units per acre; and • Multifamily - High Density — 16 units per acre.	**NA - Dependent on Land Capacity Analysis**	See Land Capacity Report	NA
Policy 3.5	Adopt a mixed use development category which allows both residential and commercial uses suitable for planned developments on larger parcels and which provides for a variety of land uses, more efficient use of open space, and more cost effective public infrastructure.	**Approaching**	This policy supports housing near commercial services. It could better address affordability.	NA
Policy 4.4	Adopt development regulations that accommodate “live-work” structures (where citizens can live and work within the same structure).	**Supportive**	Allowing live-work structures creates both housing and economic opportunities for community members who wish to start a business, but cannot afford a home and a commercial space.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy 4.6	Adopt development regulations that allow permits to be processed in a timely and efficient manner.	**Supportive**	Streamlining permit processes reduces barriers to housing production to meet housing supply deficits and reduce building costs.	NA
Goal 5	Encourage diverse residential growth.	**Supportive**	Allowing diverse housing types and growth allows housing supply to meet the shifting housing needs of households.	NA
Policy 5.2	Adopt development standards that allow duplexes, townhouses, and accessory dwelling units within residential areas. These are intended to increase the variety of housing in the community and aid in achieving an overall urban density.	**Supportive**	Allowing housing diversity supports overall goals of providing different housing types to address different household needs.	NA
Policy 5.3	Adopt development regulations that encourage mixed use subdivisions.	**Supportive**	Allowing housing diversity supports overall goals of providing different housing types to address different household needs.	NA
Goal 10	Create vibrant centers, corridors, and neighborhoods while accommodating growth.	**NA**	NA	NA
Policy 10.1	Promote a greater mix of uses and densities to support efficient provision of services.	**Supportive**	Allowing housing and land use diversity supports overall goals of providing different housing types to	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			address different household needs.	
Goal 11	Create safe and vibrant neighborhoods with places that build community and encourage active transportation.	**Approaching**	Ensuring that neighborhoods are safe and encourage active transportation is important for inclusive communities. However, this goal could be edited to take special attention to underserved neighborhoods.	Create safe and vibrant neighborhoods that build community, support historically marginalized or overburdened communities, and encourage active transportation.
Policy 11.1	Plan at the neighborhood level to increase housing density and diversity while preserving neighborhood character and quality of life.	**Approaching**	While local-level planning can result in inclusive and grassroots actions, the element of “preserving neighborhood character” can sometimes be used as an argument for continuing exclusionary housing types and disputing zoning changes that seek to allow more housing diversity.	Plan at the neighborhood level to increase housing diversity and the quality of life for residents.
Policy 11.2	Plan for land use patterns that provide most neighborhood residents an array of basic services within a half mile or 20 minute walk from home.	**Supportive**	Providing retail and services within a half-mile walkshed encourages community resilience and reduces dependency on vehicular transportation, which can be a large cost factor for households.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy 11.3	Encourage appropriately scaled home-based business and live/work opportunities in neighborhoods.	**Supportive**	Allowing live-work structures creates both housing and economic opportunities for community members who wish to start a business, but cannot afford a home and a commercial space.	NA
Goal 12	Maximize opportunity to redevelop land in priority areas by investing in infrastructure and environmental remediation.	**Supportive**	Reducing the overall land and infrastructure investment while also expanding residential buildable lands supports housing supply goals.	NA
Policy 12.1	Mitigate the additional cost of development in centers and corridors by making public infrastructure investment that adds value, safety and public enjoyment for the entire community and that result in appropriate public return on investment when adjacent properties are developed. Allow for latecomers and other methods of repayment for government outlay for infrastructure.	**Approaching**	While this policy does facilitate housing growth, it could be enhanced by including affordability considerations.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Housing Element, Comprehensive Plan				
Goal 1	Encourage a variety of housing types, densities and a range of affordable housing within Yelm and its Urban Growth Area.	**Supportive**	Allowing different types of housing and affordability levels fosters a cohesive and inclusive community when it comes to housing.	NA
Policy 1.1	Allow a variety of housing types within the residential and mixed use designations to promote a range of housing alternatives within the community. This may include but not be limited to: government assisted housing, housing for low-income families, manufactured housing, multi-family housing, and group or foster homes.	**Supportive**	Ensuring access to affordable housing types–including manufactured home types and group homes–is essential to reducing displacement risks among vulnerable community members.	NA
Policy 1.2	Allow accessory dwelling units in all residential land use categories subject to development standards and design criteria.	**Supportive**	Accessory Dwelling Units provide opportunities for aging in place and adapting existing housing stock and residential land uses to meet the changing housing needs of households.	NA
Policy 1.3	Encourage opportunities for a range of housing costs to enable housing for all segments of the population.	**Supportive / Approaching**	While supportive, this policy will need to be updated to meet HB 1220 guidance on specific household income	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			brackets. However, providing housing across all income segments reduces displacement risk and enables housing opportunities to all, regardless of income.	
Policy 1.4	Encourage the provision of adequate affordable building sites through appropriate zoning, infrastructure, and other development regulations.	**Supportive**	Regularly reviewing and ensuring zoning, development regulations, and infrastructure support housing at different affordability levels supports anti-displacement efforts.	NA
Policy 1.5	Review development regulations to ensure that a range of housing types is available throughout Yelm.	**Supportive**	Allowing and reducing barriers to housing types through development regulations is essential to enabling affordable housing options.	NA
Policy 1.6	Review development regulations to ensure residents can safely walk throughout Yelm.	**Supportive**	Not all community members have consistent access to vehicles, including vulnerable populations such as youth and elderly. Providing walkable residential neighborhoods promotes inclusion and positive health outcomes.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy 1.7	Monitor the need for special needs housing and increase opportunities for such housing.	**Supportive**	Providing housing for special needs reduces displacement and homelessness risk among community members with special needs.	NA
Policy 1.8	Consider density increase incentives to promote a variety of housing types, mixed uses, range of housing costs, affordability, and increased special needs housing.	**Supportive**	Providing a wide range of housing types and densities–at different affordability levels–provides options	NA
Goal 2	Meet the county wide planning policy to ensure a fair share of affordable housing.	**Supportive**	Taking a regional approach to affordable housing goals is important given cross-jurisdiction impacts of displacement pressures.	NA
Policy 2.1	Encourage a variety of housing types in the residential designations to assure choice, opportunity, and availability of a fair share of affordable housing throughout Yelm, its UGA, and adjacent areas of Thurston County.	**Supportive**	Providing housing diversity and sufficient housing options reduces displacement risk and encourages affordability.	NA
Policy 2.2	Participate with other jurisdictions and Thurston County in a regional process to monitor Fair Share Affordable Housing targets within the County.	**Supportive**	Taking a regional approach to affordable housing goals is important given cross-jurisdiction impacts of displacement pressures.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Goal 3	Conserve and improve the existing housing stock and neighborhoods.	**Supportive**	Preserving existing affordable housing stock can help reduce displacement pressures.	NA
Policy 3.1	Maintain up-to-date development regulations for building, housing, mechanical, and other design standards.	**Supportive**	Ensuring clear and predictable standards to housing and building codes supports housing production goals.	NA
Policy 3.2	Require owners of unsafe dwelling units to correct significant problems and encourage the maintenance of existing structures consistent with the standards of the neighborhood.	**Approaching**	Ensuring housing is safe and habitable is important. Rehabilitation, however, can also result in physical displacement pressures as existing households may be forced to move or incur high costs of repair. Such support should involve connecting households with alternatives or incentive programs to reduce these risks.	Require owners of unsafe dwelling units to correct significant problems and encourage the maintenance of existing structures consistent with the city's code, and consider funding assistance for low-income owners or incentive programs to reduce displacement risks.
Policy 3.3	Support rehabilitation efforts for substandard housing.	**Approaching**	Ensuring housing is safe and habitable is important. Rehabilitation, however, can also result in physical displacement pressures as existing households may be forced to move or incur high costs of repair. Such support should	Support rehabilitation efforts for substandard housing and develop assistance programs to reduce displacement risks.

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			involve connecting households with alternatives or incentive programs to reduce these risks.	
Policy 3.4	Encourage and facilitate local economic development as an important element of improving housing conditions by providing economic opportunity.	**Approaching**	While economic development is an important step for ensuring housing growth and conditions–particularly when it comes to local financing–such growth should not result in the rapid displacement of community members through rising costs.	Encourage and facilitate economic development to provide increased economic opportunity for existing residents, so more people can work near their home.
Policy 3.5	Encourage local community groups, churches, and businesses to provide voluntary assistance with maintain existing structures for the elderly, low income, and those with special needs.	**Approaching**	While encouraging local groups is beneficial, this policy would be strengthened through active support and connecting these groups with funding to do so.	Encourage and provide funding for local community groups, churches, and businesses to provide voluntary assistance with maintaining existing housing for the elderly, low income households, and those with special housing needs.
Goal 4	Promote energy efficient housing to reduce the overall costs of home ownership.	**Supportive**	Reducing barriers to home ownership, especially when aimed at historically marginalized or vulnerable community members, could reduce displacement pressures.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy 4.1	Support programs that make existing structures more energy efficient.	**NA**	NA	NA
Policy 4.2	Periodically review the energy efficiency development regulations to ensure that they are up-to-date.	**NA**	NA	NA
Policy 4.3	Promote residential subdivision designs that maximize solar heating opportunities.	**NA**	NA	NA
Goal 5	Provide sufficient housing for low- and moderate-income households within each jurisdiction.	**Supportive**	While supportive, this policy should be updated to take special attention to HB 1220. The policy could be improved by paying special attention to the lowest incomes, 0-30% Area Median Income, when it comes to housing capacity.	NA
Policy 5.1	Provide sufficient housing for low- and moderate-income households.	**Supportive**	While supportive, this policy should be updated to take special attention to HB 1220. The policy could be improved by paying special attention to the lowest incomes, 0-30% Area Median Income, when it comes to housing capacity.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy 5.2	Provide tenants and landlords information about housing rights and responsibilities.	**Supportive**	Ensuring awareness on housing rights can empower tenants and ensure safe housing.	NA
Policy 5.3	Incentivize developers to set aside a percentage of multifamily housing units for low- and moderate-income buyers and renters.	**Supportive**	Providing incentives for less than market rate housing provides opportunities for community members to remain in the community as prices increase, and provides opportunities for new community members to live in the City.	NA
Policy 5.4	Support efforts to provide funding for shared-equity policies — via community land trust or down-payment assistance models — to make buying housing of all types affordable.	**Supportive**	Providing programs to control the variable costs of land could create long lasting affordable housing opportunities for community members, particularly those from vulnerable groups or lower incomes.	NA
Goal 6	Provide sufficient service-enriched housing for homeless and high-risk populations.	**Supportive**	Allowing shelters and other types of emergency housing reduces displacement pressures, and provides services to respond to and prevent households from experiencing homelessness.	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
Policy 6.1	Allow shelters, group homes, transitional housing, and permanent housing with social services in development regulations in locations where these facilities have access to transit, parks, and other amenities.	**Supportive**	Allowing shelters and other types of emergency housing reduces displacement pressures, and provides services to respond to and prevent households from experiencing homelessness.	NA
Goal 7	Encourage housing density and diversity in neighborhoods to add vibrancy and increase equitable access to opportunity.	**Supportive**	Allowing housing density and diversity across neighborhoods gives the community means and options to avoid displacement pressures.	NA
Policy 7.1	Review and amend residential development regulations to provide opportunity for the mix and density of housing needed to meet the needs of changing demographics, use land wisely, and support nearby transit and businesses.	**Approaching**	Providing housing near transit supports housing supply goals and reduces impacts to transportation and provides access to jobs. However, this policy could be further expanded to call out affordability goals as well.	Review and amend residential development regulations to provide opportunities for the mix and density of housing needed to meet the needs of changing demographics, provide affordable housing, use land wisely, and support nearby transit and businesses.
Policy 7.2	Allow densification by providing for accessory dwelling units, small houses on small lots, attached housing types or appropriately scaled multifamily buildings, cottage housing, and village cohousing developments in development regulations.	**Supportive**	Allowing more diverse housing types that support affordability goals, such as smaller houses on smaller lots, also mitigates displacement pressures from increasing land costs	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			and greater demand than supply.	
Goal 8	Encourage the construction, weatherization and operation of homes to boost energy efficiency.	**Supportive**	Preserving existing housing stock through energy upgrades reduces costs by extending the useful life of the unit.	NA
Policy 8.1	Prioritize home weatherization funds to preserve affordable housing.	**Supportive**	Preserving existing affordable housing stock, without increasing renter costs, reduces displacement pressures from aging buildings and increasing maintenance needs.	NA
Policy 8.2	Support regional efforts to engage landlords and property managers in energy efficiency efforts.	**Supportive**	Supporting easier upgrades can maintain naturally affordable housing units from going into disrepair and being redeveloped into newer, less affordable housing options.	NA
Policy 8.3	Support the efforts of local financial institutions to facilitate affordable financing of energy upgrades.	**Supportive**	Supporting easier upgrades can maintain naturally affordable housing units from going into disrepair and being	NA

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			redeveloped into newer, less affordable housing options.	
Policy 8.4	Support regional efforts to conduct energy audits of large power consumers to identify efficiency improvements, such as RESNET's Home Energy Rating System.	**NA**		
Goal 9	Increase housing amid urban corridors and centers to meet the needs of a changing population.	**Approaching**	Providing housing opportunities in key centers and corridors fosters housing near jobs and opportunities. This goal could be expanded to consider affordability needs as well.	Increase housing affordable to all income brackets in urban corridors and centers to meet the needs of a changing population.
Policy 9.1	Review regulations that stymie or prevent housing development near or within urban corridors and centers.	**Supportive**	Addressing barriers to housing supply development ensures supply can meet demands, especially in areas with jobs and services.	NA
Policy 9.2	Remove barriers or "right-size" regulations to achieve goals.	**Supportive**	Reviewing and removing regulatory barriers to housing supports housing supply and streamlines review processes.	NA
Policy 9.3	Identify priority areas ripe for housing development that will meet multiple goals.	**Approaching**	This goal aims to increase housing supply. However, it should not come at the	Identify vacant or underdeveloped lots for housing development, prioritizing affordable housing and

Goal, Policy, or Regulation	Policy Text	Evaluation	Reason / Recommendation	Proposed Edits
			cost of displacing historically marginalized households.	ensuring existing households are not displaced.
Policy 9.4	Examine ways to encourage smaller, affordable housing units through the fee structure, especially in centers, corridors or adjacent to neighborhood service hubs.	**Supportive**	Allowing and encouraging more diverse housing types that are more affordable support affordability and anti-displacement objectives.	NA
Policy 9.5	Reduce impact fees for those projects located where there is less impact.	**Supportive**	Targeting reduce the burden to build housing would support housing unit construction	NA
Policy 9.6	Use tax exemptions, such as Special Valuation, or other financing tools to make projects financially feasible.	**Supportive**	Providing flexibility to support housing construction supports housing supply goals.	NA
Policy 9.7	Identify opportunities to aggregate properties where housing density is needed to achieve community goals and make multifamily projects feasible to build and finance.	**Supportive**	Allowing flexibility to support multifamily housing construction supports anti-displacement by providing diverse housing types.	NA

Data & Indicators Summary

Housing Displacement Risk Analysis for the cities of Lacey, Olympia, Tumwater, and Yelm

How do we measure the effectiveness of our strategies against displacement, gentrification, and racially disparate impacts? Through its Racially Disparate Impacts (RDI) tool, the WA Department of Commerce suggests the following 5 measures as “bullseye” or supportive metrics.[1] The RDI tool relies on estimates published by the U.S. Census Bureau and the Department of Housing and Urban Development (HUD) and is presented in four-year ranges. This analysis compares RDI data points from two timeframes, 2015-2019 and 2017-2021. Additionally, demographic data was pulled from the American Community Survey.

Generally, housing displacement risk increases when:

- The population becomes more racially and ethnically diverse
- Households are spending more than 30% of income on housing
- Rental units become unaffordable for extremely low-income residents
- Poverty rates increase in a community
- Homeownership rates decline

Racial Diversity

All cities are increasing in population, but Lacey, Tumwater, and Yelm have seen decreases in certain demographics of non-white residents.

Racial diversity estimates are based on data collected by the U.S. Census Bureau, which classifies people into distinct race and ethnicity categories. Race is a social identity, with a history rooted in oppression and exploitation of people not classified as "white".[2] Ethnicity refers to groups of people who share common ancestry, language, or dialect. There is a wide range of ethnic identities, which may or may not be tied to nationality. The Census asks respondents to identify as either Hispanic or Latino or Not Hispanic or Latino. The

[1] The RDI toolkit is designed for use by the Department of Commerce (Commerce) in its support of local jurisdiction efforts to meet the requirements of the Growth Management Act (GMA). The toolkit compiles statistics relevant to a jurisdiction's analysis of racially disparate impacts in its community.
[2] The Census offers six racial identities for people to choose from. Respondents self-identify. Since the 2000 census, respondents can self-identify as one or more options. The options provided are: White, Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, and Other.

Office of Management and Budget defines "Hispanic or Latino" as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race.

The table below shows the change in racial and ethnic diversity across the four cities between 2010 and 2023, using the US Census American Community Survey 5-Year Estimate data.

Change in # of Residents by Race & Ethnicity	Lacey	Olympia	Tumwater	Yelm
American Indian and Alaska Native	-54	2	-154	89
Asian	1,437	924	608	-132
Black or African American	1,345	345	755	279
Hispanic or Latino (of any race)	4,126	3,099	1,484	908
Native Hawaiian and Other Pacific Islanders	658	421	106	468
Other Race	-44	132	470	0
Two or more races	2,908	2,617	1,786	604
White	6,278	2,335	4,630	2,216
Net Pop Change	16,654	9,875	9,685	4,432

Cost Burden

All cities are increasing in the number of non-cost burdened homeowners. Comparatively, the growth of non-cost burdened renter households is significantly fewer. In some cases, the number of non-cost burdened renter households is decreasing.

A household experiencing a housing cost burden is paying more for housing than it can afford based on income. This means one or multiple of a house's critical needs (i.e., food, physical health, mental health, education, and/or general well-being) are not being met. A household is considered cost-burdened if its monthly housing costs are greater than 30% of its monthly income. Estimates of households experiencing cost burden include:

- Not cost-burdened includes households paying less than 30% of their household income on housing costs.
- Cost-burdened (30-50%) includes households paying between 30% and 50% of their household income on housing.

- Severely cost-burdened (>50%) includes households paying more than 50% of their income on housing costs.

The tables below show the change in the cost burdened populations across the four cities based on HUD Comprehensive Housing Affordability Strategy (CHAS) datasets representing a difference in the data between the years of 2015-2019 and 2017-2019.

Change in # Households by Cost-Burdened Status: Renters	**Lacey**	**Olympia**	**Tumwater**	**Yelm**
Not Cost Burdened	110	-655	100	-35
Cost-Burdened (30-50%)	65	-305	-65	-30
Severely Cost-Burdened (>50%)	200	15	-105	45
Not Calculated	-30	-75	11	5

Change in # Households by Cost-Burdened Status: Homeowners	**Lacey**	**Olympia**	**Tumwater**	**Yelm**
Not Cost Burdened	765	840	355	435
Cost-Burdened (30-50%)	370	145	-175	-59
Severely Cost-Burdened (>50%)	185	190	45	50
Not Calculated	45	5	-10	0

Rental Affordability

All cities have less rental housing for very low-income households (30-50% AMI).

In addition to estimates of households within an income range, CHAS data also provides estimates of the number of rental housing units affordable to households with incomes within the income range. A housing unit is considered affordable if gross housing costs are less than 30% of a household's income. The estimates are based on self-reported housing costs. Since self-reported housing costs reflect the costs to the household, the housing unit estimates reflect all the housing subsidies or other benefits in use in the area. A rental unit affordable to a household with an extremely low income (<30% of AMI) may or may not be occupied by a household in that income range. RDI tool rental affordability estimates use the corresponding household income thresholds:

- <30% AMI includes housing units that are affordable to a household with an income up to 30% of AMI.
- 30 - 50% AMI includes housing units that are affordable to a household with an income between 30% and 50% of AMI.
- 50% - 80% includes housing units that are affordable to a household with an income between 50% and 80% of AMI.
- >80% AMI includes housing units that are affordable to a household with an income greater than 80% of AMI.

Rental unit affordability estimates exclude housing units without complete kitchen or plumbing facilities, as well as vacant units that are not listed as either for rent or for sale and group quarter units.

The tale below shows the change in vacant affordable units across the four cities based on HUD Comprehensive Housing Affordability Strategy (CHAS) datasets representing a difference in the data between the years of 2015-2019 and 2017-2019.

Change in # of Rental Units by Affordability Rating	Lacey	Olympia	Tumwater	Yelm
Extremely-Low Income (<30% AMI)	0	25	0	0
Very-Low Income (30-50% AMI)	-90	-110	-45	0
Low-Income (50-80% AMI)	40	10	10	0
Moderate-Income (80%-100% AMI)	150	75	5	0

Income

All cities are experiencing growth in renter and homeowner households above the median income (>100% AMI). High incomes coupled with continued high housing cost burdens points to high cost of housing outpacing wage gains.

To account for regional variation in labor and housing markets, the WA Department of Commerce RDI tool uses area median income (AMI). AMI represents the midpoint of an area's income distribution. Fifty percent (50%) of households have an income higher than the area median income and 50% have an income lower than the AMI. The Growth Management Act requires jurisdictions to account for the housing needs of households across the income spectrum. Income data and housing affordability estimates are provided by US Housing and Urban Development's Comprehensive Housing Affordability Strategy (CHAS) data. Household income estimates are for the number of households with a

household income up to a threshold based on a percentage of the area median income, with adjustments based on household size. The income bins are:

- Extremely Low Income (<30% of AMI)
- Very Low Income (30% - 50% of AMI)
- Low Income (50% - 80% of AMI)
- Moderate Income (80% - 100% of AMI)
- Above Median Income (>100% of AMI)

The tables below show the change in population income levels across the four cities based on HUD Comprehensive Housing Affordability Strategy (CHAS) datasets representing a difference in the data between the years 2015-2019 and 2017-2019.

Change in # Households by Income Status: Renters	**Lacey**	**Olympia**	**Tumwater**	**Yelm**
Extremely-Low Income (<30% AMI)	-160	-110	-240	15
Very-Low Income (30-50% AMI)	-235	-180	-85	-60
Low-Income (50-80% AMI)	-475	225	-20	-15
Moderate-Income (80%-100% AMI)	535	-85	-15	35
Above Median Income (>100%)	680	730	305	20

Change in # Households by Income Status: Homeowners	**Lacey**	**Olympia**	**Tumwater**	**Yelm**
Extremely-Low Income (<30% AMI)	250	-90	-145	-10
Very-Low Income (30-50% AMI)	15	40	60	-65
Low-Income (50-80% AMI)	-255	-130	-90	5
Moderate-Income (80%-100% AMI)	-150	25	-10	-90
Above Median Income (>100%)	1495	1345	400	585

Tenure/Homeownership

All cities but Yelm are increasing in overall homeowner households of all income levels. Yelm and Tumwater are decreasing in overall renter households of all income levels.

Tenure refers to the distribution of homeowners and renter households across the region.

The tables below show the change in renter and owner households across the four cities based on HUD Comprehensive Housing Affordability Strategy (CHAS) datasets representing a difference in the data between the years 2015-2019 and 2017-2019.

Change in # of Households	Lacey	Olympia	Tumwater	Yelm
Renters	345	590	-60	-715

Change in # of Households	Lacey	Olympia	Tumwater	Yelm
Homeowners	1365	1190	225	-640

Age

Yelm and Olympia saw the biggest changes in any individual age range. Overall, there is great variation in population change by age across the cities, but a trend of aging populations is detectable.

The table below shows the change in age distribution across the four cities between 2010 and 2023, using the US Census American Community Survey 5-Year Estimate data.

% Change in Population by Age	Lacey	Olympia	Tumwater	Yelm
Under 5 years	-0.90%	0.00%	-1.10%	-4.00%
5 to 9 years	0.00%	-1.80%	0.70%	2.00%
10 to 14 years	-0.80%	-1.00%	-1.60%	-2.20%
15 to 19 years	0.00%	0.90%	-3.90%	-1.20%
20 to 24 years	-0.10%	-5.10%	0.90%	4.20%
25 to 29 years	0.30%	0.70%	0.60%	-1.80%
30 to 34 years	0.00%	2.70%	1.00%	1.30%
35 to 39 years	0.00%	0.70%	0.60%	-0.10%
40 to 44 years	1.30%	0.30%	1.60%	-0.80%
45 to 49 years	-0.10%	-0.60%	-0.90%	0.20%
50 to 54 years	-1.90%	-2.00%	-1.90%	1.20%
55 to 59 years	-2.10%	-0.90%	-1.00%	0.80%

60 to 64 years	1.50%	-0.10%	2.50%	2.00%
65 to 69 years	2.30%	1.30%	2.00%	-0.30%
70 to 74 years	1.10%	3.50%	1.10%	2.20%
75 to 79 years	-0.10%	1.80%	0.30%	-0.20%
80 to 84 years	-0.30%	0.00%	0.40%	-1.10%
85 years and over	-0.30%	-0.60%	-0.80%	-1.60%

Engagement Themes Summary

Housing Displacement Risk Analysis for the cities of Lacey, Olympia, Tumwater, and Yelm

To gain a locally rooted understanding of housing goals and displacement risks, the project team undertook an extensive and collaborative outreach process. We connected with planning staff, residents, and housing advocates across sectors to get a better understanding of the housing challenges facing the area.

The project team was able to aggregate and synthesize the stakeholder feedback across all engagement touchpoints to distill the main takeaways into the following themes for consideration. These takeaways should be read with the context that they are direct feedback from community stakeholders from their own viewpoints, level of understanding, and lived experience with housing. Final policy recommendations are not solely based on this feedback, rather, they aim to integrate the perspectives into what is actually possible within the confines of law and institutional standards.

1. Cities should identify ways to monitor renter income verification, establish local ordinances to enforce attainable income verification and identify and address price fixing.
2. Cities should use creative zoning overlays and innovative land use policies to classify and protect mobile home communities, as well as other types of affordable housing.
3. Zoning should balance commercial development with opportunities for affordable housing.
4. Cities should create a program to support upgraded utilities and infrastructure and promote incentives for property owners, including multifamily, single family, accessory, and mobile homes, to improve their properties. Tenants who are forced to relocate due to substandard maintenance (condemned properties) should receive support so they can effectively relocate to a nearby affordable housing option.
5. Affordable housing and homelessness prevention programs should work closer together as they share the same clientele.
6. Military service providers, including VAs, volunteer groups, bases, centers, and cities, should ensure that their programs are adequately staffed with the most current information regarding housing and support benefits for military families and households.

7. Cities should promote educational programs that explain to homeowners and potential buyers the long-term investment opportunity of ADUs, and the financial plan required to pursue a build.
8. Permitting processes to develop new affordable housing should continue to be simplified and streamlined.
9. Cities could support residents, including current residents of manufactured home communities, in forming cooperatives or community land trusts (CLTs) to be prepared to exercise the right of first refusal and manage properties independently.
10. Cities should create a program to support private ownership of mobile home communities and private rental units by local, family-owned operations with on-site management and disincentivize corporate owners from buying land on which manufactured home communities are located.
11. Cities should take steps to minimize the amount of potential long-term housing being used for short-term transient rentals (Air BnBs).
12. Cities should work with community groups to coordinate a one-stop shop for housing benefit explanations and application support.
13. Cities should promote an educational campaign to private landlords about legal requirements and renter income qualifications for those on supplemental income.
14. Cities should offset the impacts of increased taxes and tax increment financing, as they are seen to contribute to unaffordability for renters and low-income households by way of increased cost of living as new upscale developments are built.
15. Cities should consider rent control options and develop and enforce adequate tenant protections (eviction proceedings, rent increase management, etc.).
16. Cities should balance suburban development with investment in affordable housing in urban centers.
17. Cities should ensure robust transportation is available to residents and minimize land used for parking over housing.
18. Urban renewal efforts should include the protection of existing affordable housing units.

Lacey, WA

Housing Displacement Risk Analysis for the cities of Lacey, Olympia, Tumwater, and Yelm

Introduction & Overview

The City of Lacey has been engaged in collaborative planning to address various regional housing issues with the cities of Yelm, Tumwater, and Olympia. As part of this, Lacey has been working to address housing issues specific to their city, and while the city has made significant efforts to increase affordability and undo racially disparate impacts in Lacey by implementing or initiating many actions in their Housing Action Plan (HAP), the city is facing significant barriers in seeing additional progress. In particular, the city has identified its intent to develop more policies, programs, and partnerships to address economic, physical, and cultural forms of displacement. However, policy alone is not effective enough to meet the city's housing goals. Therefore, the bulk of the recommendations included in this report focus on various partnerships and programs the city could collaborate on to take the existing, revised, and recommended policies further.

Assets

The City of Lacey has worked on many housing-related issues through various planning efforts in recent years, recognizing that housing displacement is a multi-faceted issue requiring multiple strategies and collaboration with regional partners.

In 2019, Lacey adopted an Affordable Housing Strategy as an appendix to their Housing Element, which details specific actions the city can take to increase affordable housing and provide for specific residential needs and services for those experiencing homelessness. In 2021, Lacey participated in a collaborative effort with Olympia and Tumwater to develop a Housing Action Plan (HAP). The City has completed or is actively implementing many items in its HAP, including efforts to offer density bonuses or fee waivers for low-income housing, offer density or other incentives for desired unit types, reduce parking requirements for residential uses, reduce minimum lot sizes, increase minimum residential densities, allow single-room occupancy (SRO) housing in all multifamily zones, and strategically allow live/work units in nonresidential zones.

There has been a lot of progress in recent years, and the City is determined to utilize its Comprehensive Plan update to build upon the work they have done to address racially disparate impacts, housing affordability, and displacement issues, acknowledge past harm, and foster a vibrant and more livable community for its residents.

Issues

While the City of Lacey has made significant progress in advancing actions in their HAP, city staff have identified some housing issues that need greater attention. While many residents choose to call Lacey home, some do not feel like they have a strong connection to the city or feel like they belong, which could indicate potential cultural displacement pressures. Strategies to increase placemaking and retain access to cultural events, religious institutions, or businesses unique to Lacey are important to explore further. There are also concerns that those who work in Lacey cannot always afford to live in Lacey if they want to, or are forced to move out of the city due to rising housing costs. Efforts to preserve existing and naturally occurring affordable housing are also needed to maintain affordable housing and prevent displacement. Together, these issues highlight the need for future policy or efforts to address displacement in Lacey, especially as many existing efforts in Lacey are intended to increase housing affordability or supply, but don't directly address preventing housing displacement, which is a multifaceted issue in itself.

Housing Displacement Risk Policy Analysis

The City of Lacey's existing Housing Element and additional housing-related policies throughout the Comprehensive Plan were reviewed using criteria consistent with the Department of Commerce's Racially Disparate Impacts guidance, as outlined in the Project Methodology section of the technical appendix. The resulting policy analysis found that Lacey's housing-related policies are generally split between policies identified as "supportive" and "approaching." Lacey's housing policies that are "supportive" of housing growth and affordability include efforts to increase higher residential densities, support infill development, provide and incentivize a sufficient amount of housing affordable to all incomes and unique housing needs, and partner with other agencies to improve housing affordability and prevent displacement and homelessness.

Generally, Lacey's housing policies that are identified as "approaching" support housing growth but could better address affordability and anti-displacement to ensure housing is equitably provided to all incomes and those who have historically been excluded or displaced. One policy in particular (Policy C under Goal 3 in the Central Planning Area section) may be strengthened by removing vague wording. Proposed edits clarify the intent of the policy, which is to regulate development standards for middle housing options that encourage them to be sensitive and complimentary of the surrounding neighborhood while balancing other city priorities like climate resilience.

In all, Lacey's housing-related goals and policies address housing displacement and include efforts to prevent disproportionate impacts. To strengthen Lacey's existing efforts, the City should consider additional policies to strengthen community partnerships that can help prevent displacement while continuing to foster a community supportive of existing residents and those who choose to live in Lacey.

Recommendations

There are a few key ways the city can supplement existing efforts to achieve greater success related to preventing racially disparate impacts, providing deeply affordable housing, and preventing displacement (economic displacement in particular). Efforts to increase community connections and partnerships with organizations would help the city take their existing work and policies further, by effectively increasing the capacity of city staff through these partnerships. Additional efforts and social services outside of housing policy are needed for Lacey's housing policies to be more effective.

Despite this, there are several additional policy areas Lacey should consider in its Comprehensive Plan update. For one, there are several existing policies in the Housing Element of Lacey's existing Comprehensive Plan that could be updated with minor edits to clarify the intent of the policies, remove vague language, connect policies to other elements of the Comprehensive Plan, or remove language that may be exclusive. Edits are proposed for many policies in the Final Existing Comp Plan Policy Evaluation Framework Appendix.

New policies or programs are needed to address a few significant policy gaps. For one, policies are needed to preserve existing units and naturally affordable housing, which is crucial to prevent economic displacement and help residents remain in their chosen community. Similarly, efforts are also needed to protect manufactured housing and prevent displacement in these communities. Housing affordable to lower wage earners in the city is also needed to provide housing for those who work in Lacey but cannot afford to live in the city. Cultural displacement could be mitigated by increasing placemaking efforts and retaining existing events and access to businesses, religious institutions, and other facilities and places important to various communities in Lacey.

Finally, Lacey's HAP has many additional actions the city could continue to implement by advancing them to their Planning Commission. Policies from the HAP that score high in the Policy Evaluation Matrix should be considered priorities for this effort.

Data & Indicators

Generally, housing displacement risk increases when:

- The population becomes more racially and ethnically diverse
- Households are spending more than 30% of income on housing
- Rental units become unaffordable for extremely low-income residents
- Poverty rates increase in a community
- Homeownership rates decline

These metrics are derived from the Racially Disparate Impacts tool created by the WA Department of Commerce. The tool has five metrics for housing displacement risk: racial diversity, cost burden, rental affordability, income levels, and homeownership.

The following pages detail the dynamics of housing displacement risk as observed in each of the four cities. Profiles include housing displacement indicator data, policy recommendation summaries, and city-specific policy evaluation criteria. Our profiles have added age and manufactured home unit metrics to reflect research findings and community engagement feedback.

Racial Diversity

Lacey has seen a decline amongst American Indian and Alaska Native residents. White and Hispanic or Latino populations are growing the fastest.

Change in # of Residents by Race & Ethnicity	2010	2023	Difference
American Indian and Alaska Native	357	303	-54
Asian	4,125	5562	1,437
Black or African American	2,034	3379	1,345
Hispanic or Latino (of any race)	3,126	7252	4,126
Native Hawaiian and Other Pacific Islander	336	994	658
Other Race	192	148	-44
Two or more races	1,415	4323	2,908
White	28,749	35027	6,278

Cost Burdened Population

Lacey has seen a 12% increase in severely cost-burdened households between the two timeframes.

Change in # Households by Cost-Burdened Status: Renters	2017-2021	2015-2019	Difference
Not Cost Burdened	4150	4,040	110
Cost-Burdened (30-50%)	2880	2,815	65
Severely Cost-Burdened (>50%)	1915	1,715	200
Not Calculated	10	40	-30

Change in # Households by Cost-Burdened Status: Homeowners	**2017-2021**	**2015-2019**	**Difference**
Not Cost Burdened	9110	8,345	765
Cost-Burdened (30-50%)	1785	1,415	370
Severely Cost-Burdened (>50%)	1015	830	185
Not Calculated	125	80	45

Rental Affordability

Lacey has limited and decreasing rental units affordable to extremely low-income and very-low-income households.

Change in # of Rental Units by Affordability Rating	**2017-2021**	**2015-2019**	**Difference**
Extremely-Low Income (<30% AMI)	0	0	0
Very-Low Income (30-50% AMI)	160	250	-90
Low-Income (50-80% AMI)	40	0	40
Moderate-Income (80%-100% AMI)	150	0	150

Income

Lacey is losing low income renters and gaining moderate and above medium income renters while extremely-low income homeowner households are increasing.

Change in # Households by Income Status: Renters	**2017-2021**	**2015-2019**	**Difference**
Extremely Low-Income (≤30% AMI)	1180	1,340	-160
Very Low-Income (30-50%)	1340	1,575	-235
Low-Income (50-80%)	2125	2,600	-475
Moderate Income (80-100%)	1550	1,015	535
Above Median Income (>100%)	2755	2,075	680

Change in # Households by Income Status: Owners	**2017-2021**	**2015-2019**	**Difference**
Extremely Low-Income (≤30% AMI)	1075	825	250

Change in # Households by Income Status: Owners	2017-2021	2015-2019	Difference
Very Low-Income (30-50%)	635	620	15
Low-Income (50-80%)	1580	1835	-255
Moderate Income (80-100%)	1420	1570	-150
Above Median Income (>100%)	7320	5825	1495

Tenure/Homeownership

Across all income levels, Lacey has seen a 13% increase in homeowner households and a 4% increase in renter households between the two time periods.

Change in # of Households	2017-2021	2015-2019	Difference
Renter	8950	8605	345
Owner	12035	10670	1365

Age

The fastest-growing age groups in Lacey are #1) 65 to 69 years, #2)40 to 44 years, and #3)75 to 79 years.

% Change in Population by Age	2010 ACS	2023 ACS	Change
Total Population	**40,334**	**57,088**	**41.54%**
Under 5 years	6.70%	5.80%	-0.90%
5 to 9 years	6.40%	6.40%	0.00%
10 to 14 years	7.00%	6.20%	-0.80%
15 to 19 years	4.70%	4.70%	0.00%
20 to 24 years	6.60%	6.50%	-0.10%
25 to 29 years	8.50%	8.80%	0.30%
30 to 34 years	8.00%	8.00%	0.00%
35 to 39 years	7.60%	7.60%	0.00%
40 to 44 years	5.00%	6.30%	1.30%
45 to 49 years	5.60%	5.50%	-0.10%
50 to 54 years	6.30%	4.40%	-1.90%

% Change in Population by Age	2010 ACS	2023 ACS	Change
55 to 59 years	6.70%	4.60%	-2.10%
60 to 64 years	4.80%	6.30%	1.50%
65 to 69 years	3.40%	5.70%	2.30%
70 to 74 years	3.80%	4.90%	1.10%
75 to 79 years	3.10%	3.00%	-0.10%
80 to 84 years	2.50%	2.20%	-0.30%
85 years and over	3.50%	3.20%	-0.30%

Implementation Capacity & Limitations

Implementing the recommended policies and remaining actions of the HAP will require significant financial resources and staff time to be effective, sustainable, and serve the greatest number of residents. The primary limitation will likely be financing limitations due to the need to navigate city politics, financing, and to identify and secure available financial resources for the recommended programs. City staff would also need additional capacity to pursue funding, whether through grants, regional or state programs, or other sources, for many of these programs.

Many of the revised Housing Element policies, remaining actions in the HAP, and policy recommendations developed for Lacey would also require significant staff time to work with community partners to develop ordinances to update the city's development regulations, in addition to time spent working with the Planning Commission and City Council to review and approve ordinances. The recommended policies would also require significant staff time to identify, develop, and maintain community partnerships and collaborative efforts with local organizations.

Olympia, WA

Housing Displacement Risk Analysis for the cities of Lacey, Olympia, Tumwater, and Yelm

Introduction & Overview

Issues around housing and displacement in the City of Olympia are complicated and nuanced. The City has increasingly taken on a leadership role in efforts to address mounting housing and affordability crises, and they have taken on a multi-faceted approach. Many policies and implementation strategies have been enacted and tested over several years, enough time to see where substantive gains have been made and to concretely identify specific barriers to progress. Recommendations for the City of Olympia are primarily suggestions to fine-tune existing policies to specifically address displacement risk. In Olympia, data and displacement indicators point to a rental population that is at increased risk for displacement, more so than the home-owning population.

Assets

The City of Olympia has worked on many issues related to housing affordability and displacement in the last six years. They have built a web of protective policies, long-range plans, funding strategies, and community partnerships. This approach recognizes that there is no one-step solution to housing displacement; multiple issues have to be addressed simultaneously to have an impact.

The City Council adopted the One Community Plan in 2020 which explicitly seeks community agreement around responding to the homelessness crisis. In 2021, in collaboration with Lacey and Tumwater, the Olympia finalized a Housing Action Plan (HAP) based on data from a Thurston County Regional Housing Needs Assessment and Housing Gap Analysis, and in 2023, The City collaborated with Thurston County and the Housing Authority of Thurston County to conduct an Assessment of Fair Housing. The City is currently implementing many of the actions identified in their HAP, and updates to the Comprehensive Plan seek to fold and build upon all related work since 2018. Updates to the Comprehensive Plan will also support the expansion of middle housing options and opportunities.

The City has also enacted several policies and programs, such as a tenant protection policy, affordable housing incentives, and a multi-family tax exemption (MFTE) program. They are actively collaborating with the development community and manufactured homeowners, and they have dedicated staff to attend and advise during permitting meetings. The MFTE program has been particularly successful in the Downtown area.

Issues

Displacement issues identified within the City of Olympia include some specific boundaries encountered during the enactment of the City's affordable housing protection policies and implementation. These include:

- The difficulty of enforcing tenant protections
- Increases in rent beyond the control of the City (the City has increased efforts to control the costs they can, such as limiting extra fees and move-in costs)
- Restraints on middle housing development due to sewer connections or critical areas
- Middle housing is quite expensive when it does get built and does not serve affordable housing needs.
- Barriers around awareness of the MFTE program, particularly because only a handful of developers are utilizing this program
- A need for more, permanent, supportive, and deeply affordable housing.

Housing Displacement Risk Policy Analysis

To identify policies to enhance all of Olympia's existing work to improve housing affordability, nurture community partnerships, and pursue funding opportunities to prevent displacement and racially disparate impacts, the consultant team reviewed Olympia's current Comprehensive Plan. Policies in the Housing Element, along with other housing-related policies in other elements, namely Public Services, were reviewed for policies that may result in racially disproportionate impacts or are supportive of housing goals. A few of Olympia's policies are identified as "supportive", including policies that encourage adapting non-residential buildings for housing, support the provision of affordable housing by minimizing barriers and regulatory review, and prevent physical barriers from isolating new development from existing neighborhoods. Most of Olympia's housing-related policies are indicated as "approaching" because they aim to increase Olympia's housing supply but could be strengthened to better address racially disparate impacts, identify anti-displacement strategies, and prevent housing exclusion while prioritizing historically marginalized populations. Several conflicting policies are identified as "challenging" housing goals. These include policies requiring additional design or architectural features to be included in new housing or to preserve existing neighborhood "character," which could be updated or changed to remove vague language and allow greater flexibility to ensure increased housing production and choices. Proposed edits to these policies can be found in the Final Existing Comp Plan Policy Evaluation Framework Appendix.

Recommendations

A few policies float to the top of the recommendations for the City of Olympia to assist most directly in overcoming the barriers encountered by the City. A full list of new policy

recommendations is available in the specific Policy Evaluation Matrix for the City. The top-scoring ones are summarized:

- Policies for the protection and preservation of the manufactured home community.
- Additional measures to encourage the retention and maintenance of existing affordable housing, especially in high-opportunity neighborhoods or areas that have historic patterns of segregation.

An analysis has also been completed of the City's Housing Action Plan (HAP) policies, and a number of these score very high, such as:

- Evaluate the relationship between the Olympia and the county's home fund to ensure housing goals are met.
- Expanding allowance of residential tenant improvements without triggering land use requirements.
- Allowing Single Room Occupancy (SRO) housing in all multifamily zones.

The city could consider prioritizing these HAP policies and others that score high in the Policy Evaluation Matrix for implementation by advancing them to their Planning Commission, as they meet city priorities and address existing deficiencies in the city's housing policy.

Data & Indicators

Generally, housing displacement risk increases when:

- The population becomes more racially and ethnically diverse
- Households are spending more than 30% of income on housing
- Rental units become unaffordable for extremely low-income residents
- Poverty rates increase in a community
- Homeownership rates decline

These metrics are derived from the Racially Disparate Impacts tool created by the WA Department of Commerce. The tool has five metrics for housing displacement risk: racial diversity, cost burden, rental affordability, income levels, and homeownership.

The following pages detail the dynamics of housing displacement risk as observed in each of the four cities. Profiles include housing displacement indicator data, policy recommendation summaries, and city-specific policy evaluation criteria. Our profiles have added age and manufactured home unit metrics to reflect research findings and community engagement feedback.

Racial Diversity

All racial and ethnic groups are growing in Olympia, with the Hispanic and Latino population by 118% between 2010 and 2023.

Change in # of Residents by Race & Ethnicity	2010	2023	Difference
American Indian and Alaska Native	377	379	2
Asian	2,698	3622	924
Black or African American	1,020	1365	345
Hispanic or Latino (of any race)	2,628	5727	3,099
Native Hawaiian and Other Pacific Islander	55	476	421
Other Race	52	184	132
Two or more races	1,487	4104	2,617
White	37,391	39726	2,335

Cost Burdened Population

The severely cost-burdened renter population in Olympia grew by 8% between the two timeframes. Cost-burdened homeowner households increased by 21% over the same period.

Change in # Households by Cost-Burdened **Status:** Renters	2017-2021	2015-2019	Difference
Not Cost Burdened	5730	5545	185
Cost-Burdened (30-50%)	2995	2970	25
Severely Cost-Burdened (>50%)	3420	3160	260
Not Calculated	315	199	116

Change in # Households by Cost-Burdened **Status:** Homeowners	2017-2021	2015-2019	Difference
Not Cost Burdened	9285	8445	840
Cost-Burdened (30-50%)	1425	1280	145
Severely Cost-Burdened (>50%)	925	735	190
Not Calculated	90	85	5

Rental Affordability

Olympia lost approximately 58% of rental units affordable to very low-income households between the two time periods.

Change in # of Rental Units by Affordability Rating	2017-2021	2015-2019	Difference
Extremely-Low Income (<30% AMI)	45	20	25
Very-Low Income (30-50% AMI)	80	190	-110
Low-Income (50-80% AMI)	195	185	10
Moderate-Income (80%-100% AMI)	100	25	75

Income

Olympia renter households making above the median income increased by 29% within the two time periods. Homeowner households making above the median income grew by 21% in the same time.

Change in # Households by Income Status: Renters	2017-2021	2015-2019	Difference
Extremely Low-Income (≤30% AMI)	2875	2985	-110
Very Low-Income (30-50%)	2220	2400	-180
Low-Income (50-80%)	2745	2520	225
Moderate Income (80-100%)	1390	1475	-85
Above Median Income (>100%)	3225	2495	730

Change in # Households by Income Status: Owners	2017-2021	2015-2019	Difference
Extremely Low-Income (≤30% AMI)	660	750	-90
Very Low-Income (30-50%)	755	715	40
Low-Income (50-80%)	1355	1485	-130
Moderate Income (80-100%)	1100	1075	25
Above Median Income (>100%)	7855	6510	1345

Tenure/Homeownership

Olympia homeowner households of all income levels increased by 11% while renter households of all income levels increased by 5% in the same period.

Change in # of Households	2017-2021	2015-2019	Difference
Renter	12460	11870	590
Owner	11725	10535	1190

Age

The fastest-growing age groups in Olympia are #1) 70 to 74 years, #2)75 to 79 years, and #3)65 to 69 years.

% Change in Population by Age	2010 ACS	2023 ACS	Change
Total Population	**45,708**	**55,583**	**21.60%**
Under 5 years	5.10%	5.10%	0.00%
5 to 9 years	5.50%	3.70%	-1.80%
10 to 14 years	6.10%	5.10%	-1.00%
15 to 19 years	6.10%	7.00%	0.90%
20 to 24 years	10.60%	5.50%	-5.10%
25 to 29 years	8.00%	8.70%	0.70%
30 to 34 years	6.00%	8.70%	2.70%
35 to 39 years	6.80%	7.50%	0.70%
40 to 44 years	6.60%	6.90%	0.30%
45 to 49 years	6.80%	6.20%	-0.60%
50 to 54 years	7.50%	5.50%	-2.00%
55 to 59 years	6.90%	6.00%	-0.90%
60 to 64 years	5.20%	5.10%	-0.10%
65 to 69 years	3.80%	5.10%	1.30%
70 to 74 years	2.30%	5.80%	3.50%
75 to 79 years	2.10%	3.90%	1.80%
80 to 84 years	1.70%	1.70%	0.00%
85 years and over	2.90%	2.30%	-0.60%

Implementation Capacity & Limitations

The City has already expended considerable political capital enacting multi-part strategies to address housing affordability. Though these efforts may need to continue for a long period to see definitive progress, politics will need to match the necessary longevity of these programs to see significant results. Changes in leadership or shifts in City funding for programming could erode support for existing implementation efforts that are having a net positive effect.

The City has done a good job of identifying specific barriers to ease displacement pressure. The Housing Action Plan actions collectively represent quite a lot of staff time or consultant time, but quite a number of them can also be seen as making progress against displacement pressures as well.

Tumwater, WA

Housing Displacement Risk Analysis for the cities of Lacey, Olympia, Tumwater, and Yelm

Introduction & Overview

The City of Tumwater wants to keep housing affordable for existing residents and maintain existing housing stock as affordable housing. A lot of new housing supply in the City will not be affordable when it is built.

Assets

The City has zoning protections for manufactured home parks and they anticipate higher-density homes with the enactment of development standards to meet House Bill 1110 requirements. However, the City is interested in understanding how to mitigate the impacts of this density.

The City's Housing Action Plan (HAP), written in collaboration with Lacey and Olympia, shows that the City has begun work necessary to implement anti-displacement policies. Some of these policies include policies to protect existing affordable housing stock, funding projects that increase low-income housing supply, maintaining a rental database to have better information to track whether or not rental costs are rising, helping reduce costs and fees that are under the City's control, and increasing collaboration with various community partners.

Issues

There are several housing issues the City of Tumwater hopes to address in its Comprehensive Plan update. These include wanting to maintain housing affordability for existing Tumwater residents. Also of interest are strategies to revive the market for small local builders who might take on smaller projects that also pass affordability on to residents (a lot of this community was lost in Tumwater during the pandemic). Yet another interest will be policies considering adaptive reuse to preserve existing affordable housing stock.

Housing Displacement Risk Policy Analysis

Many of Tumwater's housing-related policies are "supportive" or "approaching" housing goals. The City's policies generally support housing growth and the provision of adequate services to support housing, mitigate displacement, and support those who need transitional or supportive housing or have additional housing needs. Policies that are identified as "approaching" generally encourage diverse housing types to meet various

housing needs, but could be strengthened to better mitigate displacement, consider housing affordability and availability by income bracket, and protect historically marginalized populations from disproportionate impacts. There is only one policy (that shows up twice in the plan) identified as “challenging;” it aims to protect residential areas from undesirable activities and uses through aggressive code enforcement, which could lead to greater displacement or disproportionate impacts among lower income and historically marginalized groups.

Compared to other jurisdictions, words used in policy language in HAP are not as strong. The City will be updating and incorporating the HAP goals and actions into the 2025 CUP Housing Element. This is a potential opportunity to strengthen policy language in the Comprehensive Plan to incorporate stronger words like “require”, rather than “encourage”.

Recommendations

A few policies float to the top of the recommendations for the City of Tumwater to assist most directly as protective measures against economic and physical displacement. A full list of new policy recommendations is available in the specific Policy Evaluation Matrix for the City. The top-scoring ones are summarized:

- A Community Land Trust-style program for mobile home communities.
- A City program to support private, local, small-scale ownership of mobile home communities. This builds on the City’s mobile home housing stock and also wishes to help preserve existing affordable stock.
- Increased staffing capacity to process ADUs quickly and reduce costs under City control

An analysis has also been completed of the City’s Housing Action Plan (HAP) policies, and a number of these score very high, such as:

- Providing “notice of intent to sell” ordinance for multifamily developments
- Establishing a program to preserve and maintain healthy and viable manufactured home parks (some details of which are captured in the new recommendations)
- Mixing market rate and low-income housing to avoid creating areas of concentrated low-income housing.

The city could consider prioritizing these HAP policies and others that score high in the Policy Evaluation Matrix for implementation by advancing them to their Planning Commission, as they meet city priorities and address existing deficiencies in the city’s housing policy.

Data & Indicators

Generally, housing displacement risk increases when:

- The population becomes more racially and ethnically diverse
- Households are spending more than 30% of income on housing

- Rental units become unaffordable for extremely low-income residents
- Poverty rates increase in a community
- Homeownership rates decline

These metrics are derived from the Racially Disparate Impacts tool created by the WA Department of Commerce. The tool has five metrics for housing displacement risk: racial diversity, cost burden, rental affordability, income levels, and homeownership.

The following pages detail the dynamics of housing displacement risk as observed in each of the four cities. Profiles include housing displacement indicator data, policy recommendation summaries, and city-specific policy evaluation criteria. Our profiles have added age and manufactured home unit metrics to reflect research findings and community engagement feedback.

Racial Diversity

The fastest-growing racial and ethnic groups in Tumwater are Hispanic or Latino residents and White residents. Alternatively, Tumwater saw a 64% decrease in the American Indian and Alaska Native population between 2010 and 2023.

Change in # of Residents by Race & Ethnicity	2010	2023	Difference
American Indian and Alaska Native	395	241	-154
Asian	512	1120	608
Black or African American	192	947	755
Hispanic or Latino (of any race)	925	2409	1,484
Native Hawaiian and Other Pacific Islander	3	109	106
Other Race	84	554	470
Two or more races	474	2260	1,786
White	14,249	18879	4,630

Cost Burdened Population

Tumwater has seen a slight decrease in cost-burdened and severely cost-burdened renter households while homeowner, not cost-burdened households are growing.

Change in # Households by Cost-Burdened Status: Renters	2017-2021	2015-2019	Difference
Not Cost Burdened	2290	2190	100

Change in # Households by Cost-Burdened Status: Renters	**2017-2021**	**2015-2019**	**Difference**
Cost-Burdened (30-50%)	950	1015	-65
Severely Cost-Burdened (>50%)	975	1080	-105
Not Calculated	25	14	11

Change in # Households by Cost-Burdened Status: Homeowners	**2017-2021**	**2015-2019**	**Difference**
Not Cost Burdened	4510	4155	355
Cost-Burdened (30-50%)	495	670	-175
Severely Cost-Burdened (>50%)	450	405	45
Not Calculated	30	40	-10

Rental Affordability

Tumwater has limited rental availability across all income types, but especially for extremely low-income and very low-income households.

Change in # of Rental Units by Affordability Rating	**2017-2021**	**2015-2019**	**Difference**
Extremely-Low Income (<30% AMI)	0	0	0
Very-Low Income (30-50% AMI)	0	45	-45
Low-Income (50-80% AMI)	80	70	10
Moderate-Income (80%-100% AMI)	80	75	5

Income

Tumwater is seeing significant growth in households making above the median income. Renter households above the median income increased by 27% while homeowner households above the median income increased by 12%.

Change in # Households by Income Status: Renters	**2017-2021**	**2015-2019**	**Difference**
Extremely Low-Income (≤30% AMI)	680	920	-240
Very Low-Income (30-50%)	690	775	-85
Low-Income (50-80%)	990	1010	-20

Change in # Households by Income Status: Renters	2017-2021	2015-2019	Difference
Moderate Income (80-100%)	455	470	-15
Above Median Income (>100%)	1430	1125	305

Change in # Households by Income Status: Owners	2017-2021	2015-2019	Difference
Extremely Low-Income (≤30% AMI)	325	470	-145
Very Low-Income (30-50%)	395	335	60
Low-Income (50-80%)	715	805	-90
Moderate Income (80-100%)	415	425	-10
Above Median Income (>100%)	3635	3235	400

Tenure/Homeownership

Tumwater saw a 1% reduction in renter households across income levels while homeowner households across income levels increased by 4%.

Change in # of Households	2017-2021	2015-2019	Difference
Renter	4240	4300	-60
Owner	5490	5265	225

Age

The fastest-growing age groups in Tumwater are #1) 60 to 64 years, #2)65 to 69 years, and #3)70 to 74 years.

% Change in Population by Age	2010 ACS	2023 ACS	Change
Total Population	**16,834**	**26,519**	**57.53%**
Under 5 years	5.50%	4.40%	-1.10%
5 to 9 years	6.60%	7.30%	0.70%
10 to 14 years	6.50%	4.90%	-1.60%
15 to 19 years	7.90%	4.00%	-3.90%
20 to 24 years	6.10%	7.00%	0.90%
25 to 29 years	8.30%	8.90%	0.60%

% Change in Population by Age	2010 ACS	2023 ACS	Change
30 to 34 years	7.40%	8.40%	1.00%
35 to 39 years	7.90%	8.50%	0.60%
40 to 44 years	5.50%	7.10%	1.60%
45 to 49 years	7.10%	6.20%	-0.90%
50 to 54 years	7.60%	5.70%	-1.90%
55 to 59 years	6.70%	5.70%	-1.00%
60 to 64 years	4.70%	7.20%	2.50%
65 to 69 years	2.90%	4.90%	2.00%
70 to 74 years	2.50%	3.60%	1.10%
75 to 79 years	2.30%	2.60%	0.30%
80 to 84 years	1.60%	2.00%	0.40%
85 years and over	2.70%	1.90%	-0.80%

Implementation Capacity & Limitations

The housing action plan policies are all a good start for the City. The biggest impact on displacement means focusing on preserving mobile home parks as existing affordable stock. This will require continued education and communication to explain why the focus is here to build upon the political support MHPs already have in the City.

Many of the revised Housing Element policies, remaining actions in the HAP, and policy recommendations developed for Tumwater would also require significant staff time to work with community partners to develop ordinances to update the city's development regulations, in addition to time spent working with the Planning Commission and City Council to review and approve ordinances. The recommended policies would require significant staff time to identify, develop, and maintain community partnerships and collaborative efforts with local organizations. City staff would also need additional capacity to pursue funding, whether through grants, regional or state programs, or other sources, for many of these programs to be effective, sustainable, and serve the greatest number of residents.

Yelm, WA

Housing Displacement Risk Analysis for the cities of Lacey, Olympia, Tumwater, and Yelm

Introduction & Overview

Market-rate housing in the City of Yelm sells quickly these days, and much of the housing is of interest to military families who are looking for a small-town feel. Yelm hasn't seen a lot of displacement yet, but economic displacement could be on the horizon and the City eyes displacement and housing affordability crises in nearby Cities with some apprehension. As of right now, the City doesn't have a specific housing program, but it looks to Cities like Tumwater, Lacey, and Vancouver for ideas and program examples that could work in Yelm.

Assets

Proximity to the military base also means a unique set of issues, such as effective price setting as rent is calibrated to be the military basic allowance for housing (bah), which makes rent a bit more affordable overall in the City.

Much of the City's affordable housing stock was built in the 1970s, and there the City runs effective rehab programs, such as for mold abatement, that help homeowners keep affordable housing stock in good condition. Housing that is older than the 1970s has mostly been converted to commercial uses.

There is an openness in Yelm to collaborating with nearby Cities on a multifamily tax exemption (MFTE) credit program. Similarly, the City has considered stock accessory dwelling unit (ADU) plans, particularly if that would help decrease the cost (and affordability) of ADU construction.

Issues

Issues and concerns raised by staff include a broad range of possible interests for the City. These include a willingness to consider additional policies to safeguard against displacement as market-rate housing continues to sell very quickly.

Yelm would like to see more policies as preventative measures against economic displacement, including an MFTE program. The primary barrier to this currently is the City Council's perception of taxation. The biggest issue for a MFTE program Yelm may be getting buy in from the community and the City Council.

Analysis of the Comprehensive Plan and House Bill 1220 showed housing deficits for all bands, including market rate.

Housing Action Plan

Yelm's Housing Action Plan (HAP) identifies a gap in housing units that are available to meet low-income and very-low income renter households. This may need to take the form of subsidized housing or rental assistance programs. The HAP also provides an evaluation of the City's density and current zoning designations to look for ways to increase density and allow for development or redevelopment of parcels.

Housing Displacement Risk Policy Analysis

Yelm's housing policies are generally supportive of housing goals, including policies that encourage diverse residential growth, efficient permit processing, allow various residential uses and types that provide for diverse housing needs, and increase funding for affordable housing or reduce barriers to home ownership. Policies indicated as "approaching" could be improved primarily by considering affordability for all income groups and prioritizing those that have been historically marginalized, but they generally encourage housing growth, the maintenance of existing housing stock, and the provision of housing near transit and other services. There aren't any policies identified as "challenging."

Recommendations

A few policies float to the top of the recommendations for the City of Yelm to assist most directly as protective measures against economic displacement. A full list of new policy recommendations is available in the specific Policy Evaluation Matrix for the City. The top-scoring ones are summarized:

- Policies for the protection and preservation of the manufactured home community.
- Short-term rental programs to minimize long-term housing being used for transient rentals

An analysis has also been completed of the City's Housing Action Plan (HAP) policies, and a number of these score very high, such as:

- Partnerships with low-income housing developers, the Housing Authority of Thurston County, and other organizations that provide support for low-income, workforce, senior housing, and other populations with unique housing needs.
- Community Development Block Grants, Section 108 loans, and other federal resources for affordable housing.
- Offering density bonuses for low-income housing.

Data & Indicators

Generally, housing displacement risk increases when:

- The population becomes more racially and ethnically diverse

- Households are spending more than 30% of income on housing
- Rental units become unaffordable for extremely low-income residents
- Poverty rates increase in a community
- Homeownership rates decline

These metrics are derived from the Racially Disparate Impacts tool created by the WA Department of Commerce. The tool has five metrics for housing displacement risk: racial diversity, cost burden, rental affordability, income levels, and homeownership.

The following pages detail the dynamics of housing displacement risk as observed in each of the four cities. Profiles include housing displacement indicator data, policy recommendation summaries, and city-specific policy evaluation criteria. Our profiles have added age and manufactured home unit metrics to reflect research findings and community engagement feedback.

Racial Diversity

Yelm lost 57% of its Asian population between 2010 and 2023. Comparatively, the Black population has grown by 115%, the Hispanic population by 158%, and the Native Hawaiian and Pacific Islander population by 720%.

Change in # of Residents by Race & Ethnicity	2010	2023	Difference
American Indian and Alaska Native	40	129	89
Asian	230	98	-132
Black or African American	242	521	279
Hispanic or Latino (of any race)	573	1481	908
Native Hawaiian and Other Pacific Islander	65	533	468
Other Race	0	0	0
Two or more races	201	805	604
White	4,835	7051	2,216

Cost Burdened Population

Yelm has seen a slight growth amongst severely cost-burdened rental households but a significant growth amongst non cost burdened homeowner households.

Change in # Households by Cost-Burdened Status: Renters	**2017-2021**	**2015-2019**	**Difference**
Not Cost Burdened	515	550	-35
Cost-Burdened (30-50%)	245	275	-30
Severely Cost-Burdened (>50%)	215	170	45
Not Calculated	45	40	5

Change in # Households by Cost-Burdened Status: Homeowners	**2017-2021**	**2015-2019**	**Difference**
Not Cost Burdened	1545	1110	435
Cost-Burdened (30-50%)	415	474	-59
Severely Cost-Burdened (>50%)	180	130	50
Not Calculated	0	0	0

Rental Affordability

Yelm seems to only have rental units affordable to those making above 100% AMI.

Change in # of Rental Units by Affordability Rating	**2017-2021**	**2015-2019**	**Difference**
Extremely-Low Income (<30% AMI)	0	0	0
Very-Low Income (30-50% AMI)	0	0	0
Low-Income (50-80% AMI)	0	0	0
Moderate-Income (80%-100% AMI)	0	0	0

Income

Homeowner households making above 100% AMI have increased by 77% in Yelm while both love income renter and homeowner households have decreased.

Change in # Households by Income Status: Renters	**2017-2021**	**2015-2019**	**Difference**
Extremely Low-Income (≤30% AMI)	245	230	15
Very Low-Income (30-50%)	130	190	-60
Low-Income (50-80%)	195	210	-15
Moderate Income (80-100%)	220	185	35

Change in # Households by Income Status: Renters	2017-2021	2015-2019	Difference
Above Median Income (>100%)	230	210	20

Change in # Households by Income Status: Owners	2017-2021	2015-2019	Difference
Extremely Low-Income (≤30% AMI)	70	80	-10
Very Low-Income (30-50%)	85	150	-65
Low-Income (50-80%)	325	320	5
Moderate Income (80-100%)	320	410	-90
Above Median Income (>100%)	1345	760	585

Tenure/Homeownership

Yelm has seen an overall decrease in renter and owner households across all income levels.

Change in # of Households	2017-2021	2015-2019	Difference
Renter	310	1025	-715
Owner	1080	1720	-640

Age

The fastest-growing age groups in Yelm are #1) 20 to 24 years, #2)60 to 64 years, and #3)5 to 9 years.

% Change in Population by Age	2010 ACS	2023 ACS	Change
Total Population	**6,186**	**10,618**	**71.65%**
Under 5 years	10.80%	6.80%	-4.00%
5 to 9 years	9.20%	11.20%	2.00%
10 to 14 years	10.40%	8.20%	-2.20%
15 to 19 years	8.20%	7.00%	-1.20%
20 to 24 years	4.40%	8.60%	4.20%
25 to 29 years	9.40%	7.60%	-1.80%
30 to 34 years	9.80%	11.10%	1.30%

% Change in Population by Age	2010 ACS	2023 ACS	Change
35 to 39 years	8.20%	8.10%	-0.10%
40 to 44 years	7.10%	6.30%	-0.80%
45 to 49 years	6.10%	6.30%	0.20%
50 to 54 years	3.30%	4.50%	1.20%
55 to 59 years	4.10%	4.90%	0.80%
60 to 64 years	1.70%	3.70%	2.00%
65 to 69 years	1.00%	0.70%	-0.30%
70 to 74 years	0.40%	2.60%	2.20%
75 to 79 years	1.70%	1.50%	-0.20%
80 to 84 years	2.00%	0.90%	-1.10%
85 years and over	2.00%	0.40%	-1.60%

Implementation Capacity & Limitations

As is true in many small towns, housing programs are hard to fund, assemble, and administer. But this may be a critical piece of infrastructure needed to truly provide housing or even rental assistance programs to low- and very-low-income renters.

Housing Displacement Analysis and Comprehensive Plan Recommendations for the cities of Lacey, Olympia, Tumwater, and Yelm

PREPARED BY:

UNCOMMON BRIDGES

BHC CONSULTANTS

June 6, 2025

Table of Contents

Executive Summary ***4***

Housing Displacement Analysis Context **4**

Statutory Context 4

How to Use this Document 4

What is Housing Displacement? **5**

Housing Displacement Analysis Approach **6**

How do we measure housing displacement risk? 6

City Housing Displacement Risk Profiles Snapshot **7**

Lacey 8

Olympia 8

Tumwater 9

Yelm 9

Project Methodology ***10***

Overview **10**

Academic Research **10**

Data Indicators **10**

Sources & Data Limitations **10**

Community Engagement **12**

Policy Evaluation & Criteria **13**

Identifying Policy Recommendations **14**

Existing Conditions of Displacement Risk ***16***

Overview **16**

What Types of Housing Policies Contribute to Housing Displacement? 16

Who is at Greatest Risk of Housing Displacement? 17

Data & Indicators Summary **18**

Racial Diversity 19

Cost Burden 20

Rental Affordability 21

Income 21

Tenure/Homeownership 23

Age 23

What are Community Stakeholders Saying? **25**

Relevance for Analysis 26

City Displacement Risk Profiles & Recommendations ***27***

Overview **27**

Lacey – Economic & Cultural Displacement **27**
Housing Displacement Risk Policy Analysis 28
Priority Policy Recommendations 29
Implementation Capacity & Limitations 30
Conclusion 30

Olympia – Physical Displacement **31**
Housing Displacement Risk Policy Analysis 32
Priority Policy Recommendations 32
Implementation Capacity & Limitations 33
Conclusion 33

Tumwater – Economic Displacement **34**
Housing Displacement Risk Policy Analysis 34
Priority Policy Recommendations 35
Implementation Capacity & Limitations 36
Conclusion 36

Yelm – Economic & Physical Displacement **37**
Housing Displacement Risk Policy Analysis 37
Priority Policy Recommendations 38
Implementation Capacity & Limitations 38
Conclusion 39

CONCLUSION ***40***

APPENDIX ***41***

Executive Summary

HOUSING DISPLACEMENT ANALYSIS CONTEXT

This report provides foundational context around housing displacement for the cities of Lacey, Olympia, Tumwater, and Yelm that respond to appropriate statutory context guiding the housing element of periodic comprehensive plan updates. By piecing together a relatively current look at housing displacement risk for these four cities, this report provides a reasonable picture of the contributing factors for housing displacement and the implications of possible counter-balancing policy and regulatory recommendations.

Statutory Context

In 2021, the Washington State Legislature passed House Bill 1220 into law requiring all jurisdictions guided under the Growth Management Act (GMA) to "plan for and accommodate housing affordable to all economic segments of the population of this state…".[1]

As part of this requirement, Section 2 of HB1220 directs jurisdictions to adopt comprehensive plans that, among other things: "identify racially disparate impacts, displacement and exclusion in housing policies and regulations, and [begins] to undo those impacts …"[2]

The cities of Lacey, Olympia, Tumwater, and Yelm are working toward the 2025 deadline for their respective comprehensive plan updates which will come under the updated HB1220 requirements for the first time.

How to Use this Document

In response to these requirements, the Cities of Lacey, Olympia, Tumwater, and Yelm agreed to collate resources and contract the consultant team of Uncommon Bridges and BHC Consultants. Cities and consultants collaborated on the expectations of this housing displacement analysis, the sharing of data and connections, and clarity around the use of this product.

The consultant team was tasked with producing a report in line with state guidance that supports each jurisdiction's work to meet stated housing element planning. The team synthesized and interpreted the findings and recommendations included in this report to organize clear, direct, and authentic narratives generated from the various inputs of the analysis.

This document should be read as a supplementary document intended to support each of the city jurisdictions with information that may be communicated to public audiences and to inform

[1] RCW 36.70A.070(2)(2021)

[2] Ibid

compliance with respective comprehensive plan updates. Each City should apply the outcomes of this report in the ways they deem most relevant in addressing local housing displacement, racially disparate outcomes in housing, and housing exclusion issues.

Note—This report *only* provides a perspective on addressing housing displacement through a housing policy and government-led regulatory lens. We recognize that holistic attention to displacement and broader social issues connected to housing requires an approach that includes collaboration across policy and service domains, such as homelessness, mental and behavioral health resources, economics, and more. An analysis such as this should be considered within the context of those challenges and the unique way they play out amongst different places and people. While the social conditions for creating housing security are complex, there are policy opportunities that cities can take to reduce displacement and protect community wellbeing.

WHAT IS HOUSING DISPLACEMENT?

Housing displacement is an experience that impacts both individual households as well as broader neighborhoods and communities. In its most straightforward definition, ***housing displacement is when a household is forced to move from its community because of conditions beyond its control.***

Displacement can be described through several lenses as defined by the Washington State Department of Commerce[3], including:

- **Economic Displacement** - Displacement is due to the inability to afford rising rents or the costs of homeownership, like property taxes.
- **Physical Displacement** - Displacement is due to eviction, acquisition, rehabilitation, or demolition of property, or the expiration of covenants on rent or income-restricted housing.
- **Cultural Displacement** - Residents are compelled to move because the people and institutions that make up their cultural community have left the area.

Quite often, local communities likely experience intersecting factors across all three of these categories. While the use of categories provides a helpful reference point, to build a comprehensive assessment of displacement types – especially on a local scale – requires supplementing these definitions with additional insights.

Other relevant definitions from Commerce[4] include:

[3] Department of Commerce (2023). Guidance to Address Racially Disparate Impacts. https://deptofcommerce.app.box.com/s/1l217l98jattb87qobtw63pkplzhxege

[4] Ibid.

- **Gentrification:** The process in which the character of an area is changed, resulting in households being unable to remain in their neighborhood or move into a neighborhood that would have been previously accessible to them. This is also referred to as "neighborhood exclusionary change" or "exclusionary displacement".
- **Racially Disparate Impacts:** When policies, practices, rules or other systems result in a disproportionate impact on one or more racial groups.

HOUSING DISPLACEMENT ANALYSIS APPROACH

This analysis aims to identify factors contributing to housing instability and displacement, especially among vulnerable populations. By examining historical policies, current trends, and community dynamics, we seek to outline actionable recommendations for local governments to enhance housing security and promote equitable living conditions for all residents. Through collaborative engagement with community stakeholders, this report underscores the importance of inclusive housing strategies that prioritize the needs of marginalized groups while fostering sustainable development.

Data collection and inputs for the analysis included:

- Academic Background Research
- Local Policy Review
- Displacement Indicator Data Analysis
- Public Engagement
- Policy Recommendations

Through these inputs, the consultant team balanced retrospective literature review, lived experience/anecdotal input, and interpretive quantitative data to build interpretations and recommendations of how to measure the effectiveness of strategies against displacement, gentrification, and racially disparate impacts.

How do we measure housing displacement risk?

For this analysis, we are guided by the Washington State Department of Commerce's guidance on measuring possible strategies through its Racially Disparate Impacts (RDI) tool[5]. Measuring the phenomena of displacement, gentrification, and racialized disparities in housing exclusion is complex, the RDI tool guides jurisdictions to consider five primary indicators as "supportive" metrics towards

[5] The RDI toolkit is designed for use by the Department of Commerce (Commerce) in its support of local jurisdiction efforts to meet the requirements of the Growth Management Act (GMA). The toolkit compiles statistics relevant to a jurisdiction's analysis of racially disparate impacts in its community.

this analysis. The RDI tool relies on estimates published by the U.S. Census Bureau and the Department of Housing and Urban Development (HUD) and is presented in four-year ranges. This analysis compares RDI data points from 2015-2019 and 2017-2021. Additionally, demographic data was pulled from the American Community Survey.

According to this guidance, generally, housing displacement risk increases when:

- The population becomes more racially and ethnically diverse
- Households are spending more than 30% of their income on housing
- Rental units become unaffordable for extremely low-income residents (households earning between 30% and 50% of the Area Median Income (AMI)
- Poverty rates increase in a community
- Homeownership rates decline

Each of the jurisdictions agreed to track measures across these five indicators to best describe the trends and intensity of housing displacement. In measuring the same five indicators across each City, the analysis also provides an opportunity for comparative analysis and movement toward a "regional" picture of housing displacement conditions.

In addition to these five indicators, each jurisdiction integrated their own professional knowledge to identify other relevant metrics for review and consideration. These individualized metrics are described in the *Project Methodology* section of this report.

CITY HOUSING DISPLACEMENT RISK PROFILES SNAPSHOT

For each of the four cities assessed in this analysis, a predominant "displacement risk type" was identified for critical attention. To form these characterizations, the consultant team considered outputs from corresponding RDI indicators, regional engagement, and existing policy review.

As noted previously, the aim in this section is to help outline what might be the *primary* drivers of potential displacement, racially disparate impacts in housing, and housing exclusion issues.

The suggestion of any given displacement type should not be interpreted as being mutually exclusive of the other types – meaning that some interplay among economic, physical, and cultural displacement is likely always happening.

At a regional trend level, all four jurisdictions are currently experiencing stark economic pressures on housing affordability. Where possible, this section intends to make connections about how this either has, or could, impact the types of residents predominantly living in the respective City.

Note – this analysis does not make conclusive statements about the interactions of housing displacement conditions and impacts *between* cities. It is not reasonable to suggest from the basis of this analysis whether pressures in one locale influence or connect to pressures in another.

For more information and analysis see the report section titled "*City Displacement Risk Profiles and Recommendations*".

Lacey

Most Prominent Risk Type(s): **Economic & Cultural**

Lacey's economic pressures make it stand out as a prominent risk type. However, careful attention will be needed to ensure that these pressures do not disproportionately impact its increasingly diverse population of residents.

According to available data Lacey's population experienced:

- A significant **increase in racial and ethnic diversity** among residents between 2010 – 2023;
- A substantial **increase in severely cost-burdened households** for both renters and homeowners between 2015–2019 and 2017–2021
- **A decrease in the availability of affordable rental units** for very-low-income (earning between 30% and 50% AMI) households.
- A relative **decrease in renters earning less than 80% AMI** but an **increase in low-income homeowners** between 2015-2019 and 2017-2021
- An **increase in overall homeowner households**

Olympia

Most Prominent Risk Type: **Physical**

While a range of housing types exist in Olympia, its displacement risk is uniquely characterized by the loss of existing low-income homeownership alongside a significant challenge in providing affordable rental units for very-low-income households.

According to available data Olympia's population experienced:

- A significant **increase in racial and ethnic diversity** among residents between 2010 – 2023;
- A **decrease in cost-burdened renter households** but an **increase in cost-burdened and severely cost-burden homeowner households** between 2015–2019 and 2017–2021
- A slight increase in affordable units for extremely-low income households, but a **significant decrease in the availability of affordable rental units for very-low-income households** (earning between 30% and 50% AMI).
- A notable **increase in low-income renters** (50%-80% AMI) and a **decrease in low-income and extremely low-income** homeowners between 2015-2019 and 2017-2021
- An **increase in overall homeowner households**

Tumwater

Most Prominent Risk Type: **Economic**

Tumwater's economic displacement risk is characterized by the reciprocal relationship of subtle loss of low and middle-income renters with a significant lack of affordable housing for the lowest-income segments of the population.

According to available data Tumwater's population experienced:

- **Little to no change in relative racial and ethnic diversity** among residents between 2010 – 2023;
- A relative **decrease in cost-burdened households** for renters and homeowners between 2015–2019 and 2017–2021
- A relative **decrease in the availability of affordable rental units for very-low-income households** (earning between 30% and 50% AMI).
- A **general decrease across most income categories for renters and homeowners** except for above median income households between 2015-2019 and 2017-2021
- An **increase in overall homeowner households** and a **slight decrease in renters.**

Yelm

Most Prominent Risk Type: **Economic and Physical**

Unlike the commonly interpreted definition of physical displacement, Yelm's greatest risk comes from its pressure to meet the demand for suburbanization. Above-median income populations make up the largest increase income type and as folks look to redevelop land effectively, it has the risk of impacting highly vulnerable population groups disproportionately.

According to available data Yelm's population experienced:

- Little to **no change in relative racial and ethnic diversity** among residents between 2010 – 2023;
- A relative **increase of severely cost-burdened renter households** and a **significant decrease in cost-burdened homeowner households** between 2015 – 2019 and 2017 – 2021
- Little to **no observable change** in the availability of affordable rental units
- Relative **decrease of very-low and low income renters** and a **significant increase** in **above median income homeowners** 2015-2019 and 2017-2021
- Significant **decrease overall of renters and homeowners** households

Project Methodology

OVERVIEW

This report comprehensively analyzes housing displacement risk in Lacey, Olympia, Tumwater, and Yelm, synthesizing academic research, demographic data, and extensive community engagement. The project investigates past and present housing policies contributing to displacement, identifies vulnerable populations, and evaluates potential policy interventions. This study offers a multi-faceted understanding of displacement dynamics in the region by integrating insights from peer-reviewed journals, U.S. Census Bureau and HUD estimates, and direct community feedback through affinity groups and surveys. The policy evaluation framework, incorporating both displacement-specific and locality-specific criteria, aims to provide actionable recommendations for preventing and mitigating housing displacement, addressing racially disparate impacts**,** and ensuring equitable housing access for all residents.

ACADEMIC RESEARCH

The project team submitted a Housing Displacement Academic Field Scan memo synthesizing the latest peer-reviewed journals from the last decade that respond to the lines of questioning set out within the Housing Displacement Analysis project for the cities of Lacey, Olympia, Tumwater, and Yelm, including:

- What past housing policies resulted in resident displacement?
- What types of current housing policies create the risk of resident displacement?
- What groups and communities are at the greatest risk of housing displacement?

DATA INDICATORS

To localize the understanding of displacement risk, the project team completed a demographic analysis based on the Racially Disparate Impacts (RDI) tool published by the Washington State Department of Commerce, which outlines a variety of indicators to measure displacement risk. The RDI tool relies on estimates published by the U.S. Census Bureau and the Department of Housing and Urban Development (HUD). Additionally, demographic data was pulled from the American Community Survey.

SOURCES & DATA LIMITATIONS

Our data evaluation utilizes two primary sources for comparative analysis of metrics at certain snapshots in time.

The first is the HUD Comprehensive Housing Affordability Strategy (CHAS) datasets published as two distinct time frames (2015-2019 and 2017-2021) we use to measure:

a. cost-burdened populations
b. affordable rental units
c. household income levels
d. homeownership rates

The second source is the US Census American Community Survey 5-Year Estimate data published as two distinct snapshots in time (2010 and 2023) that we used to measure:

- racial and ethnic diversity
- age

Why Were These Sources Chosen

The metrics of racial and ethnic diversity, cost burden, rental unit affordability, household income levels, and homeownership rates were derived from the racially disparate impact (RDI) tool published by the WA Department of Commerce. The RDI toolkit is designed by the Department of Commerce (Commerce) for jurisdictional use and guidance in efforts to meet the requirements of the Growth Management Act (GMA). The toolkit is featured under "Step 2: Gather and analyze data" in the published Racially Disparate Impacts Guidance [6]. The toolkit compiles statistics relevant to a jurisdiction's analysis of racially disparate impacts in its community.

The US Census American Community Survey 5-Year Estimate is regularly considered a gold stand tool for national demographic data. The survey has evolved over time and is typically based on a 90% confidence interval serving as one of the most reliable data points available for this work.

What These Sources can Cannot Tell Us

As described in the Department of Commerce's Affordable Housing Planning Resources, The RDI Data Toolkit was most recently updated in November 2023 for jurisdictions completing periodic comprehensive updates in 2024 and 2025.

The currently available RDI Data Toolkit that can be accessed online currently only limits ACS Community Survey Data through 2020 and CHAS data date ranges through 2010-2014 and 2015-2019. As a result, the consultant team directly accessed and utilized the most recently available CHAS data through HUD for 2017-2021. The database was culled to ensure that the corresponding tables were pulled for Lacey, Olympia, Tumwater, and Yelm.

[6] Department of Commerce (2023). Guidance to Address Racially Disparate Impacts. https://deptofcommerce.app.box.com/s/1l217l98jattb87qobtw63pkplzhxege

As the data pulled represents a snapshot in time for the corresponding date range it is difficult to pinpoint the current status of any one metric. Let alone the limitation that the most current and recent date range extends through 2021.

As a result, the consultant team used a comparative analysis across the windows to determine and interpret trends rather than provide absolute results.

The CHAS data, which were publicly available at the time of this report's publication, have some limitations. The 2017-2021 data set represents a synthesis of data from that period and does not tell us much about the effects of COVID-19 or any policy actions undertaken since 2021.

As identified in feedback from jurisdictional staff, conducted community engagement, and academic research the real and perceived impacts of the COVID-19 pandemic on housing instability were significant. We strongly recommend jurisdictions contextualize the analysis in this report for what folks know and understand about the pandemic.

Unfortunately, it is likely only very recently that there is a reasonable data range since the onset of the pandemic to begin understanding the explicit implications on housing displacement, racially disparate impacts, and housing exclusion. Without that window of data, this report is not able to make any strong correlations between the two.

Each jurisdiction is responsible for their respective responses to the updates required by the amended HB1220 (2021). As mentioned in the executive summary, this report should be utilized as a supplementary document to support jurisdictions in this effort. This report should not be considered and/or submitted as a direct response to the statutory requirements without additional deliberation from jurisdictional staff.

COMMUNITY ENGAGEMENT

Affinity Groups

Uncommon Bridges coordinated four (4) affinity group conversations to gather community stakeholders to discuss housing displacement risk in Lacey, Olympia, Tumwater, and Yelm. Affinity group topics included:

1) Manufactured housing communities,

2) Communities of low-wage workers,

3) Military families and households, and;

4) Accessory dwelling units.

Multi-Media Survey

A key aspect of this project involves assessing community insight, perceptions, and lived experiences around livability, affordability, and displacement impacts in Olympia, Lacey, Tumwater, and Yelm. A

robust data collection effort, including multi-lingual outreach via community anchors, focus groups, and an open-access multi-modal survey resulting in 167 responses, sought to engage those frequently involved and new perspectives and experiences not included in past policy and housing assessments conducted in the region.

POLICY EVALUATION & CRITERIA

To assess and evaluate policy options and recommendations, we completed a policy evaluation using two sets of criteria: displacement-specific and locality-specific. The displacement-specific criteria were based on the Department of Commerce's categories of displacement: economic, physical, and cultural. Through discussions with city staff, audits of the city's Housing Needs Assessments, and stakeholder feedback, we identified additional criteria to evaluate better potential policies and recommendations based on the jurisdiction's unique needs.

Criteria Evaluation Method and Scoring

Policies were evaluated using criteria and scored using the following scale. The scores were then totaled to calculate an overall impact score for each policy option.

- **Yes, positive impact (+2):** The policy option has a positive impact and directly addresses the criterion.
- **Somewhat positive impact (+1):** The policy option has a somewhat positive impact, or indirectly addresses the criterion.
- **Neutral/ No impact (+0):** The policy option does not directly address the criterion, but may benefit other housing priorities for the jurisdiction.
- **Negative impact (-1):** The policy option may exacerbate, or detract from, addressing the criterion or issue. However, while some options may have a negative impact on one element of the scoring criteria, it does not mean that they are bad options overall. For example, encouraging redevelopment may increase housing supply overall and reduce long-term displacement pressures, but also increase physical displacement pressures in the short-term.

We used the following criteria for all jurisdictions in this report as a common set.

- **Racially Disparate Impacts**: Does this policy prevent racially disparate impacts or work to repair past harm?
- **Economic Displacement**: Does this policy help prevent or mitigate economic displacement?
- **Physical Displacement**: Does this policy help prevent or mitigate physical displacement?
- **Cultural Displacement**: Does this policy help prevent or mitigate cultural displacement?
- **Housing Exclusion**: Does this policy prevent the exclusion of historically marginalized or other vulnerable populations from accessing safe and affordable housing appropriate for their needs?
- **Implementation Considerations**: Does the city have the staff and resources necessary to implement this policy effectively?

In addition to these, each jurisdiction had its own unique (yet sometimes related and similar) policy evaluation criteria.

Lacey

- Does this policy encourage or remove barriers to providing affordable housing?
- Does this policy encourage the preservation of naturally occurring affordable housing, such as manufactured home parks and other existing affordable units?
- Does this policy increase the overall housing supply?
- Does this policy reduce housing costs?

Olympia

- Does this policy incentivize and support the development of affordable and deeply affordable housing, including supportive housing?
- Does this policy increase the housing supply, including middle housing and ADUs?
- Does this policy encourage the preservation of naturally occurring affordable housing, such as manufactured home parks and other existing affordable units?

Tumwater

- Does this policy encourage the preservation of naturally occurring affordable housing, such as manufactured home parks and other existing affordable units?
- Does this policy incentivize and support the development of affordable and deeply affordable housing?
- Does this policy encourage adaptive reuse of existing residential units or other buildings where feasible?
- Does this policy incentivize or reduce barriers to developing diverse housing types, including smaller homes?

Yelm

- Does this policy encourage the preservation of naturally occurring affordable housing, such as manufactured home parks and other existing affordable units?
- Does this policy incentivize or reduce barriers to developing diverse housing types, including smaller homes?
- Does this policy incentivize and support the development of affordable and deeply affordable housing?

IDENTIFYING POLICY RECOMMENDATIONS

After analyzing the critical issues in each jurisdiction and the challenges of housing displacement, we compiled a comprehensive inventory of potential policies and programs to address these concerns. The list also included each city's respective Housing Action Plan policies to better reflect existing

programs and policies, show how these contribute to or detract from anti-displacement goals, and help the cities prioritize future implementation actions of their HAP.

Existing Conditions of Displacement Risk

OVERVIEW

In addition to the data analyzed from the identified databases, the team also conducted a comprehensive literature review to expand understanding on what other factors contribute towards risk of displacement. Summarized below, this research was considered as part of the holistic evaluation of data analysis to develop recommendations.

What Types of Housing Policies Contribute to Housing Displacement?

In reviewing a swath of peer reviewed journals from the last decade, the consultant team identified eight key trends in response to the contributing policies and conditions for housing displacement nationally.

Property owners have significantly more protection under the law than renters do.
A lack of anti-discriminatory legal protection for renters using programs such as the Housing Choice Voucher Program makes it difficult to find landlords in more affluent communities who accept such vouchers, leading to displacement through residential self-segregation by socio-economic class.[7]

Even when protections for renters exist, a lack of awareness keeps renters in the dark about their rights.
A lack of information sharing and public understanding about housing protection eligibility, such as that implemented during COVID-19, enables property owners to coerce renters into arrangements against their best interests[8]

Policies to improve housing stability in the U.S. most often exacerbate housing insecurity for renters.
U.S. housing policies have historically prioritized homeownership and homeowners, often worsening housing insecurity for renters by offering few direct protections against displacement. Little is done for rent-burdened renters to alleviate displacement risk other than advocating for them to buy homes, a distant possibility for most. [9]

The conversion of public housing public housing projects into mixed-income communities drives housing displacement for low-income households.

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[7] Max Besbris, Sadie Dempsey, Brian McCabe, and Eva Rosen, "Pandemic Housing: The Role of Landlords, Social Networks, and Social Policy in Mitigating Housing Insecurity During the COVID-19 Pandemic," *RSF: The Russell Sage Foundation Journal of the Social Sciences* 10, no. 4 (2024): 210.

8 Besbris et al., "Pandemic Housing," 210.

[9] Stefanie DeLuca and Eva Rosen, "Housing Insecurity among the Poor Today," *Annual Review of Sociology* 48, no. 1 (2022): 350.

The conversion of public housing into mixed-income communities, such as through the HOPE VI program, resulted in significant displacement for low-income households, with only a fraction of the original residents returning to the redeveloped properties. [10]

Growing suburban corporate landlord conglomerates are more likely than local small businesses to resort to eviction rather than relieving renters in financial distress.
Governments could better support, subsidize, and grow the amount of local small businesses that provide rental housing while incentivizing them to pass on savings to renters. Local property owners are more likely to provide support and relief to renters in financial distress, while corporate landlords are more likely to immediately resort to eviction. [11]

Low housing supply drives up costs and disproportionality burdens low-income households.
Increasing housing supply makes housing more affordable, and housing affordability is directly correlated to an individual's housing cost burden, an indicator of displacement risk. When new housing is built and priced higher, it pushes older housing into a lower price range, creating additional housing availability for lower-income households. This concept, known as housing stock filtering, is at odds with the commonly accepted drivers of gentrification and neighborhood change.[12]

Who is at Greatest Risk of Housing Displacement?

Across the same period, the literature provides insight into what groups and communities are at the greatest risk of housing displacement. Five types of populations stand out:

Older, poorer people of color
Residential mobility amongst the poor is variable, unplanned, and typically involuntary. Eviction filings doubled between 2000 and 2016. Older people, African Americans, and Latinos are overrepresented across most types of displacement. [13]

Suburban dwellers living below the poverty line
Suburban poverty creates conditions ripe for displacement. With less public transit, poorer households must spend more money to get around. They have limited access to nonprofit services

[10] Barrett A. Lee and Megan Evans, "Forced to Move: Patterns and Predictors of Residential Displacement during an Era of Housing Insecurity," *Social Science Research* 87 (2020): 102415.

[11] Devin Q. Rutan, Peter Hepburn, and Matthew Desmond, "The Suburbanization of Eviction: Increasing Displacement and Inequality Within American Suburbs," *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9, no. 1 (2023): 115

[12] Vicki Been, Ingrid Gould Ellen, and Katherine O'Regan, "Supply Skepticism: Housing Supply and Affordability," *Housing Policy Debate* 29, no. 1 (2019): 35.

[13] Lee and Evans, "Forced to Move," 102415

typically concentrated in cities and often confront a municipal infrastructure less suited to deliver holistic social services.[14]

Manufactured housing residents

Households in mobile homes are over twice as likely to live in poverty. Half of all mobile homes in the U.S. are in urban areas. There are 1.7 million mobile home renter households and 5.3 million mobile homeowners in the U.S. Mobile home closures should be treated as mass evictions, which are primary indicators of physical displacement risk. Those who own their trailers but don't have the means to move them to another location face an additional loss of a valuable household asset. [15]

Families with children

Households with children are at an increased risk of displacement. A Milwaukee study found that renters with two children have an 11.7% chance of being evicted and a 9.5% chance with one child. [16]

Households spending more than 30% of their income on housing costs

Cost-burdened households spend more than 30% of income on housing costs including rent, mortgage, and utilities. Households spending more than half of their income on housing are considered severely cost-burdened.

Equipped with these learnings, the consultant team paired existing trends occurring across the Thurston County/South Sound Region to infer how housing displacement may be occurring within each of the local jurisdictions.

DATA & INDICATORS SUMMARY

For this analysis, we are guided by the Washington State Department of Commerce's guidance on measuring possible strategies through its Racially Disparate Impacts (RDI) tool[17]. Measuring the phenomena of displacement, gentrification, and racialized disparities in housing exclusion is complex, the RDI tool guides jurisdictions to consider five primary indicators as "supportive" metrics towards this analysis. The RDI tool relies on estimates published by the U.S. Census Bureau and the Department of Housing and Urban Development (HUD) and is presented in four-year ranges.

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[14] Rutan et al., "Suburbanization of Eviction," 166.

[15] DeLuca and Rosen, "Housing Insecurity," 348.

[16] Matthew Desmond and Carl Gershenson, "Who Gets Evicted? Assessing Individual, Neighborhood, and Network Factors," *Social Science Research* 62 (2017): 365.

[17] The RDI toolkit is designed for use by the Department of Commerce (Commerce) in its support of local jurisdiction efforts to meet the requirements of the Growth Management Act (GMA). The toolkit compiles statistics relevant to a jurisdiction's analysis of racially disparate impacts in its community.

This analysis compares RDI data points from 2015-2019 and 2017-2021. Additionally, demographic data was pulled from the American Community Survey.

Generally, housing displacement risk increases when:

- The population becomes more racially and ethnically diverse
- Households are spending more than 30% of their income on housing
- Rental units become unaffordable for extremely low-income residents
- Poverty rates increase in a community
- Homeownership rates decline

Racial Diversity

Housing displacement risk is generally understood to increase as a population becomes more racially and ethnically diverse. The U.S. Census Bureau collects data on race and ethnicity, classifying individuals into distinct categories for these estimates. Race is recognized as a social identity historically tied to oppression, while ethnicity refers to groups sharing common ancestry, language, or dialect. Respondents to the Census self-identify their race from six options (White, Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, and Other) and can select one or more options. They also identify as either Hispanic or Latino or Not Hispanic or Latino, with "Hispanic or Latino" defined as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.

The table above shows the change in racial and ethnic diversity across the four cities between 2010 and 2023, using the US Census American Community Survey 5-Year Estimate data.

Change in # of Residents by Race & Ethnicity	Lacey	Olympia	Tumwater	Yelm
American Indian and Alaska Native	-54	+2	-154	+89
Asian	+1,437	+924	+608	-132
Black or African American	+1,345	+345	+755	+279
Hispanic or Latino (of any race)	+4,126	+3,099	+1,484	+908
Native Hawaiian and Other Pacific Islanders	+658	+421	+106	+468
Other Race	-44	+132	+470	+0
Two or more races	+2,908	+2,617	+1,786	+604
White	+6,278	+2,335	+4,630	+2,216
Net Pop Change 2010 - 2023	+16,654	+9,875	+9,685	+4,432

Cost Burden

Housing displacement risk is a critical concern, fundamentally linked to how much households spend on housing relative to their income, and the availability of affordable rental units, particularly for those with lower incomes. A household is considered to be experiencing a "cost burden" if its monthly housing expenses exceed 30% of its income, which can severely impact its ability to meet other essential needs like food, healthcare, and education. This burden is further categorized: "not cost-burdened" (under 30%), "cost-burdened" (30-50%), and "severely cost-burdened" (over 50%).

An analysis of data between 2015-2019 and 2017-2021 reveals concerning trends in cost burden across Lacey, Olympia, Tumwater, and Yelm. For renters, the picture is mixed and, in some cases, challenging. Overall, while the number of non-cost-burdened homeowners is increasing across all cities, the growth of non-cost-burdened renter households is significantly slower, and in some areas, even declining.

The tables below show the change in the cost-burdened populations across the four cities based on HUD Comprehensive Housing Affordability Strategy (CHAS) datasets, representing a difference in the data between the years 2015-2019 and 2017-2021.

Change in # Households by Cost-Burdened Status: Renters	Lacey	Olympia	Tumwater	Yelm
Not Cost Burdened	+110	-655	+100	-35
Cost-Burdened (30-50%)	+65	-305	-65	-30
Severely Cost-Burdened (>50%)	+200	+15	-105	+45
Not Calculated	-30	-75	+11	+5

Change in # Households by Cost-Burdened Status: Homeowners	Lacey	Olympia	Tumwater	Yelm
Not Cost Burdened	+765	+840	+355	+435
Cost-Burdened (30-50%)	+370	+145	-175	-59
Severely Cost-Burdened (>50%)	+185	+190	+45	+50
Not Calculated	+45	+5	-10	+0

Rental Affordability

A housing unit is officially deemed affordable if its gross housing costs constitute less than 30% of a household's income. Across all four cities—Lacey, Olympia, Tumwater, and Yelm—there is a scarcity of rental housing options suitable for very low-income households, defined as those earning between 30% and 50% of the Area Median Income (AMI). The data used for these assessments, specifically estimates of the number of rental housing units affordable to households within various income ranges, comes from the HUD Comprehensive Housing Affordability Strategy (CHAS) datasets. These estimates are derived from self-reported housing costs, which inherently reflect any housing subsidies or other benefits households might utilize. It is important to note that a rental unit designated as affordable for an extremely low-income household (less than 30% of AMI) may not necessarily be occupied by a household within that specific income bracket. The rental unit affordability estimates exclude housing units that lack complete kitchen or plumbing facilities, vacant units not explicitly listed for rent or sale, and group quarter units.

The table below shows the change in vacant affordable units across the four cities based on HUD Comprehensive Housing Affordability Strategy (CHAS) datasets, representing a difference in the data between 2015-2019 and 2017-2021.

Change in # of Rental Units by Affordability Rating	Lacey	Olympia	Tumwater	Yelm
Extremely-Low Income (<30% AMI)	+0	+25	+0	+0
Very-Low Income (30-50% AMI)	-90	-110	-45	+0
Low-Income (50-80% AMI)	+40	+10	+10	+0
Moderate-Income (80%-100% AMI)	+150	+75	+5	+0

Income

While all four cities are seeing growth in renter and homeowner households with above median incomes, the high cost of housing is outpacing wage gains, leading to high housing cost burdens.

The Washington Department of Commerce's RDI tool utilizes Area Median Income (AMI) to account for regional variations in labor and housing markets. AMI represents the midpoint of an area's income distribution, with half of households earning above and half earning below this figure. The Growth Management Act mandates that jurisdictions address the housing needs of families across the entire income spectrum. Income data and housing affordability estimates are derived from the U.S. Department of Housing and Urban Development's Comprehensive Housing Affordability Strategy (CHAS) data. Household income estimates are categorized into bins based on AMI, adjusted for household size:

- Extremely Low Income (<30% of AMI)
- Very Low Income (30%−50% of AMI)
- Low Income (50%−80% of AMI)
- Moderate Income (80%−100% of AMI)
- Above Median Income (>100% of AMI)

Overall, while there's an evident increase in higher-income households (both renters and homeowners) across all four cities, the data also highlights shifts in lower-income brackets that could impact housing displacement risk, especially given the general trend of housing costs outpacing wage gains.

The tables below show the change in population income levels across the four cities based on HUD Comprehensive Housing Affordability Strategy (CHAS) datasets representing a difference in the data between 2015-2019 and 2017-2021.

Change in # Households by Income Status: Renters	Lacey	Olympia	Tumwater	Yelm
Extremely-Low Income (<30% AMI)	-160	-110	-240	+15
Very-Low Income (30-50% AMI)	-235	-180	-85	-60
Low-Income (50-80% AMI)	-475	+225	-20	-15
Moderate-Income (80%-100% AMI)	+535	-85	-15	+35
Above Median Income (>100%)	+680	+730	+305	+20

Change in # Households by Income Status: Homeowners	Lacey	Olympia	Tumwater	Yelm
Extremely-Low Income (<30% AMI)	+250	-90	-145	-10
Very-Low Income (30-50% AMI)	+15	+40	+60	-65
Low-Income (50-80% AMI)	-255	-130	-90	+5
Moderate-Income (80%-100% AMI)	-150	+25	-10	-90
Above Median Income (>100%)	1495	+1345	+400	+585

Tenure/Homeownership

Housing displacement risk generally increases when homeownership rates decline. Tenure refers to the distribution of homeowners and renter households across a region.

The tables below show the change in renter and owner households across the four cities based on HUD Comprehensive Housing Affordability Strategy (CHAS) datasets, representing a difference in the data between 2015-2019 and 2017-2021.

Change in # of Households	Lacey	Olympia	Tumwater	Yelm
Renters	+345	+590	-60	-715

Change in # of Households	Lacey	Olympia	Tumwater	Yelm
Homeowners	+1365	+1190	+225	-640

Age

Older populations face a higher risk of housing displacement. Across Lacey, Olympia, Tumwater, and Yelm, there's a noticeable trend of aging populations, although the specific population changes by age vary significantly among the cities. The document presents data from 2010 to 2023, using the US Census American Community Survey 5-Year Estimate, to illustrate these shifts in age distribution.

While there's variation, the detectable trend of aging populations, particularly in cities like Olympia and Yelm, which saw significant shifts in individual age ranges, suggests an increasing proportion of residents are more vulnerable to housing displacement.

The table below shows the change in age distribution across the four cities between 2010 and 2023, using the US Census American Community Survey 5-Year Estimate data.

% Change in Population by Age	Lacey	Olympia	Tumwater	Yelm
Under 5 years	-0.90%	+0.00%	-1.10%	-4.00%
5 to 9 years	+0.00%	-1.80%	+0.70%	+2.00%
10 to 14 years	-0.80%	-1.00%	-1.60%	-2.20%
15 to 19 years	+0.00%	+0.90%	-3.90%	-1.20%

20 to 24 years	-0.10%	-5.10%	+0.90%	+4.20%
25 to 29 years	+0.30%	+0.70%	+0.60%	-1.80%
30 to 34 years	+0.00%	+2.70%	+1.00%	+1.30%
35 to 39 years	+0.00%	+0.70%	+0.60%	-0.10%
40 to 44 years	+1.30%	+0.30%	+1.60%	-0.80%
45 to 49 years	-0.10%	-0.60%	-0.90%	+0.20%
50 to 54 years	-1.90%	-2.00%	-1.90%	+1.20%
55 to 59 years	-2.10%	-0.90%	-1.00%	+0.80%
60 to 64 years	+1.50%	-0.10%	+2.50%	+2.00%
65 to 69 years	+2.30%	+1.30%	+2.00%	-0.30%
70 to 74 years	+1.10%	+3.50%	+1.10%	+2.20%
75 to 79 years	-0.10%	+1.80%	+0.30%	-0.20%
80 to 84 years	-0.30%	+0.00%	+0.40%	-1.10%
85 years and over	-0.30%	-0.60%	-0.80%	-1.60%

WHAT ARE COMMUNITY STAKEHOLDERS SAYING?

The project team undertook an extensive and collaborative outreach process to gain a locally rooted understanding of housing goals and displacement risks. We connected with planning staff, residents, and housing advocates across sectors to better understand the housing challenges facing the area.

The project team aggregated and synthesized the stakeholder feedback across all engagement touchpoints to distill the main takeaways into the following themes for consideration.

- Cities should identify ways to monitor renter income verification, establish local ordinances to enforce attainable income verification, and identify and address price fixing.
- Cities should use creative zoning overlays and innovative land use policies to classify and protect mobile home communities and other types of affordable housing.
- Zoning should balance commercial development with opportunities for affordable housing.
- Cities should create a program to support upgraded utilities and infrastructure and promote incentives for property owners to improve their properties, including multifamily, single-family, accessory, and mobile homes. Tenants forced to relocate due to substandard maintenance (condemned properties) should receive support to relocate to a nearby affordable housing option effectively.
- Affordable housing and homelessness prevention programs should work closely together as they share the same clientele.
- Military service providers, including VAs, volunteer groups, bases, centers, and cities, should ensure their programs are adequately staffed with the most current information regarding housing and support benefits for military families and households.
- Cities should promote educational programs that explain to homeowners and potential buyers the long-term investment opportunity of ADUs and the financial plan required to pursue a build.
- Permitting processes to develop new affordable housing should continue to be simplified and streamlined.
- Cities could support residents, including current residents of manufactured home communities, by forming cooperatives or community land trusts (CLTs) to be prepared to exercise the right of first refusal and manage properties independently.
- Cities should create a program to support private ownership of mobile home communities and private rental units by local, family-owned operations with on-site management and disincentivize corporate owners from buying land on which manufactured home communities are located.
- Cities should take steps to minimize the amount of potential long-term housing being used for short-term transient rentals (Airbnb).

- Cities should work with community groups to coordinate a one-stop shop for housing benefit explanations and application support.
- Cities should promote an educational campaign to private landlords about legal requirements and renter income qualifications for those on supplemental income.
- Cities should offset the impacts of increased taxes and tax increment financing, as they are seen to contribute to unaffordability for renters and low-income households by increasing the cost of living as new upscale developments are built.
- Cities should consider rent control options and develop and enforce adequate tenant protections (eviction proceedings, rent increase management, etc.).
- Cities should balance suburban development with investment in affordable housing in urban centers.
- Cities should ensure robust transportation is available to residents and minimize the land used for parking over housing.
- Urban renewal efforts should include the protection of existing affordable housing units.

Relevance for Analysis

Takeaways from the individual sources of data input: research, data indicators, and engagement were considered holistically

It is important to also recognize the validity of each of these sources of information. Across the various points of engagement, we heard from members of our community that are rarely offered such a prominent and direct line to our planning processes. Diverse, real, and engaged voices contributed to the findings of this analysis through written, audio & video recording, and facilitated points of engagement. This feedback should be read in the context that they are direct feedback from community stakeholders based on their viewpoints, level of understanding, and lived experience with housing.

Final policy recommendations are not solely based on any single point of feedback; as we aim to integrate the perspectives into what is possible within the confines of individual city capacity for implementation.

City Displacement Risk Profiles & Recommendations

OVERVIEW

This section examines the issues of displacement at the city level, analyzing key indicators such as increased housing cost burdens on both renters and homeowners, the diminishing availability of affordable rental units for low-income households, and significant shifts in demographic composition. Furthermore, this section will review current housing policies and provide priority policy recommendations to mitigate economic displacement and foster a more equitable housing environment.

LACEY – ECONOMIC & CULTURAL DISPLACEMENT

Lacey's economic pressures make it stand out as a prominent risk type. However, careful attention will be needed to ensure that these pressures do not disproportionately impact its increasingly diverse population of residents.

According to available data Lacey's population experienced:

- A significant **increase in racial and ethnic diversity** among residents between 2010 – 2023;
- A substantial **increase in severely cost-burdened households** for both renters and homeowners between 2015–2019 and 2017-2021
- **A decrease in the availability of affordable rental units** for and very-low-income (earning between 30% and 50% AMI) households.
- A relative **decrease in renters earning less than 80% AMI** but an **increase in low-income homeowners** between 2015-2019 and 2017-2021
- An **increase in overall homeowner households**

Considering the above trends, the data shows that while Lacey's population grew overall, people from non-white racial and ethnic backgrounds are working and living in Lacey. Given that historical research tell us that racially and ethnically diverse households are more likely to experience displacement, it is important to understand what is driving these communities to Lacey and understand the broader spectrum of cultural needs.

This is an important detail because as households become increasingly cost-burdened, families that are already living on the edge of their means must make difficult choices about where to allocate their income. Across the region, folks engaged for this process often remarked often how they see housing instability quickly teetering on to risk of homelessness for folks that must look for alternative ways to stay afloat; a reminder that "*displacement can happen to anybody*".

Over the same period, we can see that, income and wages are not keeping pace with the rising cost of living, leading to a decline in real income and purchasing power, meaning more people are cost burdened. Concerningly, this trend appears to impact both renters and homeowners alike – the latter of which might be vulnerable to economic displacement if housing costs, such as property taxes, continue to climb.

As real earnings decrease, so to have the availability of affordable units. Review of existing policies and overlapping engagement describes possible impacts from the significant decrease in the availability of affordable rental units for extremely low-income and very-low-income households, coupled with a general lack of social safety nets. We made connections to feedback we heard in both the survey and affinity group discussions that some of these impacts spiked during/post the COVID pandemic. For some folks, like households with a member in the military, it is not easy to move out of the area in search of more affordable housing. Folks on fixed incomes or social security for example do not have the same opportunity to shift brackets and find that their options for quality affordable housing have narrowed. This aligns with the general understanding from the literature purporting that a lack of affordable rental options for the lowest income brackets heightens the risk of displacement.

Housing Displacement Risk Policy Analysis

The City of Lacey has comprehensively reviewed its existing Housing Element and related policies within its Comprehensive Plan, utilizing criteria consistent with the Department of Commerce's guidance on Racially Disparate Impacts. This evaluation sought to identify policies supporting housing goals or potentially contributing to inequitable outcomes. The analysis reveals a general split, with many of Lacey's housing policies categorized as "supportive" or "approaching" their intended objectives.

Lacey's "supportive" policies are actively working to foster housing growth and affordability. These include initiatives designed to increase residential densities, promote infill development, and ensure a sufficient supply of housing that is affordable across all income levels and meets unique housing needs. Furthermore, these policies emphasize critical partnerships with external agencies, recognizing their role in enhancing overall housing affordability and preventing displacement and homelessness. These represent strong foundational efforts in the city's housing strategy.

However, policies classified as "approaching" suggest areas where Lacey can further strengthen its impact. While generally supporting housing growth, these policies could be refined to more effectively address overall affordability and integrate robust anti-displacement strategies. The goal is to provide housing equitably to all income brackets, particularly those historically excluded or displaced. For instance, a specific policy (Policy C under Goal 3 in the Central Planning Area) has been identified for clarification. Proposed revisions aim to ensure that development standards for middle housing options are sensitive to existing neighborhoods and align with broader city priorities, such as climate resilience, while remaining clear and unambiguous.

In sum, Lacey's current housing goals and policies demonstrate an awareness of housing displacement and include efforts to mitigate disproportionate impacts. To build upon these existing strengths and solidify its commitment to equitable housing, the City should actively explore and implement additional policies that foster stronger community partnerships. These collaborations are crucial for proactively preventing displacement and cultivating a truly supportive environment for both current and future residents of Lacey.

Priority Policy Recommendations

This report outlines key strategies for the City of Lacey to augment its current efforts in preventing racially disparate housing impacts, increasing the availability of deeply affordable housing, and mitigating displacement, particularly economic displacement.

Strengthening Community Partnerships and Expanding Capacity

To achieve greater success, the City can significantly enhance its existing work and policies by fostering stronger community connections and partnerships with local organizations. Such collaborations effectively expand the capacity of city staff, allowing for more comprehensive outreach, program delivery, and specialized support. Supplemental efforts and social services, extending beyond the scope of housing policy alone, are also evident for Lacey's housing initiatives to reach their full potential and address the multifaceted needs of its diverse population.

Comprehensive Plan Updates and Policy Refinements

The upcoming update to Lacey's Comprehensive Plan presents a critical opportunity to refine existing policies and introduce new ones to address current gaps. Several policies within the Housing Element of the current Comprehensive Plan could benefit from minor edits to clarify their intent, remove vague language, establish stronger connections to other Comprehensive Plan elements, or eliminate potentially exclusive language. Specific proposed edits for numerous policies are detailed in the Final Existing Comprehensive Plan Policy Evaluation Framework Appendix.

Addressing Policy Gaps and New Program Development

To tackle significant policy gaps, new policies and programs are required. Foremost among these is the need for policies that preserve existing and naturally affordable housing units. This is crucial for preventing economic displacement and enabling residents to remain within their established communities. Concurrently, dedicated efforts are necessary to protect manufactured housing communities and to avoid displacement within these vital affordable housing sectors. Furthermore, there is a clear need for affordable housing for lower-wage earners, ensuring that individuals working in Lacey can also afford to reside within the city. Beyond housing, cultural displacement can be mitigated through increased placemaking efforts and the preservation of existing community events, businesses, religious institutions, and other facilities important to Lacey's diverse cultural groups.

Prioritizing Housing Action Plan Implementation

Finally, the City's Housing Action Plan (HAP) contains numerous actions that Lacey should continue to implement by advancing them to the Planning Commission. Policies from the HAP that scored highly in the Policy Evaluation Matrix should be considered priority initiatives for immediate implementation, as they directly align with the City's housing goals and address identified deficiencies.

Implementation Capacity & Limitations

Achieving the desired outcomes of these initiatives—namely, effectiveness, sustainability, and broad community benefit—will necessitate significant financial resources and dedicated staff time.

Financial Constraints

The primary limitation in successfully executing these housing programs is likely financing. Navigating city political processes and securing the funding for recommended programs will be a considerable challenge. City staff will require augmented capacity to actively pursue and secure diverse financial resources, including competitive grants, funds from regional or state programs, and other potential sources. Without robust and consistent funding streams, the reach and impact of these initiatives will be significantly constrained.

Staffing and Administrative Demands

Implementing many revised Housing Element policies, existing HAP actions, and newly developed policy recommendations will place substantial demands on city staff. This includes the considerable time required to collaborate with community partners in drafting and creating new ordinances to update the city’s development regulations. Additionally, significant staff effort will be necessary to present and work with the Planning Commission and City Council through the review and approval processes for these ordinances. Beyond legislative development, the recommended policies will also require considerable ongoing staff time to identify, cultivate, and maintain strong community partnerships and collaborative efforts with local organizations, essential for these housing initiatives’ effective delivery and long-term success.

Conclusion

Overall, the analysis points towards the need for prioritizing unique housing needs among low-income, workforce, and senior housing; identifying creative ways to support and maintain homeownership, especially among lower-income households (e.g. manufactured home parks), and ensuring that attention on the cliff between low-income affordability and homelessness does not exacerbate toward the latter.

OLYMPIA – PHYSICAL DISPLACEMENT

While a range of housing types exist in Olympia, its displacement risk is uniquely characterized by the loss of existing low-income homeownership alongside a significant challenge in providing affordable rental units for very-low-income households.

According to available data Olympia's population experienced:

- A significant **increase in racial and ethnic diversity** among residents between 2010 – 2023;
- A **decrease in cost-burdened renter households** but an **increase in cost-burdened and severely cost-burden homeowner households** between 2015 – 2019 and 2017 – 2021
- A slight increase in affordable units for extremely-low income households, but a **significant decrease in the availability of affordable rental units for very-low-income households** (earning between 30% and 50% AMI).
- A notable **increase in low-income renters** (50%-80% AMI) and a **decrease in low-income and extremely low-income** homeowners between 2015-2019 and 2017-2021
- An **increase in overall homeowner households**

The trends may suggest that low-income households who are already homeowners, may not be able to keep pace with increasing costs to sustain homeownership and stay in place as seen in the dramatic increase of cost-burdened homeowners.

Interestingly, the increase of low-income renters is a relatively complicated trend to interpret when comparing against the other data points. While inconclusive, it is possible that efforts to increase and retain low-income renters is working positively, especially where renter households have become less cost burdened. Conversely, it is possible that once homeowners have been economically forced to become renters, thus putting a strain on the availability of rental units.

While inconclusive, the engagement data paints an interesting picture around how the market has handled the availability of single-family homes. Some point to the mixed quality of converting these properties to rental units, while others remark that the once naturally-occurring affordable homes are falling into disrepair or being redeveloped entirely into units that cater to higher-income earning residents and visitors.

Some relevant remarks from individual and group engagement include:

- *… in my case, I'm in the "family home" with a failing roof. It's too big for just me. There is enough room to create 2 separate living units. This would allow me to remain here. There's also off-street, discreet parking space for a tiny home/RV. I'd happily leverage what I have to create more space for others in need of housing. Not everyone needs a BIG space.*
- *The lack of single family homes for people to rent, rent to own and even buy. The quality of houses in Olympia has significant differed maintenance, which often causes health hazards to those who rent*

- *In Olympia, housing displacement has manifested through the conversion of single-family homes into high-end rentals and Airbnb properties.*

Housing Displacement Risk Policy Analysis

A segment of Olympia's housing policies is identified as "supportive" of housing goals. These include policies that encourage the adaptive reuse of non-residential buildings for housing purposes, support the provision of affordable housing by minimizing regulatory barriers and streamlining review processes, and actively work to prevent physical obstacles that could isolate new developments from existing neighborhoods.

However, most of Olympia's housing-related policies are categorized as "approaching" their objectives. While these policies aim to increase the overall housing supply within Olympia, they possess opportunities for strengthening. Enhancements could include more explicit measures to address racially disparate impacts, the integration of targeted anti-displacement strategies, and proactive efforts to prevent housing exclusion, particularly by prioritizing historically marginalized populations.

Several policies within the Comprehensive Plan are identified as "challenging" housing goals due to their potential to create unintended negative consequences. These policies often require additional design or architectural features in new housing or seek to preserve existing neighborhood "character." Such policies may inadvertently restrict housing production and limit housing choices, potentially contributing to affordability issues. To mitigate these challenges, proposed edits are detailed in the Final Existing Comprehensive Plan Policy Evaluation Framework Appendix, advocating for removing vague language and introducing greater flexibility to foster increased housing production and housing diversity.

Priority Policy Recommendations

The City of Olympia should consider prioritizing the implementation of these high-scoring HAP policies and other highly rated policies from the Policy Evaluation Matrix. Advancing these initiatives to the Planning Commission would align with city priorities and address current deficiencies in Olympia's housing policy framework.

New Policy Recommendations

To enhance housing affordability and equity, the following new policy initiatives are recommended:

- Protection and Preservation of Manufactured Home Communities: Implement policies to safeguard and preserve manufactured home communities. This is crucial for retaining a vital source of affordable housing within the city.
- Encouraging Retention and Maintenance of Existing Affordable Housing: Develop additional measures to incentivize the retention and maintenance of existing affordable housing units.

Particular emphasis should be placed on high-opportunity neighborhoods or areas with historical segregation patterns to promote equitable access to housing.

High-Scoring Housing Action Plan (HAP) Policies

An analysis of the City's existing Housing Action Plan (HAP) policies revealed several high-impact strategies that align to overcome housing barriers:

- Evaluation of Home Fund Relationship: Assess the relationship between Olympia's Home Fund and the county's home fund to ensure alignment and effectiveness in meeting shared housing goals.
- Expanding Residential Tenant Improvement Allowances: Broaden the allowance for residential tenant improvements without triggering additional land use review requirements. This can encourage the maintenance and upgrading of existing housing stock.
- Allowing Single Room Occupancy (SRO) Housing: Permit Single Room Occupancy (SRO) housing in all multifamily zones. This policy diversifies housing options and can provide more affordable solutions for individuals.

Implementation Capacity & Limitations

The City has already expended considerable political capital enacting multi-part strategies to address housing affordability. Though these efforts may need to continue for a long period to see definitive progress, politics will need to match the necessary longevity of these programs to see significant results. Changes in leadership or shifts in City funding for programming could erode support for existing implementation efforts that are having a net positive effect.

The City has done a good job of identifying specific barriers to ease displacement pressure. The Housing Action Plan actions collectively represent quite a lot of staff time or consultant time, but quite a number of them can also be seen as making progress against displacement pressures as well.

Conclusion

Overall, the analysis points towards the need for encouraging the retention and maintenance of existing affordable housing stock; expand allowances of residential tenant improvements and use creative policy approaches to encourage the appropriate matching of resident characteristic and lived experience to possible housing types, such as manufactured home communities or Accessory Dwelling Units.

TUMWATER – ECONOMIC DISPLACEMENT

Tumwater's economic displacement risk is characterized by the reciprocal relationship of subtle loss of low and middle-income renters with a significant lack of affordable housing for the lowest-income segments of the population.

According to available data Tumwater's population experienced:

- **Little to no change in relative racial and ethnic diversity** among residents between 2010 – 2023;
- A relative **decrease in cost-burdened households** for renters and homeowners between 2015 – 2019 and 2017 – 2021
- A relative **decrease in the availability of affordable rental units for very-low-income households** (earning between 30% and 50% AMI).
- A **general decrease across most income categories for renters and homeowners** except for above median income households between 2015-2019 and 2017-2021
- An **increase in overall homeowner households** and a **slight decrease in renters.**

While Tumwater's population has grown through the last census cycles, the data shows that the largest demographic increase has been of above-median income residents. Research shows that when a population has an increase in higher earning residents that it can potentially increase demand and upward pressure on housing prices. Importantly, these pressures can exacerbate financial burden on lower-income residents and accelerate economic displacement.

Tumwater does not seem to portray a situation with widespread affordability crisis with signs of stability across the spectrum. However, attention should be focused on the stark distinction of those that are not experiencing stability. Among all groups, residents earning 30% - 50% of Area Median Income are both increasing and struggling to find affordable units. As pressures continue the risk becomes that the affordability gap may become pulled in opposite directions leaving long-term residents having to navigate the unstable housing landscape.

To protect against these risks exacerbating, there is an opportunity to focus efforts on preserving naturally occurring affordable housing such as mobile home parks. Similarly, strategies for new development can work to ensure that the scale of housing prices do not outpace the general population's ability to keep up. The economic displacement risk has the potential to increase without protections for Tumwater's long-term vulnerable residents.

Housing Displacement Risk Policy Analysis

Many of Tumwater's housing policies are classified as "supportive" or "approaching" their stated objectives. These policies generally foster housing growth, ensure the provision of necessary services to support residential development, aim to mitigate displacement, provide support for transitional and supportive housing, and address the needs of other populations with unique housing requirements. Policies categorized as "approaching" encourage various housing types to

meet diverse demands. However, these policies could be strengthened to more effectively prevent displacement, explicitly address housing affordability and availability across different income brackets, and safeguard historically marginalized populations from disproportionate impacts.

Only one policy appears twice within the plan and is identified as "challenging." This policy, focused on protecting residential areas through aggressive code enforcement to prevent undesirable activities and uses, risks exacerbating displacement or disproportionately affecting lower-income and historically marginalized groups.

A comparative analysis with other jurisdictions indicates that the language used in Tumwater's Housing Action Plan (HAP) policies is not as robust as it could be. The upcoming update and incorporation of HAP goals and actions into the 2025 Comprehensive Plan (CUP) Housing Element presents a critical opportunity to strengthen policy language. Incorporating more definitive terms, such as "require" instead of "encourage," would enhance the enforceability and impact of these policies, leading to more substantial progress in achieving housing goals and mitigating displacement.

Priority Policy Recommendations

The City of Tumwater should prioritize implementing these high-scoring HAP policies and other highly rated policies from the Policy Evaluation Matrix. Advancing these initiatives to the Planning Commission would align with city priorities and address current deficiencies in Tumwater's housing policy framework.

- Community Land Trust Program for Mobile Home Communities: Establish a program modeled after a Community Land Trust to support and preserve mobile home communities. This aims to secure long-term affordability and stability for residents within these vital housing sectors.
- Support Program for Private, Local, Small-Scale Ownership of Mobile Home Communities: Implement a city program to support private, local, small-scale ownership of mobile home communities. This initiative seeks to leverage the existing mobile home housing stock and actively work towards preserving current affordable housing options.
- Increased Staffing for Accessory Dwelling Unit (ADU) Processing: Augment staffing capacity within relevant departments to expedite the processing of Accessory Dwelling Unit (ADU) permits. This measure aims to reduce administrative costs and streamline the development of diverse housing types.
- High-Scoring Housing Action Plan (HAP) Policies - An analysis of the City's existing Housing Action Plan (HAP) policies revealed several high-impact strategies that align with displacement mitigation objectives:
    - "Notice of Intent to Sell" Ordinance for Multifamily Developments: Implement an ordinance requiring property owners to provide advance notice of their intent to sell

multifamily developments. Such a policy can allow residents and community organizations to explore preservation options.

- Program for Preserving and Maintaining Manufactured Home Parks: Establish a dedicated program to preserve and maintain healthy and viable manufactured home parks. This initiative, with some details integrated into the new recommendations, is crucial for protecting an existing source of affordable housing.
- Mixed-Income Housing Development: Prioritize policies that encourage the integration of market-rate and low-income housing within new developments. This approach aims to prevent the concentration of low-income housing in specific areas, fostering more diverse and integrated communities.

Implementation Capacity & Limitations

Prioritizing Mobile Home Park Preservation

While all Housing Action Plan (HAP) policies represent a foundational step, the most significant impact on displacement mitigation will be achieved through focused efforts on preserving existing mobile home parks (MHPs) as a critical source of affordable housing stock. This approach leverages an already established and often more affordable housing type. Successful implementation will necessitate sustained education and communication efforts to clearly articulate the rationale behind this focus, thereby strengthening existing political support for MHPs within the City.

Resource Implications for Policy Implementation

The successful implementation of many revised Housing Element policies, remaining HAP actions, and new policy recommendations for Tumwater will require significant staff time and resources. This includes collaborating with community partners to develop necessary ordinances for updating the city's development regulations. Furthermore, considerable staff engagement will be required for review and approval processes with the Planning Commission and City Council.

Beyond ordinance development, recommended policies will demand substantial staff capacity to identify, cultivate, and maintain robust community partnerships and collaborative efforts with local organizations. To ensure these programs' effectiveness, sustainability, and broad reach, city staff will also require additional capacity to actively pursue diverse funding avenues, including grants, regional, and state programs.

Conclusion

Tumwater faces a significant risk of economic displacement, driven by a severe shortage of affordable rental housing, especially for extremely low and very low-income households, and an increase in severely cost-burdened homeowners. This is evidenced by a complete loss of rental units affordable to very low-income families and declining numbers of lower-income renters, while higher-income residents are increasing, driving up housing costs. Although current housing policies

are generally supportive, they lack robust language to prevent displacement and ensure affordability. Key recommendations include preserving mobile home communities, regulating short-term rentals, and streamlining Accessory Dwelling Unit (ADU) development. Implementing these changes will require substantial resources and staff capacity to address the critical housing needs of the city's most vulnerable residents.

YELM – ECONOMIC & PHYSICAL DISPLACEMENT

Unlike the commonly interpreted definition of physical displacement, Yelm's greatest risk comes from its pressure to meet the demand for suburbanization. Above-median income populations make up the largest increase income type and as folks look to redevelop land effectively, it has the risk of impacting highly vulnerable population groups disproportionately.

According to available data Yelm's population experienced:

- Little to **no change in relative racial and ethnic diversity** among residents between 2010 – 2023;
- A relative **increase of severely cost-burdened renter households** and a **significant decrease in cost-burdened homeowner households** between 2015–2019 and 2017–2021
- Little to **no observable change** in the availability of affordable rental units
- Relative **decrease of very-low and low income renters** and a **significant increase** in **above median income homeowners** 2015-2019 and 2017-2021
- Significant **decrease overall of renters and homeowners** households

As Yelm's overall population has grown, it's land use is being forced to shift from being a meaningfully rural city to one that is beginning to serve young families as a suburb community. Above-median income earning families appear to be moving to Yelm and redeveloping existing land for housing; a trend referenced explicitly by some during the engagement process.

During the engagement process, the team also ensured to focus on households with a member in the military to best describe the respective situations. Military households desire improved coordination of housing services, primarily where the VA lacks capacity and efficiency. Moreover, as folks anticipate improved city infrastructure, they hope that there can be options to support military and veteran households throughout the civilian community.

Housing Displacement Risk Policy Analysis

Yelm's housing policies generally support housing goals, including policies that encourage diverse residential growth, efficient permit processing, allow various residential uses and types that provide for diverse housing needs, and increase funding for affordable housing or reduce barriers to home ownership. Policies indicated as "approaching" could be improved primarily by considering affordability for all income groups and prioritizing those that have been historically marginalized. Still, they generally encourage housing growth, the maintenance of existing housing stock, and the

provision of housing near transit and other services. There aren't any policies identified as "challenging."

Priority Policy Recommendations

These recommended policies, both new and those within the existing HAP, represent critical steps for Yelm to proactively address economic displacement and ensure housing stability for its residents.

- Protection and Preservation of Manufactured Home Communities: Policies should be developed and implemented to ensure manufactured home communities' long-term viability and affordability. This is critical for preserving a significant source of accessible housing for many residents at risk of displacement.
- Regulation of Short-Term Rental Programs: Measures should be adopted to minimize converting long-term housing units into transient short-term rentals. This preserves the existing housing stock for permanent residents and prevents further reduction of available affordable housing options.
- High-Scoring Housing Action Plan (HAP) Policies - An evaluation of the City's existing Housing Action Plan (HAP) policies identified several high-impact strategies that align to prevent economic displacement:
    - Partnerships with Affordable Housing Developers and Support Organizations: The City should prioritize and strengthen partnerships with low-income housing developers, the Housing Authority of Thurston County, and other relevant organizations. These collaborations are essential for developing and supporting housing solutions for low-income individuals, the workforce, seniors, and other populations with unique housing needs.
    - Leveraging Federal Resources for Affordable Housing: The City should actively pursue and utilize federal funding mechanisms, including Community Development Block Grants (CDBG) and Section 108 loans, to secure resources for affordable housing initiatives.
    - Offering Density Bonuses for Low-Income Housing: Implementing density bonuses for developments that include low-income housing units incentivizes the creation of more affordable housing options, directly combating the factors that lead to economic displacement.

Implementation Capacity & Limitations

Implementing effective housing programs, particularly those providing direct housing or rental assistance to low- and very-low-income populations, presents significant challenges for small towns

and jurisdictions such as Yelm. These challenges primarily revolve around such initiatives' funding, assembly, and administration.

Smaller municipalities' limited financial and administrative capacities often hinder their ability to secure the capital for substantial housing projects or ongoing rental assistance programs. Furthermore, the complexities inherent in program design, inter-agency coordination, and sustained operational oversight can prove difficult to manage without dedicated resources and specialized expertise. Despite these hurdles, establishing such housing infrastructure is critical for adequately addressing the housing needs of vulnerable residents and mitigating issues like economic and physical displacement.

Conclusion

Yelm's existing Housing Action Plan strategies point to policies that generally support housing goals, including policies that encourage diverse residential growth and allow various residential uses and types to provide for diverse housing needs. Given the likeliness that both population growth will continue to increase and contend with the limitations of the existing Urban Growth Area (UGA), the City will need to continue its acute focus on building relationships with developers and builders to ensure that local housing needs are met and not overlooked.

Strategies to consider include the incentivizing of low-income housing to developers through density bonuses and to disincentivize corporate owners from buying existing affordable homes in the community. Moreover, ongoing opportunities to strengthen relationships with the VA and other supports for military families may also be appropriate.

CONCLUSION

Addressing housing displacement is crucial for fostering strong, connected communities. If left unaddressed, displacement can lead to increased homelessness and heightened socioeconomic disparities. Our report includes tailored policy recommendations that cater to each city's specific needs and capabilities. These suggestions include a variety of strategies, such as adjusting zoning laws to support diverse housing options, providing tenant protection initiatives, enhancing financial assistance programs, and improving cooperation among local agencies.

We acknowledge that there are deeper layers of analysis that could help answer questions that emerge through this report. We anticipate that in addition to utilizing this information to support each cities' comprehensive plan updates, the jurisdictions may choose to identify more nuanced trends within their communities. Suggestions include:

- Neighborhood analysis of displacement pressures
- Multi-variate analysis of intersecting demographics with income and housing status
- Local historical research
- Additional regional correlation and trends

In conclusion, tackling housing displacement requires a collaborative approach that brings together governmental bodies, community organizations, and private sector partners. By embracing our recommendations and prioritizing housing stability, Lacey, Olympia, Tumwater, and Yelm can move toward building more equitable, inclusive, and resilient communities.

APPENDIX

A. Housing Displacement Academic Field Scan Memo
B. Existing Comp Plan Evaluation Tables
C. Comp Plan Recommendations Matrix
D. Engagement Raw Data & Analyses

MEMORANDUM

Date: October 17, 2024
To: Planning and Community Development Departments of the Cities of Lacey, Olympia, Tumwater, and Yelm
From: Ariam Ford, AICP, Equity & Engagement Lead, Uncommon Bridges
Subject: Housing Displacement Academic Field Scan

Purpose

The following document is a synthesis of the latest peer reviewed journals from the last decade that responds to the lines of questioning set out within the Housing Displacement Analysis project for the cities of Lacey, Olympia, Tumwater, and Yelm, including:

- What past housing policies resulted in resident displacement?
- What types of current housing policies create the risk of resident displacement?
- What groups and communities are at the greatest risk of housing displacement?

What past housing policies resulted in resident displacement?

1. **Property owners have significantly more protection under the law than renters do.** The de facto imbalance of power between landlords and tenants creates situations where the wellbeing of renters becomes secondary to financial profit with little to no regulation. For example, the Housing Choice Voucher Program provides choices to renters beyond government housing projects, however the lack of protection under anti-discriminatory law makes it difficult for renters to find landlords who accept vouchers, opening the door for residential self-segregation by socio-economic class (Besbris et al. 2024, 210).
2. **Even when protections for renters exist, a lack of information can be exploited by property managers to coerce renters to act against their own interests.** The housing-specific COVID-19 programs are a prime example of protections put in place that many renters didn't realize they were eligible for (Besbris et al. 2024, 212).
3. **Policies to improve housing stability in the US most often exacerbate housing insecurity for renters.** That is because US housing policy has a legacy of protecting, preferring, and subsidizing for homeownership and homeowners. Little is done for rent-burdened renters to alleviate displacement risk other than advocating for them to buy homes, a distant possibility for most (DeLuca, Stefanie, and Eva Rosen 2022, 345).
4. **Driven by macro-level increases in income inequality, neighborhoods are becoming more segregated by income.** Contrastingly, racial integration is increasing, especially in U.S. cities (Chapple et al. 2017, 10).
5. **The definition of displacement is not universal.** Caused by investment or divestment, displacement takes many forms - direct, indirect, physical, economic, or exclusionary (Chapple et al. 2017, 27).

6. **The conversion of public housing projects into mixed-income communities drives housing displacement for low-income households.** Despite the opportunity intentionally designed into mixed-income, multifamily public housing projects, only one-fifth of original project residents return to experience those benefits (Lee and Evans 2020, 6).
7. **Market corrections and global events do little to overcome the effects of racism and socio-economic discrimination on housing displacement.** While major events such as Covid-19 may create housing uncertainty across all demographics and identities, low-income people of color remain the most likely to experience housing displacement (Lee and Evans 2020, 18).
8. **Quantitative efforts to measure displacement underrepresent the plight of disadvantaged populations by not considering lived experience.** To counter this, displacement studies must include user generated, geographically tracked content to truly understand the state of gentrification risk in a community (Chapple and Zuk 2016, 115).

What types of current housing policies create the risk of resident displacement?

1. Government aid delivery is notoriously slow but critical when trying to implement policies designed to reduce housing displacement. **Nesting housing aid into existing, successful, and well-known programs creates a waterfall effect by increasing household disposable income** and thereby decreasing the percentage of total income a household spends on housing (Besbris et al. 2024, 212).
2. **Governments should take a holistic and comprehensive approach to mapping the overlap of government aid programs in their communities.** Only 1 in 4 households eligible for rental assistance actually receives it. There are opportunities to "nest" housing-specific policies within existing and more consistent government programs to boost successful delivery (Besbris et al. 2024, 208).
3. **Housing relief is most expediently and directly delivered via a landlord or property manager.** Government aid can oftentimes fail to provide timely relief for even those who qualify for assistance (Besbris et al. 2024, 217).
4. **To reduce housing displacement risk, governments should focus on increasing household financial stability and reducing socioeconomic inequities within Suburban communities.** Today, most low-income Americans live in the inner suburbs, where evictions are increasing faster than in urban areas. (Rutan et al. 2023, 164)
5. **To fight a growing trend of suburban corporate landlord conglomerates, governments should work to support, subsidize, and grow the amount of local small businesses that provide rental housing while incentivizing them to pass on savings to renters.** Local property owners are more likely to provide support and relief to renters in financial distress, while corporate landlords are more likely to immediately resort to eviction.(Rutan et al. 2023, 166)
6. **Code enforcement and condemnation can be a policy-driven displacement factor without a comprehensive plan to support displaced tenants.** Low-income households may reside in substandard conditions, and in cases where a property owner is unable or refuses to make improvements, tenants may be forced to vacate (Lee and Evans 2020, 3).

7. **Policies restricting housing development contribute to displacement risk.** Increasing housing supply makes housing more affordable, and housing affordability is directly correlated to an individual's housing cost burden, an indicator of displacement risk (Been, Gould Ellen, and O'Regan 2019, 4).
8. **New housing is required to achieve the displacement risk reduction benefits of housing stock filtering.** When new housing is built and priced higher, older housing is pushed down into a lower price range, creating additional housing availability for lower-income households. This concept is at odds with the commonly accepted drivers of gentrification and neighborhood change (Been, Gould Ellen, and O'Regan 2019, 6).

What groups and communities are at the greatest risk of housing displacement?

1. **Suburban poverty is ripe for displacement.** With less public transit, poorer households must spend more money to get around. They have limited access to non-profit services typically concentrated in cities, and confront a municipal infrastructure less suited to deliver holistic social services support (Rutan et al. 2023, 166).
2. **Residential mobility amongst the poor is variable, unplanned, and typically involuntary.** Eviction filings doubled between 2000 and 2016 (DeLuca, Stefanie, and Eva Rosen 2022, 348).
3. **Households in mobile homes are over twice as likely to live in poverty.** Half of all mobile homes in the US are in urban areas. There are 1.7 million mobile home renter households and 5.3 million mobile homeowners in the US (DeLuca, Stefanie, and Eva Rosen 2022, 348).
4. **Mobile home closures should be treated as mass evictions, which are primary indicators of displacement risk**. Those who own their trailers but don't have the means to move them to another location face an additional loss, leading to not only displacement but also the loss of a valuable household asset (Lee and Evans 2020, 6).
5. **Older people, African Americans, and Latinos are overrepresented across most types of displacement** (Lee and Evans 2020, 9).
6. **Households with children are at an increased risk of displacement.** A Milwaukee study found that renters with two children have an 11.7% chance of being evicted and a 9.5% chance with one child (Desmond and Gershenson 2017, 8).
7. **Renters who experience job loss are more likely to be evicted.** A Milwaukee study found that renters who lost their jobs were twice as likely to be evicted (Desmond and Gershenson 2017, 8).
8. **Community character change, or gentrification, is not necessarily an indicator of displacement.** A Milwaukee study found no significant difference in eviction risk between those living in racially or economically transitioning neighborhoods and those who live in homogenous communities (Desmond and Gershenson 2017, 9).
9. **Having a more affluent support system is not necessarily a buffer to experiencing housing displacement, but decreasing poverty shocks amongst those in your social networks will decrease displacement risk.** A Milwaukee study found that while renters in social networks with others experiencing poverty shocks are more likely to experience

eviction, having a more affluent social network did not decrease a renter's risk of eviction (Desmond and Gershenson 2017, 8).

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Existing Comprehensive Plan Policy Evaluation Framework

For the cities of Olympia, Lacey, Tumwater, and Yelm

Evaluation Method 1
Olympia 2
Lacey 10
Tumwater 25
Yelm 43

Evaluation Method

With the passage of HB 1220 in 2021, jurisdictions are required to make adequate provisions for housing for all economic segments of the community. This includes identifying *"local policies and regulations that result in racially disparate impacts, displacement, and exclusion in housing."*

The following evaluation table assesses the existing Comprehensive Plan's goals and policies for impacts for racially disparate impacts, including displacement and exclusion, in the Housing Element and residential goals and policies in the Land Use Element. The evaluation used the following criteria in evaluating each goal and policy, consistent with the Department of Commerce's Racially Disparate Impacts guidance:

- **Supportive**: The policy is valid and supports meeting the identified housing needs. The policy is needed and addresses identified racially disparate impacts, displacement and exclusion in housing.
- **Approaching**: The policy can support meeting the identified housing needs but may be insufficient or does not address racially disparate impacts, displacement, and exclusion in housing.
- **Challenging**: The policy may challenge the jurisdiction's ability to meet the identified housing needs. The policy's benefits and burdens should be reviewed to optimize the ability to meet the policy's objectives while improving the equitable distribution of benefits and burdens imposed by the policy.
- **Not Applicable (NA)**: The policy does not impact the jurisdiction's ability to meet the identified housing needs and has no influence or impact on racially disparate impacts, displacement, or exclusion.

All Goals and policies in the Housing Element were included in this evaluation. For the Land Use Element, only residential-use related policies were evaluated.

Olympia

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
Land Use Element			
PL6.1	Establish and periodically update a design review process and design criteria consistent with the goals and policies in the Comprehensive Plan for: • Commercial and mixed use development adjacent to freeways and public streets • Other highly-visible, non-residential development, such as the Port of Olympia, campus developments, and master planned developments • Multifamily residential development and manufactured housing parks • Detached homes on smaller lots (less than 5,000 square feet) and in older neighborhoods (pre-1940) • Properties listed on a Historic Register or located within a designated historic district	**Approaching**	The policy could address that the design review process should be reviewed and updated to ensure a streamlined review process and sufficient housing production to meet capacity goals.
PL6.4	Require multi-family housing to incorporate architectural forms and features common to nearby housing; to include porches, balconies, bay windows and similar details; to have entries oriented to streets or a courtyard, and include accessible open space; and to be reduced in size near lower density residential districts.	**Challenging**	Additional restrictions on multi-family housing types can result in less affordable rents. While design standards are not necessarily negative–they can ensure liveable spaces–this policy should be updated to balance both design and affordability goals, allowing flexibility to

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
			ensure housing production and choices.
PL8.4	Avoid height bonuses and incentives that interfere with landmark views.	**Challenging**	Limiting density for aesthetic reasons can result in lower housing capacity. However, this may be an acceptable compromise as long as the housing and affordability considerations are planned for elsewhere. To avoid subjective views being used as a tool for limiting housing development, this policy should be updated to specify or map viewsheds are most important to preserve through code provisions.
PL11.2	Provide incentives for housing in commercial districts near transit stops.	**Approaching**	Providing housing near jobs can be helpful in preventing displacement while reducing overall community impacts such as traffic. The incentives could be expanded to consider affordability as well.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
GL14	Olympia's neighborhoods provide housing choices that fit the diversity of local income levels and lifestyles. They are shaped by thorough public planning processes that involve community members, neighborhoods, and city officials.	**Approaching**	While this policy does address housing for the different income levels, it should be expanded to clearly call-out low income groups and prioritize housing for historically marginalized groups.
PL14.2	Concentrate housing into three high-density Neighborhoods: Downtown Olympia, Pacific/Martin/Lilly Triangle; and the area surrounding Capital Mall. Commercial uses directly serve high-density neighborhoods and allow people to meet their daily needs without traveling outside their neighborhood. High-density neighborhoods are highly walkable. At least one-quarter of the forecasted growth is planned for downtown Olympia.	**Approaching**	While this policy does address the city's housing needs and demands, it does not address reducing displacement and affordability pressures.
PL14.3	Preserve and enhance the character of existing Low-density Neighborhoods. Disallow medium or high-density development in existing Low-density Neighborhood areas except for Neighborhood Centers.	**Challenging**	Language that aims to preserve low-density, single-family neighborhood "character" can often be used as a proxy for prohibiting more diverse housing choices. Instead of "character," this policy could consider height and building form while allowing more flexibility for similar, yet more affordable, housing types such as middle housing.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
PL14.4	In low-density Neighborhoods, allow medium-density Neighborhood Centers that include civic and commercial uses that serve the neighborhood. Neighborhood centers emerge from a neighborhood public process.	**Approaching** / **Supporting**	Depending on how inclusive the Neighborhood Center identification and engagement process is, this policy would support anti-displacement through placemaking and housing, or it may cause further displacement.
Housing Element			
GL16	The range of housing types and densities are consistent with the community's changing population needs and preferences.	**Approaching**	While the policy acknowledges different community and population needs, it could be improved by incorporating affordability and anti-displacement language.
PL16.2	Adopt zoning that allows a wide variety of compatible housing types and densities.	**Approaching**	The policy intends to allow a variety of housing types. However, "compatible" is vague and can be leveraged to maintain high-cost, low-density housing types, unattainable to those from lower incomes or historically marginalized communities.
PL16.3	Allow 'clustering' of housing compatible with the adjacent neighborhood to preserve and protect environmentally sensitive areas.	**Approaching**	This goal would allow parcels that would be undevelopable under strict application of the zoning code to be developable. However, "compatibility" could be further defined to ensure the building types used are not exclusionary.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
PL16.4	Disperse low and moderate-income and special needs housing throughout the urban area.	**Approaching**	While this policy seeks to ensure lower income households are not isolated to certain parts of the city, it could be enhanced to go further by allowing and fostering capacity rather than focusing on dispersion.
PL16.5	Support affordable housing throughout the community by minimizing regulatory review risks, time and costs and removing unnecessary barriers to housing, by permitting small dwelling units accessory to single-family housing, and by allowing a mix of housing types.	**Supportive**	This policy supports housing growth and affordability.
PL16.6	Promote home ownership, including by allowing manufactured homes on individual lots, promoting preservation of manufactured home parks and allowing these parks in multi-family and commercial areas, all subject to design standards ensuring compatibility with surrounding housing and land uses.	**Approaching**	This policy could be improved by better defining compatibility. Consider identifying whether compatibility is driven by architectural massing or design styles.
PL16.7	Allow single-family housing on small lots, but prohibit reduced setbacks abutting conventional lots.	**Approaching**	Allowing smaller homes on smaller lots reduces land costs. “Conventional lots” is unclear however.
PL16.8	Encourage and provide incentives for residences above businesses.	**Supportive**	Incentivizing residences over businesses creates flexibility and a variety of units.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
PL16.9	In all residential areas, allow small cottages and townhouses, and one accessory housing unit per home -- all subject to siting, design and parking requirements that contribute to neighborhood character.	**Approaching**	While allowing cottages and townhouses supports housing and affordability goals, “neighborhood character” is vague and could be tied to exclusionary housing practices.
PL16.10	Require effective, but not unreasonably expensive, building designs and landscaping to blend multi-family housing into neighborhoods.	**Challenging**	Requiring additional standards for multi-family housing types ultimately hinders affordability.
PL16.11	Require that multi-family structures be located near a collector street with transit, or near an arterial street, or near a neighborhood center, and that they be designed for compatibility with adjacent lower density housing; and be 'stepped' to conform with topography.	**Approaching**	Requiring multi-family housing to be located near transit or neighborhood centers increases their accessibility, but this policy could be expanded to include multi-family housing throughout the city to increase the number of housing units. This policy could also be improved by better defining compatibility.
PL16.12	Require a mix of single-family and multi-family structures in villages, mixed residential density districts, and apartment projects when these exceed five acres; and use a variety of housing types and setbacks to transition to adjacent low-density areas.	**Approaching**	Requiring a mix of single- and multi-family housing types could support housing growth and affordability, but it does not address reducing displacement and affordability pressures. This policy could be better improved by specifying the “mix” of housing.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
PL16.13	Encourage adapting non-residential buildings for housing.	**Supportive**	Adapting non-residential buildings for housing supports housing growth and affordability.
PL16.14	Provide annual information on affordable homeownership and rentals in the City, including the operative definitions of affordable housing, criteria to qualify for local, state, and federal housing assistance, data on current levels of market-rate and affordable housing, demand for market-rate and affordable housing, and progress toward meeting market-rate and affordable housing goals.	**Supportive**	Reviewing affordability and funding opportunities to increase housing annually is supportive of housing growth and affordability.
Downtown and other Neighborhoods - Neighborhoods			
GL20	Development maintains and improves neighborhood character and livability.	**Approaching**	This policy could be improved by specifying what “neighborhood character” means, as the term is vague and could be tied to exclusionary housing practices.
PL20.1	Require development in neighborhoods to be of a type, scale, orientation, and design that maintains or improves the character, aesthetic quality, and livability of the neighborhood.	**Challenging**	This policy could be improved by specifying “character”, which is vague and could be tied to exclusionary housing practices. This policy does not directly address housing affordability or supply. Requiring additional standards could ultimately hinder affordability.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
20.2	Unless necessary for historic preservation, prohibit conversion of housing in residential areas to commercial use; instead, support redevelopment and rehabilitation of older neighborhoods to bolster stability and allow home occupations (except convalescent care) that do not degrade neighborhood appearance or livability, nor create traffic, noise or pollution problems.	**Approaching**	This policy preserves housing in residential areas, but it could increase displacement risk as it does not address protecting residents from potential displacement or racially disparate impacts that may result from the redevelopment and rehabilitation of older neighborhoods.
20.3	Allow elder care homes and seniors-only housing and encourage child care services everywhere except industrial areas; but limit hospice care to multi-family and commercial districts.	**Approaching**	This policy addresses housing supply and affordability by allowing housing for the elderly. It could be more equitably applied to residential zones, rather than only being allowed in multi-family and commercial districts.
PL20.4	Support development and public improvements consistent with healthy and active lifestyles.	**Supportive**	This policy could be improved by prioritizing investment in neighborhoods that have historically experienced a lack of investment.
PL20.5	Prevent physical barriers from isolating and separating new developments from existing neighborhoods.	**Supportive**	This policy supports housing growth, affordability, and the integration of new developments.

Lacey

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
Planning Areas - Central			
Goal 2	Maintain quality and function of existing residential areas in the Central Planning Area.	**Approaching**	This policy could be improved by specifying what "quality and function" means, as the terms are vague and could be tied to exclusionary housing practices, and by addressing how this policy would prevent exclusion, disproportionate impacts, or displacement.
Policy A	Acknowledge historical character and value of the Lacey Historic Neighborhood as a unique housing resource. Continue to require special development standards for Lacey Historic Neighbor- hood that recognize and preserve historical values and neighborhood character while allowing reasonable infill and development.	**Approaching**	This policy allows for infill and housing development in the Historic Neighborhood, but could be improved by defining what "reasonable" infill and development means, as well as "neighborhood character", as the term is vague and could be tied to exclusionary housing practices.
Policy B	Acknowledge character and value of older residential neighborhoods adjacent to the Central Business District as an affordable housing resource.	**Supportive**	This policy addresses housing supply and affordability, but should better define "character".
Policy C	Develop and implement a subarea plan for the Golf Club Road neighborhood.	**Approaching**	This policy could be improved by focusing on housing affordability and avoiding disproportionate impacts to vulnerable communities.
Goal 3	Provide opportunities for infill in the Central Planning Area.	**Supportive**	This policy is supportive of housing growth and affordability, but could be strengthened to consider

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
			potential racially disparate impacts.
Policy A	Maintain the liberal policy on accessory residential units while maintaining quality and character of neighborhood through performance standards and design review.	**Approaching**	While allowing ADUs supports housing growth and affordability, “character” should be better defined as the term is vague and could be tied to exclusionary housing practices.
Policy B	Provide opportunities for duplexes, triplexes and quadraplexes to locate in lower density neighborhoods as infill mechanisms which enhance neighborhood character by requiring exceptional and rigorous design requirements.	**Approaching**	While allowing duplexes, triplexes, and quadraplexes supports housing growth and affordability, “character” should be better defined as the term is vague and could be tied to exclusionary housing practices. “Exceptional and rigorous design requirements” can be leveraged to maintain high-cost housing types, unattainable to those from lower incomes or historically marginalized communities.
Policy C	Provide opportunities for single-family cluster housing on smaller lot sizes than the under- lying zone with exceptional and rigorous design requirements to maintain quality and character of neighborhood areas.	**Approaching**	While allowing cluster housing on smaller lots may reduce land costs and support housing affordability, “character” should be better defined as the term is vague and could be tied to exclusionary housing practices. Requiring “rigorous design requirements” could ultimately hinder affordability.
Planning Areas – Horizons Planning Area			

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
Goal 1	Continue to encourage the development of a range of residential types, providing opportunity for high density residential development along arterials with transitions to existing low density residential development.	**Approaching**	This policy is supportive of housing growth and affordability, but could be strengthened to expand high density housing throughout the city and to consider affordability as well.
Policy A	Undeveloped property along College, Yelm, Ruddell, and Rainier Road should be zoned for moderate or high density residential development.	**Approaching**	This policy is supportive of housing growth, but could be strengthened to consider potential racially disparate impacts.
Policy B	Support infill development in higher density areas primarily around existing neighborhood centers, recognized nodes, and urban corridor areas.	**Supportive**	Providing housing near jobs and neighborhood centers can be helpful in preventing displacement while reducing overall community impacts such as traffic. The policy could be expanded to consider affordability as well.
Policy C	Encourage a full range of higher density residential uses, including single-family zero lot line developments, townhouse units, mixed residential use, planned residential developments and multifamily apartments.	**Supportive**	This policy is supportive of housing growth.
Policy D	Pay careful attention to blend different land use types to minimize potential land use conflicts while maintaining walkability as a priority.	**NA**	
Planning Areas – Lakes Planning Area			
Goal 3	Maintain existing moderate and high density housing opportunities along major arterials with convenient access to transit where no impact to environmentally sensitive areas will occur.	**Approaching**	Providing housing near transit can be helpful in reducing overall community impacts such as traffic. The incentives could be expanded to consider affordability and anti-displacement as well.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
Policy A	Maintain areas for medium density development opportunities along Ruddell Road.	**Approaching**	This policy is supportive of housing growth, but could be expanded to allow high density housing or address anti-displacement in this area.
Planning Areas – Pleasant Glade Planning Area			
Goal 2	Provide opportunities for moderate and high density housing along major arterials with convenient access to potential transit, designating “urban reserve areas”, and annexing areas for public use where appropriate.	**Approaching**	Providing housing near transit can be helpful in reducing overall community impacts such as traffic. The incentives could be expanded to consider affordability and anti-displacement as well.
Policy A	Maintain existing areas for moderate and high density development opportunities along arterials of Sleater Kinney and 15th Avenue, contingent on provisions for public sewer.	**Supportive**	This policy is supportive of housing growth, but could be expanded to address anti-displacement in this area.
Policy B	Study and analyze designating the northwest portion of the planning area as an “urban reserve area” or “urban holding area” until sewer service can be extended.	**Supportive**	This policy is supportive of housing growth that is supported by adequate public facilities and infrastructure.
Policy C	Consider the annexation of the Greg J. Cuoio Community Park property for the future completion for public access.	**NA**	
Planning Areas – Seasons Planning Area			
Goal 3	Over the long term, encourage development of a range of residential types, with emphasis on providing additional moderate and high density opportunities.	**Approaching**	This policy addresses the city’s housing needs and growth, but does not address affordability.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
Policy A	Maintain areas along Marvin Road for moderate density development as sewer becomes available. Review areas along Mullen, Yelm Highway, and 58th for moderate density development as sewer becomes available. Moderate and High Density zones should be planned to provide transitions to existing low density residential development.	**Approaching**	This policy supports housing growth but could be strengthened by considering impacts on vulnerable populations and racially disparate impacts.
Policy B	Encourage a full range of residential uses when adequate facilities and services are available to serve them.	**Approaching**	This policy supports housing growth but could be strengthened by considering impacts on vulnerable populations and racially disparate impacts.
Policy C	Pay careful attention to creating effective transitions between new developments of moderate density and existing low density development.	**Challenging**	Requiring additional standards for multi-family housing types may ultimately hinder housing affordability.
Housing Element			
Goal 1	Have a sufficient number of single-family dwelling units, multifamily units, and group and special need housing to provide a selection of rental and home ownership affordable housing opportunities for all persons.	**Supportive**	This policy is supportive of providing housing for all needs, housing growth, and affordability.
Policy A	Provide opportunities for development of all housing types to accommodate future needs for each type of housing.	**Supportive / Approaching**	While supportive, this policy will need to be updated to meet HB 1220 guidance on specific household income brackets. However, providing housing across all income segments reduces displacement risk and enables housing opportunities to all, regardless of income.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
Policy B	Monitor the market and available land in the urban growth boundary to provide sufficient area zoned to meet the demand for various types of housing.	**Supportive**	This policy is supportive of providing housing for all needs, housing growth, and affordability.
Policy C	Encourage a wide variety of housing from low to high income in range to allow placement and mobility within the housing market.	**Supportive**	This policy is supportive of providing housing for all needs. It could be improved by prioritizing the provision of housing for low-moderate incomes and considering potential displacement impacts. This policy will need to be updated to meet HB 1220 guidance on specific household income brackets.
Policy D	Promote preservation and improvement of existing single-family and multifamily units.	**Approaching**	This policy supports housing growth by preserving existing housing stock. It could be improved by considering anti-displacement.
Policy E	Support neighborhood revitalization through available grants from the State, Federal and local levels to maintain and improve infrastructure.	**Approaching**	This policy supports housing growth by pursuing grant funding, but could be strengthened by prioritizing affordable housing or improving infrastructure in vulnerable neighborhoods. “Neighborhood revitalization” could be better defined, as it could lead to the displacement of historically marginalized populations.
Policy F	Support policies and programs to address the unique housing needs of the military population, including active duty, reserves, dependents and contractors.	**Supportive**	This policy is supportive of providing housing for all needs. It could be improved by addressing potential displacement impacts.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
Goal 2	Achieve a balanced community with each planning area accommodating a fair share of housing needs for all persons.	**Supportive**	This policy is supportive of providing housing for all needs, housing growth, and affordability. It could be improved by addressing potential disproportionate impacts.
Policy A	Consider requirements and incentives designed to result in a balanced, increased supply of affordable housing in all parts of the City for very low, low and moderate income households.	**Supportive**	While supportive, this policy should be updated to take special attention to HB 1220. The policy could be improved by paying special attention to the lowest incomes, 0-30% Area Median Income, when it comes to housing capacity.
Policy B	Consider programs that include mandatory requirements for new developments targeting individual planning areas until housing goals for target groups are achieved.	**Approaching**	This policy supports housing growth by pursuing grant funding, but could be strengthened by specifying anti-displacement goals and prioritizing vulnerable populations or those with special housing needs.
Goal 3	Work with regional agencies and bodies to implement affordable housing techniques consistently and on a regional scale.	**Supportive**	This policy is supportive of housing growth and affordability.
Policy A	A myriad of affordable housing strategies should be implemented by all surrounding jurisdictions in Thurston County to meet housing needs on a regional scale for very low, low and moderate income households.	**Supportive**	This policy is supportive of housing growth and affordability.
Policy B	Public and nonprofit agencies, such as the Housing Authority with expertise in housing practices and special needs, should be a major partner in inclusionary programs.	**Supportive**	This policy is supportive of housing growth and affordability.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
Policy C	The Housing Authority, or other agencies, should take a lead role where its expertise and function lend itself to best accomplish program objectives. Lead responsibility might include such tasks as qualifying households by income bracket, monitoring target objectives, administration of an affordable housing trust, taking ownership of dedicated lots and units, contracting for the development of units, monitoring the sale and resale controls of designated public units, and other related tasks.	**Supportive**	This policy is supportive of housing growth and affordability.
Goal 4	Achieve housing that is compatible and harmonious with existing neighborhood char- acter while allowing infill and providing for environmental sensitivity.	**Approaching**	Language that aims to preserve low-density, single-family neighborhood “character” can often be used as a proxy for prohibiting more diverse housing choices. Instead of “character,” this policy could consider height and building form while allowing more flexibility for similar, yet more affordable, housing types such as middle housing.
Policy A	When designating areas for infill and zoning classifications, consider and place emphasis on the composition of the neighborhood, housing need, available infrastructure, principals of walk-ability and healthy communities.	**Approaching**	This policy is supportive of housing growth, but could be strengthened to address reducing displacement and affordability pressures.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
Policy B	When implementing infill projects in designated areas, require design of infill projects that: ● Meet the housing needs of the planning area considering variety and choice. ● Integrate successfully into the existing residential environment considering form based concepts and healthy community objectives. ● Provide a form, look and feel and social functionality that will add to the character, desirability and value of the surrounding neighborhood.	**Approaching**	This policy is supportive of housing growth, but could be strengthened to address reducing displacement and affordability pressures. Language that aims to preserve low-density, single-family neighborhood "character" can often be used as a proxy for prohibiting more diverse housing choices.
Policy C	Continue to utilize design review guidelines for all residential developments.	**Approaching**	The policy intends to ensure new development is integrated with the rest of the city, but additional design requirements could ultimately hinder the development of affordable housing.
Goal 5	Provide a variety of housing opportunities for those with special needs.	**Supportive**	This policy supports housing growth and could be strengthened to address affordability.
Policy A	Provide opportunities for development of various types of group housing.	**Supportive**	This policy supports housing growth and could be strengthened to address affordability.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
Policy B	Ensure a full range of housing and facilities for the accommodation of persons with special needs exist within each planning area, with consideration for promotion of housing in those planning areas providing the most services for such individuals.	**Supportive**	This policy supports housing growth and could be strengthened to address affordability.
Policy C	Design group homes and facilities for special populations so that they are integrated, compatible, and harmonious with surrounding land uses.	**Approaching**	The policy intends to allow housing for a variety of needs. However, “compatible” is vague and can be leveraged to maintain high-cost, low-density housing types, unattainable to those from lower incomes or historically marginalized communities.
Policy D	Enforce all requirements of the International Building Code that addresses the Americans with Disabilities Act and the Fair Housing amendments.	**Approaching**	This policy supports housing for all needs. It could be strengthened by addressing housing affordability.
Goal 6	Work cooperatively with local jurisdictions, nonprofits and religious organizations to reduce homelessness and find ways for providing emergency and transitional shelter to serve the identified needs of this population.	**Supportive**	This policy addresses housing exclusion for individuals experiencing homelessness.
Policy A	Based upon identified need, provision of facilities and services should be addressed by all local jurisdictions with fair share commitment reflected in local budgets.	**Approaching**	This policy supports services for all needs, but does not directly address ways to increase housing supply or affordability, or to mitigate racially disparate impacts.
Policy B	Provide the opportunity to accommodate innovative strategies that will include emergency and	**Supportive**	This policy addresses housing exclusion for individuals experiencing homelessness.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
	transitional housing for the homeless population.		
Policy C	Ensure location and use of emergency and transitional housing considers, and is successfully integrated into, the surrounding neighborhood without impact to other land use activities.	**Approaching**	This policy addresses the provision of housing for individuals experiencing homelessness, but could better specify what it means to be integrated into the surrounding neighborhood without impact to other land use activities. Requiring additional standards for transitional and emergency housing types may ultimately hinder their development and affordability.
Policy D	Maintain and expand linkages with the business, religious and nonprofit communities as partners in ending homelessness.	**Approaching**	This policy addresses provisions for individuals experiencing homelessness, but could be more specific in outlining what the city's role may be.
Policy E	An emphasis in City policy will be to reflect the Continuum of Care approach, which emphasizes supporting self-sufficiency and transitional housing programs rather than stop gap measures which fail to break the cycle of homelessness.	**Approaching**	This policy addresses housing exclusion for individuals experiencing homelessness. It could be improved by addressing housing affordability for those who are transitioning out of homelessness.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
Policy F	The City supports an increased role in meeting the problems of homelessness from the private sector through funds, in-kind, and volunteer support and will evaluate its funding decisions partially on the basis of other funding sources. The City will use its resources to leverage support for homeless services from the state and federal government and other funding sources.	**Approaching**	This policy addresses housing exclusion for individuals experiencing homelessness. It could be improved by better, more inclusive language, and the city could consider playing a larger role to supplement the efforts of the private sector.
Policy G	As much as practical, consider the needs of the intended uses and site facilities to provide convenient access to the services the population will require.	**Approaching**	This policy aims to provide services necessary for various housing needs. It could be improved by prioritizing historically disadvantaged communities or vulnerable populations.
Policy H	Continue to review and monitor participation and experience in programs that support the homeless population, assess effectiveness in meeting the needs of Lacey's homeless individuals, and provide opportunities for programs that can better serve this demographic.	**Supportive**	This policy addresses strategies to meet the needs of individuals experiencing homelessness.It could be expanded to include housing considerations in addition to the programs mentioned.
Policy I	Particular priority will be provision of services to minors without family resources and families with children. The City will place its highest priority on assisting homeless children and families with children and victims of domestic violence and other special needs groups.	**Supportive**	This policy addresses a particularly vulnerable subset of individuals experiencing homelessness. It could be expanded to include housing considerations in addition to the services mentioned.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
Policy J	As long as there is a demonstrated need for temporary transitional housing and the tent city program continues to operate in a fashion that is compatible with adjacent land uses, Lacey should consider continued support of the opportunity for local churches to administer to the home- less by hosting a tent city.	**Approaching**	This policy aims to provide transitional or temporary housing for houseless individuals. It could be improved by removing vague language around "compatibility", which could hinder the provision of housing for houseless individuals.
Goal 7	Identify and support a central contact to provide a help response for the homeless and citizens at risk of becoming homeless.	**Supportive**	This policy addresses support for houseless individuals, specifically to prevent homelessness and potentially displacement.
Policy A	Support Lacey's community partners in improving the community's response to the needs of the homeless with identification of a referral point of contact for people to find services. This can include a service like the 211 referral line.	**Supportive**	This policy addresses support for houseless individuals, specifically to prevent homelessness and potential displacement, or to assist those who are experiencing homelessness.
Policy B	Support homeless persons or those at risk of becoming homeless by identifying referrals that can put people in contact with the organizations that provide the services that they need.	**Supportive**	This policy addresses support for houseless individuals, specifically to prevent homelessness and potentially displacement.
Policy C	Make technical assistance documents available to citizens and jurisdictional staff on the 211 referral line and related social services so more people will be aware of community resources and where individuals can find help. Distribution of information to publicize the 211 services should include internet information, distribution at relevant community meetings, contact phone numbers,	**Supportive**	This policy addresses support for houseless individuals, specifically to prevent homelessness and potential displacement, or to assist those who are experiencing homelessness.

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
	and informational flyers to community service and religious faith-based organizations.		
Policy D	Continue to take a regional perspective in addressing homelessness in the Thurston County community through support and participation in the Thurston County Home Consortium that provides coordinated planning, activities and evaluations that address homelessness.	**Supportive**	This policy addresses providing housing and services for individuals experiencing homelessness through increased coordination with other regional jurisdictions.
Policy E	As supported programs formulate future budgets or experience budget growth, promote a sharpened focus on addressing priority issues identified for Lacey's homeless demographic.	**Supportive**	This policy addresses support for houseless individuals, specifically to prevent homelessness and potentially displacement.
Policy F	As Lacey reviews programs asking for support through the Housing Consortium, support should be prioritized based upon a program reflecting the goals and priorities identified in this Housing Element.	**Approaching**	This policy could be improved by including equity, racially disparate impacts, and anti-displacement as priorities of the housing element or this policy.
Goal 8	Strive for no net increase in the number of homeless people identified in future homeless census counts by focusing on proactive intervention.	**Supportive**	This policy addresses support for houseless individuals, specifically to prevent homelessness and potentially displacement.
Policy A	Look for opportunities to strengthen outreach and engagement activities that will facilitate enrollment in treatment and service programs of	**Supportive**	This policy addresses support for houseless individuals, specifically to

Goal, Policy, or Regulation	Text	Evaluation	Reason / Recommendation
	individuals who are homeless or at risk of becoming homeless.		prevent homelessness and potentially displacement.
Policy B	Promote programs designed to ensure that persons returning to the community from institutional or other sheltered settings (including foster care) do not become homeless.	**Supportive**	This policy addresses support for houseless individuals, specifically to prevent homelessness and potentially displacement.It could be improved by including efforts to increase housing affordability for these individuals.
Policy C	Encourage the use of effective prevention interventions, ranging from family strengthening and high-risk youth programs to specific discharge planning.	**Supportive**	This policy addresses disparate impacts and potential displacement through preventative strategies.
Goal 9	Achieve maximum utilization of public buildings for use in the public interest by scheduling secondary uses and activities at times facilities are not being utilized for primary functions.	**Approaching**	This policy could be improved by specifying what activities are in the public interest, especially in terms of supportive housing services or emergency shelter.
Policy A	Review opportunities for shared use of public facilities where it will not conflict with primary use of the structure and associated activities.	**Approaching**	This policy could be improved by specifying what activities are in the public interest, especially in terms of supportive housing services or emergency shelter.
Policy B	When designing new public buildings and planning expansions of existing buildings, consider design to serve dual roles in providing a full range of public services, including emergency shelter, meal services, and other services that might be needed.	**Supportive**	This policy supports housing services and emergency shelter.

Tumwater

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
LU-2.3	Encourage innovative land use management techniques such as density bonuses, cluster housing, zero-lot-line development, planned unit developments, and transfer of development rights to create vibrant centers, corridors, and neighborhoods while accommodating growth.	**Supportive**	This policy is supportive of housing growth and affordability. It could be expanded to consider anti-displacement.
LU-4.3	Continue to allow manufactured housing on individual lots within the City, as well as within mobile and manufactured home parks, to encourage affordable housing.	**Supportive**	This policy is supportive of housing growth and affordability.
LU-4.4	Permit implementing regulations to experiment in new forms of residential development where amenities of open space, privacy, and visual quality can be maintained or improved, and flexible solutions to land use problems such as density, diversity, equitability, and affordability can be achieved.	**Approaching**	This policy intends to create development regulations that encourage diverse, affordable, and equitable housing types with high quality amenities. It could be rewritten to improve clarity.
LU-4.5	Encourage higher density residential uses in order to provide affordable housing. These uses should blend with the existing character of the community.	**Approaching**	The policy intends to allow housing for a variety of needs. However, “character” is vague and can be leveraged to maintain high-cost housing types that are unattainable to those with lower incomes or from historically marginalized communities.

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
LU-4.6	Increase housing types and densities in corridors and centers to meet the needs of a changing population.	**Supportive**	Increasing housing types and densities is supportive of housing growth, especially in areas with jobs and services.
LU-4.7	Increase the variety of housing types outside of corridors and centers of appropriate intensities with supporting design guidelines to meet the needs of a changing population.	**Approaching**	The policy intends to allow housing for a variety of needs. However, extensive design guidelines can be leveraged to maintain high-cost housing types that are unattainable to those with lower incomes or from historically marginalized communities.
GOAL LU-9	Identify what conditions should be applied to development in residential areas.	**Approaching**	The policy intends to ensure new development is integrated with the rest of the city, but additional requirements, especially in terms of design, could ultimately hinder the development of affordable housing.
LU-9.1	Protect residential developments from excessive noise, odors, dirt, glare, and other nuisances emanating from commercial and industrial uses.	**NA**	
LU-9.2	Allow for multi-family residential development in the zoning code. Consideration should be given to encouraging this type of development near centers of community services.	**Approaching**	Allowing multi-family developments in the zoning code is supportive of housing growth,especially in areas with jobs and services. It could be improved by prioritizing housing for historically disadvantaged communities or vulnerable populations.

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
LU-9.3	Integrate design features of existing natural systems into the layout and siting of new residential dwelling units. Preserve trees and significant ecological systems, whenever possible and practical.	**Approaching**	This policy would bring health benefits from additional greenery and shade, but could ultimately hinder the development of affordable housing.
LU-9.4	Permit experimentation in development regulations with newer forms of residential development where amenities of open space, privacy, and visual quality can be maintained or improved, and flexible solutions to land use problems can be achieved.	**Approaching**	Flexible standards for diverse housing types would support housing growth, but this policy should include emphasis on providing housing for low income or historically marginalized populations.
LU-9.5	Do not permit private residential gated communities.	**Supportive**	This policy helps prevent exclusive residential communities.
LU-9.6	Promote nearby access to healthy food for residential developments.	**Approaching**	This policy does not directly help the city increase housing supply, but helps increase food security for residential developments, but could be expanded to prioritize promoting access to healthy foods in historically marginalized and low-income communities.
Housing Element, Comprehensive Plan			
GOAL H-1	To conserve and improve the existing city housing stock and quality of life of neighborhoods.	**Supportive**	Preserving existing affordable housing stock can help reduce displacement pressures.
H-1.1	Assist city neighborhoods in maintaining and rehabilitating the existing housing stock as decent, safe, sanitary, and affordable housing.	**Supportive**	Preserving and improving existing affordable housing stock can help reduce displacement pressures and increase housing supply.

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
H-1.1.1	Create a formal maintenance and rehabilitation program beyond the current City code enforcement procedures to support Policy H-1.1 in coordination with the City's work with the Regional Housing Council.	**Supportive**	Preserving existing affordable housing stock can help reduce displacement pressures and increase housing supply. Special care should be taken to ensure vulnerable populations are displaced through rehabilitation of housing.
H-1.2	Encourage a range of housing, economic development, and community revitalization in the city.	**Approaching**	"Revitalization" of neighborhoods could lead to displacement. This policy should be expanded to include anti-displacement language.
H-1.3	Promote the quality of life of existing communities and implementation of community housing goals through the preparation of comprehensive plans and the development review process.	**Approaching**	Including affordable housing policies that prioritize anti-displacement, affordability, and equity in the comprehensive plan and development regulations supports housing growth.
H-1.4	Provide assistance to improve community surroundings and infrastructure in residential areas.	**Approaching**	Improving infrastructure to better serve communities is supportive of housing growth, but "improve community surroundings" is vague and could lead to displacement or disproportionate impacts to historically marginalized communities. This policy should consider displacement impacts.
H-1.5	Encourage and facilitate economic development as an important part of provision of housing by providing jobs.	**Approaching**	Providing jobs does not provide housing in itself, but increasing employment opportunities near housing

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
GOAL H-2	To provide a sufficient number of single family dwelling units, multi-family dwelling units, manufactured homes, and group housing to provide an affordable selection of housing to each economic segment of the Tumwater population.	**Approaching**	Providing land for all types of housing is important. However, this goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.
H-2.1	Provide sufficient, suitably zoned land for development of all housing types to accommodate the future needs for each type of housing, including single-family detached dwellings, accessory dwelling units, townhouses, duplexes, triplexes, fourplexes, multi-family dwellings, cottage housing, senior housing, roominghouses, group housing, and manufactured homes in manufactured home parks and on single lots.	**Approaching**	Providing land for all types of housing is important. However, this goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.
H-2.2	Provide opportunities for a range of housing types to provide for all economic segments of Tumwater's population.	**Approaching**	Providing opportunities for diverse housing types and incomes is important. This goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.
H-2.2.1	Monitor the Land Use Element and Zoning Code to ensure an adequate supply of suitably zoned land.	**Approaching**	Providing land for all types of housing is important. However, this goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.
GOAL H-3	To provide adequate, affordable housing for residents of all income groups, including sufficient housing affordable to	**Supportive**	Providing affordable housing advances housing growth. This goal should be updated to consider

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
	low and moderate-income groups.		affordability concerns and housing by income bracket to meet the requirements of HB 1220.
H-3.1	Encourage the development of innovative plans, codes, standards, and procedures in order to take advantage of new private and public sector approaches to housing provision.	**Approaching**	This policy would help the city provide additional housing using innovative methods but could be improved by considering how these innovative plans could increase affordability of housing and prevent displacement.
H-3.1.1	The Zoning Code allows manufactured homes on single-family lots in all residential zones. It is the intent of the Housing Element to promote the designation of a sufficient supply of land for traditional mobile/manufactured home parks and to recognize that modular/manufactured housing on single family lots and in manufactured home parks is a viable form of housing construction.	**Supportive**	Preserving existing affordable housing stock like manufactured homes reduces displacement risk and maintains affordable housing supply.
H-3.1.2	Increase code enforcement efforts and build public private partnerships to encourage renovations of unfit structures for use as transitional or affordable housing.	**Approaching**	Retrofitting existing affordable housing stock reduces displacement risk and maintains affordable housing supply. However, this is phrased as retrofitting unfit structures for use as transitional or affordable housing, rather than retrofitting *existing* transitional or affordable housing, which could create disproportionate impacts if only buildings in need of repair are designated for

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
			transitional or affordable housing.
H-3.2	Encourage provision of adequate building sites through appropriate land use planning and zoning codes, infrastructure supply, and overall regulatory climate.	**Supportive**	Allowing for additional housing with sufficient infrastructure through land use planning and code changes contributes to housing growth.
H-3.3	Tumwater should assume its "fair share" of housing for low and moderate income groups, in cooperation with other jurisdictions in Thurston County.	**Supportive**	Providing affordable housing advances housing growth and affordability. This goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.
H-3.3.1	Monitor land supply, census data, and housing policies to ensure Tumwater accommodates its fair share of housing for low and moderate income groups.	**Supportive**	Providing sufficient land for housing advances housing growth. This goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.
H-3.3.2	Work with Tumwater School District, Housing Authority, and other agencies and organizations to pursue grant funding and implement transitional housing strategies for families with children.	**Supportive**	Pursuing opportunities to increase transitional housing for families supports housing for vulnerable communities and could help mitigate displacement. This policy could be expanded to prioritize low income families or those from historically marginalized communities.

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
H-3.3.3	Establish a multi-family tax exemption program that gives financial incentive for developers to create multi-family structures in target areas and to set aside a percentage of units as low-income housing.	**Supportive**	This policy is supportive of housing growth and affordability. It could be expanded to include anti-displacement measures in the "target areas".
H-3.4	Tumwater should work with the other jurisdictions in Thurston County as part of the Regional Housing Council to share decision making responsibilities related to homelessness and affordable housing in Thurston County to allow for collaboration in expanding affordable housing options and sharing the planning for, identification of, and resource allocation to activities and programs intended to support individuals experiencing homelessness in Thurston County.	**Supportive**	This policy is supportive of housing affordability and preventing displacement, by expanding collaboration with neighboring jurisdictions to provide affordable housing and resources to support individuals experiencing homelessness.
GOAL H-4	To provide adequate opportunities for housing for all persons regardless of age, race, color, national origin, ancestry, sex, sexual orientation, familial status, marital status, ethnic background, source of income use of federal housing assistance, or other arbitrary factors.	**Supportive**	Providing opportunities for housing for all needs advances housing growth. This goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.
H-4.1	Support the inclusion of living opportunities for families with children throughout the city.	**Supportive**	Providing opportunities for housing for families with children advances housing growth. This goal should be updated to prevent displacement of these households.
H-4.2	Support and encourage a variety of housing types and price	**Supportive**	Providing opportunities for housing for all needs

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
	ranges through appropriate policies and regulations.		advances housing growth. This goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.
H-4.2.1	Continue the requirement for reasonable maximum lot sizes in order to create smaller lots that are more affordable and that allow a more efficient use of City services.	**Supportive**	Setting maximum lot sizes increases the land available for new residential development. This policy could be expanded to reference diverse housing types affordable for all income levels.
H-4.2.2	Encourage homeowner associations to adopt Covenants, Conditions, and Restrictions (CCRs) consistent with this policy.	**Approaching**	This policy could be strengthened to require homeowner associations to not prevent affordable or diverse housing types or require strict design requirements that may hinder affordability.
GOAL H-5	To supply sufficient, safe, suitable housing sites and housing supply to meet projected future housing needs for Tumwater over the next 20 years.	**Supportive**	This goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220, and to prevent potential displacement of existing residents.
H-5.1	Ensure appropriate land use designations and Zoning Code designations to provide sufficient land for housing construction.	**Approaching**	Providing land for all types of housing is important. However, this goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.
H-5.1.1	Monitor the Land Use Element and Zoning Code to ensure an adequate supply of suitably zoned vacant land. (2.1.1)	**Approaching**	Providing land for all types of housing is important. However, this goal should be updated to consider

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
			affordability concerns and housing by income bracket to meet the requirements of HB 1220.
H-5.1.2	Continue joint planning with Thurston County to plan for future growth in Tumwater.	**Supportive**	Taking a regional approach to affordable housing goals is important given cross-jurisdiction impacts of displacement pressures.
H-5.2	Lands not suitable for development due to site constraints such as wetlands, steep slopes, geologically hazardous areas, etc., should be identified and considered when determining sufficient land for new housing in accordance with Tumwater's Conservation Plan.	**Supportive**	This policy would allow the city to have an accurate determination of land available for new housing.
H-5.3	Encourage construction practices, which exceed minimum standards. Tumwater will support the use of alternative building designs and methods that exceed the minimum standards set by Tumwater.	**NA**	
GOAL H-6	To promote a selection of housing that is decent, safe, and sound, in close proximity to jobs and daily activities, and varies by location, type, design, and price.	**Supportive**	Increasing diverse housing types is supportive of housing growth, especially in areas with jobs and services.
H-6.1	Protect residential areas from undesirable activities and uses through aggressive enforcement of adopted City codes.	**Challenging**	This policy is at a high risk of having a disproportionate impact on lower income and historically marginalized communities, resulting in greater displacement.
H-6.2	Provide for a dynamic mix of residential land uses and zones in order to create a diverse mix of sites available for different housing types.	**Approaching**	Providing land for all types of housing is important. However, this goal should be updated to consider affordability concerns and housing by income bracket

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
			to meet the requirements of HB 1220.
H-6.2.1	Continue to monitor the available land supply, census data, and City policies to ensure a diverse mix of land for residential housing stock.	**Supportive**	Providing land for a mix of housing advances housing growth. This goal should be updated to consider displacement and affordability concerns and housing by income bracket to meet the requirements of HB 1220.
H-6.2.2	Continue to implement innovative design techniques, such as zero lot line developments, architectural design standards, alley houses, and attached single-family housing. Zero lot line developments are residential real estate in which the structure comes up to or very near to the edge of the property. Zero-lot-line houses are built very close to the property line in order to create more usable space.	**Supportive**	This policy is supportive of housing growth. Ensuring clear and predictable standards for housing and building codes supports housing production goals. Strict design requirements can be leveraged to maintain high-cost housing types, unattainable to those from lower incomes or historically marginalized communities.
H-6.3	Support increasing housing opportunities along urban corridors and centers.	**Supportive**	Increasing housing supply is supportive of housing growth, especially in areas with jobs and services.
H-6.4	Encourage provision of affordable housing near public transit routes to promote efficient transportation networks.	**Approaching**	Ensuring that neighborhoods encourage active transportation is important for inclusive communities. However, this goal could be edited to pay special attention to underserved neighborhoods.
H-6.4.1	Continue to involve Intercity Transit in Tumwater's development review process.	**NA**	

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
H-6.5	Tumwater will maintain current Building Code standards and will use the most up to date future Code editions.	**Supportive**	Ensuring clear and predictable standards for housing and building codes supports housing production goals.
H-6.6	Increase the variety of housing types outside of corridors and centers of appropriate intensities with supporting design guidelines to meet the needs of a changing population.	**Supportive**	Ensuring clear and predictable standards for housing and building codes supports housing production goals.
GOAL H-7	To ensure that housing is compatible in quality, design, and density with surrounding land uses, traffic patterns, public facilities, and environmentally sensitive areas.	**Approaching**	"Compatible" as it relates to design is vague and can be leveraged to maintain high-cost, low-density housing types, unattainable to those from lower incomes or historically marginalized communities.
H-7.1	Support the stability of established residential neighborhoods through appropriate plans and codes.	**Approaching**	This policy may help prevent residential displacement, but may also provide a barrier to increasing housing diversity and affordability in existing neighborhoods.
H-7.1.1	Continue to implement design standards for multi-family and attached single-family dwellings in order to ensure compatibility with existing neighborhoods.	**Approaching**	The policy intends to allow a variety of housing types. However, "compatible" is vague and can be leveraged to maintain high-cost, low-density housing types, unattainable to those from lower incomes or historically marginalized communities.
H-7.2	Assure housing will be well maintained and safe.	**Supportive**	Ensuring housing is well-maintained and safe is supportive of housing goals, but should prioritize low

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
			income or other historically marginalized communities.
H-7.3	Enhance the appearance of and maintain public spaces in residential areas.	**NA**	
H-7.4	Promote community involvement to achieve neighborhood improvement.	**Approaching**	This policy could be strengthened to ensure the concerns of historically marginalized communities are prioritized.
GOAL H-8	To support healthy residential neighborhoods which continue to reflect a high degree of pride in ownership or residency.	**Approaching**	This policy could be strengthened by addressing affordability and to prevent displacement of existing residents.
H-8.1	Support the stability of established residential neighborhoods.	**Approaching**	This policy may help prevent residential displacement, but may also provide a barrier to increasing housing diversity and affordability in existing neighborhoods.
H-8.2	Assure housing will be well maintained and safe.	**Supportive**	Ensuring housing is well-maintained and safe is supportive of housing goals, but should prioritize low income or other historically marginalized communities.
H-8.2.1	Protect residential areas from undesirable activities and uses through aggressive enforcement of adopted City codes.	**Challenging**	This policy is at a high risk of having a disproportionate impact on lower income and historically marginalized communities, resulting in greater displacement.
H-8.3	Enhance the appearance of and maintain public spaces in residential areas.	**NA**	
H-8.4	Promote community involvement to achieve neighborhood improvement.	**Approaching**	This policy could be strengthened to ensure the concerns of historically marginalized communities are prioritized.

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
H-8.4.1	Encourage neighborhood meetings to discuss community issues as situations and concerns arise.	**Approaching**	This policy could be strengthened to ensure the concerns of historically marginalized communities are prioritized.
H-8.5	Encourage home ownership for Tumwater residents.	**Approaching**	Encouraging homeownership helps mitigate displacement, but should prioritize opportunities for low and middle incomes.
GOAL H-9	To encourage a variety of housing opportunities for those with special needs, particularly those with problems relating to age or disability.	**Supportive**	This policy is supportive of providing housing for all needs, housing growth, and affordability. It could be improved by preventing the potential displacement of those with special housing needs.
H-9.1	Require housing to meet the needs of those with special housing requirements without creating a concentration of such housing in any one area.	**Supportive**	This policy is supportive of providing housing for all needs throughout the city. It could be improved by preventing the potential displacement of those with special housing needs.
H-9.2	Assist social service organizations in their efforts to seek funds for construction and operation of emergency, transitional, and permanent housing.	**Supportive**	This policy addresses support for housing for individuals experiencing homelessness, and could help mitigate displacement.
H-9.3	Support and plan for assisted housing opportunities using federal, state, or local aid.	**Supportive**	This policy addresses pursuing funding to support assisted housing opportunities which could mitigate displacement and increase the amount of affordable housing in the city.

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
H-9.4	Encourage and support social and health service organizations, which offer support programs for those with special needs, particularly those programs that help people remain in the community.	**Supportive**	This policy addresses services to support populations with special needs to help mitigate displacement.
H-9.5	Encourage alternative housing strategies for homeless youth, which may include Host Homes.	**Supportive**	This policy addresses the provision of housing for homeless youth.
GOAL H-10	To provide housing that is compatible and harmonious with existing neighborhood character through use of innovative designs that enhance the appearance and quality of Tumwater's neighborhoods.	**Approaching**	The policy intends to allow a variety of housing types. However, “neighborhood character” is vague and can be leveraged to maintain high-cost, low-density housing types, unattainable to those from lower incomes or historically marginalized communities.
H-10.1	Encourage innovation and variety in housing design and development. Tumwater will support efforts to build housing with unique individual character, which avoids monotonous neighborhood appearance.	**Approaching**	Encouraging diverse and innovative design could ultimately hinder housing affordability or supply by requiring additional, subjective design standards.
H-10.2	Multi-family residential housing should be subject to design criteria that relate to density, structure bulk, size and design, landscaping, and neighborhood compatibility.	**Approaching**	Design standards intend to integrate new housing developments with existing ones, but can be leveraged to maintain high-cost housing types, which are unattainable to those from lower incomes or historically marginalized communities.
H-10.2.1	Continue to implement multi-family housing design standards.	**Approaching**	Design standards intend to integrate new housing developments with existing ones, but can be leveraged to maintain high-cost

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
			housing types, which are unattainable to those from lower incomes or historically marginalized communities.
GOAL H-11	To provide housing to accommodate Tumwater's housing needs in the urban growth area and make the most efficient use of infrastructure and services.	**Supportive**	This policy supports housing growth by ensuring there are adequate services and infrastructure.
H-11.1	Reference the Transportation Element and anticipated transportation impacts when making housing decisions affecting the location and density of housing.	**Supportive**	This policy supports housing growth by ensuring there are adequate services and infrastructure. It should also prioritize affordability.
H-11.2	Reference utility plans and the impact of housing decisions on capital improvements planning.	**Supportive**	This policy supports housing growth by ensuring there are adequate services and infrastructure. It should also prioritize equity in the provision of services.
H-11.3	Encourage the construction of affordable housing, including cottage housing and accessory dwelling units, within a half mile or twenty minute walk of an urban center, corridor or neighborhood center with access to goods and services to provide access to daily household needs.	**Supportive**	Providing housing near transit supports housing supply goals and reduces impacts to transportation and provides access to jobs.
GOAL H-12	To encourage urban growth within the city limits with gradual phasing outward from the urban core.	**Approaching**	This policy could be improved by addressing affordability and encouraging increased density throughout the city.
H-12.1	Encourage the construction of housing on vacant property within the city and the redevelopment of underdeveloped property within residential areas to minimize	**Approaching**	This policy supports housing growth, but could better address affordability and anti displacement, especially related to the redevelopment of

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
	urban sprawl and associated public service costs.		underdeveloped property to ensure people are not displaced.
H-12.1.1	Continue to review and revise, as necessary, City Development Standards deemed unnecessary and make development more expensive and/or difficult.	**Supportive**	This policy supports housing growth and affordability.
H-12.1.2	Continue to support high-density zoning within specific areas of the city that have the infrastructure and services to support high-density housing.	**Supportive**	This policy supports housing growth by ensuring there are adequate services and infrastructure.
H-12.1.3	Continue to implement minimum density levels for all residential zoning districts to ensure efficient use of the urban growth area.	**Supportive**	This policy supports housing growth. It could be improved by addressing affordability.
H-12.1.4	Work cooperatively with Thurston County to provide for more efficient and orderly annexations to facilitate urban service delivery.	**NA**	Consider moving to Land Use Element
GOAL H-13:	Ensure consistency with RCW 36.70A.070(2)(c) which requires sufficient land be available for all types of housing including manufactured housing.	**Approaching**	Providing land for all types of housing is important. However, this goal should be updated to consider affordability concerns and housing by income bracket to meet the requirements of HB 1220.
H-13.1	Maintain the manufactured home park district zoning in appropriate areas in order to prevent conversion of affordable housing to other uses without replacement.	**Supportive**	Preserving existing affordable housing stock reduces displacement risk.
H-13.1.1	Encourage manufactured housing park district zoning to locate near transit services.	**Supportive**	Providing access to services such as transit reduces community

Goal, Policy, or Regulation	Text	Potential Impact	Reason / Recommendation
			vulnerabilities and dependence on car travel, especially for vulnerable community members such as elderly and youth.
H-13.2	When locating zones and designations for manufactured home parks, carefully consider the risks from natural hazards, such as flooding and liquefaction, and the impacts of those hazards on the future residents of those manufactured home parks, Tumwater's emergency responders, and the city as a whole.	**Supportive**	Renters and lower income communities often have higher risk and vulnerabilities to natural hazards and events. Ensuring that zoning does not push manufactured home parks into high-risk areas reduces displacement and threats to community member safety.

Yelm

Goal, Policy, or Regulation	Text	Evaluation	Reason
Land Use Element, Comprehensive Plan			
Policy 3.3	Adopt two categories of residential single family land use to meet community needs: • Single Family - 4 units per acre; and • Single Family - 6 units per acre.	**Dependent on Land Capacity Analysis**	While these density levels should support middle and multifamily housing, whether this supports housing and displacement goals depends on the buildable lands analysis and forecasted unit need by income band.
Policy 3.4	Adopt two categories of residential multifamily land use to meet community needs: • Multifamily - Medium Density — 6 units per acre; and • Multifamily - High Density — 16 units per acre.	**Dependent on Land Capacity Analysis**	While these density levels should support middle and multifamily housing, whether this supports housing and displacement goals depends on the buildable lands analysis and forecasted unit need by income band.
Policy 3.5	Adopt a mixed use development category which allows both residential and commercial uses suitable for planned developments on larger parcels and which provides for a variety of land uses, more efficient use of open space, and more cost effective public infrastructure.	**Approaching**	While supporting mixed uses does provide housing near commercial services, this policy does not address affordability or displacement risks.
Policy 4.4	Adopt development regulations that accommodate “live-work” structures (where citizens can live and work within the same structure).	**Supportive**	Allowing live-work structures creates both housing and economic opportunities for community members who wish to start a business, but cannot afford a home and a commercial space.
Policy 4.6	Adopt development regulations that allow permits to be	**Supportive**	Streamlining permit processes reduces barriers to housing production to

Goal, Policy, or Regulation	Text	Evaluation	Reason
	processed in a timely and efficient manner.		meet housing supply deficits and reduce building costs.
Goal 5	Encourage diverse residential growth.	**Supportive**	Allowing diverse housing types and growth allows housing supply to meet the shifting housing needs of households.
Policy 5.2	Adopt development standards that allow duplexes, townhouses, and accessory dwelling units within residential areas. These are intended to increase the variety of housing in the community and aid in achieving an overall urban density.	**Supportive**	Allowing housing diversity supports overall goals of providing different housing types to address different household needs.
Policy 5.3	Adopt development regulations that encourage mixed use subdivisions.	**Supportive**	Allowing housing diversity supports overall goals of providing different housing types to address different household needs.
Goal 10	Create vibrant centers, corridors, and neighborhoods while accommodating growth.	**NA**	
Policy 10.1	Promote a greater mix of uses and densities to support efficient provision of services.	**Supportive**	Allowing housing and land use diversity supports overall goals of providing different housing types to address different household needs.
Goal 11	Create safe and vibrant neighborhoods with places that build community and encourage active transportation.	**Approaching**	Ensuring that neighborhoods are safe and encourage active transportation is important for inclusive communities. However, this goal could be edited to take special attention to underserved neighborhoods.

Goal, Policy, or Regulation	Text	Evaluation	Reason
Policy 11.1	Plan at the neighborhood level to increase housing density and diversity while preserving neighborhood character and quality of life.	**Approaching**	While local-level planning can result in inclusive and grassroots actions, the element of "preserving neighborhood character" can sometimes be used as an argument for continuing exclusionary housing types and disputing zoning changes that seek to allow more housing diversity.
Policy 11.2	Plan for land use patterns that provide most neighborhood residents an array of basic services within a half mile or 20 minute walk from home.	**Supportive**	Providing retail and services within a half-mile walkshed encourages community resilience and reduces dependency on vehicular transportation, which can be a large cost factor for households.
Policy 11.3	Encourage appropriately scaled home-based business and live/work opportunities in neighborhoods.	**Supportive**	Allowing live-work structures creates both housing and economic opportunities for community members who wish to start a business, but cannot afford a home and a commercial space.
Goal 12	Maximize opportunity to redevelop land in priority areas by investing in infrastructure and environmental remediation.	**Supportive**	Reducing the overall land and infrastructure investment while also expanding residential buildable lands supports housing supply goals.

Goal, Policy, or Regulation	Text	Evaluation	Reason
Policy 12.1	Mitigate the additional cost of development in centers and corridors by making public infrastructure investment that adds value, safety and public enjoyment for the entire community and that result in appropriate public return on investment when adjacent properties are developed. Allow for latecomers and other methods of repayment for government outlay for infrastructure.	**Approaching**	While this policy does facilitate housing growth, it could be enhanced by including affordability considerations.
Housing Element, Comprehensive Plan			
Goal 1	Encourage a variety of housing types, densities and a range of affordable housing within Yelm and its Urban Growth Area.	**Supportive**	Allowing different types of housing and affordability levels fosters a cohesive and inclusive community when it comes to housing.
Policy 1.1	Allow a variety of housing types within the residential and mixed use designations to promote a range of housing alternatives within the community. This may include but not be limited to: government assisted housing, housing for low-income families, manufactured housing, multi-family housing, and group or foster homes.	**Supportive**	Ensuring access to affordable housing types–including manufactured home types and group homes–is essential to reducing displacement risks among vulnerable community members.
Policy 1.2	Allow accessory dwelling units in all residential land use categories subject to development standards and design criteria.	**Supportive**	Accessory Dwelling Units provide opportunities for aging in place and adapting existing housing stock and residential land uses to meet the changing housing needs of households.
Policy 1.3	Encourage opportunities for a range of housing costs to enable housing for all segments of the population.	**Supportive / Approaching**	While supportive, this policy will need to be updated to meet HB 1220 guidance on specific household income

Goal, Policy, or Regulation	Text	Evaluation	Reason
			brackets. However, providing housing across all income segments reduces displacement risk and enables housing opportunities to all, regardless of income.
Policy 1.4	Encourage the provision of adequate affordable building sites through appropriate zoning, infrastructure, and other development regulations.	**Supportive**	Regularly reviewing and ensuring zoning, development regulations, and infrastructure support housing at different affordability levels supports anti-displacement efforts.
Policy 1.5	Review development regulations to ensure that a range of housing types is available throughout Yelm.	**Supportive**	Allowing and reducing barriers to housing types through development regulations is essential to enabling affordable housing options.
Policy 1.6	Review development regulations to ensure residents can safely walk throughout Yelm.	**Supportive**	Not all community members have consistent access to vehicles, including vulnerable populations such as youth and elderly. Providing walkable residential neighborhoods promotes inclusion and positive health outcomes.
Policy 1.7	Monitor the need for special needs housing and increase opportunities for such housing.	**Supportive**	Providing housing for special needs reduces displacement and homelessness risk among community members with special needs.
Policy 1.8	Consider density increase incentives to promote a variety of housing types, mixed uses, range of housing costs, affordability, and increased special needs housing.	**Supportive**	Providing a wide range of housing types and densities–at different affordability levels–provides options

Goal, Policy, or Regulation	Text	Evaluation	Reason
Goal 2	Meet the county wide planning policy to ensure a fair share of affordable housing.	**Supportive**	Taking a regional approach to affordable housing goals is important given cross-jurisdiction impacts of displacement pressures.
Policy 2.1	Encourage a variety of housing types in the residential designations to assure choice, opportunity, and availability of a fair share of affordable housing throughout Yelm, its UGA, and adjacent areas of Thurston County.	**Supportive**	Providing housing diversity and sufficient housing options reduces displacement risk and encourages affordability.
Policy 2.2	Participate with other jurisdictions and Thurston County in a regional process to monitor Fair Share Affordable Housing targets within the County.	**Supportive**	Taking a regional approach to affordable housing goals is important given cross-jurisdiction impacts of displacement pressures.
Goal 3	Conserve and improve the existing housing stock and neighborhoods.	**Supportive**	Preserving existing affordable housing stock can help reduce displacement pressures.
Policy 3.1	Maintain up-to-date development regulations for building, housing, mechanical, and other design standards.	**Supportive**	Ensuring clear and predictable standards to housing and building codes supports housing production goals.
Policy 3.2	Require owners of unsafe dwelling units to correct significant problems and encourage the maintenance of existing structures consistent with the standards of the neighborhood.	**Approaching**	Ensuring housing is safe and habitable is important. Rehabilitation, however, can also result in physical displacement pressures as existing households may be forced to move or incur high costs of repair. Such support should involve connecting households with alternatives or incentive programs to reduce these risks.

Goal, Policy, or Regulation	Text	Evaluation	Reason
Policy 3.3	Support rehabilitation efforts for substandard housing.	**Approaching**	Ensuring housing is safe and habitable is important. Rehabilitation, however, can also result in physical displacement pressures as existing households may be forced to move or incur high costs of repair. Such support should involve connecting households with alternatives or incentive programs to reduce these risks.
Policy 3.4	Encourage and facilitate local economic development as an important element of improving housing conditions by providing economic opportunity.	**Approaching**	While economic development is an important step for ensuring housing growth and conditions–particularly when it comes to local financing–such growth should not result in the rapid displacement of community members through rising costs.
Policy 3.5	Encourage local community groups, churches, and businesses to provide voluntary assistance with maintain existing structures for the elderly, low income, and those with special needs.	**Approaching**	While encouraging local groups is beneficial, this policy would be strengthened through active support and connecting these groups with funding to do so.
Goal 4	Promote energy efficient housing to reduce the overall costs of home ownership.	**Supportive**	Reducing barriers to home ownership, especially when aimed at historically marginalized or vulnerable community members, could reduce displacement pressures.
Policy 4.1	Support programs that make existing structures more energy efficient.	**NA**	

Goal, Policy, or Regulation	Text	Evaluation	Reason
Policy 4.2	Periodically review the energy efficiency development regulations to ensure that they are up-to-date.	**NA**	
Policy 4.3	Promote residential subdivision designs that maximize solar heating opportunities.	**NA**	
Goal 5	Provide sufficient housing for low- and moderate-income households within each jurisdiction.	**Supportive**	While supportive, this policy should be updated to take special attention to HB 1220. The policy could be improved by paying special attention to the lowest incomes, 0-30% Area Median Income, when it comes to housing capacity.
Policy 5.1	Provide sufficient housing for low- and moderate-income households.	**Supportive**	While supportive, this policy should be updated to take special attention to HB 1220. The policy could be improved by paying special attention to the lowest incomes, 0-30% Area Median Income, when it comes to housing capacity.
Policy 5.2	Provide tenants and landlords information about housing rights and responsibilities.	**Supportive**	Ensuring awareness on housing rights can empower tenants and ensure safe housing.
Policy 5.3	Incentivize developers to set aside a percentage of multifamily housing units for low- and moderate-income buyers and renters.	**Supportive**	Providing incentives for less than market rate housing provides opportunities for community members to remain the community as prices increase, and provides opportunities for new community members to live in the City.

Goal, Policy, or Regulation	Text	Evaluation	Reason
Policy 5.4	Support efforts to provide funding for shared-equity policies — via community land trust or down-payment assistance models — to make buying housing of all types affordable.	**Supportive**	Providing programs to control the variable costs of land could create long lasting affordable housing opportunities for community members, particularly those from vulnerable groups or lower incomes.
Goal 6	Provide sufficient service-enriched housing for homeless and high-risk populations.	**Supportive**	Allowing shelters and other types of emergency housing reduces displacement pressures, and provides services to respond to and prevent households from experiencing homelessness.
Policy 6.1	Allow shelters, group homes, transitional housing, and permanent housing with social services in development regulations in locations where these facilities have access to transit, parks, and other amenities.	**Supportive**	Allowing shelters and other types of emergency housing reduces displacement pressures, and provides services to respond to and prevent households from experiencing homelessness.
Goal 7	Encourage housing density and diversity in neighborhoods to add vibrancy and increase equitable access to opportunity.	**Supportive**	Allowing housing density and diversity across neighborhoods gives the community means and options to avoid displacement pressures.
Policy 7.1	Review and amend residential development regulations to provide opportunity for the mix and density of housing needed to meet the needs of changing demographics, use land wisely, and support nearby transit and businesses.	**Approaching**	Providing housing near transit supports housing supply goals and reduces impacts to transportation and provides access to jobs. However, this policy could be further expanded to call out affordability goals as well.

Goal, Policy, or Regulation	Text	Evaluation	Reason
Policy 7.2	Allow densification by providing for accessory dwelling units, small houses on small lots, attached housing types or appropriately scaled multifamily buildings, cottage housing, and village cohousing developments in development regulations.	**Supportive**	Allowing more diverse housing types that support affordability goals, such as smaller houses on smaller lots, also mitigates displacement pressures from increasing land costs and greater demand than supply.
Goal 8	Encourage the construction, weatherization and operation of homes to boost energy efficiency.	**Supportive**	Preserving existing housing stock through energy upgrades reduces costs by extending the useful life of the unit.
Policy 8.1	Prioritize home weatherization funds to preserve affordable housing.	**Supportive**	Preserving existing affordable housing stock, without increasing renter costs, reduces displacement pressures from aging buildings and increasing maintenance needs.
Policy 8.2	Support regional efforts to engage landlords and property managers in energy efficiency efforts.	**Supportive**	Supporting easier upgrades can maintain naturally affordable housing units from going into disrepair and being redeveloped into newer, less affordable housing options.
Policy 8.3	Support the efforts of local financial institutions to facilitate affordable financing of energy upgrades.	**Supportive**	Supporting easier upgrades can maintain naturally affordable housing units from going into disrepair and being redeveloped into newer, less affordable housing options.
Policy 8.4	Support regional efforts to conduct energy audits of large power consumers to identify efficiency improvements, such as RESNET's Home Energy Rating System.	**NA**	

Goal, Policy, or Regulation	Text	Evaluation	Reason
Goal 9	Increase housing amid urban corridors and centers to meet the needs of a changing population.	**Approaching**	Providing housing opportunities in key centers and corridors fosters housing near jobs and opportunities. This goal could be expanded to consider affordability needs as well.
Policy 9.1	Review regulations that stymie or prevent housing development near or within urban corridors and centers.	**Supportive**	Addressing barriers to housing supply development ensures supply can meet demands, especially in areas with jobs and services.
Policy 9.2	Remove barriers or “right-size” regulations to achieve goals.	**Supportive**	Reviewing and removing regulatory barriers to housing supports housing supply and streamlines review processes.
Policy 9.3	Identify priority areas ripe for housing development that will meet multiple goals.	**Approaching**	This goal aims to increase housing supply. However, it should not come at the cost of displacing historically marginalized households.
Policy 9.4	Examine ways to encourage smaller, affordable housing units through the fee structure, especially in centers, corridors or adjacent to neighborhood service hubs.	**Supportive**	Allowing and encouraging more diverse housing types that are more affordable support affordability and anti-displacement objectives.
Policy 9.5	Reduce impact fees for those projects located where there is less impact.	**Supportive**	Targeting reduce the burden to build housing would support housing unit construction
Policy 9.6	Use tax exemptions, such as Special Valuation, or other financing tools to make projects financially feasible.	**Supportive**	Providing flexibility to support housing construction supports housing supply goals.

Goal, Policy, or Regulation	Text	Evaluation	Reason
Policy 9.7	Identify opportunities to aggregate properties where housing density is needed to achieve community goals and make multifamily projects feasible to build and finance.	**Supportive**	Allowing flexibility to support multifamily housing construction supports anti-displacement by providing diverse housing types.

City of Lacey

Policy Evaluation Matrix

Policy recommendations were evaluated with the shared commerce indicators and the criteria unique to each jurisdiction and scored based on the scale to the right. The scores were then totalled to calculate an overall impact score for each policy option. The score does not necessarily reflect a policy is better than another when it comes to addressing different forms of displacement, but rather demonstrates which policies may have the largest impact on reducing displacement pressures.

Does the policy reduce displacement pressures or advance housing objectives?

Yes, positive impact (+2)	The policy option has a positive impact and directly addresses the criterion.
Somewhat postive impact (+1)	The policy option has a somewhat positive impact, or indirectly addresses the criterion.
Neutral/No impact (+0)	The policy option does not directly or indirectly address the criterion, but may benefit other
Negative impact (-1)	The policy option may exacerbate, or detract from, addressing the criterion or issue. However, while some

		COMMERCE INDICATORS Each city's policies were evaluated using this common set of criteria						LACEY-SPECIFIC CRITERIA					
Number/Ref.	Policy Recommendation	**Racially Disparate Impacts:** Does this policy prevent racially disparate impacts or work to repair past harm?	**Economic Displacement:** Does this policy help prevent or mitigate economic displacement?	**Physical Displacement:** Does this policy help prevent or mitigate physical displacement?	**Cultural Displacement:** Does this policy help prevent or mitigate cultural displacement?	**Housing Exclusion:** Does this policy prevent the exclusion of historically marginalized or other vulnerable populations from accessing safe and affordable housing appropriate for their needs?	Implementation Considerations: Does the city have staff and resources necessary to implement this policy effectively?	Does this policy encourage or remove barriers to providing affordable housing?	Does this policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?	Does this policy increase overall housing supply?	Does this policy reduce housing costs?	**Score (out of 20)**	**Explanation.** The score does not necessarily reflect a policy is better than another when it comes to addressing different forms of displacement, but rather demonstrates which policies may have the largest impact on reducing displacement pressures.
New Policy Recommendations													
	Strengthen partnerships with local organizations to increase collaboration and coordination in providing affordable housing and reducing displacement pressures.	1	1	1	1	1	2	1	2	0	0	10	This policy would advance housing goals but wouldn't have a direct impact on specific actions to address displacement or affordable housing, as it relates primarily to increasing collaboration and coordination.
	Explore ways to monitor renter income verification, which may include establishing local ordinances to enforce attainable income verification, and identify and address price fixing.	1	1	1	1	1	1	0	1	0	1	8	This policy would help address affordability, potential racially disparate impacts, and allow for more fair avenues for renters to verify incomes, but wouldn't directly impact the supply of affordable housing or prevent displacement.
	Consider creative zoning overlays or land use policies to classify and protect manufactured home communities.	1	2	2	2	2	2	0	2	0	1	14	This policy would help preserve existing affordable housing and manufactured housing, but would not directly impact affordability, housing supply, or address racially disparate impacts.
	Establish a program, partnering with local organizations where possible, to incentivize and assist mobile park owners with improving their properties and support upgraded utilities and infrastructure for these properties.	1	1	2	2	2	1	1	2	0	1	13	This policy would help preserve existing affordable housing and manufactured housing to ensure it is well-maintained, but would not directly address economic displacement, the provision of affordable housing or additional housing, or housing costs.
	Encourage collaboration between local organizations working to provide affordable housing and prevent homelessness.	2	2	2	2	2	1	2	1	1	0	15	This policy would primarily help reduce displacement pressures and increase the supply of affordable housing.
	Create and promote an educational program, partnering with local organizations where possible, to explain the long term investment opportunity of ADUs and the financial plan required to pursue building an ADU.	0	1	0	1	0	1	1	0	2	1	7	This policy would help increase the overall housing supply, and may reduce housing costs and indirectly address displacement.
	Encourage or support residents of mobile home communities in forming Community Land Trusts or other cooperatives so they can manage their properties indepently and be prepared to exercise the right of first refusal.	2	2	2	2	2	0	2	2	0	2	16	This policy would address displacement, preserve existing affordable units, and help reduce housing costs.
	Create a program to support the private ownership of mobile home communities and private rental units by local, family-owned operations with on-site management, and disincentivize corporate owners from buying homes in the community.	2	2	2	2	2	1	2	2	0	1	16	This policy would address displacement, preserve existing affordable units, and help reduce housing costs, but would not directly incentivize or reduce barriers to developing diverse housing types.
	Minimize the amount of potential long-term housing that is used for short-term transient rentals (e.g., Air BnBs).	1	2	1	2	2	1	1	2	2	2	16	This policy would address displacement, preserve existing affordable units, and help reduce housing costs.
	Partner with local organizations to provide a program to assist residents with applications and explain housing benefits and other housing assistance programs.	2	2	2	2	2	1	2	0	0	1	14	This policy would address displacement and help prevent racially disparate impacts.
	Create and promote an educational program to provide private landlords with information on legal requirements and renter income qualifications for those on supplemental income.	1	1	2	1	2	1	1	0	0	1	10	This policy would help prevent physical displacement and housing exclusion, and may indirectly support other housing goals.
	Increase staff capacity to process ADU and other housing applications in a timely manner.	0	1	0	1	1	2	1	0	2	1	9	This policy would help increase the overall housing supply, which may in turn support other housing goals like affordability and anti-displacement.
	Develop opportunities and strategies that enable residents to age in place.	1	2	2	1	2	1	0	1	0	1	11	This policy supports housing for older residents to be able to continue living in their community. It could support other housing goals like affordability as well.
	Develop rent control policies to prevent displacement, such as requiring 180 days notice for rent increases or capping rent increases at a certain percentage.	2	2	2	1	2	1	0	2	0	2	14	This policy would prevent displacement, particularly economic and physcial, and would support other housing goals like affordability and preventing housing exclusion.
	Encourage the retention and maintenance of existing affordable housing, especially in high-opportunity neighborhoods or areas that have historic patterns of segregation.	2	2	2	2	2	1	2	2	1	1	17	This policy would help support many housing goals, like anti-displacement efforts, reducing racially disparate impacts and housing exclusion, preserving existing affordable housing units, and may help reduce housing costs and increase the overall housing supply.
Housing Action Plan	Lacey's Housing Action Plan policies that have not been completed yet are evaluated below to evaluate how these contribute to or detract from anti-displacement goals, in order to help Lacey prioritize future implementation actions of their HAP. The												**Scoring explanations are not included for Lacey's Housing Action Plan policies as these have already been adopted. However, the scores may be useful to help the City prioritize future work.**
1.a.	Donate or lease surplus or underutilized jurisdiction-owned land to developers that provide low-income housing.	2	2	1	1	2	2	2	0	2	2	16	
1.b	Require Planned Residential Developments (PRDs)/Planned Unit Developments (PUDs) for low-density development and include standards for including low-income housing.	2	2	0	1	2	2	2	0	2	1	14	
1.c	Adopt a "Notice of Intent to Sell" ordinance for multifamily developments.	2	2	2	2	2	2	2	2	1	2	19	
1.d	Provide funding for the Housing Authority of Thurston County and other non-profit organizations to buy income-restricted units proposed to be converted to market rate housing.	2	2	2	2	2	1	2	2	0	2	17	
1.e	As part of comprehensive plan and development code changes, include an evaluation of the impact such changes will have on housing affordability, especially for low- income households	1	0	0	0	1	2	0	0	0	0	4	
1.f	Provide funding for renovating and maintaining existing housing that serves low-income households or residents with disabilities.	2	2	2	2	2	1	2	2	1	2	18	
1.g	Allow manufactured home parks in multifamily and commercial areas	2	2	2	2	2	2	2	2	1	2	19	
1.h	Provide funding for low-income and special needs residents to purchase housing through community land trusts.	2	2	2	2	2	1	2	2	1	2	18	
1.j	Define income-restricted housing as a different use from other forms of housing in the zoning code.	0	1	0	0	0	2	0	2	0	0	5	
1.l	Require low-income housing units as part of new developments.	2	2	1	1	2	2	2	0	0	2	14	
1.m.	Fund development projects that increase low- income housing through grants or loans.	2	2	1	2	2	1	2	0	2	2	16	
1.n	Establish a program to preserve and maintain healthy and viable manufactured home parks.	2	2	2	2	2	1	2	2	2	2	19	
1.o	Enhance enforcement of property maintenance codes to keep housing in good repair.	2	2	1	1	1	1	1	2	0	0	11	
1.p	Partner with low-income housing developers (such as Habitat for Humanity) to expand homeownership opportunities.	2	2	1	1	2	1	2	0	0	2	13	
2.a	Provide displaced tenants with relocation assistance.	1	2	2	2	1	1	1	0	0	0	10	
2.b	Partner with local trade schools to provide renovation and retrofit services for low-income households as part of on-the-job-training.	2	0	2	0	1	1	0	2	0	0	8	
2.c	Rezone manufactured home parks to a manufactured home park zone to promote their preservation.	2	2	2	2	2	2	2	2	1	2	19	
2.d	Adopt a "right to return" policy.	2	2	2	2	2	2	1	2	0	0	15	
2.e	Adopt short-term rental regulations to minimize impacts on long-term housing availability.	2	2	2	2	1	2	2	1	0	0	14	
2.f	Establish a down payment assistance program.	2	2	2	1	2	1	2	0	0	2	14	
2.g	Identify and implement appropriate tenant protections that improve household stability.	2	2	2	2	2	1	2	2	0	1	16	
3.b	Allow third-party review of building permits for development projects.	0	0	0	0	0	2	2	1	1	0	6	
3.c	Develop a plan for adapting vacant commercial space into housing.	2	1	0	1	1	1	2	0	2	2	12	
3.d	Expand allowance of residential tenant improvements without triggering land use requirements.	2	1	2	0	2	1	1	2	1	0	12	
3.f	Identify strategically placed but underdeveloped properties and determine what barriers exist to developing desired housing types.	2	2	1	2	2	1	2	-1	2	2	15	
3.i	Lower transportation impact fees for multifamily developments near frequent transit service routes.	1	2	1	1	1	1	1	0	1	1	10	
3.k	Allow deferral of impact fee payments for desired unit types.	0	0	0	0	1	1	2	0	1	1	6	
3.l	Simplify land use designation maps in the comprehensive plan to help streamline the permitting process.	1	0	0	0	0	2	1	0	2	0	6	
3.m	Integrate or adjust floor area ratio standards.	0	0	0	0	0	1	1	0	1	1	4	
3.n	Maximize use of SEPA threshold exemptions for residential and infill development.	0	0	0	0	0	2	1	0	1	1	5	
3.o	Consult with Washington State Department of Transportation as part of the SEPA review process to reduce appeals based on impacts to the transportation element for residential, multifamily, or mixed-use projects.	0	0	0	0	0	1	1	0	0	1	3	
4.a.	Increase the types of housing allowed in low-density residential zones (duplexes, triplexes, etc.).	0	1	0	1	2	0	1	0	2	1	8	
4.b.	Allow more housing types in commercial zones.	2	1	0	2	1	1	2	0	1	1	11	
4.c.	Adopt a form-based code for mixed-use zones to allow more housing types and protect the integrity of existing residential neighborhoods.	2	2	2	2	1	1	2	2	2	1	17	
5.a	Conduct education and outreach around city programs that support affordable housing.	1	2	2	2	2	1	1	1	1	1	14	
5.b.	Fund Housing Navigators to assist households, renters, homeowners, and landlords with housing issues.	2	0	1	1	2	1	0	0	0	0	7	
5.c.	Identify and develop partnerships with organizations that provide or support low-income, workforce, and senior housing as well as other populations with unique housing needs.	2	2	2	2	2	1	2	2	2	2	19	
5.d.	Establish a rental registration program to improve access to data and share information with landlords.	0	0	0	0	0	1	0	0	0	0	1	
6.a.	Develop a comprehensive funding strategy for affordable housing that addresses both sources of funding and how the funds should be spent.	1	1	1	1	1	1	1	0	1	1	9	
6.b.	Establish an affordable housing property tax levy to finance affordable housing for very low-income households.	2	2	1	1	2	2	2	0	2	2	16	
6.c.	Establish an affordable housing sales tax.	1	2	1	1	1	2	2	0	2	2	14	
6.d.	Establish a regional housing trust fund to provide dedicated funding for low-income housing.	2	1	1	1	2	1	2	0	2	2	14	
6.e.	Capture the value of city investments (utilities, roads, etc.) that increase private investments in neighborhoods, especially in areas with planned or existing transit.	0	-1	0	0	0	1	0	0	0	0	0	

City of Olympia

Policy Evaluation Matrix

This comprehensive table evaluates each policy option against a set of criteria unique to each jurisdiction and scored based on the scale to the right. The scores were then totalled to calculate an overall impact score for each policy option. The score does not necessarily reflect a policy is better than another when it comes to addressing different forms of displacement, but rather demonstrates which policies may have the largest impact on reducing displacement pressures.

Does the policy reduce displacement pressures or advance housing objectives?

Yes, positive impact (+2)	The policy option has a positive impact and directly addresses the criterion.
Somewhat postive impact (+1)	The policy option has a somewhat positive impact, or indirectly addresses the criterion.
Neutral/No impact (+0)	The policy option does not directly or indirectly address the criterion, but may benefit other
Negative Impact (-1)	The policy option may exacerbate, or detract from, addressing the criterion or issue. However, while some

Number/ Ref.	Policy Recommendation	COMMERCE INDICATORS — Racially Disparate Impacts: Does this policy prevent racially disparate impacts or work to repair past harm?	Economic Displacement: Does this policy help prevent or mitigate economic displacement?	Physical Displacement: Does this policy help prevent or mitigate physical displacement?	Cultural Displacement: Does this policy help prevent or mitigate cultural displacement?	Housing Exclusion: Does this policy prevent the exclusion of historically marginalized or other vulnerable populations from accessing safe and affordable housing appropriate for their needs?	Implementation Considerations: Does the city have staff and resources necessary to implement this policy effectively?	OLYMPIA-SPECIFIC CRITERIA — Does this policy incentivize and support the development of affordable and deeply affordable housing, including supportive?	Does this policy increase housing supply, including middle housing and ADUs?	Does this policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?	Score(out	Explanation. The score does not necessarily reflect a policy is better than another when it comes to addressing different forms of displacement, but rather demonstrates which policies may have the largest impact on reducing displacement pressures.
New Policy Recommendations												
	Explore ways to monitor renter income verification, which may include establishing local ordinances to enforce attainable income verification, and identify and address price fixing.	1	1	1	1	0	1	1	0	1	7	This policy would help address affordability, potential racially disparate impacts, and allow for more fair avenues for renters to verify incomes, but wouldn't directly impact the supply of affordable housing or prevent displacement.
	Establish a program, partnering with local organizations where possible, to incentivize and assist mobile park owners with improving their properties and support upgraded utilities and infrastructure for these properties.	1	1	2	2	2	1	1	1	2	13	This policy would help preserve existing affordable housing and manufactured housing to ensure it is well-maintained, but would not directly address economic displacement, the provision of affordable housing or additional housing, or housing costs.
	Create and promote an educational program, partnering with local organizations where possible, to explain the long term investment opportunity of ADUs and the financial plan required to pursue building an ADU.	0	1	0	1	0	2	1	2	0	7	This policy would help increase the overall housing supply, and may reduce housing costs and indirectly address displacement.
	Encourage or support residents of mobile home communities in forming Community Land Trusts or other cooperatives so they can manage their properties indepently and be prepared to exercise the right of first refusal.	2	2	2	2	2	1	2	0	2	15	This policy would address displacement, preserve existing affordable units, and help reduce housing costs.
	Create a program to support the private ownership of mobile home communities and private rental units by local, family-owned operations with on-site management, and disincentivize corporate owners from buying homes in the community.	2	2	2	2	2	1	1	0	2	14	This policy would address displacement, preserve existing affordable units, and help reduce housing costs, but would not directly incentivize or reduce barriers to developing diverse housing types.
	Partner with local organizations to provide a program to assist residents with applications and explain housing benefits and other housing assistance programs.	2	2	2	2	2	2	1	0	1	14	This policy would address displacement and help prevent racially disparate impacts.
	Create and promote an educational program to provide private landlords with information on legal requirements and renter income qualifications for those on supplemental income.	1	1	2	1	2	2	1	0	0	10	This policy would help prevent physical displacement and housing exclusion, and may indirectly support other housing goals.
	Increase staff capacity to process ADU and other housing applications in a timely manner.	0	1	0	1	1	2	1	2	0	8	This policy would help increase the overall housing supply, which may in turn support other housing goals like affordability and anti-displacement.
	Encourage the retention and maintenance of existing affordable housing, especially in high-opportunity neighborhoods or areas that have historic patterns of segregation.	2	2	2	2	2	1	0	0	2	13	This policy would help support many housing goals, like anti-displacement efforts, reducing racially disparate impacts and housing exclusion, preserving existing affordable housing units, and may help reduce housing costs and increase the overall housing supply.
Housing Action Plan	Olympia's Housing Action Plan policies that have not been completed yet are evaluated below to evaluate how these contributeto or detract from anti-displacement goals, in order to help Olympia prioritize future implementation actions of											**Scoring explanations are not included for Olympia's Housing Action Plan policies as these have already been adopted. However, the scores may be useful to help the City prioritize future work.**
1.e.	Define income-restricted housing as a different use from other forms of housing in the zoning code.	0	1	0	0	0	2	1	0	2	6	
1.f.	Encourage the LOTT Clean Water Alliance to discuss lower hook-up fees and other incentives for low income affordable housing as part of their cost of service study.	1	1	0	0	1	2	1	0	0	6	
1.g.	Partner with low-income housing developers to expand homeownership opportunities.	2	1	2	2	2	0	1	1	1	12	
1.h.	Provide funding for non- profit organizations to buy income-restricted units proposed to be converted to market rate housing.	2	2	2	2	2	-1	2	0	2	13	
1.i.	Provide funding for low- income and special needs residents to purchase housing through community land trusts.	2	2	2	2	2	-1	2	0	2	13	
1.k.	As part of comprehensive plan and development code changes, include an evaluation of the impact such changes will have on housing affordability, especially for low-income households.	1	1	1	1	1	2	1	0	1	9	
1.l.	Require low-income housing units as part of new developments.	1	2	0	0	-1	1	1	0	0	6	
1.m.	Adopt a "Notice of Intent to Sell' ordinance for multifamily developments.	2	2	1	2	0	2	1	0	1	11	
1.n.	Allow mobile or manufactured home parks (MHP'S) in multifamily and commercial areas.	0	2	2	0	1	2	1	2	2	12	
1.o.	Require Planned Residential Developments (PRDs)/Planned Unit Developments (PUDs) for low-density development and include standards for including low-income housing.	1	1	0	1	2	2	2	2	0	11	
1.p.	Establish a program to preserve and maintain healthy and viable manufactured home parks.	2	2	2	2	2	1	1	0	2	14	
1.q.	Enhance enforcement of property maintenance codes to keep housing in good repair.	0	0	1	0	0	1	0	0	2	4	
2.c.	Provide displaced tenants with relocation assistance.	1	1	2	1	1	0	0	0	0	6	
2.d.	Consider a Tenant Opportunity to Purchase (TOPO) Ordinance	2	2	2	2	2	1	0	0	2	13	
2.e.	Partner with local trade schools to provide renovation and retrofit services for low-income households as part of on- the-job-training.	2	2	2	2	2	1	0	0	2	13	
2.f.	Explore barriers and policies that can increase access to housing for formally incarcerated individuals.	2	0	0	0	2	1	0	0	0	5	
2.g.	Establish a down payment assistance program.	2	1	1	1	2	0	0	0	0	7	
2.h.	Adopt a "right to return" policy	1	0	2	1	2	1	0	0	0	7	
2.i.	Rezone manufactured home parks to a manufactured home park zone to promote their preservation.	1	2	2	2	2	2	0	0	2	13	
3.l	Consult with Washington State Department of Transportation (DOT) as part of the SEPA review process to reduce appeals based on impacts to the transportation element for residential, multifamily, or mixed-use projects.	0	0	0	0	0	0	0	1	0	1	
3.q	Make use of SEPA threshold exemptions for residential and infill development.	0	0	0	0	0	2	0	2	0	4	
3.r	Complete a subarea plan for the Capital Mall High Density Neighborhood area.	0	0	0	0	0	2	1	2	0	5	
3.s	Develop a plan for adapting vacant commercial space into housing.	0	1	1	1	0	2	1	2	0	8	
3.t	Expand allowance of residential tenant improvements without triggering land use requirements.	2	2	2	2	2	2	1	0	2	15	
3.u	Identify strategically placed but underdeveloped properties and determine what barriers exist to developing desired housing types.	0	1	0	0	0	2	1	2	0	6	
3.v	Increase minimum residential densities.	0	1	0	0	1	1	1	2	0	6	
3.w	Integrate or adjust floor area ratio standards.	0	1	0	0	1	1	1	2	0	6	
4.g.	Allow more housing types in commercial zones.	0	1	1	1	0	1	0	2	0	6	
4.h.	Allow single-room occupancy (SRO) housing in all multifamily zones.	2	2	0	1	2	2	2	2	1	14	
4.i.	Adopt a form-based code for mixed-use zones to allow more housing types and protect the integrity of existing residential neighborhoods.	2	1	1	1	2	1	0	2	1	11	
4.j.	Strategically allow live/work units in nonresidential zones.	2	2	2	2	2	1	0	2	0	13	
6.d.	Develop a (regional) comprehensive funding strategy for affordable housing that addresses both sources of funding and how the funds should be spent.	2	2	2	2	2	1	2	1	1	15	
6.e.	Use value capture (e.g., consider tax increment financing) to capture the value of city investments that increase private investment in neighborhoods, especially in areas with planned or existing transit.	2	2	1	1	2	1	2	0	1	12	
6.f.	Establish an affordable housing loan program.	2	2	1	1	2	1	2	1	0	12	
6.g.	Establish a regional housing trust fund to provide dedicated funding for low-income housing.	2	2	2	2	2	0	2	2	2	16	
6.h.	Establish an affordable housing property tax levy to finance affordable housing for very low- income households.	2	2	1	2	2	1	1	0	1	12	

City of Tumwater

Policy Evaluation Matrix

jurisdiction and scored based on the scale to the right. The scores were then totalled to calculate an overall impact score for each policy option. The score does not necessarily reflect a policy is better than another when it comes to addressing different forms of displacement, but rather demonstrates which policies may have the largest impact on reducing displacement pressures.

Does the policy reduce displacement pressures or advance housing objectives?

Yes, positive impact (+2)	The policy option has a positive impact and directly addresses the criterion.
Somewhat postive impact (+1)	The policy option has a somewhat positive impact, or indirectly addresses the criterion.
Neutral/No impact (+0)	The policy option does not directly or indirectly address the criterion, but may benefit other
Negative Impact (-1)	The policy option may exacerbate, or detract from, addressing the criterion or issue. However, while some

COMMERCE INDICATORS Each city's policies were evaluated using this common set of criteria

TUMWATER-SPECIFIC CRITERIA
Additional criteria was created unique (yet sometimes related and similar) to each city in order to support their diverse housing goals.

Number/ Ref.	Policy Recommendation	Racially Disparate Impacts: Does this policy prevent racially disparate impacts or work to repair past harm?	Economic Displacement: Does this policy help prevent or mitigate economic displacement?	Physical Displacement: Does this policy help prevent or mitigate physical displacement?	Cultural Displacement: Does this policy help prevent or mitigate cultural displacement?	Housing Exclusion: Does this policy prevent the exclusion of historically marginalized or other vulnerable populations from accessing safe and affordable housing appropriate for their needs?	Implementation Considerations: Does the city have staff and resources necessary to implement this policy effectively?	Does this policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?	Does this policy incentivize and support the development of affordable and deeply affordable housing?	Does this policy encourage adaptive reuse of existing residential units or other buildings where feasible?	Does this policy incentivize or reduce barriers to developing diverse housing types including smaller homes?	Score(out of 20)	Explanation. The score does not necessarily reflect a policy is better than another when it comes to addressing different forms of displacement, but rather demonstrates which policies may have the largest impact on reducing displacement pressures.
New Policy Recommendations													
	Explore ways to monitor renter income verification, which may include establishing local ordinances to enforce attainable income verification, and identify and address price fixing.	1	1	1	1	0	0	1	1	0	0	6	This policy would help address affordability, potential racially disparate impacts, and allow for more fair avenues for renters to verify incomes, but wouldn't directly impact the supply of affordable housing or prevent displacement.
	Consider creative zoning overlays or land use policies to classify and protect manufactured home communities.	1	2	2	2	2	1	2	2	0	0	14	This policy would help preserve existing affordable housing and manufactured housing, but would not directly impact affordability, housing supply, or address racially disparate impacts.
	Establish a program, partnering with local organizations where possible, to incentivize and assist mobile park owners with improving their properties and support upgraded utilities and infrastructure for these properties.	1	1	2	2	2	0	2	2	2	1	15	This policy would help preserve existing affordable housing and manufactured housing to ensure it is well-maintained, but would not directly address economic displacement, the provision of affordable housing or additional housing, or housing costs.
	Encourage collaboration between local organizations working to provide affordable housing and prevent homelessness.	2	2	2	2	2	1	1	2	0	0	14	This policy would primarily help reduce displacement pressures and increase the supply of affordable housing.
	Create and promote an educational program, partnering with local organizations where possible, to explain the long term investment opportunity of ADUs and the financial plan required to pursue building an ADU.	0	1	0	1	0	1	0	1	2	2	8	This policy would help increase the overall housing supply, and may reduce housing costs and indirectly address displacement.
	Encourage or support residents of mobile home communities in forming Community Land Trusts or other cooperatives so they can manage their properties indepently and be prepared to exercise the right of first refusal.	2	2	2	2	2	0	2	2	1	0	15	This policy would address displacement, preserve existing affordable units, and help reduce housing costs.
	Create a program to support the private ownership of mobile home communities and private rental units by local, family-owned operations with on-site management, and disincentivize corporate owners from buying homes in the community.	2	2	2	2	2	1	2	1	0	0	14	This policy would address displacement, preserve existing affordable units, and help reduce housing costs, but would not directly incentivize or reduce barriers to developing diverse housing types.
	Partner with local organizations to provide a program to assist residents with applications and explain housing benefits and other housing assistance programs.	2	2	2	1	1	0	0	1	0	0	9	This policy would address displacement and help prevent racially disparate impacts.
	Create and promote an educational program to provide private landlords with information on legal requirements and renter income qualifications for those on supplemental income.	2	1	2	1	0	0	0	0	0	0	6	This policy would help prevent physical displacement and housing exclusion, and may indirectly support other housing goals.
	Increase staff capacity to process ADU and other housing applications in a timely manner.	0	1	1	2	0	2	1	1	2	2	12	This policy would help increase the overall housing supply, which may in turn support other housing goals like affordability and anti-displacement.
	Encourage the retention and maintenance of existing affordable housing, espacially in high-opportunity neighborhoods or areas that have historic patterns of segregation.	2	2	2	1	2	0	0	1	1	0	11	This policy would help support many housing goals, like anti-displacement efforts, reducing racially disparate impacts and housing exclusion, preserving existing affordable housing units, and may help reduce housing costs and increase the overall housing supply.
Housing Action Plan	Tumwater's Housing Action Plan policies that have not been completed yet are evaluated below to evaluate how these contribute to or detract from anti-displacement goals, in order to help Tumwater prioritize future implementation actions of their HAP. The policies with the highest												**Scoring explanations are not included for Lacey's Housing Action Plan policies as these have already been adopted. However, the scores may be useful to help the City prioritize future work.**
1.a.	Donate or lease surplus or underutilized jurisdiction-owned land to developers that provide low-income housing and establish a process for accepting or coordinating the acceptance of land donations from others this action.	2	2	1	1	2	2	0	2	2	1	15	
1.b.	Where a Planned Unit Development is used for residential development, consider requiring a portion of the housing be low- residential development	2	2	0	1	2	2	0	1	0	1	11	
1.c.	Adopt a "Notice of Intent to Sell' ordinance for multifamily developments.	2	2	2	2	2	2	2	1	2	0	17	
1.d.	Provide funding for the Housing Authority of Thurston County and other non-profit organizations to buy income-restricted units proposed to be converted to market rate housing.	2	2	2	2	2	1	2	2	2	0	17	
1.e.	As part of Comprehensive Plan and development code changes, include an evaluation of the impact such changes will have on housing affordability, especially for low-income households.	1	1	1	1	1	2	0	0	0	0	7	
1.f.	Provide funding for low-income and special needs residents to purchase housing through community land trusts.	2	2	2	2	2	1	2	2	1	0	16	
1.h.	Encourage low-income housing units as part of new developments.	2	2	1	1	2	2	0	2	0	2	14	
1.j	Establish a program to preserve and maintain healthy and viable manufactured home parks.	2	2	2	2	2	1	2	2	0	2	17	
1.m	Extend public water and sewer to unserved areas to allow infill development in underdeveloped areas.	1	2	1	1	2	1	0	1	2	1	12	
2.a.	Have developers provide tenants displaced by redevelopment with relocation assistance.	1	2	2	2	1	1	0	0	0	0	9	
2.b.	Partner with local trade schools to provide renovation and retrofit services for low-income households as part of on-the- job-training.	2	0	2	0	1	1	2	0	2	0	10	
2.c	Adopt short-term rental regulations to minimize impacts on long-term housing availability.	2	2	2	2	1	2	1	1	0	0	13	
2.d	Support down payment assistance programs for homeownership and programs that assist people entering the rental market.	2	2	2	1	2	1	0	1	0	0	11	
2.f	Develop a technical assistance or education program for small landlords.	0	0	0	0	0	1	0	0	0	0	1	
2.g	Assist non-profits in the process of acquiring mobile home parks to turn them into public trusts so that lot rental fees can be controlled.	2	2	2	2	2	1	2	2	0	2	17	
2.h	Fund an energy assistance program for rental housing/make landlords do upgrades when the unit is sold.	2	1	1	1	2	1	2	0	2	0	12	
3.d	Continue to look for place- making opportunities along urban corridors.	0	0	0	2	0	2	0	0	0	0	4	
3.e	Mix market rate and low- income housing to avoid creating areas of concentrated low-income housing.	2	2	2	2	2	2	1	1	1	2	17	
4.a	Adopt a form-based code for mixed-use zones to allow more housing types and protect the integrity of existing residential neighborhoods.	2	1	1	2	2	1	2	1	2	2	16	
4.b	Strategically allow live/work units in nonresidential zones.	2	2	2	2	2	1	0	0	2	2	15	
5.a	Conduct education and outreach around city programs that support affordable housing.	1	2	2	2	2	1	0	1	0	1	12	
5.b	Fund Housing Navigators to assist households, renters, homeowners, and landlords with housing issues.	2	0	1	1	2	1	0	1	0	0	8	
5.e	Partner with a public or private developer to build a townhouse or row house demonstration project.	0	0	0	0	0	1	0	1	0	1	3	
5.f	Track data on affordable housing at the regional level.	0	0	0	0	0	2	0	0	0	0	2	
6.b	Establish an affordable housing property tax levy to finance affordable housing for very low-income households.	2	2	1	1	2	2	0	2	1	2	15	
6.c	Establish an affordable housing sales tax.	1	2	1	1	1	2	0	2	0	1	11	
6.d	Capture the value of city investments (utilities, roads, etc.) that increase private investments in neighborhoods, especially in areas with planned or existing transit.	0	-1	0	0	0	1	0	0	1	1	2	
6.e	Encourage the Housing Authority of Thurston County to take greater advantage of State and Federal housing grants and tax incentives.	1	2	1	1	1	1	2	2	1	1	13	

City of Yelm

Policy Evaluation Matrix

Policy recommendations were evaluated with the shared commerce indicators and the criteria unique to each jurisdiction and scored based on the scale to the right. The scores were then totalled to calculate an overall impact score for each policy option. The score does not necessarily reflect a policy is better than another when it comes to addressing different forms of displacement, but rather demonstrates which policies may have the largest impact on reducing displacement pressures.

Does the policy reduce displacement pressures or advance housing objectives?

Yes, positive impact (+2)	The policy option has a positive impact and directly addresses the criterion.
Somewhat postive impact (+1)	The policy option has a somewhat positive impact, or indirectly addresses the criterion.
Neutral/No impact (+0)	The policy option does not directly or indirectly address the criterion, but may benefit other
Negative impact (-1)	The policy option may exacerbate, or detract from, addressing the criterion or issue. However, while some

		COMMERCE INDICATORS Each city's policies were evaluated using this common set of criteria						YELM-SPECIFIC CRITERIA				
Number/Ref.	Policy Recommendation	**Racially Disparate Impacts:** Does this policy prevent racially disparate impacts or work to repair past harm?	**Economic Displacement:** Does this policy help prevent or mitigate economic displacement?	**Physical Displacement:** Does this policy help prevent or mitigate physical displacement?	**Cultural Displacement:** Does this policy help prevent or mitigate cultural displacement?	**Housing Exclusion:** Does this policy prevent the exclusion of historically marginalized or other vulnerable populations from accessing safe and affordable housing appropriate for their needs?	Implementation Considerations: Does the city have staff and resources necessary to implement this policy effectively?	Does this policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?	Does this policy incentivize or reduce barriers to developing diverse housing types including smaller homes?	Does this policy incentivize and support the development of affordable and deeply affordable housing?	Score(out of 18)	**Explanation.** The score does not necessarily reflect a policy is better than another when it comes to addressing different forms of displacement, but rather demonstrates which policies may have the largest impact on reducing displacement pressures.
New Policy Recommendations												
	Explore ways to monitor renter income verification, which may include establishing local ordinances to enforce attainable income verification, and identify and address price fixing.	1	1	1	1	0	1	2	0	2	9	This policy would help address affordability, potential racially disparate impacts, and allow for more fair avenues for renters to verify incomes, but wouldn't directly impact the supply of affordable housing or prevent displacement.
	Consider creative zoning overlays or land use policies to classify and protect manufactured home communities.	1	2	2	2	2	2	2	0	2	15	This policy would help preserve existing affordable housing and manufactured housing, but would not directly impact affordability, housing supply, or address racially disparate impacts.
	Establish a program, partnering with local organizations where possible, to incentivize and assist mobile park owners with improving their properties and support upgraded utilities and infrastructure for these properties.	1	1	2	2	2	1	2	0	2	13	This policy would help preserve existing affordable housing and manufactured housing to ensure it is well-maintained, but would not directly address economic displacement, the provision of affordable housing or additional housing, or housing costs.
	Encourage collaboration between local organizations working to provide affordable housing and prevent homelessness.	2	2	2	2	2	1	0	0	1	12	This policy would primarily help reduce displacement pressures and increase the supply of affordable housing.
	Create and promote an educational program, partnering with local organizations where possible, to explain the long term investment opportunity of ADUs and the financial plan required to pursue building an ADU.	0	1	0	1	0	1	1	2	1	7	This policy would help increase the overall housing supply, and may reduce housing costs and indirectly address displacement.
	Encourage or support residents of mobile home communities in forming Community Land Trusts or other cooperatives so they can manage their properties indepently and be prepared to exercise the right of first refusal.	2	2	2	2	2	0	2	1	2	15	This policy would address displacement, preserve existing affordable units, and help reduce housing costs, but would not directly incentivize or reduce barriers to developing diverse housing types.
	Create a program to support the private ownership of mobile home communities and private rental units by local, family-owned operations with on-site management, and disincentivize corporate owners from buying homes in the community.	2	2	2	2	2	1	2	0	2	15	This policy would address displacement, preserve existing affordable units, and help reduce housing costs, but would not directly incentivize or reduce barriers to developing diverse housing types.
	Minimize the amount of potential long-term housing that is used for short-term transient rentals (e.g., AirBnBs).	1	2	1	2	2	1	2	0	1	12	This policy would address displacement, preserve existing affordable units, and help reduce housing costs, but would not directly address racially disparate impacts or incentivize the development of deeply affordable housing.
	Partner with local organizations to provide a program to assist residents with applications and explain housing benefits and other housing assistance programs.	2	2	2	2	2	1	1	0	0	12	This policy would address displacement and help prevent racially disparate impacts.
	Create and promote an educational program to provide private landlords with information on legal requirements and renter income qualifications for those on supplemental income.	1	1	2	1	2	1	0	0	0	8	This policy would help prevent physical displacement and housing exclusion, and may indirectly support other housing goals.
	Increase staff capacity to process ADU and other housing applications in a timely manner.	0	1	0	1	1	2	0	2	1	8	This policy would help increase the overall housing supply, which may in turn support other housing goals like affordability and anti-displacement.
	Encourage the retention and maintenance of existing affordable housing, especially in high-opportunity neighborhoods or areas that have historic patterns of segregation.	2	2	2	2	2	1	2	0	0	13	This policy would help support many housing goals, like anti-displacement efforts, reducing racially disparate impacts and housing exclusion, preserving existing affordable housing units, and may help reduce housing costs and increase the overall housing supply.
Housing Action Plan	Yelm's Housing Action Plan policies that have not been completed yet are evaluated below to evaluate how these contribute to or detract from anti-displacement goals, in order to help Yelm prioritize future implementation actions of their HAP. The policies with the highest total score may be											**Scoring explanations are not included for Lacey's Housing Action Plan policies as these have already been adopted. However, the scores may be useful to help the City prioritize future work.**
1	As part of comprehensive plan and development code changes, include an evaluation of the impact such changes will have on housing affordability, especially for low-income households.	0	0	0	0	0	0	0	0	0	0	
2	Allow third-party review of building permits for development projects.	0	0	0	0	0	2	1	2	1	6	
3	Mix market rate and low-income housing to avoid creating areas of concentrated low-income housing.	1	1	0	0	2	2	1	2	1	10	
4	Allow accessory dwelling units (ADUs) in all residential zones.	0	1	1	1	0	2	0	2	1	8	
5	Allow single-room occupancy (SRO) housing in all multifamily zones.	2	2	0	1	2	2	0	2	2	13	
6	Strategically allow live/work units in nonresidential zones.	2	2	2	2	2	1	0	2	0	13	
7	Allow more housing types in commercial zones	2	1	0	1	1	1	0	2	1	9	
8	Increase the types of housing allowed in low-density residential zones (duplexes, triplexes, small houses on small lots.).	0	1	0	1	2	0	0	2	1	7	
1	Identify and develop partnerships with organizations that provide or support low-income, workforce, and senior housing as well as other populations with unique housing needs.	2	2	2	2	2	1	2	1	2	16	
2	Partner with low-income housing developers (such as Habitat for Humanity, HomesFirst) to expand homeownership opportunities.	2	2	2	2	2	1	1	2	2	16	
3	Use Community Development Block Grant (CDBG), Section 108 loans and other federal resources for affordable housing.	2	2	2	2	2	1	2	1	2	16	
4	Encourage local community groups, churches, and businesses to provide voluntary assistance with maintaining existing structures for the elderly, low-income, and those with special needs.	1	2	0	2	2	1	2	0	2	12	
5	Encourage the Housing Authority of Thurston County to take greater advantage of State and Federal housing grants and tax incentives.	1	2	1	1	1	1	2	1	2	12	
6	Work with the Thurston County Regional Housing Council considering issues specifically related to funding a regional response to homelessness and affordable housing, and coordination of existing funding programs.	1	2	2	2	2	1	1	1	2	14	
1	Offer density bonuses for low-income housing.	0	1	0	0	0	1	0	2	2	6	
2	Discuss lower hook-up fees and other incentives for low-income affordable housing.	2	1	1	1	2	0	2	2	2	13	
3	Offer developers density and/or height incentives for desired unit types.	0	0	0	0	1	1	0	2	2	6	
4	Review fees/regulations to identify housing cost reductions.	1	1	0	0	1	2	1	2	2	10	
5	Conduct education and outreach around city programs that support affordable housing.	1	2	2	2	2	1	0	1	1	12	
1	Reduce parking requirements for residential uses, including for multifamily developments near frequent transit routes.	0	2	0	0	1	1	0	2	1	7	
2	Lower transportation impact fees for multifamily developments near frequent transit service routes.	0	1	1	0	0	1	0	2	0	5	
3	Develop partnership with InterCity Transit to expand bus routes to additional areas of the city.	1	1	1	1	0	2	0	0	0	6	
4	Expand the multifamily tax exemption to make it available in all transit corridors.	0	1	0	0	1	1	0	1	2	6	
1	Define income-restricted housing as a different use from other forms of housing in the zoning code.	2	2	2	2	2	2	1	0	2	15	
2	Explore barriers and policies that can increase access to housing for formally incarcerated individuals.	2	0	1	2	2	1	0	2	2	12	
3	Monitor the need for special housing and increase opportunities for such housing.	1	0	1	1	2	1	0	0	2	8	
											0	

Housing Displacement Analysis for Lacey, Olympia, Tumwater, and Yelm: Community Outreach

ONLINE SURVEY PRELIMINARY SYNTHESIS OF FINDINGS

01/15/2024

Table of Contents

Housing Displacement Analysis for Lacey, Olympia, Tumwater, and Yelm: Community Outreach 1

Online Survey Preliminary Synthesis of Findings 1

Introduction 1

Process 1

Synthesis of Preliminary Findings 5

Introduction

A key aspect of this project involves assessing community insight, perceptions, and lived experiences around the impacts of livability, affordability, and displacement in Olympia, Lacey, Tumwater and Yelm. A robust data collection effort, including multi-lingual outreach via community anchors, focus groups, and an open-access multi-modal survey, sought to engage both those who have been frequently engaged as well as new perspectives and experiences not included in past policy and housing assessments conducted in the region.

Process

Uncommon Bridges developed two key approaches to gathering community input on housing accessibility and displacement pressures in the four participating cities: a series of affinity-based facilitated focus groups, and an open-access, multi-modal online survey distributed through community anchors and partner cities.

Multi-Modal Online Survey

The online survey was designed through a multi-modal platform, VideoAsk. VideoAsk allows questions to be posed through a captioned video/audio message. This increases access by having clear, verbal positioning of the topic and questions, allowing more access across a range of educational, literacy, and information processing spectra. Three open-ended questions were presented by video in both English and Spanish. Respondents had the option to respond by text, video, or audio, with the option to review their responses before submitting. Video and audio responses were limited to three minutes in length; there was no limit on text-based responses.

A primary landing page provided a project overview, clarity about how input will be used, regulatory compliance details, and some contextual framing of housing displacement.

The Survey itself allowed users to select English or Spanish to submit their responses. The questions posed were as follows:

English Language Version	Spanish Language Version
The cities of Olympia, Yelm, Tumwater, and Lacey are collaborating to tackle housing displacement and exclusion. They aim to analyze local policies that have caused social and racial disparities in housing. The three main types of displacement are: Physical: Forced moves due to eviction, foreclosure, or poor housing. Economic: Rising rents and property costs pushing families out. Cultural: Loss of community identity as services and institutions disappear. Regulations like HB 1220 now require cities to promote housing equity. As they update their Comprehensive Plans for 2025, the Cities will incorporate anti-displacement strategies informed by community input, aiming for a fairer and more inclusive housing policy.	Las cuidades de Olympia, Yelm, Tumwater y Lacey estan unidos en la pelea contra el desplazamiento de las viviendas familares. Juntos, intentan analizar como las iniciativas locales en estas ciudades han causado desigualdades entre diferentes grupos sociales y raciales en la vivienda. Las maneras principales de el desplazamiento son: Desplazamiento fisico: Ocurre cuando alguien recibe una orden de desalojo, ejecución hipotecaria, o hay una falta de viviendas dignas. Desplazamiento economico: Ocurre cuando hay un gran aumento en el costo de la renta y el costo causa el desplazamiento de familias.

Your voices matter. The insights gathered will shape the future of housing policies for a fairer, more inclusive community for all. For our first question, please tell us, have YOU seen housing displacement show up in your community?	Desplazamiento cultural: Ocurre cuando hay una perdida en la identidad cultural de la comunidad mientras desaparecen servicios y instituciones. Leyes en el estado de Washington como HB 1220 requieren que las ciudades promueven iniciativas de viviendas que son justas y dirigidas a proteger contra el desplazamiento de familias. Ahora que las cuidades se preparan para revisar y actualizar sus planes generales, buscan participacion de las comunidades para informar las estrategias que protegen contra el desplazamiento de hogar. Incorporando las voces de la comunidad nos ayudará a crear protecciones de viviendas que son mas justas y inclusivas. Tus voz es importante, y la información que compartes ayudaran a informar como se hacen las leyes y iniciativas de vivienda para asegurar una comunidad inclusiva para todos. Para nuestra primera pregunta, cuentanos si ha visto el desplazo de vivienda en su comunidad? Como ha pasado?
Next, Are there policies or practices in your community that you think increase displacement risk?	Para nuestra proxima pregunta, dinos si cree que hay leyes o practicas que aumenta el riesgo de desplazamiento?
Finally, In your experience, who in your community has been displaced or is most at risk of displacement?	Finalmente, en tu experiencia, quienes en su comunidad esta a riesgo de ser desplazado de su hogar?

Compensation

Participants who completed the survey in its entirety were eligible for a $25 gift card. Amazon Gift Cards were selected for their variety of use options, and due to the low fees which allowed for a maximum budget for community participant compensation.

Distribution
The Survey was distributed by email and through targeted flyers posted at identified locations in the four participating cities.
The City partners distributed the survey through the platforms they deemed most appropriate, including email lists, social media, and direct outreach.

Uncommon Bridges produced suggested outreach language in English and Spanish, a printable flyer in English and Spanish with a QR code, and shortened direct link (using bit.ly) to aid in ease of access to the survey.

Uncommon Bridges identified key community organizations to assist in email outreach:

- Timberland Library – branches in each participating city
- Virgil Clarkson Lacey Senior Center
- Evergreen College Veterans Resource Center
- Disabled American Veterans Ch 41
- Community Action Council
- Thurston County Food Bank
- Rebuilding Together Thurston County
- CIELO
- Hispanic Roundtable

Digital Access
To increase the accessibility of these surveys and mitigate the digital divide, Uncommon Bridges employed two strategies: (1) development of a tech support guide in Spanish and English, and (2) specific community partners to serve as a community location to provide access support.

All community organizations assisting with outreach were provided the Tech Support that they might opt to use to assist their respective audiences in participating in the survey.

Two key community partners agreed to provide digital access support to interested community participants: The Timberland Library (Lacey, Tumwater, Yelm and Olympia branch locations), and the Lacey Senior Center.

The Libraries were provided the printable flyers and tech support sheets. They offered Chromebooks with A/V capabilities that could be used by community members during any regular library hours.

The Senior Center identified two volunteers who were oriented to the project, and who hosted open hours at the Center on Tuesdays and Thursdays to assist tech-limited seniors in completing the survey.

Sample Outreach Language:

> The four unique cities of **Olympia, Tumwater, Yelm, and Lacey** are coming together to identify and study local policies and regulations that have resulted in racially disparate impacts, displacement, and exclusion in housing for their residents.
>
> No one understands the challenges of housing affordability better than those who face them daily. That's why we're inviting impacted and at-risk community members to share their story through a video or audio recording (up to 2 min), or written message via an easy-to-use online portal, available **in English and Spanish**. *These insights will directly inform the policy recommendations we make to local leaders, ensuring they reflect the true needs of our communities.*
>
> For these valuable contributions, participants will receive a **$25 gift card** while funds last.
>
> ***Can you help participants share their story?*** I am reaching out today to connect with those who can help get the word out or provide technical assistance to people whose perspectives deserve to be included in this review of local housing policies. This might include:
>
> - Putting up a flyer (attached)
> - Sending an email message (option for email copy attached)
> - Acting as a technical assistance site (community members may be referred to your location - tech assistance guide attached)
>
> If you have any questions, please reach out to
> Em Piro (Project Associate) at em@uncommonbridges.com or call 206-865-5210, or
> Charlotte Jernick (Project Manager) at charlotte@uncommonbridges.com or call 206.971.6030 x114.
>
> Thank you for helping make a meaningful impact in our South Sound region!

Data Integrity

In an effort to ensure that as many responses as possible reflected the local community, a password was introduced to discourage bots and AI responses. Data was also closely reviewed to filter automated responses and responses submitted from outside the South Sound region.

Synthesis of Preliminary Findings

Are people observing displacement?	Policies or practices increasing displacement risk	Who has been displaced, or is at highest risk?

Overwhelmingly (>95%) Yes	Increase in cost of living	Communities of color
Observations that displacement has increased in recent years	Rent increases	Indigenous communities
Changes to economy are cited as a major factor	Poorly maintained rental housing	Manufactured home residents
Specifically in predominantly Black neighborhoods	Lack of affordable housing	Disability
Downtown Olympia	Increasing costs of building	Access to living wage
Specifically highlighting long-term residents being pushed out of housing	Gentrification: land and neighborhood improvements – "urban revitalization" – coinciding with luxury development and increased cost of living	Low income households
Relatives sharing a household (ex: adult children moving in with parents)	Increases in property tax	Single mothers, women and children
	Zoning laws	Seniors
	Rise of Air BnB listings	African American and Hispanic communities and households
	UGA expansion that prioritizes suburban development over affordable housing	Young people not in high-paying jobs
	Zoning for density has also led to an increase in luxury development	LGBTQ+ populations
	Lack of rent stabilization	
	Tax Increment Financing leading to influx of upscale businesses and development	
	Tax abatement programs for luxury developers	
	Permitting and cost requirements of developing affordable housing, especially in a SFH	
	Inaccessible social services	
	Speculative development	

	Zoning that limits affordable housing development	
	Building renovations	

Quotes:

When we went to city council meetings, they talked about numbers—property values, economic growth. But they never talked about us. It felt like our culture, our lives, and our stories didn't matter in the face of development.

The story of housing displacement is a story of power and whose voices are heard. It's not just about homes; it's about belonging, dignity, and the right to exist in spaces we've built and called home for years.

I have also seen many community institutions such as restaurants and bars close down, some which are safe havens for folks with marginalized identities — an example of cultural displacement. Many people in my age range(30-40) from Olympia have moved to Centralia, Chehailis, Shelton in search of more affordable rent.

Olympia's policy of allowing unlimited density bonuses for developments that include affordable housing units has inadvertently increased displacement risk. Though this policy boost revenue generation but it also enable developers to build larger, more expensive projects that cater to affluent buyers.

Yelm's Urban Growth Area (UGA) expansion policies have heightened displacement risk by prioritizing suburban development over affordable housing and community needs.

December 12, 2024

Olympia, Lacey, Tumwater and Yelm Housing Displacement Analysis Affinity Groups

Accessory Dwelling Unit Affinity Group

On December 3rd, Uncommon Bridges facilitated a Housing Displacement Analysis Affinity Group, made up of a cohort of community members with direct lived or professional experience with Accessory Dwelling Units. Attendees to these meetings consisted of individuals that worked in construction and real estate trades as well as individuals who with own or live in accessory dwelling units. The group discussed ways in which ADU's may help in addressing displacement, issues that they have noticed affecting ADU construction and affordability, and how ADU's may help solve for other issues that the public faces with the Washington housing system.

COHORT ATTENDEES:

- Mary Barrett, Community Member
- Jessie Simmons, Olympia Master Builders
- Chris Lester, Thurston County Realtors
- Doug Mah, Thurston Chamber of Commerce
- Lisa Mikesell, Community Members

Uncommon Bridges followed the agenda below:

- Welcome
- Meeting Purpose & Review
- Understanding Housing Displacement (physical, economic, cultural) and Comprehensive Plans
- How Input Will Be Used
- Questions
- Final Reflections & Adjourn

KEY THEMES

Uncommon Bridges led a discussion on ADUs which led to the facilitators identifying key themes and concerns of group members. Those concerns broadly fell under these categories:

- ADUs provide long term, multi-generational investment opportunities.
- Building and zoning polices/regulations are seen as significant hurdles to siting and developing more ADUs.
- ADUs can be a solution in the long-term elder care crisis as the American population ages.
- Municipal infrastructure and staff capacity may be reducing the speed of ADU permit review.
- ADU owner and builder relationships are more about collaboration and customization, and less marketing and mass production.

Within these themes the facilitators and the group discussed the most important ideas to share with the 4 participating cities.

- The City of Lacy has an effective and streamlined ADU process. Other cities maybe served to draw inspiration from this process.
- Lists of ADU builders on government websites could help connect builders to interested parties.
- Imaginative education materials around ADU uses are needed.
- ADUs are just one small part in addressing the housing crisis.
- The cities should investigate ways to streamline permit processes.
- The cities should find ways to help small developers.
- There is a deep need for more housing diversity.
- ADU affordability raises the conflict between affordability and owner returns.
- Usually, ADU owners need help paying off the loan so affordable construction costs are crucial.
- Rebates for ADU construction are ineffective for both owners and small builders.

Group Discussion Mural Transcription

ADUs Provide Long Term, Multi-Generational Investment

- Societal perceptions on=f multifamily housing
- Adult children currently have difficulty finding housing currently
- Owners may take a lower ROI for renting to family/friends
- ADUS could provide a built-in support system
- ADUs give flexibility for housing needs over the lifetime*
- Many consider buying properties that could have future ADU builds located on them
- ADUs can create urban density with multi-generational household's mind

Permanent Affordability

- Supplement existing community service infrastructure
- Housing cost burden is high for everyone
- Tax structures should be reevaluated to make this more advantageous to builders
- Multiple ADUs collocated on a property
- Integrate case management services

Collocating services geared towards individuals that need supportive services

- Housing as a foundation for other needs
- There are many factors to displacement
- Maximize supply
- Are the savings to development passed on to the consumer
- Investment and housing can be conflicting interests
- Regulating ADUs and delivering low rents is a difficult issue

Building & Zoning Polices/Regulations Provide Significant Hurdles

- Rural ADUs need more attention
- Households used commuting to address rising rents (this is displacement)
- ADUs densify areas
- Preconstruction costs are high
- There need to be economic opportunities to prevent displacement
- Overall housing densification
- Need to supplement ADUs with higher density development
- Many of the issue ADU owners have are similar to large scale developers
- Potential low interest loans for ADU construction
- Regulation review for efficacy
- ADUs provide a path out of housing segregation
- Prepackaged ADU processes speed up complications
- About 25% of the final cost of housing is regulation
- Incentives to create more ADU buyers

Provide Care Structures

- Family can help provide care structures to ADU residents
- Solutions for ageing complications such as degenerative illnesses
- Interpersonal conflicts can also lead to vulnerable people being displaced
- Potentially located near more health services, providing opportunities to those more vulnerable to homelessness

Municipal infrastructure and capacity are an issue

- Sidewalks, sewer connection can be expensive in rural communities
- Building in rural communities may stress services
- Pre-approved design v existing structures
- Staff capacity needed

ADU owner and builder relationships provide an opportunity for collaboration

- ADU's could be part of a home "remodel"
- ADU construction is a Niche field and those offering construction services are few.
- Builder training for ADUs
- Many ADUs are built with already existing buyers

November 21, 2024

Olympia, Lacey, Tumwater and Yelm Housing Displacement Analysis Affinity Groups

Summary

On November 21st, Uncommon Bridges facilitated a Housing Displacement Analysis Affinity Group, made up of a cohort of with residents of the 4 member cities that represent low-income residents or housers in the area. This meeting covered concerns, perspectives, and potential solutions the participants had around displacement and housing in Olympia, Yelm, Tumwater, and Lacey. Themes discussed included preventative measures, policy and practice considerations, and who is being displaced.

COHORT ATTENDEES:

- Berenice Hartt Plazas, Thurston County Food Bank
- Kim Piper, Property Manager
- Eileen Dalton, SPS Habitat for Humanity
- KayVin Hill, Lived Experience Advisory Board, Thurston County
- Faith Foote, Sound Legal Aid
- Ron Baugh-Schlossberg, Sound Legal Aid

Uncommon Bridges followed the agenda below:

- Welcome
- Meeting Purpose & Review
- Understanding Housing Displacement (physical, economic, cultural) and Comprehensive Plans
- How Input Will Be Used
- Questions
- Final Reflections & Adjourn

Uncommon Bridges led a discussion on housing displacement using a Mural Board to capture the comments from the cohort members. The group shared feedback and recommendations given their unique lived experience and perspective.

KEY THEMES

Participants shared their reflections, recommendations, and insights on the specific housing pressures they face, issues specific to low-income home communities, and what they would like cities to do to address these challenges. Key themes from the conversation are listed below.

- Displacement can happen to anybody.
- Economic impacts drive displacement.
- There are significant language barriers - landlords do not or cannot effectively communicate eviction notices and warnings.
- There is a high correlation between displacement and homelessness.
- Displacement is escalating throughout the county.
- Watch the model that Thurston Regional Planning Council has put in place is creating change faster to learn best practices.
- The perceived social safety net doesn't exist.
- We need a greater focus on houselessness prevention.
- There is a need for municipal collaboration on providing housing services.

Group Discussion

To construct key themes, our team organized and analyzed the following 4 main topics that emerged from the discussion:

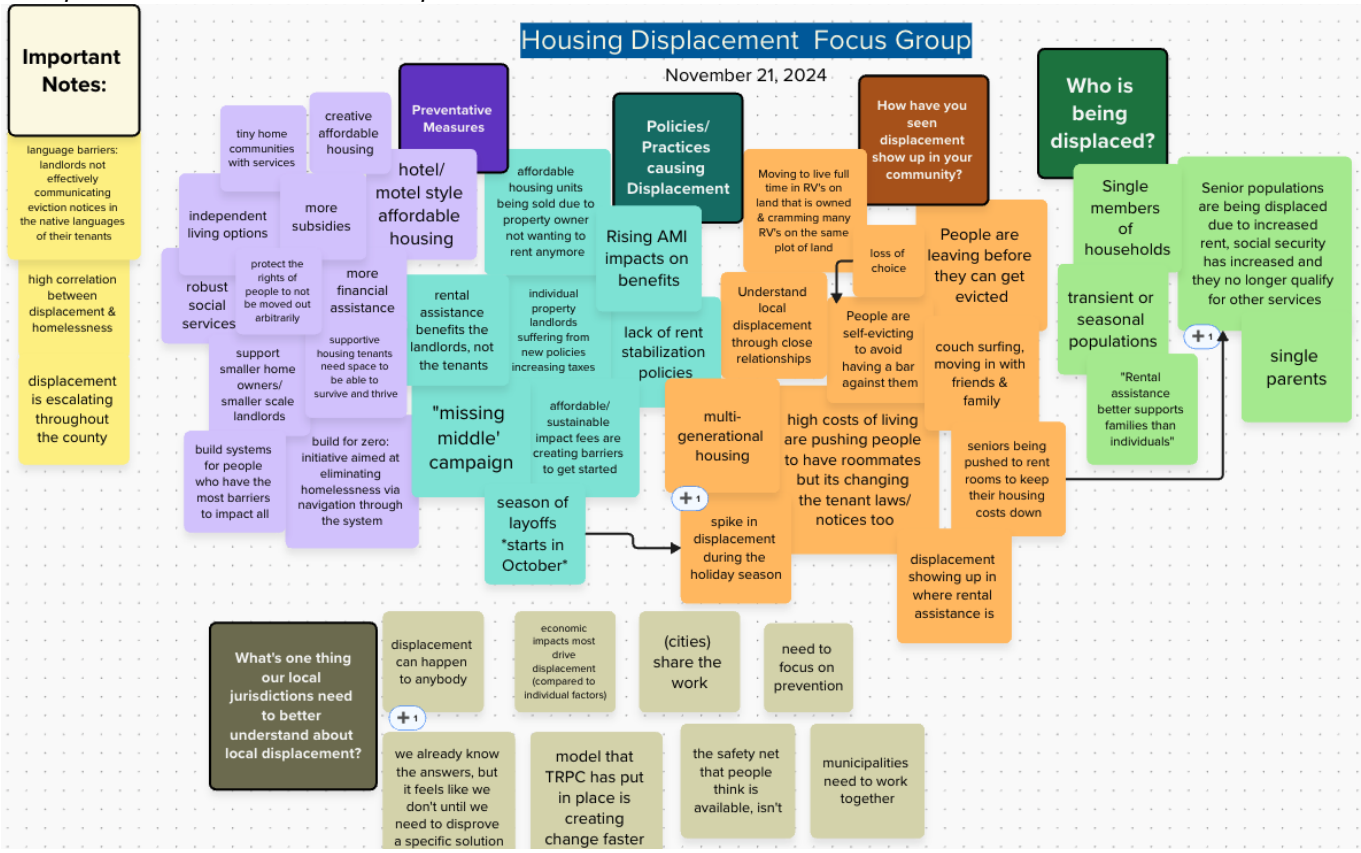
Preventative measures - In order to prevent displacement, there is a need to focus more heavily on prevention rather than react.

Policies causing Displacement - Participants identified a number of policies that create the conditions for displacement or actively make it worse.

How have you seen displacement in your community? - Participants shared ways in which they have experienced or viewed displacement happening in their lives.

Who is being displaced? - Participants shared their views of what characteristics make households vulnerable to displacement.

Group Discussion Mural Transcription



Preventative measures

- Hotel/motel style affordable housing
- More creative affordable housing
- Tiny home community with services
- Independent living options
- Robust social services
- Protect the rights of people to not be moved out arbitrarily
- More financial assistance
- Supportive housing tenants need space the be able to survive
- Build for zero: initiative aimed at eliminating homelessness via navigation through the system
- Build systems who have the most barriers to impact all.
- Support smaller homeowners/ small scale landlords
- Robust social services
- More subsidies

Policies and Practices causing displacement

- Affordable housing units being sold due to property owner not wanting to rent anymore

- Raising AMI has an impact on benefits
- Rental assistance benefits the land landlords, not the tenants
- Individual property landlords suffering from new policies increasing taxes
- Affordable sustainable impact fees impact fees are creating barriers to get started
- Season of layoffs starts in October

How have you seen displacement show up in your community?

- People leave before they get evicted
- Moving to live in RVs on land that is owned and cramming many RV's on same plot of land
- Understand local displacement patterns through relationship building
- People are self-evicting to avoid having an impact on their credit
- High costs of living leads people to have more roommates but buildings change their roommate allowances
- Spike in displacement during holiday season
- Multi-generational housing
- People have fewer options for where to live
- People couch surf (non-visible homelessness)

Who is Being Displaced?

- Single members of households
- Transient or seasonal populations
- Rental assistance better supports families than individuals
- Single parents
- Senior populations

November 21, 2024

Olympia, Lacey, Tumwater and Yelm Housing Displacement Analysis Manufactured Home Community Affinity Group

Summary

On November 21st, Uncommon Bridges facilitated a Housing Displacement Analysis Affinity Group, made up of a cohort of manufactured (or mobile) home stakeholders, including residents, property management, development, advocates, and civic leadership. The participants provided insights, feedback, and recommendations to the cities of Olympia, Tumwater, Lacey and Yelm regarding specific pressures and opportunities regarding housing for the updated Comprehensive Plan. Key themes that emerged from the discussion focused around the differing rates of displacement between small-scale operators and private equity firms as landowners, legal paths, physical and economic entrapment.

COHORT ATTENDEES:

- Stephen Becker, Senior Manufactured Home Community (SMHC) Resident
- Sharron Cornwall, property manager
- Donna Daniels, SMHC Resident
- Karen Gregerson, SMHC Resident
- Richard Gregerson, SMHC Resident
- Ed Hildreth, civic leader
- Diane Houston, SMHC Resident
- Kyle Taylor Lucas (Tulalip/Snohomish), MHC Resident
- Kathy McCormick, SMHC Resident
- Kevin McCrea, Property developer
- Dean Perryman, MHC Resident
- Anne Sadler, Association of Manufactured Homes
- Laura Scheffer, MHC Resident

Uncommon Bridges followed the agenda below:

- Welcome
- Meeting Purpose & Review
- Understanding Housing Displacement (physical, economic, cultural) and Comprehensive Plans
- How Input Will Be Used
- Questions
- Final Reflections & Adjourn

Uncommon Bridges led a discussion using a Mural Board to capture the comments from the cohort members. The group shared feedback and recommendations on housing policy and what measures they would like to see incorporated into the comprehensive plan.

KEY THEMES

Participants shared their reflections, recommendations, and insights on the specific housing pressures they face, issues specific to manufactured home communities, and what they would like cities to do to address these challenges. Key themes from the conversation are listed below.

- Small-scale operators and private equity firms as landowners
- Land ownership options and barriers
- Legal paths and challenges
- Physical and economic entrapment
- Role of cities to respond to resident needs
- Availability of quality affordable housing
- Specific impacts and access to advocacy for communities of color

Group Discussion

To construct key themes, our team organized and analyzed the following 4 main topics that emerged from the discussion:

Land Ownership

- All residents shared how the increase in private equity ownership in recent years has led to rapidly rising costs of living in MHC. Some have explored community land trusts (CLTs) but find the setup and structure challenging with existing financial burdens and pressures. Participants reported that private equity firms openly reported fee-based capital gains.
- Residents noted that a preferred model is private ownership of the land by local, family-owned operations with on-site management. They found that establishing rapport with owners led to greater transparency, care for the parks, and tenancy continuity. Participants want cities to ease up local restrictions that make it difficult for local, family-owned landowners to manage parks. Cities could support residents in forming cooperatives or CLTs to be prepared to exercise right of first refusal and manage properties independently.

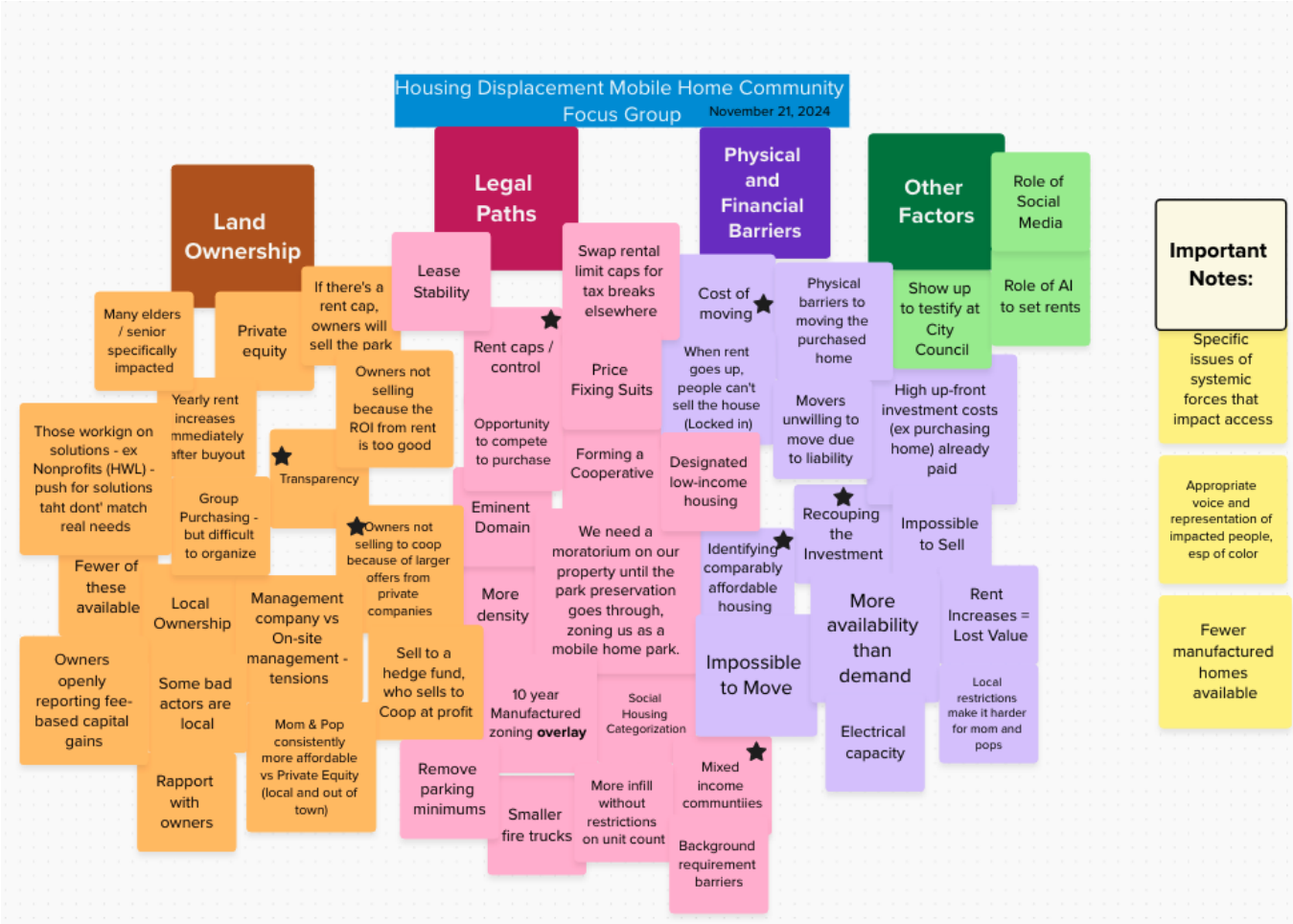
Legal Paths

- Participants shared the role that rent caps could play in managing rising costs and noted that this could increase the likelihood of landowners to sell the park. Discussion of group buying options pointed out that existing tenants have the right of first refusal, but this is often not recognized by landowners.
- Participants want cities to put moratoriums on properties as they transition through zoning changes, a 10-year manufactured zoning overlay, opportunity to compete to purchase, use of eminent domain as a means of preserving a manufactured home park from being redeveloped, low-income and social housing designations, mixed-income communities, and for cities to explore options around rent caps and tax breaks that disincentivize price gouging.

Physical and Economic Entrapment

- Participants described their situation as “Impossible to move, Impossible to stay.” As landowners increase rents and underinvest in utilities such as electric, water, and waste management, the value of the property decreases and owners are locked in. Insurance companies prevent moving companies from relocating manufactured homes due to the associated risks.
- Participants want cities to support upgraded utilities and infrastructure and promote incentives for park owners to improve their properties.

Group Discussion Mural Transcription



Important Notes and Other Factors

Specific issues of systemic forces that impact access

- Appropriate voice and representation of impacted people, especially of color
- Fewer manufactured homes available
- Role of social media
- Role of AI to set rents

Show up to testify at City Council

Land Ownership:

- Many elders/seniors specifically impacted
- Private equity
- If there's a rent cap, owners will sell the park
- Yearly rent increases immediately after buyout
- Owners not selling because the ROI from rent is too good
- Those working on solutions – ex Nonprofits (HWL) – push for solutions that don't match the real needs
- Group purchasing – but difficult to organize
- Transparency (starred)
- Local ownership
- Management company vs On-site management - tensions
- Fewer of these available
- Some bad actors are local
- Owners not selling to coop because of larger offers from private companies (starred)
- Sell to a hedge fund, who sells to Coop at profit
- Some bad actors are local
- Mom and Pop consistently more affordable vs Private equity (local and out of town)
- Rapport with owners

Legal Paths:

- Lease stability
- Rent caps/control (starred)
- Swap rental limit caps for tax breaks elsewhere
- Price fixing suits
- Opportunity to compete to purchase
- Forming a cooperative
- Eminent domain
- We need a moratorium on our property until the park preservation goes through, zoning us as a mobile home park.

- 10-year manufactured zoning overlay
- Social housing categorization
- Remove parking minimums
- Smaller fire trucks
- More infill without restrictions on unit count
- Mixed income communities (starred)
- Background requirement barriers

Physical and Financial Barriers:

- Cost of moving (starred)
- Physical barriers to moving the purchased home
- When rent goes up, people can't sell the house (locked in)
- Movers unwilling to move due to liability
- High up-front investment costs (ex: purchasing a home) already paid
- Recouping the investment (starred)
- Identifying comparably affordable housing
- Impossible to sell
- More availability than demand
- Rent increases = lost value
- Impossible to move
- Local restrictions make it harder for mom and pops
- Electrical capacity

December 10, 2024

Olympia, Lacey, Tumwater and Yelm Housing Displacement Analysis Military Affinity Groups

Summary

On December 10th, Uncommon Bridges facilitated a Housing Displacement Analysis Affinity Group, made up of a cohort of military-connected households including veterans, dependents, and service providers. The participants provided insights, feedback, and recommendations to the cities of Olympia, Tumwater, Lacey and Yelm regarding specific pressures and opportunities regarding housing for the updated Comprehensive Plan. Key themes that emerged from the discussion focused around coordination of resources and tenant protections.

COHORT ATTENDEES:

- Michael Klos, Special Operations Veteran and Liaison With Disabled American Veterans Chapter 41
- Mohammad Mahis, Veteran US Army Combat Interpreter
- Thomas Mason, Disabled Desert Storm Veteran
- Katherine Jane Mitchell, Military Dependent
- Victoria Lin Vazquez, Military Dependent

Uncommon Bridges followed the agenda below:

- Welcome
- Meeting Purpose & Review
- Understanding Housing Displacement (physical, economic, cultural) and Comprehensive Plans
- How Input Will Be Used
- Questions
- Final Reflections & Adjourn

Uncommon Bridges led a discussion using a Mural Board to capture the comments from the cohort members. The group shared feedback and recommendations on housing policy and what measures they would like to see incorporated into the comprehensive plan.

KEY THEMES

Participants shared their reflections, recommendations, and insights on the specific housing pressures they face, issues specific to military households, and what they would like cities to do to address these challenges. Key theme are listed below:

- The VA's coordination of housing services is lacking capacity and efficiency.
- There are intersecting factors that make finding housing as an active duty, veteran, or dependent (ex. Claiming both disability and veteran benefits for proof of income.)
- There is an inconsistency of benefit access across service members and their families
- The city should serve as convener of resources to support the gaps left by the VA and other support agencies.
- Tenant protections are needed to ensure military households can't be discriminated against for housing based on the non-traditional nature of their income source.
- Social isolation is a part of living in a civilian community as a military or veteran household, making transportation routes and transit options key during new construction.
- There is an opportunity to leverage private funding for military households to support affordable housing construction efforts. (i.e. Foundations)

To construct key themes, our team organized and analyzed the following 4 main topics that emerged from the discussion:

Coordination of Resources

- Participants emphasized breakdowns in resource and benefit awareness, availability, and accessibility. These breakdowns result in military benefit recipients being unable to access their benefits, declined housing, and a disproportionate burden upon military households when attempting to navigate benefits that support housing access.
- Participants recommended cities act as resource conveners, equip expert staff positions to support resource navigation, and establish stronger, more reciprocal relationships between municipalities and Veterans Associations.

Renter Protections

- Participants described experiences of being denied housing due to lack of awareness from landlords about military benefit structure, price fixing based on publicly available information about military compensation and housing allowances, age discrimination, and challenges connecting with property management representatives as the sector shifts to more corporate ownership.
- Participants recommended that cities identify ways to monitor income verification, establish local ordinances to enforce attainable income verification, and address price fixing.

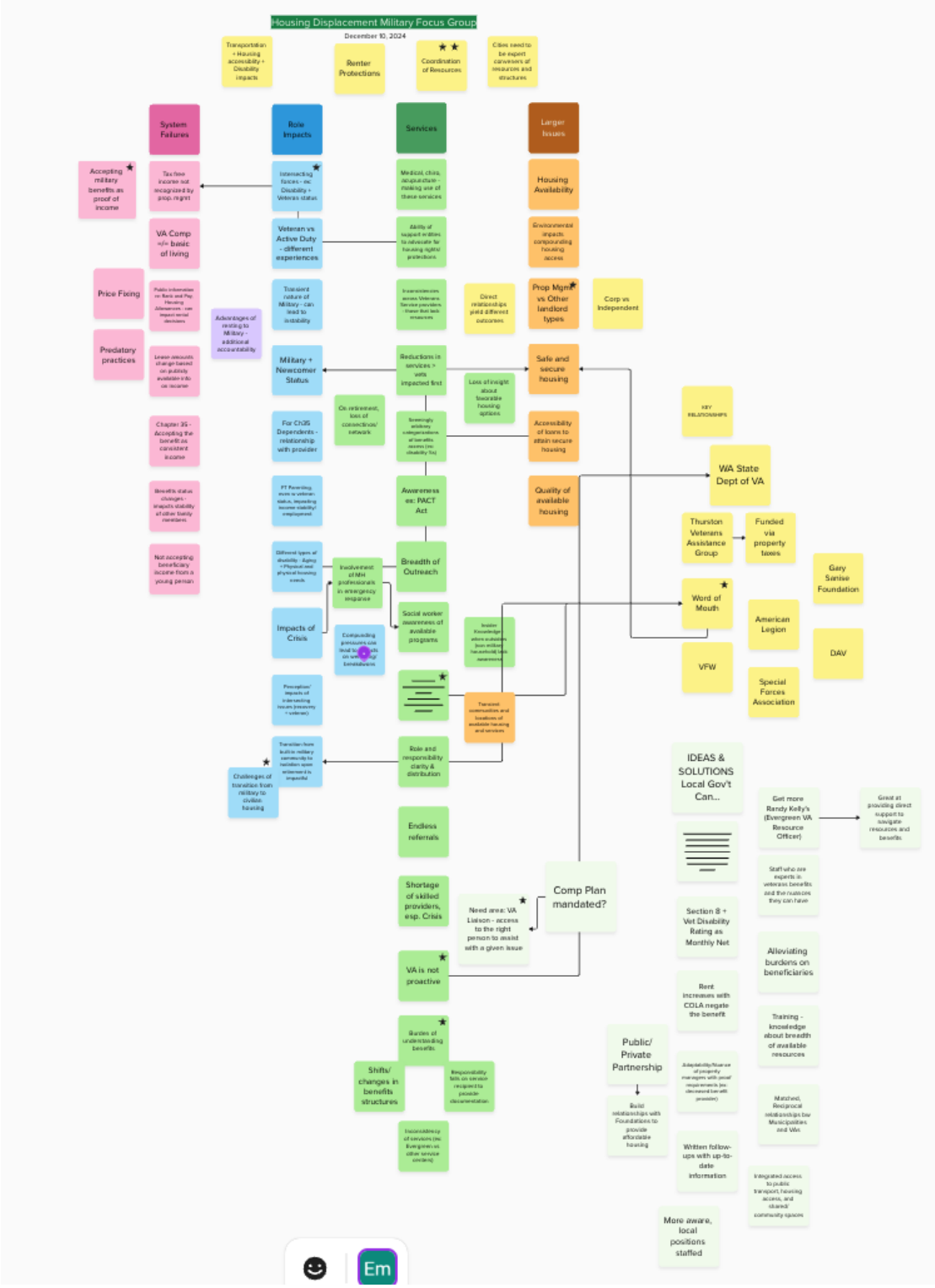
Provider Competence

- Participants shared their desires for service providers to serve as advocates when addressing barriers to housing, as well as the challenges they face working with providers, including misinformation about benefits, out-of-date information, difficulty connecting with knowledgeable service providers, referral loops, and overall lack of coordination between providers.
- Participants brainstormed trusted supports and providers during the meeting.
- Participants called on cities to establish reciprocal relationships with the Veterans Association specifically, where the VA supports the city in understanding the needs of the military community, and cities aid the VA in serving as housing advocates. They also suggested the city support professional positions with expertise in the nuances of navigating military benefits.

Comprehensive Approach

- Participants shared the specific impacts felt by intersecting factors, especially disability and veteran status. They recognized inconsistencies in how statuses are determined and the impact on benefits and housing access, as well as the importance of coordinated services that recognize the compounding impacts of physical and mental health, age, immigrant status. They shared the specific challenge when military households transition from active duty to veteran, and the experiences of social isolation. They highlighted the prominence of word of mouth as a key method of accessing housing and navigating benefits.
- Participants reiterated the importance of transportation, housing, and social services being factored together when planning for cities that are accessible for people of all mobilities and abilities.

Group Discussion Mural Transcription



High Level Themes:

- Transportation + Housing accessibility + Disability impacts
- Renter Protections
- Coordination of Resources (starred)
- Cities need to be expert conveners of resources and structures

System Failures:

- Tax-free income not recognized by property management
- Accepting military benefits as proof of income
- VA comp does not equal basic cost of living
- Price fixing
- Public information re: rank and pay, housing allowances – can impact rental decisions
- Predatory practices
- Lease amounts change based on publicly available info on income
- Chapter 35 – accepting the benefit as consistent income
- Benefit status changes – impacts stability of other family members
- Not accepting beneficiary income from a young person

Role Impacts:

- Intersecting forces – ex: disability + veteran status (starred)
- Veteran vs Active Duty – different experiences
- Transient nature of military – can lead to instability
- Military + Newcomer status
- For Ch35 dependents – relationship with provider
- FT Parenting, even with veteran status, impacting income stability/employment
- Different types of disability – ageing and physical, and physical housing needs
- Impact of crisis
- Perception/impacts of intersecting issues (recovery + veteran)
- Compounding pressures can lead to impacts on wellbeing/breakdowns
- Ex: Inaccurate information can feel devastating
- Transition from built-in military community to isolation upon retirement is impactful (starred)
- Challenges in transition from military to civilian housing (starred)

Services:

- Medical, chiro, acupuncture – making use of all these services
- Ability of support entities to advocate for housing rights/protections
- Inconsistencies across Veterans Service providers – those that lack resources
- Reductions in services > vets impacted first
- Seemingly arbitrary categorizations of benefits access (ex: disability percentages)
- On retirement, loss of connections/network
- Awareness ex: PACT Act
- Breadth of outreach
- Social worker awareness of available programs

- Involvement of MH professionals in emergency response
- Insider Knowledge - when outsiders (non-military households) lack awareness
- Impacts of miscommunication/lack of understanding impacts access to services (starred)
- Role and responsibility clarity & distribution
- Endless referrals
- Shortage of skilled providers, esp. Crisis
- VA is not proactive (starred)
- Burden of understanding benefits
- Shifts/changes in benefits structures
- Responsibility falls on service recipient to provide documentation
- Inconsistency of services (ex: Evergreen vs other service centers)

Larger Issues:

- Housing availability
- Environmental impacts compounding housing access
- Property management vs other landlord types (starred)
- Corp vs Independent
- Direct relationships yield different outcomes
- Safe and secure housing
- Accessibility of loans to attain secure housing
- Quality of available housing
- Transient communities and locations of available housing and services

Key Relationships:

- WA State Dept of VA
- Thurston Veterans Assistance Group
- Funded via property taxes
- Word of Mouth (starred)
- American Legion
- Veterans of Foreign Wars (VFW)
- Special Forces Association
- Disabled American Veterans
- Gary Sinise Foundation

Ideas & Solutions: Local Government Can…

- Need area: VA Liaison - access to the right person to assist with a given issue (starred)
- Comp plan mandated?
- Local/State Ordinance mandating property mgmt. companies to stop dismissing fixed income veterans 3x monthly rent gross income
- Section 8 + Vet Disability Rating as Monthly Net
- Rent increases with COLA negate the benefit
- Adaptability/Nuance of property managers with proof requirements (ex: deceased benefit provider)

- Written follow-ups with up-to-date information
- More aware, local positions staffed
- Public/Private Partnership
- Build relationships with Foundations to provide affordable housing
- Get more Randy Kelly's (Evergreen VA Resource Officer)
- Great at providing direct support to navigate resources and benefits
- Staff who are experts in veterans benefits and the nuances they can have
- Alleviating burdens on beneficiaries
- Training - knowledge about breadth of available resources
- Matched, Reciprocal relationships bw Municipalities and Vas
- Integrated access to public transport, housing access, and shared/community spaces

HOUSING ELEMENT: PART 2 – TECHNICAL INFORMATION – APPENDIX E: POLICY EVALUATION MATRIX

City of Tumwater

Policy Evaluation Matrix

Does the policy reduce displacement pressures or advance housing objectives?

Yes - 2	Somewhat - 1	Neutral/None - 0	Negative Impact - (-1)

		COMMERCE INDICATORS						TUMWATER-SPECIFIC CRITERIA				
Number/Ref.	**Policy Recommendation**	**Racially Disparate Impacts:** Does this policy prevent racially disparate impacts or work to repair past harm?	**Displacement:** Does this policy help prevent or mitigate economic displacement?	**Displacement:** Does this policy help prevent or mitigate physical displacement?	**Displacement:** Does this policy help prevent or mitigate cultural displacement?	**Housing Exclusion:** Does this policy prevent the exclusion of historically marginalized or other vulnerable populations from accessing safe and affordable housing appropriate for their needs?	**Implementation Considerations:** Does the city have staff and resources necessary to implement this policy effectively?	Does this policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?	Does this policy incentivize and support the development of affordable and deeply affordable housing?	Does this policy encourage adaptive reuse of existing residential units or other buildings where feasible?	Does this policy incentivize or reduce barriers to developing diverse housing types including smaller homes?	Impact Score (out of 20)
New Policies												
	Explore ways to monitor renter income verification, which may include establishing local ordinances to enforce attainable income verification, and identify and address price fixing.	1	1	1	1	0	0	1	1	0	0	6
	Consider creative zoning overlays or land use policies to classify and protect manufactured home communities.	1	2	2	2	2	1	2	2	0	0	14
	Establish a program, partnering with local organizations where possible, to incentivize and assist mobile park owners with improving their properties and support upgraded utilities and infrastructure for these properties.	1	1	2	2	2	0	2	2	2	1	15
	Encourage collaboration between local organizations working to provide affordable housing and prevent homelessness.	2	2	2	2	2	1	1	2	0	0	14
	Create and promote an educational program, partnering with local organizations where possible, to explain the long term investment opportunity of ADUs and the financial plan required to pursue building an ADU.	0	1	0	1	0	1	0	1	2	2	8
	Encourage or support residents of mobile home communities in forming Community Land Trusts or other cooperatives so they can manage their properties independently and be prepared to exercise the right of first refusal.	2	2	2	2	2	0	2	2	1	0	15

City of Tumwater – Policy Evaluation Matrix

		COMMERCE INDICATORS						TUMWATER-SPECIFIC CRITERIA				
Number/Ref.	**Policy Recommendation**	**Racially Disparate Impacts:** Does this policy prevent racially disparate impacts or work to repair past harm?	**Displacement:** Does this policy help prevent or mitigate economic displacement?	**Displacement:** Does this policy help prevent or mitigate physical displacement?	**Displacement:** Does this policy help prevent or mitigate cultural displacement?	**Housing Exclusion:** Does this policy prevent the exclusion of historically marginalized or other vulnerable populations from accessing safe and affordable housing appropriate for their needs?	**Implementation Considerations:** Does the city have staff and resources necessary to implement this policy effectively?	Does this policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?	Does this policy incentivize and support the development of affordable and deeply affordable housing?	Does this policy encourage adaptive reuse of existing residential units or other buildings where feasible?	Does this policy incentivize or reduce barriers to developing diverse housing types including smaller homes?	Impact Score (out of 20)
	Create a program to support the private ownership of mobile home communities and private rental units by local, family-owned operations with on-site management, and disincentivize corporate owners from buying homes in the community.	2	2	2	2	2	1	2	1	0	0	14
	Partner with local organizations to provide a program to assist residents with applications and explain housing benefits and other housing assistance programs.	2	2	2	1	1	0	0	1	0	0	9
	Create and promote an educational program to provide private landlords with information on legal requirements and renter income qualifications for those on supplemental income.	2	1	2	1	0	0	0	0	0	0	6
	Increase staff capacity to process ADU and other housing applications in a timely manner.	0	1	1	2	0	2	1	1	2	2	12
	Encourage the retention and maintenance of existing affordable housing, especially in high-opportunity neighborhoods or areas that have historic patterns of segregation.	2	2	2	1	2	0	0	1	1	0	11
Housing Action Plan												
1.a.	Donate or lease surplus or underutilized jurisdiction-owned land to developers that provide low-income housing and establish a process for accepting or coordinating the acceptance of land donations from others this action.	2	2	1	1	2	2	0	2	2	1	15
1.b.	Where a Planned Unit Development is used for residential development, consider requiring a portion of the housing be low- residential development	2	2	0	1	2	2	0	1	0	1	11
1.c.	Adopt a “Notice of Intent to Sell” ordinance for multifamily developments.	2	2	2	2	2	2	2	1	2	0	17

City of Tumwater – Policy Evaluation Matrix

		COMMERCE INDICATORS						TUMWATER-SPECIFIC CRITERIA				
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1.d.	Provide funding for the Housing Authority of Thurston County and other non-profit organizations to buy income-restricted units proposed to be converted to market rate housing.	2	2	2	2	2	1	2	2	2	0	17
1.e.	As part of Comprehensive Plan and development code changes, include an evaluation of the impact such changes will have on housing affordability, especially for low-income households.	1	1	1	1	1	2	0	0	0	0	7
1.f.	Provide funding for low-income and special needs residents to purchase housing through community land trusts.	2	2	2	2	2	1	2	2	1	0	16
1.h.	Encourage low-income housing units as part of new developments.	2	2	1	1	2	2	0	2	0	2	14
1.j	Establish a program to preserve and maintain healthy and viable manufactured home parks.	2	2	2	2	2	1	2	2	0	2	17
1.m	Extend public water and sewer to unserved areas to allow infill development in underdeveloped areas.	1	2	1	1	2	1	0	1	2	1	12
2.a.	Have developers provide tenants displaced by redevelopment with relocation assistance.	1	2	2	2	1	1	0	0	0	0	9
2.b.	Partner with local trade schools to provide renovation and retrofit services for low-income households as part of on-the-job-training.	2	0	2	0	1	1	2	0	2	0	10
2.c	Adopt short-term rental regulations to minimize impacts on long-term housing availability.	2	2	2	2	1	2	1	1	0	0	13
2.d	Support down payment assistance programs for homeownership and programs that assist people entering the rental market.	2	2	2	1	2	1	0	1	0	0	11
2.f	Develop a technical assistance or education program for small landlords.	0	0	0	0	0	1	0	0	0	0	1

City of Tumwater – Policy Evaluation Matrix

		COMMERCE INDICATORS						TUMWATER-SPECIFIC CRITERIA				
Number/Ref.	**Policy Recommendation**	**Racially Disparate Impacts:** Does this policy prevent racially disparate impacts or work to repair past harm?	**Displacement:** Does this policy help prevent or mitigate economic displacement?	**Displacement:** Does this policy help prevent or mitigate physical displacement?	**Displacement:** Does this policy help prevent or mitigate cultural displacement?	**Housing Exclusion:** Does this policy prevent the exclusion of historically marginalized or other vulnerable populations from accessing safe and affordable housing appropriate for their needs?	**Implementation Considerations:** Does the city have staff and resources necessary to implement this policy effectively?	Does this policy encourage the preservation of naturally occurring affordable housing such as manufactured home parks and other existing affordable units?	Does this policy incentivize and support the development of affordable and deeply affordable housing?	Does this policy encourage adaptive reuse of existing residential units or other buildings where feasible?	Does this policy incentivize or reduce barriers to developing diverse housing types including smaller homes?	Impact Score (out of 20)
2.g	Assist non-profits in the process of acquiring mobile home parks to turn them into public trusts so that lot rental fees can be controlled.	2	2	2	2	2	1	2	2	0	2	17
2.h	Fund an energy assistance program for rental housing/make landlords do upgrades when the unit is sold.	2	1	1	1	2	1	2	0	2	0	12
3.d	Continue to look for place- making opportunities along urban corridors.	0	0	0	2	0	2	0	0	0	0	4
3.e	Mix market rate and low- income housing to avoid creating areas of concentrated low-income housing.	2	2	2	2	2	2	1	1	1	2	17
4.a	Adopt a form-based code for mixed-use zones to allow more housing types and protect the integrity of existing residential neighborhoods.	2	1	1	2	2	1	2	1	2	2	16
4.b	Strategically allow live/work units in nonresidential zones.	2	2	2	2	2	1	0	0	2	2	15
5.a	Conduct education and outreach around city programs that support affordable housing.	1	2	2	2	2	1	0	1	0	1	12
5.b	Fund Housing Navigators to assist households, renters, homeowners, and landlords with housing issues.	2	0	1	1	2	1	0	1	0	0	8
5.e	Partner with a public or private developer to build a townhouse or row house demonstration project.	0	0	0	0	0	1	0	1	0	1	3
5.f	Track data on affordable housing at the regional level.	0	0	0	0	0	2	0	0	0	0	2
6.b	Establish an affordable housing property tax levy to finance affordable housing for very low-income households.	2	2	1	1	2	2	0	2	1	2	15
6.c	Establish an affordable housing sales tax.	1	2	1	1	1	2	0	2	0	1	11
6.d	Capture the value of city investments (utilities, roads, etc.) that increase private investments in neighborhoods, especially in areas with planned or existing transit.	0	-1	0	0	0	1	0	0	1	1	2
6.e	Encourage the Housing Authority of Thurston County to take greater advantage of State and Federal housing grants and tax incentives.	1	2	1	1	1	1	2	2	1	1	13

City of Tumwater – Policy Evaluation Matrix

Land Use Element

Part 1 – Goals, Policies, and Implementation Actions

City of Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 6, 2025

December 2025

Ordinance No. O2025-010

CITY OF TUMWATER

Land Use Element

Part 1 – Goals, Policies, and Implementation Actions

Table of Contents

1. Introduction 3
A. Background 3
B. How to Read this Element 3
2. Growth Management Act – Element Goals 4
3. County-Wide Planning Policies 9
4. Element Goals and Policies 12
A. How to Read These Tables 12
B. Growth Management Goals 12
C. Equitable Community Goals 15
D. Specific Land Use Type Goals 18
E. Public Facilities Goals 21
F. Historic Preservation Goals 23
Appendix A Draft Implementation Actions 24
1. How to Read These Tables 24
2. Growth Management Goals 25
3. Equitable Community Goals 30
4. Specific Land Use Type Goals 34
5. Public Facilities Goals 37
6. Historic Preservation Goals 39

Abbreviations Used in Document

CDD – Community Development Department

RCW – Revised Code of Washington

PRD – Parks, Recreation, and Facilities Department

TED – Transportation & Engineering Department

TMC – Tumwater Municipal Code

WRS – Water Resources & Sustainability Department

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1. Introduction

A. Background

The Land Use Element is part of Tumwater's Comprehensive Plan and was prepared in response to the state Growth Management Act (Chapter 36.70A RCW) requirements to determine where particular land uses would be appropriate in Tumwater.

Tumwater's Vision, Mission, and Belief Statements that provide overarching direction for the future of Tumwater are found in the Plan Introduction.

The Land Use Element aligns and is consistent with the other elements of the Comprehensive Plan.

Part 1 – Goals Policies, and Implementation Actions establishes Tumwater's goals and policies that set forth a direction to manage land uses in Tumwater.

The goals of the Land Use Element are guided by the state Growth Management Act and the Thurston County County-Wide Planning Policies as well as the vision of a Tumwater that will be people-oriented and highly livable, with a strong economy, dynamic places, vibrant neighborhoods, a healthy natural environment, diverse and engaged residents, and a living connection to its history. The Element's goals and policies are coordinated with the other Elements in the Comprehensive Plan and regional plans.

The Land Use Element's goals and policies are the policy basis for the draft implementation actions in Land Use Element and those future actions that will be developed over the next 20 years which will be the foundation for Tumwater's annual work programs to address land use for the community.

Part 2 – Technical Information provides the technical analysis of land use in the Tumwater to support the twenty-year growth projections for Tumwater.

B. How to Read this Element

In Part 1, Chapters 2 and 3 discuss the Land Use Element's connection to the goals of the state Growth Management Act and the Thurston County County-Wide Planning Policies.

Chapter 4 presents each goal with an explanation of how to read the tables and then presents each of Tumwater's land use goals in detail with an explanation of the importance of each goal.

Appendix A contains the draft implementation actions, which are intended to be a source of annual work program items that serve to implement the goals and policies of the Land Use Element.

The annual work programs will further refine the implementation actions prior to their being put into practice. It is expected that implementation actions will be further amended, added, or subtracted as needed over the course of the 20 year Comprehensive Plan as new opportunities arise to meet the intent of the Land Use Element's goals and policies.

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2. Growth Management Act – Element Goals

Chapter 36.70A RCW requires that Tumwater show how the Land Use Element meets the fifteen planning goals contained within the Act. The following is a listing of the fifteen applicable goals, and an analysis of how the Land Use Element addresses each goal:

1. ***Urban growth***. *Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.*

The availability of services, including transportation, water and sewer facilities, and other utilities was considered when applying the land use designations in the Land Use Element. The density ranges for all residential land use designations are based on Tumwater's housing allocation across all income groups for the next twenty years and the associated population forecast and is consistent with available or planned public facilities and services.

2. ***Reduce sprawl***. *Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development.*

The Land Use Element contains goals, policies, and implementation actions that encourage compact, efficient urban development and supports higher intensity urban growth to be phased outward from the urban core. These policies include minimum density requirements, clustering in sensitive areas, overall higher residential densities throughout Tumwater, and mixed residential and commercial areas.

Each residential designation in the Land Use Element provides adequate density for feasible transportation, water, and sanitary sewer service, while protecting sensitive areas.

3. ***Transportation***. *Encourage efficient multimodal transportation systems that will reduce greenhouse gas emissions and per capita vehicle miles traveled, and are based on regional priorities and coordinated with county and city comprehensive plans.*

The Land Use Element contains goals, policies, and implementation actions that ensure coordination with the Transportation Plan and other local and regional transportation plans.

The transportation goal was updated in 2023 by the state legislature to add reducing greenhouse gas emissions and vehicle miles traveled per capita. Achieving this goal is done through a combination of goals, policies, and implementation actions in the Land Use Element, Climate Element, and Transportation Plan.

The Land Use Element also proposes higher intensity residential, mixed-use, and neighborhood commercial land use designations to encourage multi-modal, transit oriented development.

4. ***Housing***. *Plan for and accommodate housing affordable to all economic segments of the population of this state, promote a variety of residential densities*

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and housing types, and encourage preservation of existing housing stock.

How affordable housing is accommodated for all economic classes in Tumwater is more specifically set forth in the Housing Element. The Land Use Element plays a role in allocating sufficient land to ensure an adequate supply of buildable land for housing types serving every income group.

Each residential land use designation, including the mixed use designations, provides a variety of housing types at varying densities. Each Neighborhood subarea of the Land Use Element also contains sufficient variability in housing types to ensure that housing needs can be met for all segments of Tumwater 's population for the next twenty years.

5. ***Economic development***. *Encourage economic development throughout the state that is consistent with adopted comprehensive plans, promote economic opportunity for all citizens of this state, especially for unemployed and for disadvantaged persons, promote the retention and expansion of existing businesses and recruitment of new businesses, recognize regional differences impacting economic development opportunities, and encourage growth in areas experiencing insufficient economic growth, all within the capacities of the state's natural resources, public services, and public facilities.*

The Land Use Element ensures the provision of adequate land for commerce and industry in Tumwater and accommodates Tumwater's twenty-year employment forecast.

The Economic Development Plan makes specific recommendations for economic development in Tumwater.

6. ***Property rights***. *Private property shall not be taken for public use without just compensation having been made. The property rights of landowners shall be protected from arbitrary and discriminatory actions.*

The Attorney General is directed under RCW 36.70A.370 to advise state agencies and local governments on an orderly, consistent process that better enables the government to evaluate proposed regulatory or administrative actions to ensure that these actions do not result in unconstitutional takings of private property. Local governments that plan under the Growth Management Act must use this process.

Tumwater adheres to the most current version of the Attorney General's *Advisory Memorandum and Recommended Process for Evaluating Proposed Regulatory or Administrative Actions to Avoid Unconstitutional Takings of Private Property*, in its permitting and planning decisions. The Attorney General's memorandum provides local governments with a tool to assist them in the process of evaluating land use actions.

7. ***Permits***. *Applications for both state and local government permits should be processed in a timely and fair manner to ensure predictability.*

The Land Use Element provides the policy basis for Tumwater's development

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regulations to be developed in a systematic and fair manner. All jurisdictions fully planning under the Growth Management Act must follow the permit procedures found in Chapter 36.70B RCW *Local Project Review* to administer permit application processes. Project permit processing standards are provided in TMC Title 14 *Development Code Administration*.

8. ***Natural resource industries***. *Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forestlands and productive agricultural lands, and discourage incompatible uses.*

While this goal primarily applies to rural areas of Thurston County, the Land Use Element ensures the viability of natural resource industries that currently existing Tumwater, such as mineral extraction and limited forest production lands, through the identification of such lands in the Land Use Element text and maps. Additionally, the Conservation Element has specific goals and policies that ensure the viability of these natural resource industries and activities as agricultural uses appropriate for an urban area in Tumwater.

9. ***Open space and recreation***. *Retain open space and green space, enhance recreational opportunities, enhance fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities.*

The state legislature updated this goal in 2023 to add the requirement to retain green space and enhance habitat and urban and community forests. The Land Use Element, in conjunction with the Parks, Recreation, and Open Space Plan, designates areas of Tumwater that would be appropriate for future open space and recreation uses. The Land Use Element reinforces the recommendations of the Parks, Recreation, and Open Space Plan through land use designations and its goals and policies.

Additionally, the Conservation Element has specific goals and policies that enhance fish and wildlife habitat in Tumwater.

10. ***Environment***. *Protect and enhance the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.*

The state legislature updated this goal in 2023 to add the requirement to enhance the environment. Each designation in the Land Use Element is of an appropriate intensity for where it is applied. Areas of environmental sensitivity are designated as open space or a lower intensity designation than other areas of Tumwater.

The Conservation Element contains specific policies relating to protecting and enhancing air and water quality, water availability, and protection and preservation of critical areas. The Land Use Element also makes recommendations for clustering and other creative development techniques to protect sensitive environmental areas of Tumwater.

11. ***Citizen participation and coordination***. *Encourage the involvement of citizens in the planning process, including the*

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participation of vulnerable populations and overburdened communities, and ensure coordination between communities and jurisdictions to reconcile conflicts.

The state legislature updated this goal in 2023 to add the requirement to include the participation of frontline and overburdened communities. For the Comprehensive Plan update, Tumwater followed the strategy outlined in the Final Community Engagement Plan to involve the entire community in the update process.

12. ***Public facilities and services**. Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.*

All non-open space designations in the Land Use Element are applied to areas that either have adequate capacity for transportation, utilities, storm, and municipal services or will be provided with these facilities in the future concurrent with development. The Land Use Element ensures concurrency through coordination with the Lands for Public Purposes Element, the Capital Facilities Plan, the Transportation Plan, and other elements of the Comprehensive Plan.

13. ***Historic preservation**. Identify and encourage the preservation of lands, sites, and structures that have historical or archaeological significance.*

The Land Use Element designates an area of Tumwater as the New Market Historic District. The New Market Historic District Master Plan was adopted by the City Council in November of 1993. The Master Plan provides a framework for action and ensures the preservation of historic and archeological resources in the Historic District.

14. ***Climate change and resiliency**. Ensure that comprehensive plans, development regulations, and regional policies, plans, and strategies under RCW 36.70A.210 and chapter 47.80 RCW adapt to and mitigate the effects of a changing climate; support reductions in greenhouse gas emissions and per capita vehicle miles traveled; prepare for climate impact scenarios; foster resiliency to climate impacts and natural hazards; protect and enhance environmental, economic, and human health and safety; and advance environmental justice.*

The state legislature added this goal in 2023. Land Use Element supports the goals of the new Climate Element primarily through land use goals, policies, and implementation actions that support compact urban development that reduce sprawl and allow for multimodal transportation.

15. ***Shorelines of the state**. For shorelines of the state, the goals and policies of the shoreline management act as set forth in RCW 90.58.020 shall be considered an element of the county's or city's comprehensive plan.*

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The state legislature added this goal in 2023. Tumwater's Shoreline Master Program was adopted in 2012 and updated in 2018. The next required state update of the Shoreline Master Program will be in 2030.

The Shoreline Master Program addresses the land uses on all lands under the jurisdiction of the Shoreline Management Act in order to protect and preserve water dependent activities and fish and wildlife habitat in the shorelines of the state.

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3. County-Wide Planning Policies

The Growth Management Act requires that Tumwater's Comprehensive Plan be consistent with the Thurston County County-Wide Planning Policies, which were last amended in 2025.

The following is a list of the County-Wide Planning Policies that apply to the Land Use Element, and a brief description of how the Element is consistent with these policies. All County-Wide Planning Policies are adopted as part of the Comprehensive Plan and are found in Appendix A of the Plan Introduction.

I. General Policies

The Land Use Element contains goals, policies, and implementation actions that address the wide range of issues covered by County-Wide Planning Policies 1.1 through 1.17.

II. Urban Growth Areas

The Land Use Element contains goals, policies, and implementation actions that address County-Wide Planning Policies 2.1 through 2.6.

Thurston County established the urban growth area boundaries and planning for growth within Tumwater's urban growth area is consistent with the Tumwater and Thurston County Joint Plan. For more information, see the response to Policy IV below.

III. Promotion of Contiguous and Orderly Development, Provision of Urban Services, and Protection of Rural Areas

The Land Use Element contains goals, policies, and implementation actions that address County-Wide Planning Policies 3.1 through 3.4. These goals, policies, and objectives encourage compact, efficient urban development that is phased outward from the urban core. It also proposes residential and mixed-use land use designations that encourage the development of compact urban areas.

To help address County-Wide Planning Policy 3.1, each residential designation in the Land Use Element and their geographic application in Tumwater meets this policy by providing for adequate density to accommodate the 20-year population growth in a sustainable manner. In doing so, the Plan uses innovative development techniques such as clustering and transfer of development rights to protect natural resource areas.

It has been demonstrated in Part 2 of the Land Use Element that Tumwater can meet its population projections over the planning period. The Tumwater and Thurston County Joint Plan also address these issues for Tumwater's urban growth area.

To address County-Wide Planning Policy 3.2, the designation of two to four residential units per acre in particularly unique sensitive areas is consistent with this policy in its entirety.

Any development will have services concurrent with development; and all areas of Tumwater are governed by the 1988 and 1995 Urban Growth Management Agreements, which prohibit extension of water or sewer outside the urban growth area except for public health reasons.

Coordination between Tumwater and adjoining jurisdictions is accomplished

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through a number of documents and agreements including the Tumwater and Thurston County Joint Plan, the 1988 Memorandum of Understanding: An Urban Growth Management Agreement, the 1995 Memorandum of Understanding: Urban Growth Area Zoning and Development Standards, and the County-Wide Planning Policies including County-Wide Planning Policy 3.3.

To address County-Wide Planning Policy 3.4, Tumwater coordinates with existing service providers such as fire districts, utility providers, and Thurston County to ensure an orderly transfer before, during, and after annexations. Effective annexation of urban growth areas is encouraged in the Comprehensive Plan.

IV. Joint County & City Planning Within urban growth areas

To address County-Wide Planning Policies 4.1 through 4.5, Thurston County and Tumwater adopted the Tumwater and Thurston County Joint Plan. This plan, an element of both the Tumwater and Thurston County Comprehensive Plans, creates a process for joint planning within Tumwater's urban growth area.

V. Siting County-Wide and State-Wide Public Capital Facilities

To address County-Wide Planning Policies 5.1 and 5.2, the Land Use Element and TMC 18.56.140 address the siting of essential public facilities as required under state law.

VI. Analysis of Fiscal Impact

To address County-Wide Planning Policies 6.1 through 6.3, each non-open space designation in the Land Use Element ensures that needed services can be provided at the most efficient cost to the taxpayer given the constraints and environmental sensitivity of the land.

The Land Use Element has been coordinated with the Lands for Public Purposes Element and other elements of the Comprehensive Plan. Fiscal impacts are also addressed through the Capital Facilities Plan

VII. Economic Development and Employment

To address County-Wide Planning Policies 7.1 through 7.5, the Land Use Element ensures the provision of adequate land for commerce and industry in Tumwater to meet the twenty year projections for employment growth. The Economic Development Element also makes specific recommendations for economic development in Tumwater.

VIII. Affordable Housing

To address County-Wide Planning Policies 8.1 through 8.7, the Housing Element is the principal policy document concerning affordable housing. The Land Use Element works with the Housing Element to provide adequate suitably zoned vacant land to further the policies of the Housing Element.

Each residential designation in the Land Use Element, including designations that allow for mixed use, provides a variety of housing types to ensure that affordable housing is provided for all economic segments of the Tumwater population. The Land Use Element, in conjunction with the Housing Element, includes policies and land use designations

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designed to ensure the provision of affordable housing and availability for all income groups in Tumwater.

IX. Transportation

To address County-Wide Planning Policies 9.1 through 9.10, the Land Use Element contains goals, policies, and implementation actions that ensure coordination with regional and local transportation plans. The Land Use Element also proposes residential, mixed-use, and neighborhood commercial land use designations that encourage multi-model, transit-oriented development.

X. Environmental Quality

To address County-Wide Planning Policies 10.1 through 10.9, each land use designation in the Land Use Element has been applied based on specific criteria that include the sensitivity of certain areas to environmental disturbance. These sensitive areas either have received an open space designation or have received a designation of a lower intensity. Additionally, most environmentally sensitive areas of Tumwater recommend that development be clustered away from the sensitive area.

Additionally, the Land Use Element contains goals and policies that ensure coordination of land use with TMC Chapter 13.12 and the Drainage Design and Erosion Control Manual for Tumwater. The Conservation Element, as a part of the Comprehensive Plan, also contains specific policies relating to air and water quality and water availability. The Land Use Element also makes recommendations for clustering and other creative development techniques in sensitive areas of Tumwater.

XI. County-Wide Policies which Establish a Process to Develop Future Policies

To address County-Wide Planning Policies 11.1 through 11.3, the Land Use Element is designed to be an adaptable document. As conditions and circumstances change, or as regional plans and policies are amended, the Land Use Element can be revised accordingly.

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4. Element Goals and Policies

A. How to Read These Tables

The Land Use Element's goals and policies are not in priority order.

Appendix A provides a list of the draft implementation actions by goal and policy that will be considered when developing annual work programs for implementing the Land Use Element's goals and policies.

1) Department Leads

Implementation of the Land Use Element's policies are associated with four different Tumwater departments:

CDD Community Development

PRD Parks, Recreation, and Facilities

TED Transportation & Engineering

WRS Water Resources & Sustainability

2) Period

Each of the Land Use Element's policies are associated with estimated start dates, length of time to complete, and target completion dates, if appropriate based on adequate funding for staff and resources. Most policies are ongoing with no set target completion date.

B. Growth Management Goals

Goal LU-1 Ensure the Land Use Element is implementable and coordinated with other City, neighboring jurisdictional, and regional plans.

Plans that can be put into immediate action with appropriate resources provide better outcomes for communities. Tumwater will prioritize implementation actions and monitor progress toward the goals it sets together with community members.

When resources, timelines, and responsibilities can be coordinated with other partners, more work can be done with fewer resources. Ensuring all partners and community members have a voice in the plan also encourages a sense ownership and belonging.

Policies and Implementation Actions		Lead	Period
LU-1.1	**Ensure the Land Use Element is consistent with adopted County-Wide Planning Policies and integrates climate, conservation, housing, and transportation considerations into land use decisions.**	**CDD**	**Term of the Plan**
LU-1.2	**Coordinate the Land Use Element with all the other Elements of the Comprehensive Plan.**	**CDD**	**Term of the Plan**

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Policies and Implementation Actions		Lead	Period
LU-1.3	Implement the following City plans and maps through the Land Use Element: 1. Capital Facilities Plan 2. Economic Development Plan 3. Housing Action Plan 4. Shoreline Master Program 5. Thurston Climate Mitigation Plan 6. Transportation Improvement Plan 7. Tumwater Historic District Master Plan 8. Tumwater – Thurston County Joint Plan 9. Urban Forestry Management Plan 10. Zoning Code and Map	CDD PRD TED WRS	Term of the Plan
LU-1.4	Make capital facilities and transportation improvement decisions through the Capital Facilities Plan and Transportation Improvement Plan consistent with the Land Use Element and the Comprehensive Plan.	CDD PRD TED WRS	Term of the Plan
LU-1.5	Coordinate the Land Use Element with all adopted regional plans and the plans of neighboring jurisdictions and special districts.	CDD	Term of the Plan
LU-1.6	Support the creation of a new city center.	CDD TED	Term of the Plan

Goal LU-2

Ensure development occurs in an orderly, effective, and cost-efficient manner to best utilize available land and public services, conserve natural resources, protect and enhance critical areas and open space, address equity and climate change, and reduce sprawl.

Land is a limited resource. To use land efficiently, all the uses should be considered and balanced to support the needs of the community. Allowing the right use in the right place protects the water and soil resources into the future.

Policies and Implementation Actions		Lead	Period
LU-2.1	Review and update Tumwater's development review and permitting system on a regular basis for consistency with state law and adopted plans to ensure predictability and to process development permits in a timely and fair manner.	CDD	Term of the Plan
LU-2.2	Use innovative land use techniques, such as 15-minute neighborhoods, to create and maintain vibrant centers, corridors, and neighborhoods while accommodating growth, discouraging displacement, and protecting and enhancing critical areas.	CDD WRS	Term of the Plan
LU-2.3	Support vibrant neighborhoods with a range of affordable housing, strong and resilient economies, access to social services, healthy habitats, unique spaces for recreation, engagement, and inclusion.	CDD	Term of the Plan
LU-2.4	Support complete neighborhoods consisting of connected, transit-oriented communities with a range of transportation choices for all residents.	CDD	Term of the Plan
LU-2.5	Ensure new annexations adhere to the goals and policies agreed to by Tumwater and Thurston County.	CDD	Term of the Plan
LU-2.6	Protect designated mineral resource lands from incompatible development.	CDD	Term of the Plan

Goal LU-3 Ensure adequate public services, facilities, and utilities are available to proposed and existing development.

As Tumwater grows, it is important for public services and facilities to anticipate growth and provide services so that they are available as development occurs. Working with internal and external partners is key to coordinating the resources available and ensuring services are available to residents. To use resources efficiently at urban densities also requires efforts to replace private sewer and water systems with public systems.

	Policies and Implementation Actions	Lead	Period
LU-3.1	Ensure capital budget decisions in the six-year Capital Facilities Plan are coordinated with the Land Use Element, Lands for Public Purpose Element, Climate Element, Parks, Recreation, and Open Space Plan, and Transportation Plan.	CDD PRD TED WRS	Term of the Plan
LU-3.2	Ensure development conforms with the Water System Plan and Sanitary Sewer Comprehensive Plan.	CDD TED WRS	Term of the Plan
LU-3.3	Analyze all proposed projects for anticipated impact on public services as part of development and environmental review.	CDD PRD TED WRS	Term of the Plan
LU-3.4	Work with developers to determine where and when new public facilities are to be placed to permit proper development of current and future projects and meet concurrency.	CDD PRD TED WRS	Term of the Plan
LU-3.5	Require existing development utilizing permitted septic tanks for sewerage disposal to hook up to the sanitary sewer when a septic system fails, needs replacement, or requires major repairs as sanitary sewer laterals become available.	CDD TED	Term of the Plan
LU-3.6	Require existing development utilizing permitted private wells for water to connect to Tumwater's water service when the well fails, needs replacement, or requires major repairs, where City water service available.	CDD WRS	Term of the Plan

C. Equitable Community Goals

Goal LU-4 Create land use patterns that increase equity across all land use types.

Environmental justice means planning for a future where no people are intentionally placed in harm's way. Providing sufficient land for residential development serving for all income groups ensures that all Tumwater residents can afford the cost of living and not have to sacrifice other needs to keep their home.

Goal LU-4 works together with the Housing Element to ensure sufficient land has been

designated for housing. The Housing Element contains goals, policies and implementation actions that provide guidance for housing types for all income groups.

	Policies and Implementation Actions	Lead	Period
LU-4.1	Embed environmental justice in land use decisions.	CDD	Term of the Plan
LU-4.2	Coordinate residential uses and densities in the Land Use Element with the housing allocations for all income groups in the Housing Element.	CDD	Term of the Plan
LU-4.3	Use innovative techniques to support the provision of affordable housing.	CDD	Term of the Plan
LU-4.4	Support a greater variety of housing types to meet the needs of a changing population by creating flexible design guidelines.	CDD	Term of the Plan
LU-4.5	Develop anti-displacement programs in frontline communities when increasing densities.	CDD	Term of the Plan

Goal LU-5 Ensure land use patterns support efficient multimodal transportation systems in coordination with City and regional transportation plans.

Transportation of both people and goods throughout Tumwater requires coordination with providers and users to ensure services meet the needs of residents, businesses, and customers.

Multiple options for transportation allow residents to live independently regardless of age, income, or abilities. Coordinating development with transit and active transportation options ensures increased access to transportation options for everyone.

	Policies and Implementation Actions	Lead	Period
LU-5.1	Coordinate the Land Use Element with the Transportation Plan, Regional Transportation Plan, Parks, Recreation, and Open Space Plan, Climate Element, and Thuston Climate Mitigation Plan.	CDD PRD TED WRS	Term of the Plan

Policies and Implementation Actions		Lead	Period
LU-5.2	Establish and maintain multimodal links between land uses.	CDD TED	Term of the Plan
LU-5.3	Allow densities and mixtures of uses that reduce the number and lengths of vehicle trips and increase the opportunity to use transit and active modes of travel.	CDD	Term of the Plan
LU-5.4	Coordinate with transportation providers and developers to ensure that developments are designed to promote physical, mental, and social health, and reduce the impacts of climate change on the natural and built environments.	CDD TED WRS	Term of the Plan
LU-5.5	Reinforce the link between land use and public transportation by encouraging development to occur at higher densities along designated transit corridors, nodes, and near commercial and employment centers.	CDD	Term of the Plan
LU-5.6	Monitor transportation improvements for consistency with the Comprehensive Plan and development regulations.	CDD TED	Term of the Plan

Goal LU-6 Ensure physical limitations of the land are considered during development.

Historically cultures have built their communities around natural resources that support livelihoods. To preserve the environment and promote safety, Tumwater reviews the physical features of the environment during development review. Limiting development to lands which have suitable environmental characteristics also protects residents from natural hazards such a landslides and flooding.

The Resiliency Subelement of the Climate Element includes a number of actions that support this goal.

Policies and Implementation Actions		Lead	Period
LU-6.1	Ensure development conforms with environmental standards and requirements.	CDD	Term of the Plan
LU-6.2	Evaluate and set reasonable conditions on development to mitigate anticipated adverse environmental impacts.	CDD	Term of the Plan

Policies and Implementation Actions		Lead	Period
LU-6.3	Integrate design features of existing natural systems into the layout and siting of new development, including significant trees and noncritical ecological systems, where possible.	CDD	Term of the Plan

D. Specific Land Use Type Goals

Goal LU-7 Support development of all types of residential uses.

With the forecasted increase of population and housing need, ensuring Tumwater has sufficient land for a range of residential uses is a top priority. Different types of housing for all income groups support seniors, people with disabilities, low income, and marginalized communities. Accommodating space for diversity strengthens our community.

Policies and Implementation Actions		Lead	Period
LU-7.1	Ensure an adequate supply of residential land to support the development of housing affordable to all income groups.	CDD	Term of the Plan
LU-7.2	Explore and implement methods to protect residential uses from excessive noise, odors, dirt, glare, traffic, pollution, and other nuisances emanating from regional transportation facilities and commercial and industrial uses.	CDD	Term of the Plan
LU-7.3	Concentrate residential development in integrated centers to allow for multimodal access to services.	CDD	Term of the Plan
LU-7.4	Allow innovation in development regulations with newer forms of residential development where amenities of open space, privacy, and visual quality can be maintained or improved, and flexible solutions to land use challenges can be achieved.	CDD	Term of the Plan
LU-7.5	Do not permit private residential gated communities.	CDD	Term of the Plan

Policies and Implementation Actions		Lead	Period
LU-7.6	Support residential developments that provide easy access to healthy food sources and facilitate food recovery efforts.	CDD	Term of the Plan

Goal LU-8 Support development of commercial and mixed uses in appropriate areas.

A strong economy depends on adequate space for providing goods and services to serve residents. Finding the appropriate location for commercial uses depends on the type of activity and intensity of use. Allowing flexibility for smaller scale commercial uses close to housing while buffering residential uses from higher intensity commercial uses is a key to making sure uses are compatible in neighborhoods.

Policies and Implementation Actions		Lead	Period
LU-8.1	Ensure adequate supply of developable commercial land.	CDD	Term of the Plan
LU-8.2	Concentrate high intensity commercial uses in mixed use centers to efficiently provide multimodal access and walkable communities.	CDD	Term of the Plan
LU-8.3	Locate high intensity commercial uses close to arterial routes and freeway access.	CDD	Term of the Plan
LU-8.4	Locate lower intensity neighborhood commercial uses throughout Tumwater to supply nearby residents with everyday goods and services where these uses are small, do not generate excessive traffic, and are compatible with nearby residences.	CDD	Term of the Plan
LU-8.5	Support local small scale commercial opportunities.	CDD	Term of the Plan

Goal LU-9 Support development of manufacturing, industrial, and warehouse uses in appropriate areas.

Industrial uses can include manufacturing, research, warehousing, raw materials storage, and other activities. Allowing a range of industrial activities in Tumwater increases local

job opportunities and decreases the transportation costs for those services.

Designating land for industrial uses considers space required for equipment, buffering for adjacent uses, proximity to transportation routes, and reducing environmental impacts.

Policies and Implementation Actions		Lead	Period
LU-9.1	Ensure adequate supply of developable industrial land near primary transportation corridors.	CDD	Term of the Plan
LU-9.2	Group manufacturing, industrial, and warehouse uses into centers in landscaped, urban park quality centers.	CDD	Term of the Plan
LU-9.3	Develop manufacturing, industrial, and warehouse areas following an integrated planning scheme incorporating performance standards regarding green belts, and buffering, landscaping, parking facilities, and design guidelines.	CDD	Term of the Plan
LU-9.4	Locate new manufacturing, industrial, and warehouse development in areas close to arterial routes, freeway access, and rail facilities that minimize pollution and heavy truck traffic through residential and commercial areas.	CDD	Term of the Plan
LU-9.5	Ensure manufacturing, industrial, and warehouse structures are low profile and provide sustainable screening landscaping that also reduces environmental effects of such land uses.	CDD	Term of the Plan

Goal LU-10 Retain and enhance open space, parks, trails, and space for recreational opportunities.

Access to open space, parks, trails, and recreational opportunities improves quality of life and physical and social-emotional health. Underserved communities typically lack access to open spaces, parks, trails, and recreational opportunities. Ensuring that all community members have access to these spaces is a priority. Additional goals and policies are found in the Parks, Recreation, and Open Space Plan.

	Policies and Implementation Actions	Lead	Period
LU-10.1	Coordinate provision of open space, parks, trails, and space for recreational opportunities with the Parks, Recreation, and Open Space Plan.	CDD PRD	Term of the Plan
LU-10.2	Preserve and enhance environmentally sensitive lands by developing compact urban areas.	CDD	Term of the Plan
LU-10.3	Require a variety of open spaces including landscaped buffers, small parks, plazas, and other community areas to balance higher density development and enhance quality of living.	CDD	Term of the Plan

E. Public Facilities Goals

Goal LU-11 Support development of public facilities in appropriate areas.

Public facilities are built and maintained by a government or agency for public use. They include transportation facilities, road lighting systems, storm and sanitary sewer systems, parks and open space, and transit stops. These facilities need adequate space as Tumwater grows. More goals and policies about the processes by which public facilities are built and maintained are found in the Lands for Public Purposes Element, Parks, Recreation, and Open Space Plan, and Transportation Plan.

	Policies and Implementation Actions	Lead	Period
LU-11.1	Ensure an adequate supply of developable land for public facilities.	CDD	Term of the Plan
LU-11.2	Distribute public facilities throughout Tumwater to ensure multimodal access.	CDD	Term of the Plan

Goal LU-12 Provide for the location of essential public facilities.

Essential public facilities are those that are typically difficult to site and are defined in RCW 36.70A.200 to include airports, state education facilities, regional transit authority facilities, state and local correctional facilities, solid waste handling and organic management facilities, and in-patient facilities including substance abuse facilities, mental health facilities, group homes, and secure community transition facilities.

In coordination with the development code, the Land Use Element describes the process for siting essential public facilities.

Policies and Implementation Actions		Lead	Period
LU-12.1	Ensure that the Comprehensive Plan and implementing regulations do not preclude the siting of essential public facilities.	CDD	Term of the Plan
LU-12.2	Ensure that where possible, essential public facility sites are used jointly for public benefit.	CDD	Term of the Plan
LU-12.3	Give opportunities for residents, property owners, adjacent jurisdictions, and other interested parties for meaningful participation in decisions on siting essential public facilities.	CDD	Term of the Plan

Goal LU-13 Protect the Olympia Regional Airport from incompatible land uses that could affect present and future use of airport facilities and operations while acknowledging the existing urban environment adjacent to the Airport.

Airports are an important part of the transportation system that supports the local and regional economy. In urban areas, regulations around airports keep both airport users and local community members safe by only allowing compatible uses in airport safety zone overlays. Development regulations that limit the heights of buildings, lights, and types of use can reduce the exposure to potential hazards near an airport.

Policies and Implementation Actions		Lead	Period
LU-13.1	Promote safe operation of Olympia Regional Airport by encouraging compatible land uses and activities and discouraging uses or activities that impede safe flight operations or endanger the lives of people on the ground.	CDD	Term of the Plan
LU-13.2	Work with the Port of Olympia to address off site impacts from airport uses on the surrounding community.	CDD	Term of the Plan

F. Historic Preservation Goals

Goal LU 14 Preserve and protect significant historical and cultural sites.

Preserving local sites of historical and cultural significance is important to understanding the past and learning from our experiences. Physical reminders of our history honor those that have come before. Working with local Tribes to preserve historical and cultural sites is an important component of recognizing our shared bond to this area.

Policies and Implementation Actions		Lead	Period
LU-14.1	Coordinate the Land Use Element with Tumwater and Thurston County's historic preservation programs.	CDD PRD	Term of the Plan
LU-14.2	Protect designated state and national landmarks listed by the State Office of Archaeology and Historic Preservation and cultural or archaeological resources identified by the Tribes in land use decisions.	CDD	Term of the Plan

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Appendix A Draft Implementation Actions

Each of the Land Use Element goals and policies in Chapter 4 will require Tumwater to take specific actions to implement over the course of the 20 year term of the Comprehensive Plan.

The draft implementation actions in the tables below were developed in coordination with the stakeholders, the community, and Tumwater staff. The draft implementation actions in the tables below are intended to serve as the building blocks for developing the annual Tumwater work programs that will implement the goals and policies of the Land Use Element.

The draft implementation actions will need further refinement before they are incorporated into annual Tumwater work programs.

As the Comprehensive Plan is put into action over the next twenty years, the draft implementation actions will change as new, unforeseen opportunities emerge: new ones may be added, proposed ones may be modified or replaced by other actions.

1. How to Read These Tables

The Land Use Element goals, policies, and the draft implementation actions associated with them are not in priority order.

Draft implementation actions that can only be undertaken by other entities are not included in this plan.

a) Department Leads

Implementation of the Land Use Element's policies and implementation actions are associated with four different Tumwater departments:

CDD Community Development

PRD Parks, Recreation, and Facilities

TED Transportation & Engineering

WRS Water Resources & Sustainability

b) Period

Each of the Land Use Element's policies and the draft implementation actions are associated with estimated start dates, length of time to complete, and target completion dates, if appropriate based on adequate funding for staff and resources. Most policies are ongoing with no set target completion date.

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2. Growth Management Goals

Goal LU-1 Ensure the Land Use Element is implementable and coordinated with other City, neighboring jurisdictional, and regional plans.

Policies and Implementation Actions		Lead	Period
LU-1.1	**Ensure the Land Use Element is consistent with adopted County-Wide Planning Policies and integrates climate, conservation, housing, and transportation considerations into land use decisions.**	CDD	Term of the Plan
LU-1.1.1	Implement the County-Wide Planning Policies as adopted by Tumwater through the Land Use Element.	**CDD**	Term of the Plan
LU-1.2	**Coordinate the Land Use Element with all the other Elements of the Comprehensive Plan.**	**CDD**	**Term of the Plan**
LU-1.3	**Implement the following City plans and maps through the Land Use Element:** **1. Capital Facilities Plan** **2. Economic Development Plan** **3. Housing Action Plan** **4. Shoreline Master Program** **5. Thurston Climate Mitigation Plan** **6. Transportation Improvement Plan** **7. Tumwater Historic District Master Plan** **8. Tumwater – Thurston County Joint Plan** **9. Urban Forestry Management Plan** **10. Zoning Code and Map**	**CDD PRD TED WRS**	**Term of the Plan**

Policies and Implementation Actions		Lead	Period
LU-1.3.1	Ensure that zoning designations and regulations are consistent with the overall City Land Use Map and Land Use Element goals and policies.	CDD	Review Every Five Years
LU-1.4	**Make capital facilities and transportation improvement decisions through the Capital Facilities Plan and Transportation Improvement Plan consistent with the Land Use Element and the Comprehensive Plan.**	CDD PRD TED WRS	**Term of the Plan**
LU-1.4.1	On a biennial basis, invest in public improvements through the six year Capital Facilities Plan to facilitate and complement private development including streetscape improvements, green infrastructure, public open spaces, and other amenities.	CDD PRD TED WRS	Term of the Plan
LU-1.5	**Coordinate the Land Use Element with all adopted regional plans and the plans of neighboring jurisdictions and special districts.**	CDD	**Term of the Plan**
LU-1.6	**Support the creation of a new city center.**	CDD TED	**Term of the Plan**
LU-1.6.1	Review and update the Tumwater Town Center Plan.	CDD TED	2026-28
LU-16.2	Work with the Port of Olympia and the Federal Aviation Administration to modify or remove their restrictions on residential development on Port owned land in the Town Center to allow full implementation of the Tumwater Town Center.	CDD	2026-28

Goal LU-2

Ensure development occurs in an orderly and cost-efficient manner to best utilize available land and public services, conserve natural resources, protect and enhance critical areas and open space, address equity and climate change, and reduce sprawl.

Policies and Implementation Actions		Lead	Period
LU-2.1	**Review and update Tumwater's development review and permitting system on a regular basis for consistency with state law and adopted plans to ensure predictability and to process development permits in a timely and fair manner.**	**CDD**	**Term of the Plan**
LU-2.1.1	Prepare annual reports on the number, type, and review times for development permits and post them on Tumwater's website.	CDD	Annually
LU-2.1.2	Using the information generated by annual reporting and the experiences of applicants and permit review staff assess and update Tumwater's permit processing system.	CDD	Every Three Years
LU-2.2	**Use innovative land use techniques, such as 15-minute neighborhoods, to create and maintain vibrant centers, corridors, and neighborhoods while accommodating growth, discouraging displacement, and protecting and enhancing critical areas.**	**CDD WRS**	**Term of the Plan**
LU-2.2.1	Review and update Tumwater's development standards, guidelines, and Citywide Design Guidelines on a regular basis.	CDD	Annually
LU-2.2.2	Develop and adopt an adaptive management plan for the protection and enhancement of critical areas.	CDD WRS	2028-29
LU-2.2.3	Provide staff with resources and training to support improvements.	CDD WRS	Term of the Plan
LU-2.3	**Support vibrant neighborhoods with a range of affordable housing, strong and resilient economies, access to social services, healthy habitats, unique spaces for recreation, engagement, and inclusion.**	**CDD**	**Term of the Plan**
LU-2.3.1	Assess neighborhood vibrancy every five years based on the following criteria: housing, economy, health, recreation, and engagement.	CDD	2030, then Every Five Years

Policies and Implementation Actions		Lead	Period
LU-2.3.2	Incentivize the creation of activity nodes in each neighborhood along transit corridors that support housing, jobs, services, and all transportation modes.	CDD	Term of the Plan
LU-2.3.3	Promote access to human services by allowing these uses in suitable locations near transit and housing.	CDD	Term of the Plan
LU-2.3.4	Protect or create open spaces in each neighborhood within a walkable distance of housing.	CDD	Term of the Plan
LU-2.4	**Support complete neighborhoods consisting of connected, transit-oriented communities with a range of transportation choices for all residents.**	CDD	**Term of the Plan**
LU-2.4.1	Regularly update development standards and guidelines to support the creation of pedestrian-oriented transit supportive neighborhoods.	CDD	Term of the Plan
LU-2.5	**Ensure new annexations adhere to the goals and policies agreed to by Tumwater and Thurston County.**	CDD	**Term of the Plan**
LU-2.5.1	Monitor new annexations for the first five years on an annual basis and provide resources for transition to public services and zoning as agreed to in the Countywide Planning Policies, City-County Annexation Interlocal Agreement, and the Tumwater Thurston County Joint Plan.	CDD	Term of the Plan
LU-2.6	**Protect designated mineral resource lands from incompatible development.**	CDD	**Term of the Plan**
LU-2.6.1	Separate mineral lands from incompatible land uses by utilizing buffer areas and other techniques to lessen environmental impacts on adjacent uses.	CDD	Term of the Plan

Goal LU-3 Ensure adequate public services, facilities, and utilities are available to proposed and existing development.

Policies and Implementation Actions		Lead	Period
LU-3.1	**Ensure capital budget decisions in the six-year Capital Facilities Plan are coordinated with the Land Use Element, Lands for Public Purpose Element, Climate Element, Parks, Recreation, and Open Space Plan, and Transportation Plan.**	CDD PRD TED WRS	**Term of the Plan**
LU-3.1.1	Ensure the Capital Facilities Plan can be implemented through the Land Use Element's projected uses and densities.	CDD PRD TED WRS	Term of the Plan
LU-3.1.2	Direct the timing and location of development with the provision of adequate facilities and services within Tumwater's urban growth area, through periodic updates to the Tumwater and Thurston County Joint Plan and Thurston County Code Title 22 *Tumwater Urban Growth Area Zoning*.	CDD PRD TED WRS	Term of the Plan
LU-3.2	**Ensure development conforms with the Water System Plan and Sanitary Sewer Comprehensive Plan.**	CDD TED WRS	**Term of the Plan**
LU-3.3	**Analyze all proposed projects for anticipated impact on public services as part of development and environmental review.**	CDD PRD TED WRS	**Term of the Plan**
LU-3.4	**Work with developers to determine where and when new public facilities are to be placed to permit proper development of current and future projects and meet concurrency.**	CDD PRD TED WRS	**Term of the Plan**
LU-3.5	**Require existing development utilizing permitted septic tanks for sewerage disposal to hook up to the sanitary sewer when a septic system fails, needs replacement, or requires major repairs as sanitary sewer laterals become available.**	CDD TED	**Term of the Plan**

Policies and Implementation Actions		Lead	Period
LU-3.5.1	Work with LOTT to prioritize connecting properties on septic systems to LOTT's sewerage treatment system to reduce impacts to groundwater and surface water quality and programs that support subsidies for community members facing barriers.	CDD TED WRS	Term of the Plan
LU-3.6	**Require existing development utilizing permitted private wells for water to connect to Tumwater's water service when the well fails, needs replacement, or requires major repairs, where City water service available.**	CDD WRS	**Term of the Plan**

3. Equitable Community Goals

Goal LU-4 **Create land use patterns that increase equity across all land use types.**

Policies and Implementation Actions		Lead	Period
LU-4.1	**Embed environmental justice in land use decisions.**	CDD	**Term of the Plan**
LU-4.1.1	Develop an environmental justice audit process, using the state and federal guidance to inform Tumwater's audit process.	CDD WRS	2028-2029
LU-4.1.2	Conduct a citywide environmental justice audit prior to amending land use designations.	CDD	Starting in 2029
LU-4.2	**Coordinate residential uses and densities in the Land Use Element with the housing allocations for all income groups in the Housing Element.**	CDD	**Term of the Plan**
LU-4.3	**Use innovative techniques to support the provision of affordable housing.**	CDD	**Term of the Plan**

Policies and Implementation Actions		Lead	Period
LU-4.3.1	Use adaptive management to monitor and optimize development regulations for housing with community feedback and data.	CDD	Term of the Plan
LU-4.4	**Support an increase the variety of housing types to meet the needs of a changing population by creating flexible design guidelines.**	**CDD**	**Term of the Plan**
LU-4.5	**Develop anti-displacement programs in frontline communities when increasing densities.**	**CDD**	**Term of the Plan**
LU-4.5.1	Review land use maps and Comprehensive Vulnerability Assessment findings to identify regions at high-risk of disaster displacement such as barriers to rebuilding housing in high-risk areas and develop strategies in collaboration with impacted communities to develop solutions	CDD WRS	Term of the Plan

Goal LU-5 Ensure land use patterns support efficient multimodal transportation systems in coordination with City and regional transportation plans.

Policies and Implementation Actions		Lead	Period
LU-5.1	**Coordinate the Land Use Element with the Transportation Plan, Regional Transportation Plan, Parks, Recreation, and Open Space Plan, Climate Element, and Thuston Climate Mitigation Plan.**	**CDD PRD TED WRS**	**Term of the Plan**
LU-5.1.2	Create an active transportation plan which meets goals in the Climate Element and the Thurston Climate Mitigation Plan.	CDD TED WRS	2026-27
LU-5.2	**Establish and maintain multimodal links between land uses.**	**CDD TED**	**Term of the Plan**

Policies and Implementation Actions		Lead	Period
LU-5.2.1	Prepare and adopt a complete streets ordinance.	CDD TED WRS	2028-29
LU-5.2.2	Implement regulatory and capital project changes to incentivize high density residential and commercial development within neighborhoods near frequent transit.	CDD TED	2028-29
LU-5.2.3	Provide incentives for urban plazas when new construction or major renovation is proposed.	CDD	2028-29
LU-5.2.4	Implement regulatory changes to require public and private development proposals to enhance the streetscape to maximize comfort for multimodal users.	CDD	Term of the Plan
LU-5.3	**Allow densities and mixtures of uses that reduce the number and lengths of vehicle trips and increase the opportunity to use transit and active modes of travel.**	CDD	**Term of the Plan**
LU-5.3.1	Concentrate employment and living areas near multimodal transportation.	CDD	Term of the Plan
LU-5.4	**Coordinate with transportation providers and developers to ensure that developments are designed to promote physical, mental, and social health, and reduce the impacts of climate change on the natural and built environments.**	CDD TED WRS	**Term of the Plan**
LU-5.4.1	Update development regulations to ensure facilities and infrastructure to support active transportation modes are included in development.	CDD	2026-28
LU-5.5	**Reinforce the link between land use and public transportation by encouraging development to occur at higher densities along designated transit corridors, nodes, and near commercial and employment centers.**	CDD	**Term of the Plan**
LU-5.5.1	Develop incentives for proposed developments located adjacent to transportation corridors where amenities for multimodal users are included.	CDD	2028-30

Policies and Implementation Actions		Lead	Period
LU-5.6	**Monitor transportation improvements for consistency with the Comprehensive Plan and development regulations.**	**CDD TED**	**Term of the Plan**

Goal LU-6 Ensure physical limitations of the land are considered during development.

Policies and Implementation Actions		Lead	Period
LU-6.1	**Ensure development conforms with environmental standards and requirements.**	**CDD**	**Term of the Plan**
LU-6.1.1	Update the Tumwater Appendix to the Thurston Hazards Mitigation Plan and floodplain regulations on a regular basis and ensure that development regulations are updated accordingly.	**CDD**	Every Five Years
LU-6.2.1	Update the critical areas ordinance as new state guidance and best available science becomes available.	**CDD**	Term of the Plan
LU-6.2	**Evaluate and set reasonable conditions on development to mitigate anticipated adverse environmental impacts.**	**CDD**	**Term of the Plan**
LU-6.3	**Integrate design features of existing natural systems into the layout and siting of new development, including significant trees and noncritical ecological systems, where possible.**	**CDD**	**Term of the Plan**

4. Specific Land Use Type Goals

Goal LU-7 Support development of all types of residential uses.

Policies and Implementation Actions		Lead	Period
LU-7.1	**Ensure an adequate supply of residential land to support the development of housing affordable to all income groups.**	**CDD**	**Term of the Plan**
LU-7.2	**Explore and implement methods to protect residential uses from excessive noise, odors, dirt, glare, traffic, pollution, and other nuisances emanating from regional transportation facilities and commercial and industrial uses.**	**CDD**	**Term of the Plan**
LU-7.3	**Ensure residential development occurs in integrated centers to allow for multimodal access to services.**	**CDD**	**Term of the Plan**
LU-7.4	**Allow innovation in development regulations with newer forms of residential development where amenities of open space, privacy, and visual quality can be maintained or improved, and flexible solutions to land use challenges can be achieved.**	**CDD**	**Term of the Plan**
LU-7.5	**Do not permit private residential gated communities.**	**CDD**	**Term of the Plan**
LU-7.6	**Support residential developments that provide easy access to healthy food sources and facilitate food recovery efforts.**	**CDD**	**Term of the Plan**
LU-7.6.1	Use the Food System Plan to guide implementation actions to improve access to food and abate waste.	**CDD**	2026-27
LU-7.6.2	Allocate funding to fully implement the Food System Plan.	**CDD**	2028-29

Goal LU-8 Support development of commercial and mixed uses in appropriate areas.

Policies and Implementation Actions		Lead	Period
LU-8.1	**Ensure adequate supply of developable commercial land.**	**CDD**	**Term of the Plan**
LU-8.2	**Concentrate high intensity commercial uses in mixed use centers to efficiently provide multimodal access and walkable communities.**	**CDD**	**Term of the Plan**
LU-8.2.1	Limit the linear length areas designated for commercial uses and incentivize mixed use centers with multimodal access and walkable features.	**CDD**	2028-29
LU-8.2.2	Develop integrated high intensity mixed use commercial areas incorporating performance standards to address buffering, landscaping, parking facilities, and other elements of site design.	**CDD**	2028-29
LU-8.3	**Locate high intensity commercial uses close to arterial routes and freeway access.**	**CDD**	**Term of the Plan**
LU-8.4	**Locate lower intensity neighborhood commercial uses throughout Tumwater to supply nearby residents with everyday goods and services where these uses are small, do not generate excessive traffic, and are compatible with nearby residences.**	**CDD**	**Term of the Plan**
LU-8.5	**Support local small scale commercial opportunities.**	**CDD**	**Term of the Plan**
LU-8.5.1	Identify and designate areas that are compatible with food trucks and food truck courts.	**CDD**	2028-29

Goal LU-9 Support development of manufacturing, industrial, and warehouse uses in appropriate areas.

Policies and Implementation Actions		Lead	Period
LU-9.1	**Ensure adequate supply of developable industrial land near primary transportation corridors.**	CDD	Term of the Plan
LU-9.2	**Group manufacturing, industrial, and warehouse uses into centers in landscaped, urban park quality centers.**	CDD	Term of the Plan
LU-9.3	**Develop manufacturing, industrial, and warehouse areas following an integrated planning scheme incorporating performance standards regarding green belts, and buffering, landscaping, parking facilities, and design guidelines.**	CDD	Term of the Plan
LU-9.4	**Locate new manufacturing, industrial, and warehouse development in areas close to arterial routes, freeway access, and rail facilities that minimize pollution and heavy truck traffic through residential and commercial areas.**	CDD	Term of the Plan
LU-9.4.1	Create a tiered system for industrial intensity where more intense uses that produce pollutants, high noise, high traffic are in the center of an industrial area and are farther from incompatible uses and less intense uses are allowed at the edges of industrial areas.	CDD	2028-29
LU-9.5	**Ensure manufacturing, industrial, and warehouse structures are low profile and provide sustainable screening landscaping that also reduces environmental effects of such land uses.**	CDD	Term of the Plan

Goal LU-10 Retain and enhance open space, parks, trails, and space for recreational opportunities.

Policies and Implementation Actions		Lead	Period
LU-10.1	**Coordinate provision of open space, parks, trails, and space for recreational opportunities with the Parks, Recreation, and Open Space Plan.**	**CDD PRD**	**Term of the Plan**
LU-10.2	**Preserve and enhance environmentally sensitive lands by developing compact urban areas.**	**CDD**	**Term of the Plan**
LU-10.3	**Require a variety of open spaces including landscaped buffers, small parks, plazas, and other community areas to balance higher density development and enhance quality of living.**	**CDD**	**Term of the Plan**
LU-10.3.1	Evaluate the use of required dedicated open space every five years to make certain that areas dedicated to open space in development provide the functions intended.	**CDD**	Term of the Plan

5. Public Facilities Goals

Goal LU-11 Support development of public facilities in appropriate areas.

Policies and Implementation Actions		Lead	Period
LU-11.1	**Ensure an adequate supply of developable land for public facilities.**	**CDD**	**Term of the Plan**
LU-11.2	**Distribute public facilities throughout Tumwater to ensure multimodal access.**	**CDD**	**Term of the Plan**

Goal LU-12 Provide for the location of essential public facilities.

Policies and Implementation Actions	Lead	Period
LU-12.1 Ensure that the Comprehensive Plan and implementing regulations do not preclude the siting of essential public facilities.	**CDD**	**Term of the Plan**
LU-12.1.1 Utilize the following siting criteria for siting new or expansion of existing essential public facilities: 1. Proximity to major transportation routes and essential infrastructure; 2. Land use compatibility with surrounding areas; 3. Potential environmental impacts; 4. Effects on resource and critical areas; 5. Public costs and benefits including operation and maintenance; 6. Current capacity and location of equivalent facilities; 7. The existence within Tumwater of reasonable alternatives to the proposed activity, and 8. Other criteria as determined relevant to the specific essential public facility.	**CDD**	Term of the Plan
LU-12.2 Ensure that where possible, essential public facility sites are used jointly for public benefit.	**CDD**	**Term of the Plan**
LU-12.3 Give opportunities for residents, property owners, adjacent jurisdictions, and other interested parties for meaningful participation in decisions on siting essential public facilities.	**CDD**	**Term of the Plan**

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Goal LU-13 **Protect the Olympia Regional Airport from incompatible land uses that could affect present and future use of airport facilities and operations while acknowledging the existing urban environment adjacent to the Airport.**

Policies and Implementation Actions		Lead	Period
LU-13.1	**Promote safe operation of Olympia Regional Airport by encouraging compatible land uses and activities and discouraging uses or activities that impede safe flight operations or endanger the lives of people on the ground.**	**CDD**	**Term of the Plan**
LU-13.1.1	Update development regulations addressing aviation compatibility within the Airport Overlay Zone on a regular basis.	**CDD**	Term of the Plan
LU-13.1.2	Prohibit structures and trees from penetrating airspace surfaces as defined by Title 14 of the Code of Federal Regulations Part 77, except as necessary and incidental to airport operations.	**CDD**	Term of the Plan
LU-13.1.3	Permit appropriate urban land uses compatible with airport and aviation uses.	**CDD**	Term of the Plan
LU-13.1.4	Encourage contiguous open space areas within the Airport Overlay Zone that provide functional open space needs for aircraft in cases of an emergency.	**CDD**	Term of the Plan
LU-13.2	**Work with the Port of Olympia to address off site impacts from airport uses on the surrounding community.**	**CDD**	**Term of the Plan**

6. Historic Preservation Goals

Goal LU 14 **Preserve and protect significant historical and cultural sites.**

Policies and Implementation Actions		Lead	Period
LU-14.1	**Coordinate the Land Use Element with Tumwater and Thurston County's historic preservation programs.**	**CDD PRD**	**Term of the Plan**

Policies and Implementation Actions		Lead	Period
LU-14.2	**Protect designated state and national landmarks listed by the State Office of Archaeology and Historic Preservation and cultural or archaeological resources identified by the Tribes in land use decisions.**	**CDD**	**Term of the Plan**
LU-14.2.1	Work with the Tribes to determine the best process for cultural resource evaluation during development permit review.	**CDD**	Term of the Plan
LU-14.2.2	Follow federal Code of Federal Regulation Section 106 National Historic Preservation Act guidance for all projects with federal funding.	**CDD**	Term of the Plan

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Land Use Element

Part 2 – Technical Information

City of Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 7, 2025

December 2025

Ordinance No. O2025-010

CITY OF TUMWATER

Land Use Element

Part 2 – Technical Information

Table of Contents

1. Introduction 6
A. Background 6
B. How to Read this Part of the Element 7
C. Connections with Other Elements 7
D. Community Profile 8
E. Neighborhoods 10
2. Physical Features 11
A. Geographic Features 11
B. Water Resources 12
3. Existing Land Use Patterns 13
A. Existing Land Use Distribution, Land Use Designations, & Zone Districts 13
B. Land Use Distribution 13
4. Land Use Growth Targets 18
A. Population – Existing & Target 18
B. Employment – Existing & Target 19
5. Land Use Capacity Estimates 23
A. Introduction 23
B. Partially Used & Under-Utilized Land Supply Analysis 24
C. Developable or Re-Developable Land Supply Analysis 25
D. Analysis of Population Accommodation 27
6. Land Use Plan 31
A. Introduction 31
B. Residential 33
C. Commercial 39
D. Mixed Use 41
E. Industrial 44
F. Parks, Open Space, & Public and Institutional 45
7. Neighborhoods 47
A. Airport 47

DRAFT

B. Brewery 48
C. Bush Prairie 50
D. Deschutes 52
E. Littlerock 54
F. Mottman/Black Lake 55
G. New Market 57
H. SE Capitol Boulevard 59
I. SW Tumwater 60
J. Trosper 62
K. Tumwater Hill 63
8. Other Considerations 66
A. Essential Public Facilities 66
B. Minimum & Maximum Densities 66
C. Clustering 66
D. Modular & Manufactured Housing 66
E. Placemaking Strategies 66
F. Design Review 67
Appendix A Foundational Documents 70
Appendix B Tumwater Land Use Alternatives Analysis 72

List of Tables

Table LU-1. Land Area in Tumwater & Its Urban Growth Area. 13
Table LU-2. Summary of Existing Land Use in Tumwater. 13
Table LU-3. Percentage of the Area of Existing Land Use by Neighborhood in Tumwater. 16
Table LU-4. Area of Existing Land Use by Neighborhood in Tumwater by Acres. 17
Table LU-5. Tumwater & Its Urban Growth Area Population Forecasts, 2020-45 18
Table LU-6. Population of Tumwater & Its Urban Growth Area, 2010-24. 19
Table LU-7. Tumwater & Urban Growth Area Population, Housing, and Employment Growth Forecasts. 23
Table LU-8. Tumwater & Its Urban Growth Area 20-Year Population Projection 24

DRAFT

Table LU-9. Buildable Land in Acres in Tumwater. 26

Table LU-10. Capacity for Total Future Dwelling Units on Vacant, Infill or Redeveloped Lots in Tumwater. 27

Table LU-11. Summary of Housing Surplus or Deficit in Tumwater & Its Urban Growth Area in 2045. .. 28

Table LU-12. Residential Land Supply & Demand in Tumwater & Its Urban Growth Area in 2045. 29

Table LU-13. Tumwater Land Use Designations 31

Table LU-14. Land Use Designation with Implementing Zone District & Minimum & Maximum Net Dwelling Units per Acre. 34

Table LU-15. Foundational Documents for the Land Use Element. 70

List of Figures

Figure LU-1. Land Use Element's Connections to Tumwater Community Concerns. 8

Figure LU-2. Existing Land Use in Tumwater. 14

Figure LU-3. Tumwater Population, 1970-2020. 19

Figure LU-4. Employment Bases by Percentage of Jobs in Industry in Tumwater, 2017 & Projected 2045 20

Figure LU-5. Employment Bases by Number of Jobs in Tumwater, 2017 & Projected 2045. 21

Figure LU-6. Unemployment Rate for Tumwater, Lacey, & Olympia, 2015-2025. 22

Figure LU-7. 2045 Tumwater & Urban Growth Area Housing Need Allocation by Area Median Income, Housing Type, & Tenure. 30

Figure LU-8. Airport Neighborhood Existing Land Use, 2025. 47

Figure LU-9. Brewery Neighborhood Existing Land Use, 2025. 49

Figure LU-10. Bush Prairie Neighborhood Existing Land Use, 2025..... 51

Figure LU-11. Deschutes Neighborhood Existing Land Use, 2025. 53

Figure LU-12. Littlerock Neighborhood Existing Land Use, 2025. 54

Figure LU-13. Mottman/Black Lake Neighborhood Existing Land Use, 2025. 56

Figure LU-14. New Market Neighborhood Existing Land Use, 2025. 57

Figure LU-15. SE Capitol Boulevard Neighborhood Existing Land Use, 2025. 59

Figure LU-16. SW Tumwater Neighborhood Existing Land Use, 2025. 61

Figure LU-17. Trosper Neighborhood Existing Land Use, 2025. 62

Figure LU-18. Tumwater Hill Neighborhood Existing Land Use, 2025. 64

DRAFT

List of Maps

Map LU-1. City-Wide Future Land Use Map

Map LU-2. Neighborhoods Map

Map LU-3. Airport Future Land Use Map

Map LU-4. Brewery District Future Land Use Map

Map LU-5. Bush Prairie Neighborhood Future Land Use Map

Map LU-6. Deschutes Neighborhood Future Land Use Map

Map LU-7. Littlerock Neighborhood Future Land Use Map

Map LU-8. Mottman Neighborhood Future Land Use Map

Map LU-9. New Market Neighborhood Future Land Use Map

Map LU-10. SE Capitol Boulevard Neighborhood Future Land Use Map

Map LU-11. SW Tumwater Neighborhood Future Land Use Map

Map LU-12. Trosper Neighborhood Future Land Use Map

Map LU-13. Tumwater Hill Neighborhood Future Land Use Map

Abbreviations Used in Document

RCW – Revised Code of Washington

TMC – Tumwater Municipal Code

WAC – Washington Administrative Code

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1. Introduction

A. Background

The Land Use Element is part of Tumwater's Comprehensive Plan and was prepared in response to the state Growth Management Act (Chapter 36.70A RCW).

As part of Tumwater's Comprehensive Plan, the Land Use Element covers the 20-year planning period from 2025 to 2045, and designates the proposed general distribution, location, and extent of all land use types.

Part 2 of the Land Use Element provides the technical analysis to address the requirements of RCW 36.70A.070(1) for land use elements. It analyzes Tumwater's:

- Physical features.
- Existing land use patterns.
- Land use growth targets.
- Land use capacity estimates.
- Land use plan.
- Other considerations.

The assessment supports the development of the Land Use Element's goals, policies, and draft implementation actions found in Part 1 of the Element.

The Land Use Element goals and policies guide the type, distribution, and location of land uses that direct Tumwater's physical development. It provides the policy context for TMC Title 18 Zoning, development regulations, administrative processes, and investment decisions such as capital improvements and work plans for City staff, the Planning Commission, City Council, and community and agency partners.

Tumwater is planning for future growth for the City and its urban growth area together, so land

LAND USE

State requirements (WAC 365-196-405) that the Comprehensive Plan must meet:

- Designation of the proposed general distribution and general location and extent of the uses of land, where appropriate, for agricultural, timber, and mineral production, for housing, commerce, industry, recreation, open spaces, public utilities, public facilities, general aviation airports, military bases, rural uses, and other land uses.
- Population densities, building intensities, and estimates of future population growth.
- Provisions for protection of the quality and quantity of ground water used for public water supplies.
- Wherever possible, consideration of urban planning approaches to promote physical activity.
- Where applicable, a review of drainage, flooding, and stormwater runoff in the area covered by the plan and nearby jurisdictions, and guidance for corrective actions to mitigate or cleanse those discharges that pollute waters of the state, including Puget Sound or waters entering Puget Sound.

use in Tumwater and its urban growth area are evaluated together.

The Land Use Maps represent the general future land use patterns intended for Tumwater and its urban growth area within the 20-year planning period and are a graphic expression of the land use goals and policies found in Part 1 of the Element.

B. How to Read this Part of the Element

Part 2 of the Land Use Element consists of the following chapters.

- **Chapter 2 – Physical Features**: Provides a summary of the prominent geographic features and water resources that define the physical landscape of Tumwater.
- **Chapter 3 – Existing Land Use Patterns**: Offers a summary of existing land use distribution within Tumwater that has emerged from the physical features discussed in Chapter 2.
- **Chapter 4 – Land Use Growth Targets**: Discusses the existing and 2045 forecasted population and employment figures that will guide future land use and the Comprehensive Plan for the next 20 years.
- **Chapter 5 – Land Use Capacity Estimates**: Provides a summary of Tumwater's land use capacity that is needed to accommodate the land use growth targets in Chapter 4.
- **Chapter 6 – Land Use Plan**: Reviews Tumwater's approach to accommodating the 2045 land use growth targets and land use capacity for residential, commercial, industrial, and parks, open space, & public and institutional land uses.
- **Chapter 7 – Neighborhoods**: Provides the land use context, and discusses future land uses, challenges, and recommendation for each neighborhood in Tumwater.
- **Chapter 8 – Other Considerations**: Summarizes other relevant land use matters.
- **Appendix**: The appendix includes the following:

  Appendix A – Summary of Foundational Documents.

C. Connections with Other Elements

The Land Use Element connects all the other Elements of the Comprehensive Plan together locationally.

Figure LU-1 illustrates how the Land Use Element relates to various Tumwater community concerns.

Coordination with all the Elements of the Comprehensive Plan is important to be able to ensure orderly, cost-efficient development that is phased outward from the urban core and transit corridors. All Elements of the Comprehensive Plan are consistent with the Land Use Element.

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As some examples, the Land Use Element works with the Conservation and Lands for Public Purposes Elements to protect the quality and quantity of groundwater used for public water supplies and account for drainage, flooding, and storm water run-off by assigning the appropriate land use designations to environmentally sensitive areas.

Figure LU-1. Land Use Element's Connections to Tumwater Community Concerns.

In addition, the Land Use Element works with the Housing Element to allocate sufficient land to ensure an adequate supply of buildable land for housing that serves every income group and supports the Climate Element by encouraging compact urban development to reduce carbon emissions and addresses natural hazards to increase resilience.

Land within Tumwater's urban growth area is addressed through the Tumwater and Thurston County Joint Plan in accordance with adopted County-Wide Planning Policies.

D. Community Profile

The place that became Tumwater at the point where the Deschutes River cascades into Puget Sound at its most southerly point has been inhabited for many centuries.

The Coastal Salish Indian groups, whose descendants are members of the tribes now known as Nisqually, Squaxin Island, and Chehalis, gathered shellfish and frequented the inlets and prairies of the south Puget Sound for centuries before Euro-American exploration and settlement.

The rivers of the region, such as the Deschutes River, were long-established sites for salmon harvesting, the prairies, such as Bush Prairie, were popular hunting and plant harvesting sites, and the beaches were replete with shellfish, harvested by native peoples.

In 1845, Michael T. Simmons, led the first group of permanent American settlers to Tumwater Falls. He settled in the area that would become Tumwater while others in the party, including George Bush, a man of mixed race, and his family, settled in the rich prairies to the south.

The decision of the group to settle north of the Columbia River was made in part because of the black exclusion laws of Oregon's Provisional Government that were not actively enforced north of the Columbia. The 31 members of the Simmons party laboriously cut a wagon trail that became the northern branch of the Oregon Trail. Others followed, with the establishment of Olympia in 1850 and settlement of the natural prairies and river bottom lands throughout the county in the 1850s.

By the mid-1800s, Tumwater was known as the end of the Oregon Trail and was the oldest European settlement north of the Columbia River.

When Tumwater was founded in 1845, it was named New Market. In 1847, the name was changed to Tumwater, as it likened the sound of "throbbing or noisy" water, which was expressed in native languages as Tum Chuck.

Tumwater was the starting point for further American settlements in other points on Puget Sound. It was from Puget Sound that the movement to divide Oregon grew, resulting in the creation of the Washington Territory in 1853.

Tumwater's early growth and development was influenced by its proximity to the power-generating falls of the Deschutes River, the nearby saltwater access for transportation and communication, and the abundance of timber in the area. The town developed on the lands around the mouth of the river, and homes and sawmills were built along its banks.

On November 25, 1869, Tumwater was officially incorporated as a fourth-class town. In 1964, the voters of Tumwater elected to change the classification to a third-class City with a Mayor-Council form of government. In 1994, the Tumwater City Council voted to change the classification to a code city but retain the Mayor-Council form of government.

Interstate 5 was constructed in 1959 and resulted in the demolition of most of Tumwater's historic downtown. The freeway divides Tumwater into western and eastern halves.

An additional historical influence on the development pattern of Tumwater is the Olympia Regional Airport and the associated New Market Industrial Campus that are located at the southern end of Tumwater. The Airport was started in the early part of the 20th century and has been owned and operated by the Port of Olympia since 1963.

Tumwater is contiguous with Olympia to the north and northeast and stretches for approximately six miles to the south and a similar distance from the Deschutes River in the east to almost to Black Lake in the west. The area of Tumwater is approximately 18 square miles or 11,378 acres.

E. Neighborhoods

Land Use Element divides Tumwater into eleven neighborhoods recognizing different land use planning needs:

- Airport
- Brewery District
- Bush Prairie
- Deschutes
- Littlerock
- Mottman
- New Market
- SE Capitol Boulevard
- SW Tumwater
- Trosper
- Tumwater Hill

Chapter 7 contains data about current land use and trends for each neighborhood.

Policy recommendations for each specific Neighborhood are also included. The neighborhood maps graphically represent policy recommendations for future land uses for each neighborhood in Tumwater for the 20-year planning period.

Map LU-2 is the Neighborhoods Map and Maps LU-3 to LU-14 are the future land use maps for each individual neighborhood.

2. Physical Features

A. Geographic Features

1) Topography

Elevation in Tumwater ranges from close to sea level where the Deschutes River enters Capitol Lake to more than 500 feet in elevation at the top of Bush Mountain.

In the northern part of Tumwater, the Deschutes River valley separates the northeastern part of Tumwater from the rest of the City. The eastern edge of the Deschutes River valley is 160 feet in elevation, while the valley floor above Tumwater Falls is 60 feet in elevation.

Moving west from Deschutes River in the northwestern part of the Tumwater, Tumwater Hill rises to 461 feet in elevation directly west of the Deschutes River. Separated by Percival Creek to the southwest, Bush Mountain is over 500 feet in elevation. Farther west is flat at around 190 to 200 feet in elevation which is divided by the Black River Drainage Ditch and the and then the eastern slope of Black Hill in the northwest corner of Tumwater.

The southern half of Tumwater is flat at around 190 to 200 feet in elevation with Bush Prairie occupying the area centered on the Olympia Regional Airport and New Market Industrial Park.

2) Soils

The soil in the Tumwater is predominantly Nisqually loamy fine sand, Cagey loamy sand, and Indianola loamy sand. There are areas of peat in the western part of Tumwater near Percival Creek and the wetland complexes in the western part of Tumwater and granite underlying the hills in the northwest part of Tumwater.

More information on soils is found in Appendix B of Part 2 of the Conservation Element.

3) High Erosion or Landslide Potential

Areas of erosion hazard and landslide hazard are found in the northern half of Tumwater on the edges of the Deschutes River as well Tumwater Hill, Bush Mountain, and Black Hill.

A map of geologically hazardous areas is found in Part 2 of the Conservation Element.

4) Seismic Hazard Areas

The entire Puget Sound Region is considered seismically active and is characterized by a history of major earthquake frequency. Seismic hazards are those areas within the region that are subject to the most severe level of earthquake response due to slope of the land and soil density.

Seismic hazard areas are mapped in those areas that have been filled in the Deschutes River valley and around Percival Creek north of Trosper Road. Areas of peat in the western part of Tumwater near Percival Creek and the wetland complexes in the western part of Tumwater are also seismic hazard areas.

A map of seismic hazard areas is found in Part 2 of the Conservation Element.

B. Water Resources

1) Watersheds

Tumwater covers both the Water Resource Inventory Areas 13 (Deschutes watershed) and 23 (Upper Chehalis watershed). The dividing line between the watersheds follows a northwest to southeast line diagonally through the Tumwater.

The Deschutes watershed includes:

- Deschutes River
- Percival Creek
- Unclassified Creek and pond in the western part of Tumwater
- Black Lake Drainage Ditch
- Barnes Lake
- Lake Susan
- Munn Lake
- Trails End Lake
- Trosper Lake

The Upper Chehalis watershed includes:

- Black Lake
- Fish Pond Creek and associated wetland complex

A map of rivers, creeks, and lakes, including shorelines of the state, is found in Part 2 of the Conservation Element.

The Shoreline Master Program describes Tumwater's shorelines of the state in more detail.

2) Wetlands

Wetlands are classified and protected on a descending scale of sensitivity and habitat score in TMC 16.28. While wetlands are mapped throughout Tumwater the larger wetland complexes are associated with the Deschutes River and Fish Pond Creek and associated wetland complexes.

Part 2 of the Conservation Element describes Tumwater's wetlands in more detail and contains a map of major wetlands.

3) Public Drinking Water Aquifers

All of Tumwater's drinking water supply comes from underground aquifer areas beneath Tumwater. Most of Tumwater is within a critical aquifer recharge area and there are wellhead protection areas around Tumwater's Bush Wellfield, Lakeland Manor Water System, Palermo Wellfield, Port Wellfield, and southwest wellfield.

A map of the critical aquifer recharge area and wellhead protection areas is found in Part 2 of the Conservation Element.

4) Areas that Flood

Part 2 of the Conservation Element describes Tumwater's frequently flooded areas in more detail and contains a map of frequently flooded areas.

3. Existing Land Use Patterns

A. Existing Land Use Distribution, Land Use Designations, & Zone Districts

To plan effectively for the twenty-year planning period, it is necessary to understand existing urban land use distribution and trends. To accomplish this, Thurston Regional Planning Council maintains a land use database for Tumwater.

The types of land uses employed to identify presently existing land uses in Chapter 3 of the Land Use Element are different from the land use designations that will be used to identify future land uses on the Land Use Maps or the zone districts that are found in TMC Title 18 Zoning or the Official Zoning Map for Tumwater and the Urban Growth Area.

Table LU-1 and Figure LU-2 illustrate the results of the inventory citywide.

B. Land Use Distribution

Table LU-1 shows the amount of land in Tumwater and its urban growth area in comparison to Thurston County as a whole. While Lacey and Olympia's urban growth areas are larger than Tumwater's, their total land areas are comparable to Tumwater.

Table LU-1. Land Area in Tumwater & Its Urban Growth Area.

Jurisdiction	Acres	Square Miles	Percent of County
Tumwater – City Only	11,578	18.1	2.5%
Tumwater – Urban Growth Area	2,652	4.1	0.6%
Thurston County	471,394	736.6	100%

Source: Thurston Regional Planning Council, Table 1-01A: Land Area, April 1, 2025.

Table LU-2 and Figure LU-2 summarize existing land use distribution in Tumwater as a whole. The largest percentage of acreage In Tumwater is taken up by residential uses at 34 percent.

Vacant land represents 17 percent of Tumwater's land area, while Public and Institutional comprise the third most predominant land use in Tumwater at 16 percent. The Olympia Regional Airport takes up the majority of Public and Institutional acreage followed by state facilities and public schools.

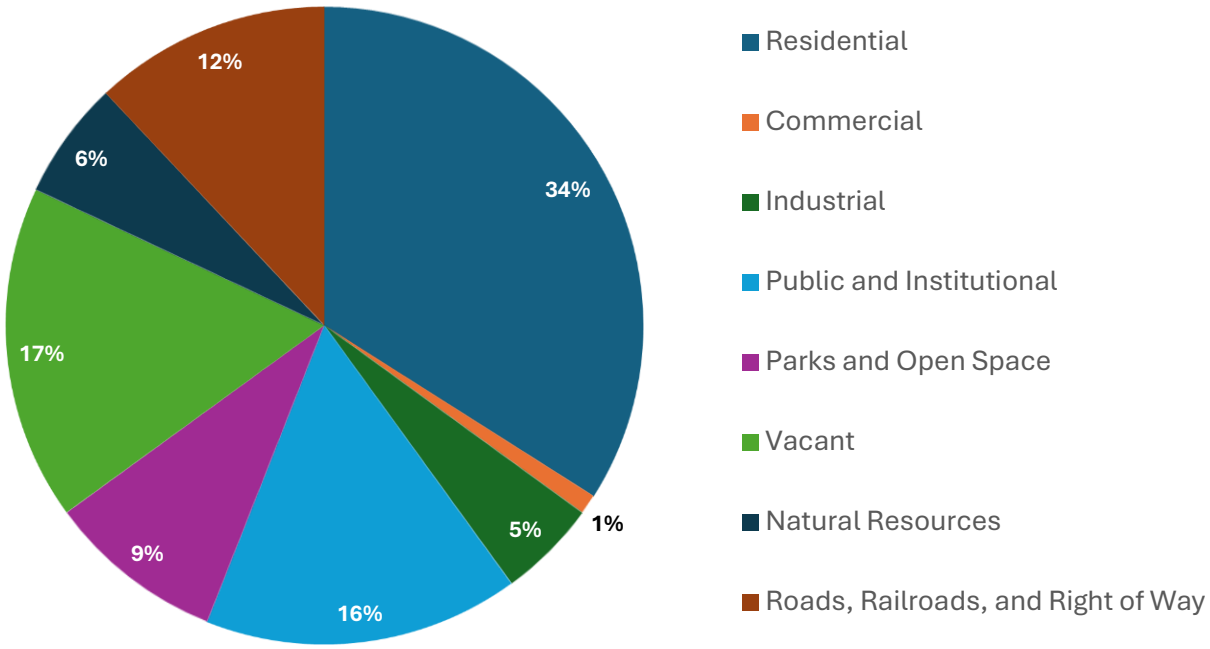
Table LU-2. Summary of Existing Land Use in Tumwater.

Type of Land Use	Acreage	Percentage
Residential	4,802	34%
Commercial	208	1%
Industrial	722	5%
Public and Institutional	2,299	16%
Parks and Open Space	1,260	9%

Type of Land Use	Acreage	Percentage
Vacant	2,371	17%
Natural Resources	886	6%
Roads, Railroads, and Rights of Way	1,702	12%
Total	**14,248**	**100%**

Source: Thurston Regional Planning Council, Tumwater Land Use Alternative Analysis, 2025.
Notes: The Port of Olympia's Olympia Regional Airport and New Market Industrial area are classified as Public/Institutional or Industrial. Tumwater Golf Course is classified as Parks and Open Space. The former Olympia Brewery properties are classified as Industrial.

Figure LU-2. Existing Land Use in Tumwater.



Source: Thurston Regional Planning Council, Tumwater Land Use Alternative Analysis, 2025.
Notes: The Port of Olympia's Olympia Regional Airport and New Market Industrial area are classified as Public/Institutional or Industrial. Tumwater Golf Course is classified as Parks and Open Space. The former Olympia Brewery properties are classified as Industrial.

Roads, railroads, and rights-of-way comprise 12 percent of the land area, while parks and open space are the fifth most predominant land use at nine percent. Open space uses consist mostly of areas presently having a zone district such as Greenbelt or Open Space. The Tumwater Valley Municipal Golf Course, Pioneer Park, Barnes Lake, and Trosper Lake have a land use land use designation of Parks/Open Space.

Natural Resources are the sixth most predominant land use at six percent. Most of the land in this land use is made up of the Black Lake Quarry at the northwest corner of Tumwater.

Industrial and commercial acreage are the seventh and eighth largest land uses at eight percent. The Port of Olympia New Market

Industrial Park and the Mottman Industrial Park take up a large portion of the industrial acreage. Much of the commercial uses are located along Capitol Boulevard between Custer Way and Israel Road and along Littlerock Road south of Trosper Road.

Tables LU-3 and LU-4 summarize the existing land use by neighborhood.

Land Use Element

Part 2 – Technical Information

Table LU-3. Percentage of the Area of Existing Land Use by Neighborhood in Tumwater.

Neighborhood	Residential	Commercial	Industrial	Public and Institutional	Parks, Preserves, and Open Space	Vacant	Natural Resources	Roads, Railroads, and Right of Way
Airport	4%	6%	30%	63%	9%	9%	2%	11%
Brewery	0%	13%	1%	4%	5%	1%	0%	7%
Bush Prairie	10%	0%	1%	8%	18%	4%	4%	5%
Deschutes	6%	0%	0%	0%	28%	7%	0%	5%
Littlerock	16%	54%	2%	6%	9%	16%	34%	12%
Mottman / Black Lake	5%	0%	27%	1%	1%	5%	22%	3%
New Market	1%	0%	0%	7%	0%	2%	0%	3%
SE Capital Boulevard	7%	12%	0%	2%	1%	2%	0%	6%
SW Tumwater	1%	0%	21%	3%	8%	12%	0%	6%
Trosper	9%	0%	4%	1%	2%	10%	5%	4%
Tumwater Hill	13%	13%	2%	3%	12%	4%	0%	13%
Urban Growth Area	28%	1%	11%	3%	6%	27%	33%	8%

Source: Thurston Regional Planning Council, Tumwater Land Use Alternatives Analysis, 2025.

Notes: The Port of Olympia's Olympia Regional Airport and New Market Industrial area are classified as Public/Institutional or Industrial. Tumwater Golf Course is classified as Parks and Open Space. The former Olympia Brewery properties are classified as Industrial. Commercial and Industrial were separated, assuming uses aligned with land use designation.

Land Use Element

Part 2 – Technical Information

Table LU-4. Area of Existing Land Use by Neighborhood in Tumwater by Acres.

Neighborhood	Residential	Commercial	Industrial	Public and Institutional	Parks, Preserves, and Open Space	Vacant	Natural Resources	Roads, Railroads, and Right of Way	Total
Airport	173	13	219	1447	115	211	14	195	**2,195**
Brewery	11	27	4	93	64	29	0	116	**230**
Bush Prairie	502	0	8	180	224	106	38	92	**1,062**
Deschutes	283	1	0	0	354	161	0	85	**803**
Littlerock	777	112	13	132	119	378	297	204	**1,851**
Mottman / Black Lake	224	0	197	31	14	123	194	53	**787**
New Market	49	0	0	164	0	51	0	53	**264**
SE Capital Boulevard	328	24	0	35	12	58	0	104	**458**
SW Tumwater	32	0	153	64	101	294	0	99	**645**
Trosper	436	1	32	31	20	228	47	65	**798**
Tumwater Hills	628	27	14	61	155	86	0	216	**980**
Urban Growth Area	1447	3	87	65	87	688	315	142	2834
Total	**3,443**	**205**	**640**	**2,238**	**1,178**	**1,725**	**590**	**1,569**	**14,422**

Source: Thurston Regional Planning Council, Tumwater Land Use Alternatives Analysis, 2025.

Notes: The Port of Olympia's Olympia Regional Airport and New Market Industrial area are classified as Public/Institutional or Industrial. Tumwater Golf Course is classified as Parks and Open Space. The former Olympia Brewery properties are classified as Industrial. Commercial and Industrial were separated, assuming uses aligned with land use designation.

4. Land Use Growth Targets

A. Population – Existing & Target

Population growth is driven by two factors: net migration, people moving in minus people moving out, and natural increases, births minus deaths. Since 1960, the growth in Thurston County has primarily been the result of net migration.

Between 2003-04 and 2023-24, an average of 3,368 people moved to Thurston County every year, which is 80.3 percent of total County population growth.

While most in migration is primarily due to the stable economy in Thurston County, the increasing cost of living in the Seattle metropolitan area played a role as well, as individuals from the metropolitan area looked for ways to reduce escalating costs of living, particularly in housing.

The natural increase of population in Thurston County has been declining every year from 2016-17 to 2023 with 956 more births than deaths in 2017 and 53 more deaths than births in 2022-23.

Tumwater's population in 2000 of 12,698 increased to 27,470 by 2024, an increase of 216 percent. The population is expected to see similar growth over the next 20 years, reaching approximately 46,070 people in Tumwater and its urban growth area as shown in Table LU-5.

Table LU-5. Tumwater & Its Urban Growth Area Population Forecasts, 2020-45.

	Population
Population (2020)	28,707
Projected Population Increase (2020-2045)	17,363
Projected Population (2045)	46,070

Source: 2020 Population includes the 2020 U.S. Census calibrated numbers both within Tumwater (25,573) and its urban growth area (3,134). Thurston Regional Planning Council, Table 3. Population Estimates and Forecast Thurston County Cities, Urban Growth Areas, and Reservations 2010-2045.

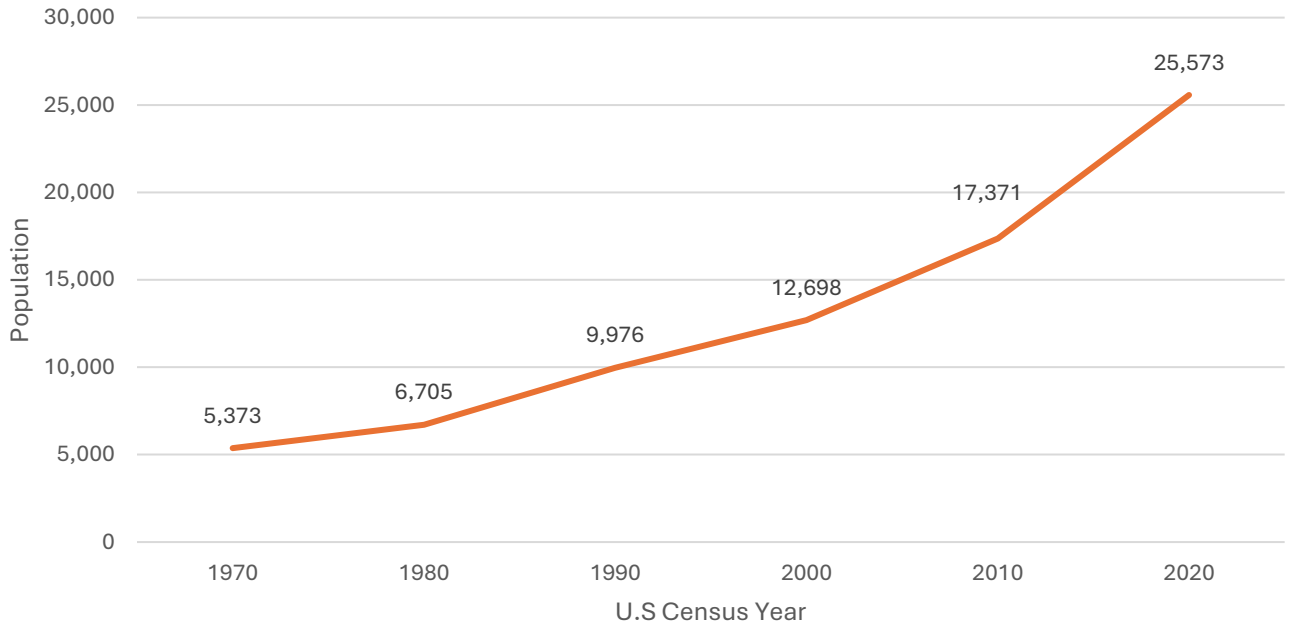
The U.S. Census Bureau estimated in 2020 that Tumwater's population was 25,573 and its urban growth area's population was calibrated as 3,134. The Washington State Office of Financial Management estimated that Tumwater's population as of April 1, 2024, was 27,470 and the Thurston Regional Planning Council estimated that Tumwater's urban growth area was 3,100 in 2024 for a total of 30,570 residents.

Figure LU-3 shows the change in Tumwater's population since 1970. Between 1970 and 2020, Tumwater's population more than quadrupled, growing 476 percent over 50 years. Over the next 25 years from 2020 to 2045, Tumwater and its urban growth area population are anticipated to grow by 17,360 to reach 46,070 residents in Tumwater and its urban growth area by 2045.

Table LU-6 shows the population of Tumwater and its urban growth area since 2010. The population

of Tumwater has increased, and its urban growth area decreased since 2010 in part due to annexations.

Figure LU-3. Tumwater Population, 1970-2020.



Sources: Washington State Office of Financial Management, 2020 Decennial U.S. Census Counts of Population for the State, Counties, Cities and Towns and Thurston Regional Planning Council, Small Area Population Estimates and Forecast, 2024.

Table LU-6. Population of Tumwater & Its Urban Growth Area, 2010-24.

	2010	2020	2021	2022	2023	2024
City	17,371	25,573	26,050	26,360	27,100	27,470
Urban Growth Area	6,350	3,134	3,290	3,300	2,890	3,100
Total	**23,720**	**28,707**	**29,340**	**29,660**	**29,990**	**30,570**

Source: Thurston Regional Planning Council, Small Area Population Estimates and Forecast, 2024.

B. Employment – Existing & Target

Employment quantity and quality is an important consideration when considering housing affordability. The availability of jobs that pay a wage adequate to enable people to afford housing is important. Much of the information included in this section is compiled from The Profile, assembled by the Thurston Regional Planning Council.

1) County Employment Base

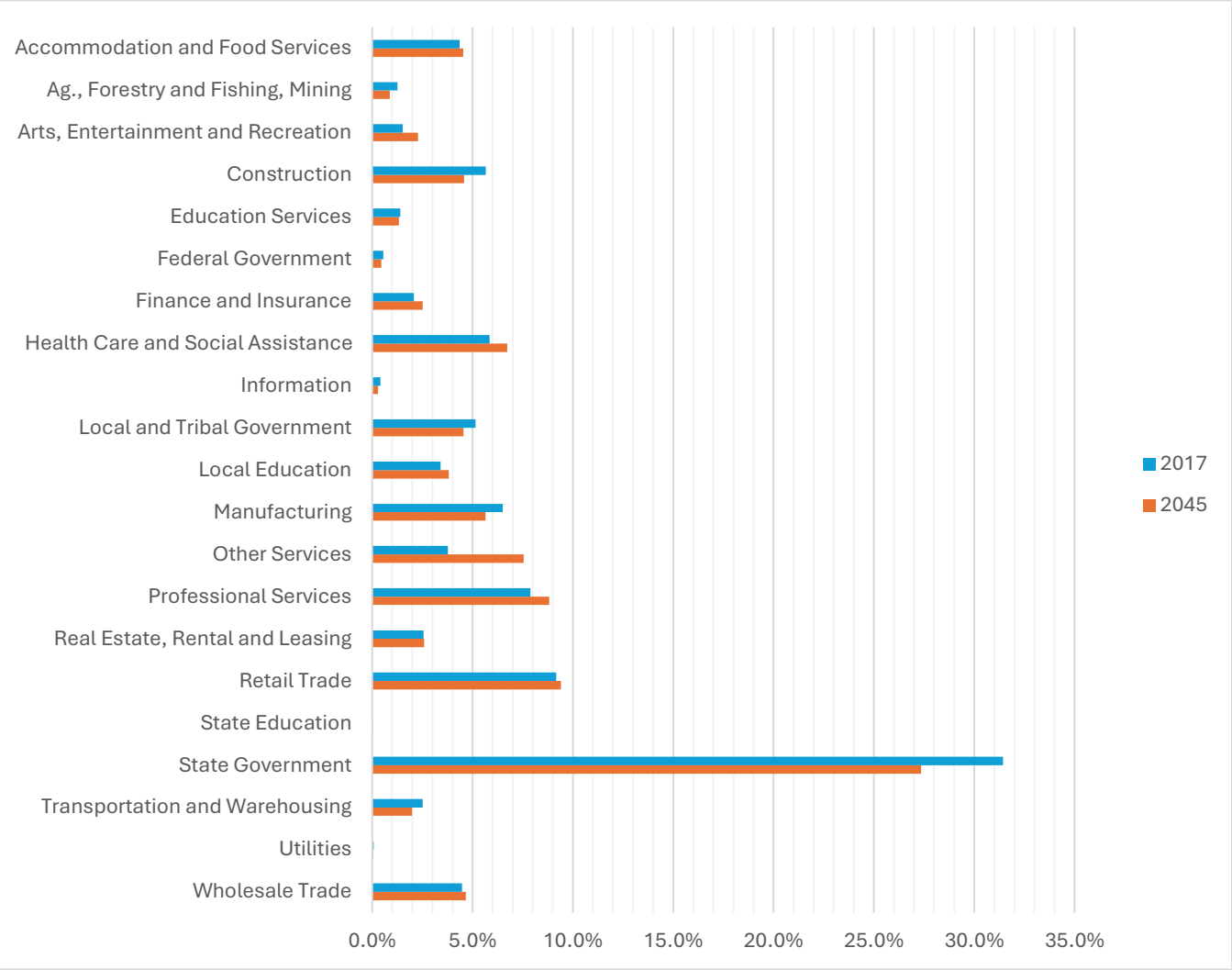
Industries and businesses that produce goods that are exported to surrounding areas, such as other countries, states, and communities, are referred to as basic industries. These firms form the backbone of the local economy by exporting goods out of the area and importing dollars into the area.

An excellent example of a basic industry in Tumwater is Cardinal CG Glass. A non-basic industry is in a support role to the basic industries in a community. An example of a non-basic industry is a shopping center that provides goods to basic industries and their employees.

Figures LU-4 and LU-5 show the percentage and number of jobs by sector in Tumwater.

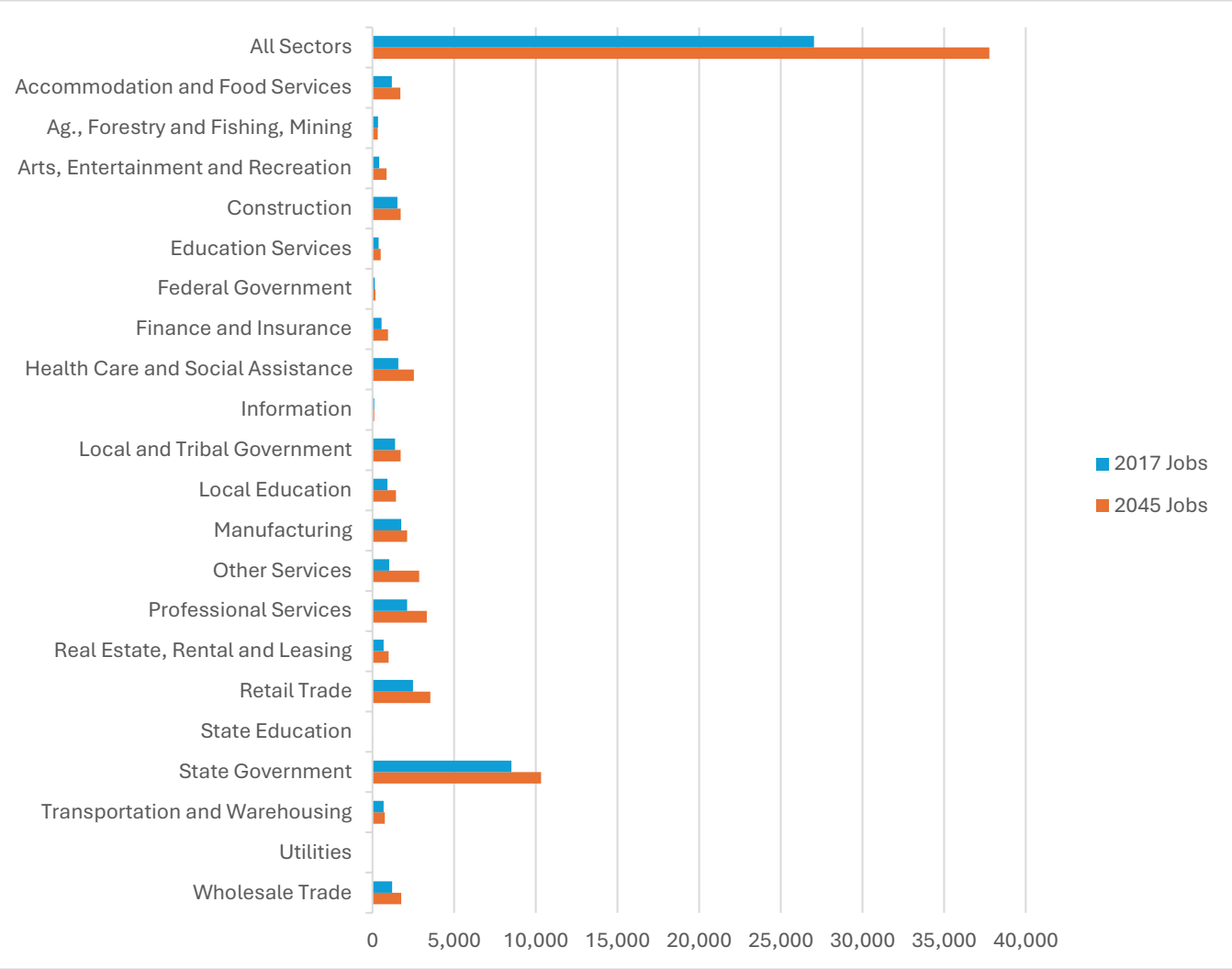
In Thurston County, State government is the largest basic industry, comprising over 25 percent of the jobs in the county. The proportion of people employed in government jobs in Thurston County is more than double the percentage of the entire State, with local, State, and federal employment together, which is common in counties that have the seat of state government.

Figure LU-4. Employment Bases by Percentage of Jobs in Industry in Tumwater, 2017 & Projected 2045



Source: Thurston Regional Planning Council, Population and Employment Forecast (2018 Update).

Figure LU-5. Employment Bases by Number of Jobs in Tumwater, 2017 & Projected 2045.



Source: Thurston Regional Planning Council, Population and Employment Forecast (2018 Update).

Unemployment rates continue in a downward trend in municipalities and payrolls expand with 20,860 new jobs from January 2015 to January 2025. Figure LU-6 shows the unemployment rate since 2015 for Olympia, Lacey, and Tumwater.

In Tumwater alone there were 27,030 jobs in 2017. Compared to 2015, overall employment for the Olympia, Lacey, and Tumwater municipalities in 2025 increased by two percent and unemployment has decreased by two percent. As of April 2025, the unemployment rate was 4.3 percent.

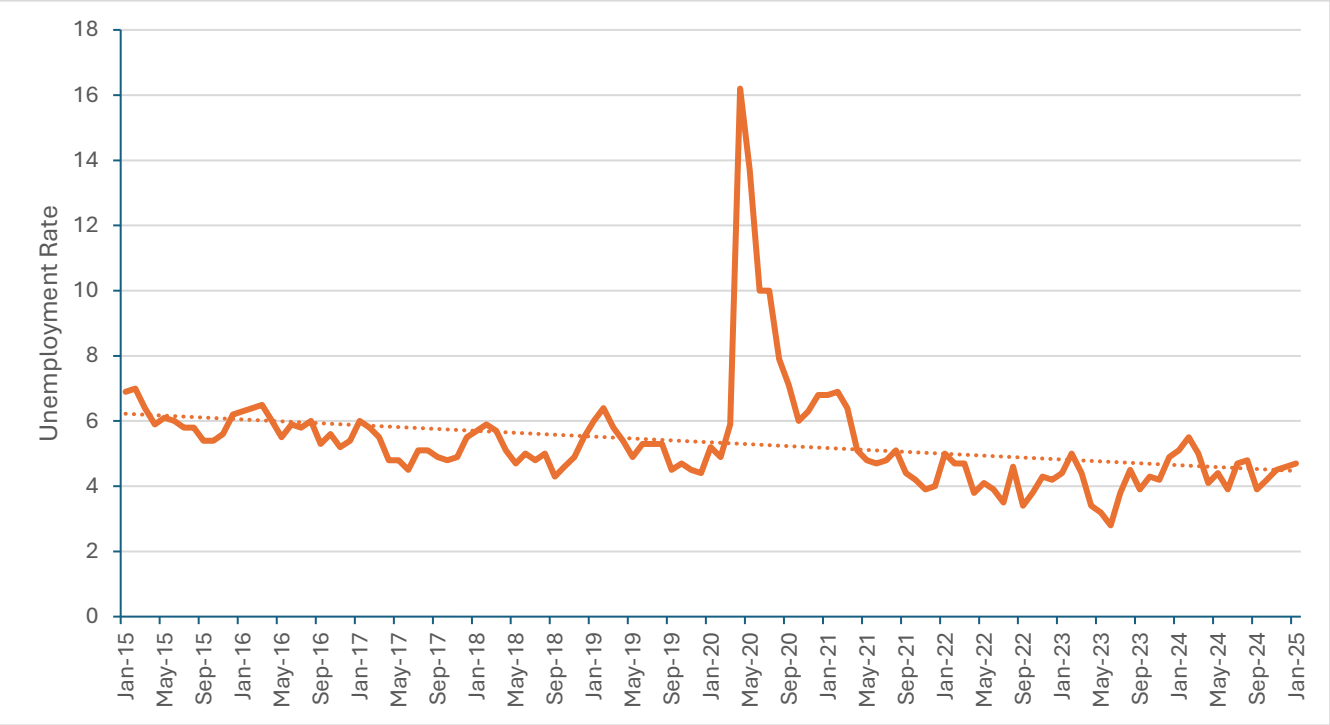
Non-farm employment has increased over the past 10 years by twenty percent. Government employment has expanded slightly (0.5 percent) since 2010. Wholesale, Trade, Transportation and Warehousing as well as Manufacturing jobs are also expected to increase into 2045. Professional and Business Services was the fastest growing industry and added 5,000 jobs in the past 10 years, making up 11 percent of the workforce in January 2025

Increasing taxable sales since 2010 were especially notable in e-commerce up 107 percent,

transportation and warehousing up 93 percent, specialty food and beverage stores up 107 percent and professional, scientific, and technical services up 57 percent. Sales for all industries were up two percent.

Median Household Income in Tumwater has increased 30 percent from $65,167 to $93,635 since 2014 while the number of households has increased 14 percent.

Figure LU-6. Unemployment Rate for Tumwater, Lacey, & Olympia, 2015-2025.



Source: Bureau of Labor Statistics, Unemployment Rates for Metropolitan Areas. February 2025.

5. Land Use Capacity Estimates

A. Introduction

The purpose of the urban land supply analysis is to determine how much residential, commercial, and industrial land Tumwater will need to have to accommodate at least 20 years of projected growth.

Under the Growth Management Act, the State Office of Financial Management gives counties planning under the Growth Management Act a 20-year population projection, which in turn are used to designate their urban growth areas. Thurston County and all the cities and towns within it must accommodate at least the population projected by the State Office of Financial Management.

County-Wide Policy XI addresses population distribution in Tumwater and is found in Appendix B of the Plan Introduction.

Following the housing unit allocation process established under House Bill 1220 (Chapter 254, Laws of 2021) that took the housing dwelling units allocated by the state to Thurston County and then in turn to the individual jurisdictions in the county, the Thurston Regional Planning Council forecasted that Tumwater and its urban growth area will need to add 9,192 net new housing units between 2020 and 2045 in Tumwater and its urban growth area.

Taking the 9,192 net new housing unit allocation over the next 20 years and factoring in the household size for Tumwater from the 2020 U.S. Census, staff found that Thurston Regional Planning Council adopted population forecast from 2018 for 2045 of 46,070 for Tumwater and its urban growth area would not reflect the likely population growth resulting from the 2025 housing allocation process. Therefore, the projected population growth forecast for Tumwater and its urban growth area was adjusted upwards as shown in Table LU-6.

Table LU-7 shows base and 2045 forecasts of Tumwater and its urban growth area for housing, population, and jobs.

The 2045 Comprehensive Plan update is using these forecasts to determine the type, size, and characteristics of the land use designations and associated zone districts are needed to accommodate expected growth. The 2045 forecasts are then in turn used to guide the development of the other elements in the 2045 Comprehensive Plan update.

Table LU-7. Tumwater & Urban Growth Area Population, Housing, and Employment Growth Forecasts.

Type	Number
Housing	
Housing Units Needed (2020-2045)	9,192 Units
Population	
Population (2020)[1]	28,707

[1] 2020 Population includes the 2020 U.S. Census calibrated numbers both within the City of Tumwater (25,573) and its urban growth area (3,134).

Type	Number
Projected Population Increase (2020-2045)	17,363
Projected Population (2045)	46,070
Jobs	
Employment Estimate (First Quarter, 2017)	27,030 Jobs
Projected Employment Increase (2017-2045)	10,730 Jobs
Employment Forecast (2045)	37,760 Jobs

Sources: 2020 Population includes the 2020 U.S. Census calibrated numbers both within Tumwater (25,573) and its urban growth area (3,134). Thurston Regional Planning Council, Table 3. Population Estimates and Forecast Thurston County Cities, Urban Growth Areas, and Reservations 2010-2045. U.S. Census Bureau, and Thurston Regional Planning Council, Total Employment Estimates and Forecast, Thurston County Urban Areas, 2019.

Table LU-8 shows the breakdown of the projection of population growth for Tumwater and its urban growth area from 2020 to 2024.

Table LU-8. Tumwater & Its Urban Growth Area 20-Year Population Projection.

	2020 Population	2045 Population	Population Increase	Increase 2025-2045
Tumwater	25,573	37,380	11,807	46%
Urban Growth Area	3,134	8,690	5,556	177%
Combined Areas	**28,707**	**46,070**	**17,363**	**60%**

Source: Thurston Regional Planning Council, Small Area Population Estimates and Forecast, 2024.

The data in Table LU-8 shows that the total population for Tumwater's current city limits will be 42,408 in 2045 with another 8,268 in its urban growth areas. In 2020, the population within Tumwater was 25,573 with 3,134 in its urban growth area. An additional population of 16,835 must be accommodated within Tumwater and 5,134 within its urban growth area during the 20-year planning period.

The first step in performing an urban land supply analysis is to determine what land uses are in Tumwater through a land use inventory and land use database. The Thurston Regional Planning Council completed work for Tumwater through the Buildable Lands Program.

B. Partially Used & Under-Utilized Land Supply Analysis

It is particularly difficult to determine the build out of partially used and under-utilized land due to several factors such as current economic conditions, property owners holding property from the market for an anticipated increase in value, businesses retaining property for future expansion, and residential property owners holding property to retain privacy around an existing unit. Thurston Regional Planning Council has incorporated these factors into the Buildable Lands Report for Thurston County (2021).

C. Developable or Re-Developable Land Supply Analysis

Not all the vacant land in Tumwater is available for development. Land might not be available for development for some or all the following reasons:

1. The land is undevelopable due to environmental constraints such as geological hazards and wetlands. These constraints are discussed in the Conservation Element. Previously, a factor of 20 percent was used to estimate the amount of this type of undevelopable land. However, new data and mapping systems allow most environmental constraints to be mapped and calculated more accurately. The Thurston Regional Planning Council incorporated the information into the Buildable Lands Report for Thurston County (2021).

   Note: Thurston Regional Planning Council did not use steep slope data in determining the Buildable Lands data for Tumwater due to an unacceptable level of accuracy when applied to a parcel based citywide map of Tumwater.

2. A certain amount of vacant land will be developed into uses other than residential. These uses include churches, parks, schools, and daycares, all of which are currently allowed within residential land use designations. Thurston Regional Planning Council estimates that these uses will consume varying amounts of land within different residential land use designations.

Thurston Regional Planning Council based its estimates on the assumption related to a market factor but with a variable depending on parcel size that 10 to 25 percent of the vacant developable land, which is being held out of the marketplace for investment, future expansion, or personal use, will be available for development every five years.

It was assumed that some of the vacant land will be available for development at one time or another during the 20-year planning period. The assumption included a range since a larger parcel is more likely to redevelop than a smaller parcel due to its potential value and wider range of development options.

Commercial and Industrial uses were combined in the analysis as land use can vary within those broad categories. State guidance allowed Tumwater to determine how best to calculate buildable lands for commercial and industrial purposes.

The analysis also considered the lands that will be required under future conditions if a habitat conservation plan addressing federally protected species is adopted by City Council. Lands suitable for mitigation were removed from calculations as they will be preserved without development as permanent open space.

Generally, land with the fewest site constraints will develop first because it is less expensive and more convenient to develop. Remaining vacant land has more site constraints and will be more difficult to develop.

When the preceding factors are taken into consideration, there may be less land available

for development or re-development than is initially apparent. Table LU-9 shows the buildable land in aces below.

Table LU-9. Buildable Land in Acres in Tumwater.

	Land Use Designation	Residential Uses	Commercial/Industrial
City	Airport Related Industrial	-	6.7
	Brewery District	1.5	8.7
	Capitol Boulevard Community	3.0	5.1
	General Commercial	27.1	80.9
	Heavy Industrial	-	-
	High Density Residential	7.0	-
	Light Industrial	-	256.3
	Low Density Residential	604.3	35.9
	Manufactured Home Park	0.9	-
	Medium Density Residential	50.7	-
	Mixed Use	-	16.4
	Neighborhood Commercial	-	2.1
	New Market Historic District	-	0.5
	Parks and Open Space	-	-
	Public and Institutional	-	0.4
	Residential/Sensitive Resource	159.8	-
	Tumwater Town Center	0.3	29.9
	Utilities	-	-
	City Total	**854.6**	**436.2**
Urban Growth Area	General Commercial	7.2	29.6
	Heavy Industrial	-	-
	Light Industrial	-	215.3
	Low Density Residential	647.6	18.1
	Medium Density Residential	118.4	11.3
	Mixed Use	0.6	17.9
	Residential/Sensitive Resource	28.1	-
	Neighborhood Commercial	-	1.2
	Urban Growth Area Total	**801.9**	**293.4**

Land Use Designation	Residential Uses	Commercial/Industrial
TOTAL	1,656.5	729.6

Source: Thurston Regional Planning Council. Tumwater Land Use Alternatives Analysis. 2025.
Notes: [1] Land with moderate to high likelihood of intensifying uses.

D. Analysis of Population Accommodation

To determine whether Tumwater has the capacity to accommodate the projected population, an analysis of all the proposed residential land use designations was performed. The study identified vacant or infill land and land that is underutilized and could be redeveloped at higher densities and calculated the allowable dwelling units given the density in each land use designation.

Each land use designation intended for residential uses utilizes a minimum density policy that requires development to be configured so that infill may occur in the future and would ensure that valuable urban land is not developed at extremely low densities. The minimum density policy is one of the main tools to accommodate future population in the Land Use Element.

Similarly to the buildable lands analysis, the data includes reductions for lands that are desirable for habitat mitigation. Only land use designations which allow residential uses are included in Table LU-10.

House Bill 1220 (Chapter 254, Laws of 2021) amended the Growth Management Act housing goal to plan for and accommodate housing for all income levels. The requirement necessitated a shift to assessing housing demand as it is related to the housing types which would be affordable to each area median income bracket in Tumwater.

Note that Table LU-10 is the total capacity for future dwelling units in Tumwater by land use designation, not necessarily the appropriate type of dwelling unit that would be affordable by area median income group. This is addressed in more detail in the Housing Element.

Table LU-10. Capacity for Total Future Dwelling Units on Vacant, Infill or Redeveloped Lots in Tumwater.

City or Urban Growth Area	Land Use Designation	Dwelling Units Available from Vacant or Infill Development	Dwelling Units Available from Redevelopment
City	Brewery District	621	30
	Capitol Boulevard Community	390	338
	General Commercial	1,230	306
	Manufactured Home Park	8	0
	Mixed Use	0	35
	High Density Residential	206	0
	Low Density Residential	3,755	0

City or Urban Growth Area	Land Use Designation	Dwelling Units Available from Vacant or Infill Development	Dwelling Units Available from Redevelopment
	Medium Density Residential	634	0
	Neighborhood Commercial	0	3
	Residential/Sensitive Resource	486	0
	Town Center	6	38
	City Total	**7,336**	**750**
Urban Growth Area	General Commercial	290	18
	Mixed Use	11	13
	Low Density Residential	3,970	0
	Medium Density Residential	1,397	0
	Neighborhood Commercial	0	1
	Residential/Sensitive Resource	76	0
	Urban Growth Area Total	**5,744**	**32**
	TOTAL	**13,080**	**782**

Source: Thurston Regional Planning Council. Tumwater Land Use Alternative Analysis. 2025.

Thurston Regional Planning Council completed a land capacity analysis as part of the Planning for and Accommodating Housing Needs in Thurston County in 2025. The final step of the land capacity analysis was to compare the allocated housing need allocated to Tumwater and its urban growth area to its capacity for new housing.

A summary of the difference between the allocated housing need and the capacity for potential number of new dwelling units that could be built on a parcel based on zoning, development regulations, development trends, and market factors is shown in Table LU-11 and in more detail by area median income level and residential land use designation in Table LU-12.

A positive number indicated that there is a surplus in Tumwater's capacity for new housing units, which is sufficient capacity to accommodate the allocated housing need for a given income level while a negative number indicated that there is a deficit, which is insufficient capacity.

Table LU-11. Summary of Housing Surplus or Deficit in Tumwater & Its Urban Growth Area in 2045.

Aggregate Housing		Capacity		Need Surplus / Deficit	
0-80% AMI	80-120% AMI	0-80% AMI	80-120% AMI	0-80% AMI	80-120% AMI
5,694	1,937	5,729	3,692	35	1,755

Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, 2025.
Note: A positive number (surplus) indicates that there is sufficient capacity to accommodate the allocated housing need for a given income level while a negative number (deficit) indicates that there is insufficient capacity. AMI is area median income.

Table LU-12. Residential Land Supply & Demand in Tumwater & Its Urban Growth Area in 2045.

Income Level	Land Use Designations Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	• High Intensity	723	5,694	5,729	35
0-30% Other		1,736			
30-50%		1,309			
50-80%		1,926			
80-100%	• Moderate Intensity	1,140	1,937	3,692	1,755
100-120%		798			
120% +	• Low Intensity	1,561	1,561	2,441	880
Total Housing Units		**9,192**	**9,192**	**11,861**	**2,670**
Emergency Housing (Beds Needed)		184	184	2,842	2,658

Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, 2025.
Notes: Income level is the area median income level. A positive number indicates that there is a surplus, which is sufficient capacity to accommodate the allocated housing need for a given income level while a negative number indicates that there is a deficit, which is insufficient capacity. High intensity land use designations are those that allow for multifamily dwelling (5+ dwelling units), moderate intensity land use designations are those that allow for middle housing dwelling (2 to 4 dwelling units), and low intensity land use designations are those that allow for single family dwellings.

While the land capacity analysis found no deficits in Tumwater and its urban growth area in the ability for Tumwater's current land use designations to accommodate future housing demand, in looking at the detailed findings shown in Table LU-12 under the Surplus or Deficit columns the margin between aggregate housing need and the total capacity to accommodate the housing needs for those less than 80 percent area median income was very small.

Given the small margin, the uncertainty around the amount of developable land that will be available without the Endangered Species Act restrictions, and the limited land use designations that could accommodate housing for the category, under the Land Use Element residential densities land use designations have been increased and the range of potential uses allowed have been expanded.

Figure LU-7 shows the relationship in Tumwater and its urban growth area between area median income, the housing allocation for each of the income groups, the housing types most affordable for the income groups, and housing tenure.

The information will inform the density ranges and permitted types of residential uses in land use designations and zone districts in the Land Use Element and Tumwater's development regulations.

Figure LU-7. 2045 Tumwater & Urban Growth Area Housing Need Allocation by Area Median Income, Housing Type, & Tenure.

0-30% AMI	30-50% AMI	50-80% AMI	80-120% AMI	Above 120% AMI
Housing Allocation: **1,724 units** 26% of total	**Housing Allocation:** **1,033 units** 15% of total	**Housing Allocation:** **541 units** 8% of total	**Housing Allocation:** **1,036 units** 16% of total	**Housing Allocation:** **2,342 units** 35% of total
Housing Type: Low-rise and Mid-rise Multifamily (5+ housing Units)	**Housing Type:** Low-rise and Mid-rise Multifamily (5+ housing Units	**Housing Type:** Low-rise and Mid-rise Multifamily (5+ housing Units) or Middle Housing	**Housing Type:** Low-rise and Mid-rise Multifamily (5+ housing Units) or Middle Housing	**Housing Type:** Single- Family or Middle Housing
Rental: Public support needed	**Rental:** Public support needed	**Rental:** Incentives needed **Home Ownership:** Subsidy or incentives needed	**Rental or Home Ownership:** Incentives or zoning flexibility needed	**Market Rent and Home Ownership**

Source: Thurston Regional Planning Council, Planning for and Accommodating Housing Needs in Thurston County, 2025.
Notes: PSH is permanently supported housing and AMI is area median income. Numbers may not add to totals due to rounding.

6. Land Use Plan

A. Introduction

The Land Use Element identifies characteristics of lands in Tumwater to determine the best use in each neighborhood based on physical and environmental factors, historical use, existing use, community concerns, and goals. In most cases, recommendations for future land use are broad and applied at the city level.

Tumwater is also divided up into neighborhoods, particularly where historic development occurred. Where special consideration is required, specific recommendations have been made for the eleven neighborhoods within Tumwater. Neighborhoods are defined in Map LU-2 Neighborhoods Map and addition information is found in Chapter 7.

The chapter defines the purpose for each land use designation and identifies the criteria for their use. Additionally, land use designation criteria are used in conjunction with Part 1, Land Use Goals, Policies, and Actions.

Development within each land use designation is subject to design review based upon the Citywide Design Guidelines and any applicable subarea design guidelines such as the Brewery District, Capitol Boulevard Community, and Town Center Design Guidelines.

Table LU-13 shows all the land use categories and designations that were applied in the Land Use Element. The land use designations are meant to address all existing land uses and potential land uses that could occur in Tumwater.

The land use categories in Table LU-13 are a general guide to the land use designations discussed in Chapter 6. In many cases, multiple types of land use can occur in the same land use designation, such as commercial and residential in the General Commercial land use designation, but there is a predominant land use, such as commercial. The chapter is organized around the predominant land use of a land use category.

Table LU-13. Tumwater Land Use Designations

Land Use Category	Land Use Designation
Residential	Residential/Sensitive Resource
	Low Density Residential
	Medium Density Residential
	High Density Residential
	Manufactured Home Park
Commercial	General Commercial
	Neighborhood Commercial

Land Use Category	Land Use Designation
Mixed Use	Brewery District
	Capitol Boulevard Community
	Mixed Use
	New Market Historic District
	Tumwater Town Center
Industrial	Airport Related Industrial
	Light Industrial
	Heavy Industrial
	Utilities
Parks, Open Space, & Public and Institutional	Parks and Open Space
	Public Institutional

1) City-Wide Future Land Use Map

Map LU-1, the City-Wide Future Land Use Map, represents the general future land use patterns that are desired for Tumwater within the 20-year planning period. The Land Use Element implements the land use designations on the Land Use Map. The land use designations, the goals and policies in Part 1 of the Land Use Element, and the additional information in Part 2 are based on several factors, including:

- The unique topographical, ecological, social, and economic characteristics of a neighborhood.
- The type of existing development.
- Existing zoning regulations.
- Ownership patterns.
- The condition of existing structures.
- Subarea, district, and corridor plans previously adopted by Tumwater that guide land use patterns within specific neighborhoods. These plans include the Littlerock Road Subarea Plan, Brewery District Plan, and Capitol Boulevard Corridor Plan.

The City-Wide Future Land Use Map is meant to be used to evaluate individual land use proposals and is a guide for both public and private actions affecting the growth and development of Tumwater.

The City-Wide Future Land Use Map, in turn is the basis for the Official Zoning Map for Tumwater and the Urban Growth Area and the land use designations are the foundation for Tumwater's development codes and guidelines.

In many cases, more than one zone district would be consistent with the policy recommendations of a particular land use designation.

The City-Wide Future Land Use Map along with the land use designations intended to indicate the type of future development that is desired for neighborhoods, while allowing flexibility where possible to accommodate previously approved development.

The Land Use Element addresses a twenty-year period. The changes that result from the policy recommendations in the Element and the rest of the Comprehensive Plan will take place slowly over time and will result in incremental changes.

The following sections provide specific definitions for each land use category and designation and the criteria for their use.

B. Residential

1) Introduction

Where Tumwater's residents live helps define the character of the community. The residential land use category provides a variety of land use designations that provide a broad range of housing choices to meet the needs of all income groups and ages in the community.

Residential developments should be established with the following guidelines:

- Provide for a dynamic mix of housing types to accommodate the many diverse housing needs of all income groups of Tumwater residents.
- Provide open spaces. Wall to wall development is not acceptable.
- Ensure that housing is compatible in quality, design, and intensity with surrounding land uses, traffic patterns, public facilities, and environmentally sensitive areas.
- Ensure that new residential development promotes diversity in housing types.
- Support the stability and vitality of established residential areas.
- Support incentives for housing ownership and rental housing.
- Enhance the appearance of and maintain public spaces in residential areas.
- Promote community involvement to achieve neighborhood improvement.
- Limit closed loops and favor options for multiple travel paths for emergency access and connectivity to other areas and services.

Legally established mobile and manufactured home parks should have the Manufactured Home Park land use designation applied to them to ensure a sufficient supply of land for manufactured homes in parks.

Several land use designations for residential land use were developed to meet the goals of the Growth Management Act and the Land Use and Housing Elements. Each of these land use designations has specific criteria and characteristics related to development in each land use designation.

Table LU-14 shows every land use designation that allows residential uses with implementing zone district and their minimum and maximum net dwelling units per acre.

The density ranges for residential land use designations are based on net density. Net density means the total number of dwelling units divided by the net area of the site or area. Net area typically excludes streets, streams, ponds and other water areas, and areas with environmental constraints such as flood plains, wetlands, and steep slopes. Net density can also be defined as developable land.

Gross density means the total number of dwelling units divided by the total land area of the site or area with no exclusions. The difference between gross and net density is critical. Roads and parking, both included in gross density, often use 20 percent of a site. Using net density also increases flexibility for habitat mitigation where required.

Table LU-14. Land Use Designation with Implementing Zone District & Minimum & Maximum Net Dwelling Units per Acre.

Land Use Designation	Implementing Zone District	Net Dwelling Units Per Acre
Residential Land Uses		
Residential/Sensitive Resource	RSR Residential/Sensitive Resource	Minimum: 2 Maximum: 4
Low Density Residential	LDR Low Density Residential	Minimum: 6 Maximum: 9
Medium Density Residential	MDR Medium Density Residential	Minimum: 10 Maximum: 19[1]
High Density Residential	HDR High Density Residential	Minimum: 20 Maximum: None
Manufactured Home Park	MHP Manufactured Home Park	Minimum: 6 Maximum: 9
Commercial Land Uses		
General Commercial	GC General Commercial	Minimum: 40 Maximum: None
Neighborhood Commercial	NC Neighborhood Commercial	Minimum: 6 Maximum: 9
Mixed Use Land Uses		
Brewery District	BD Brewery District	Minimum: 8 to 30, depending on subdistrict[2] Maximum: None
Capitol Boulevard Community	CBC Capitol Boulevard Community	Minimum: 30 Maximum: None
Mixed Use	MU Mixed Use	Minimum: 20 Maximum: None

Land Use Designation	Implementing Zone District	Net Dwelling Units Per Acre
New Market Historic District	HC Historic Commercial	Minimum: 10 Maximum: None
Tumwater Town Center	TC Town Center	Minimum: 20 to 30, depending on subdistrict[3] Maximum: None

Notes: [1] Projects that provide permanently affordable housing dwelling units or other forms of permanently inclusive housing dwelling units in the Medium Density Residential land use designation would be allowed to exceed the maximum density stated in Table LU-14 up to a new maximum density of 24 dwelling units per acre.

[2] In the Brewery District, the following minimum densities of net dwelling units per acre apply to the subdistricts. There are no maximum densities.

- Bates Neighborhood North – Minimum: 20
- Bates Neighborhood South – Minimum: 8
- Bluff – Minimum: 10
- Deschutes – Minimum: 20
- Knoll – Minimum: 30
- Triangle – Minimum: 20.

[3] In the Tumwater Town Center, the following minimum densities of net dwelling units per acre apply to the subdistricts. There are no maximum densities.

- Town Center Mixed Use – Minimum: 30
- Town Center Residential – Minimum: 20.

2) Commercial Uses in Residential Land Use Designations

Some neighborhood-scale commercial uses are appropriate in residential land use designations to serve the needs of the local neighborhood. These uses may include neighborhood-scale retail uses, personal services, and small professional offices, including residences in conjunction with these businesses.

Such uses should be allowed in all residential land use designations except those designated Residential/Sensitive Resource. Neighborhood-scale commercial uses should only be allowed as conditional uses to ensure that the uses demonstrate compatibility with the existing neighborhood.

Compatibility of neighborhood-scale commercial uses with residential uses should be achieved using buildings that are sized and designed to be residential in scale; small overall area devoted to neighborhood-scale commercial use; and design and layout, which screens residential areas from excessive noise, lights, storage, and parking areas. Neighborhood-scale commercial uses should be oriented primarily towards pedestrian and bicycle use. Uses, which would result in excessive automobile traffic, should be discouraged, such as gas stations or drive-thru restaurants.

Most neighborhood-scale commercial areas serving a particular neighborhood will consist of one business. However, new neighborhood-scale commercial uses may be considered in areas where one or more such uses already exist. In those cases, additional businesses should be located near existing businesses in detached, non-linear clusters to avoid the development of commercial strips or many small businesses strung out along transportation corridors.

3) Residential/Sensitive Resource

The purpose of the Residential/Sensitive Resource land use designation is to recognize areas of unique open space character and sensitivity to environmental disturbance such as around stream corridors, lakes, and wetlands within Tumwater and its urban growth area.

The Residential/Sensitive Resource land use designation is intended to be used only for exceptional areas within Tumwater and its urban growth area that are not protected by the Shoreline Management Act and are not already built out. Intensive urban development would adversely affect ground or surface waters or environmentally sensitive areas.

Development in Residential/Sensitive Resource land use designation should be low density and clustered. Clustering means grouping development onto part of a property so that the remainder can be preserved as unbuilt open space. The intent of clustering development is to preserve open space along environmentally sensitive areas and provide lot configurations that allow for the preservation of the specified amount of open space and also allows for future applied density to be achieved over the 20-year time period of the Land Use Element.

Where clustering is used, it should be applied in the following manner:

- Clustering is recommended for development proposals in the Residential/Sensitive Resource land use designation.
- Open space preserved through clustering should be at least 30 percent of the gross area of the site. Of the 30 percent, at least half should be useable for passive recreational purposes. Passive recreational uses include activities such as hiking, bicycling, horseback riding, and fishing; and areas that provide access to shorelines and other recreational uses. If half of the 30 percent preserved for open space on a lot or development proposal is not useable for passive recreational purposes, then an additional amount of open space should be set aside to make the amount of area usable for passive recreational purposes, which should be equal to the amount of open space area that is not useable for passive recreational purposes.

In addition to clustering, other methods of preserving open space shall be strongly encouraged to guide development into less environmentally sensitive portions of the land, such as purchase or donation, easements or deed restrictions, covenants, land exchanges, and transfer of development rights as a method of preserving open space.

The minimum density for residential development in the Residential/Sensitive Resource land use designation is two dwelling units per acre and the maximum density of six dwelling units per acre.

Densities in the Residential/Sensitive Resource land use designation should be two to four dwelling units per acre.

To protect groundwater resources from contamination by failing septic tanks and to ensure that urban services can be provided in a cost-efficient manner, a minimum density policy of two dwelling units per acre is established.

It is not the intent of the policy to prohibit construction on lots larger than are required for minimum density. What is important is that the property has the capacity to be developed at the minimum density in the future.

For example, if a property owner proposes to construct a house on a five-acre lot and the minimum density is two dwelling units per acre, they would not be prohibited from doing so. However, the house must be sited on a five-acre lot such that other houses could be built on the site in the future if needed.

Soil and other natural systems should be capable of supporting densities of up to four dwelling units per acre with urban services without resulting in the degradation of environmentally sensitive areas such as stream corridors, lakes, and critical aquifers.

The full range of urban services should be available or be planned in the near future in accordance with the Lands for Public Purposes Element and Capital Facilities Plan.

Construction activities in the Residential/Sensitive Resource land use designation should only occur in the drier months of the year to protect Percival Creek from sedimentation and construction-associated runoff.

Density transfer in the Planned Unit Development overlay is not appropriate in the land use designation due to the extreme sensitivity of the area to environmental disturbance.

Accessory units should be permitted in the land use designation on lots with sewer connections, except where the Health Department has approved septic systems. Accessory units will provide affordable housing and extra income for homeowners.

Designated manufactured housing should be permitted on single lots in the land use designation.

4) Low Density Residential

The minimum density for residential development in the Low Density Residential land use designation is six dwelling units per acre and the maximum density of nine dwelling units per acre.

The density of new development in the Low Density Residential land use designation should be averaged over the entire site to reach the maximum densities required to accommodate future population. It is not the intent of Tumwater to require that lots be of a specific size but that densities are met as an average of the overall site.

Clustering should be considered in the Low Density Residential land use designation to protect environmentally sensitive areas yet still accommodate residential development.

Designated manufactured housing should be permitted on single lots in the land use designation.

Accessory units should be permitted in the land use designation on lots with sewer connections, except where the Health Department has approved septic systems. Accessory units will provide affordable housing and extra income for homeowners.

It is envisioned that the zone district implementing the land use designation would permit housing types such as single family and

middle housing such as townhomes, cottage housing, duplexes, triplexes, and quadplexes. For these housing types to be used, there must be mechanisms to ensure neighborhood compatibility and design quality.

All housing types should be permitted in the land use designation subject to Citywide Design Standards. Designated manufactured housing should be permitted on single lots in the land use designation.

The residential land use designation should provide a mix of housing types to provide affordable housing and ensure neighborhood stability.

5) Medium Density Residential

The minimum density for residential development in the Medium Density Residential land use designation is ten dwelling units per acre and the maximum density of 19 dwelling units per acre.

The density of new development in the Medium Density Residential land use designation should be averaged over the entire site to reach the maximum densities required to accommodate future population. This way lots are not limited to a specific size, but different sized units may be constructed to meet density requirements as an average of the overall site.

Projects that provide permanently affordable housing dwelling units or other forms of permanently inclusive housing dwelling units in the Medium Density Residential land use designation would be allowed to exceed the maximum density stated in Table LU-14 up to a new maximum density of 24 dwelling units per acre.

The Medium Density Residential land use designation can accommodate middle housing such as townhomes, cottage housing, duplexes, triplexes, and quadplexes, and multifamily housing if the overall site meets the density goals of the land use designation. The intent of the policy is to ensure diversity in housing types in these areas.

Designated manufactured housing should be permitted on single lots in the land use designation.

Manufactured home parks are permitted in the Medium Density Residential land use designation subject to City standards and site plan review by the Hearing Examiner.

Additionally, Medium Density Residential designated areas should be accompanied by open space, environmental protection for environmentally sensitive areas and mass transit linkage to make these higher densities viable and compatible with the community.

Clustering should be considered in the residential land use designation to protect environmentally sensitive areas yet still accommodate residential development.

6) High Density Residential

The minimum density for residential development in the High Density Residential land use designation is 20 dwelling units per acre and there is no maximum density of dwelling units per acre.

The density of new development in the High Density Residential land use designation should be averaged over the entire site to reach the maximum densities required to accommodate future population. This way lots are not limited

to a specific size, but different sized units may be constructed to meet density requirements as an average of the overall site.

The High Density Residential land use designation should be applied in areas that are planned for major transportation corridors and areas adjacent to the center of Tumwater.

Clustering should be considered in the High Density Residential land use designation to protect environmentally sensitive areas yet still accommodate residential development.

The High Density Residential land use designation should include significant open spaces, protection for environmentally sensitive areas, and mass transit linkage to make these higher densities viable and compatible with the community.

7) Manufactured Home Park

The Manufactured Home Park land use designation is intended to ensure consistency with RCW 36.70A.070(2)(c) which requires sufficient land be available for all types of housing including manufactured housing.

The minimum density for residential development in the Manufactured Home Park land use designation is six dwelling units per acre and the maximum density of nine dwelling units per acre.

Manufactured home parks are permitted in the land use designation subject to City development standards and site plan review.

Existing manufactured home parks should be maintained and included in the land use designation to protect them from changes into other uses.

Designated manufactured housing should be permitted on pre-existing single lots of record in this land use designation.

The residential land use designation should help to provide sufficient land for manufactured housing in manufactured home parks and ensure neighborhood stability.

Uses that are incompatible or inconsistent with the goal of protecting and preserving manufactured home parks should not be allowed.

The land use designation should be accompanied by open space and protection for environmentally sensitive areas to make these areas compatible with the community.

Subdivision and platting of properties for residential purposes, including condominiums, should not be allowed.

Additionally, land use designation should be located along or near mass transit linkages and close to urban services.

C. Commercial

1) Introduction

Where Tumwater's residents shop helps make the community unique. The commercial land use category provides a broad range of land use designations that support retail and employment opportunities to meet the needs of all income groups and ages in the community as well as support and implement the goals of the Tumwater Economic Development Plan.

2) General Commercial

The intent of the General Commercial land use designation is to provide places for more intense retail space that support and implement the goals of the Tumwater Economic Development Plan.

The General Commercial land use designation should be established with the following guidelines:

- The establishment of a new intense use commercial center for Tumwater;
- The preservation of areas for commercial facilities, which make use of the closeness to Interstate 5, and;
- Minimizing the undesirable impacts of commercial uses on the residential neighborhoods which they serve.

To ensure commercial development is compatible with surrounding uses and the general character of the community, architectural and landscaping design and development guidelines should apply to commercial development. Allowing residential uses amongst commercial development provides opportunities for walkable communities to develop.

Mixed use structures with residential uses are allowed in the land use designation if they are built at a density of 40 dwelling units per acre or greater. Development would be of the same scale as surrounding developments and would support housing that is affordable, transit orientated, and pedestrian friendly. These developments should also offer community open space and provide a sense of belonging and identity due to quality design.

3) Neighborhood Commercial

Some non-residential uses, such as neighborhood-scale retail uses and personal services, are appropriate in residential areas when they serve the needs of the local neighborhood. The Neighborhood Commercial land use designation is an additional method for allowing neighborhood scale retail uses, personal services, and professional offices next to residential areas where local demand, community support, and design solutions demonstrate compatibility with the neighborhood.

Areas designated Neighborhood Commercial should be of a low intensity and minimally affect adjacent residential areas. The Neighborhood Commercial land use designation should provide a buffer area between adjacent residential uses. The buffer should consist of landscaping and sound barriers. Uses that produce nuisances such as light and glare, and excessive noise and traffic should be discouraged. The buffer should also allow for bicycle and pedestrian access to encourage the use of adjacent services without requiring a car trip.

The minimum density for residential development in the Neighborhood Commercial land use designation is six dwelling units per acre and the maximum density of nine dwelling units per acre.

D. Mixed Use

1) Introduction

The Mixed Use land use category provides land use designations with a combination of land uses in close proximity. Mixed use can include development of a parcel or structure with one or more different land uses, such as a combination of residential, office, retail, public, or entertainment in a single or physically integrated group of structures.

The mixed use land use designations provide an opportunity to develop neighborhoods and subareas that are transit oriented and pedestrian-friendly while still accommodating automobiles and provide affordable housing and quality community design.

2) Brewery District

The intent of the Brewery District land use designation is to create a multi-modal activity center. Over time, areas with the land use designation will transform from an auto-oriented commercial node into a lively, walkable, and economically vibrant neighborhood center with a mixture of housing and neighborhood-serving businesses in accordance with the Brewery District Plan, Economic and Strategic Plans, and the Final Report for the Community Visioning Project for the Former Olympia Brewery.

The Brewery District land use designation is intended to foster development that:

- Creates a stronger sense of place by facilitating pedestrian access, establishing gathering places for residents, and fostering a distinct District identity;
- Improves transportation options, safety, and access within and across the District;
- Expands economic opportunity and activity;
- Improves the function and appearance of the built environment; and
- Guides redevelopment of the former brewery site and integration into the surrounding neighborhood.

The minimum density for residential development in the Brewery District land use designation is eight to 30 dwelling units per acre depending on the subdistrict and there is no maximum density of dwelling units per acre.

To implement the goals, policies, and actions of the land use designation, matching zoning and special design guidelines were adopted.

3) Capitol Boulevard Community

It is the intent of the Capitol Boulevard Community land use designation to provide for a broad spectrum of compatible, mutually supporting uses nearby. Over time, the area with the land use designation is envisioned to change from strip commercial development and other low-intensity or non-pedestrian-oriented uses incrementally into a mixed-use, pedestrian, auto, and transit-oriented corridor.

The Capitol Boulevard Community land use designation is intended to foster development that:

- Creates vibrant places and increases business activity, especially for pedestrian oriented businesses;
- Increases security;
- Promotes efficient use of facilities;
- Encourages a variety of businesses, especially those that appeal to pedestrians and serve the needs of the surrounding neighborhood;
- Balances all modes of transportation by increasing access for pedestrians, bicycles, and transit and by providing commercial services, recreation facilities, and employment opportunities near to residences, thus lessening the need to drive;
- Provides affordable housing by reducing development costs and encouraging a greater variety of housing options;
- Creates a pedestrian and bicycle-friendly environment with well-designed streets and public open spaces; and
- Provides a sense of community and place with quality community design.

The minimum density for residential development in the Capitol Boulevard Community land use designation is 30 dwelling units per acre and there is no maximum density of dwelling units per acre.

To implement the goals, policies, and actions of the land use designation, matching the zone district and special design guidelines were adopted. The Capitol Boulevard Corridor Plan should be referenced for more in-depth guidance on the land use designation.

4) Mixed Use

The intent of the Mixed Use land use designation is to have a mixture of commercial and residential uses on the same site. Mixed-use can include but is not limited to mixed-use buildings with retail or office uses on the first floor and residential above or separate buildings with different uses on the same site.

The Mixed Use land use designation provides an opportunity to develop areas that are transit oriented and pedestrian friendly while still accommodating automobiles, supporting small businesses and consumers, and providing affordable housing and quality community design. With architectural design and creative site planning, it is possible to provide dwelling units that are mixed in with commercial uses.

The minimum density for residential development in the Mixed Use land use designation is 20 dwelling units per acre and there is no maximum density of dwelling units per acre.

The Mixed Use land use designation, when developed with design and development guidelines have characteristics that include:

- Transit orientation that lessens traffic impacts by providing ready access to mass transit and provides places to work and shop adjacent to living spaces, thus lessening the need to drive;
- The provision of affordable housing by providing more building lots available to develop at a lower cost;
- A pedestrian friendly environment due to well-designed streets, parks, and public open spaces; and

- The provision of a sense of community and place due to quality community design.

Areas designated Mixed Use should be developed with design and development guidelines that promote quality community design. Design and development guidelines can supplement zoning codes. Incompatible uses such as industrial, warehousing and distribution, chemical handling, and those uses that generate significant noise or are heavily truck dependent should not be permitted in the Mixed Use land use designation.

Mixed-use areas should be dense and compact. The proximity of employment, residential and commercial activities, and public uses will provide residents and workers with a realistic and convenient choice of walking or cycling to work, home, or shopping, thus lessening dependence on the automobile.

Integral to the success of mixed-use areas will be good urban design. Urban design not only refers to the appearance and attractiveness of development, but also to its function. It is important that there be well-designed buildings to maintain compatibility with surrounding development, as well as site design that provides for pathways, open community spaces, and other connecting features that facilitate easy access between developments and inspire a sense of unity.

To ensure that mixed-use development occurs where it is desired, Tumwater should consider providing incentives for such development.

5) New Market Historic District

The New Market Historic District land use designation is applied in a limited area in Tumwater that includes the Tumwater Historical Park, the Tumwater Falls Park, and the site of the Old Tumwater Brewhouse on the east side of the Deschutes River. The focus of the area is the Old Tumwater Brewhouse.

The New Market Historic District Master Plan was adopted by the City Council in November 1993. The Master Plan included input from the public and experts in the field of historic area design, and provisions addressing aesthetics, vegetation, fish and wildlife habitat, historic and prehistoric archeological significance, public access, environmental sensitivity, architecture and community design, traffic, and public education. The Master Plan is sufficiently detailed to determine whether specific proposed structures, uses, and structural revisions are in accordance with the purposes and intent of the District.

All development that occurs in the area designated Historic Commercial is subject to the standards and recommendations of the Master Plan.

The minimum density for residential development in the New Market Historic District land use designation is 10 dwelling units per acre and there is no maximum density of dwelling units per acre.

6) Tumwater Town Center

The Tumwater Town Center land use designation is intended to provide for a mix of public and privately owned developments that will realize Tumwater's vision of a new city center. It is envisioned to include state and local

government facilities; private commercial developments of office, retail, and service businesses; residential; educational; civic services; support facilities and services, such as childcare; and public assembly facilities and outdoor spaces.

The Tumwater Town Center is bordered by Interstate 5, Tumwater Boulevard, Nicholas Street, and Israel Road.

Development within the Tumwater Town Center land use designation should occur in a manner that is consistent with the goals and policies of the Comprehensive Plan, design guidelines, and street standards adopted for the designation.

The minimum density for residential development in the Tumwater Town Center District land use designation is 20 to 30 dwelling units per acre depending on the subdistrict and there is no maximum density of dwelling units per acre.

E. Industrial

1) Introduction

The industrial land use category provides land use designations that establish and preserve areas for manufacturing, warehousing, distribution, and other uses of such a nature with a broad range of employment opportunities to meet the needs of all income groups and ages in the community as well as support and implement the goals of the Tumwater Economic Development Plan.

2) Airport Related Industrial

Airport Related Industrial land use designation is meant to support the Port of Olympia's aviation and industrial related uses at the Olympia Regional Airport and to reflect the unique land use activities of the Airport and associated areas.

The Airport Related Industrial land use designation will support the land use activities permitted in the existing Airport Related Industrial zone district and discourage incompatible uses and heights.

3) Light Industrial

The purpose of the Light Industrial land use designation is to provide land for industrial development that will allow for attraction of new industries and expansion of existing ones while maintaining a high-quality environment. The land use designation recognizes the need for industrial uses in certain areas of Tumwater to provide needed materials, goods, and services to ensure the economic vitality of Tumwater and the region.

To augment the role of industry in Tumwater's future, it is necessary to provide a reasonable supply of land for a variety of uses consistent with the policies of the Economic Development Plan. The Light Industrial land use designation provides for the location of a broad array of activities, including manufacturing, wholesale trade, and distribution activities. The projected growth in manufacturing and distribution industries is also considered when allocating land for these uses.

Light industrial areas need to be located within reasonable access to truck routes, rail, freeway, or air routes. Similarly, public facilities including sewer, water, and storm drainage should either be presently available or should be easily provided during the development process. Industrial uses should be grouped into a variety of parcel sizes to provide coordinated development and sharing of facilities and services.

4) Heavy Industrial

The Heavy Industrial land use designation recognizes the need for heavy industrial uses in limited areas of Tumwater to provide needed materials, goods, and services to ensure the economic vitality of Tumwater and the region.

Heavy industrial uses include but are not limited to chemical processing, mining, and mineral extraction. The Jones Rock Quarry is an example of heavy industrial use in Tumwater.

Heavy industrial uses may have impacts that are difficult to control such as heavy truck traffic, noise, vibration, light, glare, or odors. Heavy industrial areas should be separated from residential and commercial uses by such methods as vegetative or lighter intensity land use buffers. Regulations should also control activities to establish compatibility with surrounding non-industrial development and to protect them from nuisance-creating occurrences such as noise, dust, odor, vibration, and air and water pollution.

5) Utilities

The Utilities land use designation includes those areas of land devoted to the transport and provision of utilities such as electricity, natural gas, telephone, and other utilities. Since utilities are often owned and provided by other service agencies and private businesses, partnership is required to determine allowable uses that are outlined in TMC Title 18 Zoning.

Most of the areas receiving the Utilities land use designation are electrical utility easements. Utilities such as natural gas, telephone, and other utilities can be provided within areas designated for other land uses in ways that are compatible with other land uses. Utilities areas are also often compatible with path and trail connections. The Utilities Element should be referenced for specific recommendations and information on private utility provision.

F. Parks, Open Space, & Public and Institutional

1) Introduction

The Parks, Open Space, & Public and Institutional land use category provides land use designations that support publicly and privately owned facilities such as parks and open space, as well as publicly owned schools, municipal buildings, and other such facilities.

2) Parks & Open Space

The Parks and Open Space land use designation supports and implements the Parks, Recreation, and Open Space Plan. The Parks and Open Space land use designation accommodates public recreational pursuits, retains views and historical features, or preserves land in a natural and open state. It also provides possibilities for urban

agricultural uses on appropriate lands. A site may also provide for or contain support uses consistent with community needs, provided there is appropriate opportunity for public review and comment.

Areas designated Parks and Open Space include developed active parks, privately operated parks, designated open space, flood plains, areas of steep slopes or other physical constraints, golf courses, delineated wetland areas, and lakes not under shoreline jurisdiction, and watershed areas.

Specific recommendations for many Parks and Open Space designated areas are contained in the Parks, Recreation, and Open Space Plan.

3) Public and Institutional

The Public and Institutional land use designation recognizes those parcels and facilities currently in or planned for public ownership where their primary function is to provide public services.

The intent of the Public and Institutional land use designation is to assure continuation and potential expansion of acreage, facilities, and services at levels consistent with population requirements, and achieved in a manner that is compatible with surrounding land uses. Public and institutional uses include but are not limited to schools, fire stations, police stations, general government buildings, libraries, hospitals, and cemeteries.

7. Neighborhoods

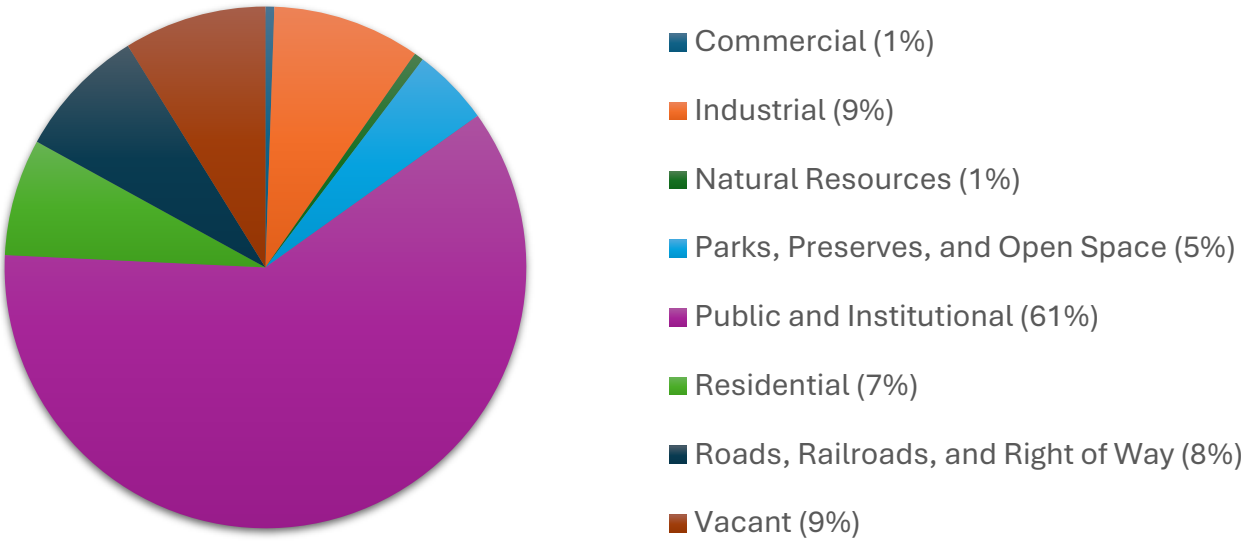
A. Airport

1) Context

As shown on Map LU-2, the Airport Neighborhood is in the south-central area of Tumwater, which is south of Tumwater Boulevard west of Capitol Boulevard/Old Highway 99, and east of Interstate 5.

Major roads in the neighborhood include Tumwater Boulevard SW, Capitol Boulevard/Old Highway 99, Center Street SW, 88th Avenue SW, Kimmie Street SW, and 83rd Avenue SW.

Figure LU-8. Airport Neighborhood Existing Land Use, 2025.



Source: Thurston Regional Planning Council Land Capacity Analysis, 2025.
Notes: Natural Resources Includes agriculture, forestry, and mining.

Figure LU-8 shows the proportion of land uses that exist in the neighborhood currently. Public and Institutional makes up the majority of land use which includes the Olympia Regional Airport, which is owned and operated by the Port of Olympia.

2) Future Land Use

In the next 20 years, the Airport Neighborhood will continue to provide access to necessary regional transportation services while addressing the needs of the industrial, commercial, and residential uses that are near the airport.

Zoning will continue to support airport related industries, commercial, and low density residential uses.

The mixed use land use designation would provide an opportunity to redevelop the neighborhood in a way that provides space for affordable housing close to needed services and quality community design.

3) Challenges

Both the landscape and the existing development challenges occur in this neighborhood. The primary challenges are listed below.

- The water source for much of Tumwater is from wells in the City with high level groundwater. These kinds of wells are more vulnerable to contamination than deeper wells.
- The Olympia Regional Airport and increasing adjacent development also create challenges. Delivering services across a large area with very low-density property to neighborhoods in the far southeast corner of Tumwater is costly.
- Significant historic and cultural resources are found in the area and may limit development and land uses.
- The prairie lands are habitat for federally protected species.

4) Recommendations

As further development occurs in the neighborhood, zoning and regulations will be applied to ensure uses are compatible to protect people, property, and the environment. Recommendations for future land use include:

- Where industrial uses are adjacent to other uses, using buffers to minimize impacts.
- Keep buried pipelines from decommissioned fuel tanks on maps to ensure safe digging.
- Land uses should be carefully considered near buried pipelines to avoid hazards.
- Work with the Port of Olympia to maintain appropriate overlays which support airport operations and meet state development requirements.
- Continue to monitor Wellhead Protection zones and follow state guidance.
- Consider programs to educate the public about cross connections and why they are prohibited.

B. Brewery

1) Context

As shown on Map LU-2, the Brewery Neighborhood is in northeastern Tumwater. Olympia forms the northern boundary; Interstate 5 and Highway 101 serve as the western boundary; M Street SE is the southern boundary; and Cleveland Avenue SE and the cemetery forms the eastern boundary.

This is the oldest part of Tumwater and includes the site of the original settlement of the town of New Market. The dominant features of this neighborhood are the Deschutes Falls and the site of the former Olympia Brewery.

Main roadways in this neighborhood include Capitol Boulevard, Cleveland Avenue SE, Custer Way SW, North Street SE, and Deschutes Way SW.

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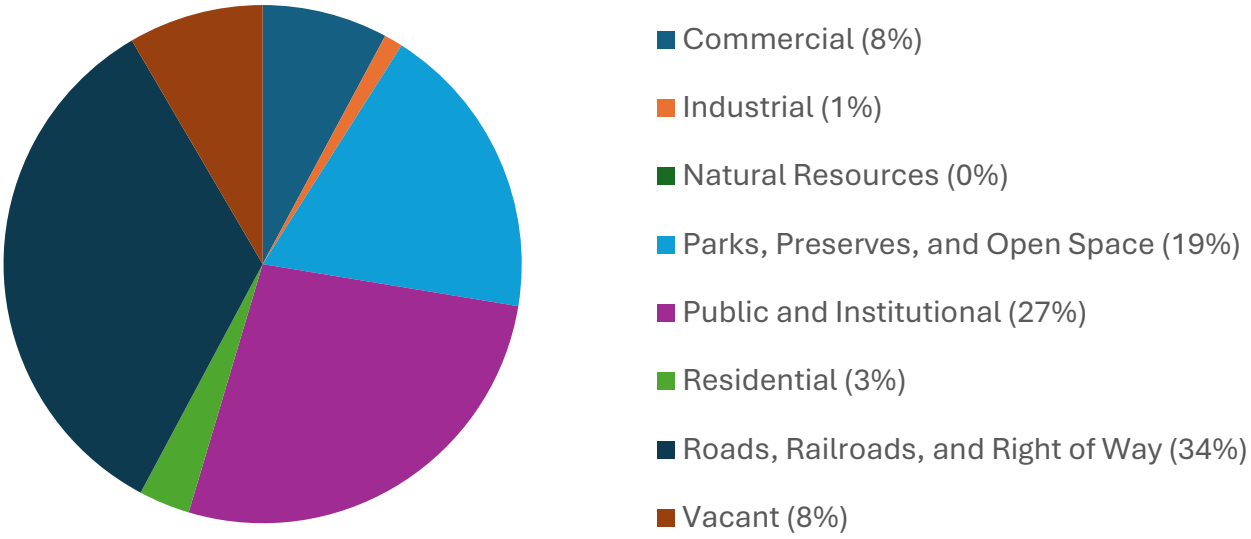
Figure LU-9 shows the proportion of current land use in the Brewery Neighborhood.

Figure LU-9. Brewery Neighborhood Existing Land Use, 2025.



Source: Thurston Regional Planning Council Land Capacity Analysis, 2025.
Notes: Natural Resources Includes agriculture, forestry, and mining.

2) Future Land Use

In the next 20 years, the Brewery Neighborhood will contain more mixed use developments that add character and belonging to our community as the neighborhood brings pieces of the past into a vibrant new beginning.

Zoning will consider the unique and sensitive historic and ecological resources in the neighborhood while recognizing its importance as a major connector within Tumwater and to other adjacent municipalities.

3) Challenges

Both the landscape and the existing development challenges occur in this neighborhood. The primary challenges are listed below:

- Both an important historic resource and a brownfield with significant remediation requirements, the former Brewery properties have been difficult to redevelop and have become an attractive nuisance.
- Tumwater's Main Street and Historic Downtown were bisected when Interstate 5 was constructed.
- Significant congestion exists from limited access onto and off Interstate 5 and Highway 101.
- Steep slopes of the Deschutes River Valley make the neighborhood difficult to access. Landslides in the neighborhood have caused damage to public infrastructure in the past.
- High groundwater makes the neighborhood prone to flooding and

increases the risk of contamination to drinking water.

- Some parts of Deschutes River Valley are identified with high liquefaction hazards.

4) Recommendations

As further development occurs in the neighborhood, zoning and regulations will be applied to ensure uses are compatible to protect people, property, and the environment. Recommendations for future land use include:

- Allow low impact, low intensity uses and development in areas with highly sensitive ecological conditions or unstable soils.
- Continue to protect Tumwater's water wells through updates to the Wellhead Protection Plan.
- Continue to limit development on sloped or unstable soils to ensure safety from landslides and other geological hazards.
- Impose necessary mitigation to ensure proper remediation is done before permitting redevelopment.
- Review and follow guidance in planning documents such as the Shoreline Master Program and Brewery District Plan.

C. Bush Prairie

As shown on Map LU-2, the Bush Prairie Neighborhood, named after George Washington Bush, is in the southeastern area of Tumwater. The eastern, northern, and southern boundaries of the neighborhood are marked by the Deschutes River and adjacent greenbelt and open space. The western boundary is the back of the industrial areas along Old Highway 99.

George Washington Bush was an American pioneer and one of the first multiracial Irish and African American settlers in what would later become the state of Washington. The original Bush Prairie homestead, settled in 1845, is in the southwest corner of the neighborhood and was the location of the historic Bush Butternut Tree until a windstorm caused critical damage to the tree in 2021.

Major roads in this neighborhood include Old Highway 99, Henderson Boulevard SE, 73rd Avenue SE, Tumwater Boulevard SE, and 79th Avenue SE.

Figure LU-10 shows existing land use in the Bush Prairie Neighborhood. The most prevalent land use is residential.

The neighborhood has several housing developments that were originally built in the unincorporated county and then annexed into Tumwater. For that reason, the development is low density in most areas.

A few parcels in this neighborhood are zoned for manufactured home parks including the Thunderbird Mobile Home Park. This has provided diversity in the housing stock and options for families with different levels of income.

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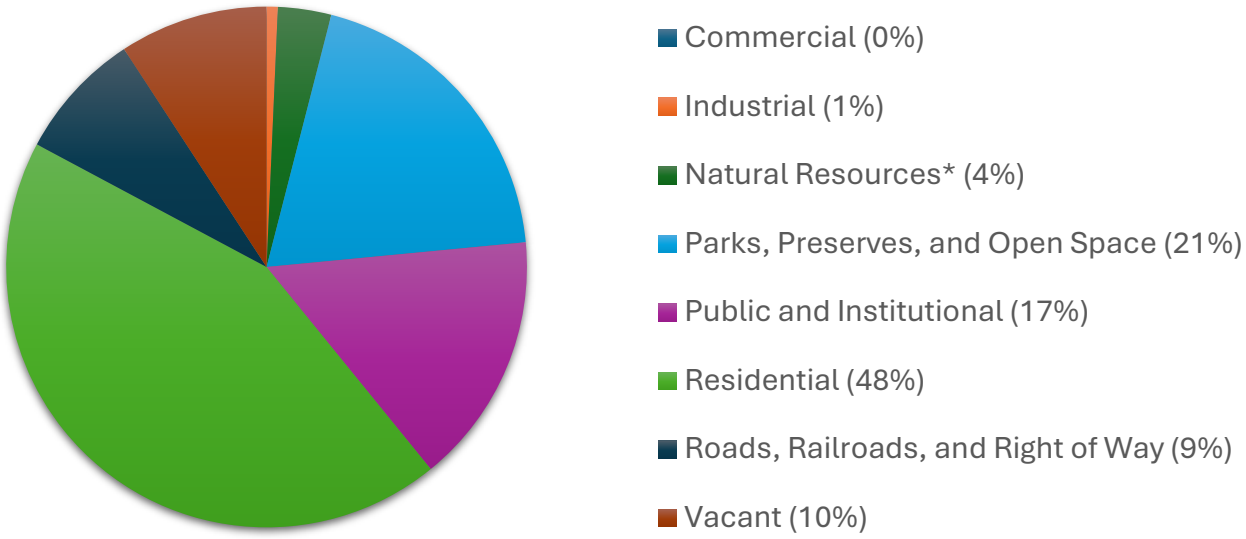
Figure LU-10. Bush Prairie Neighborhood Existing Land Use, 2025.



Source: Thurston Regional Planning Council Land Capacity Analysis, 2025.
Notes: Natural Resources Includes agriculture, forestry, and mining.

1) Future Land Use

In the next 20 years, this neighborhood will continue to be residential. This is the most appropriate use which is compatible with current and historic uses. Increasing overall density will accommodate more housing. With an established neighborhood, increased density will provide favorable conditions for mixed use and neighborhood commercial development.

2) Challenges

Both the landscape and the existing development challenges occur in this neighborhood. The primary challenges are listed below:

- Transportation connections are challenging since many of the residences were developed to county standards. The local streets have cul-de-sacs and dead ends, forcing many people through one or two entry and exit points.
- The water resources in the neighborhood, which include wetlands, critical aquifer recharge areas, the Deschutes River, Munn Lake, Lake Susan, and Trails End Lake prevent more intense forms of development.
- Airport approach zones limit the size of buildings, lighting, and uses in some areas.
- Historic Bush Homestead and the former home of the Bush Butternut Tree are found in the neighborhood which are considered valuable resources.
- Lack of services in the area forces people to drive more often and further for jobs, daily needs, and recreation.
- The prairie lands are habitat for federally protected species.

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3) Recommendations

As further development occurs in the neighborhood, zoning and regulations will be applied to ensure uses are compatible to protect people, property, and the environment. Recommendations for future land use include:

- Continue to allow different housing types to further diversify the housing stock and allow families more options for housing.
- Encourage mixed use and neighborhood commercial uses in the neighborhood to decrease the number of vehicle miles traveled.
- Where possible, create new transportation connections and slow traffic to allow safe left turns.
- Encourage more office and commercial properties in Tumwater Town Center to decrease the need to commute.
- Complete the Public Works building and park that are planned for 79th Ave and Trails End Road.
- Protect water bodies and wetlands by implementing designated shoreline designations.
- Allow small scale commercial uses within residential developments.
- Provide more opportunities for recreation within the neighborhood to reduce the need to drive.
- Work with Bonneville Power Administration to determine land uses that would provide services to residents and that would be compatible with transmission lines.

D. Deschutes

1) Context

As shown on Map LU-2, the Deschutes Neighborhood is in the northeastern area of Tumwater. Tumwater's city limit with Olympia forms a complicated northern and eastern boundary and the bluffs of the Deschutes River and Tumwater's border with Thurston County form the eastern boundary.

The dominant feature of this neighborhood is the Deschutes River Valley. Recreation and open space, including Pioneer Park and the Tumwater Valley Municipal Golf Course, are the main uses in the valley. The northern and eastern portions of the neighborhood are composed of single-family and duplex residential uses.

Major roads in the neighborhood include Henderson Boulevard SE, Yelm Highway SE, Cleveland Avenue SE, North Street SE, South Street SE, and Hoadly Street SE.

There is an active Union Pacific rail line through this neighborhood traveling north/south from the Burlington Northern Santa Fe Mainline to the Port of Olympia.

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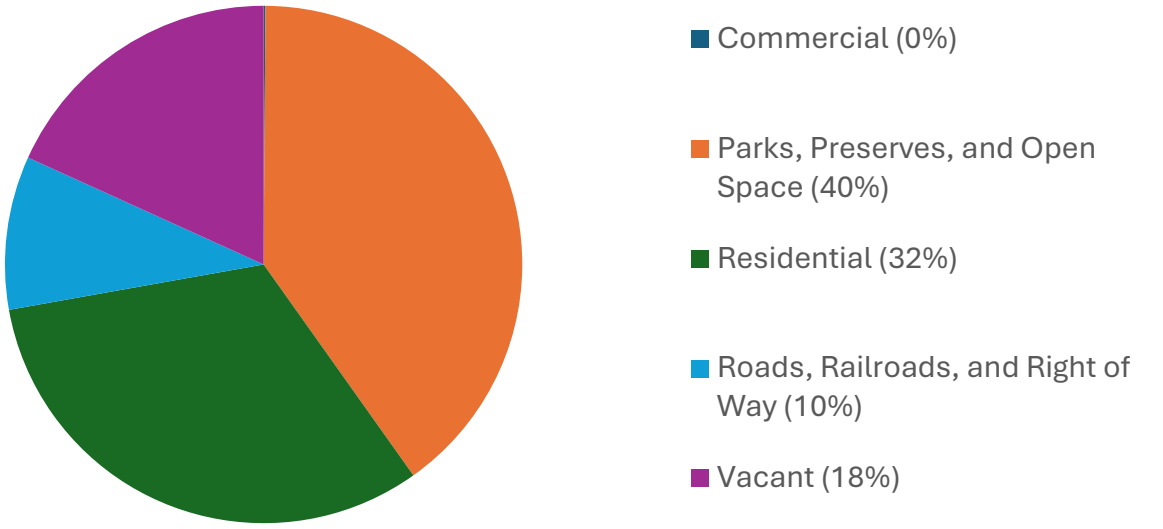
Figure LU-11. Deschutes Neighborhood Existing Land Use, 2025.



Source: Thurston Regional Planning Council Land Capacity Analysis, 2025.
Notes: Natural Resources Includes agriculture, forestry, and mining.

Figure LU-11 shows the proportion of land uses in the Deschutes Neighborhood. Parks, preserves, and open space and residential are the dominant land uses in the neighborhood covering almost three quarters of the land. There is no space designated in this neighborhood for commercial, industrial, natural resources or public and institutional uses.

2) Future Land Use

In the next 20 years the neighborhood will continue to be predominately parks and open space with low density residential where possible. Development will continue to be low intensity since most of this neighborhood is classified as a flood plain.

To reduce vehicle miles traveled and increase services near residential developments, small scale commercial uses may be allowed in optimal nodes and less sensitive areas.

3) Challenges

Both the landscape and the existing development challenges occur in this neighborhood. The primary challenges are listed below:

- Soils are unsuitable for roads, buildings and septic tanks which limits development in the neighborhood.
- Steep hillsides and unstable soils increase the risk of severe settlement and liquefaction.
- Most of the neighborhood is within critical aquifer recharge areas.
- Some areas are within the airport overlay zone of the Olympia Regional Airport which limits size, lighting, and land use.

4) Recommendations

As further development occurs in the neighborhood, zoning and regulations will be

applied to ensure uses are compatible to protect people, property, and the environment. Recommendations for future land use include:

- Continuing to limit land uses in hazard areas of the Olympia Regional Airport through an overlay zone managed with Port of Olympia.
- Continuing to implement the Shoreline Master Program for the Deschutes River.
- Protecting rail transportation as a more efficient mode for freight and passengers and reduces vehicle miles travelled.
- Continuing to permit small scale, less intense commercial uses, and limit industrial uses where heavy trucks are required.
- Using vegetative buffers to screen commercial uses from residential uses to reduce impacts of light and noise.

E. Littlerock

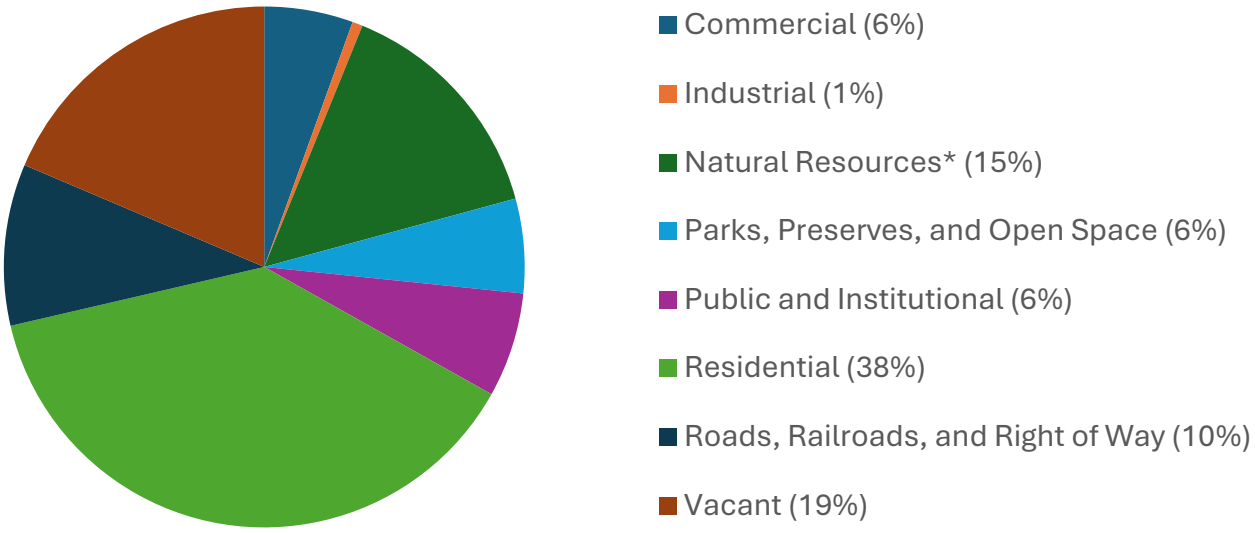
1) Context

As shown on Map LU-2, the Littlerock Neighborhood is in the Southwest part of Tumwater. Work to create a village atmosphere is well underway and serves many newer developments under construction in the west part of this neighborhood.

Over the past few years, the neighborhood has been developing quickly in response to the work done to implement recommendations in the Littlerock Subarea Plan, Economic Development Plan and Tumwater Strategic Plan.

Littlerock Road is an important connector not only within Tumwater but also connects to rural areas and acts as a gateway to Tumwater. Other important transportation corridors include 66th Avenue SW, 70th Avenue SW, Trosper Road SW, Israel Road SW, Tumwater Boulevard SW, and Interstate 5.

Figure LU-12. Littlerock Neighborhood Existing Land Use, 2025.



Source: Thurston Regional Planning Council Land Capacity Analysis, 2025.

Notes: Natural Resources Includes agriculture, forestry, and mining.

Figure LU-12 reflects the eclectic nature of land use in the neighborhood.

2) Future Land Use

In the next 20 years, the Littlerock neighborhood will be a thriving, walkable place that has the services people need near residential areas. This vision is described in the Littlerock Subarea Plan. This plan provides action steps to create a village atmosphere with residential and commercial uses that is pedestrian friendly and provides access to services for those in the south parts of Tumwater.

Because of favorable conditions for development, the neighborhood is likely to see growth more quickly than other neighborhoods. In fill in lower density developments has been occurring as public investments are constructed.

3) Challenges

Both the landscape and the existing development challenges occur in this neighborhood. The primary challenges are listed below:

- Several large wetlands and areas of high groundwater flooding make infrastructure improvements difficult and costly.
- The prairie lands are habitat for federally protected species.

4) Recommendations

As further development occurs in the neighborhood, zoning and regulations will be applied to ensure uses are compatible to protect people, property, and the environment. Recommendations for future land use include:

- Reference Salmon Creek Comprehensive Drainage Basin Plan.
- Ensuring that public infrastructure is concurrent with the demand for housing in the neighborhood.
- Ensure ecological functions are retained throughout development.
- Promote and encourage urban agriculture that is compatible with development.

F. Mottman/Black Lake

1) Context

As shown on Map LU-2, the Mottman/Black Lake Neighborhood is in the northwest area of Tumwater. The area is characterized primarily by industrial, residential, and large lot residential, a remnant of rural acreages and farms.

Major roads in this neighborhood include Black Lake/Belmore Road SW, R.W. Johnson Rd SW, and Sapp Road SW. A Burlington Northern Santa Fe line is also a main transportation asset that provides efficient transportation into and out of Tumwater.

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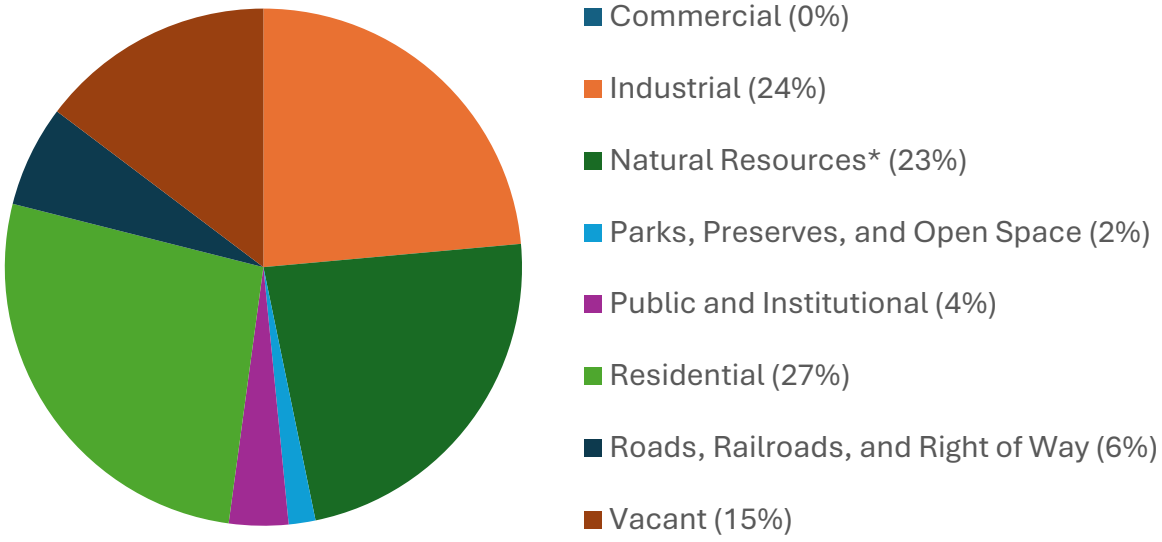
Figure LU-13. Mottman/Black Lake Neighborhood Existing Land Use, 2025.



Source: Thurston Regional Planning Council Land Capacity Analysis, 2025.
Notes: Natural Resources Includes agriculture, forestry, and mining.

Figure LU-13 shows the proportion of current land use in the Mottman/Black Lake Neighborhood. Residential and natural resources take up half of the neighborhood. The natural resource category is a large category in this neighborhood because the Jones Quarry mining operation is classified as a natural resource land use.

Several rights of way and easements run through the Mottman/Black Lake Neighborhood including those owned and managed by Bonneville Power Authority, Puget Sound Energy, and Burlington Northern Santa Fe Railway.

2) Future Land Use

In the next 20 years, the neighborhood will continue to be an important industrial space that provides the necessary materials for local development. The forestry and aggregate mining operations in the neighborhood are protected under state Open Space designations which incentivize retention for sustainable use.

3) Challenges

Both the landscape and the existing development challenges occur in this neighborhood. The primary challenges are listed below:

- Industrial uses many impact waters in Puget Sound as Black Lake Drainage flows from the lake to Percival creek and discharges at the sound.
- Many of the properties still utilize septic systems rather than city sewer systems.

4) Recommendations

As further development occurs in the neighborhood, zoning and regulations will be applied to ensure uses are compatible to protect people, property, and the environment. Recommendations for future land use include:

- Facilitate and protect Burlington Northern Santa Fe Railway for freight and potential future passenger use.
- If abandoned, explore the use of the former railroad as a recreational asset.

G. New Market

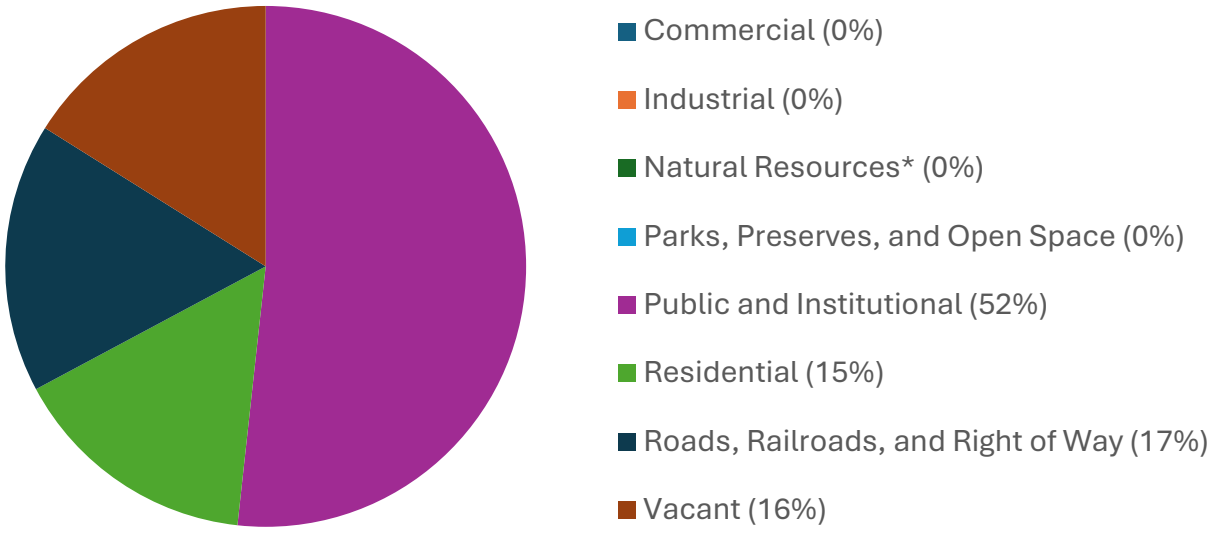
1) Introduction

As shown on Map LU-2, the New Market Neighborhood is in the south-central area of Tumwater north of Tumwater Boulevard, south of Dennis Street, west of Bonniewood Drive SE, and east of Interstate 5.

Tumwater envisions a future downtown on 190-acres of the New Market Neighborhood bordered by Interstate 5, Tumwater Boulevard SW, Nicholas Street SW, and Israel Road SW. This vision is cast as a true downtown for a city whose urban nucleus was decimated by freeway construction in the late 1950s. The neighborhood is called the Tumwater Town Center, and it represents a component of the New Market Neighborhood.

Tumwater Boulevard SW, Capitol Boulevard, Israel Road SW, and Linderson Way SW are the major transportation connectors in this neighborhood.

Figure LU-14. New Market Neighborhood Existing Land Use, 2025.



Source: Thurston Regional Planning Council Land Capacity Analysis, 2025.
Notes: Natural Resources Includes agriculture, forestry, and mining.

Figure LU-14 shows the proportion of current land use in the New Market Neighborhood. This neighborhood is characterized by Public and Institutional use. State owned offices, Port of Olympia properties, Tumwater School district facilities, New Market Vocational Skills Center, Tumwater City Hall, and the Tumwater Timberland Library represent public institutional uses.

Residential uses are primarily located along Israel Road. Both multifamily developments and

single-family dwellings exist in the neighborhood.

The area northwest of the intersection of Israel Road and Bonniewood Drive has been designated Light Industrial. Most of the neighborhood is vacant.

The Olympia Regional Airport has played an ever-increasing role in the development, or lack of development, in the neighborhood. The main runway routes aircraft directly over the south end of the neighborhood, either taking off or landing, depending on the wind conditions. As a result, the noise impacts and safety hazards have made the neighborhood less than ideal for residential use. The land use trend has been away from residential use, especially in the areas closest to the runway. The Port of Olympia itself has purchased a large amount of property that was in the clear zone.

2) Future Land Use

In the next 20 years, this neighborhood is expected to become a new downtown core with walkable streets, green belts, mixed use areas, and retail areas.

The vision for the neighborhood includes creation of a downtown and community gathering place, a broad mix of uses, clustered development to create a critical mass for public transportation, and continuing responsiveness to regional goals for growth management and environmental protection. Details for the vision can be found in the Economic Development Plan and Tumwater Town Center Street Design Plan.

With two schools in this zone currently, it is possible that vacant land may be purchased for another school as the community grows. Keeping land available and affordable for public services such as education is something that should be considered.

3) Challenges

Both the landscape and the existing development challenges occur in this neighborhood. The primary challenges are listed below:

- The neighborhood is the source for much of Tumwater's drinking water and consideration must be given to protect wellhead areas.
- Some parts of the neighborhood are in Port of Olympia hazard zones. An overlay limits building size, lighting, and land uses.
- The prairie lands are habitat for federally protected species.

4) Recommendations

As further development occurs in the neighborhood, zoning and regulations will be applied to ensure uses are compatible to protect people, property, and the environment. Recommendations for future land use include:

- Continuing to implement strategies from the Economic Development Plan and Tumwater Town Center Street Design Plan.
- Continue to work with Port of Olympia to ensure safety in airport hazard areas.
- Conditions in the neighborhood favor redevelopment, encouraging infill, and high density residential development.

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- Explore solutions for parking.

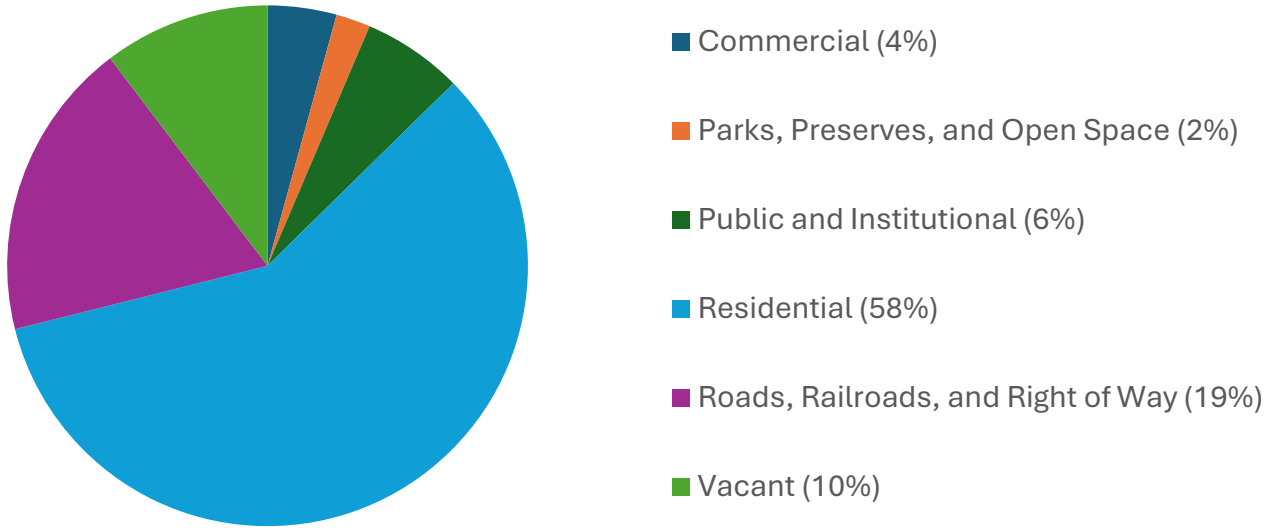
H. SE Capitol Boulevard

1) Context

As shown on Map LU-2, the SE Capitol Boulevard Neighborhood is located east of Interstate 5, south of M Street SE, and north of the Olympia Regional Airport. The eastern boundary of the neighborhood follows the bluff overlooking the Deschutes River and includes the Thunderbird Village Mobile Home Park.

Major roads that serve this neighborhood include Capitol Boulevard, Israel Road SE, Tumwater Boulevard SE, Trosper Road SE, and Lee Street SE.

Figure LU-15. SE Capitol Boulevard Neighborhood Existing Land Use, 2025.



Source: Thurston Regional Planning Council Land Capacity Analysis, 2025.
Notes: Natural Resources Includes agriculture, forestry, and mining.

Figure LU-15 illustrates the existing proportion of land uses in the SE Capitol Boulevard Neighborhood. Residential uses are by far the largest use. Most of the residential uses in this neighborhood consist of well-established, single-family homes with only a small proportion of higher density uses, such as apartments more middle housing.

2) Future Land Use

In the next 20 years, the neighborhood is expected to be impacted by Tumwater Town Center as it develops. Adding new professional offices and commercial space will put pressure on these residences to redevelop at higher densities. The Capitol Boulevard Corridor Plan outlines strategies to redevelop the commercial areas on Capitol Boulevard which will also revitalize the neighborhood and make housing here more desirable.

Some areas of this neighborhood are developed at their maximum capacity given environmental constraints and will not experience the same impacts.

3) Challenges

Both landscape and existing development challenges occur in this neighborhood. The primary challenges are listed below:

- This neighborhood exists within an airport hazardous zone for the Olympia Regional Airport .
- The eastern edge of the neighborhood has hillsides and ravines that are difficult to develop.
- High water tables create settling issues which impact roads, buildings, and septic systems.
- Low lying areas are prone to flooding.
- Impacts from the Olympia Regional Airport on neighboring uses include noise and lighting.
- Bluff areas which overlook the river in the Palermo neighborhood are sensitive sloped areas and the Shoreline Master Program has recommendations considering development.
- The prairie lands are habitat for federally protected species.

4) Recommendations

As further development occurs in the neighborhood, zoning and regulations will be applied to ensure uses are compatible to protect people, property, and the environment. Recommendations for future land use include:

- Follow the recommendations in the Shoreline Master Program to protect bluff areas along Deschutes River.
- Continue to implement the Capitol Boulevard Corridor Plan to prepare infrastructure for incoming density increases.
- Create more through roads into residential areas for better emergency access and provide alternate routes and relieve congested thoroughfares.
- Continue to provide protections for manufactured home parks to prevent redevelopment into unaffordable housing types.

I. SW Tumwater

1) Context

As shown on Map LU-2, the SW Tumwater Neighborhood is located near the Interstate 5 and 93rd Avenue interchange or Exit 99. Kimmie Street SW running north and south marks the eastern boundary of the area and Blomberg Street SW marks the western boundary. The northern boundary is the Olympia Regional Airport, and the southern boundary is the city limits.

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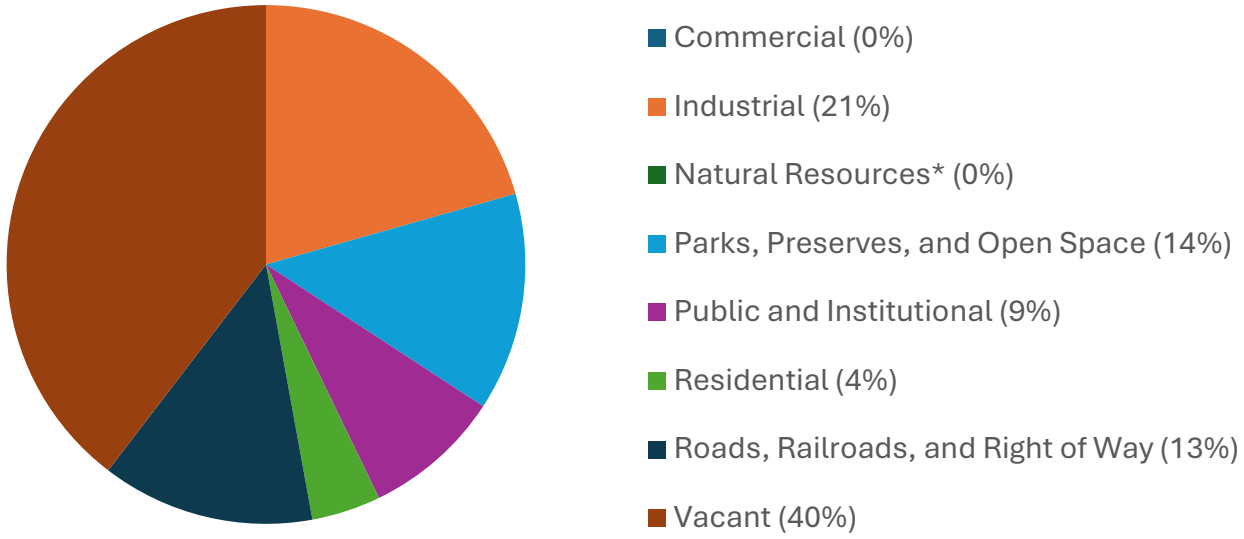
Figure LU-16. SW Tumwater Neighborhood Existing Land Use, 2025.



Source: Thurston Regional Planning Council Land Capacity Analysis, 2025.
Notes: Natural Resources Includes agriculture, forestry, and mining.

Figure LU-16 show the majority of property in this neighborhood is vacant with the second largest use being industrial.

2) Future Land Use

The community vision for this neighborhood is light industrial development. Details about the vision and strategies to meet the vision are found in the Economic Development Plan.

With access to freight routes and air transportation and natural buffers from residential uses, the neighborhood is ideal for this purpose. Although residential use is present here, it makes up only four percent and is limited by the Airport overlay zone which protects underlying land uses from hazards related to taking off and landing aircraft.

3) Challenges

Both the landscape and the existing development challenges occur in this neighborhood. The primary challenges are listed below:

- Some areas with poor drainage and aquifer protections will be limited for development into industrial uses.
- The prairie lands are habitat for federally protected species.

4) Recommendations

As further development occurs in the neighborhood, zoning and regulations will be applied to ensure uses are compatible to protect people, property, and the environment. Recommendations for future land use include:

- Further clarification is needed to define which activities are allowed here with respect to the size and intensity of industrial development.
- Continue implementing light industrial uses with consideration of adjacent incompatible land use.

- Promote the importance of locating all utility lines before site planning to ensure historic lines are not damaged or cause damage to the environment.

Transportation within the area is two primary routes, 93rd Avenue SW running east and west and the Interstate 5 corridor running north and south. Other major north-south corridors include Kimmie Street SW and Blomberg Street SW, which extend to the south from the Olympia Regional Airport area.

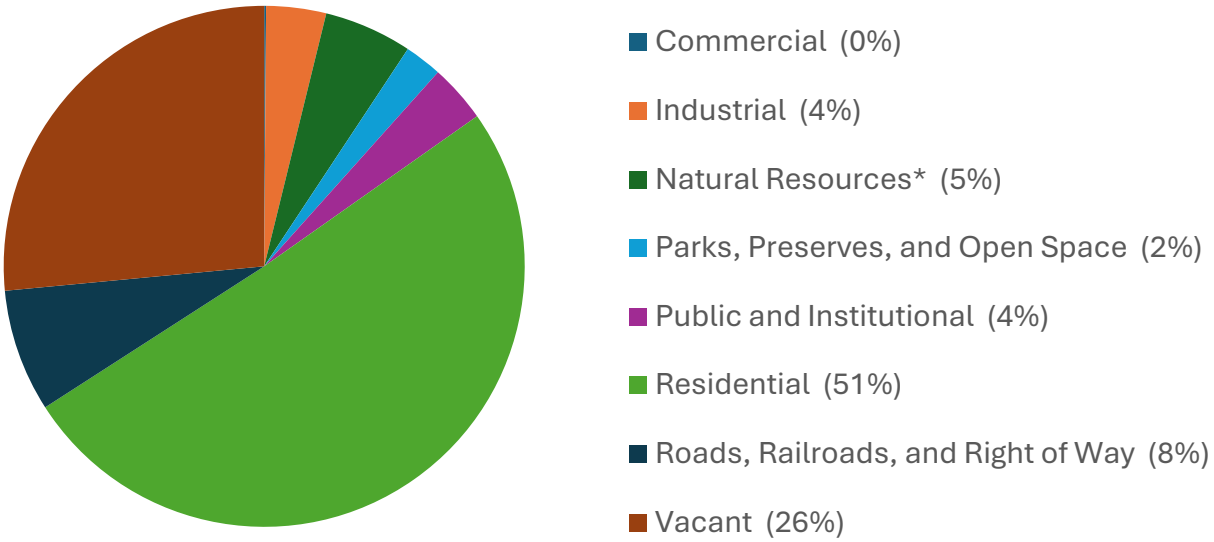
J. Trosper

1) Introduction

As shown on Map LU-2, the Trosper Neighborhood is in the center of Tumwater, west of Interstate 5.

Trosper Road SW serves as the major transportation corridor in this neighborhood. Trosper Road SW is an arterial roadway that is used primarily to carry traffic between the Black Lake area and Tumwater. 49th Avenue SW, Trosper Road and 54th Avenue SW are urban collectors that become Trosper Road as it nears the eastern side of the neighborhood. Littlerock Road SW and 2nd Avenue SW function as a minor arterial and serve commercial development adjacent to Interstate 5. Linwood Avenue SW and Lake Park Drive SW are major collector roads in the neighborhood and serve residential uses.

Figure LU-17. Trosper Neighborhood Existing Land Use, 2025.



Source: Thurston Regional Planning Council Land Capacity Analysis, 2025.
Notes: Natural Resources Includes agriculture, forestry, and mining.

Figure LU-17 shows the current land use in the Trosper Neighborhood. Residential is the dominant use and includes many diverse types of residential uses including single-family homes, mobile home parks, condominiums, and apartments.

2) Future Land Use

In the next 20 years, this neighborhood is expected to develop new residential areas slowly due to environmental constraints. Public infrastructure like stormwater systems and public roads are needed to increase access, however environmental constraints limit opportunities.

3) Challenges

Both the landscape and the existing development challenges occur in this neighborhood. The primary challenges are listed below:

- Wetland, lakes, and other sensitive environments limit development.
- The Beehive Industrial Park is adjacent to sensitive habitats and residences. Stormwater runoff from industrial uses may not have the correct buffer.
- Sensitive environments around Percival Creek impact bodies of water protected by the Shoreline Management Act.
- Further screening may be needed to reduce conflicts between uses.
- Continue to develop in accordance with Thurston County Flood Hazard Mitigation Plan recommendations for limiting development in 100-year flood areas.
- The prairie lands are habitat for federally protected species.

4) Recommendations

As further development occurs in the neighborhood, zoning and regulations will be applied to ensure uses are compatible to protect people, property, and the environment. Recommendations for future land use include:

- Follow guidance in the Transportation Improvement Plan, Parks Recreation and Open Space Plan, Tumwater Stormwater Comprehensive Plan, and the Groundwater Management Plan.
- Improve transportation connections west of the railroad.

K. Tumwater Hill

1) Context

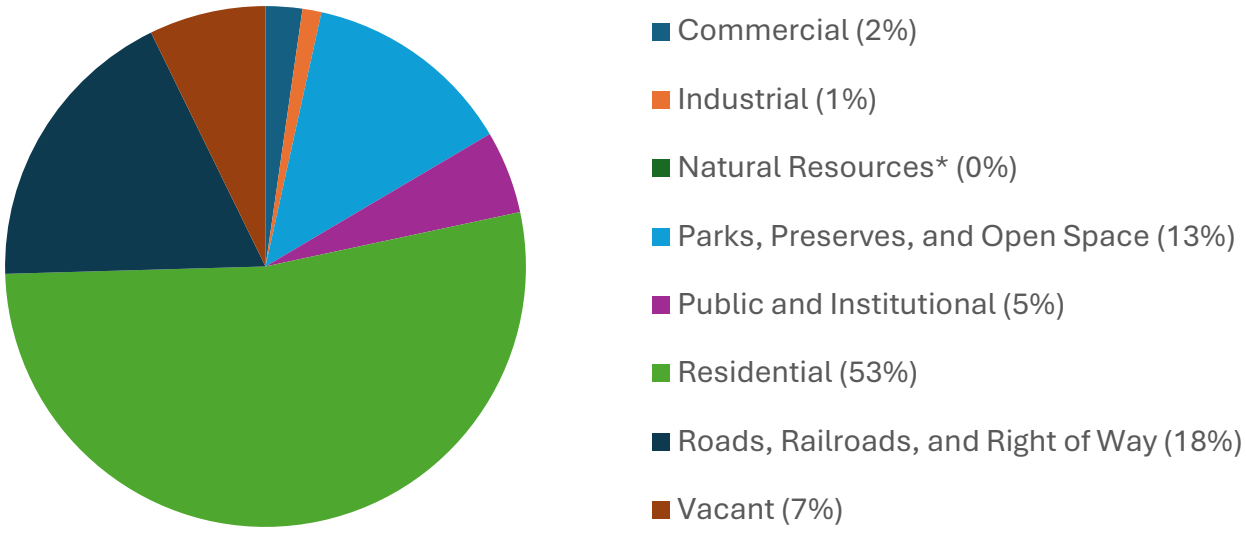
As shown on Map LU-2, the Tumwater Hill Neighborhood is in the northwestern part of Tumwater south of Highway 101, east of R.W. Johnson Boulevard SW, west of Interstate 5 and north of Linwood Avenue SW and Sapp Road SW except for a small area south of Linwood Avenue SW.

It is one of the oldest neighborhoods in Tumwater. Commanding views of Capitol Lake and the Tumwater Valley distinguish the area. The Tumwater Hill Neighborhood received a considerable proportion of new residential development in Tumwater in the 1990s, including several large multifamily developments.

Mottman Road SW, R.W. Johnson Boulevard SW, Sapp Road SW, Linwood Avenue SW, 7th Avenue SW, Barnes Boulevard SW, Crosby Boulevard SW, Ferry Street SW, and Irving Street SW are all major roads that connect the neighborhood.

DRAFT

Figure LU-18. Tumwater Hill Neighborhood Existing Land Use, 2025.



Source: Thurston Regional Planning Council Land Capacity Analysis, 2025.
Notes: Natural Resources Includes agriculture, forestry, and mining.

Figure LU-18 shows the proportion of land uses that exist in the neighborhood currently. Residential uses in this neighborhood consist of a diverse mixture of multifamily, single- family, and duplex uses.

2) Future Land Use

In the next 20 years, this neighborhood is expected to develop new residential areas slowly due to environmental constraints. Public infrastructure like stormwater systems and public roads are needed to increase access, however environmental constraints limit opportunities.

3) Challenges

Both the landscape and the existing development challenges occur in this neighborhood. The primary challenges are listed below:

- Steep slopes and unstable soils have led to historic landslides.
- Exposed bedrock can limit development of buildings and infrastructure.
- Sensitive environments around Percival Creek impact bodies of water protected by the Shoreline Management Act.
- Existing industrial and residential developments are adjacent to one another.

4) Recommendations

As further development occurs in the neighborhood, zoning and regulations will be applied to ensure uses are compatible to protect people, property, and the environment. Recommendations for future land use include:

- Check building heights and landscaping to protect the scenic view at the public overlook park.
- Participate in project review for adjacent development in Olympia to ensure that

Tumwater interests are continually protected.

- Use vegetative buffers to screen adjacent land uses.
- Follow recommendations for parks in the Parks and Open Space Plan.

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8. Other Considerations

A. Essential Public Facilities

The Land Use Element and TMC Title 18 Zoning address the identification, siting, and expansion of essential public facilities. The process adopted by the City Council as TMC 18.56.140 was developed by the Thurston Regional Planning Council as a result of a recommendation from County-Wide Planning Policy V implementation, which originated from a requirement in the Growth Management Act.

B. Minimum & Maximum Densities

Minimum densities should be applied to all areas of Tumwater to promote more cost-efficient provision of City services, the provision of affordable housing and the encouragement of transportation modes other than the single occupancy vehicles.

C. Clustering

Cluster development is characterized by small pockets of more intense development, surrounded by open space. Although the development is more compact, gross density does not increase.

The advantages of cluster development are many, including more efficient and less expensive provision of services; reduced transportation costs; the protection of open space and environmentally sensitive areas; and lower land development costs.

The main purpose of clustering would be to protect and preserve environmentally sensitive areas in accordance with the Conservation Element. It should be encouraged wherever it is necessary to protect environmentally sensitive areas in all residential land use designations.

D. Modular & Manufactured Housing

In accordance with state law, manufactured homes should be allowed anywhere where site built single-family homes are allowed.

The intent of the Land Use Element is to provide a sufficient supply of land for traditional mobile or manufactured home parks and to recognize that modular and manufactured housing on single family lots and in manufactured home parks is a viable form of housing construction.

E. Placemaking Strategies

The following provides land use recommendations related to creating spaces within Tumwater neighborhoods. Feedback from the community favored neighborhoods that are walkable and provide a sense of connection.

Since the downtown section of Tumwater was redeveloped to make space for the Interstate 5 corridor and connections, residents report a lack of connection to spaces that in turn leads to a lack of identity.

Housing needs are also better met when considering how development occurs. Present development patterns do not address all the housing needs of the community and are car dependent. Most new residential development that takes place is either small multifamily units or very large expensive single-family houses on large lots. To address the problem, new development should:

- Create a sense of place, of neighborhood, and of community that builds on what is locally unique and enduring to replace the anonymity and urban and suburban sprawl.
- Provide a denser, richer, and more diverse variety of land uses, household types, building types, and socioeconomic groups.
- Provide infrastructure to increase walking, biking, and public transit to reduce dependence on the automobile wherever possible.
- Create compact communities that are built to preserve open space and natural systems and habitats.

F. Design Review

Tumwater is a designed environment. Design will influence the degree to which development is attractive and appealing, comfortable, and safe, compact, efficient, encourages natural and social interaction, provides most needs within short distances, discourages environmentally disruptive influences, and is well connected with other areas. Greater awareness and appreciation of the value of design will continue, and the demand for development that demonstrates design excellence will increase.

The movement to plan comprehensively will create new partnerships to achieve community goals. Public participation and interest in design will continue to increase with greater emphasis on design in City projects. With increasing density in some areas, design will become an important factor in providing stylistic compatibility and privacy.

The Citywide Design Guidelines and the specific subarea design guidelines complement TMC Title 18 Zoning and provide a better tool for ensuring lasting value. Unlike zoning codes that can be prohibitive and exclusionary in their tone and language, Citywide Design Guidelines and the specific subarea design guidelines are illustrative, flexible, and prescriptive and have proved very effective in promoting well designed, mixed-use, new and infill development.

The intent of design review is to use the Citywide Design Guidelines and the specific subarea design guidelines to ensure lasting value through:

1. Infill and strengthening existing neighborhoods;
2. Livable neighborhoods;
3. Affordable housing;

4. Diversity in housing types and styles; and
5. Streetscape design as well as building and site design.

The Citywide Design Guidelines and the specific subarea design guidelines establish a context for development and encourage resolution of technical planning and urban design issues such as pedestrian and traffic circulation, stormwater runoff, landscaping and buffering, and building location and design.

Functions of design review through the Citywide Design Guidelines and the specific subarea design guidelines include:

1. Establishing a community design context;
2. Creating community planning and urban design policy;
3. Assuring conformance to City plans and policies; and
4. Expediting project approval.

The design review process includes aspects such as:

1. The appearance or image of a community
2. Street layout and design
3. Incorporating transit
4. Natural and scenic resources
5. Streetscape
    a. Street character and liveliness
    b. Pedestrian environment
    c. Landscape design
    d. Residence and street transition
6. Site Planning
    a. Neighborhood character
    b. Adjacent properties
    c. Siting
    d. Natural elements
    e. Transit facilitation
7. Building Design
    a. Architectural character
    b. Character and massing
    c. Architectural elements
    d. Exterior finish materials
    e. Parking garages
    f. Mixed-use buildings
    g. Conversions and additions
    h. Special needs housing

Design review is necessary to ensure that new development is compatible with existing neighborhoods; to provide guidelines for innovative land use management techniques; and to provide guidelines for special areas of Tumwater.

The Citywide Design Guidelines and the specific subarea design guidelines were developed as a follow-on implementing ordinance for the remaining areas of Tumwater after consultation with affected groups including community members, builders, and City staff and developed through a process involving substantial public participation.

The goals and purpose of the Citywide Design Guidelines and the specific subarea design guidelines are to:

- Encourage development that considers visual impacts to the community;
- Encourage developments that will contribute to the stability and integrity of a safe and attractive neighborhood;
- Recognize that aesthetic considerations and environmental review contribute toward an enhanced environment; and
- Recognize that aesthetic considerations are appropriate to protect property values of adjacent properties and to ensure that developments contribute to desirable neighborhood character.

Appendix A Foundational Documents

Table LU-15 identifies the foundational planning documents that form the basis for the Land Use Element of the Comprehensive Plan.

Table LU-15. Foundational Documents for the Land Use Element.

Topic Index	Supporting Plans and Materials
Land Use	• Black Hills Subarea Transportation Plan (2002) • Brewery Action Plan (2016) • Brewery District Plan (2020) • Capitol Boulevard Corridor Plan (2015) • Capital Facilities Plan (2026-31) • Citywide Design Guidelines (2016 and as amended) • County-Wide Planning Policies, Thurston County (2025) • Land Use Alternative Analysis, Thurston Regional Planning Council (2024) • Littlerock Road Subarea Plan (2018) • Memorandum of Understanding: An Urban Growth Management Agreement, Tumwater, and Thurston County (1988) • Memorandum of Understanding: Urban Growth Area Zoning and Development Standards, Tumwater and Thurston County (1995) • Old Highway 99 Corridor Study (2024) • Planning for and Accommodating Housing Needs in Thurston County: Implementing the Housing Affordability Requirements of HB 1220, Thurston Regional Planning Council (April 2025) • Shoreline Master Program (2019) • Sustainable Thurston, Thurston Regional Planning Council (2013) • Tumwater Historic District Master Plan (1993) • Tumwater Town Center Street Design Plan (2019)

Land Use Element

Part 2 – Technical Information

Topic Index	Supporting Plans and Materials
Population and Employment	• Buildable Lands Report for Thurston County, Thurston Regional Planning Council (2021) • Population and Employment Forecast for Thurston County Final Report, Thurston Regional Planning Council (2017) • State Office of Financial Management Data (2025) • The Profile, Thurston Regional Planning Council (October 2024) • U.S. Bureau of Labor Statistics (2025) • U.S. Census Data (2020 (Decennial) and 2023 (American Community Survey))
Airport Neighborhood	• Port of Olympia Airport Master Plan (2013)
Brewery Neighborhood	• Brewery District Plan (2014) • Community Visioning Project Final Report for the Former Brewery Properties (2011) • Estimated Market Value Report [For the Old Brewhouse Complex] (1997) • Final Report for the Community Visioning Project – Former Olympia Brewery (2011) • Old Brewery Long Range Plan (1996) • Olympia Brewery Report (2006) • Phase I Environmental Site Assessment [For the Old Brewhouse] (1997) • Phase II Environmental Site Assessment [For the Old Brewhouse] (1997) • Tumwater Historic District Infrastructure Analysis Summary of Findings [For the Old Brewhouse] (2005)
Littlerock Neighborhood	• Littlerock-70th Avenue Annexation Area Drainage Study (Part of the Littlerock-70th Avenue Annexation in 2008) (2011) • Littlerock Road Subarea Plan (2006)
New Market Neighborhood	• New Market Historic District Master Plan (1993)
SE Capitol Boulevard Neighborhood	• Capitol Boulevard Corridor Plan (2015)

Appendix B Tumwater Land Use Alternatives Analysis

The Tumwater Land Use Alternatives Analysis provides details about how much land is expected to be available under three sets of regulatory conditions. It is attached as Appendix B.

thurston regional planning council

REGIONAL VISION • COOPERATION • INFORMATION

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City of Lacey
City of Olympia
City of Rainier
City of Tenino
City of Tumwater
City of Yelm
Confederated Tribes of the Chehalis Reservation
Nisqually Indian Tribe
Town of Bucoda
Thurston County
North Thurston Public Schools
Olympia School District
Tumwater School District
Intercity Transit
LOTT Clean Water Alliance
Port of Olympia
PUD No. 1 of Thurston County

ASSOCIATE MEMBERS:
Lacey Fire District #3
Puget Sound Regional Council
The Evergreen State College
Thurston Conservation District
Thurston Economic Development Council
Timberland Regional Library

thurston regional planning council

Marc Daily
Executive Director

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Olympia, WA 98502

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MEMORANDUM

TO: Brad Medrud, Deputy Community Development Director
City of Tumwater Community Development

FROM: Michael Ambrogi, Senior Planner
Thurston Regional Planning Council

DATE: February 26, 2025

SUBJECT: Tumwater Land Use Alternatives Analysis

OVERVIEW

The City of Tumwater is examining three different land use alternatives to meet its responsibilities to plan for how to accommodate new housing types and targets by affordability and determine the level of public services and facilities required to serve the increased population of the City by 2045. Three land use alternatives are identified:

Alternative #1: No change to existing land use designations and related zoning requirements.

Alternative #2: Moderate increase land use designation capacity and range of housing types.

Alternative #3: Substantial increase in land use designation capacity and range of housing types.

The City requested TRPC conduct an analysis of the three alternatives' impacts on land developable for residential uses, land developable for commercial or industrial uses, and capacity for future dwelling units.

BACKGROUND

Thurston Regional Planning Council (TRPC) maintains a land capacity model for Thurston County. This database was used to develop TRPC's population and employment forecast (2018 update) and the 2021 Buildable Lands Report for Thurston County. The model includes multiple metrics, including acres of developable land and "residential capacity," the theoretical maximum number of dwellings that could be built on a parcel. In general, the actual number of dwellings constructed over a 20-year time period will be less than the capacity as not all property owners will choose to develop their land, even if they could do so, or because there is less demand for new housing in some areas.

The inputs to the land capacity model include:

- **Existing land use and development.** Some land uses — like churches or parks — are unlikely to further develop in the future even if there is developable land on a parcel.
- **Vested subdivision plans.** Projects that have recently been approved will develop as permitted, even if zoning or development regulations are later changed.
- **Zoning.** Zoning informs the type of future development — whether residential, commercial/industrial, or a mix of both — and the density of future residential development.
- **Average development densities.** In zones that allow a range of uses and housing densities, historical trends inform what is likely in the future.
- **Critical areas and environmental constraints.** Wetlands, steep slopes, and other constraints limit the amount of future development.
- **Ownership.** For Port, tribal, and many government-owned properties, capacity is determined on a case-by-case basis in consultation with staff.

Documentation for the land capacity model is available at https://www.trpc.org/236 (See "Population and Employment Land Supply Assumptions").

The City of Tumwater requested an analysis showing the effects of three different land use alternatives. The alternatives are being considered as part of the City's periodic Comprehensive Plan update, due by December 31, 2025.

ASSUMPTIONS

The model used for the land use alternatives analysis is consistent with those used in the *2021 Buildable Lands Report for Thurston County*[1]. The buildable lands model assumptions and the baseline outputs were reviewed by an advisory committee consisting of jurisdiction staff, members of the real estate and development community, and citizen representatives.

For the city of Tumwater's land use alternatives analysis, the following changes were made to the model:

- Existing land use was updated to account for development completed, approved, or under review as of February 24, 2025.
- The land use alternative uses zoning as of February 2025
- Changes were made to mixed use development assumptions and residential density assumptions. While the Buildable Lands model uses average residential densities observed over the past ten to 20 years ("achieved densities"), the land use alternatives generally uses the highest allowed density.
- Parcels in the City's unincorporated urban growth area use the zoning assumptions of the equivalent incorporated city zone.

Table 1 shows the mixed use and residential density assumptions used in the analysis.

[1] http://www.trpc.org/164

Table 1: Mixed Use and Residential Density Assumptions for Land Use Alternatives

Zone	Zone Name	Percent Residential	Alt. #1 Units/Acre	Alt. #2 Units/Acre	Alt. #3 Units/Acre
ARI	Airport Related Industry	0%	0	0	0
BD	Brewery District: Bates North	25%	20	20	20
BD	Brewery District: Bates South	25%	8	8	8
BD	Brewery District: Bluff	25%	10	10	10
BD	Brewery District: Deschutes	25%	20	20	20
BD	Brewery District: Knoll	25%	30	30	30
BD	Brewery District: Triangle	25%	20	20	20
BD	Brewery District: Valley	0%	0	0	0
CBC	Capitol Boulevard Community	50%	30	30	30
CS	Community Services	0%	0	0	0
GC	General Commercial	30%	40	40	40
GB	Greenbelt	0%	0	0	0
HI	Heavy Industrial	0%	0	0	0
HC	Historic Commercial	0%	0	10	10
LI	Light Industrial	0%	0	0	0
MHP	Manufactured Home Park	100%	9	9	9
MU	Mixed Use	30%	14	14	20
MFH	Multifamily High Density Residential	100%	29	30	30
MFM	Multifamily Medium Density Residential	100%	15	15	19
NC	Neighborhood Commercial	20%	8	8	9
OS	Open Space	0%	0	0	0
R/SR	Residential/Sensitive Resource	100%	4	4	4
SFL	Single-Family Low Density Residential	100%	7	9	9
SFM	Single-Family Medium Density Residential	100%	9	9	9
TC	Town Center: Civic	0%	0	0	0
TC	Town Center: Mixed Use	5%	30	30	30
TC	Town Center: Multifamily Residential	80%	20	20	20
TC	Town Center: Professional Office	0%	0	0	0

Note: “Percent Residential” refers to the estimated share of land that will develop for residential uses in mixed-use zones. “Unit/Acre” is assumption for net dwelling units per acre on developable residential land.

In some cases, a parcel’s ownership or current land use may override these assumptions. For example, on parcels where the current use is a school or church, the model assumes that the parcel is already fully developed, with no additional developable residential land in the future, even if the underlying zoning is residential.

Land Capacity Model Limitations

TRPC's land capacity model does not address bulk and dimensional standards such as lot sizes, building setbacks, or building heights that might limit future capacity. These were not included in the analysis.

For the purposes of this analysis, residential capacity does not take into account reductions due to non-residential uses in residential zones (such as schools, parks, and churches), or capacity for accessory dwelling units. These types of capacity are included in the *2021 Buildable Lands Report*.

TRPC's land capacity model uses general assumptions intended for regionwide analyses. How many dwelling units can be built or how many acres can be developed for a particular parcel is determined by jurisdiction planning or building department staff as part of the development review process. Their determinations may vary from this analysis.

ANALYSIS

The land use alternatives analysis estimates that 2,560 acres of land in Tumwater are developable under current conditions (Alternative #1), of which about 70% is likely to develop for residential uses. Total developable land would increase by less than ten acres in Alternatives #2 and #3.

Tumwater currently has capacity for an estimated 12,138 additional dwelling units on vacant or infill properties, plus 770 dwelling units on redevelopable properties. Capacity on vacant or infill lots would increase by 1,224 units in Alternative #2 and 1,685 units in Alternative #3. Alternative #3 would also increase the estimated capacity on redevelopable lots by 12 units.

Tables 2 and 3 provide a summary of land use alternative analysis. Estimates for each zone are in Tables 4 to 7.

Table 2: Developable Land by Land Use Alternative, Tumwater City and UGA

Type of Development (Acres)	Alternative #1	Alternative #2	Alternative #3
Residential	1,806.7	1,811.4	1,812.0
Commercial/Industrial	754.0	754.0	754.3
Total	**2,560.7**	**2,565.3**	**2,566.3**

Table 3: Residential Capacity by Land Use Alternative, Tumwater City and UGA

Type of Capacity (Dwelling Units)	Alternative #1	Alternative #2	Alternative #3
Vacant/Infill Lots	12,138	13,362	13,823
Redevelopment Lots	770	770	782
Total	**12,908**	**14,132**	**14,605**

Table 4: Estimated Acres of Land Developable for Residential Uses

Zone	Zone Name	City/UGA	Alternative #1	Alternative #2	Alternative #3
ARI	Airport Related Industry	City	—	—	—
BD	Brewery District: Bates North	City	—	—	—
BD	Brewery District: Bates South	City	0.1	0.1	0.1
BD	Brewery District: Bluff	City	0.8	0.8	0.8
BD	Brewery District: Deschutes	City	0.5	0.5	0.5
BD	Brewery District: Knoll	City	0.1	0.1	0.1
BD	Brewery District: Triangle	City	< 0.1	< 0.1	< 0.1
BD	Brewery District: Valley	City	—	—	—
CBC	Capitol Boulevard Community	City	3.0	3.0	3.0
CS	Community Services	City	—	—	—
GC	General Commercial	City	27.1	27.1	27.1
GC	General Commercial	UGA	7.2	7.2	7.2
HI	Heavy Industrial	City	—	—	—
HI	Heavy Industrial	UGA	—	—	—
HC	Historic Commercial	City	—	—	—
LI	Light Industrial	City	—	—	—
LI	Light Industrial	UGA	—	—	—
MHP	Manufactured Home Park	City	0.9	0.9	0.9
MU	Mixed Use	City	5.2	5.2	5.2
MU	Mixed Use	UGA	0.6	0.6	0.6
MFH	Multifamily High Density Residential	City	10.7	10.7	10.7
MFM	Multifamily Medium Density Residential	City	63.8	63.8	64.0
MFM	Multifamily Medium Density Residential	UGA	117.9	117.9	118.4
NC	Neighborhood Commercial	City	—	—	—
NC	Neighborhood Commercial	UGA	—	—	—
R/SR	Residential/Sensitive Resource	City	159.8	159.8	159.8
R/SR	Residential/Sensitive Resource	UGA	28.1	28.1	28.1
SFL	Single-Family Low Density Residential	City	477.1	479.8	479.8
SFL	Single-Family Low Density Residential	UGA	541.7	543.6	543.6
SFM	Single-Family Medium Density Residential	City	257.8	257.8	257.8
SFM	Single-Family Medium Density Residential	UGA	104.0	104.0	104.0
TC	Town Center: Civic	City	—	—	—
TC	Town Center: Mixed Use	City	—	—	—
TC	Town Center: Multifamily Residential	City	0.3	0.3	0.3
TC	Town Center: Professional Office	City	—	—	—
—	**Tumwater City and UGA**	**Total**	**1,806.7**	**1,811.4**	**1,812.0**

Table 5: Estimated Acres of Land Developable for Commercial/Industrial Uses

Zone	Zone Name	City/UGA	Alternative #1	Alternative #2	Alternative #3
ARI	Airport Related Industry	City	6.7	6.7	6.7
BD	Brewery District: Bates North	City	0.1	0.1	0.1
BD	Brewery District: Bates South	City	0.2	0.2	0.2
BD	Brewery District: Bluff	City	2.5	2.5	2.5
BD	Brewery District: Deschutes	City	1.6	1.6	1.6
BD	Brewery District: Knoll	City	0.2	0.2	0.2
BD	Brewery District: Triangle	City	0.1	0.1	0.1
BD	Brewery District: Valley	City	4.0	4.0	4.0
CBC	Capitol Boulevard Community	City	5.1	5.1	5.1
CS	Community Services	City	0.4	0.4	0.4
GC	General Commercial	City	80.9	80.9	80.9
GC	General Commercial	UGA	29.6	29.6	29.6
HI	Heavy Industrial	City	—	—	—
HI	Heavy Industrial	UGA	—	—	—
HC	Historic Commercial	City	0.5	0.5	0.5
LI	Light Industrial	City	256.3	256.3	256.3
LI	Light Industrial	UGA	215.3	215.3	215.3
MHP	Manufactured Home Park	City	—	—	—
MU	Mixed Use	City	21.7	21.7	21.8
MU	Mixed Use	UGA	17.7	17.7	17.9
MFH	Multifamily High Density Residential	City	—	—	—
MFM	Multifamily Medium Density Residential	City	10.2	10.2	10.2
MFM	Multifamily Medium Density Residential	UGA	11.3	11.3	11.3
NC	Neighborhood Commercial	City	2.1	2.1	2.1
NC	Neighborhood Commercial	UGA	1.2	1.2	1.2
R/SR	Residential/Sensitive Resource	City	—	—	—
R/SR	Residential/Sensitive Resource	UGA	—	—	—
SFL	Single-Family Low Density Residential	City	2.4	2.4	2.4
SFL	Single-Family Low Density Residential	UGA	18.1	18.1	18.1
SFM	Single-Family Medium Density Residential	City	35.9	35.9	35.9
SFM	Single-Family Medium Density Residential	UGA	—	—	—
TC	Town Center: Civic	City	—	—	—
TC	Town Center: Mixed Use	City	29.0	29.0	29.0
TC	Town Center: Multifamily Residential	City	0.9	0.9	0.9
TC	Town Center: Professional Office	City	—	—	—
—	**Tumwater City and UGA**	**Total**	**754.0**	**754.0**	**754.3**

Table 6: Capacity for Future Dwelling Units on Vacant or Infill Lots

Zone	Zone Name	City/UGA	Alternative #1	Alternative #2	Alternative #3
ARI	Airport Related Industry	City	—	—	—
BD	Brewery District: Bates North	City	—	—	—
BD	Brewery District: Bates South	City	—	—	—
BD	Brewery District: Bluff	City	8	8	8
BD	Brewery District: Deschutes	City	10	10	10
BD	Brewery District: Knoll	City	602	602	602
BD	Brewery District: Triangle	City	1	1	1
BD	Brewery District: Valley	City	—	—	—
CBC	Capitol Boulevard Community	City	390	390	390
CS	Community Services	City	—	—	—
GC	General Commercial	City	1,230	1,230	1,230
GC	General Commercial	UGA	290	290	290
HI	Heavy Industrial	City	—	—	—
HI	Heavy Industrial	UGA	—	—	—
HC	Historic Commercial	City	—	—	—
LI	Light Industrial	City	—	—	—
LI	Light Industrial	UGA	—	—	—
MHP	Manufactured Home Park	City	8	8	8
MU	Mixed Use	City	42	42	62
MU	Mixed Use	UGA	8	8	11
MFH	Multifamily High Density Residential	City	304	316	316
MFM	Multifamily Medium Density Residential	City	634	634	793
MFM	Multifamily Medium Density Residential	UGA	1,118	1,118	1,397
NC	Neighborhood Commercial	City	—	—	—
NC	Neighborhood Commercial	UGA	—	—	—
R/SR	Residential/Sensitive Resource	City	486	486	486
R/SR	Residential/Sensitive Resource	UGA	76	76	76
SFL	Single-Family Low Density Residential	City	2,098	2,620	2,620
SFL	Single-Family Low Density Residential	UGA	2,699	3,389	3,389
SFM	Single-Family Medium Density Residential	City	1,547	1,547	1,547
SFM	Single-Family Medium Density Residential	UGA	581	581	581
TC	Town Center: Civic	City	—	—	—
TC	Town Center: Mixed Use	City	—	—	—
TC	Town Center: Multifamily Residential	City	6	6	6
TC	Town Center: Professional Office	City	—	—	—
—	**Tumwater City and UGA**	**Total**	**12,138**	**13,362**	**13,823**

Table 7: Capacity for Future Dwelling Units on Redevelopment Lots

Zone	Zone Name	City/UGA	Alternative #1	Alternative #2	Alternative #3
ARI	Airport Related Industry	City	—	—	—
BD	Brewery District: Bates North	City	3	3	3
BD	Brewery District: Bates South	City	—	—	—
BD	Brewery District: Bluff	City	—	—	—
BD	Brewery District: Deschutes	City	4	4	4
BD	Brewery District: Knoll	City	2	2	2
BD	Brewery District: Triangle	City	21	21	21
BD	Brewery District: Valley	City	—	—	—
CBC	Capitol Boulevard Community	City	338	338	338
CS	Community Services	City	—	—	—
GC	General Commercial	City	306	306	306
GC	General Commercial	UGA	18	18	18
HI	Heavy Industrial	City	—	—	—
HI	Heavy Industrial	UGA	—	—	—
HC	Historic Commercial	City	—	—	—
LI	Light Industrial	City	—	—	—
LI	Light Industrial	UGA	—	—	—
MHP	Manufactured Home Park	City	—	—	—
MU	Mixed Use	City	25	25	35
MU	Mixed Use	UGA	12	12	13
MFH	Multifamily High Density Residential	City	—	—	—
MFM	Multifamily Medium Density Residential	City	—	—	—
MFM	Multifamily Medium Density Residential	UGA	—	—	—
NC	Neighborhood Commercial	City	2	2	3
NC	Neighborhood Commercial	UGA	1	1	1
R/SR	Residential/Sensitive Resource	City	—	—	—
R/SR	Residential/Sensitive Resource	UGA	—	—	—
SFL	Single-Family Low Density Residential	City	—	—	—
SFL	Single-Family Low Density Residential	UGA	—	—	—
SFM	Single-Family Medium Density Residential	City	—	—	—
SFM	Single-Family Medium Density Residential	UGA	—	—	—
TC	Town Center: Civic	City	—	—	—
TC	Town Center: Mixed Use	City	5	5	5
TC	Town Center: Multifamily Residential	City	33	33	33
TC	Town Center: Professional Office	City	—	—	—
—	**Tumwater City and UGA**	**Total**	**770**	**770**	**782**

Bush Prairie Habitat Conservation Plan.

The City of Tumwater and the Port of Olympia are working on a habitat conservation plan (HCP) to mitigate the impacts of development on four species protected or likely to be listed under the Endangered Species Act. The latest draft of the Bush Prairie HCP identifies significant mitigation within Tumwater's city limits. Therefore, the land use alternatives analysis reduced capacity in the zones where mitigation is most likely to occur by the acreage shown in Table 8. The estimated acres removed for mitigation were provided by Tumwater staff.

The analysis showed that mitigation will likely reduce land developable for residential use by 156 acres and land developable for commercial/industrial uses by 33 acres (Tables 9 and 10) across all three alternatives. Mitigation would likely reduce the capacity for future dwelling units by 852 units in Alternative #1, 973 units in Alternative #2, and 1,028 units in Alternative #3. The analysis assumed that mitigation would not occur on redevelopable parcels.

Table 8: Capacity Reductions for Future HCP Mitigation

Zone	Zone Name	Acres Removed for Mitigation
MFH	Multifamily High Density Residential	5
MFM	Multifamily Medium Density Residential	30
MU	Mixed Use	30
SFL	Single-Family Low Density Residential	190
SFM	Single-Family Medium Density Residential	40
—	**Total**	**295**

Note: Acres removed for mitigation provided by Tumwater staff. Reduction only applied to capacity on vacant parcels.

Table 9: Reduction in Acres of Land Developable for Residential Uses Due to HCP Mitigation

Zone	Zone Name	Alternative #1	Alternative #2	Alternative #3
MFH	Multifamily High Density Residential	-3.7	-3.7	-3.7
MFM	Multifamily Medium Density Residential	-13.3	-13.3	-13.3
MU	Mixed Use	-5.8	-5.8	-5.8
SFL	Single-Family Low Density Residential	-110.3	-110.3	-110.3
SFM	Single-Family Medium Density Residential	-23.0	-23.0	-23.0
—	**Total**	**-156.1**	**-156.1**	**-156.1**

Table 10: Reduction in Acres of Land Developable for Commercial/Industrial Uses Due to HCP Mitigation

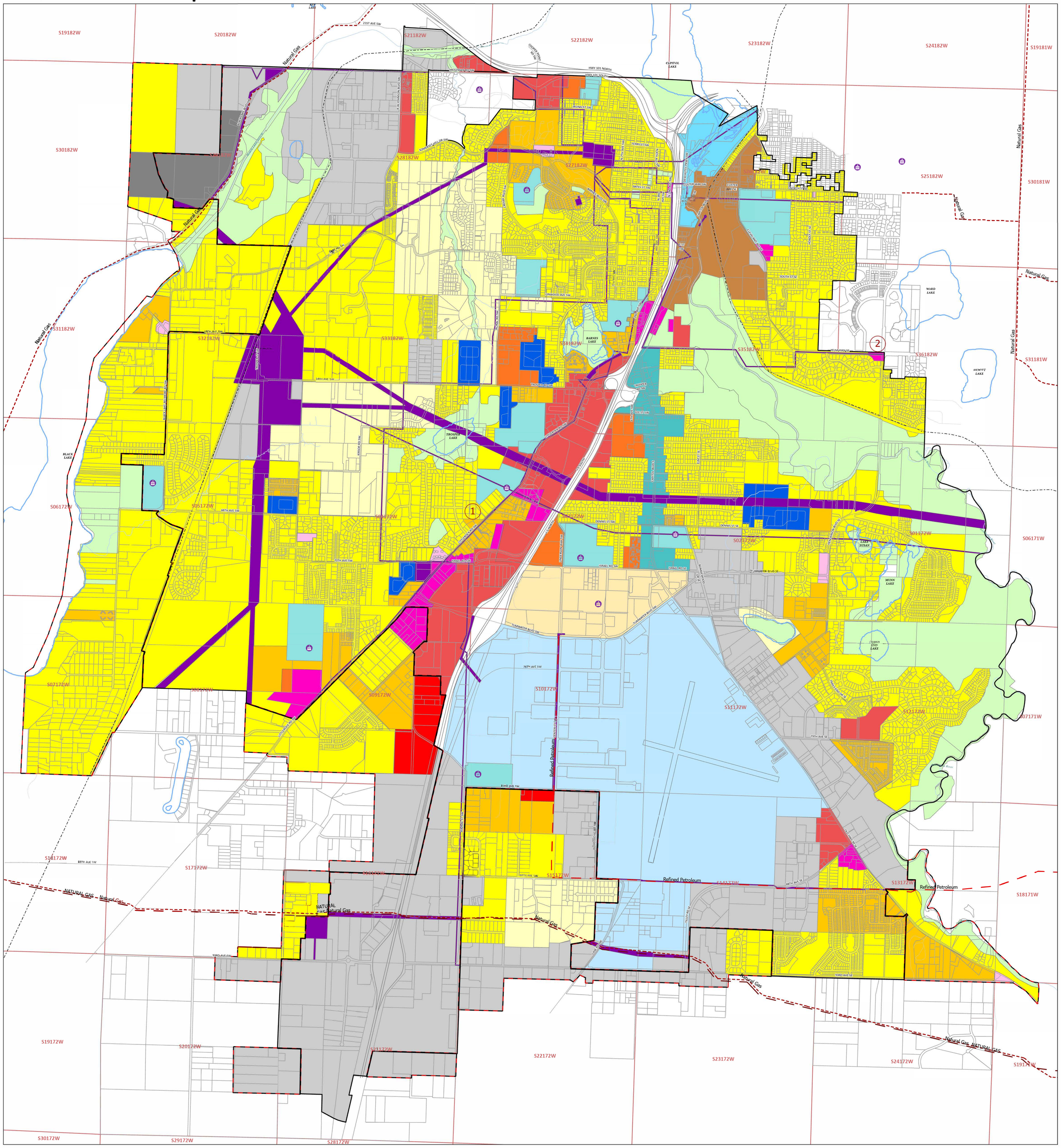
Zone	Zone Name	Alternative #1	Alternative #2	Alternative #3
MFH	Multifamily High Density Residential	-7.8	-7.8	-7.8
MFM	Multifamily Medium Density Residential	-13.5	-13.5	-13.5
MU	Mixed Use	-5.4	-5.4	-5.4
SFL	Single-Family Low Density Residential	-6.9	-6.9	-6.9
SFM	Single-Family Medium Density Residential	0.0	0.0	0.0
—	**Total**	**-33.6**	**-33.6**	**-33.6**

Table 11: Capacity for Future Dwelling Units on Vacant or Infill Lots

Zone	Zone Name	Zone Name	Alternative #1	Alternative #2
MFH	Multifamily High Density Residential	-106	-110	-110
MFM	Multifamily Medium Density Residential	-127	-127	-159
MU	Mixed Use	-50	-50	-73
SFL	Single-Family Low Density Residential	-433	-549	-549
SFM	Single-Family Medium Density Residential	-137	-137	-137
—	**Total**	**-852**	**-973**	**-1,028**

Future Land Use Map for Tumwater and its Urban Growth Area

Attachment H.4. Map LU-1



Future Land Use Designation Changes – Draft 10/1/2025

0 0.25 0.5 1 Miles

N

Amended Land Use Designation Names

Previous Land Use Designation	New Land Use Designation
SFL - Single Family Low Density	LDR - Low Density Residential
SFM - Single Family Medium Density	LDR - Low Density Residential
MFM - Multi-Family Medium Density	MDR - Medium Density Residential
MFH - Multi-Family High Density	HDR - High Density Residential

Amended Land Use Designations

1. SFL Single Family Low to MDR Medium Density Residential
2. Public Institutional to Mixed Use

Land Use Designations

- Airport Related Industrial
- Brewery District
- Capitol Boulevard Community
- General Commercial
- Heavy Industrial
- High Density Residential
- Light Industrial
- Low Density Residential
- Manufactured Home Park
- Medium Density Residential
- Mixed Use
- Neighborhood Commercial
- New Market Historic District
- Parks and Open Space
- Public Institutional
- Residential/Sensitive Resource
- Tumwater Town Center
- Utilities
- Public School
- NATURAL GAS (Interstate)
- Natural Gas
- Refined Petroleum
- City Limits
- UGA

CITY OF TUMWATER

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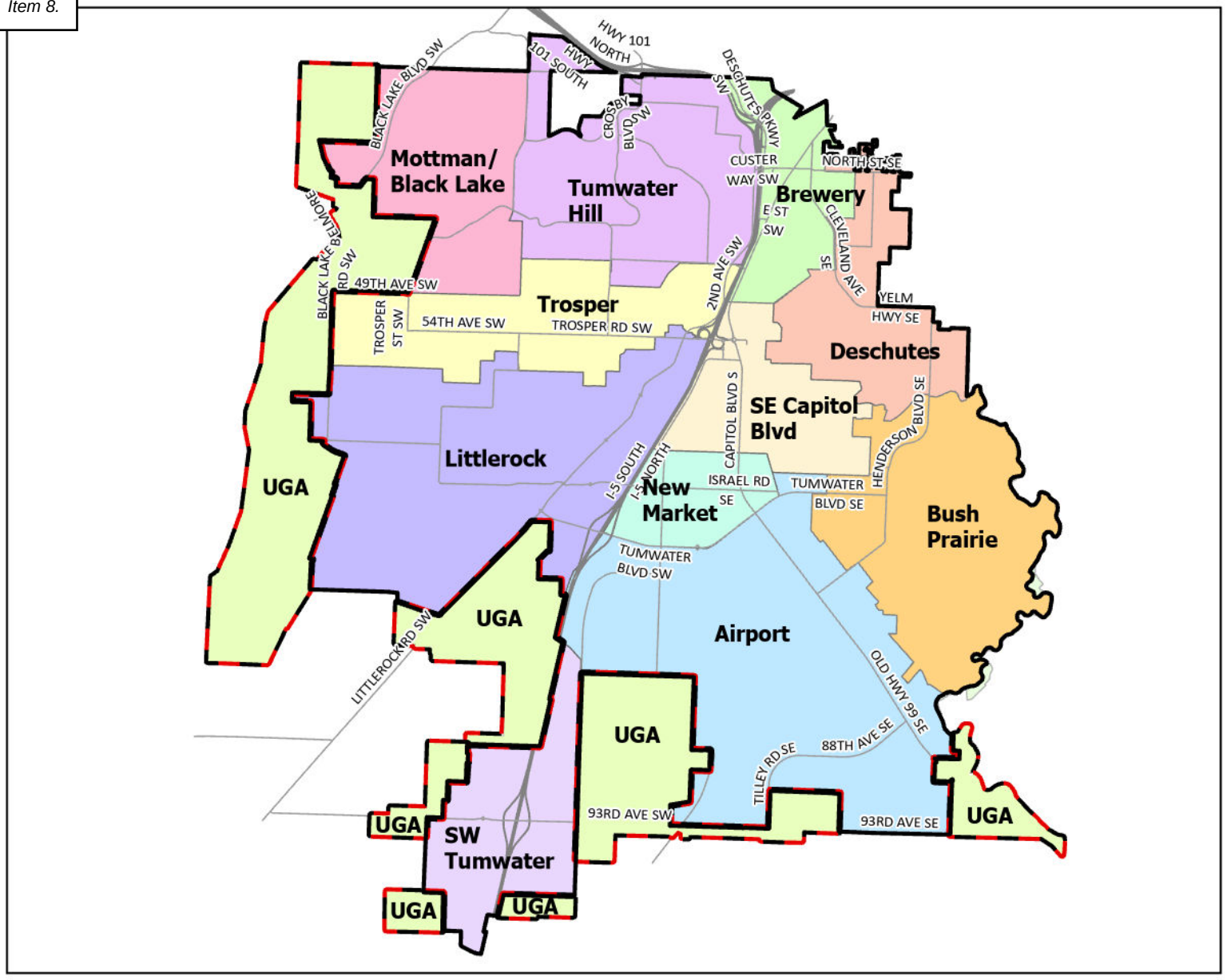
Map LU-2



Neighborhoods of Tumwater

0 0.4 0.8 1.6 Miles

N

CITY OF TUMWATER

- City Limits
- UGA
- Airport
- Brewery
- Bush Prairie
- Deschutes
- Littlerock
- Mottman/Black Lake
- New Market
- SE Capitol Boulevard
- SW Tumwater
- Trosper
- Tumwater Hill

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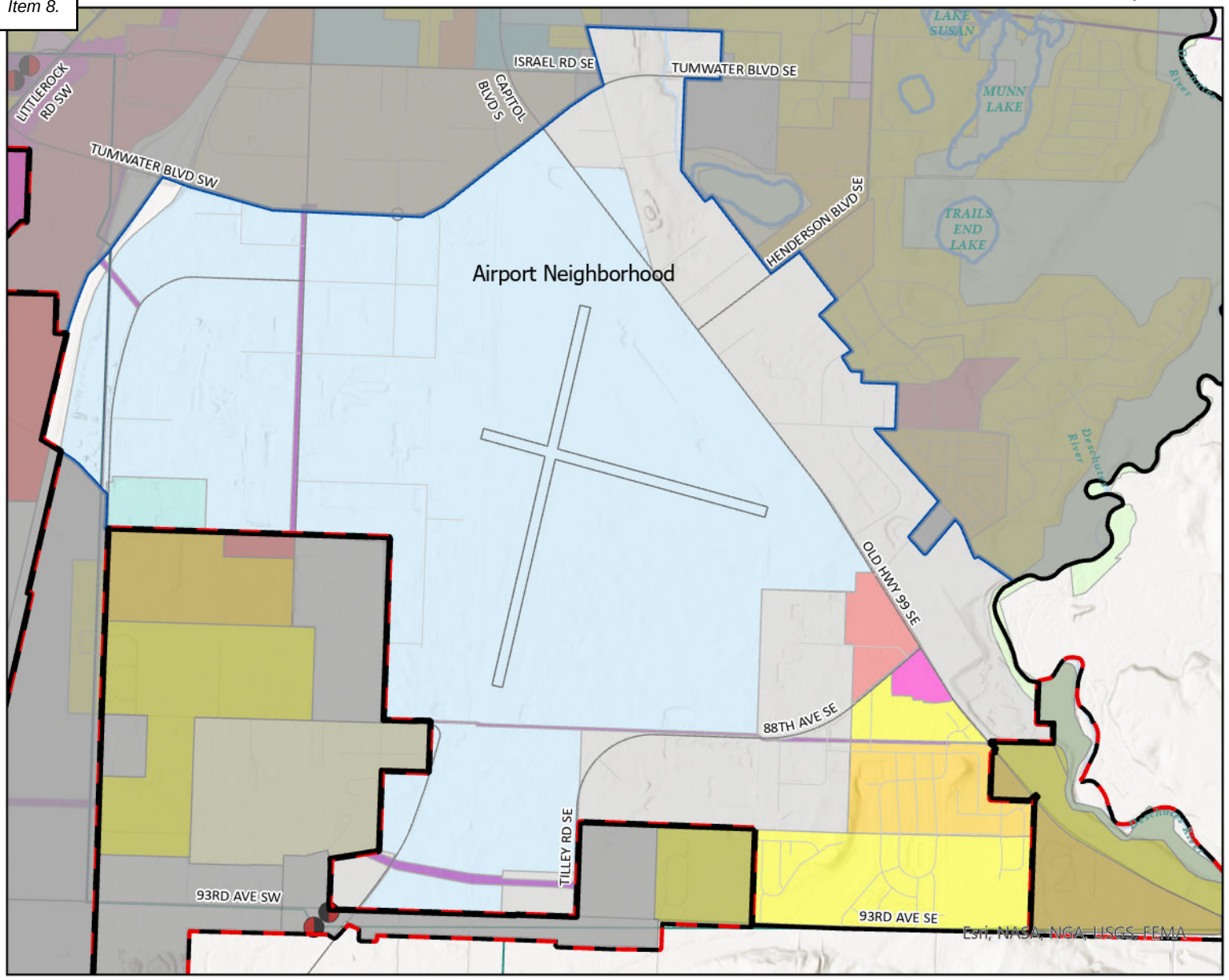
Map LU-3



Airport Neighborhood Future Land Use

0 0.17 0.35 0.7 Miles

N

- Airport Related Industrial
- Capitol Boulevard Community
- Tumwater Town Center
- Residential/Sensitive Resource
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Parks/Open Space
- Public Institutional
- Mixed Use
- Neighborhood Commercial
- General Commercial
- Utilities
- Light Industrial
- Tumwater UGA
- City Limits

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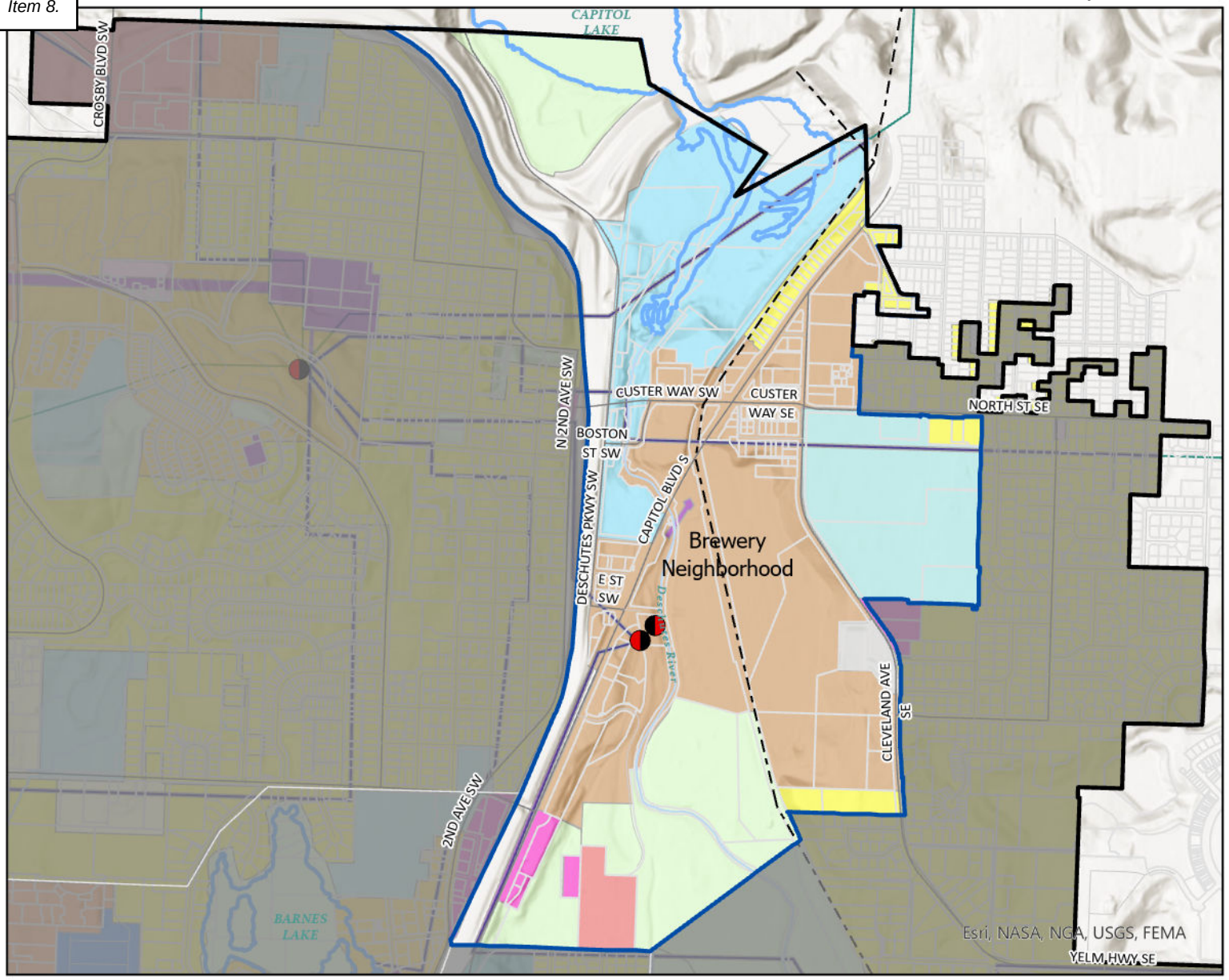
Map LU-4



Brewery District Future Land Use

0 0.1 0.2 0.4 Miles

N

- Brewery District
- Capitol Boulevard Community
- Manufactured Home Park
- New Market Historic District
- Residential/Sensitive Resource
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Parks/Open Space
- Public Institutional
- Mixed Use
- Neighborhood Commercial
- General Commercial
- Utilities
- Light Industrial
- City Limits

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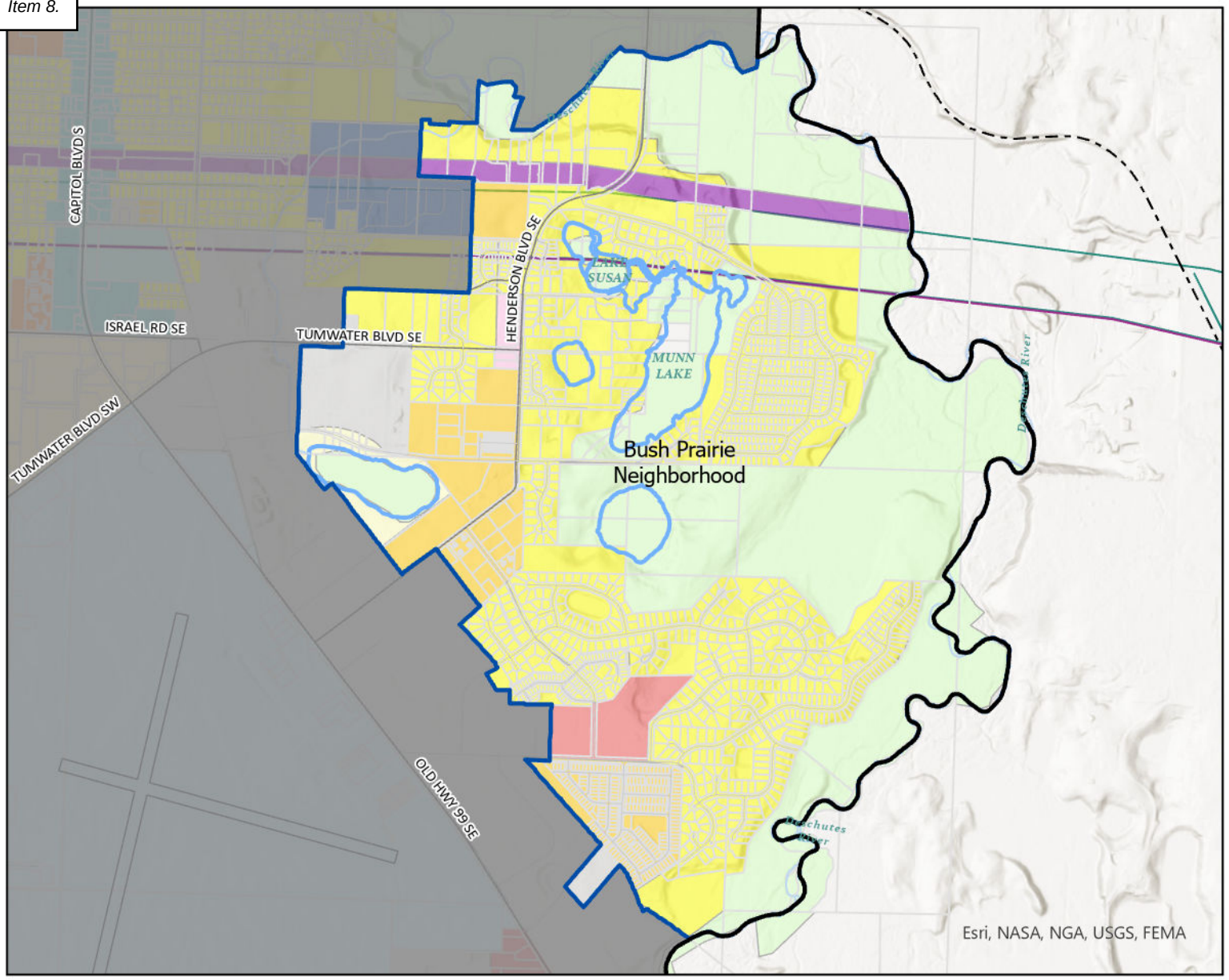
Map LU-5



Bush Prairie Future Land Use

0 0.13 0.25 0.5 Miles

N

- Airport Related Industrial
- Capitol Boulevard Community
- Manufactured Home Park
- Tumwater Town Center
- Residential/Sensitive Resource
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Parks/Open Space
- Public Institutional
- Neighborhood Commercial
- General Commercial
- Utilities
- Light Industrial
- City Limits

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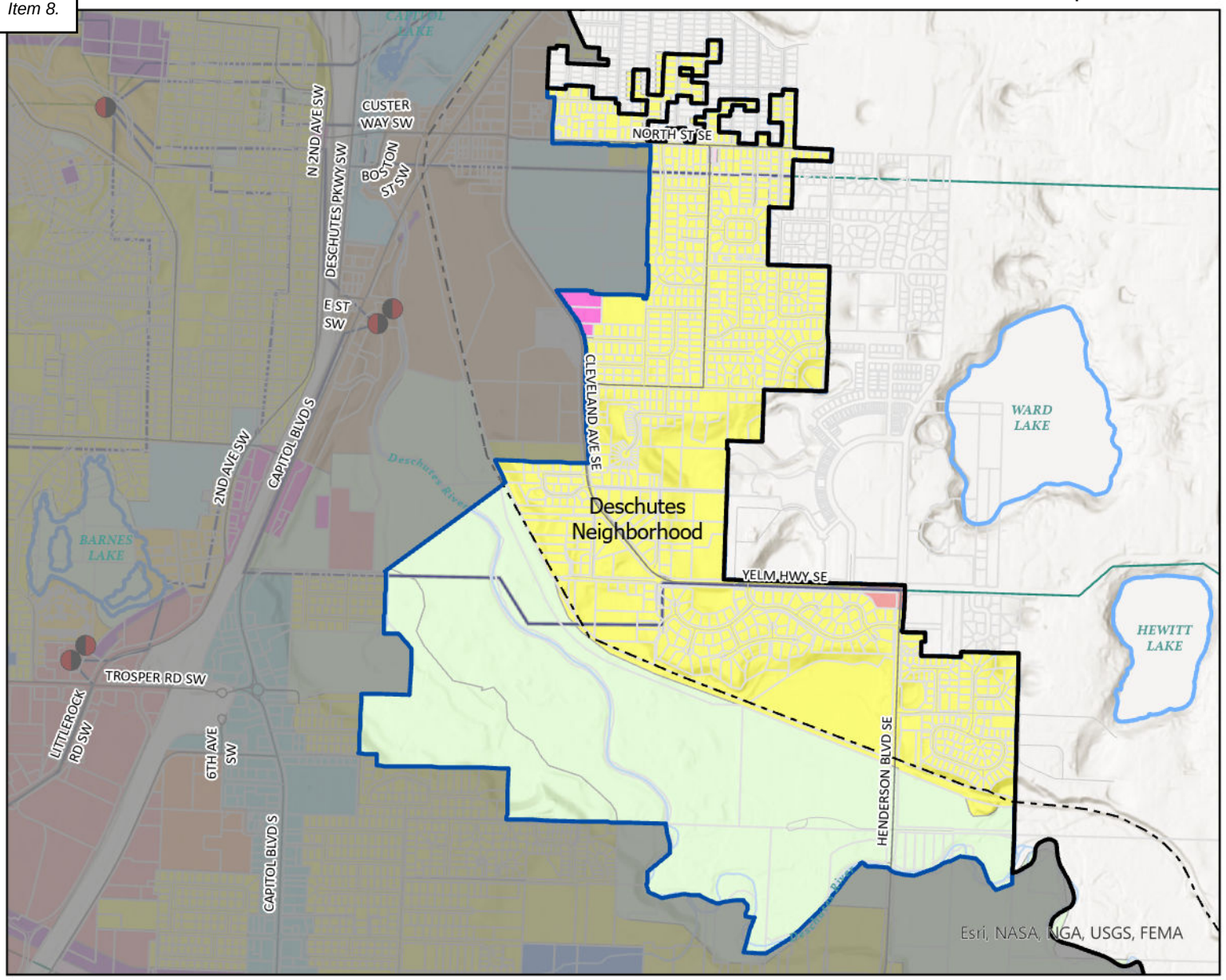
Map LU-6



Deschutes Future Land Use

0 0.13 0.25 0.5 Miles

N

- Brewery District
- Capitol Boulevard Community
- Manufactured Home Park
- New Market Historic District
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Parks/Open Space
- Public Institutional
- Mixed Use
- Neighborhood Commercial
- General Commercial
- Utilities
- Light Industrial
- City Limits

CITY OF TUMWATER

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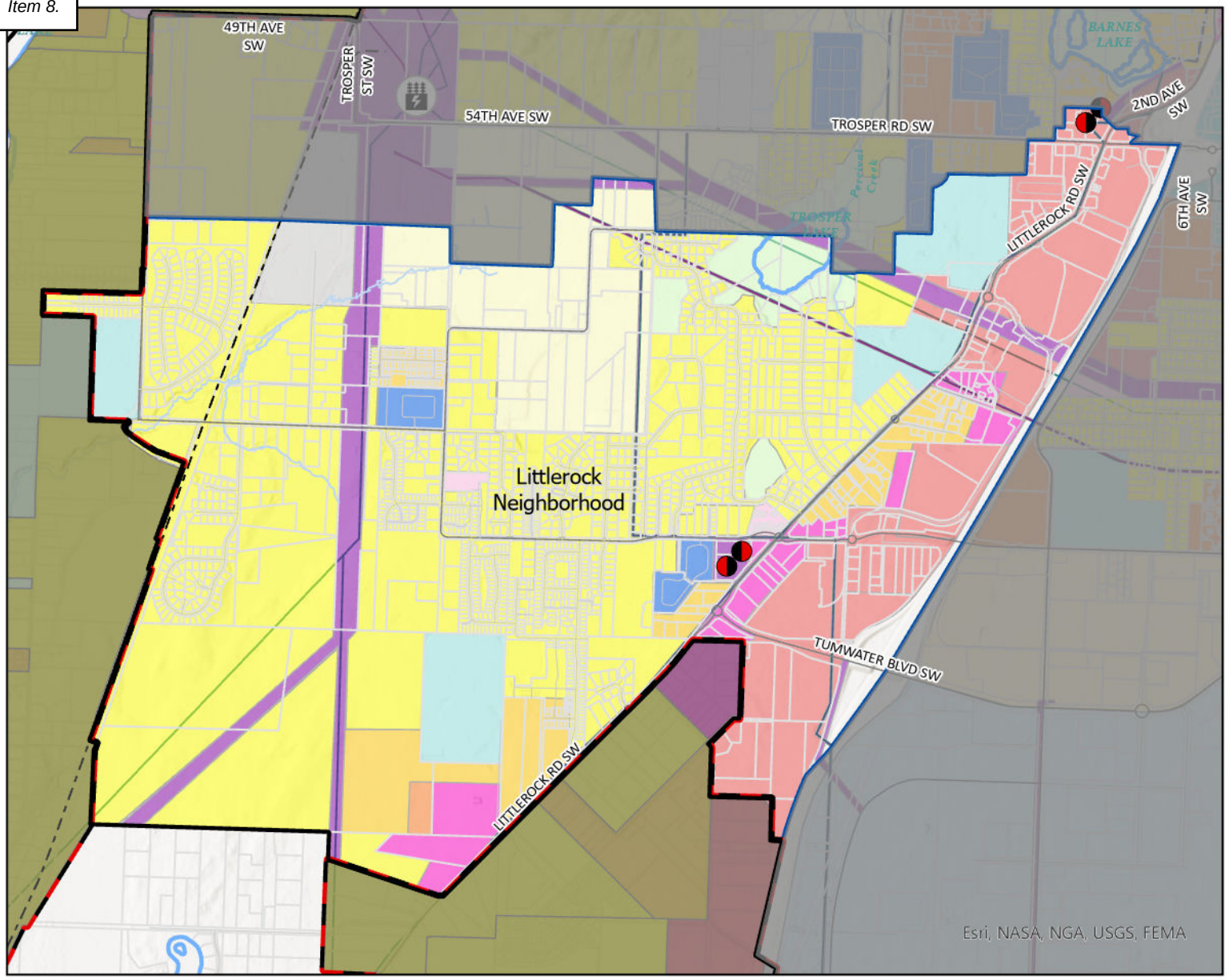
Map LU-7



Littlerock Future Land Use

0 0.15 0.3 0.6 Miles

N

- Airport Related Industrial
- Capitol Boulevard Community
- Manufactured Home Park
- Tumwater Town Center
- Residential/Sensitive Resource
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Parks/Open Space
- Public Institutional
- Mixed Use
- Neighborhood Commercial
- General Commercial
- Utilities
- Light Industrial
- Tumwater UGA
- City Limits

CITY OF TUMWATER

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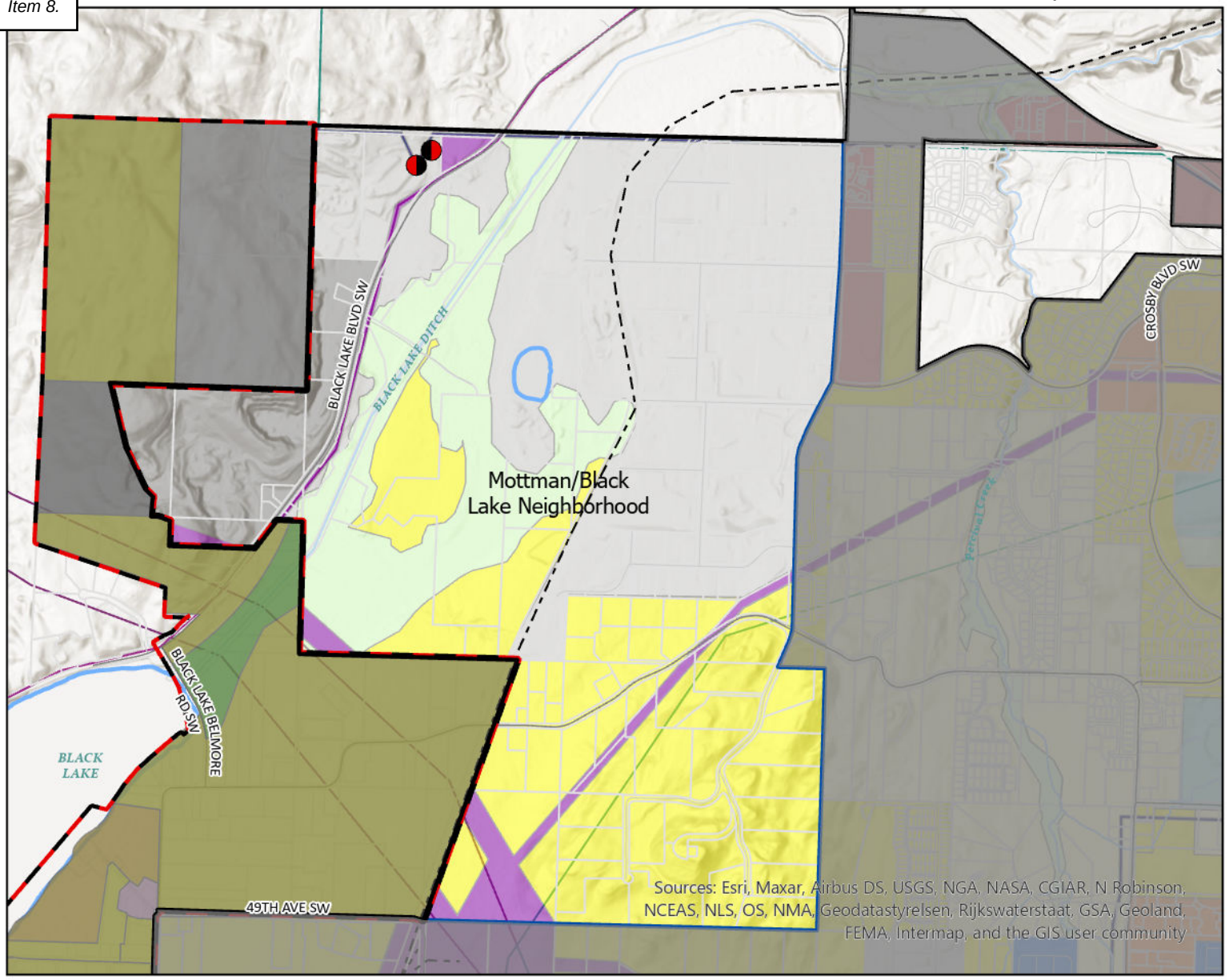
Map LU-8



Mottman/Black Lake Future Land Use

N

CITY OF TUMWATER

- Manufactured Home Park
- Residential/Sensitive Resource
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Parks/Open Space
- Public Institutional
- General Commercial
- Utilities
- Heavy Industrial
- Light Industrial
- Tumwater UGA
- City Limits

0 0.1 0.2 0.4 Miles

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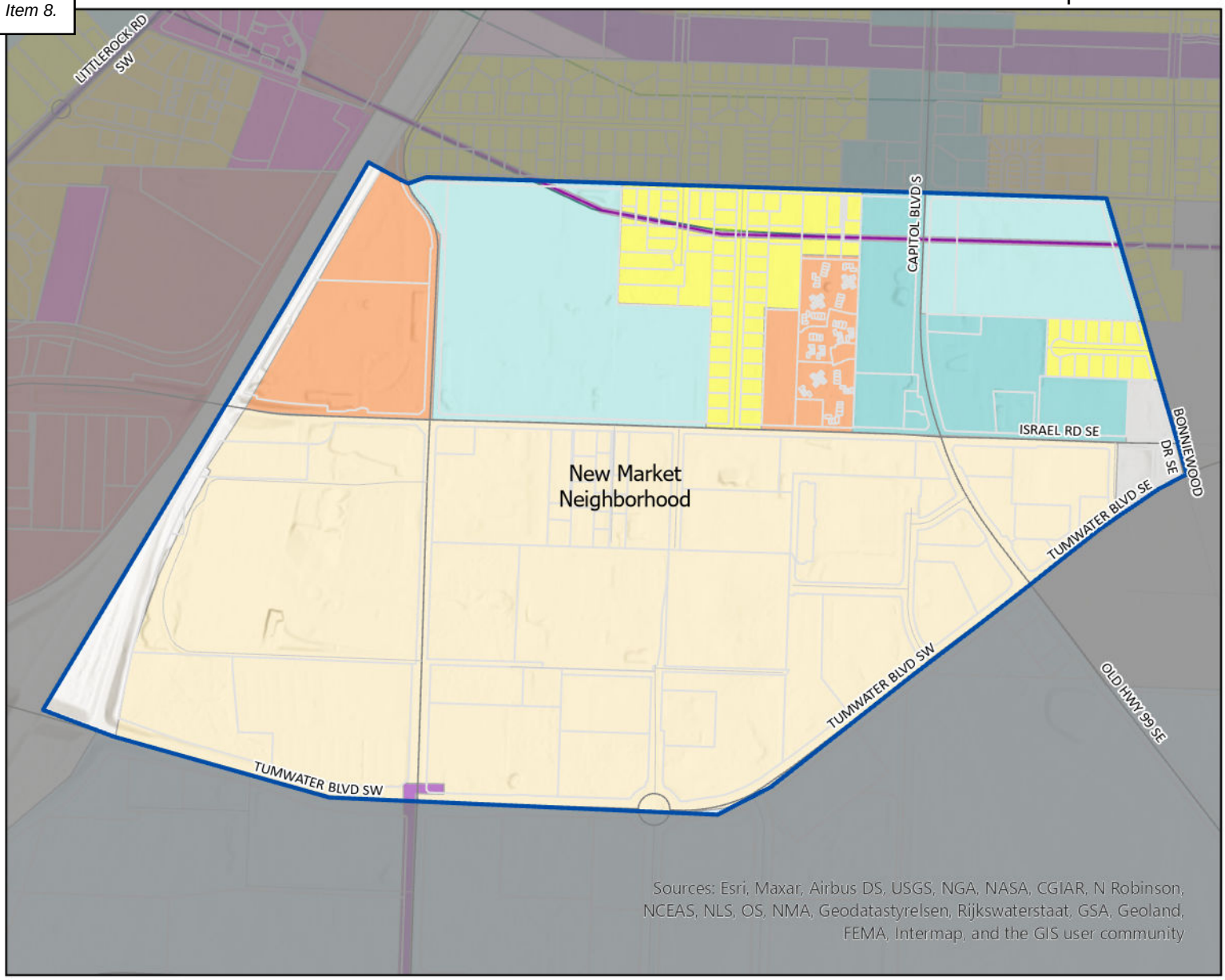
Map LU-9



New Market Future Land Use

N

CITY OF TUMWATER

- Airport Related Industrial
- Capitol Boulevard Community
- Tumwater Town Center
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Public Institutional
- Mixed Use
- Neighborhood Commercial
- General Commercial
- Utilities
- Light Industrial
- City Limits

0 0.05 0.1 0.2 Miles

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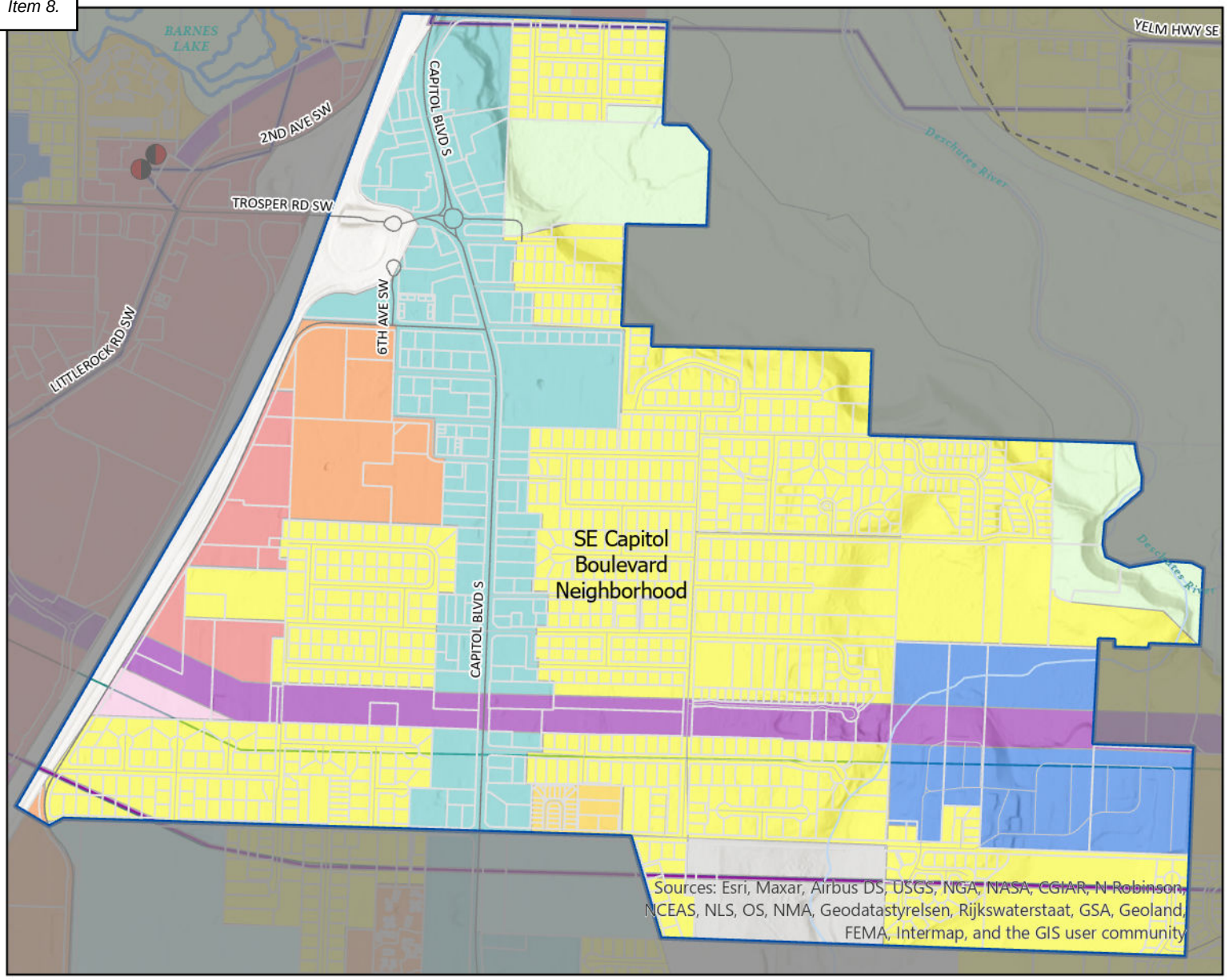
Map LU-10



SE Capitol Boulevard Future Land Use

N

CITY OF TUMWATER

- Capitol Boulevard Community
- Manufactured Home Park
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Parks/Open Space
- Public Institutional
- Mixed Use
- Neighborhood Commercial
- General Commercial
- Utilities
- Light Industrial
- City Limits

0 0.07 0.15 0.3 Miles

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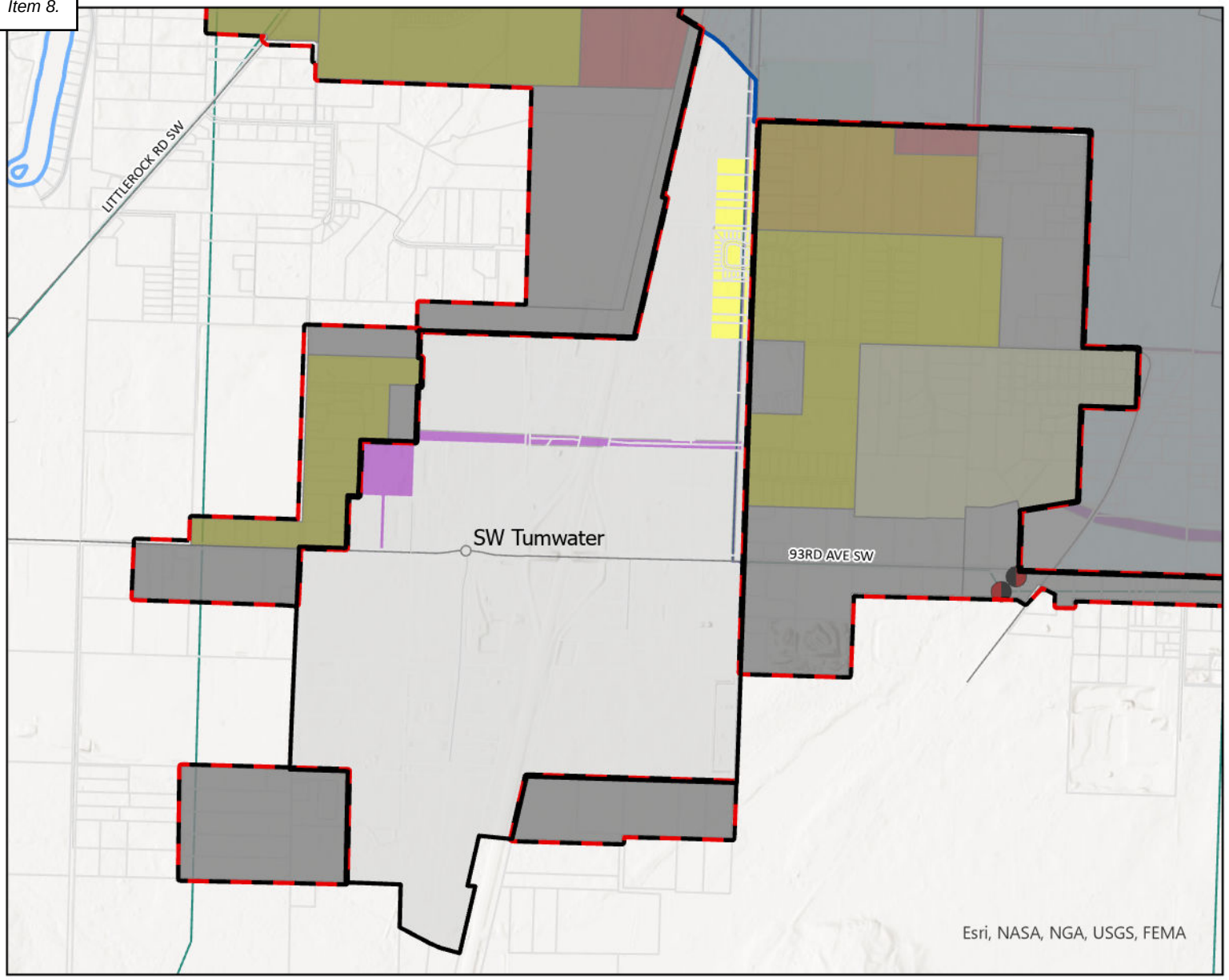
Map LU-11



SW Tumwater Future Land Use

N

- Airport Related Industrial
- Low Density Residential
- Public Institutional
- Utilities
- Light Industrial
- Tumwater UGA
- City Limits

0 0.13 0.25 0.5 Miles

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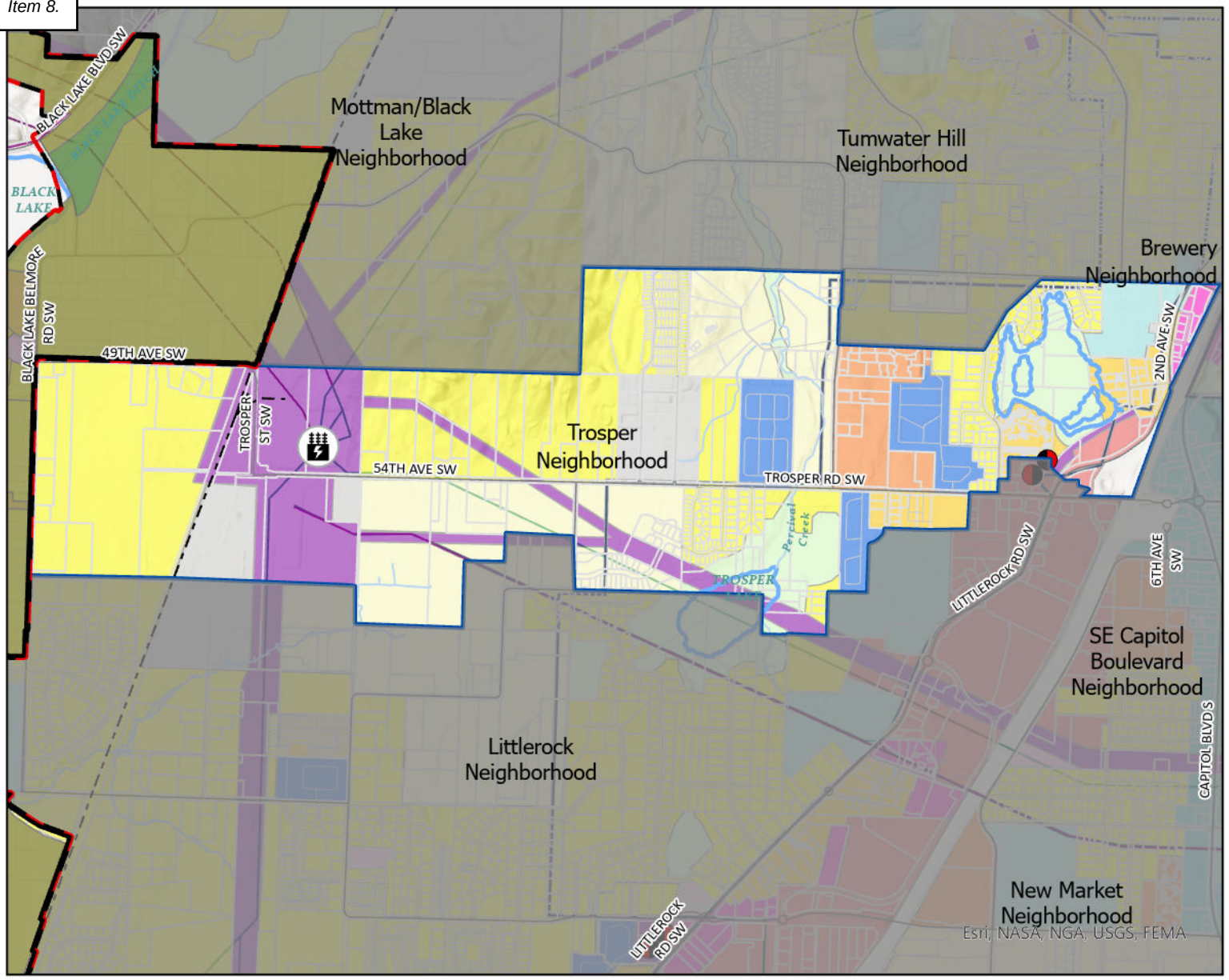
CITY OF TUMWATER

Map LU-12



Trosper Future Land Use

N

CITY OF TUMWATER

- Capitol Boulevard Community
- Manufactured Home Park
- Tumwater Town Center
- Residential/Sensitive Resource
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Parks/Open Space
- Public Institutional
- Mixed Use
- Neighborhood Commercial
- General Commercial
- Utilities
- Heavy Industrial
- Light Industrial
- Tumwater UGA
- City Limits

0 0.13 0.25 0.5 Miles

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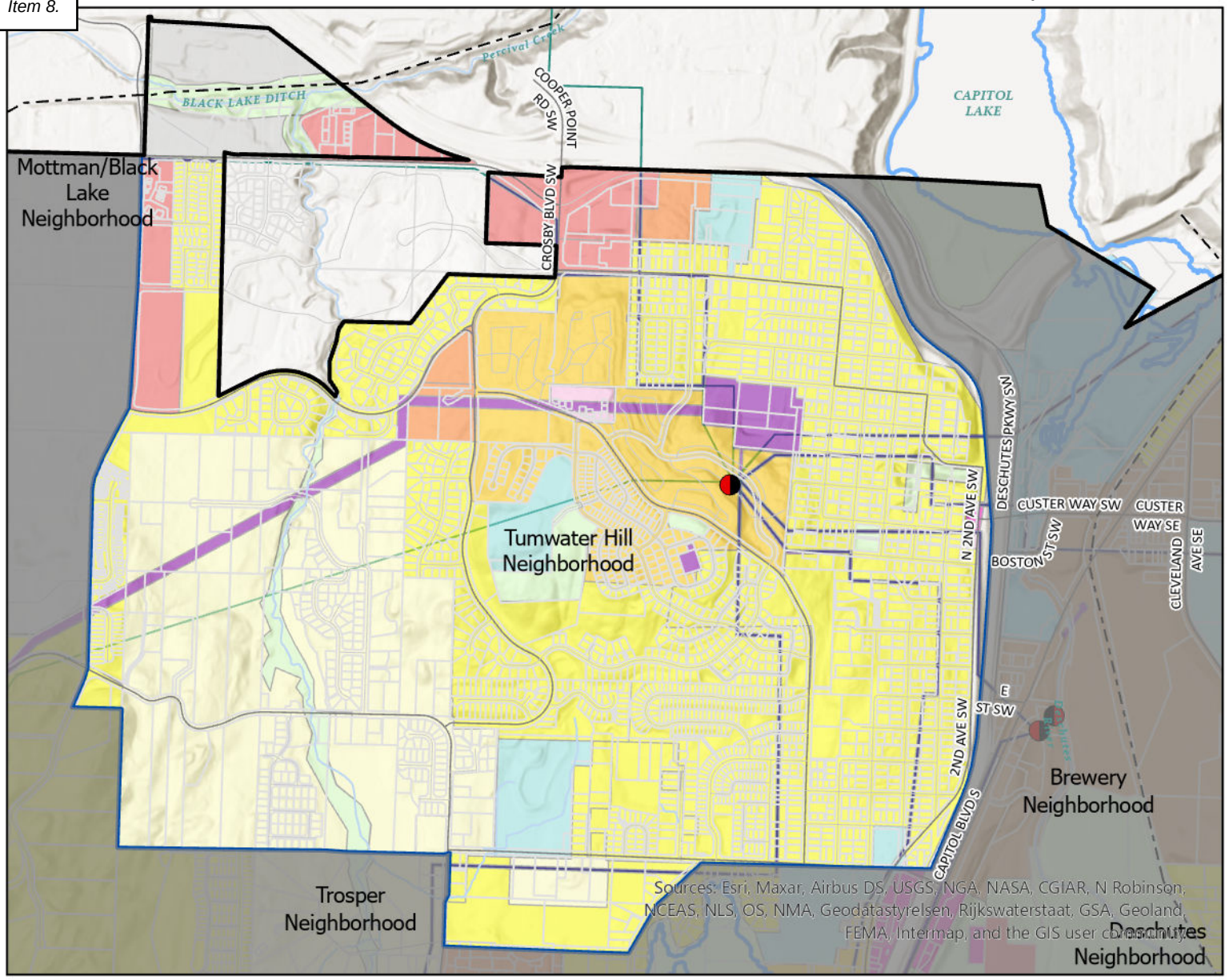
Map LU-13



Tumwater Hill Future Land Use

N

CITY OF TUMWATER

- Brewery District
- Manufactured Home Park
- New Market Historic District
- Residential/Sensitive Resource
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Parks/Open Space
- Public Institutional
- Mixed Use
- Neighborhood Commercial
- General Commercial
- Utilities
- Light Industrial
- City Limits

0 0.1 0.2 0.4 Miles

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Lands for Public Purpose Element

Part 1 – Goals, Policies, and Implementation Actions

City of Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 6, 2025

December 2025

Ordinance No. O2025-010

CITY OF TUMWATER

Lands for Public Purposes Element

Part 1 – Goals, Policies, and Implementation Actions

Table of Contents

1. Introduction 3
A. Background 3
B. How to Read this Part of the Element 3
2. Growth Management Act – Element Goals 4
3. County-Wide Planning Policies 5
4. Element Goals and Policies 6
A. How to Read These Tables 6
B. Growth Management Goals 6
Appendix A Draft Implementation Actions 9
1. How to Read These Tables 9

Abbreviations Used in Document

CDD – Community Development Department

PRD – Parks, Recreation, and Facilities Department

RCW – Revised Code of Washington

TED – Transportation & Engineering Department

TFD – Tumwater Fire Department

TPD – Tumwater Police Department

WRS – Water Resources & Sustainability Department

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1. Introduction

A. Background

The Lands for Public Purposes Element is part of Tumwater's Comprehensive Plan and was prepared in response to the state Growth Management Act (Chapter 36.70A RCW) requirements to identify lands and services necessary to support future development.

Tumwater's Vision, Mission, and Belief Statements that provide overarching direction for the future of Tumwater are found in the Comprehensive Plan Summary.

The Lands for Public Purposes Element aligns and is consistent with the other elements of the Comprehensive Plan.

Part 1 – Goals Policies, and Implementation Actions establishes Tumwater's goals and policies to set forth a direction to support the provision of public services for development in Tumwater.

The goals and policies of the Lands for Public Purposes Element are guided by the state Growth Management Act and the Thurston County County-Wide Planning Policies and the vision of a Tumwater. The Element's goals and policies are coordinated with the other Elements and regional plans.

The Lands for Public Purposes Element's goals and policies are the policy basis for the draft implementation actions in the Element and those future actions that will be developed over the next 20 years which will be the foundation for Tumwater's annual work programs to address public services and facilities for development.

Part 2 – Technical Information provides the technical analysis of the lands public purposes and capital facilities in the Tumwater and provides the basis for the goals, policies, and draft implementation actions in Part 1. Part 2 reviews the funding structure for capital facilities and discusses the status and level of service needs for both Tumwater and other public agencies which provide capital facilities and services to support the 20-year growth projections for Tumwater.

B. How to Read this Part of the Element

In Part 1, Chapters 2 and 3 discuss the Lands for Public Purposes Element's connection to the capital facilities goals of the state Growth Management Act and the Thurston County County-Wide Planning Policies.

Chapter 4 presents each goal with introductory text, and an explanation of the lead and timeline for each policy.

Appendix A contains the draft implementation actions, which are intended to be a source of annual work program items that serve to implement the goals and policies of the Lands for Public Purposes Element.

The annual work programs will further refine the implementation actions prior to their being put into practice. It is expected that implementation actions will be further amended, added, or subtracted as needed over the course of the 20 year Comprehensive Plan as new opportunities arise to meet the intent of the Lands for Public Purposes Element's goals and policies.

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2. Growth Management Act – Element Goals

Chapter 36.70A RCW requires that Tumwater demonstrate that each Element in the Comprehensive Plan meets the relevant fifteen planning goals contained within the Act. The fifteen goals guide the development and adoption of Tumwater's Comprehensive Plan and development regulations.

The following is a summary of how the updated Lands for Public Purposes Element addresses the two goals related to growth.

8. ***Urban Growth***. *Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.*

   The Lands for Public Purposes Element ensures that services provided by the public sector, such as water, sewer, stormwater, fire, and police protection, are consistent with the Tumwater's Comprehensive Plan and can support the community's growth and development as anticipated over the twenty-year planning period the identification of specific sites and phasing of facilities where appropriate occurs every two years during the six-year Capital Facilities Plan update process.

10. ***Public Facilities and Services***. *Ensure that those public facilities and services necessary to support development shall be adequate.*

The Lands for Public Purposes Element, as required by the Growth Management Act, provides an inventory of the general location of all existing and proposed capital facilities and a description of the current capacity and the expected future capacity of each capital facility in Part 2 – Technical Information.

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3. County-Wide Planning Policies

The Growth Management Act requires that comprehensive plans be consistent with the Thurston County County-Wide Planning Policies, which were last amended in 2025.

The following is a list of relevant policies that apply to the Lands for Public Purposes Element of the Comprehensive Plan. All County-Wide Planning Policies are adopted as Appendix B: *Thurston County County-Wide Planning Policies* as part of the Comprehensive Plan.

II. Urban Growth Areas

An overview of existing and proposed capital facilities is found in Part 2: Technical Information of the Lands for Public Purposes Element to assist with the assessment of public services in the urban growth area.

III. Promotion of Contiguous and Orderly Development, Provision of Urban Services, and Protection of Rural Areas

Part 2 – Technical Information of the Lands for Public Purposes Element explains the process for siting and expanding essential public facilities to best support the creation of dense, urban development in appropriate areas while protecting rural areas and the resources they provide. Part 2 – Technical Information also provides the basis for siting and the future need for the expansion of some of the public services Tumwater and other public agencies provides.

IX. Transportation

While the Transportation Plan is the primary inventory of the transportation system, and references to more in depth plans, and some long-term goals for improving multi-modal transit options, Part 2 – Technical Information provides additional detail.

X. Environmental Quality

Water conservation, wellhead protection, and low impact development standards are discussed within the Lands for Public Purposes Element as a means of protecting water quality and how Tumwater might begin to increase reuse and recycling through the Pathways to Zero Waste, a blend of innovative policies to reduce waste production and accumulation.

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4. Element Goals and Policies

A. How to Read These Tables

The Lands for Public Purposes Element's goals and policies are not in priority order.

Appendix A provides a list of the draft implementation actions by goal and policy that will be considered when developing annual work programs for implementing the Lands for Public Purposes Element's goals and policies.

1) Department Leads

Implementation of the Lands for Public Purposes Element's policies are associated with six different Tumwater departments:

CDD Community Development

PRD Parks, Recreation, and Facilities

TED Transportation & Engineering

TFD Fire

TPD Police

WRS Water Resources & Sustainability

2) Period

Each of the Lands for Public Purposes Element's policies is associated with estimated start dates, length of time to complete, and target completion dates, if appropriate based on adequate funding for staff and resources. Most policies are ongoing with no set target completion date.

B. Growth Management Goals

Goal LPP-1 Provide necessary and efficient services to Tumwater and its Urban Growth Area.

Goal LPP-1 is intended to ensure that Tumwater meets the Washington State Growth Management Act requirements for providing capital facilities required by growth at the time development occurs.

1) Why is this Goal Important?

Between 2020 and 2045, the population of Tumwater and its urban growth area is projected to increase by 21,969 people and 10,736 new jobs are expected to be added.

As new developments in Tumwater occur to meet this population and employment growth, services provided by Tumwater and other public service providers will need to keep pace.

In conjunction with the six-year Capital Facilities Plan, the purpose of the Lands for Public Purposes Element is to use sound fiscal policies to provide adequate public facilities that are consistent with Tumwater's Land Use, Climate, Housing, and Utilities Elements and Economic Development, Parks, Recreation, and Open Space, and Transportation Plans as well as

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concurrent with, or prior to, the impacts of development to achieve and maintain adopted standards for levels of service during the twenty-year time frame of the Comprehensive Plan.

	Policies	Lead	Period
LPP-1.1	**Ensure that there is an adequate provision and equitable distribution of capital facilities and associated public services to address public health, safety, and quality of life in Tumwater.**	CDD PRD TED TFD TPD WRS	Term of the Plan
LPP-1.2	**Make capital facilities investments that address disparities and implement Tumwater's strategy for accommodating new development.**	CDD PRD TED WRS	Term of the Plan
LPP-1.3	**Update Tumwater's six-year Capital Facility Plan on a biannual basis to ensure that capital facility projects are scheduled, and funding is identified.**	CDD PRD TED WRS	Term of the Plan
LPP-1.4	**Ensure concurrency with Tumwater, Thurston County, and regional plans to provide the most efficient array of services.**	CDD PRD TED WRS	Term of the Plan
LPP-1.5	**Coordinate with Thurston Regional Planning Council, Thurston County, and other public service providers to identify areas of shared need for facilities.**	CDD PRD TED WRS	Term of the Plan
LPP-1.6	**Direct the timing and location of development with the provision of adequate facilities and services within Tumwater's urban growth area, through periodic updates to the Tumwater and Thurston County Joint Plan and associated regulations.**	CDD PRD TED WRS	Term of the Plan

Goal LPP-2 Support improvements in the provision of public services.

Goal LPP-2 is intended to ensure coordination between Tumwater, its departments, and other public agencies providing capital facilities that support the growth projections of this Plan and to look for ways to improve how those services are provided.

1) Why is this Goal Important?

As the demand in Tumwater for more and varied community facilities and services increases with new development, the provision of the services

that support those capital facilities will need to improve over time as well.

Policies		Lead	Period
LPP-2.1	Work with regional partners to expand and improve Tumwater's multimodal transit network in conjunction with the Transportation and the Parks, Recreation, and Open Space Plans.	CDD PRD TED	Term of the Plan
LPP-2.2	Incorporate environmental quality in capital improvement programs, implementation programs, and public facility designs to ensure that local land use management and public service provision protects and enhances natural resources.	CDD PRD TED WRS	Term of the Plan
LPP-2.3	Work cooperatively with school districts to plan for school facilities to meet existing and future community needs consistent with adopted Comprehensive Plan policies and growth forecasts, including siting and designing schools to support walkable access and to best serve their communities.	CDD	Term of the Plan
LPP-2.4	Support process and technological advancements to improve Tumwater services.	CDD PRD TED WRS	Term of the Plan
LPP-2.5	Ensure that appropriate funding sources are available to acquire or bond for the provision of needed public services and facilities and explore new funding sources to meet service and facility needs.	CDD PRD TED WRS	Term of the Plan
LPP-2.6	Establish, maintain, and strengthen community relationships through direct contact opportunities, outreach, community awareness, education, and volunteer programs.	CDD PRD TED TFD TPD WRS	Term of the Plan

Appendix A Draft Implementation Actions

Each of the Lands for Public Purposes Element goals and policies in Chapter 4 will require Tumwater to take specific actions to implement over the course of the 20 year term of the Comprehensive Plan.

The draft implementation actions in the tables below were developed in coordination with the stakeholders, the community, and Tumwater staff. The draft implementation actions in the tables below are intended to serve as the building blocks for developing the annual Tumwater work programs that will implement the goals and policies of the Lands for Public Purposes Element.

The draft implementation actions will need further refinement before they are incorporated into annual Tumwater work programs.

As the Comprehensive Plan is put into action over the next twenty years, the draft implementation actions will change as new, unforeseen opportunities emerge: new ones may be added, proposed ones may be modified or replaced by other actions.

1. How to Read These Tables

The Lands for Public Purposes Element goals, policies, and the draft implementation actions associated with them are not in priority order.

Draft implementation actions that can only be undertaken by other entities are not included in this plan.

a) Department Leads

Implementation of the Lands for Public Purposes Element's policies and implementation actions are associated with six different Tumwater departments:

CDD Community Development

PRD Parks, Recreation, and Facilities

TED Transportation & Engineering

TFD Fire

TPD Police

WRS Water Resources & Sustainability

b) Period

Each of the Lands for Public Purposes Element's policies and the draft implementation actions are associated with estimated start dates, length of time to complete, and target completion dates, if appropriate based on adequate funding for staff and resources. Most policies are ongoing with no set target completion date.

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Goal LPP-1 Provide necessary and efficient services to Tumwater and its Urban Growth Area.

Policies and Implementation Actions		Lead	Period
LPP-1.1	**Ensure that there is an adequate provision and equitable distribution of capital facilities and associated public services to address public health, safety, and quality of life in Tumwater.**	CDD PRD TED TFD TPD WRS	**Term of the Plan**
LPP-1.1.1	Periodically review the Lands for Public Purposes and Land Use Elements together to ensure public services and capital facility needs, financing, and levels-of-service are consistent and adequate to meet growth targets and service needs.	CDD PRD TED TFD TPD WRS	Every Five Years for the Term of the Plan
LPP-1.1.2	Support environmental quality in capital improvement programs, implementation programs, and public facility designs to ensure that public service provision protects natural resources.	CDD PRD TED WRS	Term of the Plan
LPP-1.1.3	Support water conservation messaging and outreach.	WRS	Term of the Plan
LPP-1.1.4	Work with LOTT to convert existing septic systems to sewer.	CDD TED	Term of the Plan
LPP-1.2	**Make capital facilities investments that address disparities and implement Tumwater's strategy for accommodating new development.**	CDD PRD TED WRS	**Term of the Plan**
LPP-1.2.1	Use the New Capital Facilities Projects Equity Checklist when planning for capital facilities.	CDD	**Term of the Plan**
LPP-1.3	**Update Tumwater's six-year Capital Facility Plan on a biannual basis to ensure that capital facility projects are scheduled, and funding is identified.**	CDD PRD TED WRS	**Term of the Plan**
LPP-1.3.1	To ensure financial feasibility, provide needed public services and facilities that Tumwater has the ability to fund or has the authority to require others to provide.	CDD PRD TED WRS	**Term of the Plan**

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Policies and Implementation Actions		Lead	Period
LPP-1.4	**Ensure concurrency with Tumwater, Thurston County, and regional plans to provide the most efficient array of services.**	CDD PRD TED WRS	Term of the Plan
LPP-1.5	**Coordinate with Thurston Regional Planning Council, Thurston County, and other public service providers to identify areas of shared need for facilities.**	CDD PRD TED WRS	Term of the Plan
LPP-1.5.1	Review of capital facilities plans by other public agencies to ensure consistency with the Comprehensive Plan.	CDD	Term of the Plan
LPP-1.6	**Direct the timing and location of development with the provision of adequate facilities and services within Tumwater's urban growth area, through periodic updates to the Tumwater and Thurston County Joint Plan and associated regulations.**	CDD PRD TED WRS	Term of the Plan

Goal LPP-2 Support improvements in the provision of public services.

Policies and Implementation Actions		Lead	Period
LPP-2.1	**Work with regional partners to expand and improve Tumwater's multimodal transit network in conjunction with the Transportation and the Parks, Recreation, and Open Space Plans.**	CDD PRD TED	Term of the Plan
LPP-2.2	**Incorporate environmental quality in capital improvement programs, implementation programs, and public facility designs to ensure that local land use management and public service provision protects and enhances natural resources.**	CDD PRD TED WRS	Term of the Plan
LPP-2.2.1	Decrease waste production in Tumwater services.	CDD PRD TED WRS	Term of the Plan

Policies and Implementation Actions	Lead	Period
LPP-2.2.2 Promote reuse, composting, and recycling to minimize solid waste production in Tumwater.	CDD PRD TED WRS	Term of the Plan
LPP-2.2.3 Reduce non-essential water use and promote the use and expansion of reclaimed water.	WRS	Term of the Plan
LPP-2.3 Work cooperatively with school districts to plan for school facilities to meet existing and future community needs consistent with adopted Comprehensive Plan policies and growth forecasts, including siting and designing schools to support walkable access and to best serve their communities.	CDD	**Term of the Plan**
LPP-2.3.1 Collaborate with school districts on using school facilities for open space, recreation, community space, and partnership opportunities.	PRD	Term of the Plan
LPP-2.4 Support process and technological advancements to improve Tumwater services.	CDD PRD TED WRS	**Term of the Plan**
LPP-2.4.1 Maintain or improve annually calculated average response times to emergencies, where potential loss of life or confirmed hazards exist.	TFD TPD	Term of the Plan
LPP-2.5 Ensure that appropriate funding sources are available to acquire or bond for the provision of needed public services and facilities and explore new funding sources to meet service and facility needs.	CDD PRD TED WRS	**Term of the Plan**
LPP-2.5.1 Give funding priority to capital facility projects that are consistent with the Land Use Element, support housing and employment growth targets, promote public health, and demonstrate a commitment to equity by addressing the needs of underserved communities, ensuring equitable distribution of benefits.	CDD PRD TED WRS	Term of the Plan

Policies and Implementation Actions		Lead	Period
LPP-2.6	**Establish, maintain, and strengthen community relationships through direct contact opportunities, outreach, community awareness, education, and volunteer programs.**	**CDD PRD TED TFD TPD WRS**	**Term of the Plan**
LPP-2.6.1	Establish and maintain direct contact and open communication pathways between representatives of the Police and Fire Departments and residents, community groups, schools, business operators, local media, and human services providers.	**TFD TPD**	Term of the Plan

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Lands for Public Purposes Element

Part 2 – Technical Information

Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 6, 2025

December 2025

Ordinance No. O2025-010

CITY OF TUMWATER

Lands for Public Purposes Element

Part 2 – Technical Information

Table of Contents

1. Introduction 5
A. Purpose 5
B. How to Read this Part of the Element 6
C. Growth Management Act Requirements 6
D. Definition of Capital Facilities 7
E. Levels of Service 8
F. Sources and Assumptions 8
G. Foundational Documents 8
H. Growth and Land Use 9
I. Urban Growth Area 11
J. Equity Principles 11
2. Capital Facilities Review Analysis 12
A. Overview 12
B. Funding the Lands for Public Purposes Element 12
C. Assumptions 12
D. General Capital Revenues 13
E. Dedicated Capital Revenues 14
F. Other Revenues Used for Capital Facilities 15
H. Policy Options and Other Funding Sources 18
3. Tumwater Managed Capital Facilities and Services 20
A. Introduction 20
B. City Buildings 20
C. Fire and Emergency Medical Services 21
D. Parks and Recreation Facilities 26
E. Police Services 28
F. Stormwater Systems and Facilities 31
G. Transportation System 33
H. Water Systems and Facilities 36
4. Other Publicly Operated Capital Facilities and Services 39

DRAFT

A. Introduction 39
K. Library Services 39
C. School Facilities 40
D. Sewage Treatment Facilities and Sanitary Sewer System 43
E. Solid Waste Management 45
F. Transit Services 48
Appendix A Foundational Documents 51
Appendix B New Capital Projects Equity Checklist 54

List of Tables

Table LPP-1. Growth Targets for Combined Tumwater and Urban Growth Area, 2020-2045. 9
Table LPP-2. Total Housing Units Needed by Income Level and Emergency Housing Beds (2020-2045). 10
Table LPP-3. Tumwater and Urban Growth Area Population Growth Projections. 10
Table LPP-4. Actual, Budgeted, and Projected REET Revenues, 2019-2045. 14
Table LPP-5. 2023 Schedule of Revenues, Expenditures and Changes in Fund Balance, Tumwater Transportation Benefit District. 16
Table LPP-6. Future Estimated Projections, Tumwater Transportation Benefit District. 16
Table LPP-8. Tumwater Fire Department Projects, 2024-2029. 25
Table LPP-9. Parks Planned Projects in Tumwater. 27
Table LPP-10. Planned Stormwater Projects, Costs, and Revenues in Tumwater. 32
Table LPP-11. Planned Transportation Projects, Costs, and Revenues in Tumwater. 35
Table LPP-12. Planned Water System Projects, Costs, and Revenues in Tumwater. 37
Table LPP-13- Tumwater School District Inventory, 2024. 41
Table LPP-14. Tumwater School District Enrollment Forecast, 2024. 42
Table LPP-15. Planned Sanitary Sewer Projects, Costs, and Revenues in Tumwater. 45
Table LPP-16. Foundational Documents for the Lands for Public Purposes Element. 51

DRAFT

List of Figures

Figure LPP-1. Future Estimated Projections, Tumwater Transportation Benefit District. 17

List of Maps

Map LPP-1. City Facilities

Map LPP-2. Fire Districts

Map LPP-3. School Facilities

Map LPP-4. Sewage Treatment Facilities and Sanitary Sewer Systems

Map LPP-5. Stormwater Systems and Facilities

Map LPP-6. Water Systems and Facilities

Abbreviations Used in Document

REET – Real Estate Excise Tax

TMC – Tumwater Municipal Code

DRAFT

1. Introduction

A. Purpose

As population grows and community expectations change, existing facilities can become obsolete and the demand for more and varied community facilities and services provided by Tumwater increases.

In conjunction with the six-year Capital Facilities Plan, the Lands for Public Purposes Element is intended to use sound fiscal policies to provide adequate public facilities that are consistent with the other Elements as well as concurrent with or prior to the impacts of development to achieve and maintain adopted levels of service standards during the 20-year time frame of Tumwater's Comprehensive Plan.

The Lands for Public Purposes Element identifies issues and policies needed to support forecasted population and employment growth of Tumwater over the next 20 years and ensures that the provision of essential public facilities is coordinated with the overall Comprehensive Plan and with delivery of essential public facilities region-wide.

Lands for Public Purposes include buildings, equipment, and governmental services provided public agencies for the community. It addresses those facilities and lands that are owned, operated, or franchised by Tumwater or another general or special purpose local government. The Element addresses lands for public purposes in both Tumwater and its urban growth area.

Because capital facilities are significant projects for Tumwater and other agencies to fund, build, and maintain, the earlier Tumwater can plan for its needs the better it can meet its needs.

Capital Facilities

State requirements (WAC 365-196-415) that the Comprehensive Plan must meet:

- Address capital facilities owned or managed by Tumwater, such as buildings; parks, open space, and recreation facilities; police, fire, and emergency medical services; and stormwater, transportation, and water systems and facilities.
- Address capital facilities owned or managed by other public agencies, such as library, school, sanitary sewer and sewage treatment, solid waste, and transit systems and facilities.
- Identify new and expanded capital facilities necessary for growth over the twenty-year life of the Comprehensive Plan.
- Include an inventory, forecast of future needs based on the Land Use Element, locations, and capacities of expanded or new facilities.
- Include a six-year plan that will finance such capital facilities within projected funding capacities and clearly identify sources of public money for such purposes.
- Reassess the Land Use Element if probable funding falls short of meeting existing needs.

B. How to Read this Part of the Element

Part 2 of the Lands for Public Purposes Element consists of the following chapters.

- **Chapter 1 – Introduction:** Discusses the State requirements for the Element, definitions used in the document, sources of information, levels of services, growth and land use projections, Tumwater's urban growth area, and equity principles in capital facility planning.
- **Chapter 2 – Capital Facilities Review Analysis**: Provides a summary of Tumwater's funding for current and future public services and facilities for development.
- **Chapter 3 – Tumwater Managed Capital Facilities and Services**: Provides an overview of all the Tumwater managed capital facilities and services a summary of critical areas in Tumwater.
- **Chapter 4 – Other Publicly Managed Capital Facilities and Services**: Provides an overview of all the capital facilities and services managed by other public agencies that serve development in Tumwater.
- **Appendix A – Foundational Documents**: Provides a list of the documents used to create the Lands for Public Purposes Element's Technical Summary.
- **Appendix B – New Capital Facilities Equity Checklist:** Contains the New Capital Facilities Equity Checklist to be used in preparation of Tumwater's six-year Capital Facilities Plans

C. Growth Management Act Requirements

The Washington State Growth Management Act requires that the Lands for Public Purposes Element and its associated six-year Capital Facilities Plan include:

a. An inventory of existing capital facilities owned by public entities, including green infrastructure, showing the locations and capacities of the capital facilities;

b. A forecast of the future needs for such capital facilities;

c. The proposed locations and capacities of expanded or new capital facilities;

d. A six-year plan that will finance such capital facilities within projected funding capacities and clearly identify sources of public money for such purposes; and

e. A requirement to reassess the Land Use Element if probable funding falls short of meeting existing needs and to ensure that the Land Use Element, Lands for Public Purposes Element, and financing plan within the Lands for Public Purposes Element are coordinated and consistent. [RCW 36.70A.070(3)]

In addition, in 2023 the state amended the requirements for capital facilities in the Growth Management Act to require that Tumwater do the following:

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"…identify all public entities that own capital facilities and endeavor in good faith to work with other public entities, such as special purpose districts, to gather and include within its capital facilities element the information required by this subsection. If, after a good faith effort, the county or city is unable to gather the information required by this subsection from the other public entities, the failure to include such information in its capital facilities element cannot be grounds for a finding of noncompliance or invalidity under chapter 228, Laws of 2023. A good faith effort must, at a minimum, include consulting the public entity's capital facility or system plans and emailing and calling the staff of the public entity."

Recent Growth Management Hearings Board cases have placed greater importance on the preparation and implementation of the Lands for Public Purposes Element. The key points include:

- The Element should address the 20-year planning period and be consistent with growth allocations assumed in the Land Use Element.
- The Element should demonstrate the ability to serve Tumwater and its urban growth area.
- The funding sources in the six-year Capital Facilities Plan should be specific and committed. Tumwater should provide anticipated funding sources for the 20-year period though it can be less detailed than for the six-year period.
- Growth, levels of service standards, and a funded capital improvement program must be in balance. In cases where the levels of service standards cannot be met by a service or facility, Tumwater could do one of the following:
    1) Add proposed facilities within funding resources;
    2) Reduce demand through demand management strategies;
    3) Lower levels of service standards;
    4) Phase growth, or
    5) Amend the Land Use Element.

D. Definition of Capital Facilities

Capital facilities have a long useful life and include Tumwater and other publicly operated infrastructure, buildings, and equipment. The planning for lands for public purposes does not cover regular operation and maintenance, but it does include major repair, rehabilitation, or reconstruction of capital facilities.

The Lands for Public Purposes Element and its associated six-year Capital Facilities Plan addresses infrastructure, such as streets, roads, traffic signals, sewer, stormwater, and water systems, parks, and public facilities through which services are provided, such as fire protection facilities and major equipment, law enforcement facilities, or schools.

According to WAC 365-196-415, at a minimum, the capital facilities required to be included in the Lands for Public Purposes Element inventory and analysis are water, sewer, and stormwater systems, schools, parks and recreation facilities,

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and police and fire facilities. The Element also includes City buildings, transportation facilities, and library, solid waste management, and transit services.

E. Levels of Service

Levels of service are established in the Lands for Public Purposes Element and represent quantifiable measures of capacity. They are the minimum standards established by Tumwater to provide capital facilities and services to the community at a certain level of quality and within the financial capacity of Tumwater or other public providers.

Levels of service standards are influenced by the local community, elected and appointed officials, national standards, mandates, and other considerations, such as available funding.

Examples of levels of service measures include the amount of intersection delay, acres of parks or miles of trails per 1,000 population, gallons of water per capita per day, and so forth. Those facilities and services necessary to support growth should have levels of service standards and facilities.

F. Sources and Assumptions

The Lands for Public Purposes Element is based on the following sources of information and assumptions:

- **Capital Facility Functional or System Plans.** Capital facility functional or system plans of Tumwater or other service providers were reviewed for inventories, levels of service, planned facilities, growth forecasts, and potential funding.
- **Growth Forecasts.** Population and job growth forecasts were allocated to Tumwater through the Countywide Planning Policies for Thurston County. The 2024 population as well as population growth for each facility provider is estimated.
- **Revenue Forecasts.** Revenues were forecasted to 2045 using the current budgeted revenues and historical information. The sources of revenue are taken from Tumwater's current budget document and prior six-year Capital Facilities Plans.

G. Foundational Documents

The Lands for Public Purposes Element incorporates by reference the following system plans. These documents are summarized where appropriate in the Element. For full context, please see the following plans:

- Comprehensive Stormwater Management Plan (2018)
- Parks, Recreation, and Open Space Plan (2008 and 2016)
- Police Strategic Growth Plan (2025-2029)
- Sanitary Sewer Comprehensive Plan (2015)

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- Strategic Plan, City of Tumwater Fire Department (2024)
- Thurston County Solid Waste Management Plan 2021-2026, Thurston County (2021)
- Transportation Plan (2025)
- Water System Plan (2021)

A complete list of all plans that form the basis for the Lands for Public Purposes Element is found in Appendix A: *Foundational Documents*.

H. Growth and Land Use

The planning area for the Lands for Public Purposes Element is Tumwater and its urban growth area. Capital facilities are proposed to serve growth in Tumwater and its urban growth area.

1) Growth Targets and Projections

To determine needs and system capacities for lands used for public purposes over the 20-year planning period, it is necessary to project the future population of Tumwater and its urban growth area.

In conjunction with Thurston County and Lacey, Olympia, Tenino, and Yelm, Tumwater contracted with the Thurston Regional Planning Council to complete a countywide housing need allocation and a land capacity analysis in April 2025.[1] The Thurston Regional Planning Council completed a countywide employment forecast in November 2019.[2]

Tables LPP-1 and LPP-2 shows the growth targets for Tumwater and its urban growth area based on Tumwater's housing need allocation and employment forecast from 2020 to 2045. Table LPP-3 shows the population growth projection in Tumwater and its urban growth area from 2020 to 2045.

Table LPP-1. Growth Targets for Combined Tumwater and Urban Growth Area, 2020-2045.

Target Type	Growth Target for 2045
Employment	10,730 total new jobs
Housing	9,192 total new housing units

Source: Thurston Regional Planning Council, Employment Estimates and Forecast by Jurisdiction and Sector and Planning for and Accommodating Housing Needs in Thurston County: Implementing the Housing Affordability Requirements of HB 1220, 2019 and 2025.

[1] *Planning for and Accommodating Housing Needs in Thurston County: Implementing the Housing Affordability Requirements of HB 1220,* Thurston Regional Planning Council, April 2025

[2] *Employment Forecast Allocations for Thurston County*, Thurston Regional Planning Council, November 2019.

Table LPP-2. Total Housing Units Needed by Income Level and Emergency Housing Beds (2020-2045).

Income Level or Emergency Housing	Tumwater & its Urban Growth Area
0-30% Permanent Supportive Housing	723 new housing units
0-30% Other	1,736 new housing units
30-50%	1,309 new housing units
50-80%	1,926 new housing units
80-100%	1,140 new housing units
100-120%	798 new housing units
120%	1,561 new housing units
Emergency Housing	184 new beds

Source: Thurston Regional Planning Council, Employment Estimates and Forecast by Jurisdiction and Sector and Planning for and Accommodating Housing Needs in Thurston County: Implementing the Housing Affordability Requirements of HB 1220, 2019 and 2025.

Table LPP-3. Tumwater and Urban Growth Area Population Growth Projections.

Type	Number
Housing Units (2020-2045)	9,192
Population (2020)[3]	28,707
Projected Population Increase (2020-2045)	17,363
Projected Population (2045)	46,070

Source: Thurston Regional Planning Council, 2025.

Note that the population growth projection of Tumwater and its urban growth area of 21,969 in Table LPP-3 exceeds the population growth anticipated population increase of Tumwater and its urban growth area of 17,363 found in the *Population and Employment Forecast for Thurston County Final Report* prepared by the Thurston Regional Planning Council in 2018.

For the purposes of the 2025 Comprehensive Plan, the higher 2024 population growth projection based on the state housing allocation in Table LPP-3 will be used for planning purpose in the Comprehensive Plan and the Lands for Public Purposes Element.

2) Land Use Alternatives

In its Land Use Element, Tumwater examined different land use alternatives to meet its responsibilities to meet population and employment targets and to plan for new housing types and targets by affordability.

[3] 2020 Population includes the Census calibrated numbers both within Tumwater (25,573) and its urban growth area (3,134).

I. Urban Growth Area

Section II of the Thurston County County-Wide Planning Policies contain specific guidelines and policies for the provision of urban services within the urban growth area. These policies are adopted by reference and are included in their entirety in Appendix B: *Thurston County County-Wide Planning Policies* of the Land Use Element.

County-wide policies guide the development and provision of lands for public purposes within Tumwater's urban growth area. These policies are implemented through the joint planning process for those areas in Tumwater's urban growth area. Tumwater coordinates with the Thurston Regional Planning Council and Thurston County along with other service providers to identify areas of shared need for public facilities.

J. Equity Principles

Capital facilities planning ensures that public infrastructure like roads, utilities, and schools, which are vital for housing and overall community development, are adequately planned and maintained.

This planning also considers how capital improvements support new housing development as envisioned in the Housing Element. Throughout the process of capital facility planning and implementation, Tumwater will consider and act upon principles of diversity, equity, and inclusion to strengthen equity in housing and reduce health disparities.

To help this, the New Capital Projects Equity Checklist found in Appendix B is designed to provoke thoughtfulness around equity and lay groundwork for planners and decision-makers to act on these considerations as capital projects are developed.

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2. Capital Facilities Review Analysis

A. Overview

The revenue analysis of the Lands for Public Purposes Element supports the financing for providing facilities and services, as required by RCW 36.70A.070(3)(d). Revenue estimates, using assumptions that are based on historical trends, are used to represent realistic expectations for revenue that may be available for capital funding.

This revenue analysis looks at Tumwater's capital facility revenues for municipal services. Through identifying fiscal constraints in the future, and potential gap funding options, project prioritization can be incorporated into the capital planning process.

The revenue analysis provides an approximate forecast of future revenue sources. The numbers projected in this analysis are for planning purposes and do not account for sensitivities such as local, state, and federal policy, economic trends, and other factors.

B. Funding the Lands for Public Purposes Element

Estimated future revenues are projected for the Plan's 2026 – 2045 planning period, in year of expenditure dollars. The following revenue analysis is organized according to the following categories:

- **General Capital Revenues**. Revenues under the category of general capital revenues are the revenues required by law to be used for capital projects. The general capital revenues in Tumwater consist of two types of Real Estate Excise Tax: REET 1 and REET 2.
- **Dedicated Capital Revenues**. Dedicated revenues are required to be used for certain types of capital spending, outlined by the law. The dedicated capital revenues in Tumwater include park mitigation fees and grants.
- **Operating Revenues**. Tumwater allocates operating revenues when available to capital projects, which are transferred into capital funds. The operating revenues are vehicle license fees, revenues collected in the City Street Fund such as motor vehicle fuel tax, and surface water management fees.
- **Potential Policy Options and Other Funding Sources**. There are additional policy tools and sources available to fund capital projects.

C. Assumptions

The assumptions used in this analysis may not align with Tumwater's future budget assumptions around the same revenue sources as the purpose of the two analyses is different. Tumwater's budget estimates how much money it will have available for spending in the coming fiscal year, while the Lands for Public Facilities Element revenue analysis is an estimate how

DRAFT

much revenue specifically allocated to capital projects that Tumwater is likely to receive in total over the next 20 years.

The 2026-2031 Capital Facilities Plan identifies revenue sources for capital projects in that six-year timeframe. Revenues are projected for 2031 to 2045 using various methodologies, depending on trends in historical revenues and best available information. These methodologies are as follows:

- Projecting revenues based on an annual percent increase.
- Projecting revenues based on a constant historical value.
- Projecting revenues based on existing revenue projections.

D. General Capital Revenues

1) REET 1 and 2

Real Estate Excise Tax revenues are collected on property sales at the point of sale. They are required by law to be spent on capital projects.

REET 1 is a 0.25% real estate excise tax (RCW 82.046.010), and REET 2 is an additional 0.25% real estate excise tax (RCW 82.046.035). These two types of revenue sources are used primarily for specific types of capital facilities.

Tumwater is authorized by the state to impose two separate REET levies. REET 1 and REET 2 each allow for a levy of 0.25% on the assessed value of a sale, for a total tax of 0.5% of the total assessed value. All proceeds must be used for capital spending, as defined in RCW 35.43.040.

REET 2 has more restrictions than REET 1, as it may not be spent on acquisition of land for parks, recreation facilities, law enforcement facilities, fire protection facilities, trails, libraries, or administrative or judicial facilities (RCW 82.46.035). REET 2, specifically, can only be levied by those cities and counties that are required to plan under the Growth Management Act. For REET 2, the capital projects must be those specifically listed in RCW 82.46.035(5):

Public works projects of a local government for planning, acquisition, construction, reconstruction, repair, replacement, rehabilitation, or improvement of streets, roads, highways, sidewalks, streets and road lighting systems, traffic signals, bridges, domestic water systems, storm and sanitary sewer systems, and planning, constructions, reconstruction, repair, rehabilitation, or improvement of parks.

Within the parameters defined by law, REET 1 and REET 2 can be spent at the discretion of Tumwater.

Real Estate Excise Tax revenue is based on the total value of real estate transactions each year, and the amount received annually can vary based on fluctuations in the real estate market and trends in the economy. This analysis assumes that total REET revenue will increase annually by the ten-year historical average inflation rate of 18.06 percent.

Tumwater receives REET revenues in the General Government Capital Facilities Plan, Fund 304. Revenues collected in this fund are used to cover Tumwater's debt service and to fund capital projects. This fund supports both Parks,

DRAFT

Recreation, and Open Space capital projects and Transportation capital projects.

Table LPP-4 shows total REET revenue collections and the amount available for capital after the annual debt service amount. This may not align with the amount transferred annually to the Public Works Reserve Fund, which is based on annual project needs. The annual amount for debt service is currently zero. However, Tumwater intends to use debt financing for two large projects in the near future.

Table LPP-4. Actual, Budgeted, and Projected REET Revenues, 2019-2045.

Year	Revenue Collected	Year	Revenue Collected
2019	$1,336,386	**2033**	$6,242,923
2020	$1,671,140	**2034**	$7,370,394
2021	$2,534,458	**2035**	$8,701,488
2022	$2,489,318	**2036**	$10,272,976
2023	$1,102,382	**2037**	$12,128,276
2024	$1,401,080	**2038**	$14,318,642
2025	$1,654,115	**2039**	$16,904,589
2026	$1,952,848	**2040**	$19,957,558
2027	$2,305,533	**2041**	$23,561,893
2028	$2,721,912	**2042**	$27,817,171
2029	$3,213,489	**2043**	$32,840,952
2030	$3,793,845	**2044**	$38,772,027
2031	$4,479,014	**2045**	$45,774,256
2032	$5,287,924		

Source: City of Tumwater, Finance Department.

E. Dedicated Capital Revenues

1) Metropolitan Park District

Voters approved the Tumwater Metropolitan Park District and a new property tax per $1,000 of assessed value on November 6, 2018. The City Council established a new dedicated fund for it with Ordinance No. O2019-030 on November 4, 2019.

The Park District allows Tumwater to consider further open space acquisition, the establishment of new parks, expanded recreation programs, and the possibility of a recreation facility in Tumwater. The district was formed according to state law and is a legal entity separate from Tumwater. Tumwater has financial and operational responsibility, and the governing body of Tumwater and Park District are the same.

Tumwater's Capital Facilities Plan assumes these revenues will be collected in 2026 to 2045. Tumwater Metropolitan Park District property

tax revenue from 2026 to 2045 is projected to increase one percent annually, due to the statutory limits on the growth of the total property tax levy. This is less than the estimated future inflation rate.

2) Park Mitigation Fees

Park mitigation fees are restricted for the establishment of parks, open spaces, and recreational facilities to serve the expanding population of Tumwater. These revenues are collected in the Public Works Reserve Fund and transferred to the Parks and General Government Capital Fund. Future park mitigation fee revenues are dependent on development and the issuance of building permits.

3) Transportation Grants

Tumwater receives federal and state grants to support transportation projects. For this analysis, large grants Tumwater has received are excluded as these as not reflective of long-term trends.

F. Other Revenues Used for Capital Facilities

1) Transportation Benefit District Fees

The Tumwater Transportation Benefit District was authorized on September 16, 2014, by Ordinance No. 02014-019. It was created in accordance with state law to provide a source of funding for the maintenance and preservation of streets and related infrastructure, ordinarily a general government activity and reported in the General Fund. Voters approved the Transportation Benefit District sales and use tax on April 28, 2015. It is a legal entity separate from Tumwater. Tumwater has financial and operational responsibilities, and the City Council and governing body of Tumwater's Transportation Benefit District are the same.

The Transportation Benefit District levies a Sales and Use Tax of 0.2% annually. The funds are used primarily to pay for street overlay capital projects and to leverage future Transportation Benefit District funds as local match when applying for federal funds.

Tumwater transfers a portion of this revenue to the Transportation Capital Fund.

Table LPP-6 and Figure LPP-1 show total Transportation Benefit District revenue, and the amount allocated to capital projects. The actual amounts represent Transportation Benefit District revenue that was transferred to the Transportation Capital Fund. Estimates for 2026-2031 are based on the 2026-2031 Capital Improvement Plan.

Projections for 2031-2045 assume total Transportation Benefit District revenue increases by 1.04 percent annually, which is the average increase in total Transportation Benefit District revenue from 2025 to 2035. This is less than the historical inflation to reflect actual prior collections and to acknowledge that this revenue source is likely to grow slowly in the future.

The revenue for capital shown in Table LPP-5 below reflects the revenue that would be available after paying debt service obligations. The current debt service obligation for the

Transportation Benefit District fund ends in 2025. At its regular meeting on January 21, 2025, the City Council approved placing a ballot proposition to renew the Transportation Benefit District in the April 22, 2025, special election.

Table LPP-5. 2023 Schedule of Revenues, Expenditures and Changes in Fund Balance, Tumwater Transportation Benefit District.

Category	Dollar Amount
Revenues	
TBD Sales and Use Tax, 0.2%	$2,444,966
Investment Earning	$244,994
Total Revenues	$2,689,960
Expenditures	
Administration & Financial Services Support	$10,190
Planning and Design	$82,468
Studies	$0
Construction	$4,564,727
Total Expenditures	$4,657,385
Summary	
Net Changes in Fund Balance	$(1,967,425)
Beginning Fund Balance	$6,052,975
Ending Fund Balance	$4,085,550

Source: Tumwater Capital Facilities Plan, 2024-25.
Note: Year Ended December 31, 2023

Table LPP-6. Future Estimated Projections, Tumwater Transportation Benefit District.

Year	Growth Factor	Revenues Collected	Interest Income	Total
2015	N/A	$172,832		
2016	N/A	$1,330,141		
2017	1.15	$1,527,623		
2018	1.11	$1,689,394		
2019	1.12	$1,884,231		
2020	1.32	$2,487,732		
2021	0.91	$2,272,587		
2022	1.14	$2,598,601		
2023	1.04	$2,689,960		
2024	0.96	$2,580,654		
2025	1.04	$2,529,032	$50,581	$1,289,807

Lands for Public Purposes Element

Part 2 – Technical Information

Year	Growth Factor	Revenues Collected	Interest Income	Total
2026	1.04	$2,630,194	$52,604	$2,682,798
2027	1.04	$2,735,402	$54,708	$2,790,110
2028	1.04	$2,844,818	$56,896	$2,901,714
2029	1.04	$2,958,610	$59,172	$3,017,783
2030	1.04	$3,076,955	$61,539	$3,138,494
2031	1.04	$3,200,033	$64,001	$3,264,034
2032	1.04	$3,328,034	$66,561	$3,394,595
2033	1.04	$3,461,156	$69,223	$3,530,379
2034	1.04	$3,599,602	$71,992	$3,671,594
2035	1.04	$3,743,586	$74,872	$1,909,229
	Total 2025-2035	**$34,107,421**	**$682,148**	**$31,590,534**

Source: Tumwater Transportation & Engineering Department.

Note: Assumptions:

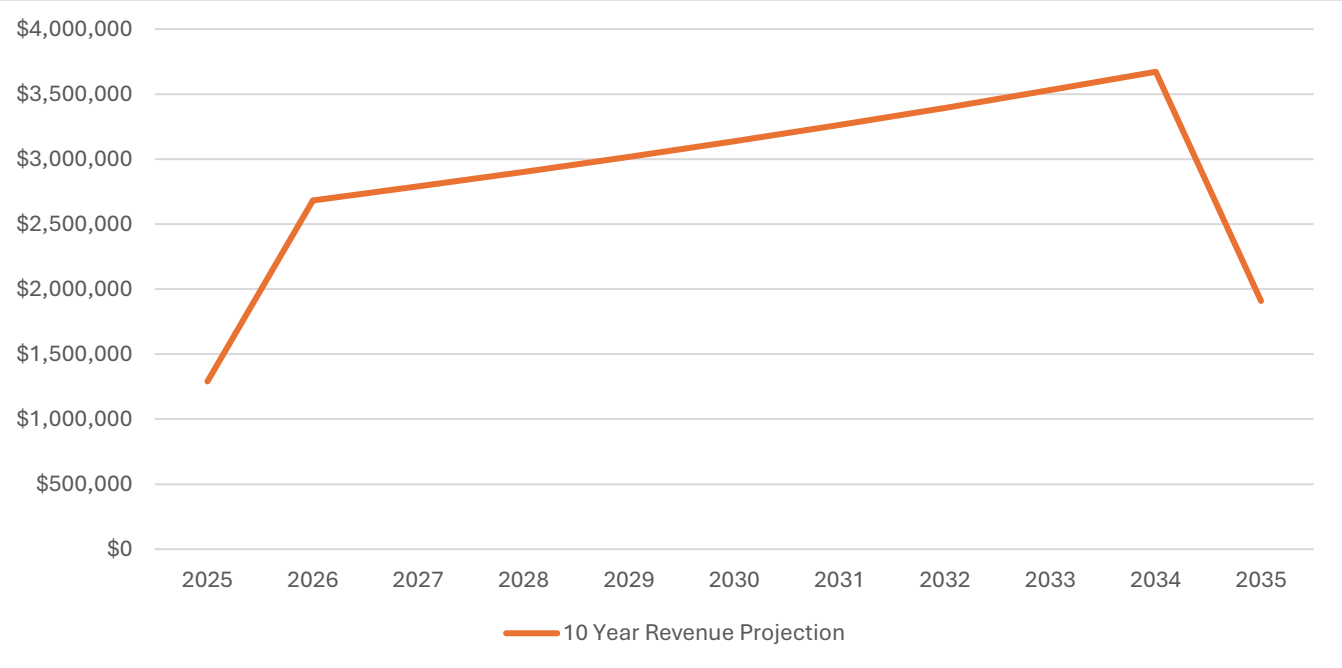
Interest Income – Assume conservative 2%.

Growth Factor – Assume conservative 3%.

Half year collections in 2025 and 2035 due to timing of 2025 election and 10 year expiration mid-2035.

Growth Factor in 2025 based on 2023 actuals so use 4% for two years.

Figure LPP-1. Future Estimated Projections, Tumwater Transportation Benefit District.



Source: Tumwater Transportation & Engineering Department.

2) Street Fund Revenues

The City's Street Fund is used to collect motor vehicle fuel tax, which is a dedicated state-shared revenue restricted for street maintenance, and other revenue sources that are not restricted. Tumwater transfers a portion of this fund to the Transportation Capital Improvement Program Fund annually.

3) Surface Water Management Fees

Tumwater collects fees to maintain and improve Tumwater's storm drainage system. These fees are collected in the Surface Water Management Fund. Funds are transferred from the Surface Water Management Fund to the Surface Water Management Capital Fund to pay for capital projects on an as needed basis.

Tumwater's Storm Drainage Master Plan states that historically, surface water capital projects have been funded by Tumwater's stormwater utility and grants for specific projects. The amount of funding provided for stormwater-related capital projects varies from year to year, depending on the program revenue, activities, and priorities. Tumwater will continue to pursue grant opportunities to accelerate the rate of construction for stormwater related capital projects.

As described in Chapter 3, Stormwater, the Stormwater Program currently allocates $350,000 per year in funding to the Infrastructure Replacement Fund to set aside for stormwater system upgrades where roadway projects are occurring. This amount is not sufficient to meet Tumwater's identified needs. There are several unfunded projects identified in the Storm Drainage Master Plan.

H. Policy Options and Other Funding Sources

There are additional policy tools and sources available to Tumwater to fund capital projects. These policy tools and sources include:

- **Local Improvement District or Road Improvement District.** Local Improvement Districts help benefiting properties finance capital improvements, such as installation of sidewalks, curbs, and gutters. Tumwater does not currently have assessment districts. This is a tool Tumwater could consider using to finance street improvements in the future.
- **Impact Fees.** Transportation impact fees must be used for "public streets and roads" that are addressed by a capital facilities plan element of a comprehensive plan adopted under the GMA, per RCW 82.02.050(4) and RCW 82.02.090(7). Tumwater adopted a Traffic Impact Fee in TMC Chapter 3.50. Traffic Impact Fee revenue is not included in the 2026-2031 Capital Improvement Plan. Tumwater could amend Traffic Impact Fees to update its needs and help finance transportation capital improvements related to growth.
- **Operating Transfers.** Tumwater can transfer funds from the General Fund to support capital projects, as it has done in prior years.

DRAFT

- **Grants.** State and Federal grant programs can be pursued for competitive regional priorities for infrastructure investments. Pursuing grant opportunities requires resources, and success is not guaranteed.

- **Bonds.** Tumwater does not currently use bonds to support capital facilities funding and has zero existing debt obligations but does plan to issue bonds in the future to fund major capital project.

  One benefit of using bond funding is the ability to get major projects started and completed more quickly than using pay-as-you-go funding. Because projects can get completed more quickly, Tumwater could mitigate the increasing cost of construction over time. Debt financing also shares the cost of a project among current and future residents. A challenge with bond funding is the annual debt service requirement, which would become a long-term obligation for the operating budget and could limit other funding priorities.

- **Tax Increment Financing.** In 2021, the Washington State Legislature authorized local jurisdictions to form tax increment financing districts. Tax increment financing can be used to fund public infrastructure in targeted areas to encourage private development and investment. Tumwater would designate an area surrounding the site of public improvements. The property tax portion of increases in assessed value of properties within the increment area is allocated towards paying for the public improvement costs. This could be a helpful tool if there were an area where public investment would encourage private development, and this development would not reasonably occur otherwise.

DRAFT

3. Tumwater Managed Capital Facilities and Services

A. Introduction

This section addresses the capital facilities and public services that are required to support growth and that are directly managed by Tumwater, including:

- City Buildings
- Fire and Emergency Medical Services
- Parks, Recreation, Open Space
- Police Services
- Stormwater Systems and Facilities
- Transportation System
- Water Systems and Facilities

B. City Buildings

1) City Hall

Tumwater City Hall provides a center for local governmental activities in Tumwater. This building is a central hub for City Council meetings, Planning Commission meetings, Committee meetings, Open Houses, where community members pay utility bills and apply for permits, and more. It is critical to maintain the building for and its capacity for staff, elected, and the public to use.

City Hall was relocated in 1988 from the current location of the Old Town Center at the intersection of Second Avenue and Bates Street to its present location on Israel Road. City Hall was relocated to the southern area of Tumwater to reflect the future growth of Tumwater and to provide a more central focus.

Tumwater City Hall is in the Tumwater Town Center. The town center consists of approximately two hundred acres and Israel Road, Tumwater Boulevard, and Interstate 5 border it. The Comprehensive Plan envisions a broad mix of uses in this area that are high density, transit-supportive, and pedestrian and bicycle friendly.

City Hall provides office space for the Mayor, City Administration, City Attorney, and other departments. Additional space is provided in the former fire station at the intersection of Israel Road and Capitol Boulevard and is currently used by facilities maintenance staff.

The current City Hall is reaching capacity and is being supplemented with an additional buildings and office space:

- A new Operations and Maintenance Facility. This facility will house vehicles, equipment, and more staff in the Transportation & Engineering and Water Resources & Sustainability Departments. Tumwater has purchased the former Trails Arena and is completing permitting. Construction is estimated to start in 2026.
- The Water Resources Department is located at the South Puget Sound Community College in a leased building.

DRAFT

- Parks and Recreation Department staff relocated from City Hall to a leased building near the Olympia Regional Airport in 2025

The 2024-2029 CFP identifies the need for the City Hall to undergo renovations. The building is over 35 years old, and the workspaces need updating and modernization. Teleworking should be taken advantage of to reduce building occupancy and overcrowding. The parking lot should be expanded after the completion of the new Operations and Maintenance Facility.

2) Community Center

As part of the Metropolitan Parks District funding, voters approved the development of a community center. This community center will have meeting and event space, senior services, indoor sports courts, and land for a future public pool. It is anticipated that Parks and Recreation will have staff working at the Community Center. Currently, the Community Center is under a feasibility schedule, the location and start dates for construction are not known at this time.

3) Other City Buildings

Other Tumwater owned facilities, such as the fire stations, the library building, the Old Town Center, and parks facilities are described in the sections below.

C. Fire and Emergency Medical Services

1) Overview

The Tumwater Fire Department is responsible for protecting Tumwater from fire, medical, natural, and human-caused emergencies. The department provides rescue, fire extinguishment, fire prevention, fire and arson investigation, emergency medical services, hazardous materials services, disaster services, and public education activities to its citizens. In addition to providing these services to citizens, the department also provides fire services to the Olympia Regional Airport.

Tumwater provides Advanced Life Support services in partnership with Medic One. With expanded services and population growth, Fire and Emergency Medical Services will need to continually assess facilities, equipment, and equipment to meet demand. An evaluation of the Fire Department was conducted in 2024 by Emergency Services Consulting International and serves as the basis for the assessment throughout this section.

2) Inventory

The construction and maintenance of facilities comprises an important part of the overall management responsibility of the Fire Department. The number and location of fire stations plays a significant role in determining emergency response time and directly impacts the quality of Tumwater's fire and emergency medical services.

The Fire Department responds to calls from two Tumwater fire stations. The Headquarters Fire Station T-1, located next to City Hall, primarily serves the area south of Trosper Road. Fire Station T-2, located at the intersection of Linwood Avenue and Second Avenue, is also

DRAFT

staffed full time, and serves the northern portion of Tumwater.

3) Facilities Status

a) Fire Stations

Fire Station T–1 – This facility is over 20 years old. It is a full-size headquarters facility. The station houses a fire engine, medic unit, command car, and back-up apparatus. Within the past few years, many upgrades have been accomplished with the facility including a new roof, new siding, replacement of sheet rock in the apparatus bays, new flooring in the watch office, kitchen, and hallways, and painting throughout the exterior and exterior of the station. A full kitchen remodel was completed in 2025. A new vehicle exhaust extraction system was installed in 2020, and a new bay heating system in 2022. The Parks and Facilities Department continues to work through a few other needs that have been compiled and budgeted for.

Fire Station T–2 – This facility is almost 30 years old and since 2017, has been staffed full time. The fire station, which serves the north side of Tumwater, is undersized and plans are in process to remodel the station to meet the needs of the community. Fire Station T-2 also has had construction upgrades with a new roof and gutters, new siding, painting inside and out and interior modification such as new lockers both in the bays and sleeping quarters. A new vehicle exhaust extraction system was also installed in 2019. Like station T–1, Parks, Recreation, and Facilities Department continues to work through a few other needs that have been complied and budgeted for.

The Fire Department has recently initiated a facilities inspection program. Needs that cannot be accomplished inhouse will be forwarded to facilities to mitigate. This new program encourages all personnel to take ownership and pride in our living space with this new program. This can be accomplished by identifying needs that ought to be corrected and mitigated to make our environment safe and healthy.

b) Other

Presently, fire protection is also provided in Tumwater's urban growth area through three fire districts staffed with volunteers and career firefighters. These include:

- Fire District 9 – McLane/Black Lake
- West Thurston Regional Fire Authority
- Fire District 6 - East Olympia

Tumwater presently has reciprocal mutual response agreements with all the county fire agencies. A reciprocal mutual response agreement is an agreement whereby a fire district and Tumwater both aid depending on which unit can respond first.

4) Functions

The functions of the department are divided into five major divisions:

1. Administration
2. Suppression
3. Emergency Medical Services
4. Training
5. Fire Prevention

DRAFT

a) Administration

The Administrative division of the Fire Department is responsible for the overall management and administrative direction, as well as planning and budgeting for all units within the department. Administration maintains ongoing relations with the other Tumwater departments to assist in overall planning for the community's development. The Fire Chief is also responsible for negotiation of fire service contracts, intergovernmental agreements, and acts as the Emergency Management Coordinator.

c) Suppression

The Suppression division responds to all fire and Emergency Medical Service calls. They also conduct public safety inspections and assist in educating the public to prevent fires. In addition, the Suppression division performs routine maintenance on the fire apparatus and the Fire Station facilities to guarantee readiness.

d) Emergency Medical Services

All fire suppression staff is cross trained to provide emergency medical services to our community. Staff are certified either at the Basic Life Support (Emergency Medical Technician) or Advanced Life Support (Paramedic) level. Tumwater maintains an inter-local agreement with Thurston County Medic One which, among other things, provides apparatus/equipment and training as well as more than eighty percent of the funding for the paramedic program.

e) Training

The Training division is responsible for coordinating and supervising all departmental training to meet the objectives of the Administration division as required. The training division is responsible for ensuring all deferral and state training requirements are met.

f) Fire Prevention

The Fire Prevention division performs the coordination of efforts between the Fire Department and the Community Development Department. The training division is responsible for ensuring all deferral and state training requirements are met.

5) Summary

Continued emphasis is being placed on the administration and enforcement of the Uniform Fire Code. This includes on-going inspections of structures for and of occupancy and requires coordination with the Community Development Department by being part of the team of the Development Review Committee.

The 2024 Strategic Plan for the Fire Department and the 2024 Tumwater Fire Department Agency Evaluation are incorporated by reference. It should be referenced for information regarding fire protection in Tumwater that is more detailed. The six-year Capital Facilities Plan identifies funding for fire facilities, and it is hereby incorporated by reference.

6) Emergency Operations Center

Fire Station T-1 serves as the primary location for direction and control as the Emergency Operation Center. The Fire Chief, reporting to the Mayor or designee, is responsible for the organization, administration, and operation of the emergency management program. The Fire Chief, or the appointed Emergency Management Coordinator under the supervision of the Fire Chief, is responsible for managing and

DRAFT

coordinating day-to-day emergency management activities.

Tumwater completed the Comprehensive Emergency Management Plan in 2024 and is incorporated by reference. The Comprehensive Emergency Management Plan was developed to define the policies and procedures necessary for carrying out an emergency management program that ensures the preservation of lives, protection of property, and the execution of special measures. The duties of each Tumwater department, and various supporting agencies, are specified in the Comprehensive Emergency Management Plan.

7) Level of Services Standards

The level of service standards for the Fire Department are based upon service area radius, available technology, risk analysis, and capacity capability.

Tumwater continues to grow, and with that comes an increased call volume. Response times have been increasing, and around one-third of the time, the department has multiple calls. According to the National Fire Protection Association, the national median rate of firefighters to people in the population ranges from 1.54 to 1.81 firefighters per 1,000 people. As of 2024, Tumwater's ratio is 1.55 firefighters per 1,000 people.

Consideration will need to be given to future resource needs. This may include an additional station or units. The goal would be to eventually hire enough staff for full-time staffing of a third engine with that unit sited in a new station according to a comprehensive analysis of the fire department's programs and processes which is looking forward ten to fifteen years so that the department is able to manage and anticipate community growth and service demands.

The Fire Chief has identified the positions of Fire Prevention Officer, Fire Training Lieutenant, and Emergency Manager as critical positions that need enhanced support to meet the short-term and long-term needs as well as provide an opportunity for more comprehensive overall planning, including succession planning.

8) Planned Projects, Costs, and Revenues

The Fire Department is approximately a quarter of Tumwater's general fund budget.

The replacement schedule for front-line engines and ladders historically has been every seven years, although this is dependent on the timing of the levy lid lift. In 2011, a levy LID was approved, allowing the department to purchase four new engines. The Fire Department acquired one engine in 2012, a second in 2018, and a third engine has been ordered and under contrail as of April 2023. The third engine is expected to be delivered in 2026. The department is working with Tumwater to determine adequate funding for the fourth engine. The reserve fleet will naturally rotate out of the system as the front-line apparatus is replaced. Staff vehicles, including the Battalion Chief, Medical Services Officer, and Fire Prevention Officer are scheduled to be replaced about every ten years and purchased with Tumwater funds.

The department's priorities are:

- Implement elements of the Fire Department's five-year strategic plan.

DRAFT

- Improve Fire Prevention and Community Risk Reduction Programs.
- A complete study of potential staffing of the BLS Aid Unit with transport capability to address increasing call volumes and ambulance delays.
- Start the process for a new fire station feasibility study to address location and growth.
- Start the process for a fire impact fee.
- Prepare for the Washington Survey and Rating Bureau re-evaluation of Tumwater's rating.
- Seek a partnership with local tribes to fund equipment for wildland fire response.
- Seek a partnership with the Port of Olympia to help fund Aircraft Rescue Firefighting training and equipment purchases.
- In partnership with Thurston County Medic One, explore opportunities to support opioid response in Tumwater and Thurston County.
- Work to improve Emergency Management planning efforts through a partnership with neighboring agencies.

The 2024-2029 Capital Facilities Plan outlines a few projects from the General Fund for the Fire Department. Table LPP-8 below outlines a few of the major proposed projects. More detailed projects, costs, and revenues are outlined in the 2026-2031 Capital Facilities Plan.

Table LPP-7. Tumwater Fire Department Projects, 2024-2029.

Project	Plan	Funding and Cost
Fire Engine Replacement Program	Fire Department Master Plan / Emergency Services Levy Lid Lift	Levy Lid Lift $1,250,000
Fire Station T-2 Improvements	N/A	General Fund $1,250,000
Digital Alerting Systems	N/A	General Fund $125,000

Source: Tumwater 2024-2029 Capital Facilities Plan.

a) Fire Engine Replacement Program

This program includes a 25-year replacement program for fire engines. This program is funded through a property tax levy lid lift approved by voters in 2011. The acquisition of one fire engine occurred in 2012, and a second fire engine was purchased in 2018. A third fire engine has been ordered (under contract April 2023) with anticipated delivery in 2026. Approximately 50% of the cost is due 90 days. prior to delivery and balance upon delivery. According to our strategic plan, the frontline apparatus will be evaluated for replacement after 6 years of service or when the mileage exceeds 120,000 miles. Projections are for replacement of the 2018 Pierce pumper in 2032 (fourth engine purchased under 2011 levy lid lift).

b) Fire Station T-2 Improvements

Station T2 was built in 1995 and is staffed full-time with a minimum of three firefighters. Under Tumwater's agreement with Medic One, an additional paramedic unit will be staffed at Station T-2 in 2026. This additional staffing, as well as accommodating future growth needs, necessitates a full remodel of the station during the 2024-2029 CFP plan period.

c) Digital Alerting System

The intent is to apply for the Assistance to Firefighters Grant administered through FEMA. This would fund the installation of a digital alerting system in Stations T1 and T2. Digital alerting will provide multiple alerts including voice, LED lighting, and visual information display. Alerting can be controlled in each dorm room, so staff are only alerted to calls for their unit, not all calls, reducing stress for responders. This alerting system has been shown to reduce response times and is being installed in other departments locally.

D. Parks and Recreation Facilities

1) Overview

The Parks and Recreation Department is responsible for operating and maintaining Tumwater-owned parks and facilities like the Tumwater Valley Golf Course.

The Parks, Recreation, and Open Space Plan is an element of the Comprehensive Plan and the Tumwater Thurston County Joint Plan in Tumwater's urban growth area. A 20-year vision for parks, recreation programs, open space, and trails is identified in the plan. The 2008 Parks, Recreation, and Open Space Plan is incorporated by reference, and it is the source for more detailed information on parks and open space needs and services for Tumwater and its urban growth area.

2) Inventory

The six-year Capital Facilities Plan identifies funding for parks and related facilities, and it is hereby incorporated by reference. Tumwater currently operates and maintains twelve municipal parks totaling 153 acres. Additionally, the Parks, Recreation, and Facilities Department operates and maintains the golf course.

The golf course has a total of 232 acres of which 170 acres comprises the golf course "proper." The eighteen hole course has a restaurant, pro-shop, a ten-acre driving range, practice greens, and a maintenance facility.

Parks facilities range from eighty acres to less than one half acre in size and serve a variety of needs and populations within Tumwater. Future park facilities will include additional neighborhood parks, community parks, a community center, and the development of trail systems.

Park facilities also include the Union/Calvary Cemetery and two historic homes within the Tumwater's Historic District.

Tumwater Old Town Center was the former City Hall and fire station. Now, it is a community center that offers programs and activities to seniors through the Parks and Recreation Department. A daycare is also currently leasing a portion of the building.

The Tumwater Parks and Recreation Department will be located at a satellite office starting in spring of 2025 at 821 Airport Court SE, Tumwater. The office space will be leased.

3) Level of Services Standards

The latest version of the Parks, Recreation, and Open Space Plan was adopted in 2008, with a minor amendment in 2016. The 2008 Plan explains how level of service can be measured for parks, recreation, and open space.

According to the 2024-2029 Capital Facilities Plan, parks and open space level of service standards are a combination of "Levels of Service" for parks and "best professional judgement" for trails and open space.

The demand for park, recreation, and open space land can be estimated using a ratio of a required facility to a standard unit of population, such as 3.1 acres of athletic fields and playgrounds per 1,000 residents. The ratio method is simple to compute and can be compared with national or local park, recreation, and open space measurements.

As the population increases, the need for more public parks, recreation, and open space is needed. This includes sports, programs, historical preservation and enhancement, and community spaces and events.

For more information on the levels of service for parks, recreation, and open space, refer to Appendix D: *Land and Facility Demand* of the 2008 Parks, Recreation, and Open Space Plan.

Starting in 2025 staff will begin to update the 2008 Parks Plan as directed by the City Council and the 2025 Long Range Planning Workplan.

4) Planned Projects, Costs, and Revenues

Tumwater has identified the neighborhood parks, trails, and facilities necessary to serve its current and future residents. Priority projects identified in the Parks, Recreation and Open Space plan and the Capital Facilities Plan include the completion of the Deschutes Valley Trail, acquisition and development of neighborhood and urban parks, development of a swimming facility and/or community center, reinvesting in both park and golf course infrastructure and improving community event space.

Project costs and funding sources as outlined in the 2026-2031 Capital Facilities Plan. Major projects in the 2024-2029 Capital Facilities Plan are found in Table LPP-9. More detailed information about projects, costs, and revenues is outlined in the 2026-2031 Capital Facilities Plan.

Table LPP-8. Parks Planned Projects in Tumwater.

Project	Cost	Funding
Deschutes Valley Trail	$16,650,000	Grants, Metropolitan Park District, Parks Impact Fee
Community Center	$13,000,000	Metropolitan Park District, Loan

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Project	Cost	Funding
Trails End Park	$2,460,000	Metropolitan Park District, Recreation, Parks Impact Fee, and Open Space Plan

Source: Tumwater 2024-2029 Capital Facilities Plan.

E. Police Services

1) Overview

The Tumwater Police Department is dedicated to providing professional police services and engaging with members of our community to ensure we provide a safe environment to live, work and/or raise a family.

The Police Department presently employs thirty-three commissioned officers, and eight non-commissioned administrative staff. Tumwater Police also provide two school resource officers who support three high schools and two middle schools. Their work focuses on building positive relationships with students, as well as teachers and school administration, to provide a safe learning environment for students and staff.

2) Inventory

The Police Department headquarters are at Tumwater City Hall. Officers patrol throughout Tumwater and respond to calls for service dispatched from the TCOMM 9-1-1 dispatch center that is located at 2703 Pacific Avenue S.E. in Olympia.

The police force has increased in size over the years to support the population and employment growth in Tumwater. The increase in police officers resulted in the need to expand/remodel the Police Department facilities a few years ago. The Police Department currently occupies 10,100 square feet of space, which continues to be modified to meet current needs.

The Police Department is responsible for maintaining law and order and providing police services to the community under the direction of the Police Chief and Commander. The Chief is responsible for the executive functions of the department while the Commander provides day-to-day leadership for the department's operations. Both participate in community outreach activities.

The agency provides for the preservation of life, protection of property, and reduction of crime. The department is organized into four areas:

1) Patrol
2) Investigations
3) Training/Code enforcement
4) Administration

3) Administration

The Administration unit provides the overall management and administrative direction, planning, budgeting, scheduling, inspection, and training for the department. Also included in this division is the records management function, which maintains incident reports and prepares management reports and records necessary for the effective operation of the department. Additionally, the unit handles

telephone and personal requests for service from the public at the Police Station. Tumwater continues to use the Nisqually Jail and Thurston County Accountability and Resource Center for holding and incarceration of defendants.

4) Patrol

The Patrol unit deters and detects crime, apprehends violators, assists traffic direction and control, responds to service calls, assists citizens in community oriented policing, and renders other services designed to provide public protection. This is accomplished by preventive patrol, and preliminary investigation and follow-up of reports and crimes.

5) Investigation

The Investigative unit conducts follow-up activities for serious cases, provides investigative assistance to the patrol unit, and investigates major crime scenes. This unit enforces narcotics violations through participation in the Thurston County Narcotics Task Force, performs crime analyses, and presents information to the Prosecutor's Office for filing of criminal proceedings.

6) Crime Prevention

Through proactive patrol efforts, Tumwater Police reduce crime through public education and assistance in residential neighborhoods, the business community, and in schools. They are responsible for planning and developing various community programs. The primary function is the administration of School Resource Officer program in the school system. Tumwater sponsors the School Resource Officer program with staffing, training, and limited supplies. The Tumwater School District and Tumwater are currently in discussions to expand the program to add regular service to the elementary schools.

7) Training and Code Enforcement

To maintain core skills, officers complete sixty hours of annual training. Furthermore, the Police Department believes officers and staff would be a critical area of improvement by attending the "Able project," also known as Active Bystandership for Law Enforcement. The goal of the program is to prepare officers to successfully intervene to prevent harm and create a culture that supports peer intervention. In summary, it gives police officers tools to better protect themselves, the organization, and the communities that they serve. It also provides training to allow for intervention at all levels before a situation becomes critical. In 2018, the voters of Washington State approved Initiative 940, known as the Law Enforcement Training and Community Safety Act.

The initiative specifies that officers must receive a minimum of forty hours of training every three years. Once the standards are set and the courses have been established, the training must be completed by 2028. This is an unfunded mandate with no consideration given for the annual skills training already required as outlined above. Given the current environment surrounding law enforcement, Tumwater's goal is to have every officer complete this training.

Code enforcement responds to complaints concerning public health and safety issues such as abandoned buildings, excessive trash, inoperable vehicles, and more. In 2016, the City Council authorized transfer of the responsibility for coordinating code enforcement to the Police Department, who took responsibility for the

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program in late 2017. Code violations are now investigated by two half-time police specialists, plus one-half of a position dedicated for administrative support.

8) Summary

To continue serving the community and maintain high levels of service, the Tumwater Police Staffing Strategic Plan concluded to increase staff by ten officers over a five year period. The headquarters for this force is in City Hall. The police station is at capacity, and based on the Tumwater Police Strategic Growth Plan, additional office space will be required with the expected growth of the department and an increase in Tumwater population. This new office will create opportunities to provide community meeting spaces and safety events for the community. Officers patrol throughout Tumwater and respond to calls for service dispatched from the TCOMM 9-1-1 dispatch center that is located at 2703 Pacific Avenue S.E. in Olympia.

The Police Strategic Plan and its specific recommendations are incorporated by reference. The six-year Capital Facilities Plan identifies funding for police facilities, and it is hereby incorporated by reference.

Tumwater has been strongly committed to creating and providing a high level of police protection and services. Police protection services should expand at a rate consistent with community need.

9) Level of Services Standards

Based on the 2025-2029 Strategic Growth Plan for the Police Department and a Community Survey in 2022, areas of growth and specific themes have been identified. These goals are the foundation for how the department will grow over the next five years and provide policing services that align with the community's needs:

- More in-person, non-enforcement interactions between officers and community members.
- More robust communication between TPD and the community, especially through social media.
- Opportunities for the community to be involved with TPD, not just TPD involved with the community.
- Increased use of research-based practices and the use of data.
- Provide support to officers and staff so that they remain healthy, both physically and mentally.

To achieve these goals, three critical resources have been identified:

- **Staffing.** To provide the service envisioned by our community, the staffing plan indicates TPD will need to add twelve more patrol officer positions to maintain current service levels. Additional officer and civilian positions are needed to expand the services we provide. Hiring and training new police officers is time and resource intensive. We anticipate that our training staff can manage between three to four hires in a given year.
- **Facilities.** The Police Strategic Growth Plan anticipates growth in staffing and programs, all of which will require space

we do not currently have. The police station is at capacity. To help mitigate measures such as renting storage units, a building expansion, and closing the lobby to create office space has been required. A proposed off site office space to house administrative staff and training rooms has been recommended for interim space solutions within the 2025-2029 Police Strategic Growth Plan.

- **Technology.** A key aspect of our technology plan is to choose tools that will increase our ability to collect and communicate information so that the public better understands how we police. We will also prioritize technology that moves us into the future and helps us evolve.

10) Planned Projects, Costs, and Revenues

With the new requirements under the Law Enforcement Training and Community Safety Act, and the need for intervention training, additional budget should be provided to enable officers to complete all required training in a timely manner at a cost of $91,200.

11) Recommendations

Tumwater should also commit to the standards of the ABLE Project, including the requirements for training at a cost of $16,000.

Overall, the total budget increase identified in the Tumwater Police Strategic Growth Plan for 2025-2029 is between $6,931,550 and $7,424,300. This will cover the proposed services, staffing, facilities, and technology needs to meet levels of service.

More detailed projects, costs, and revenues are outlined in the 2026-2031 Capital Facilities Plan.

F. Stormwater Systems and Facilities

1) Overview

Stormwater refers to the rain and snow that falls to the ground. Stormwater flows over land or impervious surfaces such as paved streets, parking lots, and building rooftops. As the runoff flows over the land or impervious surfaces, it accumulates debris, chemicals, sediment, or other pollutants that could adversely affect water quality if the runoff is discharged untreated. A stormwater utility is a system that collects, manages, and conveys stormwater. Stormwater utilities are important because they help prevent flooding and control erosion. Furthermore, stormwater utility protects water quality and reduces harm to aquatic habitats. Tumwater has outlined a comprehensive approach to the overall management of stormwater in the 2023 Comprehensive Stormwater Management Plan. This plan focuses on long-term stormwater goals while emphasizing prevention, community participation, and resource conservation.

Tumwater manages stormwater on Tumwater lands, streets, and rights-of-way. Stormwater on private property is the responsibility of the land or business owner. Tumwater will provide technical assistance to private stormwater

facility owners for issues surrounding maintenance, upkeep, planting, pollution, and compliance with federal, state, and local regulations.

2) Inventory

Improvements to Tumwater's stormwater system are identified in the six-year Capital Facilities Plan and the 2023 Stormwater Management Program Plan. These plans are incorporated by reference. In addition to these projects, Tumwater has implemented a comprehensive stormwater program since 2007 to meet National Pollutant Discharge Elimination System – Phase II permit requirements. Tumwater has also adopted ground- and surface water-monitoring standards, like that of Thurston County, to examine long-term water quality and water level trends in the Salmon Creek Drainage Basin, Black Lake Drainage Basin, and Deschutes River Watershed. Development standards for new and redeveloping properties are defined by Tumwater's Drainage Design & Erosion Control Manual, which requires developments to limit and mitigate where necessary water quality, water quantity, and regional impacts of the projects.

The Drainage Design and Erosion Control Manual and subsequent updates are adopted by reference. Stormwater management requirements are also identified in Title 13 of the Tumwater Municipal Code.

3) Level of Services Standards

Growth, development, and redevelopment within Tumwater impacts the stormwater system. The more coverage and hard surfaces built means more pollution could enter the stormwater system and end up in the Deschutes Watershed and Budd Inlet. It is important that measures are taken to protect public and private infrastructure and provide protection for natural resources.

4) Planned Projects, Costs, and Revenues

The 2026-2031 Capital Facilities Plan, Comprehensive Stormwater Management Plan, and other noted plans outline the following planned projects for stormwater systems and facilities. Major projects in the 2024-2029 Capital Facilities Plan are found in Table LPP-10.

Table LPP-9. Planned Stormwater Projects, Costs, and Revenues in Tumwater.

Project	Plan	Funding/ Expense
Land Acquisitions – Wetland Habitat Conservation	Plan: E Linwood / M Street Outfall Projects	Grants & Water, Sewer, Storm Fund $3,375,000
Tumwater Valley Regional Facility	N/A	Grants & Water, Sewer, Storm Fund $4,485,000
Deschutes Habitat Restoration Projects	NPDES Permit / Shoreline Management Plan	Grants & Water/Sewer/Storm $980,000

Source: Tumwater 2024-2029 Capital Facilities Plan.

a) Land Acquisitions - Wetland Habitat Conservation

Reserve funds for the acquisition of land for stormwater-related projects requiring wetland mitigation, preservation, or enhancement, and general habitat conservation. Considered projects include former Brewery properties at sixty percent of present value, Kirsop-area wetlands, and Deschutes/Watershed Resource Inventory Area 13 wetlands.

b) Tumwater Valley Regional Facility

Project includes the construction of a regional facility for treatment and detention of discharge from two major outfalls – M Street Basin and Littlerock and 2nd Avenue, with a drainage area of approximately two hundred acres. Project includes outfall retrofit as a constructed wetland, walking trail, educational signage, wetland mitigation, and electrical realignment to treat stormwater discharges to the Deschutes River. Planning and design are largely complete; completion of permitting, mitigation, and construction are dependent on grant funding.

c) Deschutes Habitat Restoration Projects

Project will design and implement habitat enhancement and sediment reduction projects in support of Total Maximum Daily Load compliance actions relating to shade coverage and riparian habitat and water quality enhancements along the Deschutes River and its tributaries, as outlined in Tumwater's Shoreline Management Plan and Deschutes Habitat Restoration Plan. Projects include evaluation and restoration of riverbank erosion along Tumwater Valley Drive, Pioneer Park, and Desoto Canyon.

More detailed projects, costs, and revenues are outlined in the 2026-2031 Capital Facilities Plan.

G. Transportation System

1) Overview

Tumwater's transportation network accommodates many modes of travel, including walking, bicycling, rolling, public transit, freight, and driving. Vehicular travel is the primary mode utilized for most travelers in and around Tumwater, and the roads must accommodate both local trips and regional travelers passing through.

Transportation facilities in Tumwater include state highways, city streets, sidewalks, bike lanes, trails, freight routes, rail, and public transportation facilities and services. A comprehensive inventory of all transportation facilities provides a sound basis for effective planning. Tumwater maintains inventories of transportation facilities that include the street system, pedestrian facilities, bicycle facilities, and transit facilities.

The Transportation Plan contains goals and policies for transportation, documents existing traffic conditions, develops a future and existing land use base traffic model, develops an impact fee program, and develops recommendations for traffic improvements including future transportation corridors.

Tumwater's long-range transportation planning must be consistent with the Regional Transportation Plan which is developed by the Thurston Regional Planning Council. The

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Regional Transportation Plan is currently being updated.

Tumwater collaborates with Thurston Regional Planning Council to reach agreement on level of service standards, peak periods, and transportation system goals. The Regional Transportation Plan is the long-range transportation plan and is adopted every four years. The Regional Transportation Plan defines Tumwater projects that impact the movement of people and vehicles at the regional scale.

It should be consulted for information on street and road corridors and the modal integration of Tumwater and its urban growth area that is more detailed. The Regional Transportation Plan is hereby incorporated by reference.

The six-year Capital Facilities Plan identifies funding for the transportation improvements in Tumwater, and it is incorporated by reference.

The Transportation & Engineering Department are responsible for managing project design and construction function for all public works and capital projects.

The Pavement Maintenance Program within the Transportation & Engineering Department provides the preservation of existing streets including structural repairs, crack sealing, and surface treatments.

2) Inventory

a) Streets and Roads

Within Tumwater, there are 123 miles of road, of which fifty-seven miles are local access streets; forty-two miles are collectors, eighteen miles are minor arterials, and five miles are principal arterials.

b) Pedestrian and Bicycle System

Promoting the increased use and safety of bicycling and walking as transportation modes is Tumwater, regional, state, and federal transportation policy.

Bike lanes, curb access ramps, traffic signals, sidewalks, trails, shared user paths, and more are an important active transportation facility. The purpose of a pedestrian and bicycle transportation system is to provide opportunities to walk or ride a bicycle safely as part of their everyday life. As part of the 2025 Comprehensive Plan Update, the Climate Element and Transportation Plan required a Bicycle and Pedestrian Plan. The Bicycle and Pedestrian Plan addresses ADA transition planning, non- vehicle user safety, equity, connectivity, and increased ridership.

The Tumwater Bicycle and Pedestrian Plan is adopted by reference. The Thurston Regional Trails Plan, the Thurston Regional Planning Council Regional Transportation Plan, and the Tumwater Parks, Recreation, and Open Space Plan address the creation of trails as a means of transportation for pedestrians and bicyclists.

3) Level of Services Standards

As Tumwater grows, so does the road system. Tumwater now has 123 miles of streets, and the ongoing annual cost to preserve and maintain street infrastructure continues to rise. It would take $31.8 million over the next ten years to bring Tumwater's current transportation system to industry standards and continued funding to maintain them in good condition.

Current development activities in Tumwater include industrial and commercial projects, with some multi-family housing. The majority of

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Tumwater consists of low-density single-family housing. Growth outside Tumwater will also play a major role in the growing demands on Tumwater's transportation network. Tumwater is working to accommodate both local and regional growth, investing in improving opportunities to travel by all modes.

Major projects in the 2024-2029 Capital Facilities Plan are found in Table LPP-11. For a complete analysis of the transportation system and levels of services, refer to the Transportation Plan.

Table LPP-10. Planned Transportation Projects, Costs, and Revenues in Tumwater.

Project	Plans	Cost and Revenues
Pavement Maintenance Program	Strategic Plan & Transportation Benefit District Ordinance	Transportation Benefit District $14,100,000
Multimodal Improvements and Traffic Calming Program	ADA Transition Plan, Transportation Plan, TIP	Grants, annual Sidewalk Program and local match for speculative grants, the State Transportation Package gas tax $3,280,000
Capitol Blvd Corridor, M Street to Israel Road	Capitol Boulevard Corridor Study, Transportation Plan, TIP, Regional Transportation Plan	Grants, Impact Fees $27,000,000
E Street Connection	Brewery District Plan, E Street Study, Transportation Pan, TIP	Grants $60,000,000
Old Highway 99 Corridor	Old Highway 99 Corridor Study, Transportation Plan, Regional Transportation Plan, TIP	Grants, Impact Fees $22,000,000
Tumwater Boulevard Interchange	Transportation Plan, Regional Transportation Plan, TIP	Grants, Development $23,000,000
Henderson Boulevard Corridor	Transportation Plan, Regional Transportation Plan, TIP	Grants, Development $24,000,000

Source: Tumwater 2024-2029 Capital Facilities Plan.

4) Planned Projects, Costs, and Revenues

a) Pavement Maintenance Program

This program provides for the preservation of existing Tumwater streets including structural repairs, crack sealing, construction of sub-grade and resurfacing by use of asphalt overlay or bituminous surface treatments. The projects may include both Tumwater funded projects and Transportation Benefit District projects. Planned expenses after 2025 assume the Transportation Benefit District receives voter support when its initial term expires in 2025.

b) *Multimodal Improvements and Traffic Calming Program*

This Program provides for the construction of miscellaneous multimodal and traffic calming improvements throughout Tumwater. Work could include sidewalk maintenance, repair, infill, ADA curb ramps, pedestrian crossings and connections, bicycle improvements, and neighborhood traffic calming. Individual projects would be developed as needs or issues arise. Identified projects include: all deficiencies in right-of-way contained within Tumwater's ADA Transition Plan, extension of sidewalk on Trosper Road to Lambskin Street; widen sidewalk on 2nd Avenue from Custer Way to Desoto Street; annual Sidewalk Program at $200,000 annual, increase to $400,000 annual starting 2025 pending additional grant funding; and local match for speculative grants. Funding includes the fifty-three percent of multimodal funds generated by the State Transportation Package gas tax increase of $26,000 from 2018 through 2031.

c) *Capitol Boulevard Corridor, M Street to Israel Road*

The Capitol Boulevard Project includes street improvements to create great bicycling, walking, and transit environments, reduce traffic congestion and slow traffic in neighborhoods. There are many steps to this project. The Capitol Boulevard Corridor Plan includes projects such as constructing three roundabouts at the intersections of Capitol Boulevard and T Street, X Street, and Dennis Street.

More detailed projects, costs, and revenues are outlined in the 2026-2031 Capital Facilities Plan.

H. Water Systems and Facilities

1) Overview

Tumwater provides water to both residential and non-residential customers within Tumwater's water service area, consisting of approximately 22.4 square miles.

The Comprehensive Water System Plan reviews land use demands within Tumwater's service area, supply sources, water conservation requirements, system deficiencies, capital improvements to address those deficiencies, and water quality needs and supporting programs such as wellhead protection and utility operations and maintenance. This plan recognizes the need for coordination between land use and water service provision. The City Council adopted the Comprehensive Water System Plan following approval by the Washington State Department of Health. The plan is required to be updated every ten years.

The Tumwater's Wellhead Protection Plan, most recently updated in 2016, addresses groundwater protection. The plan identifies regulated areas where a program systematically reviews the management, use, and disposal of hazardous materials, details an early response-monitoring program, and outlines policies and goals for maintaining protections for groundwater. Aquifer and wellhead protection requirements are found in Title 16 of the Tumwater Municipal Code. The implementation of Tumwater's Low Impact Development ordinance will provide best management practices in design and development to minimize stormwater runoff that could potentially harm Tumwater's water sources.

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The Comprehensive Water System Plan and the Wellhead Protection Plan and subsequent updates are hereby incorporated by reference. It should be consulted for more detailed information on water systems and facilities within Tumwater.

Anywhere request for water service beyond the limits of existing water infrastructure is subject to the 1996 Thurston County Coordinated Water System Plan, as amended.

The six-year Capital Facilities Plan identifies funding for the Tumwater water system, and it is incorporated by reference.

2) Inventory

Existing water system facilities that serve this area include twelve active groundwater wells, three active and two inactive reservoirs in three pressure zones, three booster pump stations, and a pipeline distribution network with four pressure reducing valves. Tumwater owns and operates a satellite system, Lakeland Manor.

3) Level of Services Standards

The 2021 Water System Plan does not use the level of service to analyze system function and needs but uses system analysis and professional judgement to prioritize system improvements. That priority system is set out as follows from highest to lowest:

- Regulatory Compliance
- Health and Safety
- Water Quality – General Improvements
    - Reliability and Redundancy
    - Fire Flow and Pressure
    - Coordination with other Projects

4) Planned Projects, Costs, and Revenues

The Water System maintenance and upgrades are funded by Operation income, Connection Fees, and Revenue Bonds. Major projects in the 2024-2029 Capital Facilities Plan are found in Table LPP-12.

Table LPP-11. Planned Water System Projects, Costs, and Revenues in Tumwater.

Project	Plan	Revenue/Cost
Water Rights Acquisition	Water System Plan	Operating Income, Connections, and Revenue Bonds $6,400,000
Brewery Wellfield - Water Production Infrastructure and Well Decommissioning	Water System Plan	Operating Income, Connections, and Revenue Bonds $10,400,500 and 750,000
Southeast Reservoir & System Expansion	Water System Plan	Operating Income, Connections, and Revenue Bonds $26,872,222

Source: Tumwater 2024-2029 Capital Facilities Plan.

a) Water Rights Acquisition

This program includes funding for the purchase and processing of existing water rights to support system growth demands. Funding shown reserves funds for water right acquisitions as opportunities to acquire rights become available.

b) Brewery Wellfield – Water Production Infrastructure and Well Decommissioning

This project provides funding for the development of water production infrastructure necessary to put to beneficial use the water rights acquired from the former Brewery and funds to decommission the existing wells.

This project assumes that new wells will be developed as part of the Brewery Wellfield. Existing wells will be required to be decommissioned by WAC.

c) Southeast Reservoir and System Expansion

This program is intended to design and construct a new three-million-gallon reservoir on a property south of 93rd Avenue. This property has already been acquired for this purpose. This project would extend the piping along 93rd Avenue to extend to the reservoir located at the Preserve Development.

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4. Other Publicly Operated Capital Facilities and Services

A. Introduction

Several services are provided by other service providers but are considered essential to serve growth and Tumwater reviews adequacy:

- Library Services
- School Facilities
- Sewage Treatment Facilities and Sanitary Sewer
- Solid Waste Management
- Transit Services

K. Library Services

1) Overview

Tumwater Timberland Library is a member of the Timberland Regional Library District. The district consists of 20-nine community libraries in five counties in southwest Washington State: Grays Harbor, Lewis, Mason, Pacific, and Thurston counties. The Administrative Service Center is in Tumwater. Books and other materials are exchanged freely with all member libraries within the district.

Tumwater Library began in 1965 as a storefront library in the Southgate Shopping Center. Tumwater has been a part of the Timberland Regional Library District since 1983. A 17,300 square-foot library, located adjacent to Tumwater City Hall on New Market Street, opened in March 1995.

2) Inventory

The Timberland Regional Library and the Timberland Regional Library Headquarters are located within Tumwater. Tumwater owns the building and Timberland Regional Library leases the space from the city.

3) Level of Services Standards

The Timberland Regional Library updates their Strategic Plan every two years. The 2024-2025 Plan outlines strategic directions for services and mission, values, and vision.

Timberland Regional Library wants to assist and improve digital literacy across generations and continue to be a low barrier access point to technology, including charging, printing, and access to Wi-Fi. This helps support opportunities for learning and employment.

Timberland Regional Library wants to improve communication and outreach to increase awareness of existing services, meaningfully engage with BIPOC and Tribal communities, and communicate and receive feedback for continuous learning and improvement.

Finally, Timberland Regional Library wants to support school-aged youth. This will be done by creating appealing spaces for kids of all ages to socialize and access resources. These spaces will support programs and develop deeper connections with local schools and education providers.

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4) Planned Projects, Costs, and Revenues

The Timberland Regional Library Issued a 2024 Annual Report and 2025 Budget, available on their website. The library system is funded by property taxes, timber, and other sources. The 2024 total Revenue was $26,884,484 and expenditures were $28,452,840.

At the beginning of 2025, the Tumwater Library started a remodel to modernize the library to include a new children's areas, improved spaces for all ages, and a layout that improves accessibility. The library will be modernized and updated to keep up with the growing needs and demands of the community with progressed internet and digital services. The updated space will include improved areas for families and children of all ages to gather and use.

For more information, please refer to the Timberland Regional Library 2024 Annual Report, 2024-2025 Strategic Plan, and current Budget available on Timberland Regional Library's website.

C. School Facilities

1) Overview

Tumwater has a modest role to play in school planning. Public schools are operated by local school districts and governed by state and federal laws and regulations.

The gap between available space and need increases when residential growth accelerates while the planning, financing, permitting and construction period for school construction has lengthened. As a result, school capacities typically lag behind the increase in housing. Schools are categorized as Elementary, Middle, and High Schools. There will be variations from district to district of grade configurations, class size, and curriculum based needs depending on the district's educational program.

State and federal funds provide a large part of school financing.

School districts raise additional funds from local property taxes. State laws set standards for service levels and facility development, such as the site size and enrollment. They also specify funding methods. These laws perform much of the role of a functional plan for schools. The Olympia and Tumwater School Districts' Capital Facilities Plans are found in the six-year Capital Facilities Plan appendix. These plans outline enrollment projections, level of service, financing, and more.

Tumwater works in cooperation with the Tumwater and Olympia School Districts to determine and plan for the needs of the districts in Tumwater's urban growth area for the 20-year planning period. The districts have provided information regarding proposed new school facility locations and site criteria.

Tumwater will work with the Tumwater School District to provide the facilities needed as population growth in Tumwater and its urban growth area occurs. Further, the annual update of Tumwater's six-year Capital Facilities Plan includes short-term needs for both Tumwater and Olympia School Districts, and it is incorporated as part of the Lands for Public Purposes Element by reference.

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Tumwater and the school districts should meet regularly to formally discuss the district's capacity needs and evaluate siting options, including the need for new and upgraded schools to address capacity, location of expected new growth, zoning and anticipated growth, and issues such as location, configuration, joint use, and school capture areas.

Tumwater can help to achieve this goal by ensuring that the environment around existing and future school sites is properly conducive to their needs. Tumwater should consider the safety needs of schoolchildren and the need for school buildings to be appropriately accessible to their service areas. Additionally, Tumwater can ensure that school sites are planned for locations with adequate public facilities and services such as sewer, water, transportation, and law enforcement services.

2) Inventory

The Tumwater School District serves most of Tumwater. The Olympia School District serves small areas of Tumwater near the northeast City limit.

Currently, the Tumwater School District has six Elementary Schools, two Middle Schools, and four High Schools. Table LPP-13 below identifies each school facilities capacity or number of students a building can serve adequately, current enrollment number for each facility, and the surplus/deficit. A negative deficit depicts potential overcrowding, where the number of students is higher than the level of service the facility is designed to accommodate.

Unlike the Tumwater School District, which predicts growth and more enrollment over the next 20 years, the Olympia School district is forecasted to continually decrease by an average of one hundred students per year districtwide. Table LPP-13 shows the school capacity and 2024 headcount for Tumwater School District schools and Table LPP-14 shows the District Enrollment forecast through 2030. According to their Capital Facilities Plan, the District expects to need a new 600 capacity elementary school by the 2028-29 school year.

Table LPP-12- Tumwater School District Inventory, 2024.

Facility	Capacity	2024 Headcount	Surplus/Deficit
Elementary Schools	**2,684**	**2,688**	**-4**
Black Lake[1]	440	386	54
East Olympia[2]	440	563	-123
Littlerock[2]	374	341	33
Michael T. Simmons[1]	440	420	20
Peter G. Schmidt[1]	440	391	49
Tumwater Hill	440	391	49
Middle Schools	**1,675**	**1,414**	**261**
George Bush[1]	850	761	89
Tumwater[1]	825	653	172

Facility	Capacity	2024 Headcount	Surplus/Deficit
High Schools	**2,365**	**1,975**	**390**
A.G. West Black Hills[1]	1125	719	406
Cascadia[1]	128	118	10
New Market[1]	37	54	-17
Tumwater[1]	1075	1084	-9

Source: Tumwater School District, 2024 – 2030 Capital Facilities Plan, Table 1 *Capacity of Existing School Facilities*.
Notes:

1. In Tumwater.
2. In unincorporated Thurston County.

Table LPP-13. Tumwater School District Enrollment Forecast, 2024.

	Sept.	Projected					
	2024	2025	2026	2027	2028	2029	2030
K-5 Headcount	***2,674***	*2,738*	*2,805*	*2,882*	*2,961*	*3,065*	***3,171***
6-8 Headcount	***1,414***	*1,436*	*1,458*	*1,480*	*1,503*	*1,556*	***1,609***
9-12 Headcount	***2,061***	*2,084*	*2,110*	*2,142*	*2,179*	*2,252*	***2,326***
TOTAL K-12	***6,149***	***6,258***	***6,373***	***6,504***	***6,643***	***6,873***	***7,106***

Source: Tumwater School District, 2024 – 2030 Capital Facilities Plan, Table 2 District Enrollment Forecast.

The total student population for the Tumwater School District in 2024 was 6,077 and is expected to increase to 7,106 by 2030.

3) Level of Services Standards

To determine the need for new schools and to account for special growth conditions within the district, Tumwater School District has developed a method to project student enrollment. This method relies upon growth projections supplied by Thurston Regional Planning Council, consultants, and experience within the district. Two factors require that these projections be updated yearly. They are varying kindergarten enrollment, and unanticipated student in-migration.

The number of students per household is a factor the district uses to plan for new schools. Data reporting the number of students per household, by type of house, number of bedrooms, and grade level is available from the U.S. Census. This information is published by the U.S. Department of Commerce, Bureau of Census and is titled "Demographic Multipliers for Common Configurations of Standard Housing Types for School-Age Children (by Grade Category)."

The district has adopted the multipliers for the Pacific Northwest Region as the standard for determining the number of students generated from new developments. The multipliers adopted by the district have been adjusted from the Census multipliers to reflect the actual grade breakdown in the District.

The School District utilizes a Boundary Committee to monitor enrollment in the district

and recommend modifications of attendance zones for elementary, middle, and high school sites. The Committee consists of staff and interested parents. The committee makes its recommendations to the School Board for actual adoption. The location of new elementary schools is based upon growth trends around existing schools and the location of new development. General areas are identified for the placement of a new elementary school because of the need to provide relief from overcrowding of existing elementary schools. The same is true for secondary schools.

Based on the Tumwater School District 2023-2029 Capital Facilities Plan, forecasted population and growth in the School District will require a new Elementary School by 2028.

Within the six year horizon, the Olympia district does not plan to construct or expand facilities to meet enrollment changes. The district is currently studying the need to remodel or make changes to facilities in conjunction with a committee of volunteers. As such the district has chosen to wait for the results of this work before making major plans to expand or remodel existing facilities.

4) Planned Projects, Costs, and Revenues

Please refer to each School Districts Capital Facilities Plan to see the forecasted projects and costs over the 2026-2031 timeframe.

D. Sewage Treatment Facilities and Sanitary Sewer System

1) Overview

Wastewater contains many pollutants and must be cleaned before the water is released back to the environment. Wastewater refers to any water that needs cleaning after it is used indoors – such as water from dish washing, laundry, baths/showers, toilets, and countless other sources. All wastewater produced in Tumwater that is part of the sanitary sewer system is managed and treated by LOTT Clean Water Alliance plant. LOTT provides sewage treatment for all regional wastewater flows within Tumwater, Lacey, Olympia and select areas of Thurston County. Tumwater installs and maintains over 120 miles of sewer pipes to get wastewater to our regional wastewater treatment plant in downtown Olympia.

There are two primary functions for wastewater management; collections and treatment. Tumwater manages the collection of the wastewater generated from developed properties to Tumwater's collection system. Through gravity, force mains and pump stations, wastewater is delivered to the LOTT Clean Water Alliance for treatment, disposal, and reclaimed water generation.

2) Inventory

Sanitary sewage treatment in Tumwater is provided by the LOTT Clean Water Alliance. The LOTT system is based on a joint agreement, and it was created to serve the sewage collection and treatment needs of the cities and urban growth areas in north Thurston County. Participating members include the cities of Lacey, Olympia, Tumwater, and Thurston County.

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LOTT owns several properties in Tumwater that were originally purchased to site a future reclaimed water treatment plant and groundwater recharge facilities. However, the 2050 LOTT System Plan indicates those future facilities are not needed, and it is not likely necessary for LOTT to retain ownership of those properties for utility purposes. LOTT owns reclaimed water pipelines and a storage tank in the Tumwater area, and supplies Class A reclaimed water to Tumwater for irrigation of public spaces such as the Tumwater Valley Golf Course. The properties owned by LOTT in Tumwater are under consideration for purchase by Tumwater to ensure they remain in public ownership for a combination of public services, such as habitat restoration in riparian areas and support for community activities and events.

Sanitary sewer systems for Tumwater are addressed in detail in the 2015 *Comprehensive Sanitary Sewer Plan*. The *Comprehensive Sanitary Sewer Plan* covers the existing and proposed sanitary sewer collection and conveyance system within City limits.

The *Comprehensive Sanitary Sewer Plan* and any subsequent updates to this plan are incorporated by reference. It should be consulted for information on sanitary sewer systems and facilities within Tumwater.

The *General Sewerage Plan* covers proposed sanitary sewer collection, conveyance, and treatment in the urban growth area. that is more detailed. This plan and any subsequent updates are incorporated by reference. It should be consulted for information on requirements for sanitary sewer development within the urban growth area.

The six-year Capital Facilities Plan identifies funding for the Tumwater sanitary sewer system, and it is incorporated by reference.

3) Level of Services Standards

Tumwater is in discussions with Thurston County, the cities of Olympia and Lacey, and LOTT on a plan to convert existing developments that are on septic systems to LOTT sewer lines. This is intended to reduce surface water and groundwater impacts from these existing systems.

As with the other Tumwater utility plans, a "level of service" method of identification and prioritization is not used. Instead, the plan quantifies overall wastewater management, and contains the following elements:

- An evaluation of the existing collection system to identify any deficiencies.
- An evaluation of future wastewater flows and alternatives to manage them and correct deficiencies.
- An evaluation of the Operations & Maintenance programs.
- Development of a capital program to meet recommendations of the plan, including the financial mechanisms to fund and sustain the utility.

Projects identified in the 2015 General Sewer Plan and Capital Facilities Plan include sewer infrastructure replacements with prioritized areas: Tumwater Hill, Labor & Industries, Capital Boulevard and Palermo well. These mains containing asbestos concrete were installed about sixty-five years ago.

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The creation of a new regional Pump Station is planned for the growth areas of Tumwater, not identified in the Capital Facilities Plan. Location and timing of the new station would be dependent on development activity. Tumwater funding and creation of a pump station would prevent development of on-site septic systems in areas of small developments, where connecting to sewer would not be financially feasible.

In 2023, the City Council adopted the Old Highway 99 Extension Plan. A project that would support the plan and future growth within Tumwater would be to extend sewers to serve southeast Tumwater. The first phase would extend a watermain through the limits of Old Highway 99 and the 79th Avenue roundabout project. The timing of this project is dependent on development activity.

4) Planned Projects, Costs, and Revenues

Major projects in the 2024-2029 Capital Facilities Plan are found in Table LPP-15.

Table LPP-14. Planned Sanitary Sewer Projects, Costs, and Revenues in Tumwater.

Project	Plan	Revenue/Cost
Seismic Resilience	2021 Water System Plan	Operating income, Connection fees $80,000
Annual Sewer Infrastructure Replacement Program	2015 Sewer Plan	Operating Income and Connection Fees $3,194,700
Regional Pump Station	2015 Sewer Plan	Operating Income and Connection Fees $1,745,000
Old Highway 99 Extension: 79th Avenue to 88th Avenue	2015 Sewer Plan	Operating Income and Connection Fees $1,095,000

Source: Tumwater Comprehensive Sanitary Sewer Plan.

E. Solid Waste Management

1) Overview

Thurston County operates the only solid waste disposal facility in Thurston County. Thurston County Solid Waste is responsible for receiving, processing, and safely disposing of the county's solid waste.

When disposed, this garbage is transferred to the Waste and Recovery Center, a state-of-the-art transfer station that opened in May 2000.

The transfer station accommodates up to six hundred tons of waste per day. Garbage from the Waste and Recovery Center is loaded onto trucks, hauled to Centralia, and then placed on rail cars to be transported by train to the Roosevelt Regional Landfill in Klickitat County. The Waste and Recovery Center replaces a landfill which operated on the site between 1972 and 2000.

The *Thurston County Solid Waste Management Plan* addresses waste management in all incorporated and unincorporated areas of Thurston County.

The *Thurston County Solid Waste Management Plan* is hereby incorporated by reference. It should be consulted for information on landfill siting and solid waste management for Tumwater and the urban growth area that is more detailed.

2) Inventory

Each year the solid waste disposal system is reviewed through the County's six-year Capital Facilities Plan. The County's six-year Capital Facilities Plan identifies those capital projects required to meet the policy goals and objectives in the *Thurston County Solid Waste Management Plan* and the *Thurston County Comprehensive Plan*, to comply with federal and state law, and address facility safety, operational, capacity, and obsolescence issues.

The project assessment objectively ranks projects based on:

- Ability to meet the level of service.
- Regulatory compliance
- Health and safety goals and policies
- Sustainability
- Technical feasibility
- Other associated costs

Projects are scheduled over a six-year period relative to their ranking.

Most waste generated within the county passes through the Thurston County Waste and Recovery Center prior to being sent for disposal or recovery. The Thurston County Waste and Recovery Center was built on the Hawks Prairie Landfill and was opened when the landfill closed in 2000. The landfill had served as the primary disposal facility in the county.

The Thurston County Waste and Recovery Center contains a collection of solid waste facilities, including a tollhouse, a recycling drop off center, a yard waste drop off facility, HazoHouse, a hazardous materials drop off center, and a transfer station. The facility is located just outside of Lacey in the northeastern part of the county along the I-5 corridor. In addition, there is a demonstration garden called the "Closed Loop Park." Thurston County provides space for Goodwill Industries for a collection center at the entrance to the facility.

On average, the Thurston County Waste and Recovery Center receives about 548 tons per day of municipal solid waste.

In addition to household solid waste, this includes:

- Sixty-three tons/day of plastic
- 148 tons/day of yard and food waste; and
- 450 tons/day of recyclable materials.

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3) Pathways to Zero Waste

Despite new technologies and processes that have improved the ability of residents, businesses, and municipalities to handle, sort, and recycle materials, recycling volumes, including yard and food waste, in Thurston County have not improved, and currently make up less than one percent of the total waste stream or four tons out of 550 tons per day. Solid waste management is an important contributor to greenhouse gas emissions, which Washington is bound by law to reduce by 20-five percent by 2020 below 1990 levels and eighty percent by 2050.

Regionally, Thurston County could not meet the 2020 goal of no net increase in total landfill waste per person. Solid waste collected per person is above the levels needed to reach the region's 2020 and 2035 targets. Waste collected on a per capita basis has increased from a low of 1,140 pounds per person in 2012 to 1,513 pounds per person in 2021.

The state Legislature passed organics management laws in 2022 and 2024. These laws aim to divert organic materials away from landfills through prevention, food rescue, and organics management facilities.

These actions will help Washington achieve its 2030 goal to reduce organic material in the landfill by seventy-five percent.

After July 1, 2024, new and updated local comprehensive solid waste management plans must address the new requirement to provide organic materials collection and management to residential and nonresidential customers. This includes siting new organic management facilities.

After Jan. 1, 2025, comprehensive plans for Thurston County jurisdictions must allow siting of organics management facilities to provide necessary capacity for organics collection.

4) Level of Services Standards

The total amount of garbage disposed of in Thurston County has increased each year since 2012 except 2023. In 2023, Thurston County produced nearly 227,000 tons of solid waste, or roughly 1,500 pounds of trash per county resident. The amount of trash per resident has also held steady in 2022 after increasing every year since 2012.

In 2023, just over 57,000 tons of waste was recycled including organics, about 20 percent of waste produced or 378 pounds per county resident.

Currently the Thurston County transfer station exceeds peak daily customer counts. Based on current and projected population growth and corresponding waste generation rates, the transfer station will need significant investment to construct improvements needed to address service demand. Specific project improvements include site reconfiguration, new scales and scale houses, repair infrastructure, and administrative operations building. A potential second site might be required.

The Infrastructure Management Plan recommended scheduled implementation of thirty-two solid waste capital infrastructure maintenance, repair, and replacement upgrades to the facilities over the planning horizon. Recommendations from the Infrastructure Management Plan were adopted in December 2019 for inclusion in the Thurston County Capital Facility Plan 2021-2026 which are updated on an

annual basis for approval by the Board of County Commissioners.

Additional information on the Solid Waste Division capital facility projects and levels of service can be found in the 2019, Thurston County Public Works, Solid Waste Facility Condition Assessment and Infrastructure Management Plan.

F. Transit Services

1) Overview

Intercity Transit is the business name for the Thurston County Public Transportation Benefit Area. The service boundary includes the urbanized areas of Lacey, Olympia, Tumwater, and Yelm. All Intercity Transit services must be provided within the Thurston County Public Transportation Benefit Area boundary except for the Vanpool and Express bus service, which serve commuters who either begin or end their commute in Thurston County.

a) Regional Transit Facilities and Services

The Intercity Transit Strategic Plan is the master planning document that defines Intercity Transit operations and transportation services offered. The plan, updated annually, highlights goals and policy positions, and capital program and services for a six-year period. It is based on population growth, regional development, and financial forecasting. The Intercity Transit Strategic Plan is hereby incorporated by reference.

5) Planned Projects, Costs, and Revenues

For planned projects, costs, and revenues, please refer to the most current version of the Thurston County Capital Facilities Plan.

2) Transit Service and Facilities Inventory

There are four Intercity Transit routes directly providing service to and from Tumwater: Local Routes 12, 13, 42, and 68. In 2020 Intercity Transit adopted Zero-Fare under Resolution 03-2019 on fixed-route and Dial-A-Lift for three additional years, beginning when the General Manager determines fixed route and Dial-A-Lift services have returned to March 2020 service levels, or until January 1, 2028, whichever is later.

In response to the COVID-19 pandemic, Intercity Transit significantly decreased its systemwide fixed-route bus service during 2020; according to the Transit Development Plan for years 2026-2031, Intercity Transit intends to complete restoration of service volumes. By the end of 2024 Intercity Transit had restored service to pre-pandemic 2019 amounts. There are two identified potential candidates for expanded service in Tumwater: Henderson Boulevard and Old Highway 99 between Tumwater Boulevard and River Drive. Currently there are 113 active bus stops in Tumwater.

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a) *Fixed Local Transit Routes*

Route 12: Olympia to Tumwater, via Labor and Industries, Israel Road, Tumwater Middle School, Linwood Ave, South Puget Sound Community College, the County Courthouse, to the Olympia Transit Center.

- Weekdays: 30-minute peak and 60-minute off-peak service, 6:00 a.m. – 9:40 p.m.
- Weekends: 30-minute service from 7:30 a.m. – 9:40 p.m.

Route 13: Olympia to Tumwater, a trunk route via Capitol Blvd, Tumwater Square, and to Labor and Industries

- Weekdays: 15-minute service 6:15 a.m. – 5:45 p.m. then 30 to 60-minute service 6:15 p.m. – 9:40 p.m.
- Weekends: 30-minute service from 7:45 a.m. – 9:40 p.m. Saturdays and Sundays

Route 42: Olympia to Tumwater, a route via Deschutes Parkway to the Courthouse, South Puget Sound Community College, Quixote Village, and to Family and Juvenile Court to Black Lake and Cooper Point

- Weekdays only: 45- 6:11 a.m. to 7:34 p.m.

Route 68: Lacey, to Tumwater, to Capital Mall, a neighborhood collector via Lacey Transit Center to Lacey Boulevard, to the County Fairgrounds, To Ruddell Rd, to the Corp Center off College, Henderson Boulevard to Yelm Highway, Tumwater Square, to South Puget Sound Community College, to Capital Mall transfer station. Weekdays: 30-minute service 5:26 a.m. – 10:34 p.m.

- Saturdays and Sundays: 30-minute service from 6:56 a.m. – 1:34 p.m.

b) *Paratransit Service*

Dial-A-Lift: On-demand service at least 24-hour reservation for qualified mobility challenged clients: operates seven days a week throughout the service district following the same operating hours as fixed route service. The service covers up to ¾ mile up to one ½ miles within a fixed route.

c) *Commuter Vanpool Program*

Vanpool: Groups of three or more people lease a commuter van monthly to commute to/from work. A van group must originate in or end in Thurston County to qualify for its use. Intercity Transit currently has approximately 186 vanpools operating on weekdays throughout the Puget Sound area.

d) *Employment Assistance Program*

Village Vans: Federal and state funded programs offer two free programs: driver training/job skills and work-related transportation for low-income job seekers. Vans operate throughout Intercity Transit's service district. Program coordinates efforts with several service organizations and South Puget Sound Community College, including "WorkFirst Community Jobs."

e) *Capital Facilities in Tumwater*

Tumwater Square: Currently, two routes serve this transfer station on weekdays and weekends. Tumwater Square includes bus shelters and waiting areas on both sides of Cleveland Avenue, next to the Safeway

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grocery store. Routes 13 and 68 serve this stop.

State Office – Department of Labor and Industries: Intercity Transit maintains a stop at the main entrance to the Labor and Industries Building. Routes 12 and 13 serve this stop.

South Puget Sound Community College: InterCity Transit maintains two stops at the community college, one at the main entrance and one off Barnes Boulevard. Routes 42, 43, and 44 serve this stop.

3) Level of Services Standards

The Intercity Transit Strategic Plan includes operational policy positions that guide the agency and its vision for public transportation service delivery in the region, including within Tumwater. The Plan outlines work for 2025 within Tumwater including seventeen bus stops to be enhanced with larger landing pads, shelter ready, and front and rear door accessible.

Intercity Transit states services and routes are dependent on population, growth, and demand. An issue for Tumwater is the road infrastructure and transit supportive public roadways for expanded routes.

By 2025 Intercity Plans to have more frequent and direct routes along busy corridors, meaning 15 minute interval routes. They also plan to have better connectivity between Tumwater schools, South Puget Sound Community College, Capitol Campus, and surrounding neighborhoods. Furthermore, IT has stated to expand its service by adding eighty new stops to meet growing areas of the community.

4) Planned Projects, Costs, and Revenues

The goal of the 2025-2030 Intercity Transit Strategic Plan is to implement capital improvements and a level of service that can be sustained for the near future.

For a complete breakdown of planned projects, costs, and budget please refer to Intercity Transit's most current Strategic Plan and Budget.

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Appendix A Foundational Documents

Table LPP-16 shows the foundational planning documents that form the basis for the Lands for Public Purposes Element of the Comprehensive Plan.

Table LPP-15. Foundational Documents for the Lands for Public Purposes Element.

Topic Index	Supporting Plans and Materials
General Policy	• Capital Facilities Plan (2026-2031) • Land Use Element (2025) • Hazards Mitigation Plan for the Thurston Region (2024) • Thurston County County-Wide Planning Policies (2025)
Utility Corridors	• Utilities Element (2025)
Transportation System	• Black Hills Subarea Transportation Plan (2002) • Brewery District Plan (2020) • Capitol Boulevard Corridor Plan (2015) • Capital Facilities Plan (2026-2031) • Intercity Transit Capital Improvement Plans (2025-2029) • Intercity Transit Strategic Plan (2025-2030) • Littlerock Road Subarea Plan (2018) • Old Highway 99 Corridor Study (2024) • Parks, Recreation, and Open Space Plan (2008/2016) • Railroad Right of Way Preservation and Use Strategy for the Thurston Region (1992) • Regional Transportation Improvement Program, Thurston Regional Planning Council (Draft 2025-2028) • Statewide Transportation Improvement Plan (2024-2027) • Thurston Regional Trails Plan (2023) • Transportation Improvement Plan, 2026-31 (2025) • Transportation Plan (2025) • Tumwater Town Center Street Design Plan (2019) • What Moves You, 2050 Regional Transportation Plan, Thurston Regional Planning Council (2025)

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Lands for Public Purposes Element

Part 2 – Technical Information

Topic Index	Supporting Plans and Materials
Solid Waste Management	• Thurston County Capital Improvement Program 2025-2030 (Draft 2024) • Thurston County Solid Waste Management Plan 2021-2026, Thurston County (2021)
Sewage Treatment Facilities and Sanitary Sewer Systems	• 2025-2026 LOTT Capital Improvements Plan Capital Facilities Plan (2026-2031) • 2050 LOTT Master Plan (2023) • Sanitary Sewer Comprehensive Plan (2015) • Thurston County On-Site Sewage Management Plan (2021) • Thurston County Sewerage General Plan for Unincorporated Urban Growth Management Area (1990)
Stormwater Systems and Facilities	• Black Lake Basin Water Resource Protection Study, Thurston Regional Planning Council (2015) • Budd/Deschutes Watershed Plan, Thurston Regional Planning Council (2009) • Comprehensive Stormwater Management Plan (2018) • Deschutes River, Percival Creek, and Budd Inlet Tributaries Total Maximum Daily Load Water Quality Improvement Report and Implementation Plan, Washington State Department of Ecology (2015/2018/2020) • Littlerock-70th Avenue Annexation Area Drainage Study (Part of the Littlerock-70th Avenue Annexation in 2008) (2011) • Northern Thurston County Groundwater Management Plan (1992) • Percival Creek Drainage Basin Plan, Thurston Regional Planning Council (1993) • Salmon Creek Comprehensive Drainage Basin Plan (2004) • Stormwater Management Program Plan (2023) • Tumwater Drainage and Erosion Control Manual (2022)

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Lands for Public Purposes Element

Part 2 – Technical Information

Topic Index	Supporting Plans and Materials
Water Systems and Facilities	• Capital Facilities Plan (2026-2031) • Conservation Element (2025) • Northern Thurston County Groundwater Management Plan (1992) • Water Conservation Plan (2019) • Water System Plan (2021) • Wellhead Protection Plan (2016)
Parks, Recreation, and Open Space	• Conservation Element (2025) • Parks, Recreation, and Open Space Plan (2008/2016) • Shoreline Master Program (2019)
Fire Protection	• Agency Evaluation, Tumwater Fire Department (2024) • Comprehensive Emergency Management Plan (2023) • Strategic Plan, Tumwater Fire Department (2024)
Police Protection	• Police Strategic Growth Plan (2025-2029)
School Facilities	• Capital Facilities Plan (2026-2031), Olympia School District (2024) • Capital Facilities Plan (2026 – 2031), Tumwater School District (2025)
Library Services	• Timberland Regional Library Strategic Plan (2020-2024)
City Facilities	• Tumwater Resource Conservation Management Program (Phase 1 and 2) – Energy Conservation Assessment, State General Administration and Washington State University Extension Energy Program (2008)

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Appendix B New Capital Projects Equity Checklist

A. Describe the proposed action, policy, or decision and an expected timeline.

B. Describe the intended good outcomes of the proposal.

C. What unintended consequences could result from the implementation of this proposal? Consider outcomes from similar efforts in other places, and any concerns stakeholders raise.

D. Describe the impacted populations of this proposal. Consider intentional and unintentional impacts, as well as a variety of groups.

E. Describe other similar or complementary services already provided to the impacted populations?

F. Which Comprehensive Plan goals are addressed by the proposal?

G. What kind of information informed the development of the proposal?

1) Data.
   - Client or customer.
   - Demographic.
   - Expenditure or revenues.
   - Equity Index indicators.
   - Geography.
   - Service or program provider.
   - Other, please describe.

2) Stakeholder feedback.
   - Community-based organizations.
   - Private sector.
   - Government.
   - Tumwater-established board.
   - Community workgroup.
   - General public.
   - Tribal government.
   - Other, please describe.

3) Other, please describe.

H. If stakeholder engagement informed the proposal, what kind of engagement was used, and for whom?

1) Collaborated.

2) Consulted.

3) Informed.

I. If the proposal was informed by stakeholder engagement, describe the support for and concerns raised about the proposal.

J. If the proposal was not informed by stakeholder engagement, why? How might this exclusion affect the proposal and its consequences?

K. What disparities exist or could be created by the proposal? Consider various disparities, such as racial, geographic, gender, age, educational, income-based, language-based, ability-based, citizenship-status-based, sexual orientation-based, and more.

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L. How does this proposal most effectively improve equitable outcomes in Tumwater?

M. Who will benefit from this proposal? Why are other groups excluded from benefits?

N. How will impacts be monitored after this proposal is implemented? Why were these metrics chosen?

O. Considering your responses to the prompts and questions above, are there any modifications or additions that could be made to the proposal to serve people more equitably? How feasible are these changes, and how might they be implemented?

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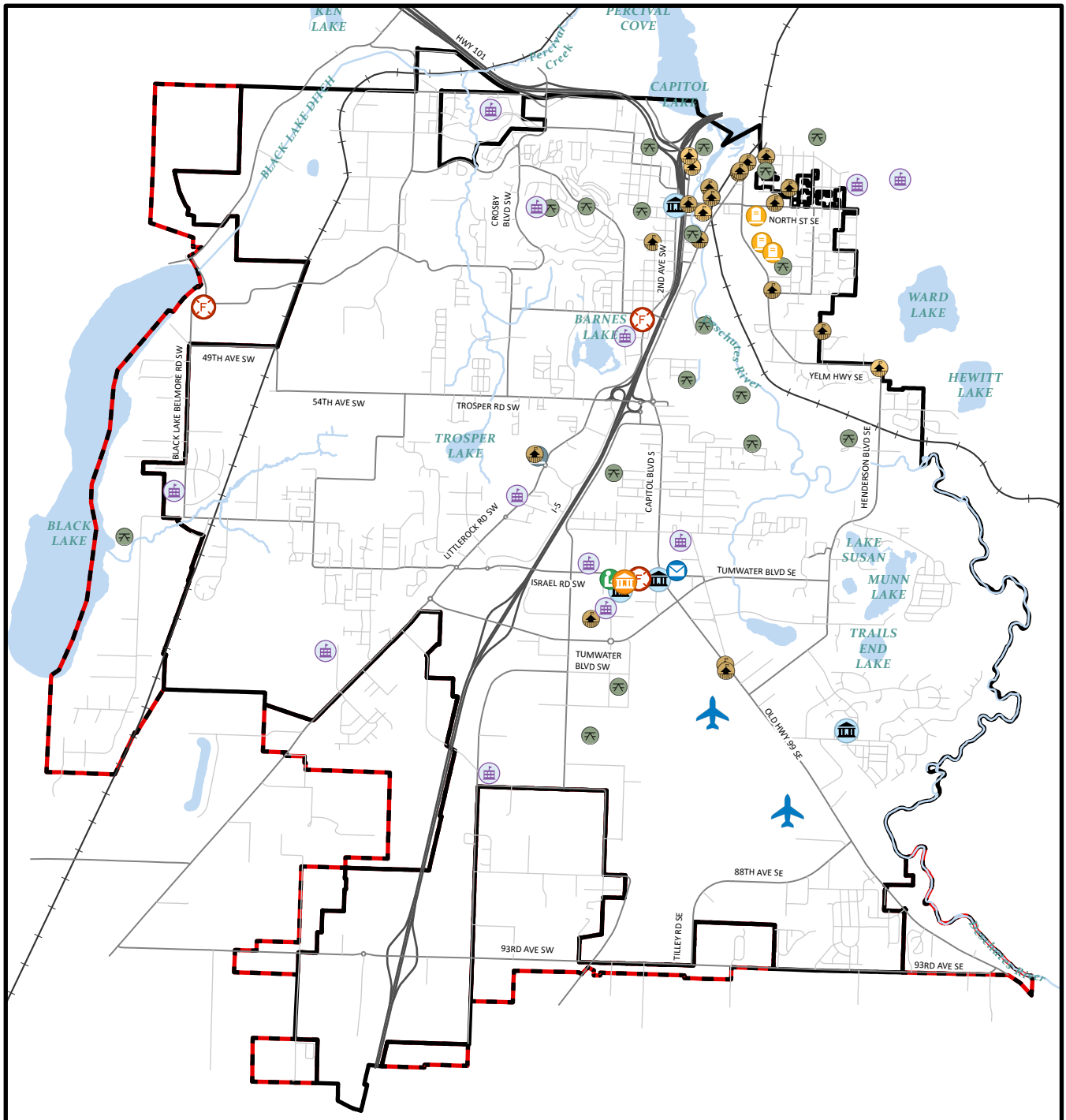
Attachment I.3. Map LPP-1



City and Other Public Facilities

Map created by the City of Tumwater Transportation and Engineering Department using ArcGIS Pro 3.3.2.
Data courtesy City of Tumwater Transportation and Engineering Department.
DISCLAIMER: The City of Tumwater does not warrant, guarantee, or accept any liability for the accuracy, precision, or completeness of any information shown hereon or for any inferences made therefrom.

0 0.25 0.5 1 Miles

N

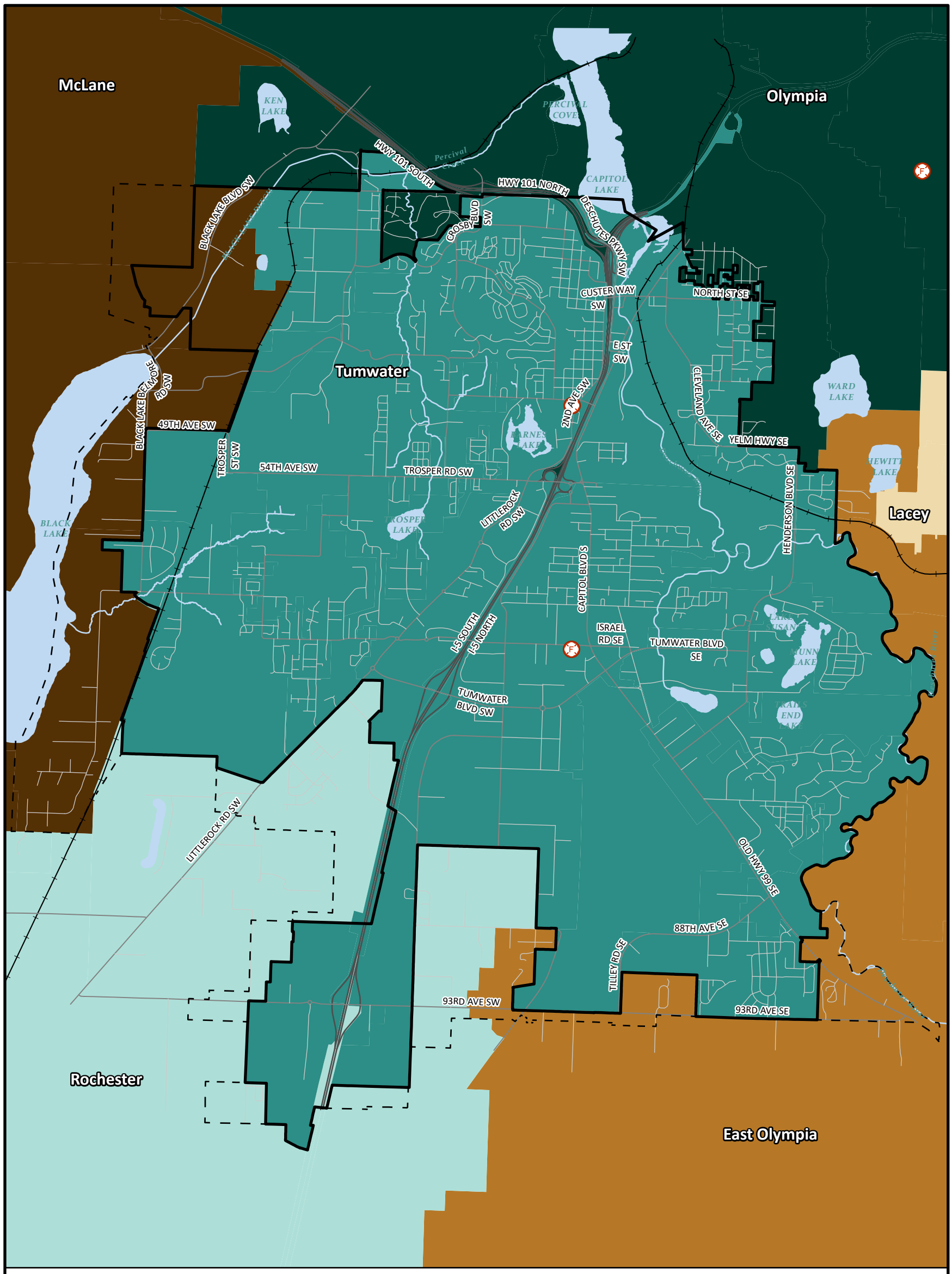
City Facilities

- City Hall
- Cemetery
- City Facility
- Fire Station
- Historic Register
- Other Historic Site
- Parks & Rec
- Library

Other Public Facilities

- Airport
- Cemetery
- Post Office
- School
- Railroads
- Tumwater City Limits
- Tumwater Urban Growth Area

Map LPP-2



Fire Districts

- Tumwater Urban Growth Area
- Railroads
- Fire Stations

0 0.25 0.5 1 Miles

N

Map created by the City of Tumwater Transportation and Engineering Department using ArcGIS Pro 3.2.1.
Data courtesy City of Tumwater Transportation and Engineering Department.
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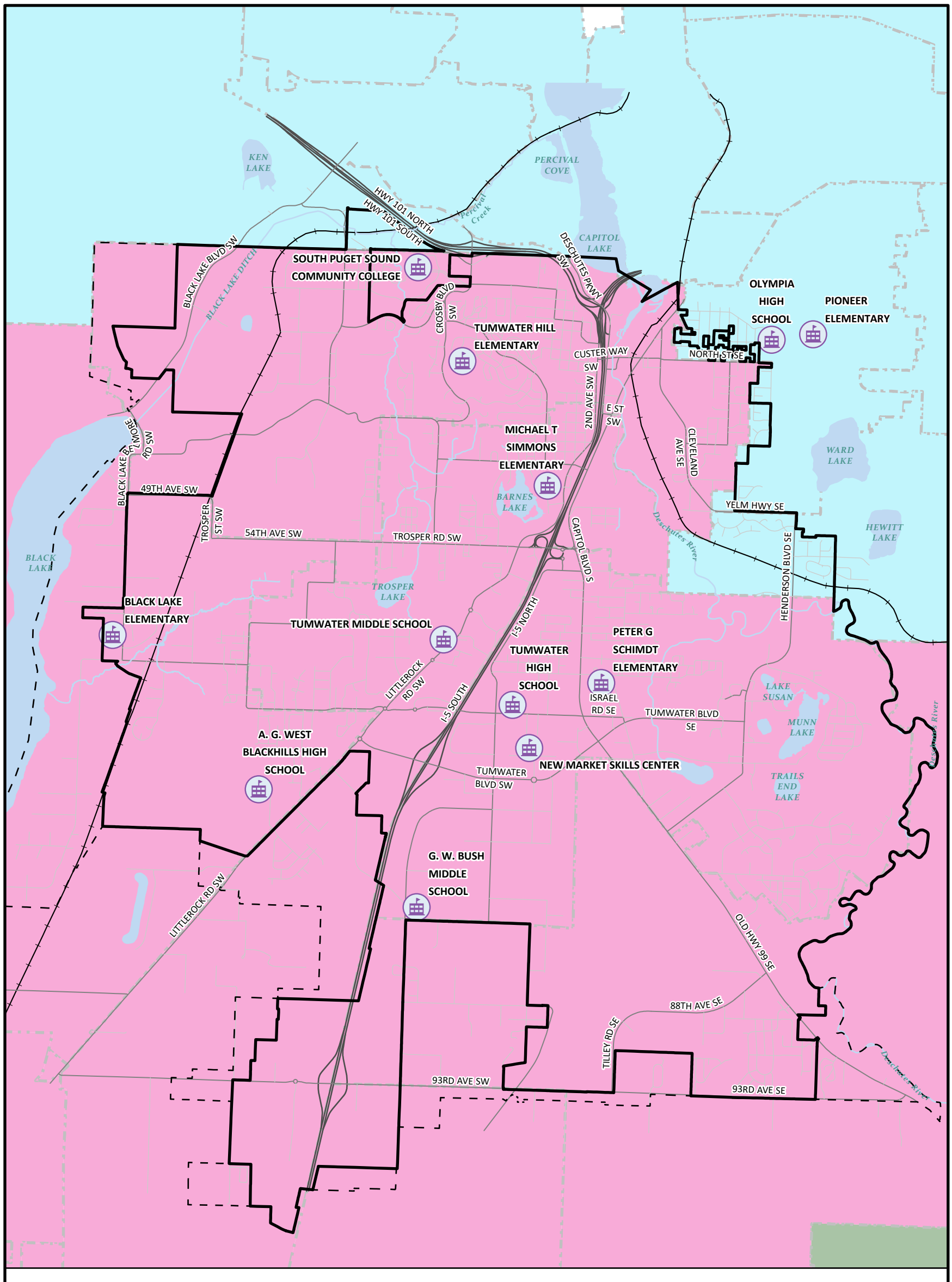
Date Exported: 12/19/2024

Map LPP-3



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School Facilities

0 0.25 0.5 1 Miles

N

- Schools
- Railroads
- Tumwater Urban Growth Area

School Districts

- Olympia
- Tenino
- Tumwater

Map created by the City of Tumwater Transportation and Engineering Department using ArcGIS Pro 3.2.1.
Data courtesy City of Tumwater Transportation and Engineering Department.
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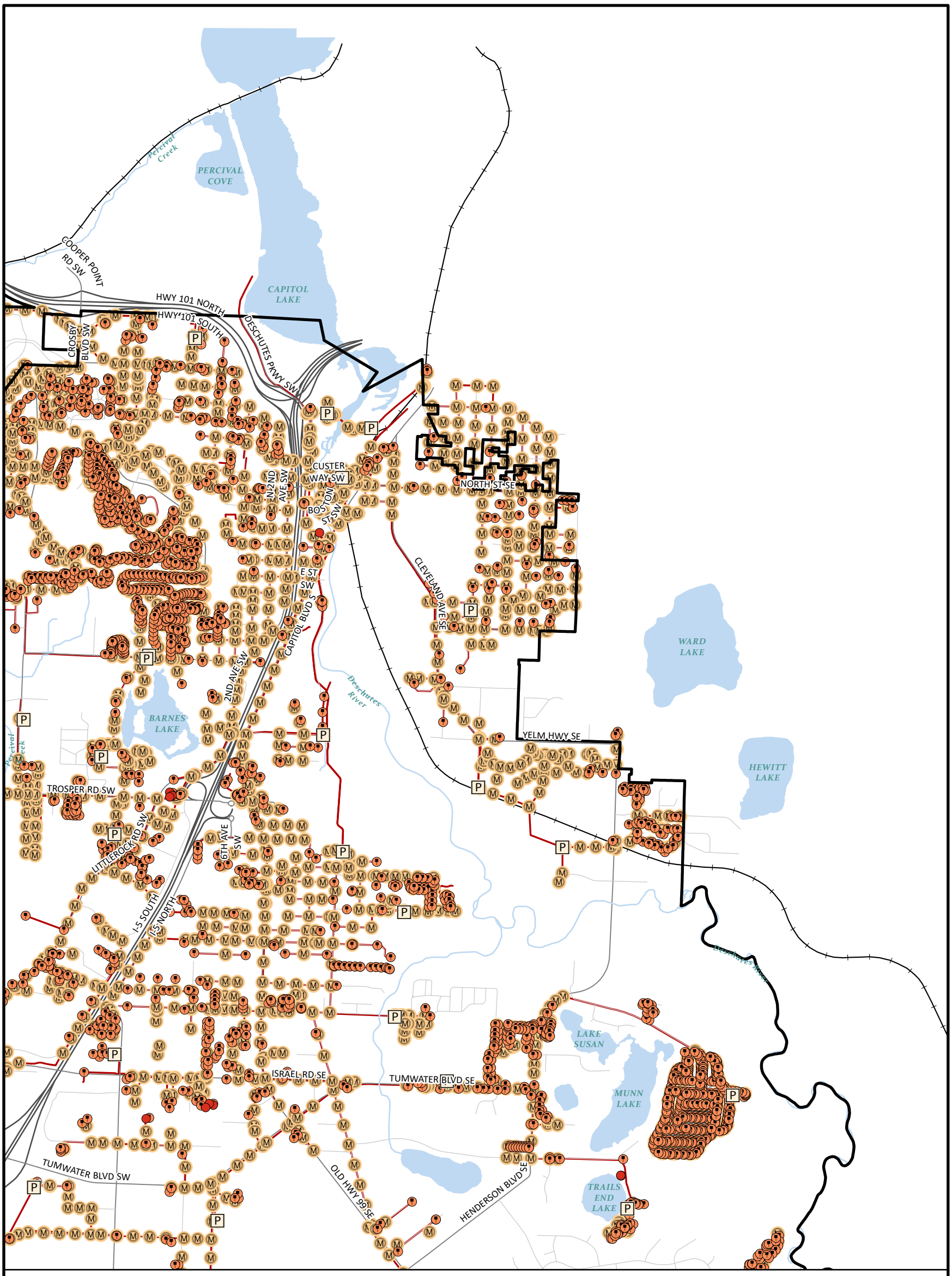
Date Exported: 12/19/2024

Map LPP-4a



Sewage Treatment Facilities & Sanitary Sewer Systems

Tumwater NE

0 0.13 0.25 0.5 Miles

N

Sewer Structures
- Manhole
- Clean Out
- Other

- Sewer Pump Station
- Sewer Pipe
- Railroads
- City Limits
- Urban Growth Area

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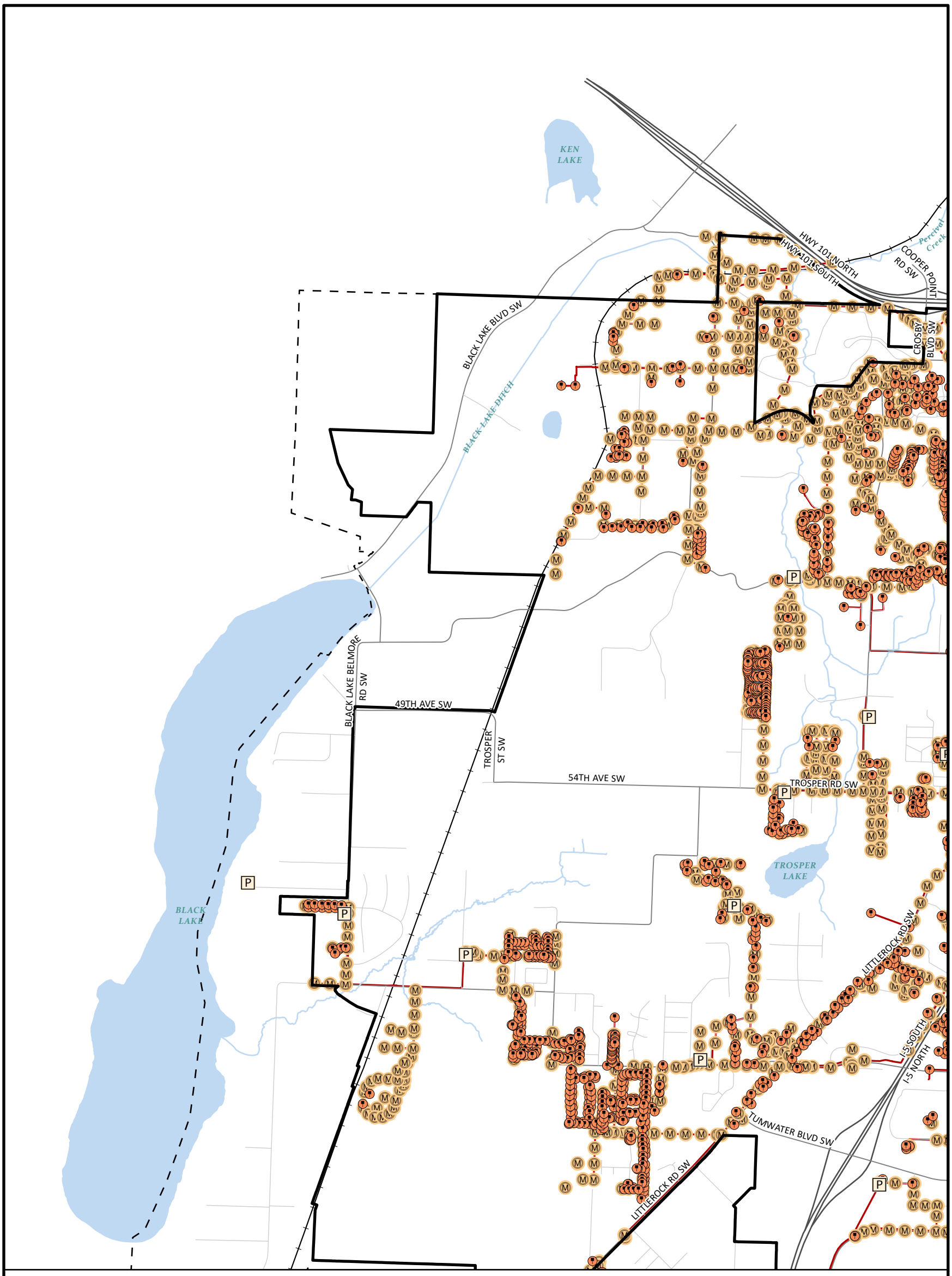
Map LPP-4b



1380

Sewage Treatment Facilities & Sanitary Sewer Systems

Tumwater NW

0 0.13 0.25 0.5 Miles

N

Sewer Structures
- Manhole
- Clean Out
- Other

- Sewer Pump Station
- Sewer Pipe
- Railroads
- City Limits
- Urban Growth Area

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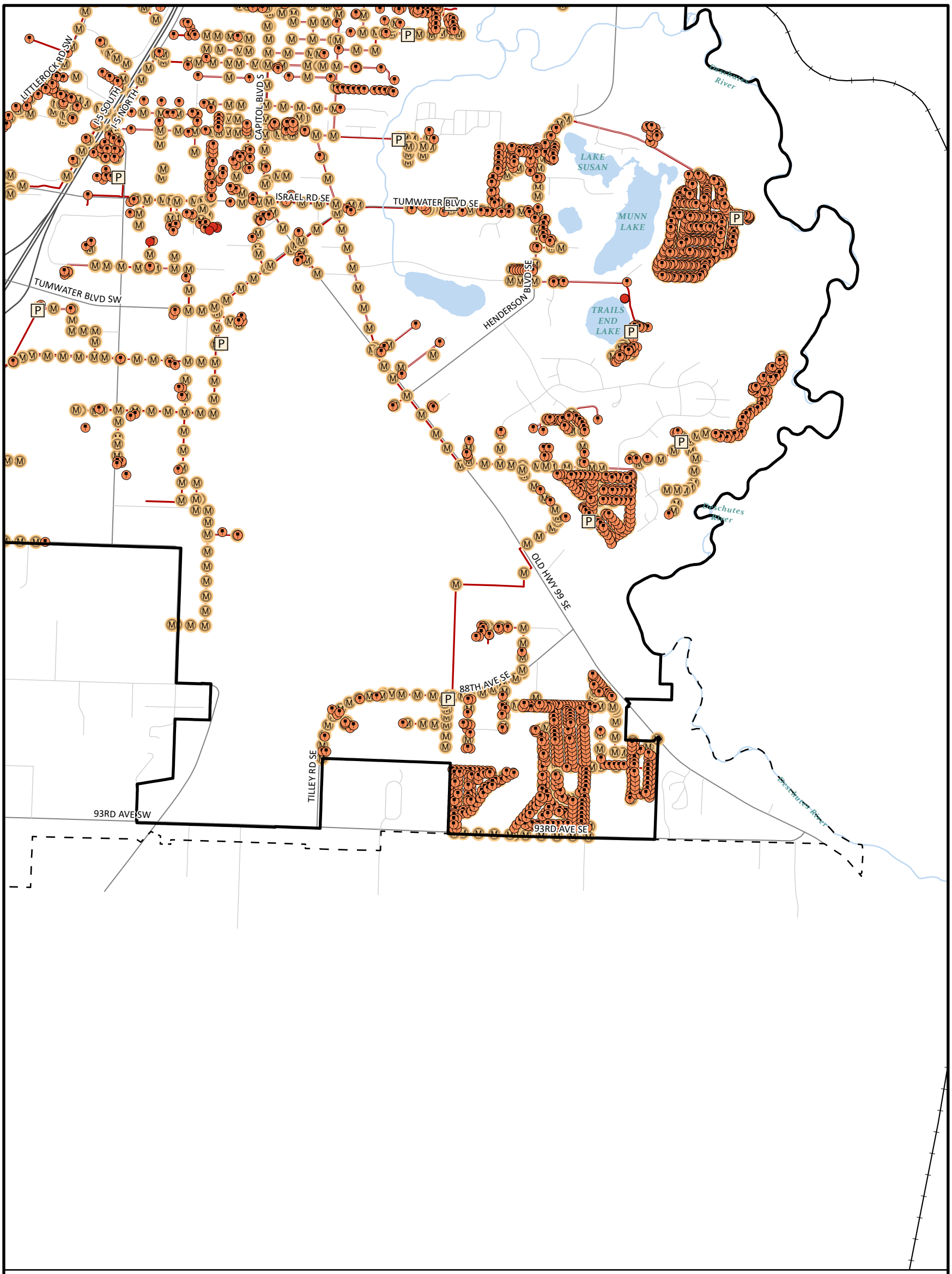
Map LPP-4c



Sewage Treatment Facilities & Sanitary Sewer Systems

Tumwater SE

N

Sewer Structures
- Manhole
- Clean Out
- Other

- Sewer Pump Station
- Sewer Pipe
- Railroads
- City Limits
- Urban Growth Area

0 0.13 0.25 0.5 Miles

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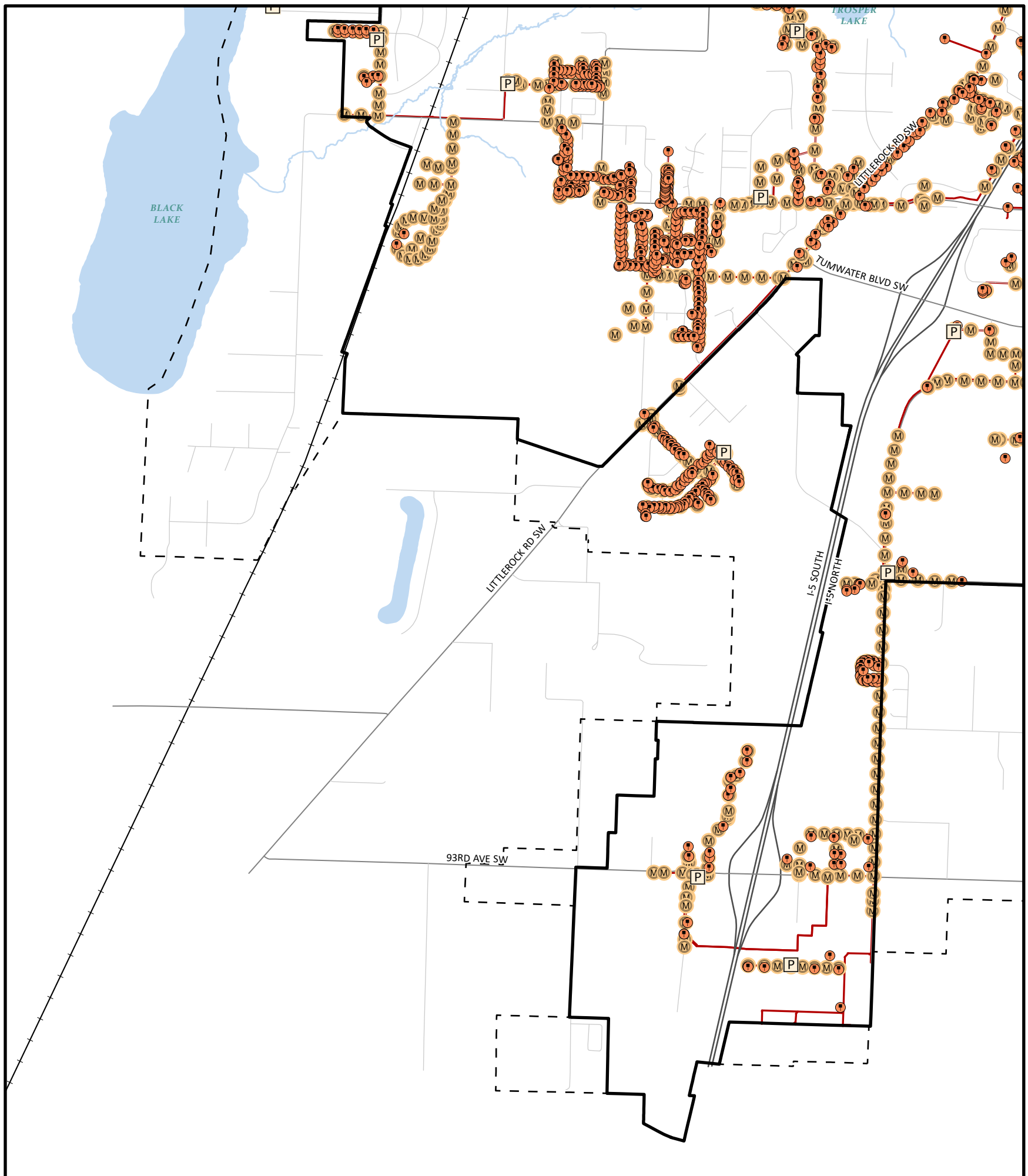
Map LPP-4d



1382

Sewage Treatment Facilities & Sanitary Sewer Systems

Tumwater SW

N

Sewer Structures
- Manhole
- Clean Out
- Other

- Sewer Pump Station
- Sewer Pipe
- Railroads
- City Limits
- Urban Growth Area

0 0.13 0.25 0.5 Miles

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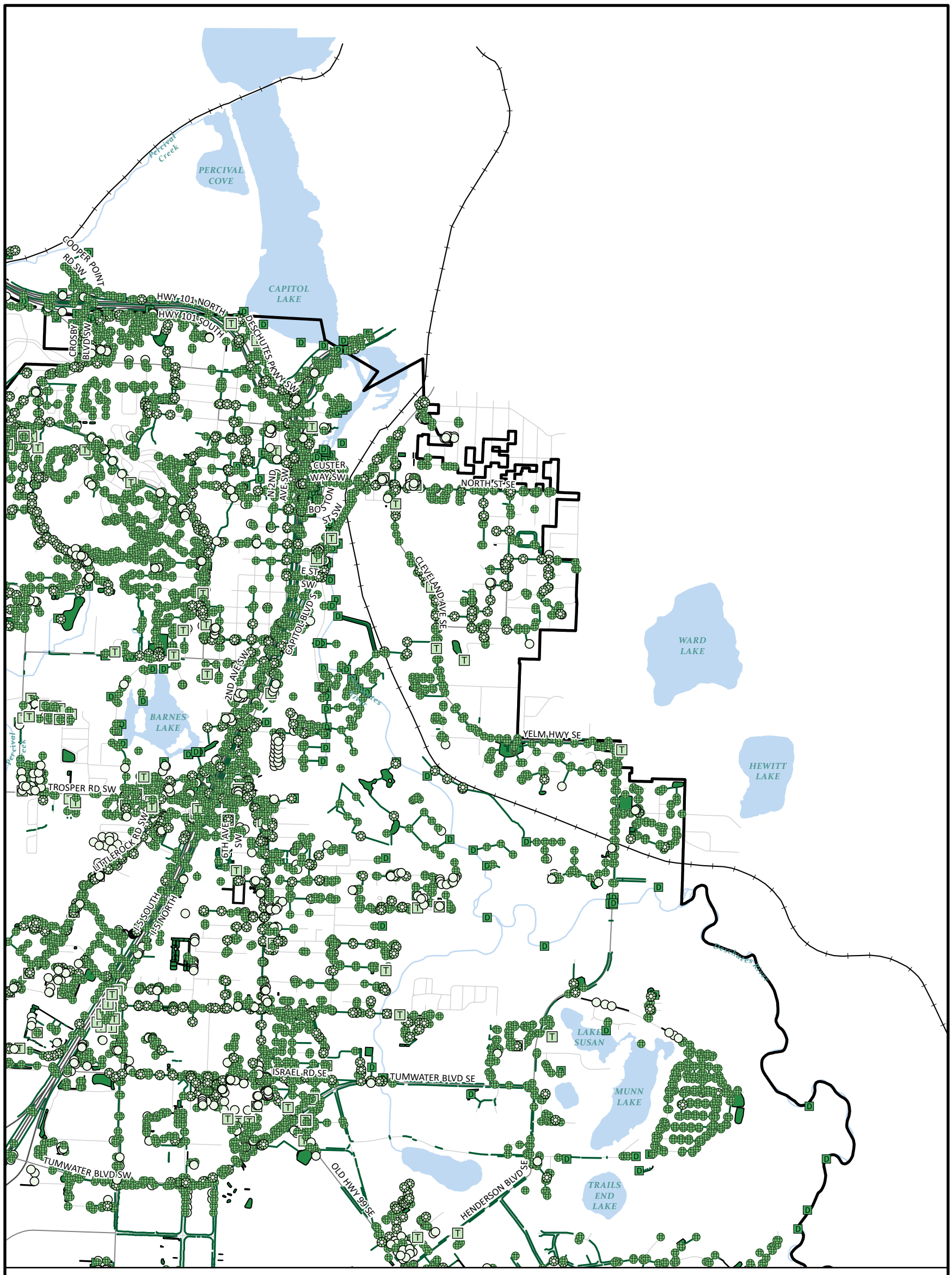
Map LPP-5a



Stormwater Systems & Facilities

Tumwater NE

- Catch Basin
- Maintenance Hole
- Treatment Structure
- Other
- Storm Discharge Points
- Storm Lines
- Detention Basins
- City Limits
- Urban Growth Area
- Railroads

N

0 0.13 0.25 0.5 Miles

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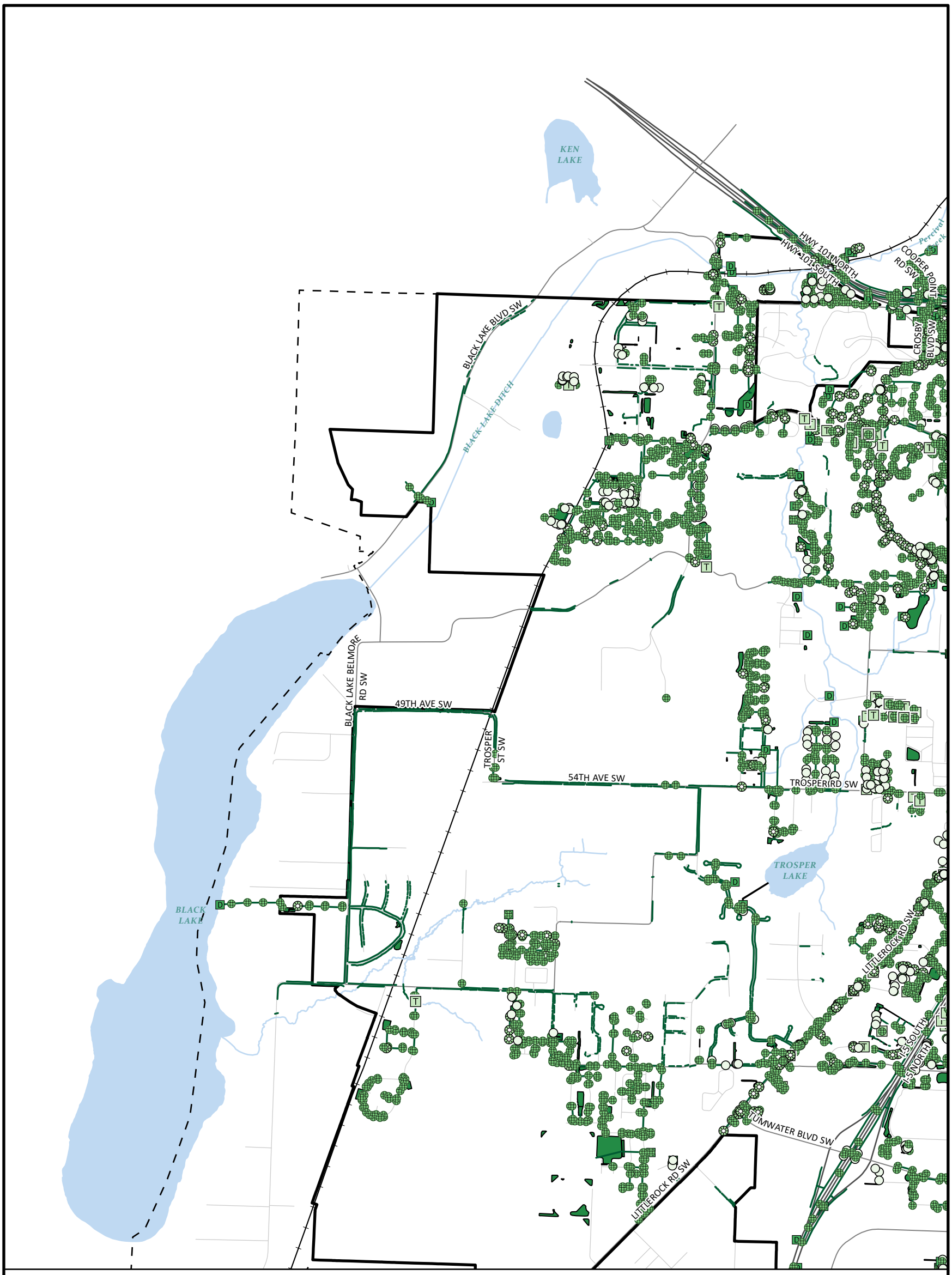
Map LPP-5c



Stormwater Systems & Facilities

Tumwater NW

- Catch Basin
- Maintenance Hole
- Treatment Structure
- Other
- Storm Discharge Points
- Storm Lines
- Detention Basins
- City Limits
- Urban Growth Area
- Railroads

N

0 0.13 0.25 0.5 Miles

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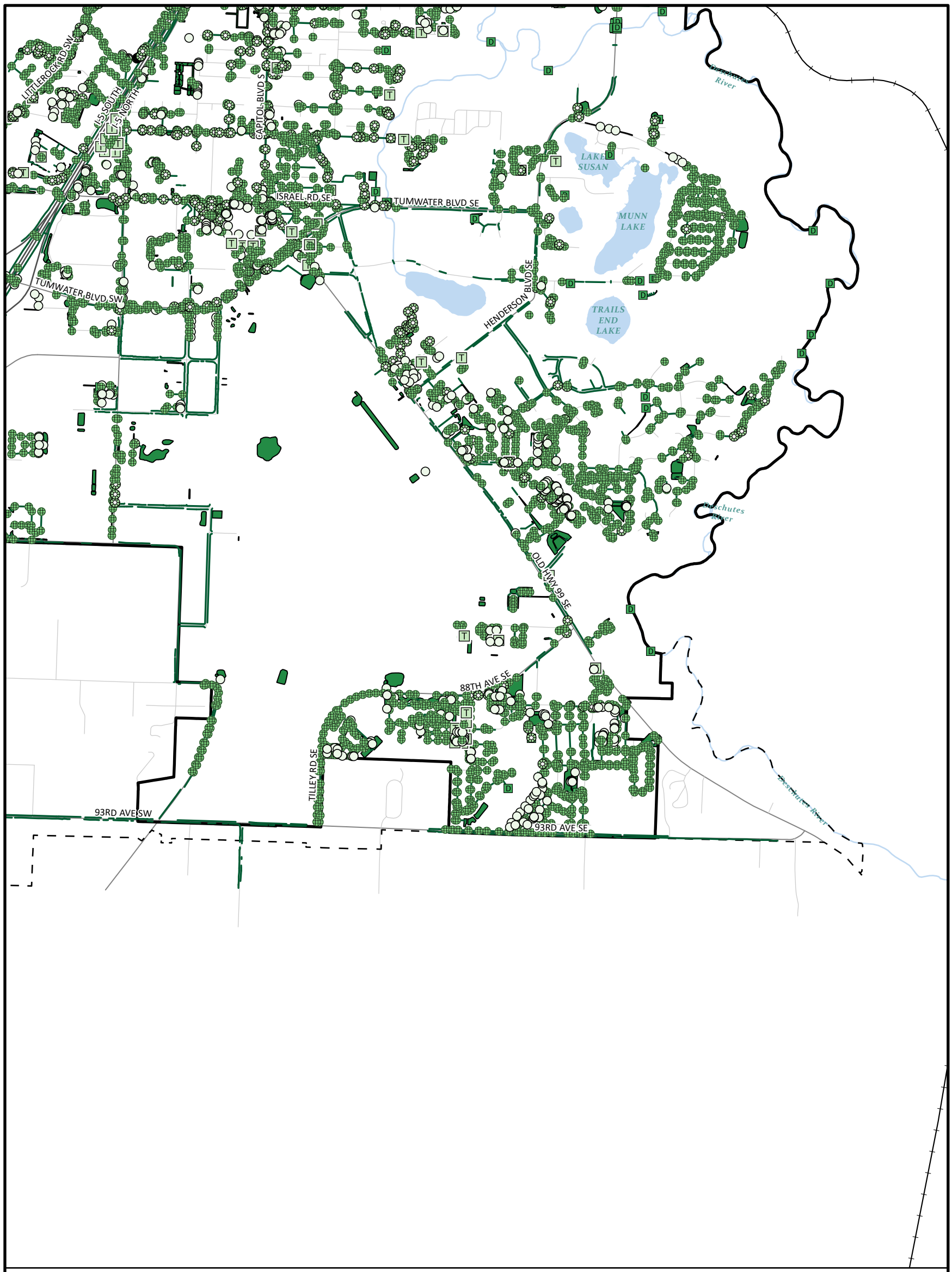
Map LPP-5c



Stormwater Systems & Facilities

Tumwater SE

N

- Catch Basin
- Maintenance Hole
- Treatment Structure
- Other
- Storm Discharge Points
- Storm Lines
- Detention Basins
- City Limits
- Urban Growth Area
- Railroads

0 0.13 0.25 0.5 Miles

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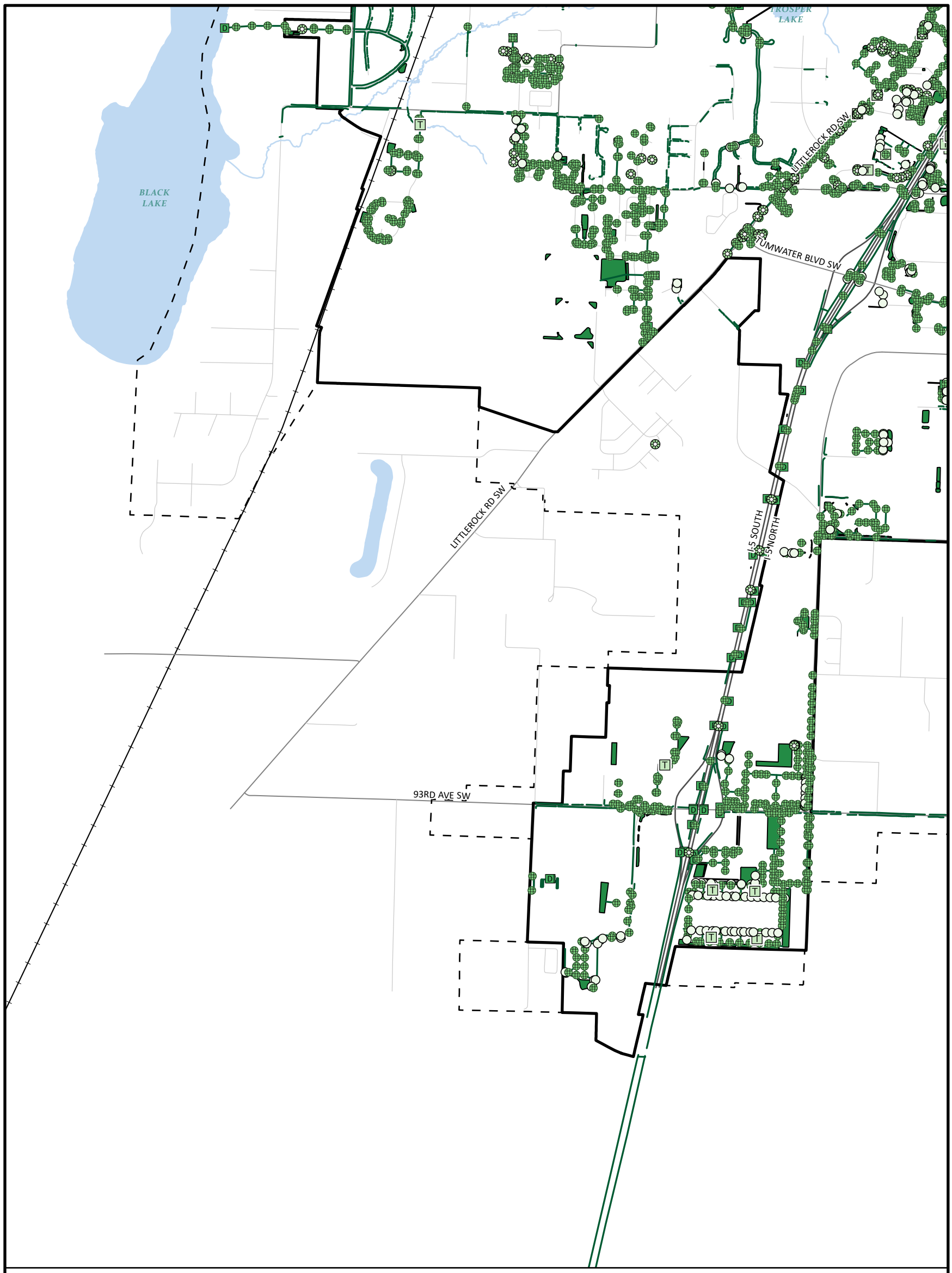
Map LPP-5d



Stormwater Systems & Facilities

Tumwater SW

- Catch Basin
- Maintenance Hole
- Treatment Structure
- Other
- Storm Discharge Points
- Storm Lines
- Detention Basins
- City Limits
- Urban Growth Area
- Railroads

N

0 0.13 0.25 0.5 Miles

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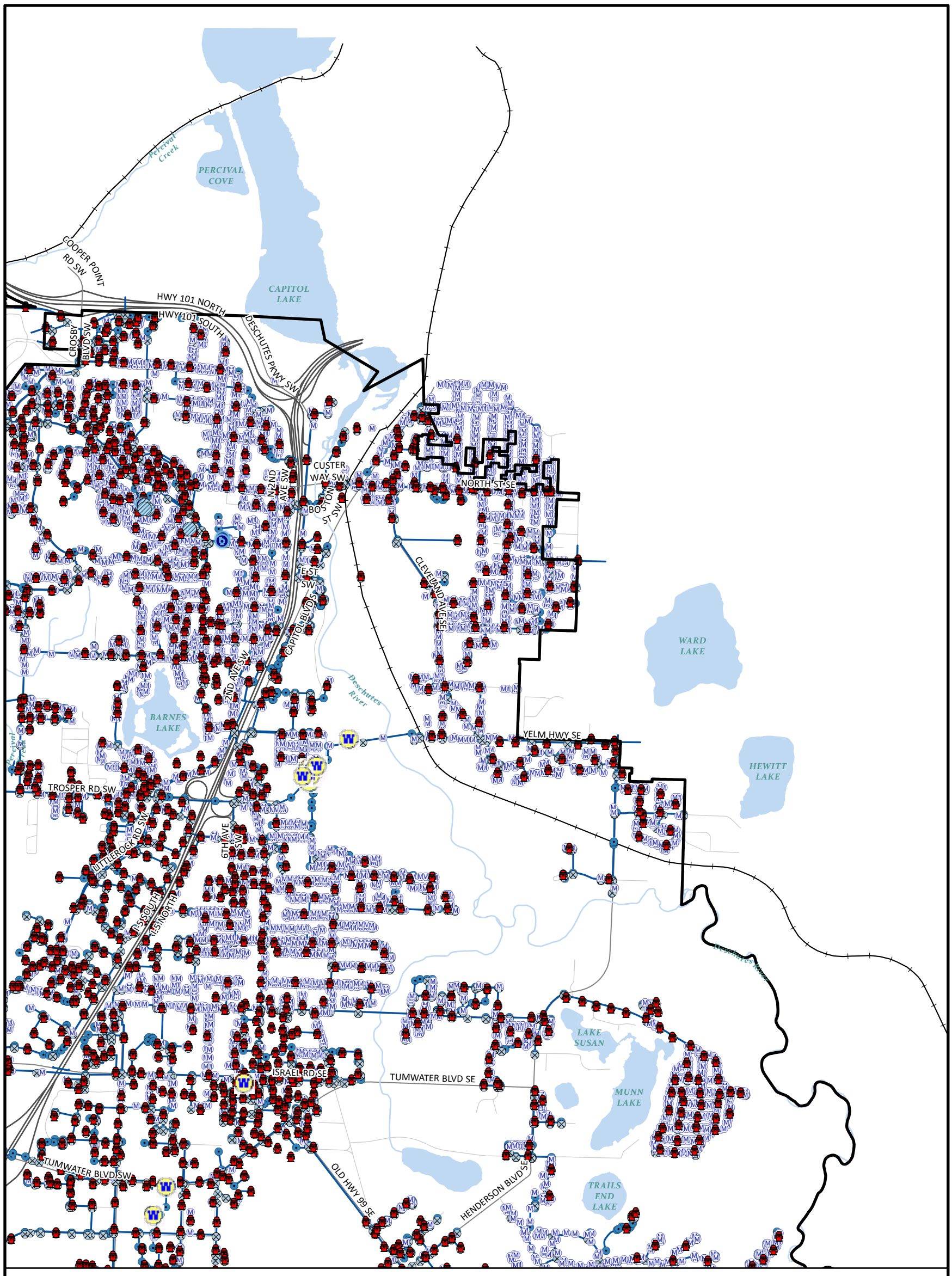
Map LPP-6a



Water Systems & Facilities

Tumwater NE

0 0.13 0.25 0.5 Miles

N

- Fire Hydrants
- Water Meters
- Water Valves
- Water Pump Station
- Water Nodes
- Reservoirs
- Wells
- Water Mains
- Railroads
- City Limits
- Urban Growth Area

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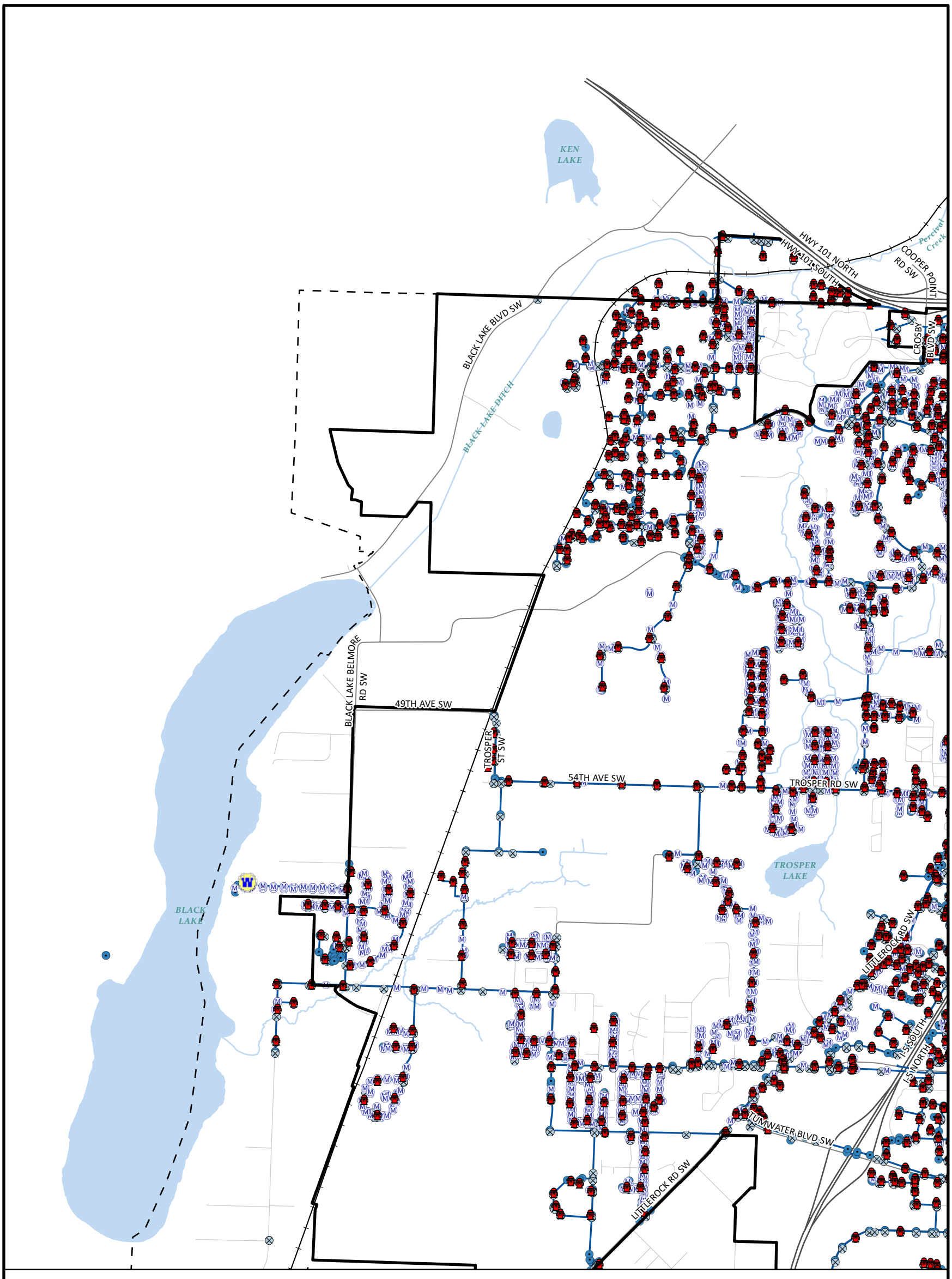
Map LPP-6b



Water Systems & Facilities

Tumwater NW

0 0.13 0.25 0.5 Miles

N

- Fire Hydrants
- Water Meters
- Water Valves
- Water Pump Station
- Water Nodes
- Reservoirs
- Wells
- Water Mains
- Railroads
- City Limits
- Urban Growth Area

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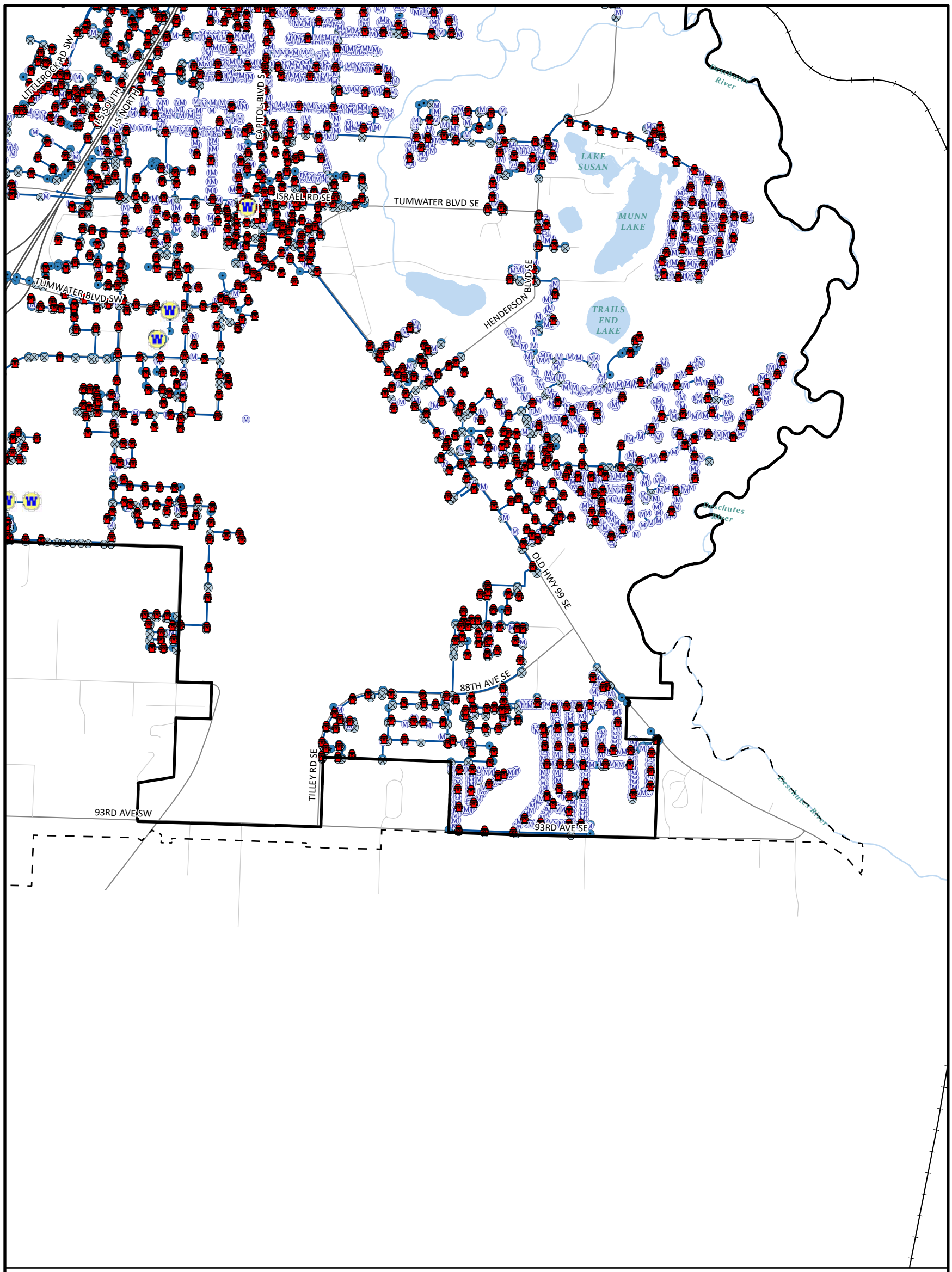
Map LPP-6c



Water Systems & Facilities

Tumwater SE

0 0.13 0.25 0.5 Miles

N

- Fire Hydrants
- Water Meters
- Water Valves
- Water Pump Station
- Water Nodes
- Reservoirs
- Wells
- Water Mains
- Railroads
- City Limits
- Urban Growth Area

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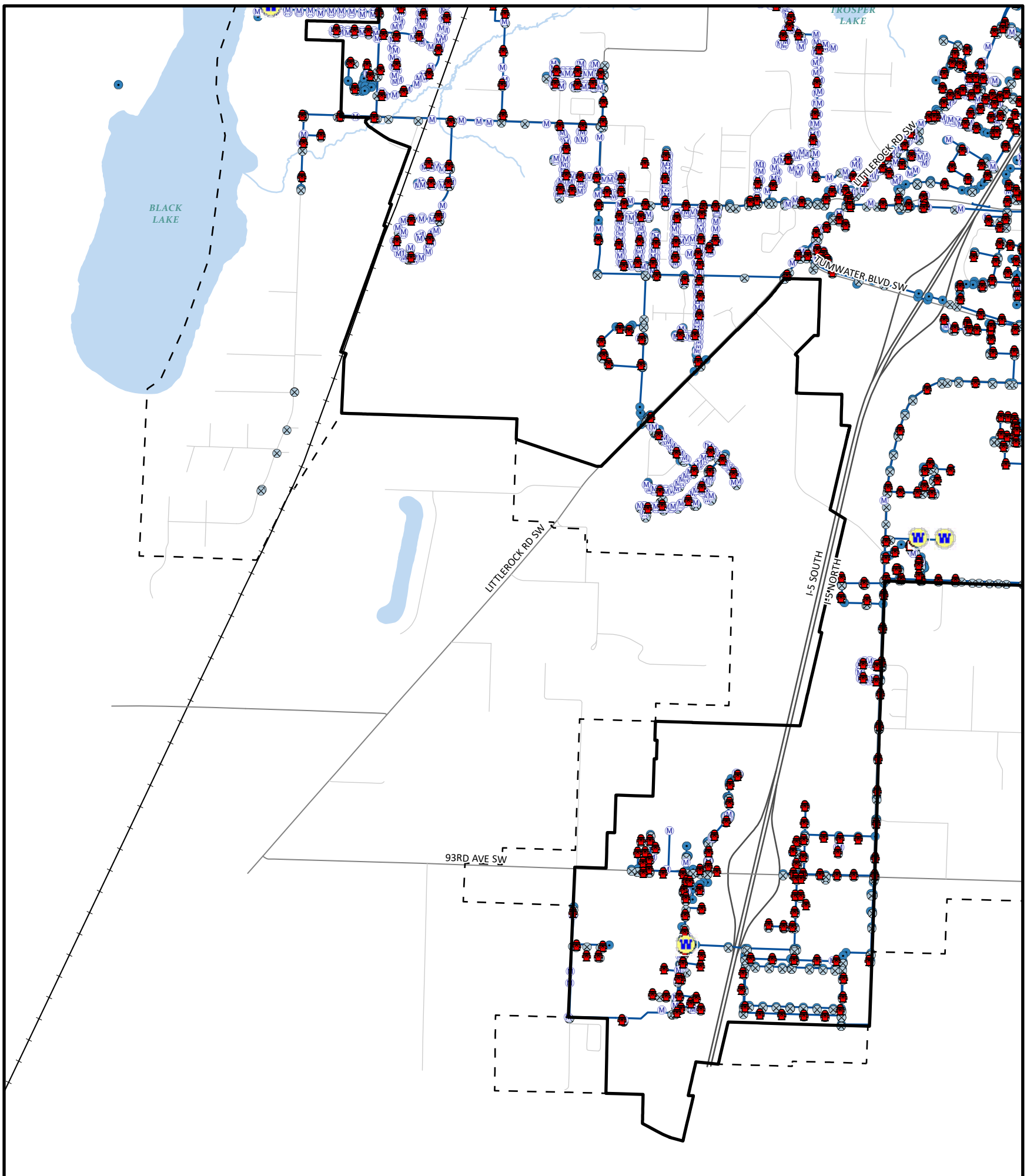
Map LPP-6d



Water Systems & Facilities

Tumwater SW

0 0.13 0.25 0.5 Miles

N

- Fire Hydrants
- Water Meters
- Water Valves
- Water Pump Station
- Water Nodes
- Reservoirs
- Wells
- Water Mains
- Railroads
- City Limits
- Urban Growth Area

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Transportation Plan

Part 1 – Goals, Policies, and Implementation Actions

City of Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 6, 2025

December 2025

Ordinance No. O2025-010

CITY OF TUMWATER

Transportation Plan

Part 1 – Goals, Policies, and Implementation Actions

Table of Contents

1. Introduction 3
A. Background 3
B. How to Read this Part of the Transportation Plan 3
2. Growth Management Act – Plan Goals 5
3. County-Wide Planning Policies 6
4. Transportation Plan Goals and Policies 7
A. How to Read These Tables 7
B. Growth Management Goals 7
Appendix A Draft Implementation Actions 14
A. How to Read These Tables 14

Abbreviations Used in Document

CDD – Community Development Department

PRD – Parks, Recreation, and Facilities Department

RCW – Revised Code of Washington

TED – Transportation & Engineering Department

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1. Introduction

A. Background

The Transportation Plan is part of Tumwater's Comprehensive Plan. It was created to meet the state Growth Management Act (Chapter 36.70A RCW) requirements.

This section of the Transportation Plan specifies goals, policies, and actions meant to guide elected officials and Tumwater staff when considering transportation investments and changes. The goals, policies, and actions also serve to ensure coordination with separate Comprehensive Plan Elements, regional plans, and County-Wide Planning Policies. Additionally, they help implement certain actions within the Transportation Plan.

Part 1 – Goals Policies, and Implementation Actions establishes Tumwater's goals and policies to set forth a direction to support the provision of transportation facilities for development in Tumwater.

The goals and policies of the Transportation Plan are guided by the state Growth Management Act and the Thurston County County-Wide Planning Policies and the vision of a Tumwater. The Transportation Plan's goals and policies are coordinated with the other Elements and regional plans.

The Transportation Plan's goals and policies are the policy basis for the draft implementation actions in the Plan and those future actions that will be developed over the next 20 years which will be the foundation for Tumwater's annual work programs to address public services and facilities for development.

Part 2 – Technical Information provides the technical analysis of Tumwater transportation system and provides the basis for the goals, policies, and draft implementation actions in Part 1. Part 2 discusses the status and level of transportation facilities needs for Tumwater to support the 20-year growth projections for Tumwater.

B. How to Read this Part of the Transportation Plan

In Part 1, Chapters 2 and 3 discuss the Transportation Plan's connection to the goals of the state Growth Management Act and the Thurston County County-Wide Planning Policies.

Chapter 4 presents each goal with an explanation of how to read the tables and then presents each of Tumwater's transportation goals in detail with an explanation of the importance of each goal and how it helps to improve Tumwater's transportation system.

Appendix A contains the draft implementation actions, which are intended to be a source of annual work program items that serve to implement the goals and policies of the Transportation Plan.

The annual work programs will further refine the implementation actions prior to their being put into practice. It is expected that implementation actions will be further amended, added, or subtracted as needed over the course of the 20 year Comprehensive Plan as new opportunities

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arise to meet the intent of the Transportation Plan's goals and policies.

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2. Growth Management Act – Plan Goals

The State Growth Management Act (Chapter 36.70A RCW) requires that Tumwater demonstrate that each Element in its Comprehensive Plan meets the relevant fifteen planning goals contained within the Act. The fifteen goals guide the development and adoption of Tumwater's Comprehensive Plan and development regulations.

The following is a summary of how the Transportation Plan addresses the goals related to transportation.

3. ***Transportation.*** *Encourage efficient multimodal transportation systems that will reduce greenhouse gas emissions and per capita vehicle miles traveled, and are based on regional priorities and coordinated with county and city comprehensive plans.*

The Transportation goal was updated by the state legislature in 2023 to add reducing greenhouse gas emissions and per capita vehicle miles traveled. Achieving this goal will be done through a combination of goals, policies, and actions in the Land Use Element and Transportation Plan. The Land Use Element will contain goals, policies, and actions that ensure coordination with regional and local transportation plans. The Land Use Element will also propose residential, mixed-use, and neighborhood commercial land use designations that will encourage multi-modal, transit-oriented development. Coordination with the new Climate Element will also be required.

12. ***Public facilities and services.*** *Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.*

The Transportation Plan provides the basis for determining the transportation facilities that are necessary to support development shall be adequate to serve the development at the time the development is available for occupancy.

15. ***Climate change and resiliency****. Ensure that comprehensive plans, development regulations, and regional policies, plans, and strategies under RCW 36.70A.210 and chapter 47.80 RCW adapt to and mitigate the effects of a changing climate; support reductions in greenhouse gas emissions and per capita vehicle miles traveled; prepare for climate impact scenarios; foster resiliency to climate impacts and natural hazards; protect and enhance environmental, economic, and human health and safety; and advance environmental justice.*

The Conservation Element, Land Use Element, and Transportation Plan of the Comprehensive Plan will need to address this as a new goal in coordination with the new Climate Element. A new overarching Comprehensive Plan goal will address increasing climate resiliency by promoting sustainability, reducing pollution, promoting healthy habitats, and supporting clean air and water.

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3. County-Wide Planning Policies

The Growth Management Act requires that comprehensive plans be consistent with the Thurston County County-Wide Planning Policies, which were last amended in 2025.

The following is a list of relevant policies that apply to the Transportation Plan. All County-Wide Planning Policies are adopted as Appendix B: *Thurston County County-Wide Planning Policies* as part of the Comprehensive Plan.

II. Urban Growth Areas

An overview of existing and proposed transportation facilities is found in Part 2: Technical Information of the Transportation Plan to assist with the assessment of transportation services in the urban growth area.

III. Promotion of Contiguous and Orderly Development, Provision of Urban Services, and Protection of Rural Areas

Part 2 – Technical Information provides the basis for siting and the future need for the expansion of transportation facilities that Tumwater provides.

IX. Transportation

The Transportation Plan is the primary inventory of the transportation system, and references to more in depth plans, and some long-term goals for improving multi-modal transit options, Part 2 – Technical Information provides additional detail.

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4. Transportation Plan Goals and Policies

A. How to Read These Tables

The Transportation Plan's goals and policies are not in priority order.

Appendix A provides a list of the draft implementation actions by goal and policy that will be considered when developing annual work programs for implementing the Transportation Plan's goals and policies.

1) Department Leads

Implementation of the Transportation Plan's policies are associated with three different Tumwater departments:

CDD Community Development

TED Transportation & Engineering

2) Period

Each of the Transportation Plan's policies is associated with estimated start dates, length of time to complete, and target completion dates, if appropriate based on adequate funding for staff and resources. Most policies are ongoing with no set target completion date.

B. Growth Management Goals

Goal T-1 **Improve and maintain a complete, interconnected system that efficiently supports people walking, rolling, biking, accessing transit, and driving.**

Why is this Goal Important?

The Transportation Plan aims to create a safe, efficient, and multimodal transportation system that supports land use goals, reduces reliance on driving, allows dignity and independence for those unable to drive, and enhances options for walking, rolling, biking, and transit.

It emphasizes managing congestion, improving freight mobility, and developing a connected street grid to increase neighborhood accessibility.

The plan also focuses on expanding transit services, building low-stress bicycle and pedestrian networks, preserving rail corridors for future use, and ensuring access to general aviation facilities.

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Policies		Lead	Period
T-1.1	Work toward a transportation system that provides for the safe and efficient movement of people and goods, supports adopted land use plans, reduces the need to drive, and provides alternative travel choices.	TED	Term of the Plan
T-1.2	Prioritize alternatives to vehicle capacity projects to address congestion, preserve an acceptable community scale for roadways, and minimize transportation impacts on active mode travelers.	TED	Term of the Plan
T-1.3	Decrease the number of trips made in single-occupancy vehicles through land use plans, development codes, and design standards that encourage walking, bicycling, transit use, and other alternatives to driving separately.	TED	Term of the Plan
T-1.4	Promote efficient, timely, and safe movement of freight within the region by planning for freight access to and from major freight destinations and implementing design standards to accommodate delivery trucks while minimizing heavy freight on local streets.	TED	Term of the Plan
T-1.5	Develop an interconnected grid of local streets to improve travel options, reduce congestion and vehicle miles traveled, and increase neighborhood connectivity.	TED	Term of the Plan
T-1.6	Advocate for Intercity Transit to provide reliable and effective transit options commensurate with Tumwater's evolving needs.	TED	Term of the Plan
T-1.7	Develop a continuous, safe, and convenient bicycle network with Level of Traffic Stress 1 or 2 facilities throughout Tumwater.	TED	Term of the Plan
T-1.8	Provide pedestrian facilities that meet a Level of Traffic Stress 1 or 2.	TED	Term of the Plan
T-1.9	Ensure the continued long-term viability of existing and rail-banked rail lines for future freight and passenger rail travel.	TED	Term of the Plan

	Policies	Lead	Period
T-1.10	Allow for efficient access to the Port of Olympia's Olympia Regional Airport and New Market Industrial Center.	TED	Term of the Plan
T-1.11	Maintain active transportation infrastructure like sidewalks and bike lanes to make sure that vegetation and debris does not hinder the use of these facilities.	TED	Term of the Plan

Goal T-2 Prioritize safety and accessibility for all users.

Why is this Goal Important?

Tumwater's transportation policies focus on enhancing safety and accessibility for all users, especially vulnerable populations, by developing safe walking and biking routes, ensuring Americans with Disabilities Act compliance, and improving transit facilities.

Tumwater emphasizes designing complete streets that promote safe behavior, reduce traffic conflicts, and foster vibrant, walkable neighborhoods through thoughtful infrastructure elements like lighting and pedestrian amenities.

	Policies	Lead	Period
T-2.1	Design transportation infrastructure to encourage safe user behavior and prioritize safety improvement projects at locations with a history of serious injury or fatality collisions and/or risk factors for severe crashes especially where nonmotorized users are involved.	TED	Term of the Plan
T-2.2	Enhance the safety and security of those who use, operate, and maintain the transportation system.	TED	Term of the Plan
T-2.3	Design and construct complete streets and roads based on the adoption of a 'Complete Streets Ordinance', which would encourage neighborhood-scale planning efforts to identify prioritized active transportation routes that enhance connectivity and walkability, especially to and from schools, transit connections, and activity centers.	TED	Term of the Plan

Policies		Lead	Period
T-2.4	Explore strategies to reduce conflict points and optimize safety for all transportation system users.	TED	Term of the Plan
T-2.5	Create safe and vibrant neighborhoods with places that build community and encourage active travel through the provision of street lighting, pedestrian buffers, trees, benches, and other street elements that make walking safe and pleasant.	CDD TED	Term of the Plan
T-2.6	Provide safe and interconnected walk and bike routes to all schools in Tumwater and encourage their use.	TED	Term of the Plan
T-2.7	Support safe, convenient, and cost-effective transportation services for non-drivers, such as youth, elders, people with disabilities, and low-income populations.	TED	Term of the Plan

Goal T-3 Invest wisely to support a resilient and maintainable transportation system

Why is this Goal Important?

Tumwater's transportation strategy emphasizes resilience by retrofitting infrastructure and building future infrastructure wisely to withstand climate impacts and ensuring robust emergency response through a well-connected street grid.

Tumwater prioritizes maintenance and cost-effective operations by exploring innovative technologies and materials, while coordinating with various agencies to align transportation projects with land use and community goals.

Additionally, Tumwater seeks sustainable funding sources and requires new developments to contribute proportionately to transportation system improvements that support all modes of travel.

Policies		Lead	Period
T-3.1	Invest in transportation projects that provide lasting benefits and reflect the goals of the Comprehensive Plan, as reflected by the project prioritization criteria.	TED	Term of the Plan

Policies		Lead	Period
T-3.2	Prioritize preventative maintenance programs, preservation, operation, and repair of the existing transportation system to minimize life-cycle costs.	TED	Term of the Plan
T-3.3	Use technology-based approaches to address transportation congestion, safety, efficiency, operations, and better integration of transportation modes.	TED	Term of the Plan
T-3.4	Require new developments to pay for their proportionate share of impacts on the transportation system.	TED	Term of the Plan
T-3.5	Develop effective transportation project performance measures consistent with community and regional objectives such as improved mobility and access, funding opportunities, improved environmental health, and improved safety.	TED	Term of the Plan
T-3.6	Secure adequate funding from all sources to implement the goals and policies that use transportation funding policies and investments to make development decisions predictable, fair, and cost-effective.	TED	Term of the Plan
T-3.7	Retrofit arterial routes and design all future connections for impacts associated with changing climate patterns and natural disasters to build resiliency.	TED	Term of the Plan

Goal T-4 Minimize impacts and advance environmental goals.

Why is this Goal Important?

Tumwater promotes compact, mixed-use development, transit access, and active transportation options to reduce vehicle miles traveled, enhance energy efficiency, and support public health.

Tumwater's transportation policies aim to protect the environment by minimizing impervious surfaces and employing low-impact development techniques to manage stormwater runoff effectively.

Additionally, Tumwater is committed to environmental justice, ensuring that transportation initiatives do not disproportionately affect minority and low-income communities.

Policies		Lead	Period
T-4.1	Develop a transportation system that supports compact, mixed-use development and related active transportation travel to reduce per capita vehicle miles travelled, increase energy efficiency, reduce environmental impacts, and encourage physical activity and community health.	TED	Term of the Plan
T-4.2	Increase use of low-impact development infrastructure projects that help capture, filter, store, and reuse stormwater runoff	TED	Term of the Plan
T-4.3	Review and amend local policies, rules, and management activities to eliminate potential negative impacts on fish and wildlife habitat and take advantage of opportunities to incorporate positive impacts	TED	Term of the Plan
T-4.4	Increase overall operating efficiency of the transportation system through the effective use of transportation demand management measures that reduce the need to drive alone.	TED	Term of the Plan
T-4.5	Promote the use of policy, alternative fuels, and technologies that reduce pollution, greenhouse gas emissions, and other environmental impacts from vehicles to reduce per capita vehicle miles travelled 27 percent through 2040 and 41 percent through 2050 compared to a 2022 baseline.	TED	Term of the Plan
T-4.6	Aim to shift at least five percent of travel currently undertaken by single occupancy vehicles to walking, five percent to biking, and five percent to transit.	TED	Term of the Plan
T-4.7	Consider environmental justice policies that protect minority populations and people with low incomes from discrimination and provide meaningful access to public process and information through Title VI requirements.	TED	Term of the Plan
T-4.8	Integrate transit into planning for new urban centers by supporting increased densities and the supply of housing in transit corridors	CDD	Term of the Plan

Goal T-5 Build public support for transportation system improvements by incorporating robust outreach as part of plans and projects.

Why is this Goal Important?

Tumwater is committed to equitable transportation investments, striving for fair distribution of costs and benefits across all segments of the community.

Tumwater emphasizes inclusive public engagement in transportation planning, ensuring that all community members, including non-drivers, individuals with disabilities, and those with limited literacy—have opportunities to participate.

Additionally, Tumwater promotes public understanding of the connection between land use patterns and transportation choices to support informed decision-making.

Policies		Lead	Period
T-5.1	Build a community of engaged, informed residents by providing broad-based, early, and continuing public involvement opportunities in all aspects of the transportation planning process.	TED	Term of the Plan
T-5.2	Participate in coordination activities at local, regional, state, tribal, and federal levels to address the condition or operations of the transportation system, including land use and public facility siting decisions.	TED	Term of the Plan
T-5.3	Present information and provide public participation opportunities for everyone, including people who do not drive, people with disabilities, and/or people with limited literacy skills.	TED	Term of the Plan
T-5.4	Ensure that transportation investments are shared equally amongst all segments of the community in terms of associated costs as well as the benefits derived from system performance and travel choices.	TED	Term of the Plan
T-5.5	Promote increased public understanding of the relationships between land use patterns and transportation choices facing Tumwater.	TED	Term of the Plan

Appendix A Draft Implementation Actions

Each of the Transportation Plan goals and policies in Chapter 4 will require Tumwater to take specific actions to implement over the course of the 20-year term of the Comprehensive Plan.

The draft implementation actions in the tables below were developed in coordination with the community, Tumwater staff, and other agencies. The implementation actions in the tables below are intended to serve as the start for developing annual Tumwater work programs.

As the Comprehensive Plan is put into action over the next twenty years, the draft implementation actions will change as new, unforeseen opportunities emerge: new ones may be added, proposed ones may be modified or replaced by other actions.

The draft implementations actions below are intended to be draft work program items that serve to implement the goals and policies of the Transportation Plan. The draft implementation actions will need further refinement before they are incorporated into annual Tumwater work programs.

A. How to Read These Tables

The Transportation Plan goals, policies, and the draft implementation actions associated with them are not in priority order.

Draft implementation actions that can only be undertaken by other entities are not included in this plan.

1) Department Leads

Implementation of the Transportation Plan's policies and implementation actions are associated with three different Tumwater departments:

CDD Community Development

PRD Parks, Recreation, and Facilities

TED Transportation & Engineering

2) Period

Each of the Transportation Plan's policies and the draft implementation actions are associated with estimated start dates, length of time to complete, and target completion dates, if appropriate, based on adequate funding for staff and resources. Most policies are ongoing with no set target completion date.

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Goal T-1 Improve and maintain a complete, interconnected system that efficiently supports people walking, rolling, biking, accessing transit, and driving.

Policies and Implementation Actions		Lead	Period
T-1.1	**Work toward a transportation system that provides for the safe and efficient movement of people and goods, supports adopted land use plans, reduces the overall need to drive, and provides alternative travel choices.**	**TED**	**Term of the Plan**
T-1.2	**Prioritize alternatives to vehicle capacity projects to address congestion, preserve an acceptable community scale for roadways, and minimize transportation impacts on active mode travelers.**	**TED**	**Term of the Plan**
T-1.3	**Decrease the number of trips made in single-occupancy vehicles through land use plans, development codes, and design standards that encourage walking, bicycling, transit use, and other alternatives to driving separately.**	**TED**	**Term of the Plan**
T-1.3.1	Encourage employers to adopt transportation demand management strategies, such as subsidized transit passes, flexible work hours, and telecommuting options and adopt similar strategies for Tumwater staff to the extent possible.	**TED**	Term of the Plan
T-1.3.2	Consider charging for on-street parking in more walkable and higher density areas and reducing minimum parking requirements for new developments.	**TED**	Term of the Plan
T-1.3.3	Develop and track key performance indicators related to single occupancy vehicles usage, such as mode share percentages and vehicle miles traveled.	**TED**	Term of the Plan
T-1.4	**Promote efficient, timely, and safe movement of freight within the region by planning for freight access to and from major freight destinations and implementing design standards to accommodate delivery trucks while minimizing heavy freight on local streets.**	**TED**	**Term of the Plan**

Policies and Implementation Actions		Lead	Period
T-1.4.1	Establish designated truck routes that direct heavy freight traffic away from residential areas.	TED	Term of the Plan
T-1.4.2	Adopt and enforce design guidelines that accommodate delivery trucks in urban planning, including appropriate turning radii, loading zones, and curbside management.	TED	Term of the Plan
T-1.4.3	Collaborate with regional stakeholders to identify and prioritize key freight corridors connecting major freight hubs, such as ports, distribution centers, and industrial zone districts.	TED	Term of the Plan
T-1.5	**Develop an interconnected grid of local streets to improve travel options, reduce congestion and vehicle miles traveled, and increase neighborhood connectivity.**	TED	**Term of the Plan**
T-1.5.1	Require developers to build complete grids, reduce or eliminate cul-de-sacs or dead-end streets, and connect active transportation paths between developments whenever possible.	TED	Term of the Plan
T-1.5.2	In cooperation with the Washington State Department of Transportation, pursue grant funding to study and build new active transportation connections across Interstate 5 or retrofit existing bridges to provide more active mode connections.	TED	Term of the Plan
T-1.6	**Advocate for Intercity Transit to provide reliable and effective transit options commensurate with Tumwater's evolving needs.**	TED	**Term of the Plan**
T-1.6.1	Advocate for more frequent transit service and more transit coverage in Tumwater with an emphasis on the Transit Priority Network.	TED	Term of the Plan
T-1.7	**Develop a continuous, safe, and convenient bicycle network with Level of Traffic Stress 1 or 2 facilities throughout Tumwater.**	TED	**Term of the Plan**

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Policies and Implementation Actions		Lead	Period
T-1.7.1	Expand and connect bicycle networks, ensuring future corridor and intersection projects include elements such as protected bike lanes and safe crossings.	TED	Term of the Plan
T-1.7.2	Identify existing bike facilities which do not meet Level of Traffic Stress 2 standards and develop projects to mitigate them with an emphasis on the Bicycle Priority Network.	TED	Term of the Plan
T-1.7.3	Identify areas of expansion for Level of Traffic Stress 2 bike facilities based on distribution of activity centers and key destinations.	TED	Term of the Plan
T-1.7.4	Require bicycle parking facilities at schools, employment sites, activity centers, and multimodal locations like transit centers and park-and-rides.	TED	Term of the Plan
T-1.8	**Provide pedestrian facilities that meet a Level of Traffic Stress 1 or 2.**	TED	**Term of the Plan**
T-1.8.1	Provide frequent high quality pedestrian crossings along transit routes, and near activity centers and key destinations.	TED	Term of the Plan
T-1.8.2	Promote active transportation connections to shorten the length of trips and increase walkability by identifying locations that can benefit from better active transportation connections.	TED	Term of the Plan
T-1.8.3	Create a schedule to address pedestrian barriers to accessibility identified in the Americans with Disabilities Act Transition Plan.	TED	Term of the Plan
T-1.9	**Ensure the continued long-term viability of existing and rail-banked rail lines for future freight and passenger rail travel.**	TED	**Term of the Plan**

Policies and Implementation Actions		Lead	Period
T-1.9.1	Work with regional partners to position the Thurston Region for a commuter rail or high-speed rail connection in the future.	TED	Term of the Plan
T-1.9.2	Develop a detailed inventory of all active and railbanked rail corridors within Tumwater, assessing their current conditions, ownership status, and potential for future reactivation.	TED	Term of the Plan
T-1.9.3	Develop and implement agreements with trail sponsors and other interim users of railbanked corridors to ensure maintenance standards that facilitate potential future rail reactivation.	TED	Term of the Plan
T-1.10	**Allow for efficient access to the Port of Olympia's Olympia Regional Airport and New Market Industrial Center.**	TED	**Term of the Plan**
T-1.10.1	Ensure multimodal access to a future Olympia Regional Airport terminal is considered in the development of active transportation facilities.	TED	Term of the Plan
T-1.11	**Maintain active transportation infrastructure like sidewalks and bike lanes to make sure that vegetation and debris does not hinder the use of these facilities.**	TED	**Term of the Plan**
T-1.11.1	Work with adjacent property owners to maintain vegetation and remove debris.	TED	Term of the Plan
T-1.11.2	Develop a program to collaborate with residents to remove vegetation and debris blocking or reducing the functionality of active transportation infrastructure on Tumwater right of ways.	TED	Term of the Plan
T-1.11.3	Provide easy ways for users to report and receive updates on all mode infrastructure maintenance concerns.	TED	Term of the Plan

Goal T-2 Prioritize safety and accessibility for all users.

Policies and Implementation Actions		Lead	Period
T-2.1	**Design transportation infrastructure to encourage safe user behavior and prioritize safety improvement projects at locations with a history of serious injury or fatality collisions and/or risk factors for severe crashes especially where nonmotorized users are involved.**	**TED**	**Term of the Plan**
T-2.1.1	Conduct regular safety audits using crash data and road safety audits to identify high-injury locations and corridors with risk factors such as poor lighting, high speeds, curves, or lack of safe crossings.	**TED**	Term of the Plan
T-2.1.2	Enhance signalized pedestrian crossings by install leading pedestrian intervals to allow pedestrians to begin crossing before vehicles receive a green light and use and maintain high visibility markings at key crossings.	**TED**	Term of the Plan
T-2.1.3	Adopt the Safe System Approach with a goal to eliminate traffic fatalities and serious injuries by designing streets to deter unsafe behavior and minimize crash severity.	**TED**	Term of the Plan
T-2.1.4	Improve driver behavior through targeted safety education and enforcement campaigns such as developing outreach materials and local campaigns focused on speed awareness, yielding at crosswalks, and the dangers of distracted or impaired driving.	**TED**	Term of the Plan
T-2.2	**Enhance the safety and security of those who use, operate, and maintain the transportation system.**	**TED**	**Term of the Plan**
T-2.2.1	Provide annual safety training to Transportation & Engineering and operations staff on traffic control, incident response, and working in live traffic environments.	**TED**	Term of the Plan
T-2.2.2	Use movable barriers, high-visibility signage, and vehicle-mounted protection for crews working in high-speed or high-volume traffic areas.	**TED**	Term of the Plan

Policies and Implementation Actions		Lead	Period
T-2.2.3	Implement Crime Prevention through Environmental Design Principles by designing transportation spaces with open-sighted lines, signage, lighting, and minimal concealment areas.	TED	Term of the Plan
T-2.3	**Design and construct complete streets and roads based on the adoption of a 'Complete Streets Ordinance', which would encourage neighborhood-scale planning efforts to identify prioritized active transportation routes that enhance connectivity and walkability, especially to and from schools, transit connections, and activity centers.**	TED	**Term of the Plan**
T-2.3.1	Formalize a policy requiring all new and reconstructed roads to follow complete streets design principles, including sidewalks, nonmotorized facilities, street trees, lighting, and transit accommodations.	TED	Term of the Plan
T-2.3.2	Partner with residents and schools to identify barriers, gaps, and desired routes for walking and biking ,and other nonmotorized travel in neighborhoods.	TED	Term of the Plan
T-2.3.3	Establish local design standards for shared-use paths, traffic-calmed streets, and protected bike lanes that prioritize user comfort and safety.	TED	Term of the Plan
T-2.3.4	Use neighborhood input to support grant applications for sidewalk and crossing improvements.	TED	Term of the Plan
T-2.4	**Explore strategies to reduce conflict points and optimize safety for all transportation system users.**	TED	**Term of the Plan**
T-2.4.1	Use access management techniques such as minimum driveway spacing, corner clearance, and requiring shared driveways or access only from minor streets, when possible, to improve roadway capacity and operating efficiency as well as increase overall system safety by reducing conflict points.	TED	Term of the Plan
T-2.4.2	Develop a connected system vision that envisions active mode connection opportunities for dead ends and cul-de-sacs.	TED	Term of the Plan

Policies and Implementation Actions		Lead	Period
T-2.5	**Create safe and vibrant neighborhoods with places that build community and encourage active travel through the provision of street lighting, pedestrian buffers, trees, benches, and other street elements that make walking safe and pleasant.**	**TED**	**Term of the Plan**
T-2.5.1	Develop and implement streetscape standards that define minimum requirements for street trees, pedestrian buffers, seating, lighting, and Americans with Disabilities Act compliant pathways.	**TED CDD**	Term of the Plan
T-2.5.2	Incorporate traffic calming measures such as speed humps, curb extensions, decorative crosswalks, and narrowed travel lanes to reduce vehicle speeds and prioritize pedestrian safety.	**TED**	Term of the Plan
T-2.5.3	Leverage placemaking measures such as integrating murals, sidewalk art, storytelling signs, and decorative lighting into neighborhood streetscapes.	**TED**	Term of the Plan
T-2.6	**Provide safe and interconnected walk and bike routes to all schools in Tumwater and encourage their use.**	**TED**	**Term of the Plan**
T-2.6.1	Identify potential bicycle connections and safe routes for biking to each school.	**TED**	Term of the Plan
T-2.6.2	Construct and maintain accessible sidewalks and frequent high quality crossing opportunities within an appropriate distance of every school.	**TED**	Term of the Plan
T-2.6.3	Update and maintain maps of School Walking Routes and coordinate with schools to ensure timely updates and communications with school families.	**TED**	Term of the Plan
T-2.7	**Support safe, convenient, and cost-effective transportation services for non-drivers, such as youth, elders, people with disabilities, and low-income populations.**	**TED**	**Term of the Plan**

Policies and Implementation Actions		Lead	Period
T-2.7.1	Ensure transportation system investments support the special travel needs of vulnerable road users, those with low incomes, and other affected groups through facility audits and prioritization of limited capital improvement funds.	TED	Term of the Plan
T-2.7.2	Ensure that all transportation facilities comply with the Americans with Disabilities Act (ADA) in accordance with Tumwater's ADA Transition Plan.	TED	Term of the Plan

Goal T-3 Invest wisely to support a resilient and maintainable transportation system.

Policies and Implementation Actions		Lead	Period
T-3.1	**Invest in transportation projects that provide lasting benefits and reflect the goals of the Comprehensive Plan, as reflected by the project prioritization criteria.**	TED	**Term of the Plan**
T-3.2	**Prioritize preventative maintenance programs, preservation, operation, and repair of the existing transportation system to minimize life-cycle costs.**	TED	**Term of the Plan**
T-3.2.1	Explore innovative programs that reduce infrastructure life-cycle costs or increase efficiency of service delivery, including use of new materials, technologies, and resource partnerships.	TED	Term of the Plan
T-3.3	**Use technology-based approaches to address transportation congestion, safety, efficiency, operations, and better integration of transportation modes.**	TED	**Term of the Plan**
T-3.3.1	Create a Transportation Systems Maintenance and Operations Plan to identify opportunities for more efficiently operating the transportation system with fewer large capital investments.	TED	Term of the Plan

	Policies and Implementation Actions	Lead	Period
T-3.3.2	Deploy technologies such as variable message signs, speed monitoring displays, transit and emergency signal preemption, and adaptive traffic signal control to increase system efficiency.	TED	Term of the Plan
T-3.3.3	Use pedestrian-activated signals, accessible pedestrian signals, and lighting enhancements at high-risk crossings.	TED	Term of the Plan
T-3.3.4	Use GIS-based mapping and inventory assessments to track assets and infrastructure conditions. This includes roadways, bike facilities, sidewalks, shared use paths, lighting, signals, signs, and roadway stormwater infrastructure.	TED	Term of the Plan
T-3.4	**Require new developments to pay for their proportionate share of impacts on the transportation system.**	CDD TED	**Term of the Plan**
T-3.4.1	Regularly update Tumwater's traffic impact fee rates and project list to reflect current growth patterns and multimodal transportation priorities.	CDD TED	Term of the Plan
T-3.4.2	Require transportation impact studies to evaluate effects on all modes in accordance with Multimodal Level of Service guidelines including sidewalk demand, bike access, and transit stop needs.	TED	Term of the Plan
T-3.4.3	Ensure that development-driven improvements are consistent with Tumwater's Transportation Plan, Capital Facilities Plan, and Americans with Disabilities Act Transition Plan.	CDD TED	Term of the Plan
T-3.4.4	Provide public summaries of transportation impact fees collected, where they were spent, and what transportation improvements were delivered.	TED	Term of the Plan
T-3.5	**Develop effective transportation project performance measures consistent with community and regional objectives such as improved mobility and access, funding opportunities, improved environmental health, and improved safety.**	TED	**Term of the Plan**

Policies and Implementation Actions		Lead	Period
T-3.6	**Secure adequate funding from all sources to implement the goals and policies that use transportation funding policies and investments to make development decisions predictable, fair, and cost-effective.**	**TED**	**Term of the Plan**
T-3.7	**Retrofit arterial routes and design all future connections for impacts associated with changing climate patterns and natural disasters to build resiliency.**	**TED**	**Term of the Plan**
T-3.7.1	Prioritize coordination between transportation system and emergency response providers, building system redundancy through a well-connected street grid to support emergency response and reduce community disruption during disasters.	**TED**	Term of the Plan
T-3.7.2	Assess vulnerability of existing infrastructure by identifying roads, bridges, culverts, and transit infrastructure at high risk from flooding, landslides, wildfires, or extreme heat and prioritize arterial routes in this assessment.	**TED**	Term of the Plan
T-3.7.3	Implement capital projects that raise roadbeds, replace undersized culverts, or harden slopes along critical corridors subject to washouts or slides by designing new connections to be resilient to the impacts of climate change, and human or natural disasters.	**TED**	Term of the Plan
T-3.7.4	Coordinate with emergency management agencies to plan for and ensure critical transportation links remain operable during and after disasters.	**TED**	Term of the Plan

Goal T-4 Minimize impacts and advance environmental goals.

Policies and Implementation Actions		Lead	Period
T-4.1	**Develop a transportation system that supports compact, mixed-use development and related active transportation travel to reduce per capita vehicle miles travelled, increase energy efficiency, reduce environmental impacts, and encourage physical activity and community health.**	**TED**	**Term of the Plan**
T-4.1.1	Explore innovative programs that reduce infrastructure life-cycle costs or increase efficiency of transportation service delivery, including use of new materials, technologies, and resource partnerships.	**TED**	Term of the Plan
T-4.1.2	Expand sidewalks, protected bike lanes, multi-use trails, and pedestrian crossings in and around higher density zone districts.	**TED PRD**	Term of the Plan
T-4.1.3	Adopt measurable goals to reduce per capita vehicle miles traveled and embed those metrics in transportation project evaluation criteria.	**TED**	Term of the Plan
T-4.1.4	Identify critical investments in the transportation system that promote energy efficiency. For instance, use adaptive signal control technology to adjust traffic lights in real-time, reducing idling and stop-and-go driving on major corridors.	**TED**	Term of the Plan
T-4.2	**Increase use of low-impact development infrastructure projects that help capture, filter, store, and reuse stormwater runoff.**	**TED**	**Term of the Plan**
T-4.3	**Review and amend local policies, rules, and management activities to eliminate potential negative impacts on fish and wildlife habitat and take advantage of opportunities to incorporate positive impacts**	**TED**	**Term of the Plan**
T-4.4	**Increase overall operating efficiency of the transportation system through the effective use of transportation demand management measures that reduce the need to drive alone.**	**TED**	**Term of the Plan**

Policies and Implementation Actions		Lead	Period
T-4.4.1	Promote car-sharing, e-bike programs, employer commuter incentives, and low-emission vehicle infrastructure in mixed-use districts.	TED	Term of the Plan
T-4.5	**Promote the use of policy, alternative fuels, and technologies that reduce pollution, greenhouse gas emissions, and other environmental impacts from vehicles to reduce per capita vehicle miles travelled 27 percent through 2040 and 41 percent through 2050 compared to a 2022 baseline.**	TED	**Term of the Plan**
T-4.5.1	Develop a detailed plan with measurable benchmarks and cross-departmental collaboration to reduce per capita vehicle miles traveled 27 percent by 2040 and 41 percent by 2050.	TED	Term of the Plan
T-4.5.2	Install public EV charging stations in civic centers, commercial areas, and near multifamily housing. Update development standards to require EV chargers or EV ready stalls be built in all new and majorly updated commercial and residential developments. Coordinate with utilities to support grid capacity.	TED	Term of the Plan
T-4.5.3	Replace City vehicles with electric, hybrid, or alternative fuel models as they reach end-of-life and install necessary charging infrastructure.	TED	Term of the Plan
T-4.5.4	Evaluate transportation capital investments using a greenhouse gas and vehicle miles traveled reduction framework to prioritize climate-beneficial projects.	TED	Term of the Plan
T-4.6	**Aim to shift at least five percent of travel currently undertaken by single occupancy vehicles to walking, five percent to biking, and five percent to transit.**	TED	**Term of the Plan**
T-4.6.1	Conduct studies to understand current travel patterns and identify opportunities for reduction.	TED	Term of the Plan

Policies and Implementation Actions		Lead	Period
T-4.6.2	Establish metrics to assess the effectiveness of implemented strategies over time.	TED	Term of the Plan
T-4.6.3	Increase vehicle occupancy to convert single occupancy vehicles to high occupancy vehicles and promote vanpools	TED	Term of the Plan
T-4.7	**Consider environmental justice policies that protect minority populations and people with low incomes from discrimination and provide meaningful access to public process and information through Title VI requirements.**	TED	**Term of the Plan**
T-4.8	**Integrate transit into planning for new urban centers by supporting increased densities and the supply of housing in transit corridors.**	CDD	**Term of the Plan**

Goal T-5 Build public support for transportation system improvements by incorporating robust outreach as part of plans and projects.

Policies and Implementation Actions		Lead	Period
T-5.1	**Build a community of engaged, informed residents by providing broad-based, early, and continuing public involvement opportunities in all aspects of the transportation planning process.**	TED	**Term of the Plan**
T-5.1.1	Create a formal Public Involvement Plan that outlines when and how the public will be engaged in each phase of transportation planning.	TED	Term of the Plan
T-5.1.2	Form a group of residents representing various interests (seniors, youth, business, accessibility, environment) to review and advise on projects.	TED	Term of the Plan
T-5.1.3	Maintain an interactive and centralized digital platform with project updates, engagement opportunities, comment forms, and feedback summaries.	TED	Term of the Plan

Policies and Implementation Actions		Lead	Period
T-5.2	**Participate in coordination activities at local, regional, state, tribal, and federal levels to address the condition or operations of the transportation system, including land use and public facility siting decisions.**	**TED CDD**	**Term of the Plan**
T-5.2.1	Participate in Healthy Kids Safe Streets meetings and regional events.	**TED**	Term of the Plan
T-5.3	**Present information and provide public participation opportunities for everyone, including people who do not drive, people with disabilities, and/or people with limited literacy skills.**	**TED**	**Term of the Plan**
T-5.3.1	Develop and distribute public information materials in multiple languages prevalent in the community and use plain language and graphics to ensure comprehension among individuals with varying literacy levels.	**TED**	Term of the Plan
T-5.3.2	Host public meetings in ADA-compliant venues and provide accommodations such as sign language interpreters, real-time captioning, and assistive listening devices when requested.	**TED**	Term of the Plan
T-5.3.3	Offer virtual meeting options with accessible features such as screen reader compatibility, live closed captioning, and user-friendly interfaces.	**TED**	Term of the Plan
T-5.3.4	Partner with local organizations that serve underrepresented populations to co-host events, disseminate information, and gather feedback.	**TED**	Term of the Plan
T-5.4	**Ensure that transportation investments are shared equally amongst all segments of the community in terms of associated costs as well as the benefits derived from system performance and travel choices.**	**TED**	**Term of the Plan**
T-5.4.1	Integrate equity evaluations into the transportation project development process to assess how different population groups are affected by planned investments.	**TED**	Term of the Plan

Policies and Implementation Actions		Lead	Period
T-5.4.2	Use data on income, race, mobility status, and access to services to direct investments toward areas with historically limited transportation investments.	TED	Term of the Plan
T-5.4.3	Embed equity scoring into transportation funding allocation processes.	TED	Term of the Plan
T-5.4.4	If applicable, coordinate with housing and land use departments to prevent displacement of residents due to rising land values or redevelopment near new transportation investments.	TED	Term of the Plan
T-5.5	**Promote increased public understanding of the relationships between land use patterns and transportation choices facing Tumwater.**	TED	**Term of the Plan**
T-5.5.1	Create workshops, seminars, and informational materials that explain the connection between land use and transportation choices.	TED	Term of the Plan
T-5.5.2	Implement interactive tools, such as online mapping applications, which allow residents to visualize how different land use scenarios impact transportation systems.	TED	Term of the Plan
T-5.5.3	Organize events such as town halls, open houses, and interactive exhibits focused on land use and transportation planning.	TED	Term of the Plan
T-5.5.4	Use various communication platforms, including social media, newsletters, and Tumwater's website, to share information about land use and transportation initiatives.	TED	Term of the Plan

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Transportation Plan

Part 2 – Technical Information

City of Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 4, 2025

December 2025

Ordinance No. O2025-010

CITY OF TUMWATER

Transportation Plan

Part 2 – Technical Information

Table of Contents

1. Introduction 6
A. Background 6
B. How to Read this Part of the Plan 6
C. Connections to Other Elements 7
2. Transportation Planning Context 8
A. Partnering Agencies 8
B. Existing Plans 8
C. Transportation Network Overview 10
D. Pedestrian & Bicycle Network 13
E. Transit Network 14
F. Freight Network 16
G. Airports 18
H. Roadway Network 18
I. Safety 27
J. Current Trends & Opportunities 31
3. Public Outreach 34
4. Tumwater's Future Transportation System 36
A. Future Roadway Operations 36
B. State Facilities 44
C. Priority Networks 47
5. 20-Year Project List 51
A. Project Development 51
B. Project Lists 52
6. Implementation 62
A. Funding Overview 62
B. Revenue Sources 63
C. Options to Increase Revenue 65
D. Transportation Demand Management 66
E. Vehicle Miles Traveled Reduction Targets & Mode Shift 67

DRAFT

Appendix A – Foundational Documents 70
Appendix B – City of Tumwater Vehicle Operations Analysis Reports 71
Appendix C – Bicycling, Walking, & Rolling Plan 72

List of Tables

Table T-1. Functional Classification of Roadways. 13
Table T-2. Washington State Department of Transportation Freight Corridor Classifications. 16
Table T-3. Level of Service Descriptions. 19
Table T-4. Existing Intersection Delay and Level of Service. 21
Table T-5. Existing Volume / Capacity Ratios. 26
Table T-6. Collisions by Injury Severity from January 2019 – December 2023. 27
Table T-7. Future Baseline Intersection Delay and Level of Service. 38
Table T-8. Future Volume to Capacity Ratios. 40
Table T-9. Future Mitigated Intersection Delay and Level of Service. 42
Table T-10. 2045 Interstate 5 Intersection Impacts, PM Peak Hour. 46
Table T-11: Project Prioritization Criteria. 51
Table T-12. 20-Year Motorized Vehicle Transportation Project List. 53
Table T-13. Current Funding Sources and Revenue Estimates Over the Horizon Year. 63
Table T-14. Foundational Documents for the Transportation Plan. 68

List of Figures

Figure T-1. Share of Primary Travel Options for Commuting to Work. 11
Figure T-2. Tumwater Roadway Classification. 12
Figure T-3. Existing Transit Routes. 15
Figure T-4. Existing Freight Routes. 17
Figure T-5. Study Intersections. 20
Figure T-6. Existing Intersection Level of Service. 24
Figure T-7. Heatmap of all Collisions and Killed or Severely Injured Crashes. 29
Figure T-8. Pedestrian and Bicycle Collisions. 30

DRAFT

Figure T-9. Future Baseline Intersection Level of Service. 37
Figure T-10. Future Mitigated Intersection Level of Service. 43
Figure T-11. 2045 Washington State Route V/C Ratios, PM Peak Hour. 45
Figure T-12. Transit Priority Network. 49
Figure T-13. Freight Priority Network. 50
Figure T-14. Location of Projects Categorized as Low Priority. 59
Figure T-15. Location of Projects Categorized as Medium Priority. 60
Figure T-16. Location of Projects Categorized as High Priority. 61
Figure T-17. Tumwater's 2045 Mode Shift Goals. 69

Abbreviations Used in Document

AWSC – All Way Stop Control

EB – Eastbound

EXT – Extension

LOS – Level of Service

LTS – Level of Traffic Stress

MPH – Miles Per Hour

NB – Northbound

NBL – North Bound Left

NBR – North Bound Right

NBT – North Bound Through

RAB – Roundabout

RCW – Revised Code of Washington

SB – Southbound

SBL – South Bound Left

SBR – South Bound Right

SBT – South Bound Through

TWSC – Two Way Stop Control

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V/C – Volume to Capacity

WAC – Washington Administrative Code

WB – Westbound

WBL – West Bound Left

WBR – West Bound Right

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1. Introduction

A. Background

The Transportation Plan is part of Tumwater's Comprehensive Plan and was prepared in response to Washington State Growth Management Act (Chapter 36.70A RCW).

The Plan covers the 20-year planning period from 2025-2045, and guides transportation investments. Community values and broader community goals influence the direction to meet the community's needs emphasizing safety and accessibility and improving connectivity.

Tumwater is experiencing significant growth that is expected to continue over the next two decades. The Washington Growth Management Act includes legal requirements for Tumwater to plan for growth through regular Comprehensive Plan updates.

Part 2 of the Transportation Plan provides the technical analysis to address the requirements of RCW 36.70A.070(1) for transportation system planning. To plan for the next 20 years, growth estimates and land use assumptions from the Land Use Element form the basis of forecasts which point to infrastructure needs.

B. How to Read this Part of the Plan

Part 2 of the Transportation Plan is organized into the following chapters:

1. **Introduction**: Provides an overview of the plan.
2. **Transportation Planning Context**: Describes the current state of Tumwater's transportation network for all modes and identifies existing challenges and trends.

TRANSPORTATION

State requirements (WAC 365-196-435) that the Comprehensive Plan must meet include:

- Land use assumptions used in estimating travel.
- Estimated traffic impacts to state-owned transportation facilities.
- Facility and service needs, including air, water, and ground facilities and services, level of service standard for local and state owned facilities, specific actions to correct facilities that are out of compliance, 10 year traffic forecasts and identification of state and local needs.
- Analysis of funding capability, multiyear financing plan, and discussion of how shortfalls will be met.
- Intergovernmental coordination efforts, including an assessment of the impacts of adjacent jurisdictions.
- Demand-management strategies.
- Pedestrian and bicycle component to include collaborative efforts to identify and designate planned improvements and corridors that address and encourage enhanced community access and promote healthy lifestyles.
- The transportation plan, and the six-year plan required by RCW 35.77.010 must be consistent.

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3. **Public Outreach**: Details outreach efforts as part of the update.
4. **Tumwater's Future Transportation System**: Details how Tumwater's transportation system is expected to operate in the future with only funded or very likely to be funded and completed projects and establishes Level of Service standards for each mode.
5. **Transportation Project List**: Provides a prioritized capital project list to help Tumwater work towards the future transportation vision.
6. **Implementation**: Evaluates Tumwater's projected financial capacity for transportation improvements and provides guidance on implementing the plan. It also includes non-capital measures to make Tumwater's transportation system more efficient.

C. Connections to Other Elements

The Transportation Plan works with the Land Use Element since the location of goods and services impacts how people access them. Similarly, the other Elements of the Comprehensive Plan also impact transportation by making demands of the system:

- More housing leads to greater congestion on roadways.
- Creating new parks and open spaces requires appropriate access to those places.
- Utilities are affected by the need to provide service for electric vehicles.

The Comprehensive Plan is an attempt to balance those demands with protection for natural areas and sustainable growth. For example, when considering where roadways should be widened, the Conservation Element provides information about critical areas which may constrain the location of transportation connections.

Coordination with all the Elements of the Comprehensive Plan is important to be able to ensure orderly, cost-efficient development that is phased outward from the urban core and corridors. All Elements of the Comprehensive Plan are consistent.

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2. Transportation Planning Context

A. Partnering Agencies

As part of the planning process, Tumwater coordinated this update with planning efforts made by other agencies and government bodies that have an interest in the transportation system in Tumwater. These agencies included:

- Cities of Olympia, Lacey, and Yelm
- Intercity Transit
- Thurston County
- Thurston Regional Planning Commission
- Washington State Department of Transportation

B. Existing Plans

1) Tumwater

a) Transportation Improvement Plan

Tumwater updates its Six Year Transportation Improvement Plan every year, as required by Washington State law. The Transportation Improvement Plan identifies near-term improvements to the transportation network and allocates funding for each year.

The Transportation Improvement Plan includes projects from Transportation Plan and other Tumwater subarea plans. The Transportation Improvement Plan is designed to provide a framework for prioritizing, scheduling, and implementing transportation projects in the near term. These projects include corridor and intersection improvements, investments in active transportation infrastructure, traffic calming programs, and maintenance.

b) Parks, Recreation and Open Space Plan

The Parks, Recreation and Open Space Plan (2016) includes projects that serve both recreational and transportation purposes, such as trails. Existing trails maintained by Tumwater include:

- Deschutes Valley Trail
- Historic Park / Tumwater Falls Trail – 1.2 miles of dirt, paved, and brick trail connecting to Capitol Lake Interpretive Park in the Deschutes Valley
- Palermo Watershed Trail – 0.7 miles of dirt path near Tumwater Valley Golf Course.
- Pioneer Park Trails – 2.1 miles of looping dirt and paved nature paths
- Tumwater Hill Trail – 0.5 miles of dirt nature path beginning at Ridgeview Court SW adjacent to Tumwater Hill Elementary School.
- Tyee Drive Trail – 0.2 miles of mixed use trail extending from BPA easement northward.

More information about the trail system is found in the Parks, Recreation and Open Space Plan.

c) Subarea Plans

Tumwater has adopted subarea plans that are a part of the Comprehensive Plan and were used

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as part of the development of the Transportation Plan:

- Black Hills Subarea Transportation Plan (2002)
- Capitol Boulevard Corridor Planning Project (2014)
- Littlerock Road Subarea Plan (2018)
- Old Highway 99 Corridor Study (2024)
- Town Center Street Design Plan (2004 and amended 2019)
- Tumwater Brewery District Plan (2020)

Details of some of the other subarea plans are discussed below.

i. Brewery District Plan

The Brewery District Plan, originally adopted in 2014 and amended in 2020, has four goals:

- Create a stronger sense of place by facilitating pedestrian access, establishing gathering places for residents, and fostering a distinct District identity.
- Improve transportation options, safety, and access within and across the District.
- Expand economic opportunity and activity.
- Improve the function and appearance of the built environment.

The Plan guides development that will improve transportation safety and access in the triangle of roads formed by Custer Way, Cleveland Avenue, and Capitol Boulevard.

ii. Capitol Boulevard Corridor Plan

The Capitol Boulevard Corridor Planning Project was adopted in 2015, and has three main goals:

- Improve the business conditions.
- Improve safety and expand transportation options for all users of the corridor including pedestrians, bicycles, and vehicles.
- Improve the aesthetic appeal of the corridor.

The Plan guides improvements to Tumwater's most traveled street, between the Southgate Shopping Center area and Israel Road.

2) Other Agencies' Plans

Other agency's plans were considered during the development of the Plan. Details of some of the other agency plans are discussed below.

a) Thurston Regional Planning Council Regional Transportation Plan

Tumwater's Transportation Plan must be consistent with the Regional Transportation Plan developed by the Thurston Regional Planning Council. The Regional Transportation Plan is a long-range transportation plan and is adopted every four years.

Tumwater collaborates with the Thurston Regional Planning Council to reach agreement on Level of Service standards, peak periods, and transportation system goals. The Regional Transportation Plan defined the following Tumwater projects that impact the movement of people and vehicles at the regional scale. Projects pertaining to Tumwater identified in Appendix L of the plan include the following:

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- Capacity projects (including multimodal improvements)
    - Capitol Boulevard – M Street to Israel Road
    - Henderson Boulevard corridor
    - Old Highway 99 improvements
    - Tumwater Boulevard – Interstate 5 interchange
- New connections and alignments
    - E Street extension
    - Tyee Drive extension.

b) Thurston Regional Trails Plan

Adopted in 2023, the Thurston Regional Trails Plan establishes a comprehensive, well-connected non-motorized trail network that links all communities in the region.

Trails connect people to the outdoors, destinations such as Brewery Park, and economic opportunity.

The completion of the 0.8-mile segment of the Deschutes Valley Trail between Historical Park and Brewery Park at Tumwater Falls was the most recent milestone in the regional trail network. The following trail corridors, extensions, and system enhancements are included in the Regional Trails Plan:

- Capitol Lake to Belmore Trail Corridor
    - Black Lake Trail - conceptual (20+ years)
- Deschutes Valley Trail Corridor
    - Tumwater Valley Drive extension – planned (2026)
    - Pioneer Park extension – planned (20+ years)
- Tumwater to Downtown Olympia Union Pacific Line Corridor
    - East Olympia Trail – conceptual (20+ years)
    - Bonneville Power Administration Shared Use Path – conceptual (20+ years)
- Karen Fraser Woodland Trail Corridor
    - Olympia Phase 4 extension, Henderson to Tumwater – planned (20+ years)

C. Transportation Network Overview

Among the various travel options, vehicular travel is the current primary mode used in and around Tumwater, and the roadways must accommodate both local trips and regional travelers passing through.

The annual American Community Survey records information on trips to and from work. Between 2018 and 2023, the percentage of workers who primarily worked from home instead of commuting increased from 5.4 percent to 23 percent. Compared to non-work travel, work-based trips generally have a higher proportion of people driving alone (66 percent), while only seven percent of commuters choose carpooling. About two percent of commuting trips were on foot, about one percent were by transit and less than one percent were by bicycle, as shown in Figure T-1.

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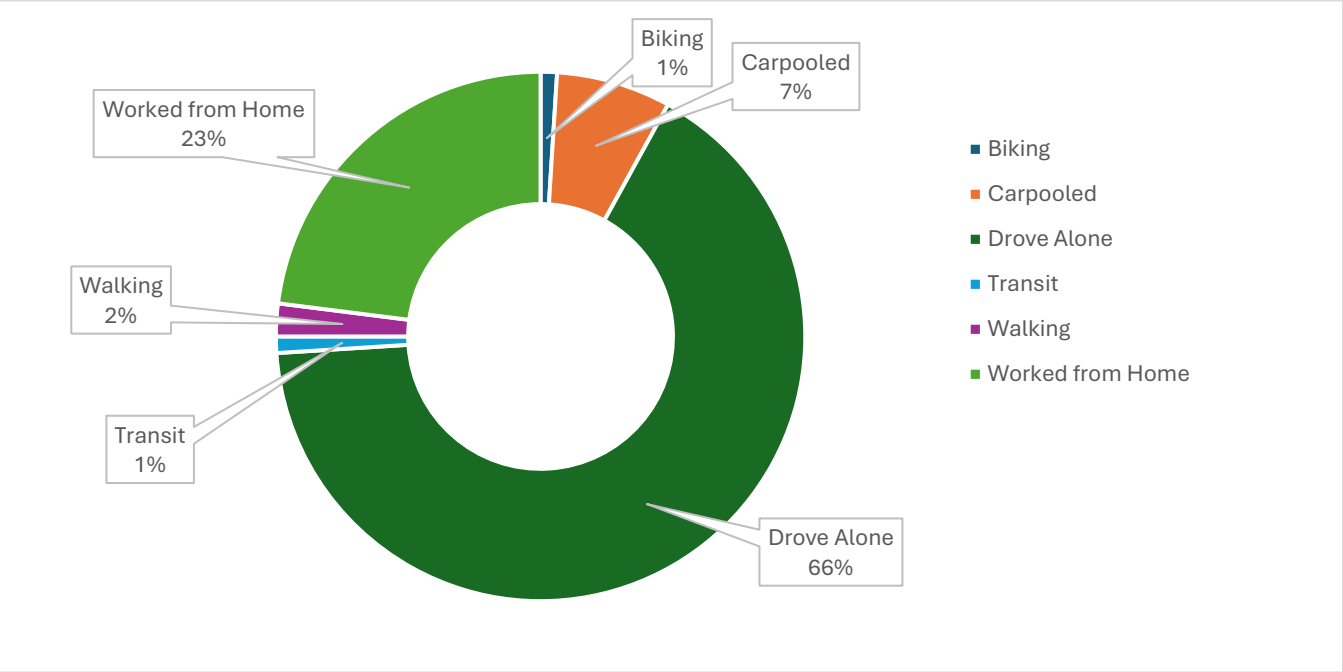
Figure T-1. Share of Primary Travel Options for Commuting to Work.



Source: American Community Survey, 2023.

Though Tumwater has made significant investments in multimodal transportation, Figure T-1 indicates that additional work is needed to address increasing the multimodal share of the system. These could be gaps in connectivity for active transportation options like walking and bicycling. To learn more about the multimodal share of the system, Tumwater has created the Bicycling, Walking, & Rolling Plan found in Appendix B.

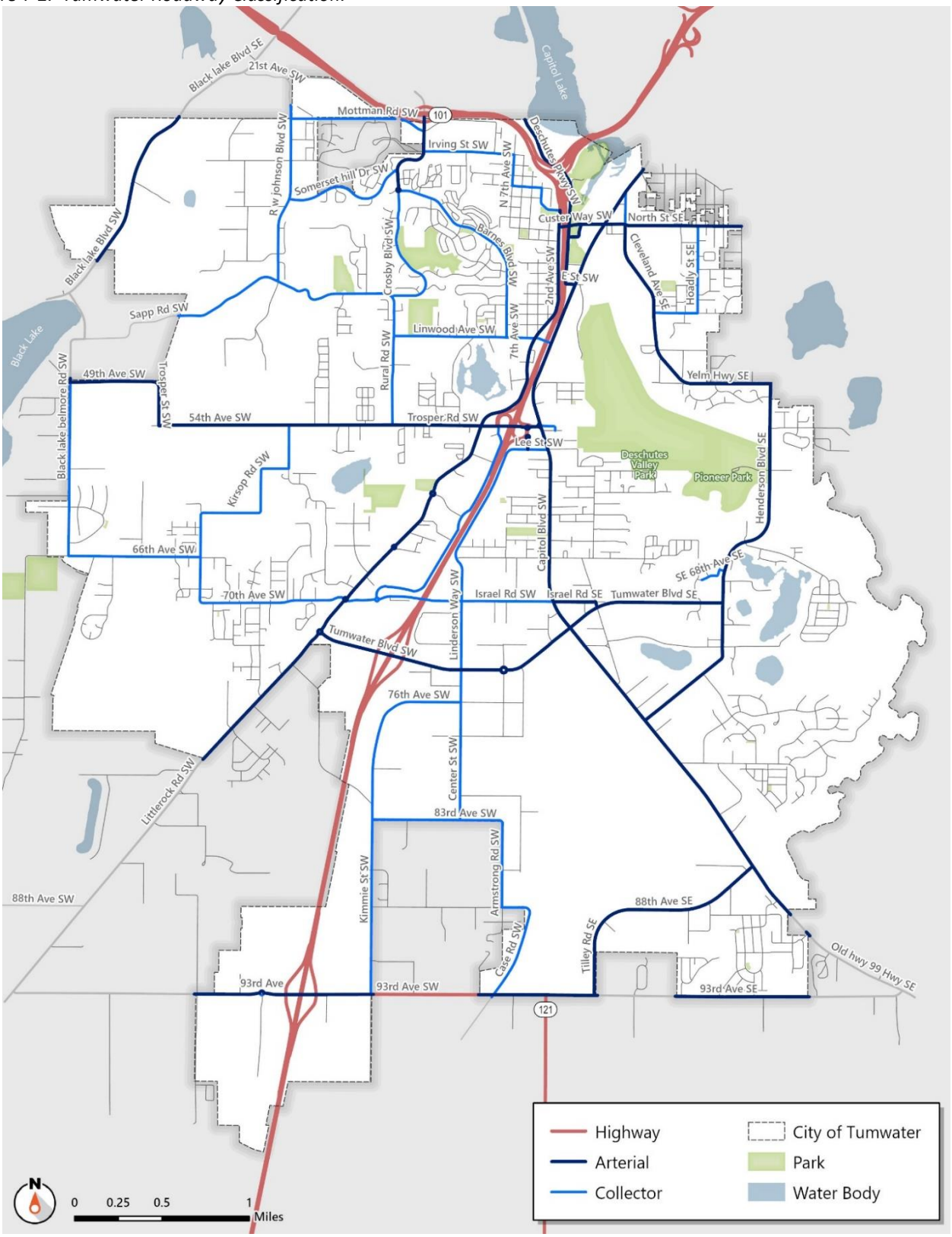
The Bicycling, Walking, & Rolling Plan evaluates the current transportation system, defines priorities, and provides a project list to increase the capacity of the system to allow active transportation that is safe and accessible for all users.

This section documents how Tumwater's roads and streets serve different modes and how residents and visitors experience Tumwater. It includes an inventory of motorized transportation facilities within Tumwater, including local and state roadways, transit facilities, and freight networks.

Inventories of the facilities related to active transportation modes, such as biking and walking can be found in the Bicycling, Walking, & Rolling Plan. This information is separate only to avoid duplication and should be considered integral to the transportation system as a whole.

Figure T-2 and Table T-1 show the types of roadways in Tumwater.

Figure T-2. Tumwater Roadway Classification.



Source: Fehr & Peers, 2025.

Table T-1. Functional Classification of Roadways.

Functional Classification	Annual Average Daily Traffic Range	Description	Examples
Major Arterial	> 13,000	The highest functional classification carry the highest volumes, serve regional through trips, and connect Tumwater with the rest of the region.	Capitol Boulevard SE, Tumwater Boulevard
Minor Arterial	5,000 – 13,000	The next highest functional classification are designed for higher volumes provide inter-neighborhood connections.	93rd Avenue SW, Littlerock Road SW
Major Collectors	3,000 – 5,000	Major Collectors carry a higher volume and distribute trips between local roadways and arterials and serve as transition roadways to or from commercial and residential areas.	Barnes Boulevard, 88th Avenue SE
Minor Collectors	1,500 – 3,000	Minor Collectors distribute trips between local streets and arterials and serve as transition roadways to or from commercial and residential areas. They have lower volumes and can include select traffic calming elements to balance experience for all modes with vehicular mobility.	Center Street SW, Mottman Road SW
Local	< 1,500	Local streets are the lowest functional classification, providing circulation and access within residential neighborhoods.	12th Avenue SW, Glenwood Drive SW

Source: Fehr & Peers, 2025.
Note: Annual average daily traffic ranges are only one consideration when classifying roadways, other considerations include surrounding land uses, roadway usage, and access to property provided by each roadway.

D. Pedestrian & Bicycle Network

Every trip taken within the transportation system begins and ends with active transportation in the form of biking, walking, or rolling. The goal of moving people and goods often requires multiple modes for one trip.

Providing more options for active transportation is an important component of transportation planning as more than 25 percent of the travelling public does not have a driver's license and active transportation is a part of every trip.

Active transportation is a primary strategy for greenhouse gas reduction as vehicle exhaust is the second highest source of greenhouse gases in Thurston County according to the Thurston County 2022 Greenhouse Gas Emissions Analysis from Department of Commerce. As more people are accommodated by infrastructure that

supports active transportation, less greenhouse gas emissions are produced. To that end, Tumwater has prioritized active transportation by creating a detailed Bicycling, Walking, & Rolling Plan for network improvements is included in Appendix B.

The Bicycling, Walking, & Rolling Plan includes baseline data about the existing conditions as to set the priority network for infrastructure improvements. This plan also sets mode shift targets and greenhouse gas emission reduction goals that support the Climate Element of the Comprehensive Plan.

It is important to also include active transportation system information in the Transportation Plan as the transportation system is not complete without these components. Active transportation data is therefore woven throughout the Transportation Plan and included in both the Transportation Plan and the Bicycling, Walking and Rolling Plan.

E. Transit Network

Intercity Transit provides free transit service through 71 buses with 19 local routes in the Tumwater, Olympia, Lacey, and Yelm areas. Intercity Transit also operates five express routes to Lakewood and Tacoma, offering connections to Pierce Transit and Sound Transit routes. Additionally, it connects to the Amtrak Station on Yelm Highway providing a connection to regional rail transit.

Four local transit routes currently serve the Tumwater area (Routes 12, 13, 42, and 68) as shown in Figure T-3. All Intercity Transit buses are equipped with bicycle racks and all buses are wheelchair accessible.

In addition, Intercity Transit operates a paratransit service called “Dial-A-Lift” with 35 vans. Dial-A-Lift is a door-to-door, shared ride public transportation service for people with disabilities that prevent them from using fixed route bus service. Intercity Transit offers Dial-A-Lift service where and when fixed route buses operate, and it does not cover all of Tumwater. Additionally, eligibility constraints exist which include conditional and temporary eligibility.

Intercity Transit also maintains an extensive Village Vans program that helps those with transportation barriers to travel between work and home.

Tumwater’s only park-and-ride lot, co-located with the Department of Health parking lot at the corner of Bonniewood Drive and Israel Road, closed in 2016. While Routes 12 and 13 still service this area, Intercity Transit has not opened an alternate park-and-ride location in Tumwater.

In its 2023-2028 Transit Development Plan forecast, Intercity Transit expects to restore nearly all fixed-route and Dial-A-Lift services as well as expand the “Bus Rapid Transit-light” pilot on Marvin Road, a future segment of which includes connection to Tumwater. This draft plan includes frequency and span improvements along with relaunch of suspended routes.

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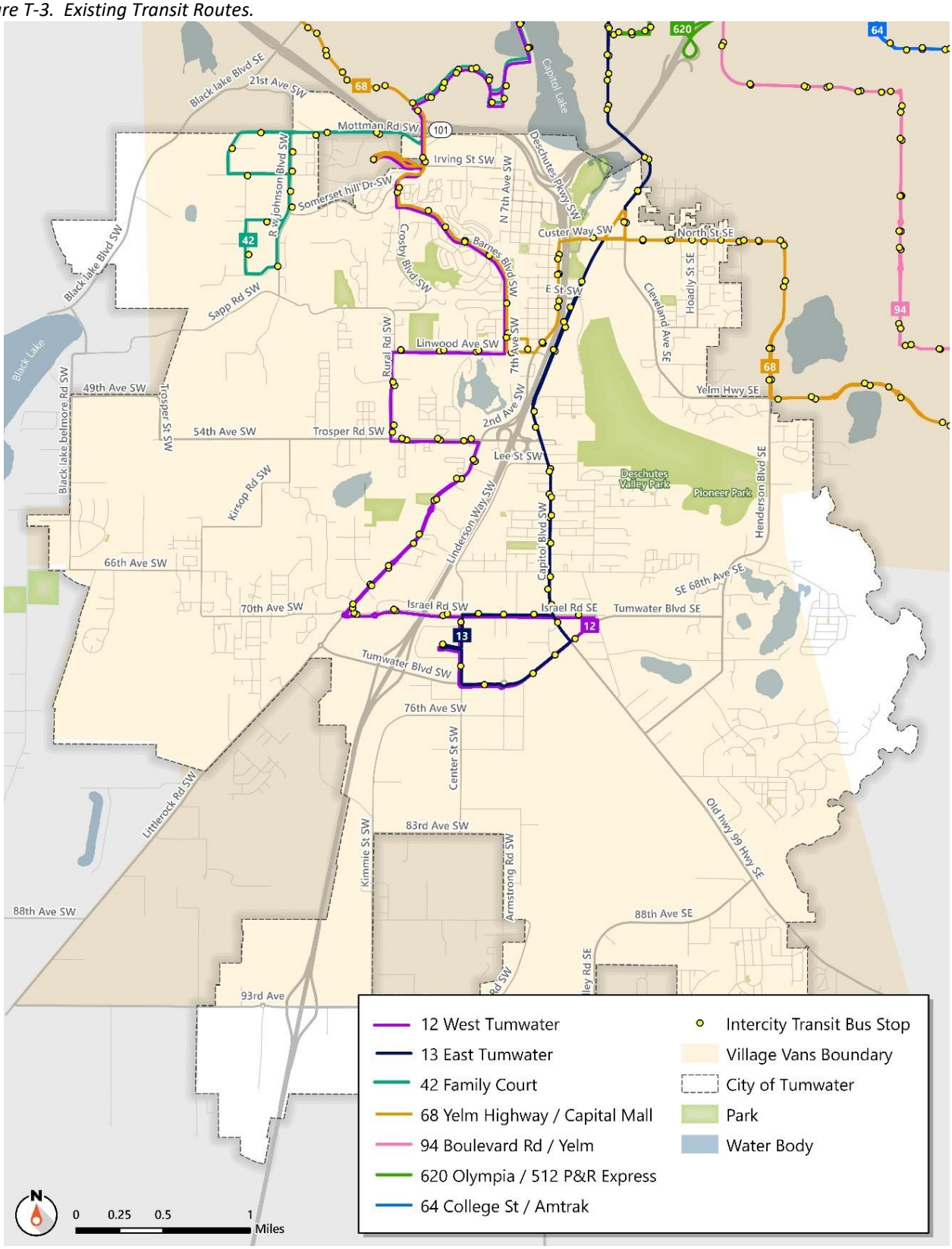
Figure T-3. Existing Transit Routes.



Source: Fehr & Peers, 2025.

F. Freight Network

Freight plays a critical role for businesses and residents in Tumwater who rely on freight shipped via trucks. Trucks range in size from light-duty commercial vans and single-unit trucks for package delivery and moving, to garbage trucks that navigate through neighborhoods, to large semi-truck trailers that connect local and regional businesses.

The Washington State Department of Transportation designates strategic freight corridors within the state as part of the Freight and Goods Transportation System. The classifications T-1 through T-5 shown in Table T-2 are based on annual freight tonnage moved along a corridorError! Reference source not found..

Figure T-4 illustrates Freight and Goods Transportation System freight corridors in Tumwater. Example freight corridors in Tumwater are also presented in Table T-2.

Mottman Road and Littlerock Road, for example, provide freight connections to Tumwater's general commercial zones. Trucks delivering wholesale and retail goods, business supplies, and building materials throughout Tumwater contribute to and are impacted by traffic congestion.

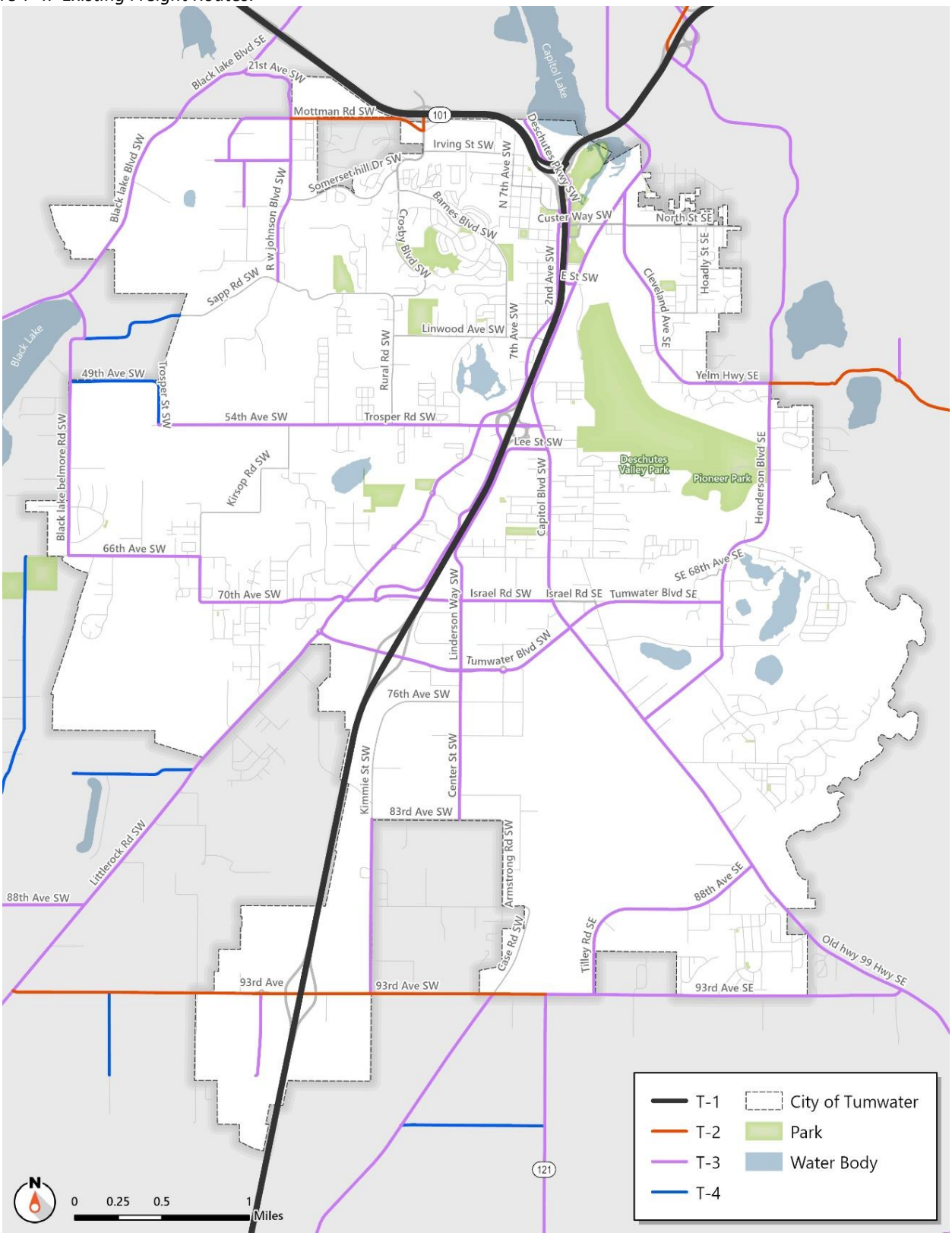
Tumwater partners with the Washington State Department of Transportation and regional agencies to maintain these freight routes and ensure system capacity standards are met. Designated Freight and Goods Transportation System routes aim to prevent heavy truck traffic on lower-volume streets and promote the use of adequately designed roadways.

Table T-2. Washington State Department of Transportation Freight Corridor Classifications.

Freight Corridor	Description	Example in Tumwater
T-1	More than 10 million tons of freight per year	Interstate 5
T-2	4 million to 10 million tons per year	State Route 121, Mottman Road, Crosby Boulevard, Yelm Highway SE
T-3	300,000 to 4 million tons per year	Capitol Boulevard, Tumwater Boulevard
T-4	100,000 to 300,000 tons per year	49th Avenue SW
T-5	At least 20,000 tons in 60 days	No streets classified

Source: Washington State Department of Transportation, Fehr & Peers, 2025

Figure T-4. Existing Freight Routes.



Source: Washington State Department of Transportation, Fehr & Peers, 2025.

G. Airports

Two airports are in the vicinity of Tumwater, the Olympia Regional Airport and Hoskins Field.

The Olympia Regional Airport is located entirely within Tumwater and serves as a hub for aviation services for the southern portion of the Seattle-Tacoma Metropolitan Area. The airport is owned and operated by the Port of Olympia and serves general aviation users. There are two runways and approximately 142 aircraft are based at the airport as of 2020.

Hoskins Field is a small private airstrip located approximately two miles east of Tumwater.

H. Roadway Network

As part of the Transportation Plan update, traffic operations were assessed at 40 intersections, including signalized, roundabout, and stop controlled intersections. These study intersections were selected in consultation with Tumwater staff and were previously evaluated as part of the 2016 Comprehensive Plan.

This section discusses the analysis of existing vehicle operations and evaluates how well the existing system serves both local and regional needs.

1) Delay & Level of Service

Intersection-level delay measured in seconds per vehicle and Level of Service (LOS) are the primary measures of intersection performance for the motorized vehicle traffic operations analysis. Descriptions of levels of services are found in Table T-3.

The Highway Capacity Manual defines delay as

> *"…brought about by the presence of a traffic control device including delay associated with vehicles slowing in advance of an intersection, the time spent stopped on an intersection approach, the time spent as vehicles move up in the queue, and the time needed for vehicles to accelerate to their desired speed."*

Level of service is a term that qualitatively describes the operating performance of an intersection and is a standard method for characterizing delay. For signalized, roundabout, and all-way stop control intersections, the Level of Service is based on the average delay for all approaches. For two-way stop control intersections, the direction or movement with the highest delay is reported. Level of service is reported on a scale from A to F, with A representing the lowest delays and F the highest.

Beyond travel time there are other impacts to the system which includes impact on air quality and collision rates.

Increased Crash Rates: Higher congestion levels lead to more frequent stop-and-go conditions, increasing the likelihood of some collisions. However, slower speeds experienced during congested times can lead to less severe crash forces, and therefore, fewer serious injury or fatality collisions.

Elevated Emissions: Vehicles experience more idling, acceleration, and deceleration in

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congested conditions, resulting in higher emissions of pollutants such as carbon monoxide (CO), nitrogen oxides (NOx), and particulate matter (PM).

Table T-3. Level of Service Descriptions.

Level of Service (LOS)	Description	Signalized Intersections and Roundabouts Avg. Delay (sec/veh)[1]	Unsignalized Intersections Avg. Delay (sec/veh)[2]
A	***Free Flow / Insignificant Delay*** Extremely favorable progression. Individual users are virtually unaffected by others in the traffic stream.	< 10	< 10
B	***Stable Operations / Minimum Delays*** Good progression. The presence of other users in the traffic stream becomes noticeable.	10 to 20	10 to 15
C	***Stable Operations / Acceptable Delays*** Fair progression. The operation of individual users is affected by interactions with others in the traffic stream	20 to 35	15 to 25
D	***Approaching Unstable Flows / Tolerable Delays*** Marginal progression. Operating conditions are noticeably more constrained.	35 to 55	25 to 35
E	***Unstable Operations / Significant Delays Can Occur*** Poor progression. Operating conditions are at or near capacity.	55 to 80	35 to 50
F	***Forced, Unpredictable Flows / Excessive Delays*** Unacceptable progression with forced or breakdown of operating conditions.	> 80	> 50

Notes: 1 – Overall intersection LOS and average delay (seconds/vehicle) for all approaches.
2 – Worst movement LOS and delay (seconds/vehicle) only.

Source: Fehr & Peers, based on Highway Capacity Manual, 6th Edition.

Tumwater's Level of Service policy sets the following standards:

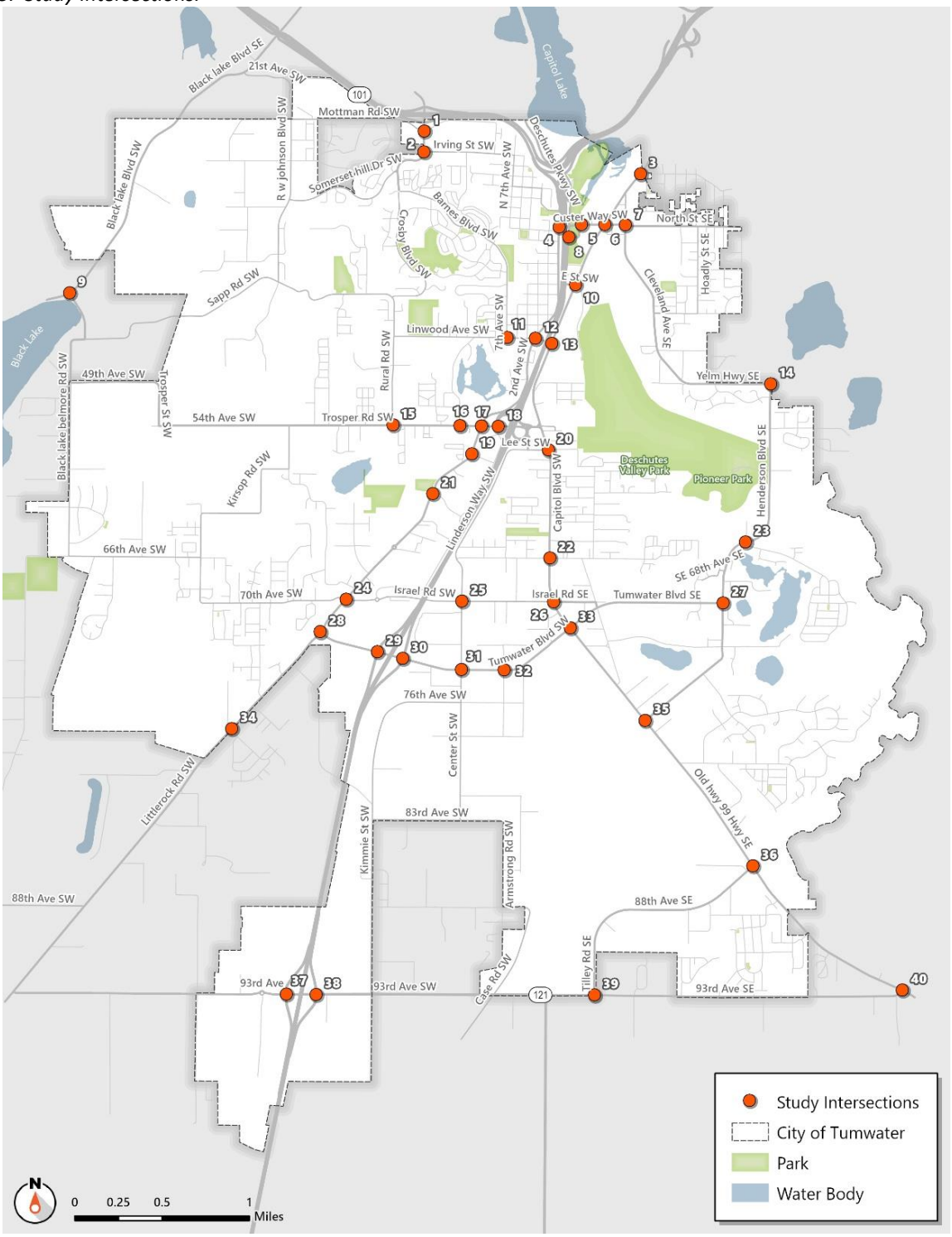
- Level of Service E for intersections and segments within the designated urban core area.
- Level of Service D for all other intersections and segments in Tumwater.

The Washington Department of Transportation sets Level of Service standards for state-owned highways, including interchanges. They have

established a Level of Service D for state highways within urban areas.

The study intersections are shown in Figure T-5, and full details of the traffic operations analysis are included in Appendix A.

Figure T-5. Study Intersections.



Source: Fehr & Peers.

2) Traffic Operations Analysis Results

The results of the existing operations analysis are shown in Table T-4 and Figure T-6. Out of the 40 intersections analyzed, seven did not meet Tumwater's Level of Service standard in 2024.

Table T-4. Existing Intersection Delay and Level of Service.

#	Intersection Name	Control	Level of Service (LOS) Standard	Existing LOS/Delay (seconds/vehicle)
1	Crosby Blvd SW / Mottman Rd SW	Signal	D	C/26
2	Crosby Blvd SW / Irving St SW	Signal	D	A/10
3	Capitol Blvd SE/ Carlyon Ave SE / Sunset Way SE	Signal	D	B/13
4	2nd Ave SW / Custer Way SW	Signal	D	**E/61**
5	Custer Way SW / Boston St SW	TWSC	E	E/42 (WBL)
6	Custer Way / Capitol Blvd SE	Signal	E	C/23
7	Custer Way / North St SE / Cleveland Ave SE	Signal	E	C/23
8	Deschutes Way SW / Boston St SW	AWSC	D	**F/86**
9	Black Lake Blvd SW / Black Lake Belmore Rd SW	TWSC	D	D/27 (WBL/WBR)
10	Capitol Blvd SE / E St SE	Signal	E	B/10
11	7th Ave SW / Linwood Ave SW	TWSC	D	**E/43 (SBL/SBT/SBR)**
12	2nd Ave SW / Linwood Ave SW	AWSC	D	D/32
13	Capitol Blvd SE / Linwood Ave SW	Signal	D	B/12
14	Henderson Blvd SE / Yelm Hwy SE	Signal	D	D/46
15	Rural Rd SW / Trosper Rd SW	TWSC	D	B/15 (SBL)
16	Lake Park Dr SW / Trosper Rd SE	Signal	D	A/4
17	Littlerock Rd SW / Trosper Rd SW	Signal	D	D/40
18	Interstate 5 SB Ramps / Tyee Dr SW / Trosper Rd SW	Signal	D	D/41

#	Intersection Name	Control	Level of Service (LOS) Standard	Existing LOS/Delay (seconds/vehicle)
19	Littlerock Rd SW / Costco Driveway	Signal	D	D/37
20	Capitol Blvd SE / Lee St SW	Signal	E	**F/88**
21	Littlerock Rd SW / Kingswood Dr SW	RAB	D	A/3
22	Capitol Blvd SE / Dennis St	Signal	E	B/15
23	65th Ave SE / Henderson Blvd SE	Signal	D	A/7
24	Littlerock Rd SW / Israel Rd SW / 70th Ave SW	RAB	D	A/7
25	Linderson Way SW / Israel Rd SW	Signal	D	C/23
26	Capitol Blvd SE / Israel Rd SE	Signal	D	C/32
27	Tumwater Blvd SE / Henderson Blvd SE	Signal	D	D/37
28	Littlerock Rd SW / Tumwater Blvd SW	RAB	D	A/5
29	Interstate 5 SB Ramps / Tumwater Blvd SW	Signal	D	C/23
30	Interstate 5 NB Ramp / Tumwater Blvd SW	TWSC	D	**F/163 (NBL/NBT)**
31	Linderson Way SW / Tumwater Blvd SW	Signal	D	C/28
32	New Market St SW / Tumwater Blvd SW	RAB	D	A/3
33	Capitol Blvd SE / Tumwater Blvd SW	Signal	D	C/25
34	Littlerock Rd SW / Black Hills School Driveway	Signal	D	B/11
35	Old Hwy 99 SE / Henderson Blvd SE	Signal	D	B/11
36	Old Hwy 99 SE / 88th Ave SE	Signal	D	B/12
37	Interstate 5 SB Ramps / 93rd Ave SW	Signal	D	B/14
38	Interstate 5 NB Ramps / 93rd Ave SW	Signal	D	A/5
39	93rd Ave SW / Tilley Rd SW	TWSC	D	**F/66 (NBL/NBR)**
40	Old Hwy 99 SW / 93rd Ave SE	TWSC	D	**E/47 (NBL)**

Notes:

- Intersections in **bold** do not meet their Level of Service standard.
- Abbreviations: LOS – Level of Service, AWSC – All Way Stop Control, TWSC – Two Way Stop Control, RAB – Roundabout, NBL – Northbound Left, NBT – Northbound Through, NBR – Northbound Right, WBL – Westbound Left, WBR – Westbound Right, SBL – Southbound Left, SBT – Southbound Through, SBR – Southbound Right.
- Two Way Stop Control and roundabout intersections have the worst movement noted in parentheses. The movement shown inside the parentheses indicates the worst-performing movement. For example, if it is NBL, it means the exclusive northbound left-turn lane has the worst movement. NBL/NBR indicates that the lane shared by both northbound left and northbound right turns has the worst movement.

Source: Fehr & Peers, 2025.

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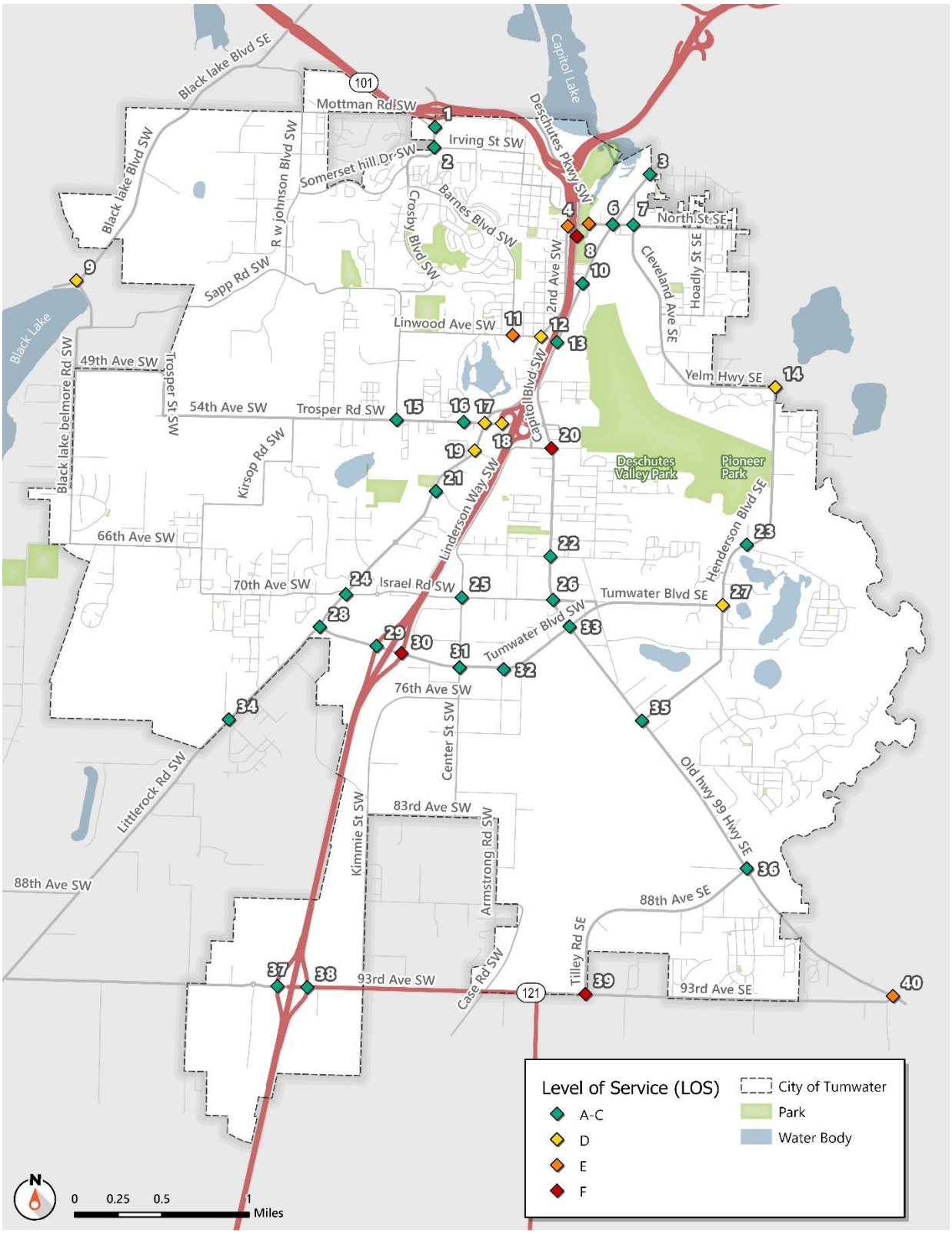
Figure T-6. Existing Intersection Level of Service.



Source: Fehr & Peers, 2025.

3) Segment Analysis

Ten roadway segments shown in Table T-5 were studied for their volume to capacity (V/C) ratio considering a Level of Service standard of D. A value less than one indicates less volume compared to the theoretical capacity of a roadway operating at Level of Service D, while more than one indicates volumes over that theoretical capacity.

All segments except Custer Way between North 2nd Avenue Southwest and Capitol Boulevard Southwest were operating at an acceptable volume to capacity ratio. This is consistent with intersection operations as both Custer Way SW / North 2nd Avenue SW and Custer Way SW / Boston Street SW operate at Level of Service E.

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Table T-5. Existing Volume / Capacity Ratios.

Road Segment	From	To	V/C Ratio NB	V/C Ratio SB	V/C Ratio EB	V/C Ratio WB
Deschutes Way	E Street SW	Boston Street SW	0.33	0.15	-	-
Custer Way	Capitol Boulevard SW	Cleveland Avenue SW	-	-	0.64	0.45
Custer Way	North 2nd Ave SW	Capitol Boulevard SW	-	-	**1.35**	**1.02**
Henderson Boulevard	Tumwater Boulevard SW	Yelm Highway SE	-	-	0.30	0.29
Cleveland Avenue SW	Custer Way	Yelm Highway SE	0.38	0.55	-	-
Old Highway 99 SE	Tumwater Boulevard SW	Henderson Boulevard SE	0.65	0.86	-	-
Old Highway 99 SE	Henderson Boulevard SE	88th Ave SE	0.62	0.91	-	-
Capitol Boulevard SW	Tumwater Boulevard SW	Linderson Avenue SW	0.38	0.42	-	-
Capitol Boulevard SW	Linderson Way SW	Linwood Way SW	0.26	0.31	-	-
Littlerock Road SW	Trosper Road SW	Kingswood Drive SW	0.30	0.35	-	-
Tumwater Boulevard	Capitol Boulevard SW	Linderson Way SW	-	-	0.36	0.52

Notes:

- Segments in **bold** do not meet their LOS threshold.
- Abbreviations: V/C – volume to capacity, NB – northbound, SB – southbound, EB – eastbound, WB – westbound.
- V/C Ratios were calculated based on the Florida Department of Transportation's QLOS Handbook using peak hour directional capacities associated with a threshold LOS D for different lane numbers in a suburban context.

Source: Fehr and Peers, 2025.

I. Safety

Collision data for Tumwater roads collated and cleaned by the Washington State Department of Transportation was used to identify safety hotspots and overall collision trends for Tumwater.

Collisions on state routes such as US 101 or Interstate 5 are not considered as part of this analysis. The analysis covered a five-year period from January 2019 to December 2023, the most recent available data.

There were 1,447 reported collisions, of which 22 were serious injury collisions and four were fatal collisions. Pedestrians were in 28 collisions and bicyclists were in 24 collisions. Six

Table T-6Collisions where people are killed or seriously injured make up about two percent of collisions for all modes, while about 20 percent of collisions involving pedestrians and bicyclists resulted in serious injuries or fatalities. Because pedestrians and cyclists are not protected by advanced safety features that protect people inside cars, they are more vulnerable.

Figure T-7 displays a heat map of all collisions across the study area with darker regions indicating higher concentrations of collisions and points for each serious injury or fatal collision. pedestrians and one bicyclist were seriously injured, while four pedestrians were killed.

Between 2019 and 2023, Tumwater experienced nearly 1,500 collisions, with 26 of these resulting in a fatality or serious injury as shown in Table T-6. Tumwater does not have a local road safety plan and is therefore not eligible for Highway Safety Improvement Program funding to address critical safety needs. Looking ahead, Tumwater may explore the development of a Comprehensive Safety Action Plan using grant funding from the federal Safe Streets and Roads for All program. These plans help prioritize safety improvements through the safe systems approach.

Error! Reference source not found. Figure T-8 shows all pedestrians and bicycle collisions.

Tumwater does not have a local road safety plan and is therefore not eligible for Highway Safety Improvement Program funding to address critical safety needs. Looking ahead, Tumwater may explore the development of a Comprehensive Safety Action Plan using grant funding from the federal Safe Streets and Roads for All program. These plans help prioritize safety improvements through the safe systems approach.

Table T-6. Collisions by Injury Severity from January 2019 – December 2023.

Severity	Number of Collisions	Percentage of Collisions
All Collisions	**1,449**	**100%**
Property Damage Only	1,034	71%
Minor injury (Including Possible and Unknown Injuries)	389	27%
Serious Injury	22	1%
Fatality	4	<1%

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Severity	Number of Collisions	Percentage of Collisions
Pedestrian Collisions	**24**	**1%**
Serious Injury Pedestrian Collisions	6	<1%
Fatal Pedestrian Collisions	4	<1%
Bicycle Collisions	**28**	**1%**
Serious Injury Bicycle Collisions	1	<1%
Fatal Bicycle Collisions	0	0%

Note: Does not include US 101 & Interstate 5 collisions.
Source: Fehr & Peers, 2025.

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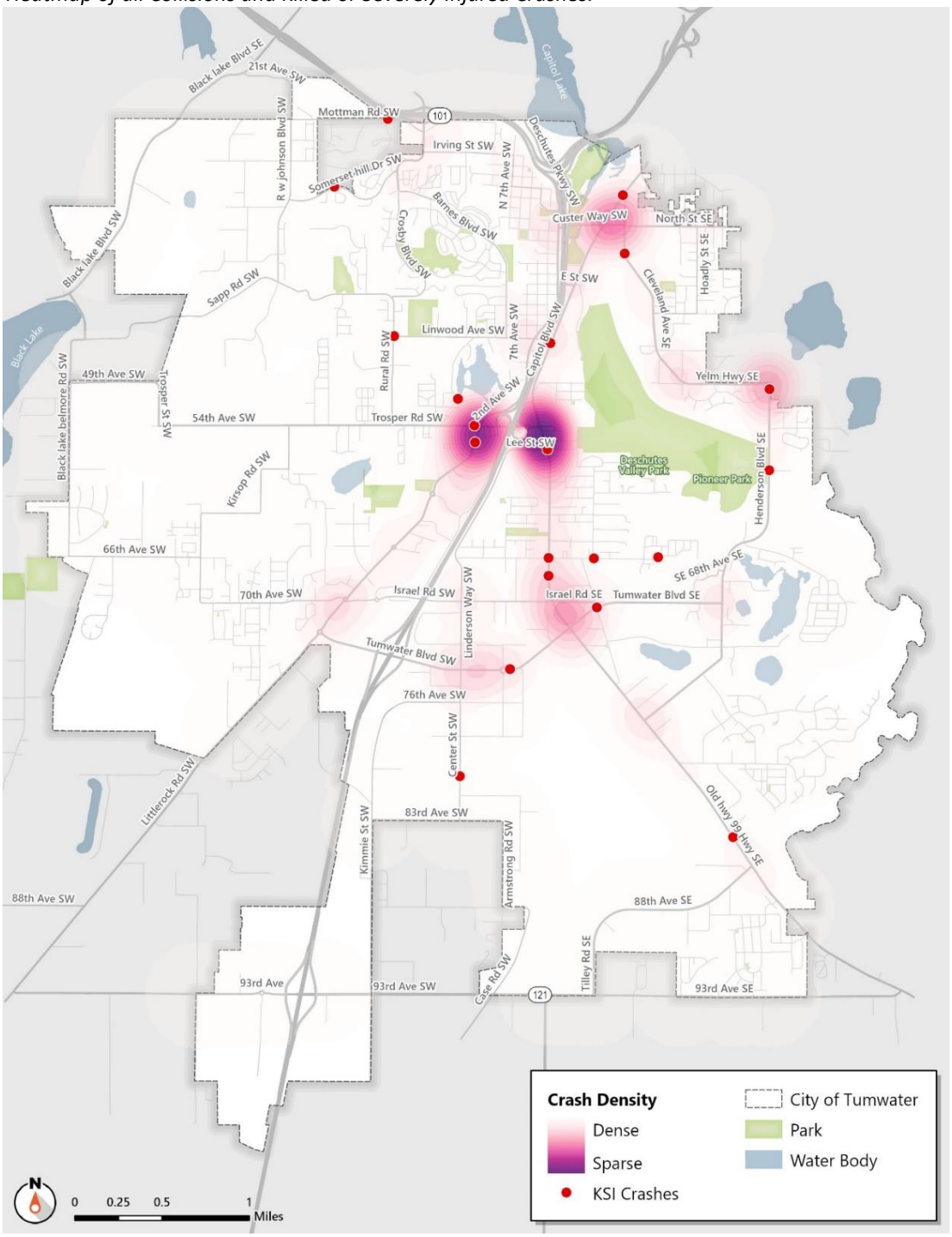
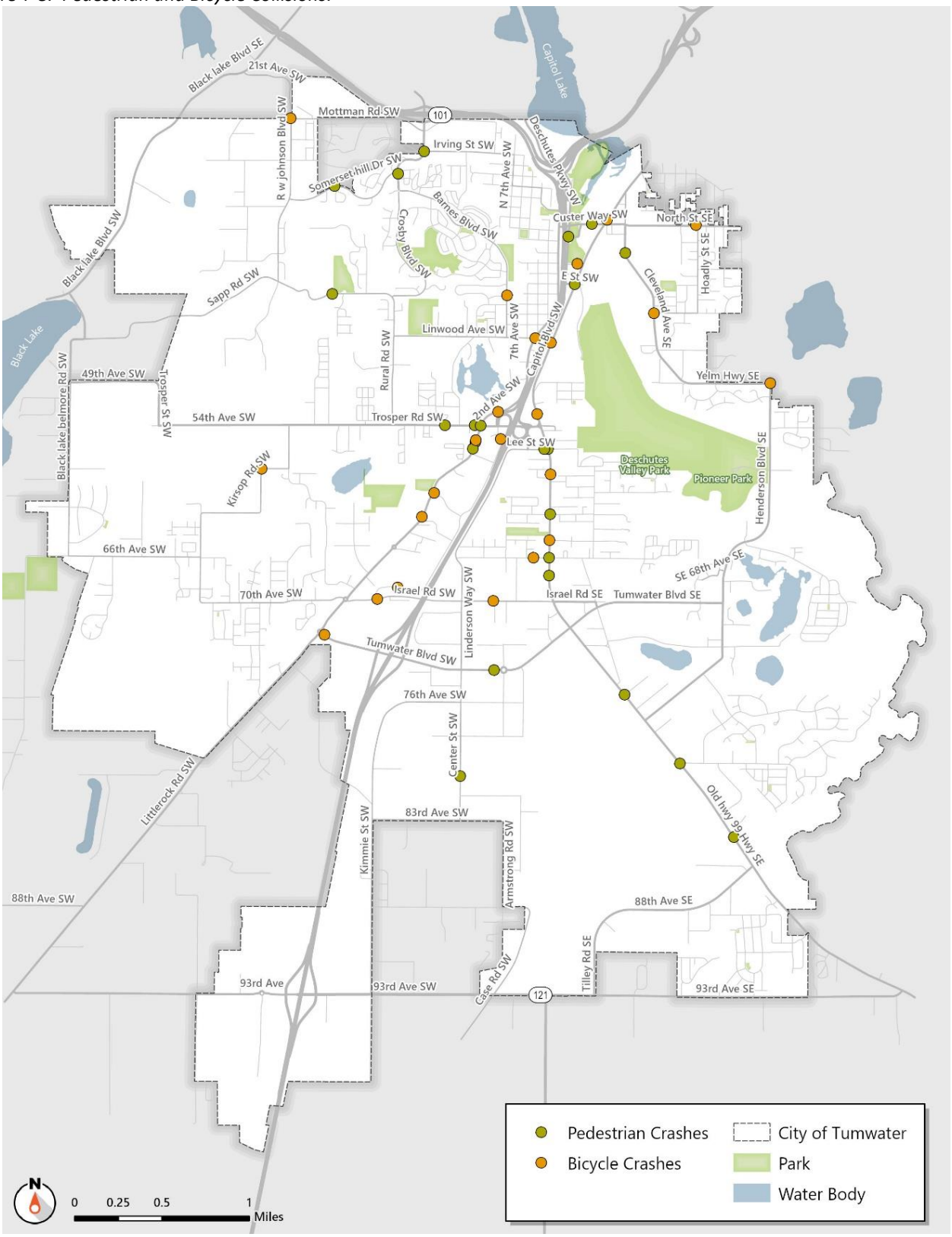
Figure T-7. Heatmap of all Collisions and Killed or Severely Injured Crashes.



Source: Fehr & Peers, 2025.

Figure T-8. Pedestrian and Bicycle Collisions.



Source: Fehr & Peers, 2025.

Tumwater has seen a gap in police reported data, which is the basis for the analysis above. Tumwater is developing a framework to collect more collision reports, with a particular focus on active transportation collisions which may not show up in police reports.

J. Current Trends & Opportunities

Tumwater is working to create an improved transportation network for all users. Understanding and addressing transportation trends, as documented in this section, and finding opportunities to realize Tumwater's transportation vision and goals will be key to improving transportation outcomes.

1) Active Transportation

Every trip taken within the transportation system begins and ends with active transportation. The goal of moving people and goods often requires multiple modes for one trip. Over 25 percent of the travelling public does not have a driver's license so providing more options for active transportation is a basic public service. Active transportation modes are connected to the rest of the system because of the impacts they have on the system overall.

Gaps in the current infrastructure make it difficult for people who do not drive to get from place to place. As the system provides more comfortable routes, those who choose to drive will also have the option to choose other modes.

Active transportation is a major strategy for greenhouse gas reduction as motorized vehicle exhaust is the second highest source of greenhouse gases in Thurston County. As more people are accommodated by infrastructure that supports active transportation, less greenhouse gas emissions are produced. To that end, Tumwater has prioritized active transportation by creating a detailed Bicycling, Walking, & Rolling Plan for network improvements is included in Appendix B.

The Bicycling, Walking, & Rolling Plan includes baseline data about the existing conditions as to set the priority network for infrastructure improvements. This plan also sets mode shift targets and greenhouse gas emission reduction goals that support the Climate Element of the Comprehensive Plan.

It is important to also include active transportation system information in the Transportation Plan as the transportation system is not complete without these components. Active transportation data is therefore woven throughout the Transportation Plan and included in both the Transportation Plan and the Bicycling, Walking, & Rolling Plan.

2) Americans with Disabilities Act Transition Plan

Tumwater adopted an Americans with Disabilities Act Transition Plan in 2021 to create a roadmap towards a fully accessible transportation system. The plan does not currently have a schedule for when these investments will be made.

3) Schools

Schools are a significant focus for improved multimodal access and transportation options that meet the needs of young people especially. Bicycling, Walking, & Rolling Plan specifically

names schools as key locations since they serve a large percentage of residents that cannot drive. Prioritizing vulnerable populations by providing safe facilities for active transportation is one way Tumwater can serve families with children.

The transportation networks surrounding schools can become congested before and after the school day, raising safety concerns due to the simultaneous use of various modes of transportation within a compressed timeframe.

Schools that do not have safe or accessible routes for people using active transportation generally experience more intense vehicle traffic in the peak periods. Many public schools in Tumwater do not effectively accommodate the current vehicle queuing demand for parent pick-up and drop-off, leading to congestion on streets. Air quality around schools is a growing concern, particularly due to vehicle idling during drop-off and pick-up times. This issue is closely linked to the prevalence and severity of childhood asthma, affecting students' health and academic performance.

4) Electric Vehicle Infrastructure

With electric vehicles becoming more common, Tumwater needs more vehicle charging infrastructure that can serve the needs of the existing fleet and encourage greater electric vehicle usage. In Tumwater, both battery only and plug-in hybrid registrations of electric vehicles have increased rapidly, from three in 2011 to 739 in 2024.[1] Electric vehicles can help reduce emissions in Tumwater and will help meet its greenhouse gas reduction goals to reduce locally generated emissions 85 percent below 2015 levels by 2050 in the Climate Element.

5) Network Connectivity

Few east-west arterials serve Tumwater because barriers like the Deschutes River, Interstate 5, and the Burlington Northern/Santa Fe Railroad limit connectivity result in an increase congestion. Low density developments and a lack of connectivity between subdivisions around Tumwater further exacerbate congestion. There is a need for greater connectivity for all modes between residences, commercial areas, and employment hubs.

Active transportation could be an alternative to driving on congested roadways, but the existing infrastructure between major areas of interest suffers from a disconnected roadway network and high stress facilities for both pedestrians and bicyclists as shown in Figure BWR-4 and Figure BWR-7 in Appendix B of the Bicycling, Walking, & Rolling Plan. Some high stress facilities suffer from limitations such as age of infrastructure, designations for preservation and environmental concerns. These factors will have to be considered in developing a connected low-stress active network.

6) Local & Regional Growth

Future development activities in Tumwater will include more industrial and commercial development to meet employment forecasts. Currently, the majority of Tumwater residential development consists of low-density single-family housing, but this will be changing over the

[1] https://data.wa.gov/Transportation/Electric-Vehicle-Registration-Activity-by-Year/tak8-xdcp.

course of the Plan as more middle and multifamily family is built to meet housing growth requirements and demand.

Growth outside Tumwater will also play a major role in the growing demands on Tumwater's transportation network. Tumwater is working to accommodate both local and regional growth, investing in improving opportunities to travel by all modes.

Tumwater cannot permit developments that would cause one or more Level of Service standards to fail unless adequate mitigations are funded.

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3. Public Outreach

Outreach was completed in coordination with the overall Comprehensive Plan update, and included asking the community about their transportation priorities, locations of concern, and their day-to-day modal choices. A transportation focused outreach event was conducted in March 2025. Feedback was also solicited from the following as part of the adoption process for this plan:

- Area Agency on Aging
- Asian Pacific Islander Coalition
- Capital City Council for the Blind
- City Council
- Family Support Center of South Sound Intercity Transit
- People First of Thurston County
- Planning Commission
- Thurston County Developmental Disability Coalition
- Thurston Regional Planning Council

Map-based activities were undertaken at the March 2025 event, such as:

- Identifying locations where community members drove, walked, rolled, or bicycled.
- Identifying areas of concern and specific issues associated with the location.
- Rating transportation priorities to aid in the development of project prioritization criteria.

Feedback at the March 2025 event included:

1. **Driving:** Attendees identified frequent driving routes, including Tumwater Blvd SW at Interstate 5, Israel Rd SW, Henderson Blvd SE, Capitol Blvd SE, R.W. Johnson Blvd SW, Sapp Rd SW, Trosper Rd SW, Cleveland Ave SE, 66th Ave SW, and Littlerock Rd SW. Residents highlighted concerns such as high collision rates at Tumwater Blvd and Interstate 5, suggesting the need for a traffic signal or roundabout. Other issues include inadequate service at Custer Way, Capitol Blvd SE, and Cleveland Ave SE, and a proposal to convert the abandoned railroad south of Bonneville Power Authority power lines on the west side of Tumwater into a pedestrian and bicycle trail.
2. **Bicycling:** Attendees denoted popular bicycling areas like Custer Way, Capitol Blvd SE, Henderson Blvd SE, Kirsop Rd SW, 66th Ave SW, Black Lake Belmore Rd SW, Sapp Rd SW, and various local streets. Challenges for cyclists include inconsistent bicycle lanes, overgrown vegetation encroaching on bicycle paths, and dangerous intersections such as Henderson Blvd SW at the Deschutes River Bridge, where multiple bicycle collisions have occurred. Residents also expressed the need for wide bicycle lanes and improvements near the library.
3. **Walking:** Attendees marked common walking routes, including Cleveland Ave SE, 66th Ave SW, 70th Ave SW, Littlerock

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Rd SW, Israel Rd SW, Linwood Ave SW, Kirsop Rd SW, and numerous former county roads in Tumwater that are now serving urban development. Pedestrian concerns focus on the lack of continuous sidewalks, insufficient crosswalks, and overgrown vegetation obstructing pathways, particularly near the roundabout by the church on Mottman Blvd SW. There was also a call for more neighborhood connections, raised crosswalks, and additional sidewalk amenities.

4. **Public Transit:** Attendees highlighted transit usage areas such as Black Lake Blvd SW, Mottman Blvd SW, Barnes Blvd SW, Capitol Blvd SE, 2nd Ave SW, Custer Way, Israel Rd SW, Rural Rd SW, and Littlerock Rd SW. Residents advocated for expanded bus services to all schools, additional buses for seniors, and new bus stops at locations like 93rd Ave SE and Snowdrop Ave SE and on 88th Ave SE. There was also an interest in improved transit access in underserved areas like Bush Prairie and Cleveland Ave SE.

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4. Tumwater's Future Transportation System

A. Future Roadway Operations

Based on growth forecasts within the region and Tumwater over the next two decades, future traffic volumes were forecast for the same study intersections shown in the Transportation Planning Context chapter.

The forecasts were based on the Thurston Regional Planning Council's travel demand model, which accounts for current conditions and future projected growth. The travel demand model incorporates forecasted growth both within Tumwater and throughout the region. The model was used to forecast vehicle volume growth for study intersections. The model does not provide active transportation trip forecasts, nor do any other widely available tools. The result of this analysis is shown in Figure T-9 and Table T-7.

To help the transportation system accommodate forecast growth, Tumwater has identified a set of baseline improvement projects. These projects primarily focus on the installation of roundabouts at several critical study intersections. In Table T-7, these locations are marked with an asterisk (*). These include:

- Custer Way SW / Boston Street SW
- Custer Way / Capitol Blvd SE
- Custer Way / North St SE / Cleveland Avenue SE
- Capitol Blvd SE / E St SE
- 2nd Avenue SW / Linwood Avenue SW
- Capitol Blvd SE / Dennis Street SE
- Linderson Way SW / Israel Rd SW
- Tumwater Blvd SE / Henderson Blvd SE
- Tumwater Boulevard SW / Interstate 5 southbound ramp
- Tumwater Boulevard SW / Interstate 5 northbound ramp
- Old Highway 99 SE / Henderson Boulevard SE

In addition, one location has been identified for signal installation, as listed below.

- Deschutes Way SW / Boston St SW

Under projected 2045 traffic volumes, these roundabout improvements are anticipated to operate at acceptable levels of service and maintain reasonable vehicle delays. However, a proposed signal is still expected to fail.

Despite these planned improvements, the analysis indicates that several other intersections are projected to fall below Tumwater's Level of Service standards by 2045. All of these underperforming intersections are currently stop-controlled, and without intervention, they are unlikely to accommodate future traffic demands effectively.

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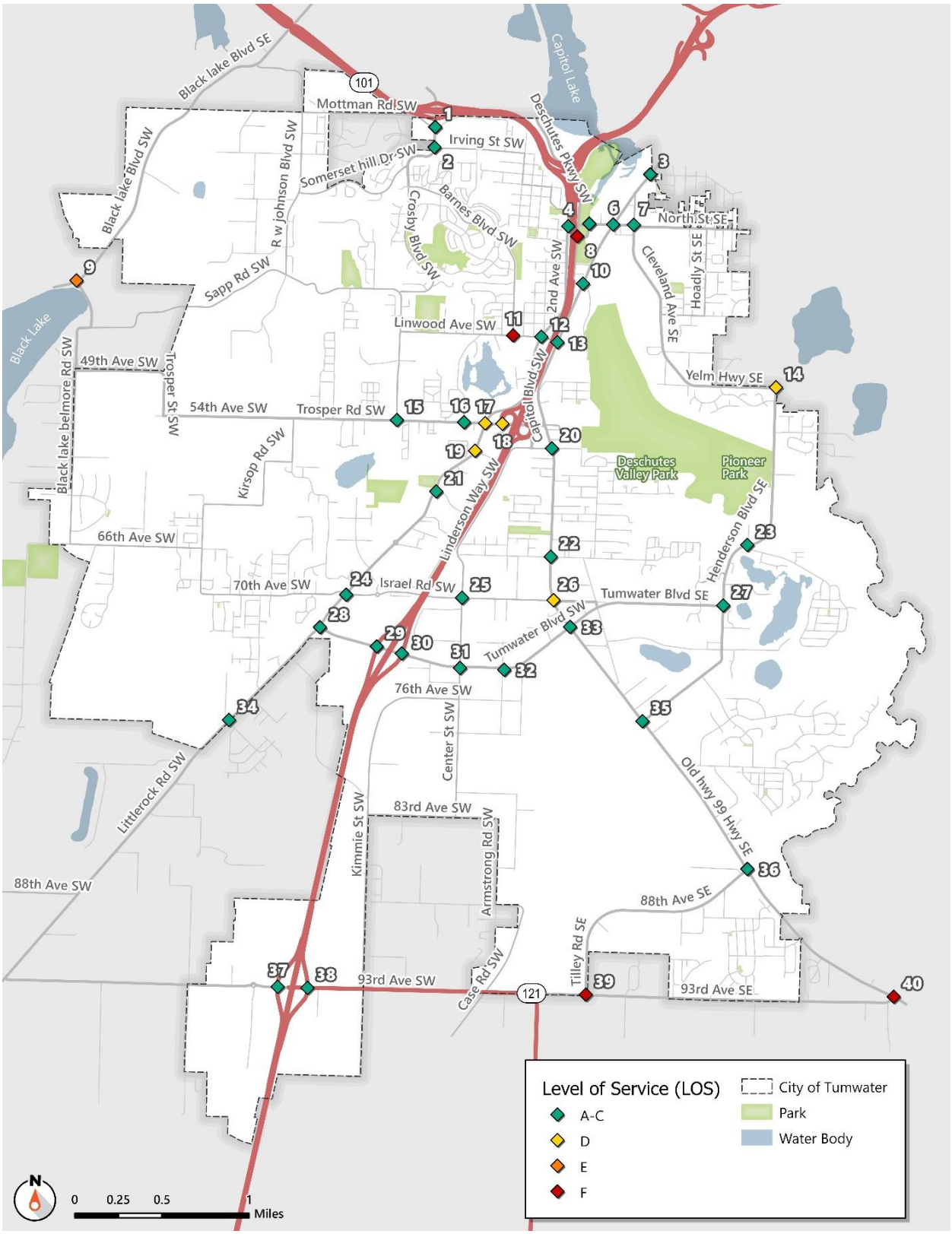
Figure T-9. Future Baseline Intersection Level of Service.



Source: Fehr and Peers, 2025.

Table T-7. Future Baseline Intersection Delay and Level of Service.

#	Intersection Name	Future Control	Level of Service (LOS) Standard	Existing LOS/Delay (seconds/vehicle)	Future Baseline LOS/Delay (seconds/vehicle)
1	Crosby Blvd SW / Mottman Rd SW	Signal	D	C/26	C/27
2	Crosby Blvd SW / Irving St SW	Signal	D	A/10	B/11
3	Capitol Blvd SE / Carlyon Ave SE / Sunset Way SE	Signal	D	B/13	B/16
4	2nd Ave SW / Custer Way SW	Signal	D	**E/61**	C/33
5	Custer Way SW / Boston St SW	RAB*	E	E/42 (WBL)	A/6
6	Custer Way / Capitol Blvd SE	RAB*	E	C/23	A/7
7	Custer Way / North St SE/ Cleveland Ave SE	RAB*	E	C/23	B/12
8	Deschutes Way SW / Boston St SW	Signal*	D	**F/86**	**F/97**
9	Black Lake Blvd SW / Black Lake Belmore Rd SW	TWSC	D	D/27 (WBL/WBR)	**E/57 (WBL/WBR)**
10	Capitol Blvd SE / E St SE	RAB*	E	B/10	A/5
11	7th Ave SW / Linwood Ave SW	TWSC	D	**E/43 (SBL/SBT/SBR)**	**F/64 (SBL/SBT/SBR)**
12	2nd Ave SW / Linwood Ave SW	RAB*	D	D/32	A/7
13	Capitol Blvd SE / Linwood Ave SW	Signal	D	B/12	B/14
14	Henderson Blvd SE / Yelm Hwy SE	Signal	D	D/46	D/47
15	Rural Rd SW / Trosper Rd SW	TWSC	D	B/15 (SBL)	C/17 (SBL)
16	Lake Park Dr SW / Trosper Rd SW	Signal	D	A/4	A/4
17	Littlerock Rd SW / Trosper Rd SW	Signal	D	D/40	D/40

#	Intersection Name	Future Control	Level of Service (LOS) Standard	Existing LOS/Delay (seconds/vehicle)	Future Baseline LOS/Delay (seconds/vehicle)
18	Interstate 5 SB Ramps / Tyee Dr SW / Trosper Rd SW	Signal	D	D/41	D/42
19	Littlerock Rd SW / Costco Driveway	Signal	D	D/37	D/45
20	Capitol Blvd SE / Lee St SW	Signal	E	**F/88**	C/29
21	Littlerock Rd SW / Kingswood Dr SW	RAB	D	A/3	A/3
22	Capitol Blvd SE / Dennis St	RAB*	E	B/15	A/4
23	65th Ave SE / Henderson Blvd SE	Signal	D	A/7	A/8
24	Littlerock Rd SW / Israel Rd SW / 70th Ave SW	RAB	D	A/7	A/7
25	Linderson Way SW / Israel Rd SW	RAB*	D	C/23	A/8
26	Capitol Blvd SE / Israel Rd	Signal	D	C/32	D/39
27	Tumwater Blvd SE / Henderson Blvd SE	RAB*	D	D/37	A/7
28	Littlerock Rd SW / Tumwater Blvd SW	RAB	D	A/5	A/5
29	Interstate 5 SB Ramps / Tumwater Blvd SW	RAB*	D	C/23	A/9
30	Interstate 5 NB Ramp / Tumwater Blvd SW	RAB*	D	**F/150+ (NBL/NBT)**	A/5
31	Linderson Way SW / Tumwater Blvd SW	Signal	D	C/28	C/34
32	New Market St SW / Tumwater Blvd SW	RAB	D	A/3	A/3
33	Capitol Blvd SE / Tumwater Blvd SW	Signal	D	C/25	C/32
34	Littlerock Rd SW / Black Hills School Driveway	Signal	D	B/11	B/15
35	Old Hwy 99 SE / Henderson Blvd SE	RAB*	D	B/11	A/9

#	Intersection Name	Future Control	Level of Service (LOS) Standard	Existing LOS/Delay (seconds/vehicle)	Future Baseline LOS/Delay (seconds/vehicle)
36	Old Hwy 99 SE / 88th Ave SE	Signal	D	B/12	B/16
37	Interstate 5 SB Ramps / 93rd Ave SW	Signal	D	B/14	B/15
38	Interstate 5 NB Ramps / 93rd Ave SW	Signal	D	A/5	A/5
39	93rd Ave SW / Tilley Rd SW	TWSC	D	**F/66 (NBL/NBR)**	**F/150+ (NBL/NBR)**
40	Old Hwy 99 SE / 93rd Ave SE	TWSC	D	**E/47 (NBL)**	**F/72 (NBL)**

Notes:

- *Indicates that a baseline project is in place for the intersection.
- Intersections in **bold** do not meet their Level of Service standard.
- Abbreviations: LOS – Level of Service, AWSC – All Way Stop Control, TWSC – Two Way Stop Control, RAB – Roundabout, NBL – Northbound Left, NBT – Northbound Through, NBR – Northbound Right, WBL – Westbound Left, WBR – Westbound Right, SBL – Southbound Left, SBT – Southbound Through, SBR – Southbound Right.
- Two Way Stop Control and roundabout intersections have the worst movement noted in parentheses. The movement shown inside the parentheses indicates the worst-performing movement. For example, if it is NBL, it means the exclusive northbound left-turn lane has the worst movement. NBL/NBR indicates that the lane shared by both northbound left and northbound right turns has the worst movement.

Source: Fehr & Peers, 2025.

In addition to the intersection-level analysis, a future forecast volume to capacity (V/C) ratio assessment was conducted for the ten roadway segments previously studied. These volume to capacity ratios are presented in **Error! Reference source not found.**-8 and provide a high-level screening of capacity constraints along key corridors within the study area

Table T-8. Future Volume to Capacity Ratios.

Road Segment	From	To	V/C Ratio NB	V/C Ratio SB	V/C Ratio EB	V/C Ratio WB
Deschutes Way	E Street SW	Boston Street SW	0.33	0.15	-	-
Custer Way	Capitol Boulevard SW	Cleveland Avenue SW	-	-	0.64	0.45
Custer Way	North 2nd Ave SW	Capitol Boulevard SW	-	-	**1.35**	**1.02**
Henderson Boulevard	Tumwater Boulevard SW	Yelm Highway SE	-	-	0.30	0.29

Road Segment	From	To	V/C Ratio NB	V/C Ratio SB	V/C Ratio EB	V/C Ratio WB
Cleveland Avenue SW	Custer Way	Yelm Highway SE	0.38	0.55	-	-
Old Highway 99 SE	Tumwater Boulevard SW	Henderson Boulevard SE	0.65	0.86	-	-
Old Highway 99 SE	Henderson Boulevard SE	88th Ave SE	0.62	0.91	-	-
Capitol Boulevard SW	Tumwater Boulevard SW	Linderson Avenue SW	0.38	0.42	-	-
Capitol Boulevard SW	Linderson Way SW	Linwood Way SW	0.26	0.31	-	-
Littlerock Road SW	Trosper Road SW	Kingswood Drive SW	0.30	0.35	-	-
Tumwater Boulevard	Capitol Boulevard SW	Linderson Way SW	-	-	0.36	0.52

Note:

- Segments in **bold** do not meet their LOS threshold.
- V/C Ratios were calculated based on the Florida Department of Transportation QLOS Handbook using peak hour directional capacities associated with a threshold LOS D for different lane numbers in a suburban residential context.

Source: Thurston Regional Planning Council, 2025.

To better understand the effectiveness of the proposed mitigations, a future-year scenario was developed that reflects anticipated conditions in 2045 with proposed mitigations projects in place. This scenario includes additional projects that go beyond the baseline improvements to address intersections expected to operate below Tumwater's Level of Service standards.

Within this future condition, five intersections were identified as needing further enhancements to meet Tumwater's Level of Service standard. These intersections are:

- Deschutes Way SW / Boston Street SW
- Black Lake Boulevard SW / Black Lake Belmore Road SW
- 7th Avenue SW / Linwood Avenue SW
- 93rd Avenue SW / Tilley Road SW
- Old Highway 99 SE/ 93rd Avenue SE

Currently, all these intersections are stop-controlled. For four of these locations, the proposed mitigation involves constructing roundabouts, which are expected to significantly improve operations and bring each intersection into compliance with Tumwater's established standards for delay and Level of Service.

The intersection of Deschutes Way SW / Boston Street SW requires a different approach due to its unique geometry and lack of space. Interstate 5 is just to the west of the intersection, and a bridge forms the east leg of this intersection. At

this location, a baseline project installs a traffic signal.

However, the operational analysis indicates that a signal alone would not be sufficient to bring the intersection to an acceptable Level of Service. To address this, a dedicated westbound right-turn lane could be added in conjunction with the signal. This combined improvement would help resolve capacity issues and ensure that the intersection performs adequately under 2045 traffic conditions.

The results of this mitigation scenario are presented in Table T-9 and illustrated in Figure T-10. The analysis shows that with these additional projects in place, study intersections are expected to operate within Tumwater's adopted Level of Service standards.

Table T-9. Future Mitigated Intersection Delay and Level of Service.

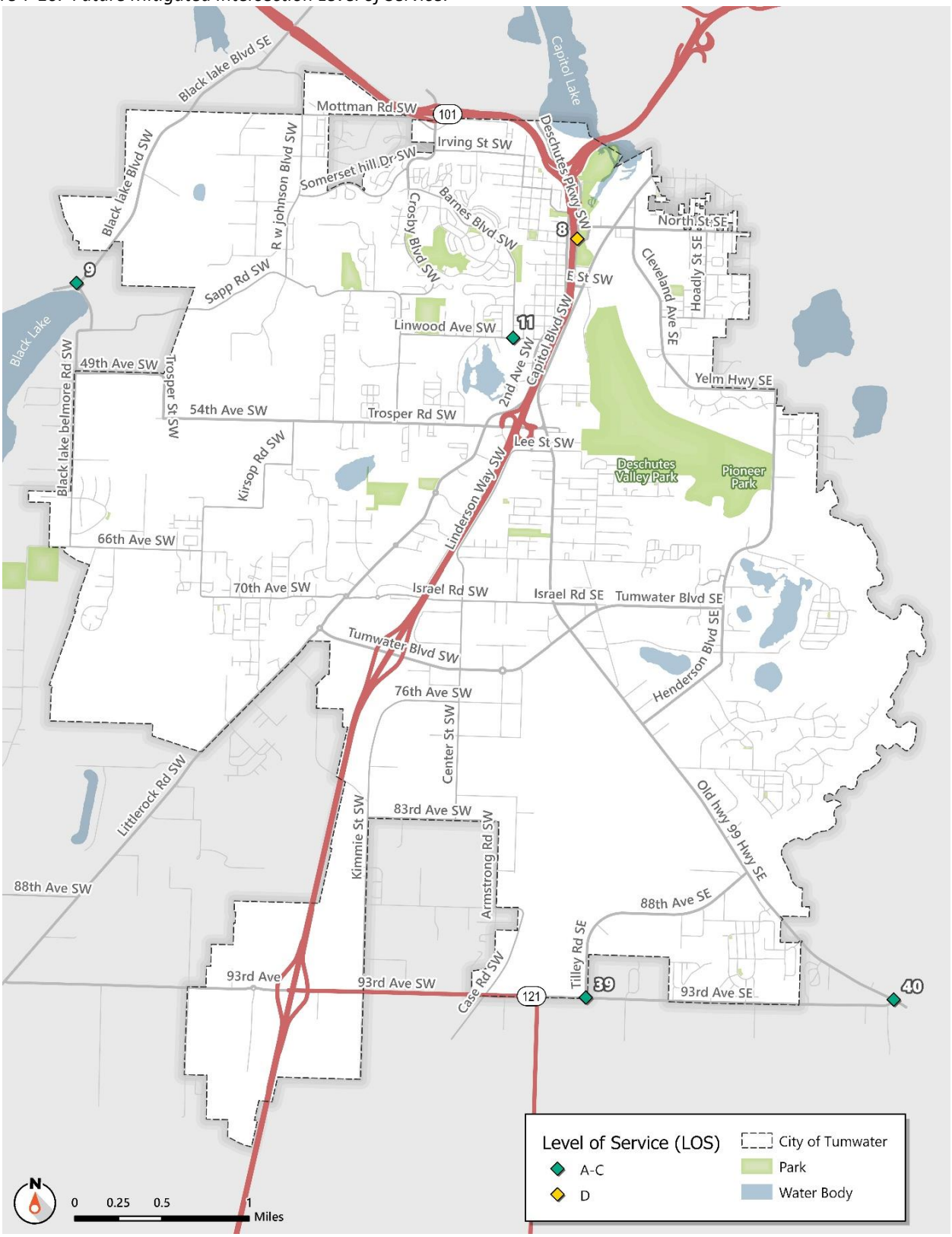
#	Intersection Name	Control	Level of Service Standard	Future Baseline LOS/Delay (seconds/vehicle)	Future Mitigated LOS/Delay (seconds/vehicle)
8	Deschutes Way / Boston St	Signal**	D	**F/97**	D/53
9	Black Lake Blvd / Black Lake Belmore Rd	RAB**	D	**E/57 (WBL/WBR)**	A/6
11	7th Ave / Linwood Ave	RAB**	D	**F/64 (SBL/SBT/SBR)**	A/3
39	93rd Ave / Tilley Rd SW	RAB**	D	**F/150+ (NBL/NBR)**	A/7
40	Old Hwy 99 / 93rd Ave	RAB**	D	**F/72 (NBL)**	A/9

Notes:

- *Indicates that baseline project is planned for the intersection
- **Indicate that non-baseline mitigation project is planned for the intersection.
- Intersections in **bold** do not meet their Level of Service standard.
- Abbreviations: LOS – Level of Service, AWSC – All Way Stop Control, TWSC – Two Way Stop Control, RAB – Roundabout, NBL – Northbound Left, NBR – Northbound Right, WBL – Westbound Left, WBR – Westbound Right, SBL – Southbound Left, SBT – Southbound Through, SBR – Southbound Right.
- Two Way Stop Control and roundabout intersections have the worst movement noted in parentheses. The movement shown inside the parentheses indicates the worst-performing movement. For example, if it is NBL, it means the exclusive northbound left-turn lane has the worst movement. NBL/NBR indicates that the lane shared by both northbound left and northbound right turns has the worst movement.

Source: Fehr & Peers, 2025.

Figure T-10. Future Mitigated Intersection Level of Service.



Source: Fehr & Peers, 2025.

B. State Facilities

1) Segment Capacity Analysis

To evaluate the overall performance of Washington State Department of Transportation operated facilities within the city limits, including Interstate 5, US 101, and SR 121, the volume to capacity ratio was used as a primary metric for analyzing existing and future traffic conditions. Figure T-11 illustrates the projected volume to capacity ratios for state route segments within Tumwater under forecasted 2045 conditions. This analysis was based on forecast volume to capacity ratios from the Thurston Regional Planning Council's 2045 Tumwater Travel Demand Model.

Based on the PM peak hour analysis, the junction where Interstate 5 and US 101 converge is projected to experience significant congestion, with a volume to capacity ratio exceeding 1.0. This indicates that traffic demand will surpass available roadway capacity, primarily due to the complex merging maneuvers required as vehicles transition between the two major highways. These merging conflicts are expected to contribute to slower travel speeds and increased delays at the interchange.

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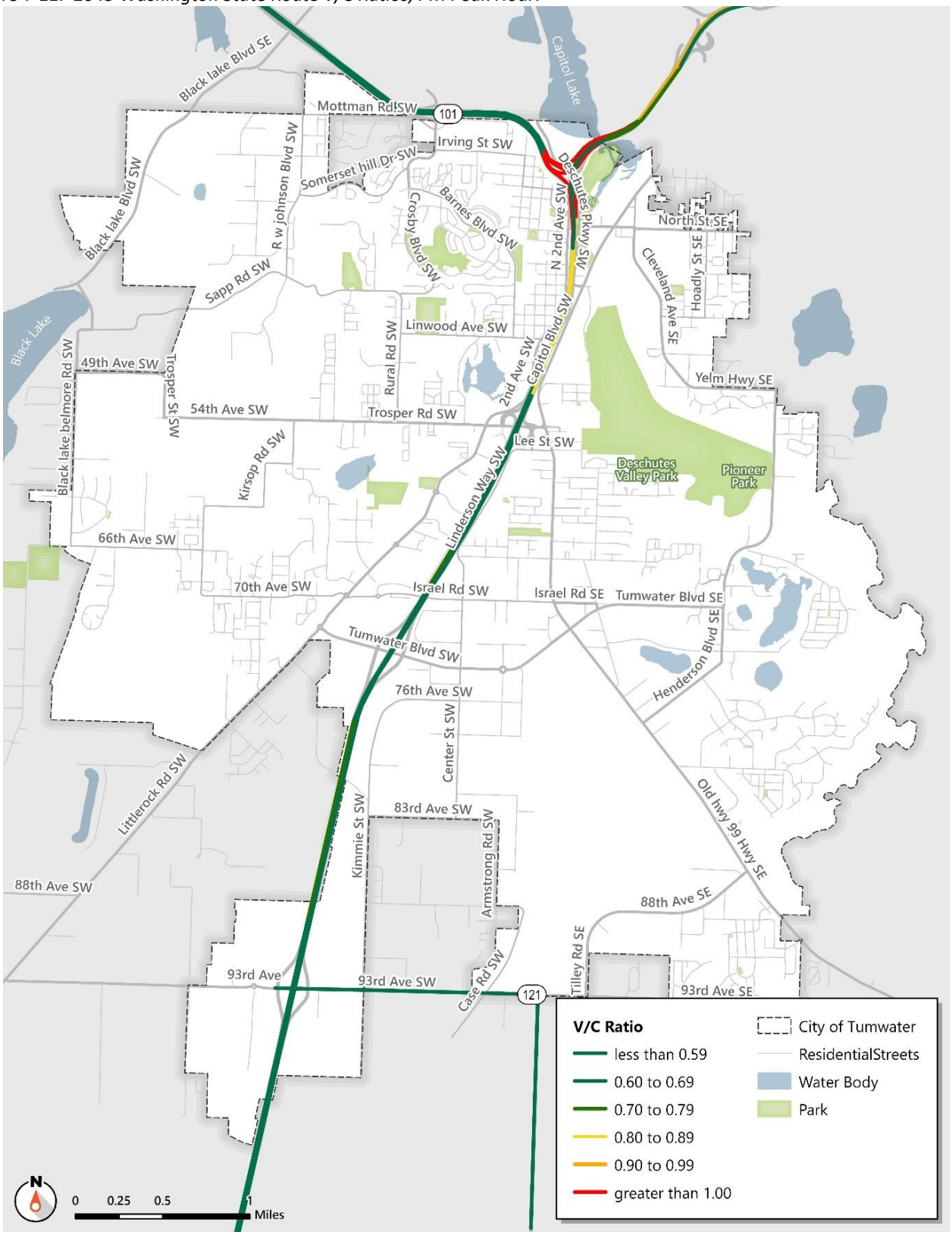
Figure T-11. 2045 Washington State Route V/C Ratios, PM Peak Hour.



Source: Thurston Regional Planning Council & Fehr & Peers, 2025.

2) Intersections

In addition to the volume to capacity ratio analysis conducted at the segment level for all Washington State managed facilities within Tumwater, an intersection-level analysis was performed to evaluate operations at key locations adjacent to these corridors. This analysis focused on intersections that serve as primary access points to and from the freeway system, particularly those that connect directly to Interstate 5 on-ramps and off-ramps.

Given the importance of Interstate 5 as a major north-south transportation corridor through Tumwater, evaluating the operational performance of these access intersections is critical for understanding how efficiently traffic can enter and exit the freeway under future conditions.

The Washington State Department of Transportation has adopted a Level of Service standard of D or better for these intersections. Currently, the southbound Interstate 5 off-ramp at Tumwater Boulevard is signalized, while the northbound ramp is controlled by a two-way stop control.

With continued growth in traffic demand expected over the coming decades and to maintain acceptable operations, roundabouts are planned at both ramp terminals at the Tumwater Boulevard interchange. These improvements are scheduled to be implemented by the year 2045.

As summarized in Table T-10-10, all intersections that provide connections to Interstate 5 within the study area are anticipated to operate at or above the Level of Service D standard under projected 2045 conditions, indicating that the planned improvements will effectively mitigate future delays and maintain acceptable levels of service.

Table T-10. 2045 Interstate 5 Intersection Impacts, PM Peak Hour.

Intersection Name	Control	Level of Service (LOS) Standard	Future Baseline LOS/ Delay (seconds/vehicle)
Interstate 5 SB Ramps / Tyee Dr SW / Trosper Rd SW	Signal	D	D/42
Interstate 5 SB Ramps / Tumwater Blvd SW	Signal*	D	A/9
Interstate 5 NB Ramp / Tumwater Blvd SW	TWSC*	D	A/5
Interstate 5 SB Ramps / 93rd Ave SW	Signal	D	B/15
Interstate 5 NB Ramps / 93rd Ave SW	Signal	D	A/5

Note:

- *Indicates the baseline project for converting the intersection to a roundabout.
- **Bold** indicates that the intersection is failing.

Source: Fehr & Peers, 2025.

3) Multimodal Facilities

There are three state routes that pass through Tumwater. These include the Interstate 5 and US 101, which are both limited access freeway facilities that exclusively serve vehicles and transit. In addition, small segments of SR 121 traverse Tumwater. Portions of SR 121 include sidewalks, but there are no dedicated bicycle facilities.

Planning for active transportation routes across these freeways is a focus of the Brewery District Plan. Custer Way is one of the only crossing points and the facilities have a high level of traffic stress as shown in Figure BWR-4 of the Bicycling, Walking, & Rolling Plan in Appendix B.

A pedestrian and bike bridge over Interstate 5 also connects Dennis Street SW and Bishop Rd SW providing access to Tumwater High School commercial and mixed use developments on Tyee Drive SW.

The project team used the TRPC regional travel model to understand how expected growth in Tumwater and the region will add trips to the regional roadway network, including both streets in Tumwater and Washington State facilities.

The modeling did not find that expected development in Tumwater will add significantly to regional walking or transit trips on state facilities, thus Tumwater's planned growth is not expected to have any multimodal impacts on state routes. Washington State and Tumwater should continue to work together to require multimodal frontage improvements along SR 121 as parcels are developed.

C. Priority Networks

Tumwater's transportation priority networks identify the areas where prioritized improvements should be considered to enhance the layered multimodal network. Multimodal priority networks are centered on designing transportation systems that prioritize accessibility for the diverse needs of all users—pedestrians, cyclists, drivers, transit riders, and freight. Improvements for active transportation are prioritized based on the analysis in the Bicycling, Walking, & Rolling Plan. Improvements for vehicle use are prioritized based on Level of Service analysis results as discussed in the previous section.

Using a layered network strategy, modal emphasis is assigned to different streets, ensuring that each mode of transportation is accommodated effectively. This method acknowledges that while all travelers need to be accommodated within a community, no single street can serve all modes equally.

Other considerations like environmental constraints such as wetlands, protected species, cultural resources limit the feasibility of adding new infrastructure. This is the case for Kirsop Road SW, where community members have requested active transportation infrastructure. Unfortunately, sidewalks have been deemed infeasible in this area due to wetlands.

A wholistic approach to priority networks and advocating for more frequent and higher quality transit service as part of the transit priority network will provide Tumwater with more options for more people. The priority networks concentrate investments in the densest areas

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and help fill in missing gaps so that more people can travel safely.

Since Tumwater does not directly administer transit services, the transit priority network shown in Figure T-12 reflects areas of future density growth which may benefit from transit service. The priority network does not solely reflect existing transit route locations. Tumwater can advocate for new or improved transit services covering these areas.

The freight priority network shown in Figure T-13 reflects locations classified according to Washington State Department of Transportation Freight Corridor Classifications in Table T-2 where T-1 is for highest freight volume, only applies to state-controlled facilities such as Interstate 5 and US 101 within Tumwater, T-2 is high volume freight routes on Tumwater streets, and T-3 is medium volume routes on Tumwater streets. Since T-1 facilities are state operated, the links do not fall directly under Tumwater's priority network. Tumwater will prioritize freight operations on routes classified as T-2 as well as select T-3 routes close to identified employment clusters.

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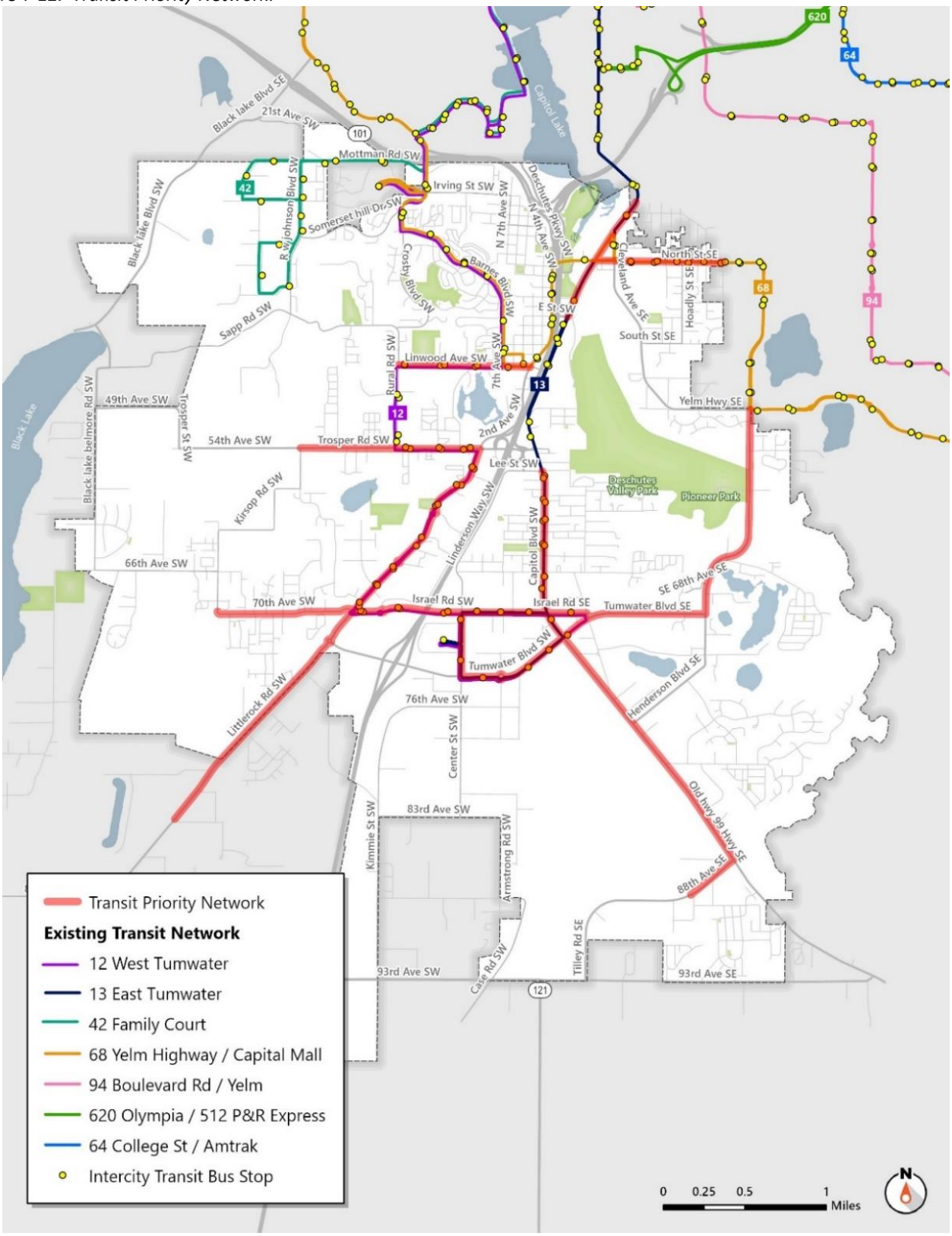
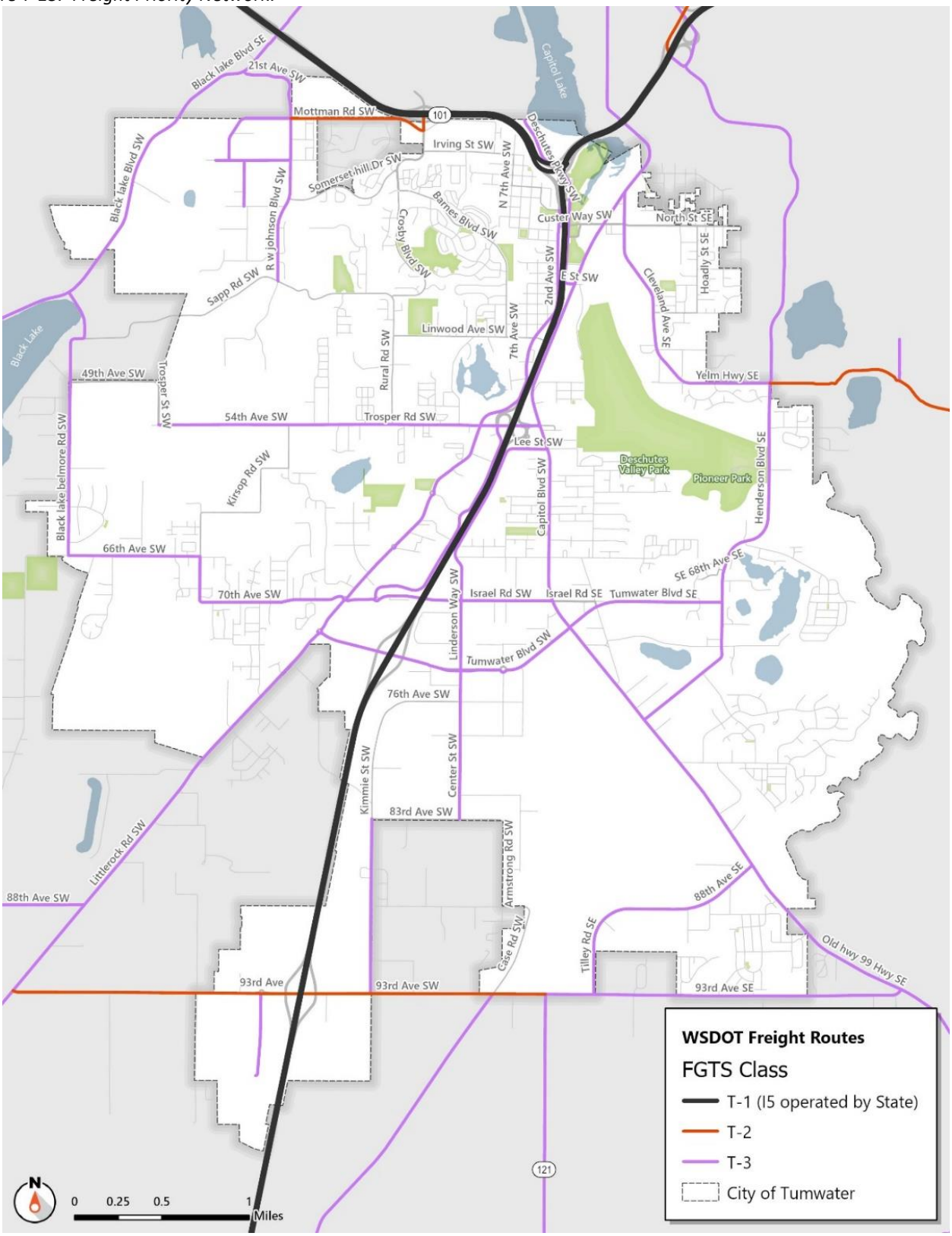
Figure T-12. Transit Priority Network.



Source: Fehr & Peers, 2025.

Figure T-13. Freight Priority Network.



Source: Fehr & Peers, 2025.

5. 20-Year Project List

The previous chapter described Tumwater's vision for accommodating travel for everyone in the community, a framework of guidelines for different modes of travel, and Level of Service standards to achieve this vision.

This chapter describes the Transportation Plan's prioritized project list, which if built, would provide a safer and more complete transportation system.

A. Project Development

During the development of this plan, many transportation needs and project ideas to meet those needs were identified across Tumwater. They came from a variety of sources, including projects carried forward from prior plans, ideas suggested during in-person and online engagement, projects that address locations with high collision rates, and technical analysis comparing existing infrastructure to the planning guidelines and Level of Service standards described in the previous chapters (i.e., network gaps).

Given funding challenges, it was critical to prioritize those projects that do the most to advance Tumwater's transportation goals and build a more accessible system. As such, projects were scored based on the criteria identified below in Table T-11-11.

Table T-11: Project Prioritization Criteria.

Plan Goal		Metrics	Points
1	**Develop and maintain an integrated network (11 points maximum)**	**Improving Comfort** - Project constructs a level of traffic stress 1 or 2 facility for walkers or bicyclers *(Project can improve existing facility or create new facility)*	**+3**
		Improving Connections - Project constructs walk or bicycle improvements that connect or improve access to key destination hotspots which include schools, business clusters, and parks or transit routes	**+3**
		Reduces Congestion - Project addresses a location with an existing or forecast vehicle Level of Service failure	**+3**
		Enhancing the Network- Project creates a new motorized vehicle route, enhances the street grid, or closes a bicycle or walk gap	**+2**
2	**Ensure safer outcomes and quality of life (11 points maximum)**	**Safer Active Transportation Outcomes** - Project location with a reported pedestrian or bicyclist collision in the most recent five years of crash data	**+3**
		Less Severe Collisions- Project location with a reported serious injury or fatality collision in the most recent five years of crash data (any mode)	**+3**

Plan Goal		Metrics	Points
		Safer Schools - Project includes walk or bicycle improvements within Tumwater School District Walking Zones	**+3**
		Better Streetscapes - Project includes more comfortable active transportation facilities such as landscape buffers, benches, and pedestrian scale lighting	**+2**
3	**Prioritize Strategic Investments (10 points maximum)**	**Interagency Coordination** - Project includes funding from another agency or is highly eligible for grants	**+3**
		System Maintenance - Project replaces infrastructure nearing end of life or lowers life cycle costs compared to existing conditions	**+4**
		Impact Based Funding - Project provides additional capacity (any mode) and could be eligible for transportation impact fees	**+3**
4	**Lessen adverse effects (6 points maximum)**	**Mode Shift** - Project encourages shorter trips or shift to bicycling, walking, rolling, or transit	**+6**
5	**Build public support (12 points maximum)**	**Citywide Concerns** - Project location identified as a specific concern by Tumwater residents	**+4**
		Enhanced Outreach – Project will seek public input early and often during the development and design phases	**+4**
		Underinvested Zones – Project is in an area which has been historically underinvested	**+4**
		Maximum Possible Score	**50**

B. Project Lists

Transportation projects have been separated into two lists. Projects listed below in Table T-12 are designed to have the greatest impact on traffic flow and safety. The Bicycling, Walking, & Rolling Plan in Appendix B contains the projects that are designed to have the greatest impact on the active transportation system. Each list includes a description, the primary impact mode, cost, and prioritization scores.

While separated, these projects compete for resources and are prioritized using the same criteria. For that reason, the numbering system has been kept continuous, which means that between the two lists project numbers are only used once. Biking, Walking and Rolling Plan projects are numbered 1-20, 24, 27, 34, 35, 50, 51, 55, 58, and 60-68. Project priority maps show both active transportation and motorized vehicle projects and their priority category.

To improve efficiencies in implementation, most projects will correspond to improvements pertaining to multiple modes. These projects are summarized in Table T-12. They are also shown in Figure T-14 (Low priority), Figure T-15 (Medium priority), and Figure T-16 (High priority).

The transportation improvements identified as part of this planning process far exceed

forecasted transportation funding over the next two decades as discussed in the following section.

Table T-12. 20-Year Motorized Vehicle Transportation Project List.

Project ID	Title	Description	Mode	Cost ($)	Priority
21	Tyee Dr SW – Israel Rd SW to Tumwater Blvd SW	Construct 5 lanes ext. or 3 lanes if roundabout nodes, including intersection improvements at Tumwater Blvd SW	Motorized Vehicle / Bicycle	4,000,000	Medium
22	Tyee Dr SW – Tumwater Blvd SW to Prine Dr SW	Construct 5 lanes ext. or 3 lanes if roundabout nodes, including intersection improvements at Prine Dr SW	Motorized Vehicle / Bicycle	3,000,000	Medium
23	Tyee Dr SW – Prine Dr SW to Littlerock Rd SW Brenden St SW	Construct 3 lane extension	Motorized Vehicle / Bicycle	7,400,000	Medium
25	Tumwater Blvd SW – Interstate 5 Interchange	Install roundabout and wider bridge	Motorized Vehicle / Bicycle	23,000,000	Low
26	Tumwater Blvd SW – Interstate 5 SB ramps to Tyee Dr SW	Widen to 5 lanes	Motorized Vehicle / Bicycle	3,500,000	Medium

Project ID	Title	Description	Mode	Cost ($)	Priority
28	Old Highway 99 – 88th Ave SE to 93rd Ave SE	Widen to 3 lanes	Motorized Vehicle	2,500,000	Low
29	Henderson Blvd SE – Tumwater Blvd SE to Old Hwy 99 SE	Widen to 3 lanes	Motorized Vehicle	4,000,000	Medium
30	73rd Ave SW – Prine Dr Ext SW to 73rd Ave SW / 66th Ave SW Connector	Construct 2 lane road	Motorized Vehicle / Bicycle	2,000,000	Medium
31	SR 121 (93rd Ave SW) – Interstate 5 NB Ramps to Kimmie St SW	Widen to 5 lanes, including roundabout at Kimmie St SW	Motorized Vehicle / Bicycle	7,000,000	Medium
32	SR 121 (93rd Ave SW) – Interstate 5 Interchange	Widen bridge to 5 lanes and install roundabouts at on and off ramps	Motorized Vehicle / Bicycle	20,000,000	Medium
33	6th Ave SE – T St SE to Lee St SE	Construct 2 lane road	Motorized Vehicle / Bicycle	1,500,000	Medium
36	Odegard Rd SW – Littlerock Rd SW to Tyee Dr SW	Construct 2 lane road with on-street parking	Motorized Vehicle / Bicycle	200,000	Medium
37	Bishop Rd SW – Littlerock Rd SW to Tyee Dr SW	Construct 2 lane road with on-street parking	Motorized Vehicle / Bicycle	500,000	Medium

Project ID	Title	Description	Mode	Cost ($)	Priority
38	New Market St SW -- Tumwater Blvd SW to Israel Rd SW	Construct 2 lane road with on-street parking	Motorized Vehicle / Bicycle	3,000,000	Medium
39	Town Center Connector – Tumwater Blvd SW to Israel Rd SW	Construct 2 lane road with on-street parking	Motorized Vehicle / Bicycle	1,000,000	Medium
40	Boston St SW at Custer Way SW	Install roundabout	Intersection	7,500,000	Low
41	Deschutes Way SW at Boston St SW	Install traffic signal	Intersection	500,000	Low
42	Cleveland Ave SE at Custer Way / North St SE	Install roundabout	Intersection	5,000,000	Low
43	Linwood Ave SW at 2nd Ave SE	Install roundabout	Intersection	5,000,000	Low
44	Trosper Rd SW at 2nd Ave SW / Littlerock Rd SW	Install roundabout	Intersection	6,000,000	Medium
45	Trosper Rd SW at Tyee Dr SW / SB Interstate 5 Ramps	Install roundabout	Intersection	6,000,000	Medium
46	T St at Capitol Blvd SE	Install roundabout	Intersection	6,000,000	Medium
47	X St at Capitol Blvd SE	Install roundabout	Intersection	7,000,000	Low
48	Dennis St at Capitol Blvd SE	Install roundabout	Intersection	6,000,000	Medium
49	Old Hwy 99 SE at 79th Ave SE	Install roundabout	Intersection	5,000,000	Low

Project ID	Title	Description	Mode	Cost ($)	Priority
52	Trosper Rd SW Capacity Study from Littlerock Rd SW to Interstate 5	Study to determine roadway capacity	Road	400,000	Low
53	Tumwater Blvd SE at Henderson Blvd SE Intersection Improvements	Install intersection improvements	Intersection	3,000,000	Low
54	E St SE Connection – Capitol Blvd SE to Cleveland Ave	Construct 4 lane road across Tumwater Valley, including E St SE and Cleveland Ave SE intersections	Road	60,000,000	Low
56	Littlerock Rd SW and 77th Way SW Roundabout	Install roundabout	Intersection	5,000,000	Low
57	Black Lake Belmore SW at Black Lake Blvd SW	Install roundabout	Intersection	5,000,000	Low
59	Henderson Blvd SE Corridor SE – Yelm Hwy SE to Tumwater Blvd SE	Widen road to 4/5 lane section, widen bridge over Deschutes River, install intersection improvements and pedestrian facilities	Road	24,000,000	Medium

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Project ID	Title	Description	Mode	Cost ($)	Priority
A	Multimodal Improvements Program	Various locations throughout Tumwater. Intent is to create a safer and more inviting multimodal transportation system. Specific projects developed as a part of the six-year Transportation Improvement Plan process.	Programmatic	16,500,000	High
B	Safe Routes to School Projects	Improve pedestrian and bicyclist safety near schools. Projects include sidewalks, lighting, flashing beacons, signage, markings, and other measures. Project details developed as a part of the six-year Transportation Improvement Plan process.	Programmatic	2,000,000	Medium

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Project ID	Title	Description	Mode	Cost ($)	Priority
C	Pavement Maintenance Program	This program is designed to preserve and enhance the condition of roads, sidewalks, and other paved surfaces	Road	20,000,000	Medium

Notes:

- Abbreviations: LTS: Level of Traffic Stress. Ext.: extension.

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Figure T-14. Location of Projects Categorized as Low Priority.

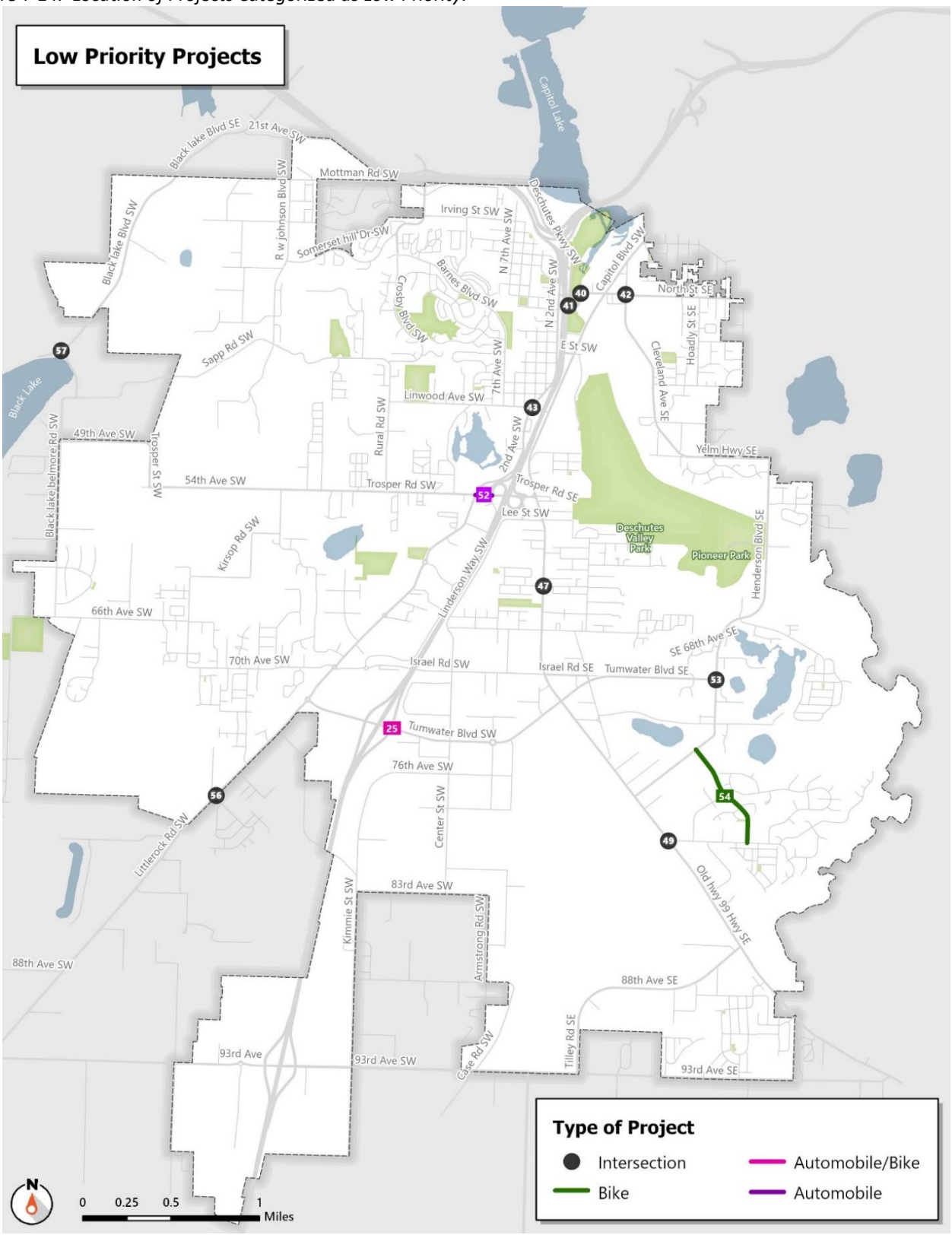


Figure T-15. Location of Projects Categorized as Medium Priority.

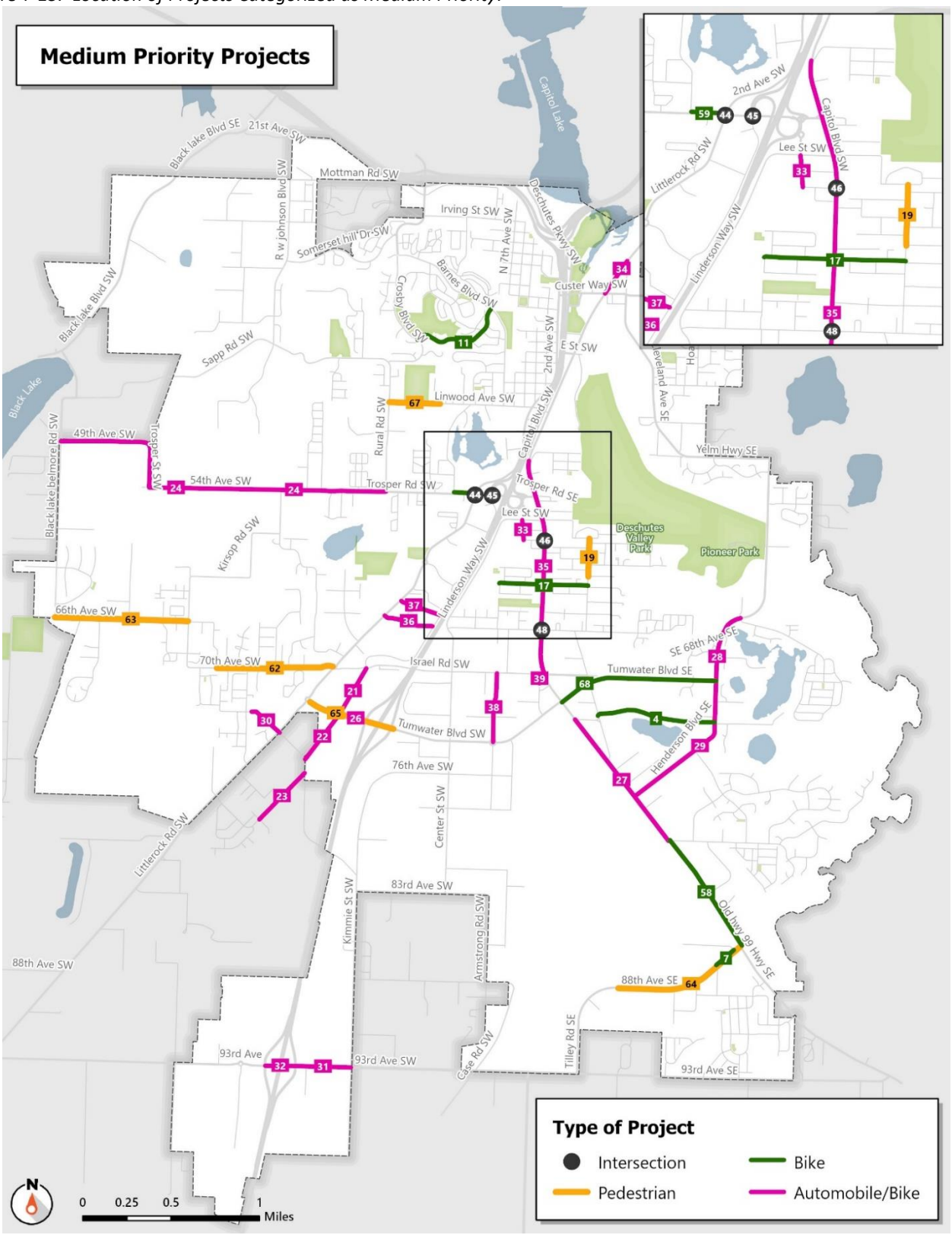
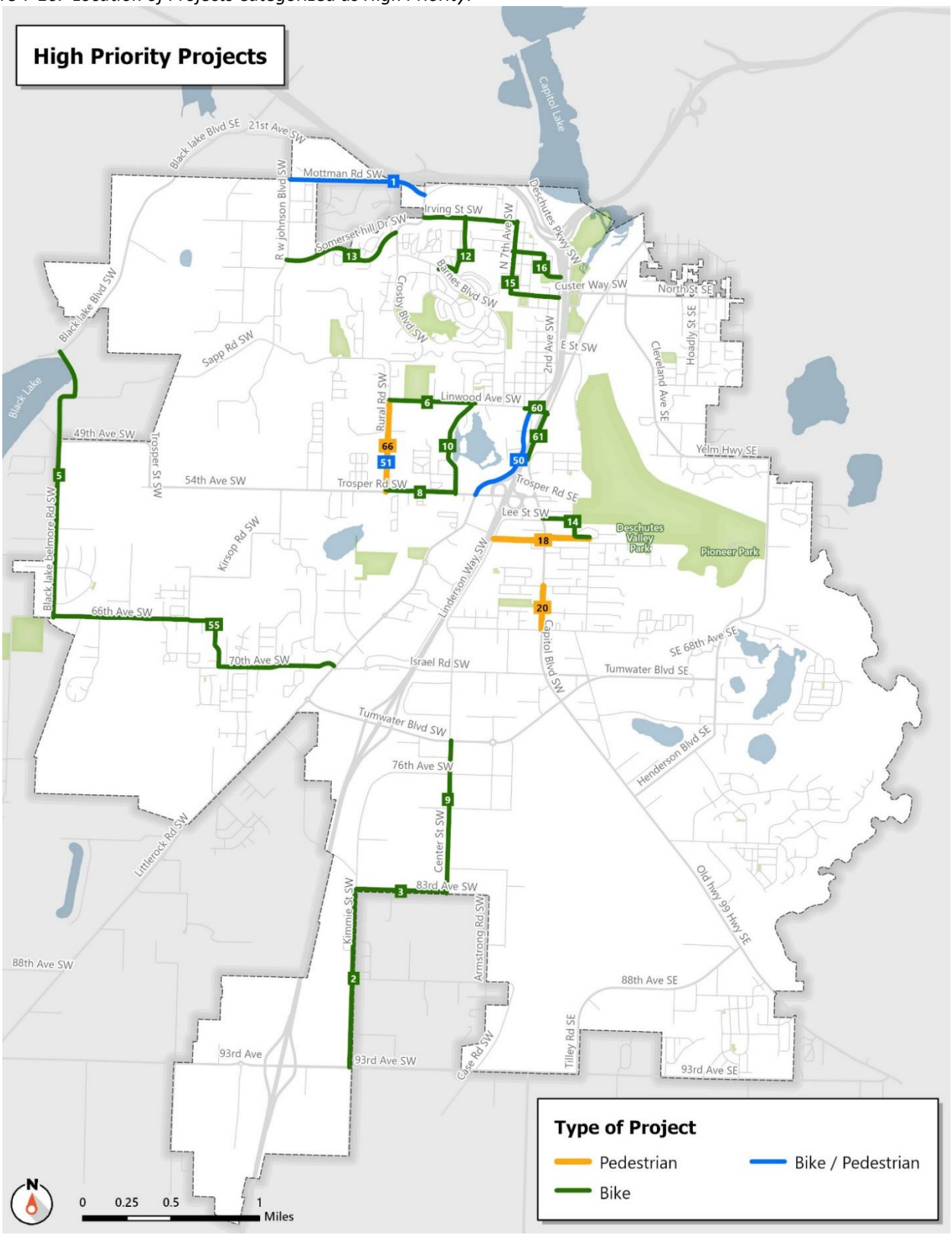


Figure T-16. Location of Projects Categorized as High Priority.



6. Implementation

A. Funding Overview

A key part of Washington State's Growth Management Act is making sure transportation planning is financially responsible. To meet this goal, Tumwater's list of transportation projects must fit within its budget. This means focusing on maintaining and operating existing roads and infrastructure as well as newer projects needed to accommodate growth.

To make sure the plan is realistic, Tumwater studied past trends in revenue and spending as shown in Table T-13. This helped estimate how much money will likely be available for both new projects and day-to-day operations over the next 20 years. By using this information, Tumwater can plan projects it can afford, as required by the Growth Management Act. A shortfall is expected since the needs are greater than the resources.

To deal with future funding challenges, Tumwater will also look for ways to close the gap between how much money is needed and how much is expected to be available. This might include:

- **Enhancing Revenue from Existing Sources**: Tumwater is evaluating adjustments to current revenue streams, such as transportation impact fees, to ensure that new developments contribute proportionally to infrastructure needs.
- **Adopting New Revenue Mechanisms**: Exploring innovative funding avenues, such as bonds and sales taxes to generate dedicated funds for transportation projects.
- **Implementing Transportation Demand Management Strategies**: Reducing vehicle trips is crucial. Programs like Washington's Commute Trip Reduction law encourage large employers to develop plans that decrease single-occupancy vehicle commutes, thereby reducing traffic congestion and environmental impact.

By integrating these strategies, Tumwater aims to create a sustainable, efficient, and safe transportation system that meets future demands while addressing current fiscal constraints.

Most projects have active transportation components such as street crossings and sidewalks; however some are specific to support active transportation. Discussion about funding for these projects including separate funding sources have been included in the Bicycling, Walking, & Rolling Plan to support the projects designed to have a greater impact on active transportation.

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Table T-13. Current Funding Sources and Revenue Estimates Over the Horizon Year.

Fund Source	20 – Year Estimate
Base Utility Tax (0.8% of the 12%)	$20,715,000
Motor Vehicle Fuel and Multimodal Transportation Tax	$4,095,000
Real Estate Excise Tax (0.05%)	$27,487,000
Retail Sales & Use Tax	$36,943,000
Interest Income	$1,050,000
Grants	$70,902,000
Transportation Benefit District	$,943,000
Transportation Impact Fees	$39,337,000
SEPA Mitigation	$14,026,000
Total Revenue Over 20 Years	**$214,555,000**
Annual Average Revenue	**$10,730,000**
Total Capital Expenditure Over 20 Years	**$212,000,000**
Annual Average Expenditure	**$10,600,000**
Annual Shortfall	**$130,000**

Source: City of Tumwater.

B. Revenue Sources

1) Transportation Benefit District

Transportation infrastructure is one of Tumwater's most valuable investments. The Transportation Benefit District was formed in 2014 to designate a dedicated source for transportation funding, and in 2015, Tumwater voters approved a sales tax increase of 0.2 percent for a period of ten years. The funding is used to preserve, maintain and expand the transportation infrastructure within city limits.

Since 2015, the Transportation Benefit District has funded:

- More than 100 lane miles of road improvements.
- More than 100 new curb ramps
- Almost 50,000 tons of asphalt for Tumwater roads.

The dedicated funding provided by the Transportation Benefit District makes it possible for Tumwater to proactively repair and preserve roads before they deteriorate to a point that would require costly pavement replacement. In this way, Transportation Benefit District funding is an investment in road quality and safety that saves money eventually.

Additionally, the taxes collected through the Transportation Benefit District have so far helped to secure $6 million in grants, often through matches with available funds.

2) Real Estate Excise Tax

A key revenue source that feeds Capital Projects is the Real Estate Excise Tax , which is applied to all real estate sales based on the full selling price, including liens, mortgages, and debts used in the purchase. This tax is charged on the gross sales price of real property.

The first 0.25 percent of the Real Estate Excise Tax must be used for capital projects listed in Tumwater's Capital Facilities Plan, including infrastructure such as streets, sidewalks, lighting, traffic signals, water and sewer systems, parks, public safety buildings, trails, libraries, and other civic facilities. The second 0.25 percent, available only to cities required to plan under the Growth Management Act, helps cover costs related to the Growth Management Act and can fund similar projects, though it excludes land acquisition.

3) Transportation Impact Fees

Since 1990, Washington State law (RCW 82.02.050) has allowed jurisdictions to establish transportation impact fee programs to fund capacity projects needed to support growth. Tumwater collects transportation impact fees from developers to help finance public infrastructure projects that benefit new developments, such as roads and sidewalks. These fees are used to mitigate the impact of new developments on existing transportation infrastructure.

The primary goal of Transportation Impact Fees is to have new developments "pay their own way," reducing the financial burden on existing taxpayers. By collecting these fees, municipalities can finance capital improvements that add capacity like adding lanes to existing roads, constructing new roadways, or constructing new active transportation facilities.

These fees are typically assessed during the development approval process and collected when building permits are issued. The amount charged often depends on factors such as the type and size of the development and its projected impact on the transportation network.

4) Base Utility Tax

Tumwater assesses a six percent utility tax upon every person, firm or corporation engaged in or carrying on a business of land line and cellular telephones, pagers, telegraph, electrical energy, natural gas, brokered natural gas, solid waste, water, sanitary sewer, and storm drainage. The details surrounding the tax are discussed in the Tumwater Municipal Code, Chapter 3.28.

5) Motor Vehicle Fuel & Multimodal Transportation Tax

Funds are provided from Washington State for transportation purposes and are distributed to cities quarterly. Multimodal Transportation Tax is provided by RCW 47.66.070 and is funded by a variety of taxes and grants including but not limited to Motor Vehicle Excise Tax, Mass Transit Distributions and Retail Sales Taxes.

Motor Vehicle Fuel Tax is an excise tax on the sale of fuel and is used for transportation. As of July 1, 2025, the tax rate for gas in Washington State is 55.4 cents per gallon with 8.33 percent distributed to incorporated cities based on a formula considering population and annual road costs.

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6) Retail Sales & Use Tax

The Sales Tax in Tumwater is 9.7 percent on most items including fuel. Tumwater receives 0.8415 percent of the sales tax on each dollar. Portions of this tax are utilized for transportation infrastructure development and funding. An additional 0.2 percent sales tax goes to fund Tumwater street and sidewalk maintenance. Tumwater voters approved this new tax on April 28, 2015, and it went into effect on October 1, 2015.

C. Options to Increase Revenue

1) Commercial Parking Tax

Cities in Washington State can impose taxes on commercial parking operations, either by charging businesses directly or by adding fees for customers at the point of sale. While there is no cap on the tax rate itself, the revenue generated must be allocated exclusively for transportation-related purposes.

For instance, Seattle increased its commercial parking tax rate to 14.5 percent as of July 1, 2022. Other cities, like SeaTac, implement a per-transaction fee, which was $3.99 in 2024 and rose to $4.13 in 2025

2) Local Improvement Districts

Local Improvement Districts are special financing mechanisms that municipalities can establish to fund capital projects benefiting specific areas. Property owners within these districts are assessed fees proportional to the benefits they receive from the improvements.

The formation of a Local Improvement District does not require a public vote but does necessitate a demonstration of financial feasibility. Moreover, if property owners responsible for at least 60 percent of the total assessment costs formally protest, the district's formation can be halted.

3) General Obligation Bonds

Municipalities have the option to issue bonds to finance public projects:

- **Limited Tax General Obligation Bonds**: These do not require voter approval and are repaid from Tumwater's general fund.
- **Unlimited Tax General Obligation Bonds**: These require voter approval and are repaid through additional property taxes.

Washington State law limits the total general obligation debt a city can incur to 2.5 percent of its assessed property value, with limited tax general obligation bonds capped at 1.5 percent. Exceeding these limits can impact a city's credit rating, so it is advisable to utilize less than two-thirds of the available debt capacity to maintain financial stability.

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D. Transportation Demand Management

1) Background

This plan has thus far focused on completing Tumwater's multimodal transportation network via the layered network approach. The network proposed for each mode represents the supply side of the transportation network. On the opposite side of the coin is the demand for the multimodal transportation network. The demand side is addressed with transportation demand management.

The concept of transportation demand management has evolved from a focus on commuters and strategies for reducing single occupancy vehicle demand at peak times to a focus on maximizing the modal choices of all travelers and trip types. This new focus includes a broader set of diverse strategies.

The Federal Highway Administration defines transportation demand management as:

> *"Providing travelers, regardless of whether they drive alone, with travel choices, such as work location, route, time of travel and mode. In the broadest sense, demand management is defined as providing travelers with effective choices to improve travel reliability."*

The emphasis for transportation demand management is on personal mobility rather than vehicular mobility. Transportation demand management strives to treat roadway, transit, bicycle facilities, and sidewalk capacity as valuable, limited assets to be carefully managed.

Transportation demand management strategies that strive to manage the demand on the limited multimodal transportation network include encouraging ride sharing such as car- and vanpooling; providing active transportation subsidies (e.g., stipends for bicycles or running shoes); providing telecommuting, flex schedules, and compressed work weeks; and enforcing parking fees or restrictions.

Other transportation demand management strategies can range from simple marketing programs to complex land use decisions. Tumwater land use policies can reduce dependence on private motorized vehicle travel by focusing growth in specific locations and changing land use development patterns. Land use densities, mixed-use activity, urban design, transit station areas, and other concentrated points of activity support frequent transit service and pedestrian facilities.

Tumwater's transportation demand management program is focused on maximizing multimodal options for all trip types and travelers.

2) Transportation Demand Management Strategies

There are various ways that commuters can travel to work and individuals can travel for other purposes that reduce the number of single occupancy vehicle trips:

- **Rideshare Programs** – Tumwater can partner with Intercity Transit or other private car share providers for rideshare solutions primarily for commute trips, though other trip purposes such as to school are being explored. Typically, vanpool programs require a minimum

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number of individuals per vehicle with similar commutes.

- **Walking/Bicycling/Rolling** – Every trip begins and ends with walking or rolling, even if using a vehicle for most of the trip. The existing pedestrian network supports walking for some trip types, particularly in areas with higher density and a mixture of land uses. Bicycling can be a viable mode for commuters who live further than walking distance from transit services and whose schedules are too inflexible to use vanpool programs. Other forms of rolling like wheelchairs, skateboards, and e -scooters can use a mix of pedestrian and bicycle networks.

  As pedestrian and bicycling networks are constructed and development occurs in dense, mixed-use areas, these modal options are anticipated to be increasingly viable and popular. Many of the prioritized projects, policies, and actions in this plan provide guidance and next steps to both construct the pedestrian and bicycling networks and increase the attractiveness and viability of walking and bicycling as travel options.

- **Alternative Work Schedules** – Alternative work schedule options are beneficial to both employees and employers. Businesses can provide coverage for additional hours, and employees are able to work their schedules around transit and vanpool and ridesharing availability. Alternative schedules include flextime, compressed work weeks, and staggered shifts.

- **Telecommuting and Remote Working** – In the Puget Sound region, full-time and part-time telecommuting has increased over the last decade. The COVID pandemic forced many businesses, non-profits, and government agencies to quickly implement telework for employees that can work remotely. To facilitate this shift, unique solutions were implemented to address technology and resource barriers. Many businesses, non-profits, and government agencies are likely to have significantly higher levels of teleworking than before the pandemic due to the widespread development of these programs.

E. Vehicle Miles Traveled Reduction Targets & Mode Shift

1) Vehicle Miles Traveled Reduction Targets

Based on guidance from the Washington State Department of Commerce[2] and the Washington State Department of Transportation[3], vehicle miles traveled targets should focus on per capita reductions. These targets must align with long-term planning horizons.

Progress must be monitored every five years, tracking both per capita vehicle miles traveled and the implementation of reduction strategies

[2] https://www.commerce.wa.gov/growth-management/climate-planning/.

[3] https://wsdot.wa.gov/sites/default/files/2023-06/VMT-Targets-Final-Report-June2023.pdf.

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and policies. The targets should also align with regional plans.

The Washington State Department of Commerce's Greenhouse Gas Emissions Forecast and Scenario Planning Tool (Thurston County) includes an analysis of ways to reach the overarching goal of net-zero emissions by 2050. That tool sets the following reduction targets, compared to a 2022 baseline:

- Reduce per capita vehicle miles traveled by 27 percent through 2040.
- Reduce per capita vehicle miles traveled by 41 percent through 2050.

Tumwater is setting the same goals as the Department of Commerce tool.

The Department of Commerce has provided a menu of measures[4] to help reduce per capita vehicle miles traveled, with a selection included below:

- Shift modes from motorized vehicles to transit, walking or bicycling.
- Increase vehicle occupancy to convert single occupancy vehicles to high occupancy vehicles and promote vanpools.
- Travel less through telecommuting, trip chaining and employing tools such as a compressed work week, parking, and more compact land development.
- Adjusting zoning laws to allow for more diverse and higher-density housing options.
- Promoting development patterns that support public transit usage.
- Encouraging higher-density housing near employment centers and transit hubs to reduce travel distances.
- Conducting studies to understand current travel patterns and identify opportunities for reduction.
- Establishing metrics to assess the effectiveness of implemented strategies over time.

2) Mode Shift Targets

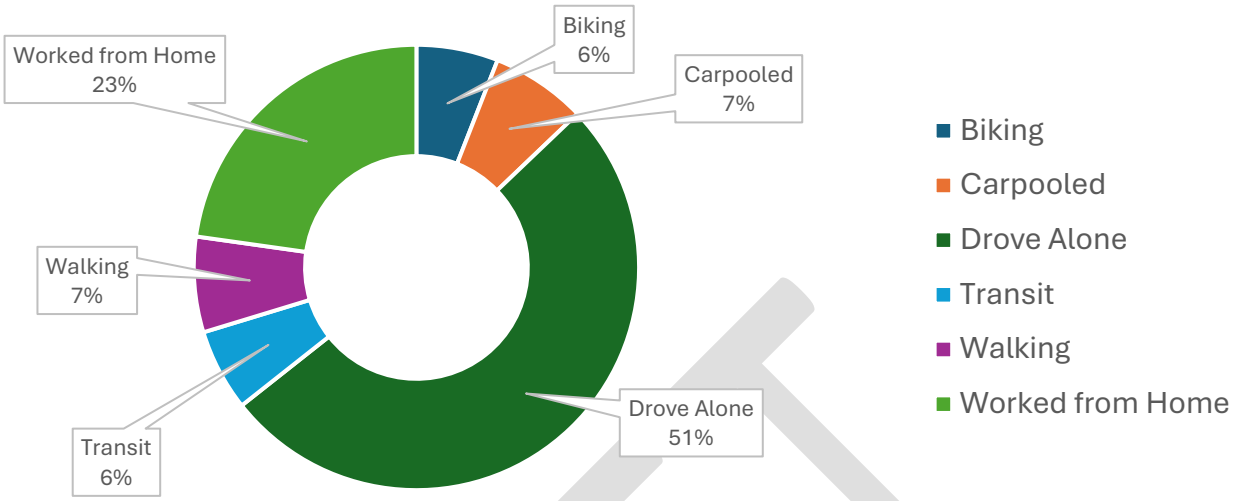
To achieve this plan's greenhouse gas and vehicle miles traveled reduction targets, some trips will need to shift from single occupancy vehicle trips to more efficient modes. These modes include carpooling (high occupancy vehicles), transit, and active transportation modes like walking, bicycling, and rolling.

Current data from the Census Bureau as shown in Figure T-1 illustrates that most work trips in Tumwater are taken by car, with most being single occupancy vehicles.

Tumwater is setting a goal to shift five percent of all single occupancy vehicle trips to walking, five percent to bicycling, and three percent to transit as shown in Figure T-17.

[4]https://experience.arcgis.com/experience/dd012fae9fad4a309b0d89e3c13016e5/page/Basic/

Figure T-17. Tumwater's 2045 Mode Shift Goals.



Encouraging and effectuating mode shift is difficult, but can be done through a combination of strategies:

- Creating more walkable and bicycleable communities by building a connected low stress network.
- Reducing or eliminating parking minimums.
- Charging for parking in higher density areas with transit and active mode networks.
- Increasing transit frequency and coverage.
- Increasing job and residential density.
- Integrating affordable and below market rate housing.
- Provide ridesharing program.
- Provide end of trip bicycle facilities.
- Provide employer-sponsored van pool.
- Price workplace parking.
- Implement housing and employment parking cash-out.
- Provide electric vehicle charging infrastructure.
- Implement transit-supportive roadway improvements.
- Supporting bus rapid transit.

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Appendix A – Foundational Documents

Table T-14 identifies the foundational planning documents that form the basis for the Transportation Plan within the Comprehensive Plan.

Table T-14. Foundational Documents for the Transportation Plan.

Topic Index	Supporting Plans and Materials
Park and Trail Infrastructure	• Parks, Recreation, and Open Space Plan (2008/2016)
Regional Transportation	• Thurston Regional Trails Plan (2023) • What Moves You, 2050 Regional Transportation Plan, Thurston Regional Planning Council (2025)
Subarea Plans	• Black Hills Subarea Transportation Plan (2002) • Brewery District Plan (2020) • Capitol Boulevard Corridor Plan (2015) • Littlerock Road Subarea Plan (2018) • Old Highway 99 Corridor Study (2024) • Tumwater Town Center Street Design Plan (2019)
Transportation Projects	• Transportation Improvement Plan, 2026-31 (2025)

Appendix B – City of Tumwater Vehicle Operations Analysis Reports

The City of Tumwater Vehicle Operations Analysis Reports are attached as a separate document.

Appendix C – Bicycling, Walking, & Rolling Plan

The Bicycling, Walking, & Rolling Plan is attached as a separate document.

FEHR PEERS

Memorandum

Date: September 16, 2025

To: City of Tumwater

From: Siddharth Sivakumar & Daniel Dye, Fehr & Peers

Subject: City of Tumwater Vehicle Operations Analysis Reports

TC24-0105

The City of Tumwater is in the process of updating the Transportation Plan of its Comprehensive Plan with a planning horizon of 2045. This appendix provides outputs from the software platforms used for existing and future vehicle operations analysis.

Traffic Operations Methodology

To understand traffic operations in the City of Tumwater, the project team utilized Synchro traffic operations analysis software for signalized or stop controlled intersections, and SIDRA software for roundabouts. The existing conditions analysis was based on 2024 conditions, while future analysis was completed for forecast conditions in 2045. The analysis was carried out for the weekday PM peak hour (the highest volume hour between 4 PM and 6 PM). Two future scenarios were considered, a baseline scenario with planned intersection improvements and a mitigation scenario with additional improvements assumed for intersections that failed in the future baseline scenario.

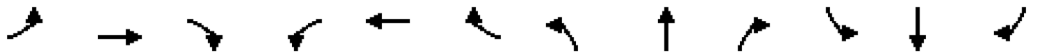
The following pages have PM Peak Hour operations reports for the following scenarios:

1. Existing (2024)
2. Future (2045) Baseline
3. Future (2045) with Mitigation (only for the five intersections that failed in the above scenario)

Existing (2024)

HCM Signalized Intersection Capacity Analysis
1: Crosby Blvd SW & Mottman Rd SW

Existing
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	285	17	0	18	30	32	316	128	47	477	257
Future Volume (vph)	79	285	17	0	18	30	32	316	128	47	477	257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	16
Total Lost time (s)	5.0	5.0			5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99			0.92		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1827			1690		1752	1845	1568	1752	3505	1777
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1827			1690		1752	1845	1568	1752	3505	1777
Peak-hour factor, PHF	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Adj. Flow (vph)	101	365	22	0	23	38	41	405	164	60	612	329
RTOR Reduction (vph)	0	2	0	0	35	0	0	0	104	0	0	124
Lane Group Flow (vph)	101	385	0	0	26	0	41	405	60	60	612	205
Confl. Peds. (#/hr)			5	5								
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA			NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	3	3		4	4		1	6		5	2	
Permitted Phases									6			2
Actuated Green, G (s)	23.7	23.7			6.9		4.2	24.3	24.3	6.1	26.2	26.2
Effective Green, g (s)	23.7	23.7			6.9		4.2	24.3	24.3	6.1	26.2	26.2
Actuated g/C Ratio	0.29	0.29			0.09		0.05	0.30	0.30	0.08	0.32	0.32
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.5	3.5			2.5		2.5	2.5	2.5	2.5	2.5	2.5
Lane Grp Cap (vph)	512	534			143		90	553	470	131	1133	574
v/s Ratio Prot	0.06	c0.21			c0.02		0.02	c0.22		c0.03	0.17	
v/s Ratio Perm									0.04			0.12
v/c Ratio	0.20	0.72			0.18		0.46	0.73	0.13	0.46	0.54	0.36
Uniform Delay, d1	21.5	25.7			34.4		37.3	25.4	20.6	35.9	22.5	21.0
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	4.9			0.5		2.6	4.7	0.1	1.8	0.4	0.3
Delay (s)	21.7	30.6			34.9		39.9	30.1	20.7	37.7	22.9	21.2
Level of Service	C	C			C		D	C	C	D	C	C
Approach Delay (s/veh)		28.8			34.9			28.3			23.2	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	26.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
2: Crosby Blvd SW & Irving St SW

Existing
PM Peak Hour

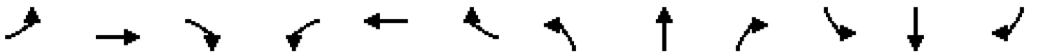
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	2	54	3	18	98	1	296	32	134	354	3
Future Volume (vph)	46	2	54	3	18	98	1	296	32	134	354	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	14
Total Lost time (s)		5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00	0.97		1.00	0.99	1.00	1.00		1.00	1.00	0.97
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected		0.95	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1753	1516		1832	1556	1745	1812		1750	1845	1625
Flt Permitted		0.72	1.00		0.96	1.00	0.52	1.00		0.38	1.00	1.00
Satd. Flow (perm)		1316	1516		1765	1556	961	1812		703	1845	1625
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	53	2	62	3	21	113	1	340	37	154	407	3
RTOR Reduction (vph)	0	0	54	0	0	78	0	2	0	0	0	1
Lane Group Flow (vph)	0	55	8	0	24	35	1	375	0	154	407	2
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Confl. Bikes (#/hr)	2		2	2		2	2		2	2		2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	pm+pt	NA	Perm	Perm	NA	pm+ov	Perm	NA		pm+pt	NA	Perm
Protected Phases	3	8			4	5		6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Actuated Green, G (s)		7.6	7.6		7.6	17.5	24.7	24.7		39.6	39.6	39.6
Effective Green, g (s)		7.6	7.6		7.6	17.5	24.7	24.7		39.6	39.6	39.6
Actuated g/C Ratio		0.13	0.13		0.13	0.31	0.43	0.43		0.69	0.69	0.69
Clearance Time (s)		5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)		2.5	2.5		2.5	2.5	2.5	2.5		2.5	2.5	2.5
Lane Grp Cap (vph)		174	201		234	612	414	782		667	1277	1125
v/s Ratio Prot						0.01		c0.21		0.04	c0.22	
v/s Ratio Perm		c0.04	0.01		0.01	0.01	0.00			0.12		0.00
v/c Ratio		0.32	0.04		0.10	0.06	0.00	0.48		0.23	0.32	0.00
Uniform Delay, d1		22.4	21.6		21.8	14.0	9.2	11.6		3.7	3.5	2.7
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		0.8	0.1		0.1	0.0	0.0	0.3		0.1	0.1	0.0
Delay (s)		23.2	21.7		21.9	14.0	9.2	12.0		3.9	3.6	2.7
Level of Service		C	C		C	B	A	B		A	A	A
Approach Delay (s/veh)		22.4			15.4			12.0			3.7	
Approach LOS		C			B			B			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	9.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	57.2	Sum of lost time (s)	20.0
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
3: Sunset Way SE & Capitol Blvd SE & Carlyon Ave SE

Existing
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	253	42	0	0	48	21	8	3	0	15	1	573
Future Volume (vph)	253	42	0	0	48	21	8	3	0	15	1	573
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	12	12	11	12	12	16	12	9	9	12
Total Lost time (s)	6.0	6.0			6.0			6.0			6.0	6.0
Lane Util. Factor	0.95	0.95			1.00			1.00			1.00	0.88
Frpb, ped/bikes	1.00	1.00			0.99			1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00			1.00			0.99	1.00
Frt	1.00	1.00			0.96			1.00			1.00	0.85
Flt Protected	0.95	0.97			1.00			0.97			0.95	1.00
Satd. Flow (prot)	1681	1595			1712			2038			1590	2787
Flt Permitted	0.95	0.97			1.00			0.97			1.00	1.00
Satd. Flow (perm)	1681	1595			1712			2038			1666	2787
Peak-hour factor, PHF	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	320	53	0	0	61	27	10	4	0	19	1	725
RTOR Reduction (vph)	0	0	0	0	10	0	0	0	0	0	0	0
Lane Group Flow (vph)	186	187	0	0	78	0	0	14	0	0	20	725
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Confl. Bikes (#/hr)	2		2	2		2	2		2	2		2
Turn Type	Split	NA			NA		Split	NA		Perm	NA	custom
Protected Phases	4	4		1	1		2	2			3	8
Permitted Phases										3		
Actuated Green, G (s)	32.1	32.1			9.4			3.0			1.3	39.4
Effective Green, g (s)	32.1	32.1			9.4			3.0			1.3	39.4
Actuated g/C Ratio	0.46	0.46			0.13			0.04			0.02	0.56
Clearance Time (s)	6.0	6.0			6.0			6.0			6.0	6.0
Vehicle Extension (s)	5.0	5.0			5.0			5.0			5.0	5.0
Lane Grp Cap (vph)	773	733			230			87			31	1573
v/s Ratio Prot	0.11	0.12			c0.05			c0.01				c0.26
v/s Ratio Perm											0.01	
v/c Ratio	0.24	0.26			0.34			0.16			0.65	0.46
Uniform Delay, d1	11.4	11.5			27.4			32.2			34.0	8.9
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	0.3	0.4			1.8			1.8			49.1	0.4
Delay (s)	11.8	11.9			29.2			34.0			83.1	9.4
Level of Service	B	B			C			C			F	A
Approach Delay (s/veh)		11.9			29.2			34.0			11.4	
Approach LOS		B			C			C			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	69.8	Sum of lost time (s)	24.0
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
4: North 2nd Ave SW & Custer Way SW

Existing
PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	156	143	10	84	971	231
Future Volume (vph)	156	143	10	84	971	231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	12	11	12
Total Lost time (s)	6.0	6.0	6.2		6.0	6.0
Lane Util. Factor	1.00	1.00	1.00		0.95	0.95
Frpb, ped/bikes	1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.88		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	0.97
Satd. Flow (prot)	1787	1599	1566		1641	1733
Flt Permitted	0.95	1.00	1.00		0.95	0.97
Satd. Flow (perm)	1787	1599	1566		1641	1733
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	179	164	11	97	1116	266
RTOR Reduction (vph)	0	132	87	0	0	0
Lane Group Flow (vph)	179	32	21	0	681	701
Confl. Peds. (#/hr)	6			5	5	
Confl. Bikes (#/hr)	2			2	2	
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	Prot	Prot	NA		Split	NA
Protected Phases	3	3	2		1	1
Permitted Phases						
Actuated Green, G (s)	15.9	15.9	8.6		31.9	31.9
Effective Green, g (s)	15.9	15.9	8.6		31.9	31.9
Actuated g/C Ratio	0.20	0.20	0.11		0.39	0.39
Clearance Time (s)	6.0	6.0	6.2		6.0	6.0
Vehicle Extension (s)	6.0	6.0	6.0		3.0	3.0
Lane Grp Cap (vph)	350	313	166		646	682
v/s Ratio Prot	c0.10	0.02	c0.01		c0.41	0.40
v/s Ratio Perm						
v/c Ratio	0.51	0.10	0.13		1.05	1.03
Uniform Delay, d1	29.1	26.7	32.8		24.6	24.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	3.3	0.4	1.0		50.5	41.8
Delay (s)	32.4	27.1	33.8		75.1	66.3
Level of Service	C	C	C		E	E
Approach Delay (s/veh)	29.9		33.8			70.6
Approach LOS	C		C			E

Intersection Summary			
HCM 2000 Control Delay (s/veh)	60.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	21.4
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	12

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	854	134	479	259	0	0	0	112	0	0	0
Future Vol, veh/h	0	854	134	479	259	0	0	0	112	0	0	0
Conflicting Peds, #/hr	0	0	6	6	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	250	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	982	154	551	298	0	0	0	129	0	0	0

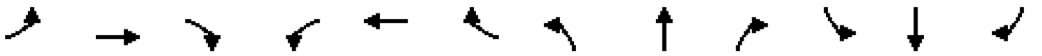
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	298	0	0	1142	0	0	-	2465	574	1891	2542	298
Stage 1	-	-	-	-	-	-	-	1065	-	1400	1400	-
Stage 2	-	-	-	-	-	-	-	1400	-	491	1142	-
Critical Hdwy	4.115	-	-	4.115	-	-	-	6.515	6.915	7.315	6.515	6.215
Critical Hdwy Stg 1	-	-	-	-	-	-	-	5.515	-	6.115	5.515	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.515	-	6.515	5.515	-
Follow-up Hdwy	2.2095	-	-	2.2095	-	-	-	4.0095	3.3095	3.5095	4.0095	3.3095
Pot Cap-1 Maneuver	1268	-	-	614	-	-	0	30	465	48	27	743
Stage 1	-	-	-	-	-	-	0	300	-	174	208	-
Stage 2	-	-	-	-	-	-	0	208	-	531	276	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1268	-	-	611	-	-	-	3	463	8	3	743
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	3	-	8	3	-
Stage 1	-	-	-	-	-	-	-	299	-	174	20	-
Stage 2	-	-	-	-	-	-	-	20	-	383	275	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	27.5	15.7	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	463	1268	-	-	611	-	-	-
HCM Lane V/C Ratio	0.278	-	-	-	0.901	-	-	-
HCM Control Delay (s/veh)	15.7	0	-	-	42.3	-	-	0
HCM Lane LOS	C	A	-	-	E	-	-	A
HCM 95th %tile Q (veh)	1.1	0	-	-	11.1	-	-	-

HCM 6th Signalized Intersection Summary
6: Capitol Blvd SE & Custer Way SW/Custer Way

Existing
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	752	99	266	543	2	16	165	418	11	208	146
Future Volume (veh/h)	80	752	99	266	543	2	16	165	418	11	208	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	0.99		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	90	845	0	299	610	2	18	185	288	12	234	64
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	170	1146		361	801	3	243	309	576	203	423	112
Arrive On Green	0.09	0.32	0.00	0.20	0.43	0.43	0.03	0.16	0.16	0.02	0.15	0.15
Sat Flow, veh/h	1795	3582	1598	1795	1878	6	1795	1885	1560	1795	2770	736
Grp Volume(v), veh/h	90	845	0	299	0	612	18	185	288	12	149	149
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1795	0	1884	1795	1885	1560	1795	1791	1716
Q Serve(g_s), s	3.3	14.7	0.0	11.2	0.0	19.3	0.0	6.4	6.2	0.0	5.4	5.6
Cycle Q Clear(g_c), s	3.3	14.7	0.0	11.2	0.0	19.3	0.0	6.4	6.2	0.0	5.4	5.6
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	170	1146		361	0	803	243	309	576	203	273	262
V/C Ratio(X)	0.53	0.74		0.83	0.00	0.76	0.07	0.60	0.50	0.06	0.54	0.57
Avail Cap(c_a), veh/h	385	1689		1078	0	1610	540	1099	1230	519	1044	1000
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	21.2	0.0	26.8	0.0	17.0	28.4	27.1	7.1	29.7	27.4	27.5
Incr Delay (d2), s/veh	2.6	0.9	0.0	4.9	0.0	1.5	0.1	1.9	0.7	0.1	1.7	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	6.0	0.0	5.1	0.0	8.0	0.3	2.9	2.7	0.2	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.8	22.1	0.0	31.7	0.0	18.6	28.5	29.0	7.7	29.8	29.1	29.5
LnGrp LOS	C	C		C		B	C	C	A	C	C	C
Approach Vol, veh/h		935			911			491			310	
Approach Delay, s/veh		23.1			22.9			16.5			29.3	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	16.7	19.1	27.6	7.4	15.9	11.6	35.0
Change Period (Y+Rc), s	5.0	5.2	5.0	* 5.2	5.0	5.2	5.0	5.2
Max Green Setting (Gmax), s	14.0	40.8	42.0	* 33	14.0	40.8	15.0	59.8
Max Q Clear Time (g_c+I1), s	2.0	8.4	13.2	16.7	2.0	7.6	5.3	21.3
Green Ext Time (p_c), s	0.0	2.1	0.9	5.7	0.0	1.8	0.1	5.1

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	22.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

HCM Signalized Intersection Capacity Analysis
7: Cleveland Ave SE & Custer Way/North St SE

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	345	789	3	157	60	602	87	9	130	225	78
Future Volume (vph)	54	345	789	3	157	60	602	87	9	130	225	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	9	12	12	12	12	12	12	12
Total Lost time (s)	6.2	6.2	6.2	6.2	6.2		6.2	6.2		6.2	6.2	6.2
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		0.97	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	0.99		1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1778	1881	1573	1661	1609		3467	1848		1787	1881	1570
Flt Permitted	0.55	1.00	1.00	0.33	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1037	1881	1573	571	1609		3467	1848		1787	1881	1570
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	58	371	848	3	169	65	647	94	10	140	242	84
RTOR Reduction (vph)	0	0	173	0	15	0	0	4	0	0	0	66
Lane Group Flow (vph)	58	371	675	3	219	0	647	100	0	140	242	18
Confl. Peds. (#/hr)	5		6	6		5	5		5	5		5
Confl. Bikes (#/hr)	2		2	2		2	2		2	2		2
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm	NA	pm+ov	Perm	NA		Split	NA		Split	NA	Perm
Protected Phases		8	1		4		1	1		2	2	
Permitted Phases	8		8	4								2
Actuated Green, G (s)	20.0	20.0	39.9	20.0	20.0		19.9	19.9		15.9	15.9	15.9
Effective Green, g (s)	20.0	20.0	39.9	20.0	20.0		19.9	19.9		15.9	15.9	15.9
Actuated g/C Ratio	0.27	0.27	0.54	0.27	0.27		0.27	0.27		0.21	0.21	0.21
Clearance Time (s)	6.2	6.2	6.2	6.2	6.2		6.2	6.2		6.2	6.2	6.2
Vehicle Extension (s)	3.0	3.0	2.5	3.0	3.0		2.5	2.5		3.0	3.0	3.0
Lane Grp Cap (vph)	278	505	974	153	432		927	494		381	401	335
v/s Ratio Prot		0.20	c0.19		0.14		0.19	0.05		0.08	c0.13	
v/s Ratio Perm	0.06		0.24	0.01								0.01
v/c Ratio	0.21	0.73	0.69	0.02	0.51		0.70	0.20		0.37	0.60	0.05
Uniform Delay, d1	21.1	24.8	12.7	20.0	23.0		24.5	21.1		25.0	26.4	23.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.4	5.5	2.0	0.1	0.9		2.1	0.1		0.6	2.6	0.1
Delay (s)	21.4	30.3	14.7	20.0	24.0		26.7	21.3		25.6	29.0	23.3
Level of Service	C	C	B	C	C		C	C		C	C	C
Approach Delay (s/veh)		19.5			23.9			25.9			26.9	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	22.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	74.4	Sum of lost time (s)	18.6
Intersection Capacity Utilization	82.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Intersection Delay, s/veh	85.7
Intersection LOS	F

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	69	593	398	16	108	90
Future Vol, veh/h	69	593	398	16	108	90
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	81	698	468	19	127	106
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay, s/veh	135.9	38.5	16.6
HCM LOS	F	E	C

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	10%	55%
Vol Thru, %	96%	0%	45%
Vol Right, %	4%	90%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	414	662	198
LT Vol	0	69	108
Through Vol	398	0	90
RT Vol	16	593	0
Lane Flow Rate	487	779	233
Geometry Grp	1	1	1
Degree of Util (X)	0.856	1.228	0.448
Departure Headway (Hd)	6.923	5.675	7.614
Convergence, Y/N	Yes	Yes	Yes
Cap	526	646	475
Service Time	4.923	3.675	5.614
HCM Lane V/C Ratio	0.926	1.206	0.491
HCM Control Delay, s/veh	38.5	135.9	16.6
HCM Lane LOS	E	F	C
HCM 95th-tile Q	9.1	28.4	2.3

Intersection	
Int Delay, s/veh	8.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	109	150	163	66	155	309
Future Vol, veh/h	109	150	163	66	155	309
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	121	167	181	73	172	343

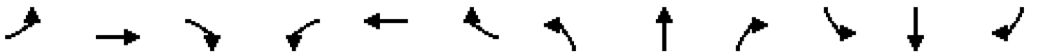
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	905	218	0	0	254	0
Stage 1	218	-	-	-	-	-
Stage 2	687	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	308	824	-	-	1317	-
Stage 1	821	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	268	824	-	-	1317	-
Mov Cap-2 Maneuver	268	-	-	-	-	-
Stage 1	821	-	-	-	-	-
Stage 2	435	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	27.4	0	2.7
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	440	1317	-
HCM Lane V/C Ratio	-	-	0.654	0.131	-
HCM Control Delay (s/veh)	-	-	27.4	8.1	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q (veh)	-	-	4.6	0.5	-

HCM 6th Signalized Intersection Summary
10: Capitol Blvd SE & E St/Tumwater Valley Dr SE

Existing
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	0	102	0	0	0	124	376	0	0	379	20
Future Volume (veh/h)	75	0	102	0	0	0	124	376	0	0	379	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		1.00	1.00		1.00	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1961	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	82	0	0	0	0	0	136	413	0	0	416	18
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	359	0		0	224		183	1989	0	5	1023	44
Arrive On Green	0.12	0.00	0.00	0.00	0.00	0.00	0.10	0.56	0.00	0.00	0.29	0.29
Sat Flow, veh/h	1403	0	1598	0	1885	1662	1795	3676	0	1795	3490	151
Grp Volume(v), veh/h	82	0	0	0	0	0	136	413	0	0	213	221
Grp Sat Flow(s),veh/h/ln	1403	0	1598	0	1885	1662	1795	1791	0	1795	1791	1850
Q Serve(g_s), s	2.0	0.0	0.0	0.0	0.0	0.0	2.8	2.2	0.0	0.0	3.6	3.6
Cycle Q Clear(g_c), s	2.0	0.0	0.0	0.0	0.0	0.0	2.8	2.2	0.0	0.0	3.6	3.6
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.00	1.00		0.08
Lane Grp Cap(c), veh/h	359	0		0	224		183	1989	0	5	525	542
V/C Ratio(X)	0.23	0.00		0.00	0.00		0.74	0.21	0.00	0.00	0.41	0.41
Avail Cap(c_a), veh/h	1126	0		0	1254		960	2862	0	960	1431	1478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	15.4	0.0	0.0	0.0	0.0	0.0	16.3	4.2	0.0	0.0	10.6	10.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.0	0.0	0.0	5.9	0.1	0.0	0.0	0.5	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	0.0	1.2	0.4	0.0	0.0	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.8	0.0	0.0	0.0	0.0	0.0	22.2	4.2	0.0	0.0	11.1	11.1
LnGrp LOS	B						C	A			B	B
Approach Vol, veh/h		82			0			549			434	
Approach Delay, s/veh		15.8			0.0			8.7			11.1	
Approach LOS		B						A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	26.9		10.5	9.8	17.1		10.5				
Change Period (Y+Rc), s	6.0	6.1		6.1	6.0	6.1		6.1				
Max Green Setting (Gmax), s	20.0	29.9		24.9	20.0	29.9		24.9				
Max Q Clear Time (g_c+I1), s	0.0	4.2		4.0	4.8	5.6		0.0				
Green Ext Time (p_c), s	0.0	2.7		0.4	0.3	2.5		0.0				

Intersection Summary			
HCM 6th Ctrl Delay, s/veh		10.2	
HCM 6th LOS		B	

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	11.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	138	0	0	286	265	0	0	0	253	0	10
Future Vol, veh/h	17	138	0	0	286	265	0	0	0	253	0	10
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	153	0	0	318	294	0	0	0	281	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	617	0	0	158	0	0	672	813	163	666	666	475
Stage 1	-	-	-	-	-	-	196	196	-	470	470	-
Stage 2	-	-	-	-	-	-	476	617	-	196	196	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	963	-	-	1422	-	-	370	313	882	373	380	590
Stage 1	-	-	-	-	-	-	806	739	-	574	560	-
Stage 2	-	-	-	-	-	-	570	481	-	806	739	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	959	-	-	1415	-	-	354	303	875	364	368	586
Mov Cap-2 Maneuver	-	-	-	-	-	-	354	303	-	364	368	-
Stage 1	-	-	-	-	-	-	784	719	-	559	558	-
Stage 2	-	-	-	-	-	-	557	479	-	785	719	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1	0	0	43.2
HCM LOS			A	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	959	-	-	1415	-	-	369
HCM Lane V/C Ratio	-	0.02	-	-	-	-	-	0.792
HCM Control Delay (s/veh)	0	8.8	0	-	0	-	-	43.2
HCM Lane LOS	A	A	A	-	A	-	-	E
HCM 95th %tile Q (veh)	-	0.1	-	-	0	-	-	6.7

Intersection	
Intersection Delay, s/veh	32.4
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	235	149	121	191	0	213	127	128	71	170	111
Future Vol, veh/h	20	235	149	121	191	0	213	127	128	71	170	111
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	22	258	164	133	210	0	234	140	141	78	187	122
Number of Lanes	1	1	1	1	1	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	3
HCM Control Delay, s/veh	28.5	25.3	33.5	41.9
HCM LOS	D	D	D	E

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	50%	0%	100%	0%	0%	100%	100%	0%	60%
Vol Right, %	0%	50%	0%	0%	100%	0%	0%	0%	0%	40%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	213	255	20	235	149	121	191	0	71	281
LT Vol	213	0	20	0	0	121	0	0	71	0
Through Vol	0	127	0	235	0	0	191	0	0	170
RT Vol	0	128	0	0	149	0	0	0	0	111
Lane Flow Rate	234	280	22	258	164	133	210	0	78	309
Geometry Grp	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.673	0.737	0.065	0.726	0.427	0.404	0.607	0	0.231	0.845
Departure Headway (Hd)	10.347	9.462	10.646	10.124	9.393	10.939	10.413	10.413	10.656	9.849
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	349	381	337	356	383	330	346	0	337	367
Service Time	8.104	7.219	8.405	7.883	7.151	8.7	8.174	8.174	8.414	7.606
HCM Lane V/C Ratio	0.67	0.735	0.065	0.725	0.428	0.403	0.607	0	0.231	0.842
HCM Control Delay, s/veh	32.1	34.6	14.1	35.7	19	21	28.1	13.2	16.6	48.3
HCM Lane LOS	D	D	B	E	C	C	D	N	C	E
HCM 95th-tile Q	4.6	5.7	0.2	5.5	2.1	1.9	3.8	0	0.9	7.8

HCM 6th Signalized Intersection Summary
13: Capitol Blvd SE & Linwood Ave SW/Parking Lot

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	0	140	0	0	0	123	355	0	0	428	214
Future Volume (veh/h)	245	0	140	0	0	0	123	355	0	0	428	214
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	250	0	41	0	0	0	126	362	0	0	437	153
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	534	0	320	166	390	0	436	1816	0	457	720	249
Arrive On Green	0.21	0.00	0.21	0.00	0.00	0.00	0.09	0.51	0.00	0.00	0.28	0.28
Sat Flow, veh/h	1782	0	1547	1377	1885	0	1795	3676	0	1795	2586	895
Grp Volume(v), veh/h	250	0	41	0	0	0	126	362	0	0	301	289
Grp Sat Flow(s),veh/h/ln	1782	0	1547	1377	1885	0	1795	1791	0	1795	1791	1690
Q Serve(g_s), s	5.6	0.0	0.9	0.0	0.0	0.0	1.9	2.4	0.0	0.0	6.3	6.4
Cycle Q Clear(g_c), s	5.6	0.0	0.9	0.0	0.0	0.0	1.9	2.4	0.0	0.0	6.3	6.4
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		0.53
Lane Grp Cap(c), veh/h	534	0	320	166	390	0	436	1816	0	457	499	471
V/C Ratio(X)	0.47	0.00	0.13	0.00	0.00	0.00	0.29	0.20	0.00	0.00	0.60	0.61
Avail Cap(c_a), veh/h	1187	0	886	670	1079	0	1310	2878	0	1074	1439	1358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	0.0	14.0	0.0	0.0	0.0	8.9	5.9	0.0	0.0	13.6	13.6
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.9	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.3	0.0	0.0	0.0	0.6	0.6	0.0	0.0	2.1	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.3	0.0	14.1	0.0	0.0	0.0	9.2	5.9	0.0	0.0	14.4	14.6
LnGrp LOS	B		B				A	A			B	B
Approach Vol, veh/h		291			0			488			590	
Approach Delay, s/veh		16.0			0.0			6.8			14.5	
Approach LOS		B						A			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	28.2		15.1	9.9	18.3		15.1
Change Period (Y+Rc), s	6.0	6.2		6.2	6.0	6.2		6.2
Max Green Setting (Gmax), s	15.0	34.8		24.8	25.0	34.8		24.8
Max Q Clear Time (g_c+I1), s	10.3	4.4		7.6	3.9	8.4		0.0
Green Ext Time (p_c), s	0.0	2.0		0.7	0.2	3.0		0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	12.1
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
14: Henderson Blvd SE & Yelm Hwy SE

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	919	116	437	589	85	59	124	516	104	167	14
Future Volume (veh/h)	26	919	116	437	589	85	59	124	516	104	167	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	0.99		1.00	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1961	1885	1885	1885
Adj Flow Rate, veh/h	28	988	119	470	633	85	63	133	0	112	180	4
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	299	1040	125	523	2103	282	191	208		237	431	355
Arrive On Green	0.32	0.32	0.32	0.29	0.67	0.67	0.11	0.11	0.00	0.07	0.23	0.23
Sat Flow, veh/h	737	3203	386	1795	3161	424	1197	1885	1662	1795	1885	1551
Grp Volume(v), veh/h	28	552	555	470	358	360	63	133	0	112	180	4
Grp Sat Flow(s),veh/h/ln	737	1791	1797	1795	1791	1794	1197	1885	1662	1795	1885	1551
Q Serve(g_s), s	3.2	36.5	36.5	30.4	10.1	10.2	6.0	8.2	0.0	6.5	9.9	0.2
Cycle Q Clear(g_c), s	3.2	36.5	36.5	30.4	10.1	10.2	6.0	8.2	0.0	6.5	9.9	0.2
Prop In Lane	1.00		0.21	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	581	583	523	1192	1194	191	208		237	431	355
V/C Ratio(X)	0.09	0.95	0.95	0.90	0.30	0.30	0.33	0.64		0.47	0.42	0.01
Avail Cap(c_a), veh/h	301	586	588	667	1192	1194	352	461		410	461	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	39.9	39.9	41.2	8.5	8.5	50.6	51.6	0.0	42.2	39.8	36.1
Incr Delay (d2), s/veh	0.2	25.3	25.4	15.5	0.1	0.1	0.4	1.2	0.0	0.5	0.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	19.7	19.9	15.5	3.7	3.7	1.8	3.9	0.0	2.9	4.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.9	65.3	65.4	56.7	8.6	8.6	51.0	52.8	0.0	42.8	40.6	36.1
LnGrp LOS	C	E	E	E	A	A	D	D		D	D	D
Approach Vol, veh/h		1135			1188			196			296	
Approach Delay, s/veh		64.4			27.7			52.2			41.3	
Approach LOS		E			C			D			D	

Timer - Assigned Phs	2	3	4	5	6	8
Phs Duration (G+Y+Rc), s	87.0	14.4	19.7	41.3	45.7	34.1
Change Period (Y+Rc), s	6.4	6.0	6.4	6.0	6.4	6.4
Max Green Setting (Gmax), s	39.6	20.0	29.6	45.0	39.6	29.6
Max Q Clear Time (g_c+I1), s	12.2	8.5	10.2	32.4	38.5	11.9
Green Ext Time (p_c), s	4.7	0.1	0.5	2.8	0.8	1.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	45.6
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	31	132	236	133	118	54
Future Vol, veh/h	31	132	236	133	118	54
Conflicting Peds, #/hr	0	0	0	0	0	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	120
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	33	140	251	141	126	57

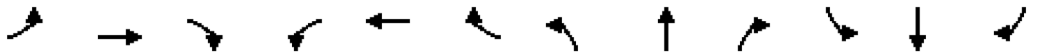
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	392	0	-	0	528	327
Stage 1	-	-	-	-	322	-
Stage 2	-	-	-	-	206	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1172	-	-	-	513	717
Stage 1	-	-	-	-	737	-
Stage 2	-	-	-	-	831	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1172	-	-	-	497	714
Mov Cap-2 Maneuver	-	-	-	-	497	-
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	831	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.6	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1172	-	-	-	497	714
HCM Lane V/C Ratio	0.028	-	-	-	0.253	0.08
HCM Control Delay (s/veh)	8.2	0	-	-	14.7	10.5
HCM Lane LOS	A	A	-	-	B	B
HCM 95th %tile Q (veh)	0.1	-	-	-	1	0.3

HCM 6th Signalized Intersection Summary
16: Parking Lot/Lake Park Dr SW & Trosper Rd SW

Existing
PM Peak Hour



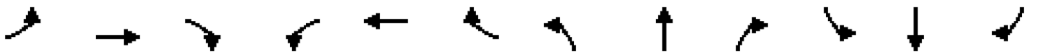
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	225	0	0	334	18	0	0	0	16	0	5
Future Volume (veh/h)	0	225	0	0	334	18	0	0	0	16	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	0.96		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	0	237	0	0	352	13	0	0	0	17	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	735	2133	0	873	1122	927	214	78	0	286	78	0
Arrive On Green	0.00	0.60	0.00	0.00	0.60	0.60	0.00	0.00	0.00	0.04	0.00	0.00
Sat Flow, veh/h	1795	3676	0	1795	1885	1557	1429	1885	0	1730	1885	0
Grp Volume(v), veh/h	0	237	0	0	352	13	0	0	0	17	0	0
Grp Sat Flow(s),veh/h/ln	1795	1791	0	1795	1885	1557	1429	1885	0	1730	1885	0
Q Serve(g_s), s	0.0	1.0	0.0	0.0	3.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.0	0.0	0.0	3.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	735	2133	0	873	1122	927	214	78	0	286	78	0
V/C Ratio(X)	0.00	0.11	0.00	0.00	0.31	0.01	0.00	0.00	0.00	0.06	0.00	0.00
Avail Cap(c_a), veh/h	1264	3188	0	1402	1678	1386	789	836	0	982	836	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	2.9	0.0	0.0	3.4	2.8	0.0	0.0	0.0	15.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	3.0	0.0	0.0	3.4	2.8	0.0	0.0	0.0	15.6	0.0	0.0
LnGrp LOS		A			A	A				B		
Approach Vol, veh/h		237			365			0			17	
Approach Delay, s/veh		3.0			3.4			0.0			15.6	
Approach LOS		A			A						B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	26.1		7.5	0.0	26.1		7.5				
Change Period (Y+Rc), s	6.0	6.1		6.1	6.0	6.1		6.1				
Max Green Setting (Gmax), s	10.0	29.9		14.9	10.0	29.9		14.9				
Max Q Clear Time (g_c+I1), s	0.0	5.1		0.0	0.0	3.0		2.3				
Green Ext Time (p_c), s	0.0	1.5		0.0	0.0	1.1		0.0				

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	3.6
HCM 6th LOS	A

HCM Signalized Intersection Capacity Analysis
17: Littlerock Rd SW/South 2nd Ave & Trosper Rd SW

Existing
PM Peak Hour



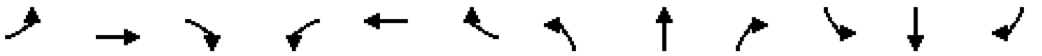
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	182	106	277	232	57	168	261	381	118	263	43
Future Volume (vph)	29	182	106	277	232	57	168	261	381	118	263	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	12	11	11	10	12	11	10	12	11	11
Total Lost time (s)	6.0	6.0		6.0	6.0		5.6	6.0	6.0	5.6	6.0	
Lane Util. Factor	1.00	0.95		0.91	0.91		1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.94		1.00	0.98		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1752	3066		1542	3119		1752	1783	1454	1752	3308	
Flt Permitted	0.95	1.00		0.95	0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1752	3066		1542	3119		1752	1783	1454	1752	3308	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	29	184	107	280	234	58	170	264	385	119	266	43
RTOR Reduction (vph)	0	71	0	0	8	0	0	0	143	0	11	0
Lane Group Flow (vph)	29	220	0	190	374	0	170	264	242	119	298	0
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Confl. Bikes (#/hr)	2		2	2		2			2	2		
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA		Split	NA		Prot	NA	pm+ov	Prot	NA	
Protected Phases	1	1		2	2		7	4	2	3	8	
Permitted Phases									4			
Actuated Green, G (s)	16.6	16.6		53.7	53.7		21.1	27.1	80.8	14.0	20.0	
Effective Green, g (s)	16.6	16.6		53.7	53.7		21.1	27.1	80.8	14.0	20.0	
Actuated g/C Ratio	0.12	0.12		0.40	0.40		0.16	0.20	0.60	0.10	0.15	
Clearance Time (s)	6.0	6.0		6.0	6.0		5.6	6.0	6.0	5.6	6.0	
Vehicle Extension (s)	2.5	2.5		3.0	3.0		3.0	2.5	3.0	3.0	2.5	
Lane Grp Cap (vph)	215	377		613	1240		273	357	934	181	490	
v/s Ratio Prot	0.02	c0.07		c0.12	0.12		c0.10	c0.15	0.10	0.07	0.09	
v/s Ratio Perm									0.06			
v/c Ratio	0.13	0.58		0.31	0.30		0.62	0.74	0.26	0.66	0.61	
Uniform Delay, d1	52.8	55.9		27.9	27.8		53.2	50.6	12.9	58.2	53.8	
Progression Factor	1.00	1.00		0.74	0.74		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.2	1.9		1.3	0.6		4.4	7.4	0.1	8.3	1.8	
Delay (s)	53.0	57.8		22.0	21.1		57.6	58.0	13.0	66.5	55.6	
Level of Service	D	E		C	C		E	E	B	E	E	
Approach Delay (s/veh)		57.4			21.4			36.8			58.7	
Approach LOS		E			C			D			E	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	40.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	135.0	Sum of lost time (s)	23.6
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
18: Tyee Dr SW/I-5 SB Ramp & Trosper Rd SW

Existing
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	179	540	6	180	219	181	33	139	258	351	342	363
Future Volume (vph)	179	540	6	180	219	181	33	139	258	351	342	363
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	16	11	11	11	13	13	16
Total Lost time (s)	4.6	4.6	4.6	4.6	4.6	4.0	4.6	4.6	4.6	4.6	4.6	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1694	3505	1515	1694	3505	1740	1694	1783	1516	1811	1906	1753
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1694	3505	1515	1694	3505	1740	1694	1783	1516	1811	1906	1753
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	183	551	6	184	223	185	34	142	263	358	349	370
RTOR Reduction (vph)	0	0	4	0	0	0	0	0	93	0	0	0
Lane Group Flow (vph)	183	551	2	184	223	185	34	142	170	358	349	370
Confl. Peds. (#/hr)			5	5			5					5
Confl. Bikes (#/hr)	2		2	2		2						
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Free	Split	NA	pt+ov	Split	NA	Free
Protected Phases	1	6		5	2		4	4	4 5	3	3	
Permitted Phases			6			Free						Free
Actuated Green, G (s)	20.9	47.8	47.8	19.3	46.2	135.0	17.1	17.1	41.0	32.4	32.4	135.0
Effective Green, g (s)	20.9	47.8	47.8	19.3	46.2	135.0	17.1	17.1	41.0	32.4	32.4	135.0
Actuated g/C Ratio	0.15	0.35	0.35	0.14	0.34	1.00	0.13	0.13	0.30	0.24	0.24	1.00
Clearance Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6		4.6	4.6	
Vehicle Extension (s)	3.0	2.7	2.7	3.2	3.0		3.2	3.2		3.5	3.5	
Lane Grp Cap (vph)	262	1241	536	242	1199	1740	214	225	460	434	457	1753
v/s Ratio Prot	0.11	c0.16		c0.11	0.06		0.02	c0.08	0.11	c0.20	0.18	
v/s Ratio Perm			0.00			0.11						c0.21
v/c Ratio	0.70	0.44	0.00	0.76	0.19	0.11	0.16	0.63	0.37	0.82	0.76	0.21
Uniform Delay, d1	54.1	33.4	28.2	55.6	31.2	0.0	52.5	56.0	36.9	48.6	47.7	0.0
Progression Factor	0.92	1.29	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.5	1.1	0.0	13.3	0.3	0.1	0.4	5.8	0.5	12.4	7.6	0.3
Delay (s)	57.4	44.3	28.2	68.9	31.5	0.1	52.9	61.7	37.4	61.0	55.4	0.3
Level of Service	E	D	C	E	C	A	D	E	D	E	E	A
Approach Delay (s/veh)		47.4			33.3			46.5			38.3	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	40.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	135.0	Sum of lost time (s)	18.4
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary
19: Littlerock Rd SW & Parking Lot

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	18	59	105	16	214	60	405	90	225	410	93
Future Volume (veh/h)	102	18	59	105	16	214	60	405	90	225	410	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	111	20	13	114	17	47	65	440	68	245	446	81
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	115	12	400	116	10	400	100	822	126	294	1126	203
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.06	0.27	0.27	0.16	0.37	0.37
Sat Flow, veh/h	0	46	1557	0	38	1557	1795	3097	475	1795	3016	544
Grp Volume(v), veh/h	131	0	13	131	0	47	65	253	255	245	263	264
Grp Sat Flow(s),veh/h/ln	46	0	1557	38	0	1557	1795	1791	1781	1795	1791	1769
Q Serve(g_s), s	0.0	0.0	0.4	0.0	0.0	1.3	2.1	7.0	7.1	7.7	6.3	6.4
Cycle Q Clear(g_c), s	14.9	0.0	0.4	14.9	0.0	1.3	2.1	7.0	7.1	7.7	6.3	6.4
Prop In Lane	0.85		1.00	0.87		1.00	1.00		0.27	1.00		0.31
Lane Grp Cap(c), veh/h	126	0	400	126	0	400	100	475	473	294	668	660
V/C Ratio(X)	1.04	0.00	0.03	1.04	0.00	0.12	0.65	0.53	0.54	0.83	0.39	0.40
Avail Cap(c_a), veh/h	126	0	400	126	0	400	774	1078	1072	310	1078	1064
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	0.0	16.1	27.9	0.0	16.5	26.8	18.2	18.3	23.5	13.4	13.4
Incr Delay (d2), s/veh	90.1	0.0	0.0	91.7	0.0	0.1	6.8	0.9	1.0	16.8	0.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	0.1	4.9	0.0	0.5	1.0	2.8	2.8	4.4	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	117.7	0.0	16.2	119.6	0.0	16.6	33.6	19.2	19.2	40.2	13.7	13.8
LnGrp LOS	F		B	F		B	C	B	B	D	B	B
Approach Vol, veh/h		144			178			573			772	
Approach Delay, s/veh		108.6			92.4			20.8			22.2	
Approach LOS		F			F			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.2	27.7		21.0	15.5	21.5		21.0
Change Period (Y+Rc), s	6.0	6.1		6.1	6.0	6.1		6.1
Max Green Setting (Gmax), s	25.0	34.9		14.9	10.0	34.9		14.9
Max Q Clear Time (g_c+I1), s	11.1	8.4		16.9	9.7	9.1		16.9
Green Ext Time (p_c), s	0.1	3.4		0.0	0.0	3.2		0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	36.7
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
20: Capitol Blvd SE & Lee St SW/Lee St SE

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	0	33	1	3	26	18	457	0	13	597	72
Future Volume (veh/h)	107	0	33	1	3	26	18	457	0	13	597	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	118	0	5	1	3	4	20	502	0	14	656	74
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	53	0	358	33	74	358	38	1875	0	29	1678	189
Arrive On Green	0.26	0.00	0.26	0.26	0.26	0.26	0.01	0.19	0.00	0.01	0.19	0.19
Sat Flow, veh/h	0	0	1397	0	290	1397	1603	3282	0	1603	2888	325
Grp Volume(v), veh/h	118	0	5	4	0	4	20	502	0	14	363	367
Grp Sat Flow(s),veh/h/ln	0	0	1397	290	0	1397	1603	1599	0	1603	1599	1615
Q Serve(g_s), s	0.0	0.0	0.4	0.0	0.0	0.3	1.7	18.0	0.0	1.2	26.8	26.8
Cycle Q Clear(g_c), s	34.6	0.0	0.4	34.6	0.0	0.3	1.7	18.0	0.0	1.2	26.8	26.8
Prop In Lane	1.00		1.00	0.25		1.00	1.00		0.00	1.00		0.20
Lane Grp Cap(c), veh/h	53	0	358	108	0	358	38	1875	0	29	929	938
V/C Ratio(X)	2.21	0.00	0.01	0.04	0.00	0.01	0.53	0.27	0.00	0.48	0.39	0.39
Avail Cap(c_a), veh/h	53	0	358	108	0	358	71	1875	0	119	929	938
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.5	0.0	37.5	40.5	0.0	37.4	66.2	29.8	0.0	66.5	33.7	33.7
Incr Delay (d2), s/veh	601.4	0.0	0.0	0.1	0.0	0.0	4.3	0.4	0.0	4.5	1.2	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	0.0	0.1	0.1	0.0	0.1	0.7	7.8	0.0	0.5	11.8	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	668.9	0.0	37.5	40.5	0.0	37.4	70.5	30.1	0.0	71.0	34.9	34.9
LnGrp LOS	F		D	D		D	E	C		E	C	C
Approach Vol, veh/h		123			8			522			744	
Approach Delay, s/veh		643.3			39.0			31.7			35.6	
Approach LOS		F			D			C			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.5	85.5		41.0	9.2	84.8		41.0
Change Period (Y+Rc), s	6.0	6.4		6.4	6.0	6.4		6.4
Max Green Setting (Gmax), s	10.6	71.6		34.6	6.0	75.6		34.6
Max Q Clear Time (g_c+I1), s	13.2	20.0		36.6	3.7	28.8		36.6
Green Ext Time (p_c), s	0.0	3.7		0.0	0.0	5.1		0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	87.7
HCM 6th LOS	F

MOVEMENT SUMMARY

Site: 21 [21: Littlerock Rd & Kingswood Dr (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Littlerock Rd & Kingswood Dr
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Littlerock Rd															
8	T1	All MCs	339	2.0	339	2.0	0.379	2.3	LOS A	2.0	50.1	0.28	0.30	0.28	14.8
18	R2	All MCs	115	2.0	115	2.0	0.379	2.7	LOS A	2.0	50.1	0.28	0.30	0.28	26.2
Approach			454	2.0	454	2.0	0.379	2.4	LOS A	2.0	50.1	0.28	0.30	0.28	17.6
East: Kingswood Dr															
1	L2	All MCs	74	2.0	74	2.0	0.072	6.8	LOS A	0.3	8.5	0.44	0.58	0.44	24.6
16	R2	All MCs	115	2.0	115	2.0	0.091	2.6	LOS A	0.5	11.4	0.42	0.39	0.42	23.5
Approach			189	2.0	189	2.0	0.091	4.2	LOS A	0.5	11.4	0.43	0.47	0.43	24.1
North: Littlerock Rd															
7	L2	All MCs	109	2.0	109	2.0	0.114	7.0	LOS A	0.5	13.0	0.23	0.57	0.23	22.3
4	T1	All MCs	502	2.0	502	2.0	0.353	2.2	LOS A	2.2	54.7	0.25	0.29	0.25	27.7
Approach			611	2.0	611	2.0	0.353	3.0	LOS A	2.2	54.7	0.25	0.34	0.25	26.5
All Vehicles			1254	2.0	1254	2.0	0.379	3.0	LOS A	2.2	54.7	0.29	0.35	0.29	21.9

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: C:\fpbox\Box\-Projects\TC-Projects\2024\TC24-0105_Tumwater Transportation Master Plan and Impact Fees\Analysis\Operation Analysis\Existing\Sidra\Tumwater Sidra.sip9

HCM 6th Signalized Intersection Summary
22: Capitol Blvd SE & Dennis St SW/Dennis St SE

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	19	17	22	14	26	5	395	19	71	517	34
Future Volume (veh/h)	15	19	17	22	14	26	5	395	19	71	517	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.93		0.91	0.93		0.91	0.99		0.94	0.99		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	16	20	2	23	15	2	5	420	17	76	550	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	244	266	364	315	179	364	313	841	34	430	1107	64
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.01	0.24	0.24	0.09	0.33	0.33
Sat Flow, veh/h	559	1049	1436	795	705	1436	1767	3445	139	1767	3376	196
Grp Volume(v), veh/h	36	0	2	38	0	2	5	214	223	76	287	295
Grp Sat Flow(s),veh/h/ln	1609	0	1436	1500	0	1436	1767	1763	1821	1767	1763	1809
Q Serve(g_s), s	0.0	0.0	0.1	0.0	0.0	0.1	0.1	5.3	5.4	1.5	6.7	6.7
Cycle Q Clear(g_c), s	0.8	0.0	0.1	0.8	0.0	0.1	0.1	5.3	5.4	1.5	6.7	6.7
Prop In Lane	0.44		1.00	0.61		1.00	1.00		0.08	1.00		0.11
Lane Grp Cap(c), veh/h	510	0	364	494	0	364	313	431	445	430	578	593
V/C Ratio(X)	0.07	0.00	0.01	0.08	0.00	0.01	0.02	0.50	0.50	0.18	0.50	0.50
Avail Cap(c_a), veh/h	679	0	521	653	0	521	994	2539	2623	963	2539	2606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.5	0.0	14.2	14.5	0.0	14.2	14.4	16.6	16.6	11.9	13.8	13.8
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.9	0.9	0.2	0.7	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.3	0.0	0.0	0.0	2.0	2.0	0.5	2.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.5	0.0	14.2	14.6	0.0	14.2	14.4	17.5	17.5	12.1	14.4	14.4
LnGrp LOS	B		B	B		B	B	B	B	B	B	B
Approach Vol, veh/h		38			40			442			658	
Approach Delay, s/veh		14.5			14.6			17.4			14.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.6	20.0		20.4	6.3	24.2		20.4
Change Period (Y+Rc), s	6.0	7.5		7.5	6.0	7.5		7.5
Max Green Setting (Gmax), s	20.0	73.5		18.5	20.0	73.5		18.5
Max Q Clear Time (g_c+I1), s	3.5	7.4		2.8	2.1	8.7		2.8
Green Ext Time (p_c), s	0.1	2.7		0.1	0.0	3.8		0.1

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	15.4
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
23: Henderson Blvd SE & Wildflower Ln SE/65th Ave SE

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	48	1	100	3	629	71	77	587	1
Future Volume (veh/h)	0	0	0	48	1	100	3	629	71	77	587	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	0.98		0.95	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1961	1885	1885	1961	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	0	0	0	51	1	15	3	669	69	82	624	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	0	222	0	274	19	39	486	979	101	405	1100	2
Arrive On Green	0.00	0.00	0.00	0.11	0.11	0.11	0.58	0.58	0.58	0.58	0.58	0.58
Sat Flow, veh/h	0	1961	0	1013	171	341	805	1676	173	725	1882	3
Grp Volume(v), veh/h	0	0	0	67	0	0	3	0	738	82	0	625
Grp Sat Flow(s),veh/h/ln	0	1961	0	1525	0	0	805	0	1849	725	0	1885
Q Serve(g_s), s	0.0	0.0	0.0	1.1	0.0	0.0	0.1	0.0	11.0	3.5	0.0	8.2
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.5	0.0	0.0	8.3	0.0	11.0	14.5	0.0	8.2
Prop In Lane	0.00		0.00	0.76		0.22	1.00		0.09	1.00		0.00
Lane Grp Cap(c), veh/h	0	222	0	332	0	0	486	0	1080	405	0	1101
V/C Ratio(X)	0.00	0.00	0.00	0.20	0.00	0.00	0.01	0.00	0.68	0.20	0.00	0.57
Avail Cap(c_a), veh/h	0	494	0	538	0	0	1131	0	2561	986	0	2611
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	16.3	0.0	0.0	7.7	0.0	5.7	10.7	0.0	5.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.9	0.3	0.0	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	2.1	0.4	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	16.6	0.0	0.0	7.7	0.0	6.6	11.0	0.0	5.7
LnGrp LOS				B			A		A	B		A
Approach Vol, veh/h		0			67			741			707	
Approach Delay, s/veh		0.0			16.6			6.6			6.3	
Approach LOS					B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	29.2	10.5	29.2	10.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	55.0	10.0	55.0	10.0
Max Q Clear Time (g_c+I1), s	16.5	3.5	13.0	0.0
Green Ext Time (p_c), s	6.7	0.1	7.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	6.9
HCM 6th LOS	A

MOVEMENT SUMMARY

Site: 24 [24: Littlerock Rd & Israel Rd & 70th Ave (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Littlerock Rd & Israel Rd & 70th Ave
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Littlerock Rd															
3	L2	All MCs	196	2.0	196	2.0	0.509	9.1	LOS A	3.5	87.8	0.58	0.56	0.58	28.7
8	T1	All MCs	252	2.0	252	2.0	0.509	3.7	LOS A	3.5	87.8	0.58	0.56	0.58	19.0
18	R2	All MCs	62	2.0	62	2.0	0.509	4.3	LOS A	3.5	87.8	0.58	0.56	0.58	29.0
Approach			510	2.0	510	2.0	0.509	5.8	LOS A	3.5	87.8	0.58	0.56	0.58	24.3
East: Israel Rd															
1	L2	All MCs	119	2.0	119	2.0	0.299	10.7	LOS B	1.8	46.3	0.63	0.64	0.63	28.4
6	T1	All MCs	182	2.0	182	2.0	0.299	5.6	LOS A	1.8	46.3	0.63	0.64	0.63	30.6
16	R2	All MCs	138	2.0	138	2.0	0.178	6.3	LOS A	0.9	23.4	0.60	0.63	0.60	28.8
Approach			439	2.0	439	2.0	0.299	7.2	LOS A	1.8	46.3	0.62	0.64	0.62	29.5
North: Littlerock Rd															
7	L2	All MCs	119	2.0	119	2.0	0.532	10.8	LOS B	4.5	113.9	0.78	0.71	0.86	27.1
4	T1	All MCs	389	2.0	389	2.0	0.532	6.6	LOS A	4.5	113.9	0.78	0.71	0.86	25.2
14	R2	All MCs	152	2.0	152	2.0	0.242	6.9	LOS A	1.3	34.2	0.67	0.66	0.67	27.7
Approach			660	2.0	660	2.0	0.532	7.4	LOS A	4.5	113.9	0.76	0.70	0.82	26.1
West: 70th Ave															
5	L2	All MCs	60	2.0	60	2.0	0.176	10.9	LOS B	0.9	21.9	0.59	0.68	0.59	19.4
2	T1	All MCs	81	2.0	81	2.0	0.176	6.0	LOS A	0.9	21.9	0.59	0.68	0.59	30.5
12	R2	All MCs	145	2.0	145	2.0	0.176	6.7	LOS A	0.9	22.2	0.59	0.66	0.59	28.9
Approach			286	2.0	286	2.0	0.176	7.4	LOS A	0.9	22.2	0.59	0.67	0.59	27.5
All Vehicles			1895	2.0	1895	2.0	0.532	6.9	LOS A	4.5	113.9	0.65	0.64	0.67	26.6

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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HCM 6th Signalized Intersection Summary
25: Linderson Way SW & Israel Rd SW

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	400	101	150	394	38	179	43	67	16	124	69
Future Volume (veh/h)	63	400	101	150	394	38	179	43	67	16	124	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.96	0.97		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1961	1885	1885	1885	1885
Adj Flow Rate, veh/h	71	449	106	169	443	41	201	48	29	18	139	59
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	360	515	122	323	656	61	384	292	176	358	203	86
Arrive On Green	0.05	0.35	0.35	0.09	0.39	0.39	0.12	0.26	0.26	0.02	0.16	0.16
Sat Flow, veh/h	1795	1464	346	1795	1694	157	1795	1124	679	1795	1233	523
Grp Volume(v), veh/h	71	0	555	169	0	484	201	0	77	18	0	198
Grp Sat Flow(s),veh/h/ln	1795	0	1809	1795	0	1851	1795	0	1803	1795	0	1756
Q Serve(g_s), s	1.7	0.0	19.4	3.9	0.0	14.7	5.9	0.0	2.2	0.6	0.0	7.2
Cycle Q Clear(g_c), s	1.7	0.0	19.4	3.9	0.0	14.7	5.9	0.0	2.2	0.6	0.0	7.2
Prop In Lane	1.00		0.19	1.00		0.08	1.00		0.38	1.00		0.30
Lane Grp Cap(c), veh/h	360	0	637	323	0	716	384	0	468	358	0	289
V/C Ratio(X)	0.20	0.00	0.87	0.52	0.00	0.68	0.52	0.00	0.16	0.05	0.00	0.68
Avail Cap(c_a), veh/h	793	0	791	693	0	809	573	0	522	718	0	768
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.6	0.0	20.5	15.1	0.0	17.2	18.9	0.0	19.4	22.7	0.0	26.6
Incr Delay (d2), s/veh	0.1	0.0	8.8	1.3	0.0	1.9	0.4	0.0	0.1	0.0	0.0	2.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	9.2	1.6	0.0	6.2	2.3	0.0	0.9	0.2	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.7	0.0	29.3	16.4	0.0	19.1	19.3	0.0	19.4	22.7	0.0	29.5
LnGrp LOS	B		C	B		B	B		B	C		C
Approach Vol, veh/h		626			653			278			216	
Approach Delay, s/veh		27.5			18.4			19.3			28.9	
Approach LOS		C			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	31.1	5.9	22.5	10.5	28.7	12.4	16.1
Change Period (Y+Rc), s	4.5	4.9	4.5	4.9	4.5	4.9	4.5	4.9
Max Green Setting (Gmax), s	20.0	29.6	15.0	19.6	20.0	29.6	15.0	29.6
Max Q Clear Time (g_c+I1), s	3.7	16.7	2.6	4.2	5.9	21.4	7.9	9.2
Green Ext Time (p_c), s	0.1	2.7	0.0	0.2	0.4	2.4	0.2	1.1

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	23.1
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
26: Capitol Blvd SE & Israel Rd SW/Israel Rd SE

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	123	243	57	155	39	180	358	11	16	642	147
Future Volume (veh/h)	79	123	243	57	155	39	180	358	11	16	642	147
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	93	145	241	67	182	40	212	421	12	19	755	160
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	328	151	252	179	351	77	308	1419	40	430	957	203
Arrive On Green	0.06	0.27	0.27	0.05	0.26	0.26	0.11	0.45	0.45	0.03	0.37	0.37
Sat Flow, veh/h	1603	560	931	1603	1330	292	1603	3173	90	1603	2610	553
Grp Volume(v), veh/h	93	0	386	67	0	222	212	212	221	19	463	452
Grp Sat Flow(s),veh/h/ln	1603	0	1491	1603	0	1623	1603	1599	1664	1603	1599	1564
Q Serve(g_s), s	3.8	0.0	23.3	2.7	0.0	10.7	7.0	7.7	7.7	0.7	23.5	23.6
Cycle Q Clear(g_c), s	3.8	0.0	23.3	2.7	0.0	10.7	7.0	7.7	7.7	0.7	23.5	23.6
Prop In Lane	1.00		0.62	1.00		0.18	1.00		0.05	1.00		0.35
Lane Grp Cap(c), veh/h	328	0	403	179	0	428	308	715	744	430	587	574
V/C Ratio(X)	0.28	0.00	0.96	0.38	0.00	0.52	0.69	0.30	0.30	0.04	0.79	0.79
Avail Cap(c_a), veh/h	670	0	403	531	0	439	577	957	996	828	957	936
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	0.0	32.8	25.2	0.0	28.7	19.0	16.1	16.1	17.1	25.8	25.8
Incr Delay (d2), s/veh	0.6	0.0	34.1	1.6	0.0	1.2	3.3	0.3	0.3	0.1	2.9	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	12.1	1.1	0.0	4.3	2.6	2.7	2.8	0.2	8.9	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.4	0.0	66.9	26.8	0.0	29.9	22.2	16.4	16.4	17.1	28.7	28.7
LnGrp LOS	C		E	C		C	C	B	B	B	C	C
Approach Vol, veh/h		479			289			645			934	
Approach Delay, s/veh		58.4			29.2			18.3			28.5	
Approach LOS		E			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	45.7	9.4	29.5	14.2	38.3	10.0	28.9
Change Period (Y+Rc), s	4.5	4.8	4.5	4.8	4.5	4.8	4.5	4.8
Max Green Setting (Gmax), s	25.0	54.7	25.0	24.7	25.0	54.7	25.0	24.7
Max Q Clear Time (g_c+I1), s	12.7	9.7	4.7	25.3	9.0	25.6	5.8	12.7
Green Ext Time (p_c), s	0.0	3.3	0.2	0.0	0.7	8.0	0.3	1.2

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	31.9
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
27: Henderson Blvd SE & Tumwater Blvd SE

Existing
PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	556	32	31	160	185	511
Future Volume (veh/h)	556	32	31	160	185	511
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.97	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1961
Adj Flow Rate, veh/h	598	32	33	172	199	345
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1
Cap, veh/h	691	37	44	229	468	399
Arrive On Green	0.41	0.41	0.15	0.15	0.25	0.25
Sat Flow, veh/h	1688	90	301	1569	1885	1607
Grp Volume(v), veh/h	631	0	205	0	199	345
Grp Sat Flow(s),veh/h/ln	1781	0	1870	0	1885	1607
Q Serve(g_s), s	29.7	0.0	9.6	0.0	8.1	18.8
Cycle Q Clear(g_c), s	29.7	0.0	9.6	0.0	8.1	18.8
Prop In Lane	0.95	0.05	0.16			1.00
Lane Grp Cap(c), veh/h	729	0	273	0	468	399
V/C Ratio(X)	0.87	0.00	0.75	0.00	0.43	0.87
Avail Cap(c_a), veh/h	1166	0	612	0	617	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	0.0	37.5	0.0	29.0	33.0
Incr Delay (d2), s/veh	7.2	0.0	8.5	0.0	0.6	11.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.1	0.0	4.9	0.0	3.7	8.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	31.9	0.0	46.0	0.0	29.6	44.3
LnGrp LOS	C		D		C	D
Approach Vol, veh/h	631			205	544	
Approach Delay, s/veh	31.9			46.0	38.9	
Approach LOS	C			D	D	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	43.5	28.7	19.4
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	60.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	31.7	20.8	11.6
Green Ext Time (p_c), s	5.8	1.7	1.8

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	36.8
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

MOVEMENT SUMMARY

Site: 28 [28: Littlerock Rd & Tumwater Blvd (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Littlerock Rd & Tumwater Blvd
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Littlerock Rd															
8	T1	All MCs	214	2.0	214	2.0	0.162	3.4	LOS A	0.8	20.3	0.46	0.42	0.46	28.1
18	R2	All MCs	114	2.0	114	2.0	0.162	3.9	LOS A	0.8	20.3	0.46	0.46	0.46	29.7
Approach			328	2.0	328	2.0	0.162	3.6	LOS A	0.8	20.3	0.46	0.44	0.46	28.6
East: Tumwater Blvd															
1	L2	All MCs	187	2.0	187	2.0	0.187	9.6	LOS A	0.9	21.8	0.38	0.63	0.38	28.0
16	R2	All MCs	290	2.0	290	2.0	0.260	4.3	LOS A	1.3	32.7	0.39	0.49	0.39	29.8
Approach			477	2.0	477	2.0	0.260	6.4	LOS A	1.3	32.7	0.38	0.54	0.38	29.0
North: Littlerock Rd															
7	L2	All MCs	330	2.0	330	2.0	0.277	8.2	LOS A	1.7	43.7	0.43	0.58	0.43	27.9
4	T1	All MCs	339	2.0	339	2.0	0.256	2.8	LOS A	1.6	40.4	0.41	0.34	0.41	28.2
Approach			670	2.0	670	2.0	0.277	5.5	LOS A	1.7	43.7	0.42	0.45	0.42	28.1
All Vehicles			1475	2.0	1475	2.0	0.277	5.4	LOS A	1.7	43.7	0.42	0.48	0.42	28.5

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: C:\fpbox\Box\-Projects\TC-Projects\2024\TC24-0105_Tumwater Transportation Master Plan and Impact Fees\Analysis\Operation Analysis\Existing\Sidra\Tumwater Sidra.sip9

HCM 6th Signalized Intersection Summary
29: I-5 SB Onramp/I-5 SB Offramp & Tumwater Blvd SW

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	211	228	398	203	0	0	0	0	492	0	243
Future Volume (veh/h)	0	211	228	398	203	0	0	0	0	492	0	243
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	237	101	447	228	0				384	236	216
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	385	159	520	971	0				607	306	280
Arrive On Green	0.00	0.16	0.16	0.29	0.52	0.00				0.34	0.34	0.34
Sat Flow, veh/h	0	2545	1013	1781	1870	0				1781	899	823
Grp Volume(v), veh/h	0	170	168	447	228	0				384	0	452
Grp Sat Flow(s),veh/h/ln	0	1777	1688	1781	1870	0				1781	0	1722
Q Serve(g_s), s	0.0	5.8	6.1	15.6	4.4	0.0				11.9	0.0	15.4
Cycle Q Clear(g_c), s	0.0	5.8	6.1	15.6	4.4	0.0				11.9	0.0	15.4
Prop In Lane	0.00		0.60	1.00		0.00				1.00		0.48
Lane Grp Cap(c), veh/h	0	279	265	520	971	0				607	0	586
V/C Ratio(X)	0.00	0.61	0.63	0.86	0.23	0.00				0.63	0.00	0.77
Avail Cap(c_a), veh/h	0	1355	1287	815	1426	0				1630	0	1576
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	25.7	25.9	22.0	8.6	0.0				18.2	0.0	19.3
Incr Delay (d2), s/veh	0.0	2.2	2.6	6.6	0.1	0.0				1.2	0.0	2.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.5	2.5	6.8	1.5	0.0				4.3	0.0	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	28.0	28.5	28.5	8.8	0.0				19.4	0.0	21.8
LnGrp LOS		C	C	C	A					B		C
Approach Vol, veh/h		338			675						836	
Approach Delay, s/veh		28.2			21.8						20.7	
Approach LOS		C			C						C	

Timer - Assigned Phs	2			5	6		8					
Phs Duration (G+Y+Rc), s	38.6			23.7	14.9		26.9					
Change Period (Y+Rc), s	4.6			4.6	4.6		4.6					
Max Green Setting (Gmax), s	50.0			30.0	50.0		60.0					
Max Q Clear Time (g_c+I1), s	6.4			17.6	8.1		17.4					
Green Ext Time (p_c), s	1.4			1.6	2.2		4.9					

Intersection Summary		
HCM 6th Ctrl Delay, s/veh	22.5	
HCM 6th LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	12.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	122	518	0	0	486	825	85	1	177	0	0	0
Future Vol, veh/h	122	518	0	0	486	825	85	1	177	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Yield	Yield	Yield
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	300	-	-	-	-	0	-	-	140	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	147	624	0	0	586	994	102	1	213	0	0	0

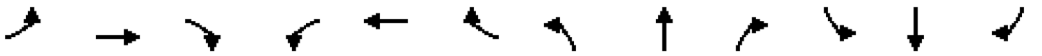
Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	586	0	-	-	-	0	1504	1504	312
Stage 1	-	-	-	-	-	-	918	918	-
Stage 2	-	-	-	-	-	-	586	586	-
Critical Hdwy	4.13	-	-	-	-	-	6.63	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	5.83	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.43	5.53	-
Follow-up Hdwy	2.219	-	-	-	-	-	3.519	4.019	3.319
Pot Cap-1 Maneuver	987	-	0	0	-	0	122	121	685
Stage 1	-	-	0	0	-	0	350	350	-
Stage 2	-	-	0	0	-	0	555	496	-
Platoon blocked, %		-			-				
Mov Cap-1 Maneuver	987	-	-	-	-	-	104	0	685
Mov Cap-2 Maneuver	-	-	-	-	-	-	104	0	-
Stage 1	-	-	-	-	-	-	298	0	-
Stage 2	-	-	-	-	-	-	555	0	-

Approach	EB	WB	NB
HCM Control Delay, s/v	1.8	0	61.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT
Capacity (veh/h)	104	685	987	-	-
HCM Lane V/C Ratio	0.996	0.311	0.149	-	-
HCM Control Delay (s/veh)	163.4	12.6	9.3	-	-
HCM Lane LOS	F	B	A	-	-
HCM 95th %tile Q (veh)	6.2	1.3	0.5	-	-

HCM 6th Signalized Intersection Summary
31: Center St SW/Linderson Way SW & Tumwater Blvd SW

Existing
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	473	98	47	839	67	128	83	52	105	86	331
Future Volume (veh/h)	87	473	98	47	839	67	128	83	52	105	86	331
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	106	577	114	57	1023	38	156	101	7	128	105	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	230	791	156	349	1424	631	200	211	174	207	225	
Arrive On Green	0.07	0.27	0.27	0.20	0.40	0.40	0.11	0.11	0.11	0.12	0.12	0.00
Sat Flow, veh/h	3456	2954	582	1781	3554	1575	1781	1870	1539	1781	1870	1585
Grp Volume(v), veh/h	106	346	345	57	1023	38	156	101	7	128	105	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1759	1781	1777	1575	1781	1870	1539	1781	1870	1585
Q Serve(g_s), s	2.4	14.5	14.6	2.2	19.9	0.7	7.0	4.2	0.3	5.6	4.3	0.0
Cycle Q Clear(g_c), s	2.4	14.5	14.6	2.2	19.9	0.7	7.0	4.2	0.3	5.6	4.3	0.0
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	476	471	349	1424	631	200	211	174	207	225	
V/C Ratio(X)	0.46	0.73	0.73	0.16	0.72	0.06	0.78	0.48	0.04	0.62	0.47	
Avail Cap(c_a), veh/h	2949	752	744	349	2587	1147	652	677	557	869	905	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.9	27.3	27.3	27.4	20.7	4.6	35.4	34.1	32.4	34.5	33.6	0.0
Incr Delay (d2), s/veh	1.7	2.6	2.7	0.3	0.8	0.0	7.6	2.0	0.1	3.6	1.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.2	6.2	0.9	7.7	0.4	3.4	2.0	0.1	2.6	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.6	29.9	30.0	27.7	21.5	4.6	43.0	36.1	32.5	38.1	35.4	0.0
LnGrp LOS	D	C	C	C	C	A	D	D	C	D	D	
Approach Vol, veh/h		797			1118			264			233	
Approach Delay, s/veh		31.1			21.3			40.1			36.9	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	39.2	15.8	15.6	22.4	28.3	15.2	16.2
Change Period (Y+Rc), s	6.0	6.3	6.3	* 6.3	6.3	* 6.3	6.0	6.3
Max Green Setting (Gmax), s	70.0	59.7	40.0	* 30	10.0	* 35	30.0	39.7
Max Q Clear Time (g_c+I1), s	4.4	21.9	7.6	6.2	4.2	16.6	9.0	6.3
Green Ext Time (p_c), s	0.5	11.0	0.5	0.6	0.1	4.7	0.5	0.6

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	28.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

MOVEMENT SUMMARY

Site: 32 [32: Tumwater Blvd & New Market St (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Tumwater Blvd & New Market St
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: New Market St															
3	L2	All MCs	26	2.0	26	2.0	0.031	6.4	LOS A	0.1	2.9	0.48	0.56	0.48	26.2
8	T1	All MCs	5	2.0	5	2.0	0.031	1.6	LOS A	0.1	2.9	0.48	0.56	0.48	23.4
18	R2	All MCs	21	2.0	21	2.0	0.025	2.6	LOS A	0.1	2.2	0.50	0.44	0.50	27.7
Approach			51	2.0	51	2.0	0.031	4.4	LOS A	0.1	2.9	0.49	0.51	0.49	26.4
East: Tumwater Blvd															
1	L2	All MCs	92	2.0	92	2.0	0.385	9.1	LOS A	2.6	65.8	0.23	0.33	0.23	27.7
6	T1	All MCs	1053	2.0	1053	2.0	0.385	2.3	LOS A	2.6	66.4	0.22	0.28	0.22	32.8
16	R2	All MCs	17	2.0	17	2.0	0.385	2.9	LOS A	2.6	66.4	0.21	0.25	0.21	28.1
Approach			1162	2.0	1162	2.0	0.385	2.9	LOS A	2.6	66.4	0.22	0.29	0.22	32.3
North: New Market St															
7	L2	All MCs	24	2.0	24	2.0	0.039	8.1	LOS A	0.1	3.4	0.57	0.72	0.57	25.8
4	T1	All MCs	1	2.0	1	2.0	0.039	3.4	LOS A	0.1	3.4	0.57	0.72	0.57	23.1
14	R2	All MCs	55	2.0	55	2.0	0.062	2.9	LOS A	0.2	5.8	0.56	0.52	0.56	27.6
Approach			81	2.0	81	2.0	0.062	4.5	LOS A	0.2	5.8	0.56	0.58	0.56	26.9
West: Tumwater Blvd															
5	L2	All MCs	22	2.0	22	2.0	0.297	9.5	LOS A	1.8	46.2	0.33	0.32	0.33	27.7
2	T1	All MCs	727	2.0	727	2.0	0.297	2.7	LOS A	1.8	46.9	0.32	0.31	0.32	32.6
12	R2	All MCs	99	2.0	99	2.0	0.297	3.2	LOS A	1.8	46.9	0.31	0.30	0.31	27.9
Approach			847	2.0	847	2.0	0.297	2.9	LOS A	1.8	46.9	0.32	0.31	0.32	31.9
All Vehicles			2141	2.0	2141	2.0	0.385	3.0	LOS A	2.6	66.4	0.28	0.31	0.28	31.7

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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HCM 6th Signalized Intersection Summary
33: Capitol Blvd SE & Tumwater Blvd SW/Tumwater Blvd SE

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	213	334	19	298	36	282	421	24	76	600	267
Future Volume (veh/h)	42	213	334	19	298	36	282	421	24	76	600	267
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	237	187	21	331	34	313	468	25	84	667	114
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	370	511	51	570	58	446	1239	66	121	1068	467
Arrive On Green	0.05	0.20	0.20	0.03	0.18	0.18	0.13	0.36	0.36	0.07	0.30	0.30
Sat Flow, veh/h	1781	1870	1551	1781	3248	331	3456	3428	183	1781	3554	1554
Grp Volume(v), veh/h	47	237	187	21	180	185	313	242	251	84	667	114
Grp Sat Flow(s),veh/h/ln	1781	1870	1551	1781	1777	1802	1728	1777	1834	1781	1777	1554
Q Serve(g_s), s	1.8	8.3	6.6	0.8	6.6	6.7	6.2	7.2	7.2	3.3	11.6	4.0
Cycle Q Clear(g_c), s	1.8	8.3	6.6	0.8	6.6	6.7	6.2	7.2	7.2	3.3	11.6	4.0
Prop In Lane	1.00		1.00	1.00		0.18	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	91	370	511	51	312	316	446	642	663	121	1068	467
V/C Ratio(X)	0.52	0.64	0.37	0.41	0.58	0.59	0.70	0.38	0.38	0.69	0.62	0.24
Avail Cap(c_a), veh/h	747	777	849	623	738	748	1450	862	890	498	3464	1515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	26.3	18.4	34.1	27.0	27.1	29.8	16.9	16.9	32.6	21.5	18.9
Incr Delay (d2), s/veh	1.7	1.9	0.4	2.0	1.7	1.7	2.0	0.4	0.4	6.9	0.7	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.7	2.2	0.4	2.8	2.9	2.6	2.8	2.9	1.6	4.5	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.8	28.2	18.9	36.1	28.7	28.8	31.9	17.3	17.3	39.5	22.3	19.2
LnGrp LOS	C	C	B	D	C	C	C	B	B	D	C	B
Approach Vol, veh/h		471			386			806			865	
Approach Delay, s/veh		25.1			29.2			23.0			23.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	32.1	8.0	20.4	15.2	27.8	9.6	18.9
Change Period (Y+Rc), s	6.0	6.3	6.0	6.3	6.0	6.3	6.0	6.3
Max Green Setting (Gmax), s	20.0	34.7	25.0	29.7	30.0	69.7	30.0	29.7
Max Q Clear Time (g_c+I1), s	5.3	9.2	2.8	10.3	8.2	13.6	3.8	8.7
Green Ext Time (p_c), s	0.1	3.5	0.0	1.9	1.0	7.0	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	24.5
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
34: Littlerock Rd SW & 77th Way SW/Black Hills School Drwy/77th Way SW

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	1	12	1	2	23	33	214	2	27	404	161
Future Volume (veh/h)	65	1	12	1	2	23	33	214	2	27	404	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.99	0.98		0.99	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	71	1	2	1	2	3	36	233	2	29	439	164
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	338	68	135	340	82	123	326	784	7	609	538	201
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.03	0.42	0.42	0.03	0.41	0.41
Sat Flow, veh/h	1394	555	1110	1396	674	1011	1795	1866	16	1795	1297	485
Grp Volume(v), veh/h	71	0	3	1	0	5	36	0	235	29	0	603
Grp Sat Flow(s),veh/h/ln	1394	0	1665	1396	0	1685	1795	0	1882	1795	0	1782
Q Serve(g_s), s	2.0	0.0	0.1	0.0	0.0	0.1	0.5	0.0	3.5	0.4	0.0	12.5
Cycle Q Clear(g_c), s	2.1	0.0	0.1	0.1	0.0	0.1	0.5	0.0	3.5	0.4	0.0	12.5
Prop In Lane	1.00		0.67	1.00		0.60	1.00		0.01	1.00		0.27
Lane Grp Cap(c), veh/h	338	0	203	340	0	205	326	0	790	609	0	739
V/C Ratio(X)	0.21	0.00	0.01	0.00	0.00	0.02	0.11	0.00	0.30	0.05	0.00	0.82
Avail Cap(c_a), veh/h	1236	0	1276	1240	0	1291	697	0	1442	1420	0	1365
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.1	0.0	16.1	16.2	0.0	16.2	8.5	0.0	8.0	6.7	0.0	10.8
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.0	0.1	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.2	0.0	16.2	16.2	0.0	16.2	8.5	0.0	8.1	6.8	0.0	11.7
LnGrp LOS	B		B	B		B	A		A	A		B
Approach Vol, veh/h		74			6			271			632	
Approach Delay, s/veh		17.2			16.2			8.2			11.4	
Approach LOS		B			B			A			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.4	23.3		11.1	7.1	23.5		11.1
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s	10.0	32.0		32.0	20.0	32.0		32.0
Max Q Clear Time (g_c+I1), s	2.5	14.5		2.1	2.4	5.5		4.1
Green Ext Time (p_c), s	0.0	2.5		0.0	0.0	0.8		0.1

Intersection Summary		
HCM 6th Ctrl Delay, s/veh		11.0
HCM 6th LOS		B

HCM 6th Signalized Intersection Summary
35: Old Hwy 99 SE/Capitol Blvd SE & Driveway/Henderson Blvd SE

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	114	0	60	0	609	79	80	896	0
Future Volume (veh/h)	0	0	0	114	0	60	0	609	79	80	896	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	0.98		0.95	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870	1870	1870	1870	1870	1870	1945
Adj Flow Rate, veh/h	0	0	0	121	0	10	0	648	81	85	953	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	216	0	340	0	167	147	719	90	325	1189	1048
Arrive On Green	0.00	0.00	0.00	0.11	0.00	0.11	0.00	0.44	0.44	0.07	0.64	0.00
Sat Flow, veh/h	0	1945	0	1741	0	1508	589	1624	203	1781	1870	1648
Grp Volume(v), veh/h	0	0	0	121	0	10	0	0	729	85	953	0
Grp Sat Flow(s),veh/h/ln	0	1945	0	1741	0	1508	589	0	1827	1781	1870	1648
Q Serve(g_s), s	0.0	0.0	0.0	3.2	0.0	0.3	0.0	0.0	18.1	1.1	18.5	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.2	0.0	0.3	0.0	0.0	18.1	1.1	18.5	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	0	216	0	340	0	167	147	0	809	325	1189	1048
V/C Ratio(X)	0.00	0.00	0.00	0.36	0.00	0.06	0.00	0.00	0.90	0.26	0.80	0.00
Avail Cap(c_a), veh/h	0	589	0	852	0	610	486	0	1860	1111	2478	2184
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	20.8	0.0	19.5	0.0	0.0	12.6	9.8	6.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	1.6	0.2	0.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.2	0.0	0.1	0.0	0.0	5.5	0.3	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	21.0	0.0	19.5	0.0	0.0	14.2	9.9	7.1	0.0
LnGrp LOS				C		B			B	A	A	
Approach Vol, veh/h		0			131			729			1038	
Approach Delay, s/veh		0.0			20.9			14.2			7.3	
Approach LOS					C			B			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	9.4	27.9		11.6		37.3		11.6				
Change Period (Y+Rc), s	6.0	6.2		6.2		6.2		6.2				
Max Green Setting (Gmax), s	25.0	49.8		14.8		64.8		19.8				
Max Q Clear Time (g_c+I1), s	13.1	20.1		0.0		20.5		5.2				
Green Ext Time (p_c), s	0.0	1.6		0.0		2.3		0.0				

Intersection Summary		
HCM 6th Ctrl Delay, s/veh		10.9
HCM 6th LOS		B

HCM 6th Signalized Intersection Summary
36: Old Hwy 99 SE & 88th Ave SE/Driveway

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	0	37	0	0	0	6	0	395	0	729	143
Future Volume (veh/h)	205	0	37	0	0	0	6	0	395	0	729	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1961	1885	1885	1961	1885	1885	1885	1885	1885	1885	1961
Adj Flow Rate, veh/h	238	0	10	0	0	0	7	0	259	0	848	111
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	463	0	296	0	363	0	236	0	865	136	1025	899
Arrive On Green	0.19	0.00	0.19	0.00	0.00	0.00	0.54	0.00	0.54	0.00	0.54	0.54
Sat Flow, veh/h	1771	0	1600	0	1961	0	590	0	1590	1129	1885	1654
Grp Volume(v), veh/h	238	0	10	0	0	0	7	0	259	0	848	111
Grp Sat Flow(s),veh/h/ln	1771	0	1600	0	1961	0	590	0	1590	1129	1885	1654
Q Serve(g_s), s	6.7	0.0	0.3	0.0	0.0	0.0	0.5	0.0	4.7	0.0	19.8	1.7
Cycle Q Clear(g_c), s	6.7	0.0	0.3	0.0	0.0	0.0	20.3	0.0	4.7	0.0	19.8	1.7
Prop In Lane	1.00		1.00	0.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	463	0	296	0	363	0	236	0	865	136	1025	899
V/C Ratio(X)	0.51	0.00	0.03	0.00	0.00	0.00	0.03	0.00	0.30	0.00	0.83	0.12
Avail Cap(c_a), veh/h	963	0	747	0	554	0	302	0	1042	1007	2479	2175
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	0.0	17.7	0.0	0.0	0.0	18.5	0.0	6.6	0.0	10.0	5.9
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	1.8	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.0	0.0	5.1	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.2	0.0	17.8	0.0	0.0	0.0	18.5	0.0	6.8	0.0	11.8	6.0
LnGrp LOS	C		B				B		A		B	A
Approach Vol, veh/h		248			0			266			959	
Approach Delay, s/veh		21.1			0.0			7.1			11.1	
Approach LOS		C						A			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	36.1	17.0	36.1	17.0
Change Period (Y+Rc), s	7.2	7.2	7.2	7.2
Max Green Setting (Gmax), s	34.8	24.8	69.8	15.0
Max Q Clear Time (g_c+I1), s	22.3	8.7	21.8	0.0
Green Ext Time (p_c), s	1.2	0.6	7.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	12.1
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
37: I-5 SB onramp/I-5 SB offramp & 93rd Ave SW

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	194	51	163	124	0	0	0	0	379	0	460
Future Volume (veh/h)	0	194	51	163	124	0	0	0	0	379	0	460
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1826	1826	1826	1826	0				1826	1899	1826
Adj Flow Rate, veh/h	0	220	15	185	141	0				431	0	186
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	5	5	5	5	0				5	5	5
Cap, veh/h	0	544	461	560	912	0				574	0	481
Arrive On Green	0.00	0.30	0.30	0.11	0.50	0.00				0.32	0.00	0.32
Sat Flow, veh/h	0	1826	1547	1739	1826	0				1809	0	1513
Grp Volume(v), veh/h	0	220	15	185	141	0				431	0	186
Grp Sat Flow(s),veh/h/ln	0	1826	1547	1739	1826	0				1809	0	1513
Q Serve(g_s), s	0.0	4.8	0.3	3.3	2.1	0.0				10.7	0.0	4.8
Cycle Q Clear(g_c), s	0.0	4.8	0.3	3.3	2.1	0.0				10.7	0.0	4.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	544	461	560	912	0				574	0	481
V/C Ratio(X)	0.00	0.40	0.03	0.33	0.15	0.00				0.75	0.00	0.39
Avail Cap(c_a), veh/h	0	1451	1230	1060	1451	0				1437	0	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.1	12.5	9.1	6.8	0.0				15.4	0.0	13.4
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.3	0.1	0.0				2.0	0.0	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.7	0.1	1.0	0.6	0.0				3.7	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	14.6	12.6	9.5	6.9	0.0				17.4	0.0	13.9
LnGrp LOS		B	B	A	A					B		B
Approach Vol, veh/h		235			326						617	
Approach Delay, s/veh		14.5			8.4						16.3	
Approach LOS		B			A						B	

Timer - Assigned Phs	1	2		4		6			
Phs Duration (G+Y+Rc), s	10.1	19.6		20.6		29.7			
Change Period (Y+Rc), s	4.6	4.6		4.6		4.6			
Max Green Setting (Gmax), s	20.0	40.0		40.0		40.0			
Max Q Clear Time (g_c+I1), s	5.3	6.8		12.7		4.1			
Green Ext Time (p_c), s	0.4	1.3		3.2		0.7			

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	13.8
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
38: I-5 NB offramp/I-5 NB onramp & 93rd Ave SW

Existing
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	448	0	0	244	354	19	0	92	0	0	0
Future Volume (veh/h)	137	448	0	0	244	354	19	0	92	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1826	1826	0	0	1826	1826	1826	1899	1826			
Adj Flow Rate, veh/h	154	503	0	0	274	0	21	0	11			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	5	5	0	0	5	5	5	5	5			
Cap, veh/h	738	1170	0	0	619		85	0	71			
Arrive On Green	0.15	0.64	0.00	0.00	0.34	0.00	0.05	0.00	0.05			
Sat Flow, veh/h	1739	1826	0	0	1826	1547	1809	0	1511			
Grp Volume(v), veh/h	154	503	0	0	274	0	21	0	11			
Grp Sat Flow(s),veh/h/ln	1739	1826	0	0	1826	1547	1809	0	1511			
Q Serve(g_s), s	1.3	4.0	0.0	0.0	3.4	0.0	0.3	0.0	0.2			
Cycle Q Clear(g_c), s	1.3	4.0	0.0	0.0	3.4	0.0	0.3	0.0	0.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	738	1170	0	0	619		85	0	71			
V/C Ratio(X)	0.21	0.43	0.00	0.00	0.44		0.25	0.00	0.16			
Avail Cap(c_a), veh/h	1664	2477	0	0	2477		2454	0	2050			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	3.8	2.6	0.0	0.0	7.6	0.0	13.5	0.0	13.5			
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.0	0.2	0.0	0.6	0.0	0.4			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.0	0.7	0.0	0.1	0.0	0.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	4.0	2.7	0.0	0.0	7.8	0.0	14.1	0.0	13.9			
LnGrp LOS	A	A			A		B		B			
Approach Vol, veh/h		657			274			32				
Approach Delay, s/veh		3.0			7.8			14.0				
Approach LOS		A			A			B				

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	23.5		8.9	14.6		6.0
Change Period (Y+Rc), s	4.6		4.6	4.6		4.6
Max Green Setting (Gmax), s	40.0		20.0	40.0		40.0
Max Q Clear Time (g_c+I1), s	6.0		3.3	5.4		2.3
Green Ext Time (p_c), s	0.9		0.3	0.5		0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	4.7
HCM 6th LOS	A

Notes

User approved changes to right turn type.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	308	157	104	310	166	76
Future Vol, veh/h	308	157	104	310	166	76
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	335	171	113	337	180	83

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	506	0	984	421
Stage 1	-	-	-	-	421	-
Stage 2	-	-	-	-	563	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1059	-	275	632
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	570	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1059	-	239	632
Mov Cap-2 Maneuver	-	-	-	-	239	-
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	495	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	2.2	65.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	297	-	-	1059	-
HCM Lane V/C Ratio	0.886	-	-	0.107	-
HCM Control Delay (s/veh)	65.5	-	-	8.8	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q (veh)	8	-	-	0.4	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	604	47	99	277	58	200
Future Vol, veh/h	604	47	99	277	58	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	435	400	-	220	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	728	57	119	334	70	241

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	785	0	1300	728
Stage 1	-	-	-	-	728	-
Stage 2	-	-	-	-	572	-
Critical Hdwy	-	-	4.11	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.209	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	838	-	179	425
Stage 1	-	-	-	-	480	-
Stage 2	-	-	-	-	567	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	838	-	154	425
Mov Cap-2 Maneuver	-	-	-	-	154	-
Stage 1	-	-	-	-	480	-
Stage 2	-	-	-	-	486	-

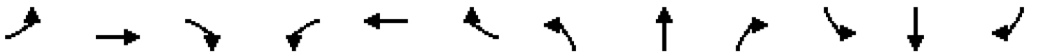
Approach	EB	WB	NB
HCM Control Delay, s/v	0	2.6	29.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	154	425	-	-	838	-
HCM Lane V/C Ratio	0.454	0.567	-	-	0.142	-
HCM Control Delay (s/veh)	46.5	24	-	-	10	-
HCM Lane LOS	E	C	-	-	B	-
HCM 95th %tile Q (veh)	2.1	3.4	-	-	0.5	-

Future (2045) Baseline

HCM Signalized Intersection Capacity Analysis
1: Crosby Blvd SW & Mottman Rd SW

2045 Baseline
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	285	19	0	20	40	32	418	130	50	530	280
Future Volume (vph)	96	285	19	0	20	40	32	418	130	50	530	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	16
Total Lost time (s)	5.0	5.0			5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99			0.91		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1826			1680		1752	1845	1568	1752	3505	1777
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1826			1680		1752	1845	1568	1752	3505	1777
Peak-hour factor, PHF	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Adj. Flow (vph)	123	365	24	0	26	51	41	536	167	64	679	359
RTOR Reduction (vph)	0	2	0	0	48	0	0	0	90	0	0	139
Lane Group Flow (vph)	123	387	0	0	29	0	41	536	77	64	679	220
Confl. Peds. (#/hr)			5	5								
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA			NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	3	3		4	4		1	6		5	2	
Permitted Phases									6			2
Actuated Green, G (s)	24.0	24.0			6.0		3.1	32.6	32.6	5.1	34.6	34.6
Effective Green, g (s)	24.0	24.0			6.0		3.1	32.6	32.6	5.1	34.6	34.6
Actuated g/C Ratio	0.27	0.27			0.07		0.04	0.37	0.37	0.06	0.39	0.39
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.5	3.5			2.5		2.5	2.5	2.5	2.5	2.5	2.5
Lane Grp Cap (vph)	479	499			114		61	685	582	101	1382	701
v/s Ratio Prot	0.07	c0.21			c0.02		0.02	c0.29		c0.04	0.19	
v/s Ratio Perm									0.05			0.12
v/c Ratio	0.26	0.78			0.26		0.67	0.78	0.13	0.63	0.49	0.31
Uniform Delay, d1	24.9	29.4			38.7		41.8	24.4	18.2	40.4	19.9	18.3
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	7.6			0.9		23.3	5.6	0.1	10.8	0.2	0.2
Delay (s)	25.2	37.0			39.6		65.1	30.0	18.3	51.2	20.1	18.5
Level of Service	C	D			D		E	C	B	D	C	B
Approach Delay (s/veh)		34.2			39.6			29.3			21.4	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	27.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	87.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
2: Crosby Blvd SW & Irving St SW

2045 Baseline
PM Peak Hour

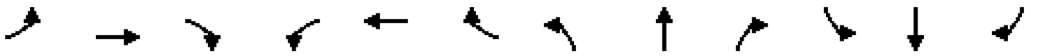
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	2	69	3	20	127	1	347	32	158	379	3
Future Volume (vph)	69	2	69	3	20	127	1	347	32	158	379	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	14
Total Lost time (s)		5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00	0.97		1.00	0.99	1.00	1.00		1.00	1.00	0.97
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected		0.95	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1752	1518		1833	1557	1746	1817		1751	1845	1626
Flt Permitted		0.71	1.00		0.96	1.00	0.51	1.00		0.28	1.00	1.00
Satd. Flow (perm)		1309	1518		1770	1557	936	1817		509	1845	1626
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	79	2	79	3	23	146	1	399	37	182	436	3
RTOR Reduction (vph)	0	0	67	0	0	93	0	3	0	0	0	1
Lane Group Flow (vph)	0	81	12	0	26	53	1	433	0	182	436	2
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Confl. Bikes (#/hr)	2		2	2		2	2		2	2		2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	pm+pt	NA	Perm	Perm	NA	pm+ov	Perm	NA		pm+pt	NA	Perm
Protected Phases	3	8			4	5		6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Actuated Green, G (s)		8.2	8.2		8.2	19.7	19.2	19.2		35.7	35.7	35.7
Effective Green, g (s)		8.2	8.2		8.2	19.7	19.2	19.2		35.7	35.7	35.7
Actuated g/C Ratio		0.15	0.15		0.15	0.37	0.36	0.36		0.66	0.66	0.66
Clearance Time (s)		5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)		2.5	2.5		2.5	2.5	2.5	2.5		2.5	2.5	2.5
Lane Grp Cap (vph)		199	230		269	713	333	647		602	1222	1076
v/s Ratio Prot						0.02		c0.24		0.06	c0.24	
v/s Ratio Perm		c0.06	0.01		0.01	0.02	0.00			0.14		0.00
v/c Ratio		0.41	0.05		0.10	0.07	0.00	0.67		0.30	0.36	0.00
Uniform Delay, d1		20.7	19.5		19.7	11.2	11.2	14.7		4.8	4.0	3.1
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		1.0	0.1		0.1	0.0	0.0	2.4		0.2	0.1	0.0
Delay (s)		21.6	19.6		19.8	11.2	11.2	17.0		5.1	4.2	3.1
Level of Service		C	B		B	B	B	B		A	A	A
Approach Delay (s/veh)		20.6			12.5			17.0			4.4	
Approach LOS		C			B			B			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	53.9	Sum of lost time (s)	20.0
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
3: Sunset Way SE & Capitol Blvd SE & Carlyon Ave SE

2045 Baseline
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	300	60	0	0	59	21	17	3	0	20	10	670
Future Volume (vph)	300	60	0	0	59	21	17	3	0	20	10	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	12	12	11	12	12	16	12	9	9	12
Total Lost time (s)	6.0	6.0			6.0			6.0			6.0	6.0
Lane Util. Factor	0.95	0.95			1.00			1.00			1.00	0.88
Frpb, ped/bikes	1.00	1.00			0.99			1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	1.00			0.96			1.00			1.00	0.85
Flt Protected	0.95	0.97			1.00			0.96			0.97	1.00
Satd. Flow (prot)	1681	1598			1721			2025			1616	2787
Flt Permitted	0.95	0.97			1.00			0.96			1.00	1.00
Satd. Flow (perm)	1681	1598			1721			2025			1670	2787
Peak-hour factor, PHF	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	380	76	0	0	75	27	22	4	0	25	13	848
RTOR Reduction (vph)	0	0	0	0	15	0	0	0	0	0	0	0
Lane Group Flow (vph)	228	228	0	0	87	0	0	26	0	0	38	848
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Confl. Bikes (#/hr)	2		2	2		2	2		2	2		2
Turn Type	Split	NA			NA		Split	NA		Perm	NA	custom
Protected Phases	4	4		1	1		2	2			3	8
Permitted Phases										3		
Actuated Green, G (s)	31.2	31.2			5.8			4.9			1.8	39.0
Effective Green, g (s)	31.2	31.2			5.8			4.9			1.8	39.0
Actuated g/C Ratio	0.46	0.46			0.09			0.07			0.03	0.58
Clearance Time (s)	6.0	6.0			6.0			6.0			6.0	6.0
Vehicle Extension (s)	5.0	5.0			5.0			5.0			5.0	5.0
Lane Grp Cap (vph)	774	736			147			146			44	1605
v/s Ratio Prot	0.14	0.14			c0.05			c0.01				c0.30
v/s Ratio Perm											0.02	
v/c Ratio	0.29	0.31			0.59			0.18			0.86	0.53
Uniform Delay, d1	11.4	11.5			29.8			29.5			32.8	8.7
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	0.4	0.5			9.4			1.2			89.7	0.6
Delay (s)	11.8	12.0			39.2			30.7			122.5	9.3
Level of Service	B	B			D			C			F	A
Approach Delay (s/veh)		11.9			39.2			30.7			14.2	
Approach LOS		B			D			C			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	67.7	Sum of lost time (s)	24.0
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
4: North 2nd Ave SW & Custer Way SW

2045 Baseline
PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	160	190	10	100	1010	240
Future Volume (vph)	160	190	10	100	1010	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	12	11	12
Total Lost time (s)	6.0	6.0	6.2		6.0	6.0
Lane Util. Factor	1.00	1.00	1.00		0.95	0.95
Frpb, ped/bikes	1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.88		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	0.97
Satd. Flow (prot)	1787	1599	1560		1641	1733
Flt Permitted	0.95	1.00	1.00		0.95	0.97
Satd. Flow (perm)	1787	1599	1560		1641	1733
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	184	218	11	115	1161	276
RTOR Reduction (vph)	0	190	103	0	0	0
Lane Group Flow (vph)	184	28	23	0	708	729
Confl. Peds. (#/hr)	6			5	5	
Confl. Bikes (#/hr)	2			2	2	
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	Prot	Prot	NA		Split	NA
Protected Phases	3	3	2		1	1
Permitted Phases						
Actuated Green, G (s)	13.2	13.2	11.1		53.0	53.0
Effective Green, g (s)	13.2	13.2	11.1		53.0	53.0
Actuated g/C Ratio	0.13	0.13	0.11		0.52	0.52
Clearance Time (s)	6.0	6.0	6.2		6.0	6.0
Vehicle Extension (s)	6.0	6.0	6.0		3.0	3.0
Lane Grp Cap (vph)	230	206	169		849	896
v/s Ratio Prot	c0.10	0.02	c0.02		c0.43	0.42
v/s Ratio Perm						
v/c Ratio	0.80	0.14	0.14		0.83	0.81
Uniform Delay, d1	43.3	39.5	41.3		21.0	20.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	20.8	0.9	1.1		7.1	5.7
Delay (s)	64.2	40.4	42.4		28.0	26.3
Level of Service	E	D	D		C	C
Approach Delay (s/veh)	51.3		42.4			27.2
Approach LOS	D		D			C

Intersection Summary			
HCM 2000 Control Delay (s/veh)	33.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	102.4	Sum of lost time (s)	21.4
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

MOVEMENT SUMMARY

Site: 24 [5: Custer Way SW & Boston St SW (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Custer Way SW & Boston St SW
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Boston St SW															
18	R2	All MCs	172	1.0	172	1.0	0.301	5.3	LOS A	1.3	32.1	0.68	0.74	0.68	23.5
Approach			172	1.0	172	1.0	0.301	5.3	LOS A	1.3	32.1	0.68	0.74	0.68	23.5
East: Custer Way															
1	L2	All MCs	551	1.0	551	1.0	0.703	5.5	LOS A	0.0	0.0	0.00	0.43	0.00	23.8
6	T1	All MCs	334	1.0	334	1.0	0.703	0.9	LOS A	0.0	0.0	0.00	0.43	0.00	24.0
16	R2	All MCs	1	1.0	1	1.0	0.703	2.4	LOS A	0.0	0.0	0.00	0.43	0.00	22.1
Approach			886	1.0	886	1.0	0.703	3.7	LOS A	0.0	0.0	0.00	0.43	0.00	23.9
North: Boston St SW															
7	L2	All MCs	1	1.0	1	1.0	0.005	5.8	LOS A	0.0	0.7	0.66	0.44	0.66	20.5
4	T1	All MCs	1	1.0	1	1.0	0.005	5.3	LOS A	0.0	0.7	0.66	0.44	0.66	20.5
14	R2	All MCs	1	1.0	1	1.0	0.005	5.3	LOS A	0.0	0.7	0.66	0.44	0.66	20.5
Approach			3	1.0	3	1.0	0.005	5.5	LOS A	0.0	0.7	0.66	0.44	0.66	20.5
West: Custer Way															
2	T1	All MCs	1000	1.0	1000	1.0	0.604	6.8	LOS A	5.6	141.6	0.77	0.75	0.96	23.2
12	R2	All MCs	195	1.0	195	1.0	0.604	6.8	LOS A	5.6	141.6	0.77	0.73	0.93	23.3
Approach			1195	1.0	1195	1.0	0.604	6.8	LOS A	5.6	141.6	0.77	0.74	0.95	23.2
All Vehicles			2257	1.0	2257	1.0	0.703	5.5	LOS A	5.6	141.6	0.46	0.62	0.56	23.5

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

Site: 24 [6: Custer Way SW & Capitol Blvd (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Custer Way SW & Capitol Blvd
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Capitol Blvd															
3	L2	All MCs	22	1.0	22	1.0	0.459	13.9	LOS B	2.4	60.5	0.76	0.85	0.89	26.3
8	T1	All MCs	225	1.0	225	1.0	0.459	8.1	LOS A	2.4	60.5	0.76	0.85	0.89	28.1
18	R2	All MCs	539	1.0	539	1.0	0.740	10.3	LOS B	6.0	152.4	0.88	1.01	1.24	25.7
Approach			787	1.0	787	1.0	0.740	9.8	LOS A	6.0	152.4	0.84	0.96	1.13	26.1
East: Custer Way															
1	L2	All MCs	381	1.0	381	1.0	0.388	7.5	LOS A	2.5	63.8	0.61	0.62	0.61	25.6
6	T1	All MCs	639	1.0	639	1.0	0.529	2.1	LOS A	4.2	105.3	0.67	0.32	0.67	23.8
16	R2	All MCs	2	1.0	2	1.0	0.529	2.6	LOS A	4.2	105.3	0.67	0.32	0.67	23.3
Approach			1022	1.0	1022	1.0	0.529	4.1	LOS A	4.2	105.3	0.65	0.43	0.65	24.5
North: Capitol Blvd															
7	L2	All MCs	12	1.0	12	1.0	0.360	11.2	LOS B	1.8	44.6	0.72	0.78	0.77	22.8
4	T1	All MCs	302	1.0	302	1.0	0.360	6.2	LOS A	1.8	46.5	0.72	0.77	0.77	29.3
14	R2	All MCs	180	1.0	180	1.0	0.360	5.7	LOS A	1.8	46.5	0.72	0.76	0.76	23.1
Approach			494	1.0	494	1.0	0.360	6.1	LOS A	1.8	46.5	0.72	0.77	0.76	26.5
West: Custer Way															
5	L2	All MCs	101	1.0	101	1.0	0.665	11.1	LOS B	5.5	138.5	0.79	0.85	1.04	12.8
2	T1	All MCs	899	1.0	899	1.0	0.665	6.6	LOS A	5.5	138.5	0.79	0.85	1.04	23.2
12	R2	All MCs	124	1.0	124	1.0	0.665	7.4	LOS A	5.4	135.3	0.79	0.85	1.05	26.2
Approach			1124	1.0	1124	1.0	0.665	7.1	LOS A	5.5	138.5	0.79	0.85	1.04	22.5
All Vehicles			3427	1.0	3427	1.0	0.740	6.7	LOS A	6.0	152.4	0.75	0.74	0.91	24.2

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

Site: 24 [7: Custer Way/North St & Cleveland Ave (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Custer Way/North St & Cleveland Ave
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Cleveland Ave															
3	L2	All MCs	731	1.0	731	1.0	0.870	22.1	LOS D	13.9	350.8	1.00	1.16	1.70	22.9
8	T1	All MCs	108	1.0	108	1.0	0.242	8.4	LOS A	1.1	28.2	0.66	0.69	0.66	15.1
18	R2	All MCs	11	1.0	11	1.0	0.242	8.7	LOS A	1.1	28.2	0.66	0.69	0.66	26.4
Approach			849	1.0	849	1.0	0.870	20.2	LOS C	13.9	350.8	0.95	1.10	1.55	22.1
East: North St															
1	L2	All MCs	3	1.0	3	1.0	0.257	8.4	LOS A	1.4	34.9	0.73	0.51	0.73	26.6
6	T1	All MCs	180	1.0	180	1.0	0.257	3.3	LOS A	1.4	34.9	0.73	0.51	0.73	23.7
16	R2	All MCs	65	1.0	65	1.0	0.134	5.7	LOS A	0.6	15.0	0.69	0.70	0.69	22.5
Approach			247	1.0	247	1.0	0.257	4.0	LOS A	1.4	34.9	0.72	0.56	0.72	23.5
North: Cleveland Ave															
7	L2	All MCs	140	1.0	140	1.0	0.433	15.8	LOS B	3.4	86.0	0.96	0.85	1.05	20.4
4	T1	All MCs	258	1.0	258	1.0	0.433	9.4	LOS A	3.8	94.8	0.98	0.82	1.04	26.9
14	R2	All MCs	86	1.0	86	1.0	0.433	8.9	LOS A	3.8	94.8	0.99	0.80	1.04	22.0
Approach			484	1.0	484	1.0	0.433	11.2	LOS B	3.8	94.8	0.98	0.82	1.05	23.7
West: Custer Way															
5	L2	All MCs	65	1.0	65	1.0	0.575	8.6	LOS A	3.9	98.2	0.68	0.63	0.77	13.0
2	T1	All MCs	398	1.0	398	1.0	0.575	3.9	LOS A	3.9	98.2	0.68	0.63	0.77	23.6
12	R2	All MCs	946	1.0	946	1.0	0.940	12.2	LOS D	17.6	443.6	1.00	1.27	1.63	24.7
Approach			1409	1.0	1409	1.0	0.940	9.7	LOS A	17.6	443.6	0.90	1.06	1.35	23.8
All Vehicles			2989	1.0	2989	1.0	0.940	12.4	LOS B	17.6	443.6	0.91	0.99	1.30	23.2

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection	
Intersection Delay, s/veh	119.7
Intersection LOS	F

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	87	593	460	30	130	140
Future Vol, veh/h	87	593	460	30	130	140
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	102	698	541	35	153	165
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay, s/veh	186.2	80.2	23.9
HCM LOS	F	F	C

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	13%	48%
Vol Thru, %	94%	0%	52%
Vol Right, %	6%	87%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	490	680	270
LT Vol	0	87	130
Through Vol	460	0	140
RT Vol	30	593	0
Lane Flow Rate	576	800	318
Geometry Grp	1	1	1
Degree of Util (X)	1.044	1.346	0.627
Departure Headway (Hd)	7.417	6.223	8.142
Convergence, Y/N	Yes	Yes	Yes
Cap	496	592	448
Service Time	5.417	4.223	6.142
HCM Lane V/C Ratio	1.161	1.351	0.71
HCM Control Delay, s/veh	80.2	186.2	23.9
HCM Lane LOS	F	F	C
HCM 95th-tile Q	15.2	33.7	4.2

Intersection	
Int Delay, s/veh	17.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	110	200	170	70	220	330
Future Vol, veh/h	110	200	170	70	220	330
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	122	222	189	78	244	367

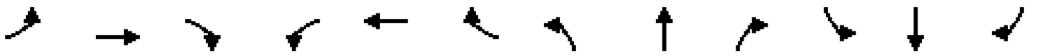
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1083	228	0	0	267	0
Stage 1	228	-	-	-	-	-
Stage 2	855	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	241	814	-	-	1303	-
Stage 1	812	-	-	-	-	-
Stage 2	418	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	196	814	-	-	1303	-
Mov Cap-2 Maneuver	196	-	-	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	340	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	56.9	0	3.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	384	1303	-
HCM Lane V/C Ratio	-	-	0.897	0.188	-
HCM Control Delay (s/veh)	-	-	56.9	8.4	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q (veh)	-	-	9.2	0.7	-

HCM 6th Signalized Intersection Summary
10: Capitol Blvd SE & E St/Tumwater Valley Dr SE

2045 Baseline
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	0	180	0	0	0	150	430	0	0	520	20
Future Volume (veh/h)	110	0	180	0	0	0	150	430	0	0	520	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		1.00	1.00		1.00	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1961	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	121	0	0	0	0	0	165	473	0	0	571	18
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	384	0		0	276		210	1974	0	4	1010	32
Arrive On Green	0.15	0.00	0.00	0.00	0.00	0.00	0.12	0.55	0.00	0.00	0.29	0.29
Sat Flow, veh/h	1408	0	1598	0	1885	1662	1795	3676	0	1795	3539	111
Grp Volume(v), veh/h	121	0	0	0	0	0	165	473	0	0	289	300
Grp Sat Flow(s),veh/h/ln	1408	0	1598	0	1885	1662	1795	1791	0	1795	1791	1859
Q Serve(g_s), s	3.2	0.0	0.0	0.0	0.0	0.0	3.6	2.8	0.0	0.0	5.5	5.6
Cycle Q Clear(g_c), s	3.2	0.0	0.0	0.0	0.0	0.0	3.6	2.8	0.0	0.0	5.5	5.6
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.00	1.00		0.06
Lane Grp Cap(c), veh/h	384	0		0	276		210	1974	0	4	511	530
V/C Ratio(X)	0.31	0.00		0.00	0.00		0.79	0.24	0.00	0.00	0.57	0.57
Avail Cap(c_a), veh/h	1048	0		0	1164		223	1974	0	223	973	1010
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	16.1	0.0	0.0	0.0	0.0	0.0	17.3	4.7	0.0	0.0	12.3	12.3
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.0	15.9	0.1	0.0	0.0	1.0	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	0.0	0.0	0.0	2.2	0.5	0.0	0.0	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.5	0.0	0.0	0.0	0.0	0.0	33.3	4.7	0.0	0.0	13.3	13.2
LnGrp LOS	B						C	A			B	B
Approach Vol, veh/h		121			0			638			589	
Approach Delay, s/veh		16.5			0.0			12.1			13.2	
Approach LOS		B						B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	28.3		12.0	10.7	17.6		12.0				
Change Period (Y+Rc), s	6.0	6.1		6.1	6.0	6.1		6.1				
Max Green Setting (Gmax), s	5.0	21.9		24.9	5.0	21.9		24.9				
Max Q Clear Time (g_c+I1), s	0.0	4.8		5.2	5.6	7.6		0.0				
Green Ext Time (p_c), s	0.0	2.8		0.6	0.0	3.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay, s/veh		13.0
HCM 6th LOS		B

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	17.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	150	0	0	300	290	0	0	0	270	0	10
Future Vol, veh/h	20	150	0	0	300	290	0	0	0	270	0	10
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	167	0	0	333	322	0	0	0	300	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	660	0	0	172	0	0	721	876	177	715	715	504
Stage 1	-	-	-	-	-	-	216	216	-	499	499	-
Stage 2	-	-	-	-	-	-	505	660	-	216	216	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	928	-	-	1405	-	-	343	287	866	346	356	568
Stage 1	-	-	-	-	-	-	786	724	-	554	544	-
Stage 2	-	-	-	-	-	-	549	460	-	786	724	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	924	-	-	1398	-	-	327	277	859	337	344	564
Mov Cap-2 Maneuver	-	-	-	-	-	-	327	277	-	337	344	-
Stage 1	-	-	-	-	-	-	762	702	-	537	542	-
Stage 2	-	-	-	-	-	-	536	458	-	763	702	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.1	0	0	63.9
HCM LOS			A	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	924	-	-	1398	-	-	342
HCM Lane V/C Ratio	-	0.024	-	-	-	-	-	0.91
HCM Control Delay (s/veh)	0	9	0	-	0	-	-	63.9
HCM Lane LOS	A	A	A	-	A	-	-	F
HCM 95th %tile Q (veh)	-	0.1	-	-	0	-	-	9

MOVEMENT SUMMARY

Site: 24 [12: 2nd Ave & Linwood Ave (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

2nd Ave & Linwood Ave
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: 2nd Ave															
3	L2	All MCs	253	1.0	253	1.0	0.638	11.5	LOS B	6.0	152.3	0.78	0.74	0.90	24.6
8	T1	All MCs	165	1.0	165	1.0	0.638	6.2	LOS A	6.0	152.3	0.78	0.74	0.90	14.1
18	R2	All MCs	176	1.0	176	1.0	0.638	6.7	LOS A	6.0	152.3	0.78	0.74	0.90	24.7
Approach			593	1.0	593	1.0	0.638	8.6	LOS A	6.0	152.3	0.78	0.74	0.90	21.7
East: Linwood Ave															
1	L2	All MCs	176	1.0	176	1.0	0.493	8.7	LOS A	3.6	91.7	0.73	0.64	0.77	24.9
6	T1	All MCs	253	1.0	253	1.0	0.493	3.7	LOS A	3.6	91.7	0.73	0.64	0.77	23.4
16	R2	All MCs	1	1.0	1	1.0	0.493	4.6	LOS A	3.6	91.7	0.73	0.64	0.77	15.2
Approach			430	1.0	430	1.0	0.493	5.8	LOS A	3.6	91.7	0.73	0.64	0.77	23.9
North: 2nd Ave															
7	L2	All MCs	88	1.0	88	1.0	0.560	14.2	LOS B	4.7	119.2	0.85	0.84	1.04	24.2
4	T1	All MCs	197	1.0	197	1.0	0.560	8.9	LOS A	4.7	119.2	0.85	0.84	1.04	26.4
14	R2	All MCs	122	1.0	122	1.0	0.560	9.4	LOS A	4.7	119.2	0.85	0.84	1.04	24.3
Approach			407	1.0	407	1.0	0.560	10.2	LOS B	4.7	119.2	0.85	0.84	1.04	25.2
West: Linwood Ave															
5	L2	All MCs	22	1.0	22	1.0	0.538	9.5	LOS A	4.2	106.3	0.74	0.65	0.82	12.8
2	T1	All MCs	275	1.0	275	1.0	0.538	4.5	LOS A	4.2	106.3	0.74	0.65	0.82	23.6
12	R2	All MCs	176	1.0	176	1.0	0.538	5.3	LOS A	4.2	106.3	0.74	0.65	0.82	25.4
Approach			473	1.0	473	1.0	0.538	5.0	LOS A	4.2	106.3	0.74	0.65	0.82	23.7
All Vehicles			1902	1.0	1902	1.0	0.638	7.4	LOS A	6.0	152.3	0.77	0.72	0.88	23.4

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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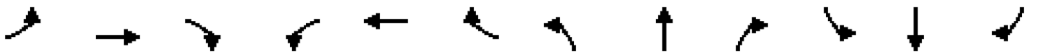
HCM 6th Signalized Intersection Summary
13: Capitol Blvd SE & Linwood Ave SW/Parking Lot

2045 Baseline
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	0	160	0	0	0	140	390	0	0	580	270
Future Volume (veh/h)	280	0	160	0	0	0	140	390	0	0	580	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	286	0	61	0	0	0	143	398	0	0	592	211
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	537	0	344	141	419	0	384	1917	0	475	855	304
Arrive On Green	0.22	0.00	0.22	0.00	0.00	0.00	0.08	0.54	0.00	0.00	0.33	0.33
Sat Flow, veh/h	1783	0	1549	1352	1885	0	1795	3676	0	1795	2566	913
Grp Volume(v), veh/h	286	0	61	0	0	0	143	398	0	0	413	390
Grp Sat Flow(s),veh/h/ln	1783	0	1549	1352	1885	0	1795	1791	0	1795	1791	1688
Q Serve(g_s), s	7.6	0.0	1.6	0.0	0.0	0.0	2.4	3.0	0.0	0.0	10.2	10.3
Cycle Q Clear(g_c), s	7.6	0.0	1.6	0.0	0.0	0.0	2.4	3.0	0.0	0.0	10.2	10.3
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		0.54
Lane Grp Cap(c), veh/h	537	0	344	141	419	0	384	1917	0	475	596	562
V/C Ratio(X)	0.53	0.00	0.18	0.00	0.00	0.00	0.37	0.21	0.00	0.00	0.69	0.69
Avail Cap(c_a), veh/h	1355	0	1054	761	1283	0	582	3139	0	648	1394	1314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	16.1	0.0	0.0	0.0	10.0	6.2	0.0	0.0	14.8	14.8
Incr Delay (d2), s/veh	0.6	0.0	0.2	0.0	0.0	0.0	0.4	0.0	0.0	0.0	1.1	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.5	0.0	0.0	0.0	0.8	0.8	0.0	0.0	3.6	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.0	0.0	16.3	0.0	0.0	0.0	10.5	6.2	0.0	0.0	15.9	15.9
LnGrp LOS	B		B				B	A			B	B
Approach Vol, veh/h		347			0			541			803	
Approach Delay, s/veh		18.5			0.0			7.4			15.9	
Approach LOS		B						A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	33.6		17.6	10.3	23.2		17.6				
Change Period (Y+Rc), s	6.0	6.2		6.2	6.0	6.2		6.2				
Max Green Setting (Gmax), s	5.0	44.8		34.8	10.0	39.8		34.8				
Max Q Clear Time (g_c+I1), s	0.0	5.0		9.6	4.4	12.3		0.0				
Green Ext Time (p_c), s	0.0	2.2		0.9	0.1	4.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay, s/veh		13.7	
HCM 6th LOS		B	

HCM 6th Signalized Intersection Summary
14: Henderson Blvd SE & Yelm Hwy SE

2045 Baseline
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	990	140	460	660	90	70	140	540	110	200	20
Future Volume (veh/h)	30	990	140	460	660	90	70	140	540	110	200	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	0.99		1.00	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1961	1885	1885	1885
Adj Flow Rate, veh/h	32	1065	145	495	710	91	75	151	0	118	215	11
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	305	1160	158	523	2238	287	168	227		174	380	312
Arrive On Green	0.37	0.37	0.37	0.29	0.70	0.70	0.12	0.12	0.00	0.04	0.20	0.20
Sat Flow, veh/h	683	3151	428	1795	3181	407	1154	1885	1662	1795	1885	1548
Grp Volume(v), veh/h	32	604	606	495	399	402	75	151	0	118	215	11
Grp Sat Flow(s),veh/h/ln	683	1791	1789	1795	1791	1798	1154	1885	1662	1795	1885	1548
Q Serve(g_s), s	4.2	43.5	43.7	36.5	11.5	11.5	8.5	10.4	0.0	5.0	13.9	0.8
Cycle Q Clear(g_c), s	4.2	43.5	43.7	36.5	11.5	11.5	11.4	10.4	0.0	5.0	13.9	0.8
Prop In Lane	1.00		0.24	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	305	659	658	523	1260	1265	168	227		174	380	312
V/C Ratio(X)	0.11	0.92	0.92	0.95	0.32	0.32	0.45	0.67		0.68	0.57	0.04
Avail Cap(c_a), veh/h	314	683	683	544	1306	1311	264	385		174	538	442
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	40.8	40.8	46.9	7.6	7.6	58.7	56.9	0.0	54.6	48.6	43.4
Incr Delay (d2), s/veh	0.2	17.1	17.6	26.4	0.1	0.1	0.7	1.3	0.0	8.4	1.6	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	22.0	22.1	19.9	4.2	4.2	2.5	5.0	0.0	1.9	6.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.5	57.9	58.4	73.3	7.8	7.8	59.4	58.1	0.0	63.0	50.2	43.4
LnGrp LOS	C	E	E	E	A	A	E	E		E	D	D
Approach Vol, veh/h		1242			1296			226			344	
Approach Delay, s/veh		57.4			32.8			58.5			54.4	
Approach LOS		E			C			E			D	

Timer - Assigned Phs	2	3	4	5	6	8
Phs Duration (G+Y+Rc), s	101.5	11.0	22.7	45.4	56.2	33.7
Change Period (Y+Rc), s	6.4	6.0	6.4	6.0	6.4	6.4
Max Green Setting (Gmax), s	98.6	5.0	27.6	41.0	51.6	38.6
Max Q Clear Time (g_c+I1), s	13.5	7.0	13.4	38.5	45.7	15.9
Green Ext Time (p_c), s	5.8	0.0	0.5	0.9	4.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	46.9
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	150	300	140	120	80
Future Vol, veh/h	40	150	300	140	120	80
Conflicting Peds, #/hr	0	0	0	0	0	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	120
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	43	160	319	149	128	85

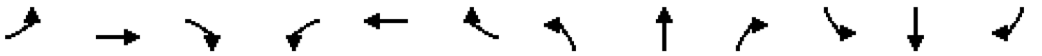
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	468	0	-	0	640	399
Stage 1	-	-	-	-	394	-
Stage 2	-	-	-	-	246	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1099	-	-	-	441	653
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	797	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1099	-	-	-	422	650
Mov Cap-2 Maneuver	-	-	-	-	422	-
Stage 1	-	-	-	-	654	-
Stage 2	-	-	-	-	797	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.8	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1099	-	-	-	422	650
HCM Lane V/C Ratio	0.039	-	-	-	0.303	0.131
HCM Control Delay (s/veh)	8.4	0	-	-	17.2	11.4
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q (veh)	0.1	-	-	-	1.3	0.4

HCM 6th Signalized Intersection Summary
16: Parking Lot/Lake Park Dr SW & Trosper Rd SW

2045 Baseline
PM Peak Hour



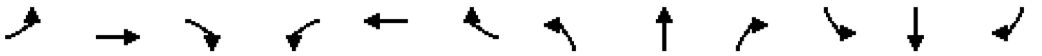
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	250	0	0	400	60	0	0	0	20	0	10
Future Volume (veh/h)	0	250	0	0	400	60	0	0	0	20	0	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	0.97		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	0	263	0	0	421	57	0	0	0	21	0	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	652	2109	0	843	1110	917	212	98	0	303	0	80
Arrive On Green	0.00	0.59	0.00	0.00	0.59	0.59	0.00	0.00	0.00	0.05	0.00	0.05
Sat Flow, veh/h	1795	3676	0	1795	1885	1557	1421	1885	0	1744	0	1531
Grp Volume(v), veh/h	0	263	0	0	421	57	0	0	0	21	0	6
Grp Sat Flow(s),veh/h/ln	1795	1791	0	1795	1885	1557	1421	1885	0	1744	0	1531
Q Serve(g_s), s	0.0	1.1	0.0	0.0	4.0	0.5	0.0	0.0	0.0	0.4	0.0	0.1
Cycle Q Clear(g_c), s	0.0	1.1	0.0	0.0	4.0	0.5	0.0	0.0	0.0	0.4	0.0	0.1
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	652	2109	0	843	1110	917	212	98	0	303	0	80
V/C Ratio(X)	0.00	0.12	0.00	0.00	0.38	0.06	0.00	0.00	0.00	0.07	0.00	0.08
Avail Cap(c_a), veh/h	911	3680	0	1102	1937	1600	761	827	0	977	0	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	3.1	0.0	0.0	3.7	3.0	0.0	0.0	0.0	15.4	0.0	15.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.0	0.0	0.7	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	3.1	0.0	0.0	3.8	3.0	0.0	0.0	0.0	15.5	0.0	15.5
LnGrp LOS		A			A	A				B		B
Approach Vol, veh/h		263			478			0			27	
Approach Delay, s/veh		3.1			3.7			0.0			15.5	
Approach LOS		A			A						B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	26.1		7.9	0.0	26.1		7.9				
Change Period (Y+Rc), s	6.0	6.1		6.1	6.0	6.1		6.1				
Max Green Setting (Gmax), s	5.0	34.9		14.9	5.0	34.9		14.9				
Max Q Clear Time (g_c+I1), s	0.0	6.0		0.0	0.0	3.1		2.4				
Green Ext Time (p_c), s	0.0	2.0		0.0	0.0	1.2		0.0				

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	3.9
HCM 6th LOS	A

HCM Signalized Intersection Capacity Analysis
17: Littlerock Rd SW/South 2nd Ave & Trosper Rd SW

2045 Baseline
PM Peak Hour



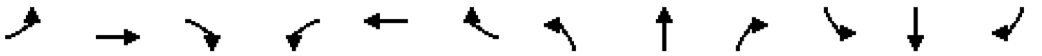
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	200	110	277	254	59	204	295	381	130	290	60
Future Volume (vph)	40	200	110	277	254	59	204	295	381	130	290	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	12	11	11	10	12	11	10	12	11	11
Total Lost time (s)	6.0	6.0		6.0	6.0		5.6	6.0	6.0	5.6	6.0	
Lane Util. Factor	1.00	0.95		0.91	0.91		1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.95		1.00	0.98		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1752	3074		1542	3124		1752	1783	1452	1752	3290	
Flt Permitted	0.95	1.00		0.95	0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1752	3074		1542	3124		1752	1783	1452	1752	3290	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	40	202	111	280	257	60	206	298	385	131	293	61
RTOR Reduction (vph)	0	72	0	0	10	0	0	0	142	0	16	0
Lane Group Flow (vph)	40	241	0	196	391	0	206	298	243	131	338	0
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Confl. Bikes (#/hr)	2		2	2		2			2	2		
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA		Split	NA		Prot	NA	pm+ov	Prot	NA	
Protected Phases	1	1		2	2		7	4	2	3	8	
Permitted Phases									4			
Actuated Green, G (s)	16.4	16.4		38.0	38.0		23.6	27.3	65.3	14.7	18.4	
Effective Green, g (s)	16.4	16.4		38.0	38.0		23.6	27.3	65.3	14.7	18.4	
Actuated g/C Ratio	0.14	0.14		0.32	0.32		0.20	0.23	0.54	0.12	0.15	
Clearance Time (s)	6.0	6.0		6.0	6.0		5.6	6.0	6.0	5.6	6.0	
Vehicle Extension (s)	2.5	2.5		3.0	3.0		3.0	2.5	3.0	3.0	2.5	
Lane Grp Cap (vph)	239	420		488	989		344	405	862	214	504	
v/s Ratio Prot	0.02	c0.08		c0.13	0.13		c0.12	c0.17	0.09	0.07	0.10	
v/s Ratio Perm									0.08			
v/c Ratio	0.17	0.57		0.40	0.40		0.60	0.74	0.28	0.61	0.67	
Uniform Delay, d1	45.8	48.5		32.1	32.0		43.9	43.0	14.7	49.9	47.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.2	1.6		2.5	1.2		2.8	6.4	0.1	5.1	3.2	
Delay (s)	46.0	50.1		34.6	33.2		46.7	49.4	14.9	55.1	51.1	
Level of Service	D	D		C	C		D	D	B	E	D	
Approach Delay (s/veh)		49.6			33.6			33.8			52.2	
Approach LOS		D			C			C			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	40.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	23.6
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
18: Tyee Dr SW/I-5 SB Ramp & Trosper Rd SW

2045 Baseline
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	560	10	190	219	181	40	140	260	351	362	367
Future Volume (vph)	190	560	10	190	219	181	40	140	260	351	362	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	16	11	11	11	13	13	16
Total Lost time (s)	4.6	4.6	4.6	4.6	4.6	4.0	4.6	4.6	4.6	4.6	4.6	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1694	3505	1515	1694	3505	1740	1694	1783	1516	1811	1906	1753
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1694	3505	1515	1694	3505	1740	1694	1783	1516	1811	1906	1753
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	194	571	10	194	223	185	41	143	265	358	369	374
RTOR Reduction (vph)	0	0	6	0	0	0	0	0	96	0	0	0
Lane Group Flow (vph)	194	571	4	194	223	185	41	143	169	358	369	374
Confl. Peds. (#/hr)			5	5			5					5
Confl. Bikes (#/hr)	2		2	2		2						
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Free	Split	NA	pt+ov	Split	NA	Free
Protected Phases	1	6		5	2		4	4	4 5	3	3	
Permitted Phases			6			Free						Free
Actuated Green, G (s)	20.8	50.3	50.3	20.9	50.4	140.0	16.6	16.6	42.1	33.8	33.8	140.0
Effective Green, g (s)	20.8	50.3	50.3	20.9	50.4	140.0	16.6	16.6	42.1	33.8	33.8	140.0
Actuated g/C Ratio	0.15	0.36	0.36	0.15	0.36	1.00	0.12	0.12	0.30	0.24	0.24	1.00
Clearance Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6		4.6	4.6	
Vehicle Extension (s)	3.0	2.7	2.7	3.2	3.0		3.2	3.2		3.5	3.5	
Lane Grp Cap (vph)	251	1259	544	252	1261	1740	200	211	455	437	460	1753
v/s Ratio Prot	c0.11	c0.16		0.11	0.06		0.02	c0.08	0.11	c0.20	0.19	
v/s Ratio Perm			0.00			0.11						c0.21
v/c Ratio	0.77	0.45	0.01	0.77	0.18	0.11	0.21	0.68	0.37	0.82	0.80	0.21
Uniform Delay, d1	57.3	34.3	28.8	57.2	30.6	0.0	55.7	59.1	38.5	50.2	50.0	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	13.7	1.2	0.0	13.4	0.3	0.1	0.5	8.5	0.6	11.7	10.0	0.3
Delay (s)	71.1	35.5	28.8	70.6	30.9	0.1	56.3	67.6	39.1	61.9	59.9	0.3
Level of Service	E	D	C	E	C	A	E	E	D	E	E	A
Approach Delay (s/veh)		44.3			34.2			49.7			40.3	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	41.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.4
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary
19: Littlerock Rd SW & Parking Lot

2045 Baseline
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	20	68	130	20	220	70	460	110	225	442	93
Future Volume (veh/h)	102	20	68	130	20	220	70	460	110	225	442	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	111	22	23	141	22	53	76	500	90	245	480	81
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	114	13	399	116	10	399	109	800	143	296	1127	189
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.06	0.27	0.27	0.16	0.37	0.37
Sat Flow, veh/h	0	50	1557	0	39	1557	1795	3018	540	1795	3054	512
Grp Volume(v), veh/h	133	0	23	163	0	53	76	296	294	245	280	281
Grp Sat Flow(s),veh/h/ln	50	0	1557	39	0	1557	1795	1791	1767	1795	1791	1775
Q Serve(g_s), s	0.0	0.0	0.6	0.0	0.0	1.5	2.4	8.4	8.5	7.7	6.8	6.9
Cycle Q Clear(g_c), s	14.9	0.0	0.6	14.9	0.0	1.5	2.4	8.4	8.5	7.7	6.8	6.9
Prop In Lane	0.83		1.00	0.87		1.00	1.00		0.31	1.00		0.29
Lane Grp Cap(c), veh/h	127	0	399	126	0	399	109	475	468	296	661	655
V/C Ratio(X)	1.05	0.00	0.06	1.30	0.00	0.13	0.70	0.62	0.63	0.83	0.42	0.43
Avail Cap(c_a), veh/h	127	0	399	126	0	399	216	645	636	340	768	761
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	0.0	16.3	27.8	0.0	16.6	26.7	18.8	18.8	23.4	13.7	13.7
Incr Delay (d2), s/veh	94.1	0.0	0.1	179.7	0.0	0.1	7.7	1.3	1.4	13.9	0.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	0.2	8.0	0.0	0.5	1.2	3.3	3.3	4.1	2.5	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	121.6	0.0	16.3	207.5	0.0	16.8	34.4	20.1	20.2	37.3	14.1	14.2
LnGrp LOS	F		B	F		B	C	C	C	D	B	B
Approach Vol, veh/h		156			216			666			806	
Approach Delay, s/veh		106.1			160.7			21.8			21.2	
Approach LOS		F			F			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.5	27.5		21.0	15.6	21.5		21.0
Change Period (Y+Rc), s	6.0	6.1		6.1	6.0	6.1		6.1
Max Green Setting (Gmax), s	7.0	24.9		14.9	11.0	20.9		14.9
Max Q Clear Time (g_c+I1), s	14.4	8.9		16.9	9.7	10.5		16.9
Green Ext Time (p_c), s	0.0	3.1		0.0	0.1	2.7		0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	44.9
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
20: Capitol Blvd SE & Lee St SW/Lee St SE

2045 Baseline
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	0	50	1	3	26	30	540	0	20	690	80
Future Volume (veh/h)	110	0	50	1	3	26	30	540	0	20	690	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	121	0	24	1	3	4	33	593	0	22	758	83
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	0	398	50	109	398	60	1530	0	45	1360	149
Arrive On Green	0.28	0.00	0.28	0.28	0.28	0.28	0.07	0.96	0.00	0.06	0.94	0.94
Sat Flow, veh/h	0	0	1398	0	385	1398	1603	3282	0	1603	2898	317
Grp Volume(v), veh/h	121	0	24	4	0	4	33	593	0	22	418	423
Grp Sat Flow(s),veh/h/ln	0	0	1398	385	0	1398	1603	1599	0	1603	1599	1616
Q Serve(g_s), s	0.0	0.0	1.1	0.0	0.0	0.2	1.8	1.1	0.0	1.2	3.0	3.0
Cycle Q Clear(g_c), s	25.6	0.0	1.1	25.6	0.0	0.2	1.8	1.1	0.0	1.2	3.0	3.0
Prop In Lane	1.00		1.00	0.25		1.00	1.00		0.00	1.00		0.20
Lane Grp Cap(c), veh/h	80	0	398	159	0	398	60	1530	0	45	750	758
V/C Ratio(X)	1.51	0.00	0.06	0.03	0.00	0.01	0.55	0.39	0.00	0.49	0.56	0.56
Avail Cap(c_a), veh/h	80	0	398	159	0	398	107	1530	0	107	750	758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	0.0	23.4	25.3	0.0	23.1	40.9	1.0	0.0	41.8	1.6	1.6
Incr Delay (d2), s/veh	284.5	0.0	0.0	0.0	0.0	0.0	2.9	0.7	0.0	3.0	3.0	2.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	0.0	0.4	0.1	0.0	0.1	0.7	0.4	0.0	0.5	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	329.5	0.0	23.5	25.3	0.0	23.1	43.8	1.8	0.0	44.8	4.5	4.5
LnGrp LOS	F		C	C		C	D	A		D	A	A
Approach Vol, veh/h		145			8			626			863	
Approach Delay, s/veh		278.8			24.2			4.0			5.6	
Approach LOS		F			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.5	49.5		32.0	9.4	48.6		32.0
Change Period (Y+Rc), s	6.0	6.4		6.4	6.0	6.4		6.4
Max Green Setting (Gmax), s	6.6	39.6		25.6	6.0	39.6		25.6
Max Q Clear Time (g_c+I1), s	3.2	3.1		27.6	3.8	5.0		27.6
Green Ext Time (p_c), s	0.0	4.3		0.0	0.0	5.9		0.0

Intersection Summary		
HCM 6th Ctrl Delay, s/veh		29.2
HCM 6th LOS		C

MOVEMENT SUMMARY

Site: 21 [21: Littlerock Rd & Kingswood Dr (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Littlerock Rd & Kingswood Dr
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Littlerock Rd															
8	T1	All MCs	353	1.0	353	1.0	0.355	2.3	LOS A	1.8	45.7	0.30	0.30	0.30	16.9
18	R2	All MCs	115	1.0	115	1.0	0.355	2.7	LOS A	1.8	45.7	0.30	0.30	0.30	28.4
Approach			468	1.0	468	1.0	0.355	2.4	LOS A	1.8	45.7	0.30	0.30	0.30	19.9
East: Kingswood Dr															
1	L2	All MCs	85	1.0	85	1.0	0.076	8.4	LOS A	0.4	9.3	0.44	0.62	0.44	26.4
16	R2	All MCs	170	1.0	170	1.0	0.118	3.5	LOS A	0.6	15.8	0.43	0.46	0.43	26.7
Approach			255	1.0	255	1.0	0.118	5.2	LOS A	0.6	15.8	0.43	0.51	0.43	26.6
North: Littlerock Rd															
7	L2	All MCs	138	1.0	138	1.0	0.125	6.9	LOS A	0.6	14.6	0.23	0.57	0.23	25.1
4	T1	All MCs	553	1.0	553	1.0	0.348	2.1	LOS A	2.2	54.2	0.25	0.29	0.25	27.7
Approach			691	1.0	691	1.0	0.348	3.1	LOS A	2.2	54.2	0.25	0.35	0.25	27.1
All Vehicles			1415	1.0	1415	1.0	0.355	3.2	LOS A	2.2	54.2	0.30	0.36	0.30	23.9

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

Site: 24 [22: Capitol Blvd & Dennis St (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Capitol Blvd & Dennis St
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Capitol Blvd															
3	L2	All MCs	11	3.0	11	3.0	0.450	9.6	LOS A	2.9	73.9	0.42	0.43	0.42	27.1
8	T1	All MCs	468	3.0	468	3.0	0.450	4.0	LOS A	2.9	73.9	0.42	0.43	0.42	15.5
18	R2	All MCs	21	3.0	21	3.0	0.450	4.3	LOS A	2.9	73.9	0.42	0.43	0.42	27.3
Approach			500	3.0	500	3.0	0.450	4.1	LOS A	2.9	73.9	0.42	0.43	0.42	16.2
East: Dennis St															
1	L2	All MCs	23	3.0	23	3.0	0.090	8.0	LOS A	0.4	11.5	0.56	0.55	0.56	26.6
6	T1	All MCs	20	3.0	20	3.0	0.090	3.0	LOS A	0.4	11.5	0.56	0.55	0.56	23.7
16	R2	All MCs	31	3.0	31	3.0	0.090	3.9	LOS A	0.4	11.5	0.56	0.55	0.56	17.4
Approach			74	3.0	74	3.0	0.090	4.9	LOS A	0.4	11.5	0.56	0.55	0.56	22.3
North: Capitol Blvd															
7	L2	All MCs	96	3.0	96	3.0	0.641	7.7	LOS A	6.5	165.2	0.38	0.39	0.38	23.7
4	T1	All MCs	617	3.0	617	3.0	0.641	2.7	LOS A	6.5	165.2	0.38	0.39	0.38	30.8
14	R2	All MCs	64	3.0	64	3.0	0.641	2.7	LOS A	6.5	165.2	0.38	0.39	0.38	23.9
Approach			777	3.0	777	3.0	0.641	3.3	LOS A	6.5	165.2	0.38	0.39	0.38	29.1
West: Dennis St															
5	L2	All MCs	21	3.0	21	3.0	0.111	10.0	LOS A	0.6	15.4	0.69	0.64	0.69	12.7
2	T1	All MCs	32	3.0	32	3.0	0.111	4.9	LOS A	0.6	15.4	0.69	0.64	0.69	23.3
12	R2	All MCs	21	3.0	21	3.0	0.111	5.8	LOS A	0.6	15.4	0.69	0.64	0.69	26.3
Approach			74	3.0	74	3.0	0.111	6.6	LOS A	0.6	15.4	0.69	0.64	0.69	20.9
All Vehicles			1426	3.0	1426	3.0	0.641	3.9	LOS A	6.5	165.2	0.42	0.42	0.42	21.9

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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HCM 6th Signalized Intersection Summary
23: Henderson Blvd SE & Wildflower Ln SE/65th Ave SE

2045 Baseline
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	50	1	109	10	660	80	90	629	1
Future Volume (veh/h)	0	0	0	50	1	109	10	660	80	90	629	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	0.98		0.96	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1961	1885	1885	1961	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	0	0	0	53	1	25	11	702	78	96	669	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	0	240	0	252	23	60	452	977	109	374	1107	2
Arrive On Green	0.00	0.00	0.00	0.12	0.12	0.12	0.59	0.59	0.59	0.59	0.59	0.59
Sat Flow, veh/h	0	1961	0	869	190	490	773	1661	185	698	1882	3
Grp Volume(v), veh/h	0	0	0	79	0	0	11	0	780	96	0	670
Grp Sat Flow(s),veh/h/ln	0	1961	0	1549	0	0	773	0	1845	698	0	1885
Q Serve(g_s), s	0.0	0.0	0.0	1.2	0.0	0.0	0.4	0.0	12.5	4.7	0.0	9.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.9	0.0	0.0	9.8	0.0	12.5	17.2	0.0	9.4
Prop In Lane	0.00		0.00	0.67		0.32	1.00		0.10	1.00		0.00
Lane Grp Cap(c), veh/h	0	240	0	335	0	0	452	0	1085	374	0	1108
V/C Ratio(X)	0.00	0.00	0.00	0.24	0.00	0.00	0.02	0.00	0.72	0.26	0.00	0.60
Avail Cap(c_a), veh/h	0	473	0	513	0	0	613	0	1469	519	0	1500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	16.7	0.0	0.0	8.6	0.0	6.1	12.2	0.0	5.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	1.3	0.4	0.0	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.7	0.0	0.0	0.1	0.0	2.6	0.6	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	17.2	0.0	0.0	8.6	0.0	7.4	12.7	0.0	6.1
LnGrp LOS				B			A		A	B		A
Approach Vol, veh/h		0			79			791			766	
Approach Delay, s/veh		0.0			17.2			7.4			6.9	
Approach LOS					B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	30.4	11.1	30.4	11.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	33.0	10.0	33.0	10.0
Max Q Clear Time (g_c+I1), s	19.2	3.9	14.5	0.0
Green Ext Time (p_c), s	5.2	0.2	6.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	7.6
HCM 6th LOS	A

MOVEMENT SUMMARY

Site: 24 [24: Littlerock Rd & Israel Rd & 70th Ave (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Littlerock Rd & Israel Rd & 70th Ave
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Littlerock Rd															
3	L2	All MCs	196	1.0	196	1.0	0.477	10.2	LOS B	3.2	80.4	0.57	0.59	0.57	30.5
8	T1	All MCs	269	1.0	269	1.0	0.477	4.7	LOS A	3.2	80.4	0.57	0.59	0.57	20.3
18	R2	All MCs	62	1.0	62	1.0	0.477	5.0	LOS A	3.2	80.4	0.57	0.59	0.57	30.8
Approach			527	1.0	527	1.0	0.477	6.8	LOS A	3.2	80.4	0.57	0.59	0.57	25.7
East: Israel Rd															
1	L2	All MCs	119	1.0	119	1.0	0.283	10.4	LOS B	1.8	45.8	0.64	0.62	0.64	30.2
6	T1	All MCs	204	1.0	204	1.0	0.283	5.4	LOS A	1.8	45.8	0.64	0.62	0.64	30.7
16	R2	All MCs	171	1.0	171	1.0	0.193	6.0	LOS A	1.1	26.8	0.61	0.62	0.61	29.0
Approach			495	1.0	495	1.0	0.283	6.8	LOS A	1.8	45.8	0.63	0.62	0.63	30.2
North: Littlerock Rd															
7	L2	All MCs	140	1.0	140	1.0	0.539	10.7	LOS B	4.8	119.9	0.79	0.70	0.85	27.7
4	T1	All MCs	452	1.0	452	1.0	0.539	6.6	LOS A	4.8	119.9	0.79	0.70	0.85	28.3
14	R2	All MCs	194	1.0	194	1.0	0.253	6.2	LOS A	1.5	37.8	0.67	0.66	0.67	28.6
Approach			785	1.0	785	1.0	0.539	7.2	LOS A	4.8	119.9	0.76	0.69	0.81	28.3
West: 70th Ave															
5	L2	All MCs	75	1.0	75	1.0	0.184	10.9	LOS B	1.0	26.1	0.66	0.69	0.66	19.3
2	T1	All MCs	86	1.0	86	1.0	0.184	6.1	LOS A	1.0	26.1	0.66	0.69	0.66	30.3
12	R2	All MCs	151	1.0	151	1.0	0.192	7.1	LOS A	1.0	25.8	0.65	0.69	0.65	30.6
Approach			312	1.0	312	1.0	0.192	7.7	LOS A	1.0	26.1	0.66	0.69	0.66	28.0
All Vehicles			2118	1.0	2118	1.0	0.539	7.1	LOS A	4.8	119.9	0.67	0.65	0.68	27.9

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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HCM 6th Signalized Intersection Summary
25: Linderson Way SW & Israel Rd SW

2045 Baseline
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	450	110	150	420	40	200	50	70	20	140	80
Future Volume (veh/h)	70	450	110	150	420	40	200	50	70	20	140	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.96	0.97		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1961	1885	1885	1885	1885
Adj Flow Rate, veh/h	79	506	117	169	472	43	225	56	33	22	157	71
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	359	574	133	292	707	64	360	300	177	348	199	90
Arrive On Green	0.05	0.39	0.39	0.08	0.42	0.42	0.12	0.26	0.26	0.02	0.17	0.17
Sat Flow, veh/h	1795	1471	340	1795	1697	155	1795	1136	670	1795	1205	545
Grp Volume(v), veh/h	79	0	623	169	0	515	225	0	89	22	0	228
Grp Sat Flow(s),veh/h/ln	1795	0	1811	1795	0	1852	1795	0	1806	1795	0	1750
Q Serve(g_s), s	2.0	0.0	24.8	4.3	0.0	17.5	7.6	0.0	3.0	0.8	0.0	9.7
Cycle Q Clear(g_c), s	2.0	0.0	24.8	4.3	0.0	17.5	7.6	0.0	3.0	0.8	0.0	9.7
Prop In Lane	1.00		0.19	1.00		0.08	1.00		0.37	1.00		0.31
Lane Grp Cap(c), veh/h	359	0	707	292	0	772	360	0	477	348	0	289
V/C Ratio(X)	0.22	0.00	0.88	0.58	0.00	0.67	0.62	0.00	0.19	0.06	0.00	0.79
Avail Cap(c_a), veh/h	382	0	895	302	0	951	382	0	491	422	0	354
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.3	0.0	22.0	17.1	0.0	18.3	22.0	0.0	22.1	25.8	0.0	31.1
Incr Delay (d2), s/veh	0.1	0.0	8.5	2.6	0.0	1.3	2.0	0.0	0.1	0.0	0.0	9.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	11.6	1.8	0.0	7.4	3.3	0.0	1.2	0.3	0.0	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.4	0.0	30.5	19.7	0.0	19.6	24.0	0.0	22.2	25.9	0.0	40.5
LnGrp LOS	B		C	B		B	C		C	C		D
Approach Vol, veh/h		702			684			314			250	
Approach Delay, s/veh		28.7			19.6			23.5			39.2	
Approach LOS		C			B			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	37.3	6.4	25.4	10.6	35.2	14.1	17.7
Change Period (Y+Rc), s	4.5	4.9	4.5	4.9	4.5	4.9	4.5	4.9
Max Green Setting (Gmax), s	5.1	39.9	5.1	21.1	6.6	38.4	10.5	15.7
Max Q Clear Time (g_c+I1), s	4.0	19.5	2.8	5.0	6.3	26.8	9.6	11.7
Green Ext Time (p_c), s	0.0	3.5	0.0	0.2	0.0	3.5	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	26.0
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
26: Capitol Blvd SE & Israel Rd SW/Israel Rd SE

2045 Baseline
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	130	280	60	170	40	190	389	11	20	700	160
Future Volume (veh/h)	90	130	280	60	170	40	190	389	11	20	700	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	106	153	284	71	200	41	224	458	12	24	824	175
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	349	167	310	168	414	85	267	1417	37	398	965	205
Arrive On Green	0.06	0.32	0.32	0.05	0.31	0.31	0.10	0.45	0.45	0.03	0.37	0.37
Sat Flow, veh/h	1603	520	965	1603	1350	277	1603	3181	83	1603	2609	554
Grp Volume(v), veh/h	106	0	437	71	0	241	224	230	240	24	505	494
Grp Sat Flow(s),veh/h/ln	1603	0	1485	1603	0	1626	1603	1599	1666	1603	1599	1564
Q Serve(g_s), s	5.2	0.0	33.0	3.5	0.0	14.0	9.6	10.8	10.9	1.1	33.9	33.9
Cycle Q Clear(g_c), s	5.2	0.0	33.0	3.5	0.0	14.0	9.6	10.8	10.9	1.1	33.9	33.9
Prop In Lane	1.00		0.65	1.00		0.17	1.00		0.05	1.00		0.35
Lane Grp Cap(c), veh/h	349	0	476	168	0	499	267	712	742	398	592	578
V/C Ratio(X)	0.30	0.00	0.92	0.42	0.00	0.48	0.84	0.32	0.32	0.06	0.85	0.85
Avail Cap(c_a), veh/h	369	0	564	181	0	587	343	890	927	437	734	717
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	0.0	38.1	30.1	0.0	32.8	25.5	20.9	20.9	21.5	33.8	33.8
Incr Delay (d2), s/veh	0.6	0.0	18.6	2.0	0.0	0.9	14.2	0.3	0.3	0.1	8.5	8.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	14.4	1.4	0.0	5.7	4.5	4.0	4.2	0.4	14.1	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.5	0.0	56.7	32.1	0.0	33.7	39.6	21.2	21.2	21.5	42.3	42.4
LnGrp LOS	C		E	C		C	D	C	C	C	D	D
Approach Vol, veh/h		543			312			694			1023	
Approach Delay, s/veh		50.8			33.3			27.2			41.9	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	56.6	9.9	42.1	16.5	47.9	11.5	40.5
Change Period (Y+Rc), s	4.5	4.8	4.5	4.8	4.5	4.8	4.5	4.8
Max Green Setting (Gmax), s	6.1	64.8	6.3	44.2	17.5	53.4	8.5	42.0
Max Q Clear Time (g_c+I1), s	3.1	12.9	5.5	35.0	11.6	35.9	7.2	16.0
Green Ext Time (p_c), s	0.0	3.7	0.0	2.4	0.4	7.2	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	38.8
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
27: Henderson Blvd SE & Tumwater Blvd SE

2045 Baseline
PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	590	40	40	160	210	530
Future Volume (veh/h)	590	40	40	160	210	530
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.97	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1961
Adj Flow Rate, veh/h	634	41	43	172	226	366
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1
Cap, veh/h	688	44	195	205	494	421
Arrive On Green	0.41	0.41	0.11	0.11	0.26	0.26
Sat Flow, veh/h	1668	108	1795	1885	1885	1608
Grp Volume(v), veh/h	676	0	43	172	226	366
Grp Sat Flow(s),veh/h/ln	1779	0	1795	1885	1885	1608
Q Serve(g_s), s	29.9	0.0	1.8	7.4	8.3	18.0
Cycle Q Clear(g_c), s	29.9	0.0	1.8	7.4	8.3	18.0
Prop In Lane	0.94	0.06	1.00			1.00
Lane Grp Cap(c), veh/h	734	0	195	205	494	421
V/C Ratio(X)	0.92	0.00	0.22	0.84	0.46	0.87
Avail Cap(c_a), veh/h	794	0	195	205	591	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	33.8	36.3	25.7	29.2
Incr Delay (d2), s/veh	16.5	0.0	1.2	27.7	0.7	13.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.7	0.0	0.8	4.9	3.7	8.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	39.6	0.0	35.0	64.0	26.3	42.4
LnGrp LOS	D		C	E	C	D
Approach Vol, veh/h	676			215	592	
Approach Delay, s/veh	39.6			58.2	36.3	
Approach LOS	D			E	D	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	40.2	27.7	15.0
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	37.0	26.0	9.0
Max Q Clear Time (g_c+I1), s	31.9	20.0	9.4
Green Ext Time (p_c), s	2.3	1.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	41.0
HCM 6th LOS	D

MOVEMENT SUMMARY

Site: 28 [28: Littlerock Rd & Tumwater Blvd (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Littlerock Rd & Tumwater Blvd
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Littlerock Rd															
8	T1	All MCs	228	1.0	228	1.0	0.158	3.3	LOS A	0.8	20.7	0.47	0.42	0.47	28.1
18	R2	All MCs	120	1.0	120	1.0	0.158	3.7	LOS A	0.8	20.7	0.46	0.45	0.46	28.0
Approach			348	1.0	348	1.0	0.158	3.5	LOS A	0.8	20.7	0.47	0.43	0.47	28.1
East: Tumwater Blvd															
1	L2	All MCs	250	1.0	250	1.0	0.221	8.0	LOS A	1.1	26.6	0.38	0.60	0.38	26.5
16	R2	All MCs	315	1.0	315	1.0	0.250	3.2	LOS A	1.3	31.6	0.38	0.44	0.38	28.2
Approach			565	1.0	565	1.0	0.250	5.3	LOS A	1.3	31.6	0.38	0.51	0.38	27.4
North: Littlerock Rd															
7	L2	All MCs	348	1.0	348	1.0	0.290	8.4	LOS A	1.8	46.3	0.49	0.59	0.49	26.4
4	T1	All MCs	391	1.0	391	1.0	0.272	2.9	LOS A	1.8	44.4	0.45	0.35	0.45	28.1
Approach			739	1.0	739	1.0	0.290	5.5	LOS A	1.8	46.3	0.47	0.46	0.47	27.3
All Vehicles			1652	1.0	1652	1.0	0.290	5.0	LOS A	1.8	46.3	0.44	0.47	0.44	27.5

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

Site: 24 [29: Tumwater Boulevard & I-5 SB Ramp (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Tumwater Boulevard & I-5 SB Ramp
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
East: Tumwater Blvd															
1	L2	All MCs	447	2.0	447	2.0	0.297	8.5	LOS A	0.0	0.0	0.00	0.64	0.00	33.3
6	T1	All MCs	328	2.0	328	2.0	0.241	3.1	LOS A	0.0	0.0	0.00	0.33	0.00	33.1
Approach			775	2.0	775	2.0	0.297	6.2	LOS A	0.0	0.0	0.00	0.51	0.00	33.2
North: I-5 SB Off-Ramp															
7	L2	All MCs	596	2.0	596	2.0	0.622	12.6	LOS B	4.0	101.0	0.67	0.90	0.88	26.2
14	R2	All MCs	427	2.0	427	2.0	0.521	7.0	LOS A	2.7	69.3	0.63	0.80	0.78	29.0
Approach			1022	2.0	1022	2.0	0.622	10.3	LOS B	4.0	101.0	0.65	0.86	0.84	27.2
West: Tumwater Blvd															
2	T1	All MCs	371	2.0	371	2.0	0.347	12.3	LOS B	2.6	66.2	0.93	0.79	0.93	29.1
12	R2	All MCs	360	2.0	360	2.0	0.321	5.7	LOS A	1.9	47.2	0.57	0.58	0.57	35.0
Approach			730	2.0	730	2.0	0.347	9.1	LOS A	2.6	66.2	0.75	0.69	0.75	31.7
All Vehicles			2528	2.0	2528	2.0	0.622	8.7	LOS A	4.0	101.0	0.48	0.70	0.56	30.8

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

Site: 24 [30: Tumwater Boulevard & I-5 NB Ramp (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Tumwater Boulevard & I-5 NB Ramp
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: I-5 NB Off-Ramp															
3	L2	All MCs	135	2.0	135	2.0	0.186	13.9	LOS B	0.6	16.0	0.54	0.82	0.54	31.2
18	R2	All MCs	214	2.0	214	2.0	0.241	7.9	LOS A	0.9	22.0	0.54	0.73	0.54	33.9
Approach			349	2.0	349	2.0	0.241	10.2	LOS B	0.9	22.0	0.54	0.76	0.54	32.8
East: Tumwater Blvd															
6	T1	All MCs	639	2.0	639	2.0	0.567	6.2	LOS A	4.7	120.3	0.70	0.63	0.77	31.3
16	R2	All MCs	1169	2.0	1169	2.0	0.712	3.4	LOS A	0.0	0.0	0.00	0.39	0.00	31.2
Approach			1807	2.0	1807	2.0	0.712	4.4	LOS A	4.7	120.3	0.25	0.48	0.27	31.2
West: Tumwater Blvd															
5	L2	All MCs	289	2.0	289	2.0	0.331	8.4	LOS A	0.0	0.0	0.00	0.56	0.00	20.1
2	T1	All MCs	675	2.0	675	2.0	0.331	3.2	LOS A	0.0	0.0	0.00	0.40	0.00	32.6
Approach			964	2.0	964	2.0	0.331	4.8	LOS A	0.0	0.0	0.00	0.45	0.00	29.0
All Vehicles			3120	2.0	3120	2.0	0.712	5.1	LOS A	4.7	120.3	0.20	0.50	0.22	30.6

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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HCM 6th Signalized Intersection Summary
31: Center St SW/Linderson Way SW & Tumwater Blvd SW

2045 Baseline
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	478	115	70	910	70	140	90	60	110	109	331
Future Volume (veh/h)	87	478	115	70	910	70	140	90	60	110	109	331
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	106	583	134	85	1110	41	171	110	17	134	133	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	791	181	277	1292	572	168	228	188	190	259	
Arrive On Green	0.07	0.28	0.28	0.16	0.36	0.36	0.09	0.12	0.12	0.11	0.14	0.00
Sat Flow, veh/h	3456	2865	657	1781	3554	1574	1781	1870	1541	1781	1870	1585
Grp Volume(v), veh/h	106	361	356	85	1110	41	171	110	17	134	133	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1745	1781	1777	1574	1781	1870	1541	1781	1870	1585
Q Serve(g_s), s	2.2	13.7	13.8	3.1	21.4	0.7	7.0	4.1	0.7	5.4	4.9	0.0
Cycle Q Clear(g_c), s	2.2	13.7	13.8	3.1	21.4	0.7	7.0	4.1	0.7	5.4	4.9	0.0
Prop In Lane	1.00		0.38	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	248	490	482	277	1292	572	168	228	188	190	259	
V/C Ratio(X)	0.43	0.74	0.74	0.31	0.86	0.07	1.02	0.48	0.09	0.70	0.51	
Avail Cap(c_a), veh/h	280	664	652	277	1375	609	168	749	617	264	850	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.0	24.4	24.4	27.8	21.8	4.9	33.6	30.4	28.9	32.0	29.6	0.0
Incr Delay (d2), s/veh	1.4	3.2	3.4	0.8	5.6	0.1	74.0	1.9	0.2	5.9	1.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.8	5.7	1.3	9.1	0.4	6.4	1.9	0.3	2.5	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.4	27.6	27.8	28.5	27.4	5.0	107.6	32.3	29.1	37.9	31.5	0.0
LnGrp LOS	C	C	C	C	C	A	F	C	C	D	C	
Approach Vol, veh/h		823			1236			298			267	
Approach Delay, s/veh		28.6			26.8			75.3			34.7	
Approach LOS		C			C			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	33.3	14.2	15.4	17.8	26.8	13.0	16.6
Change Period (Y+Rc), s	6.0	6.3	6.3	* 6.3	6.3	* 6.3	6.0	6.3
Max Green Setting (Gmax), s	6.6	28.7	11.0	* 30	7.0	* 28	7.0	33.7
Max Q Clear Time (g_c+I1), s	4.2	23.4	7.4	6.1	5.1	15.8	9.0	6.9
Green Ext Time (p_c), s	0.1	3.5	0.1	0.7	0.0	4.0	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	33.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

MOVEMENT SUMMARY

Site: 32 [32: Tumwater Blvd & New Market St (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Tumwater Blvd & New Market St
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: New Market St															
3	L2	All MCs	21	2.0	21	2.0	0.027	6.0	LOS A	0.1	2.5	0.44	0.47	0.44	26.5
8	T1	All MCs	11	2.0	11	2.0	0.027	1.2	LOS A	0.1	2.5	0.44	0.47	0.44	23.6
18	R2	All MCs	21	2.0	21	2.0	0.023	2.1	LOS A	0.1	2.0	0.46	0.39	0.46	27.8
Approach			53	2.0	53	2.0	0.027	3.5	LOS A	0.1	2.5	0.45	0.43	0.45	26.3
East: Tumwater Blvd															
1	L2	All MCs	85	2.0	85	2.0	0.337	9.1	LOS A	2.1	53.6	0.23	0.33	0.23	27.7
6	T1	All MCs	947	2.0	947	2.0	0.337	2.2	LOS A	2.1	54.3	0.21	0.28	0.21	32.9
16	R2	All MCs	32	2.0	32	2.0	0.337	2.9	LOS A	2.1	54.3	0.21	0.25	0.21	28.2
Approach			1064	2.0	1064	2.0	0.337	2.7	LOS A	2.1	54.3	0.22	0.28	0.22	32.3
North: New Market St															
7	L2	All MCs	43	2.0	43	2.0	0.054	7.4	LOS A	0.2	4.9	0.54	0.70	0.54	25.9
4	T1	All MCs	1	2.0	1	2.0	0.054	2.5	LOS A	0.2	4.9	0.54	0.70	0.54	23.2
14	R2	All MCs	85	2.0	85	2.0	0.078	2.3	LOS A	0.3	7.6	0.53	0.42	0.53	27.6
Approach			129	2.0	129	2.0	0.078	4.0	LOS A	0.3	7.6	0.53	0.51	0.53	27.0
West: Tumwater Blvd															
5	L2	All MCs	28	2.0	28	2.0	0.242	9.4	LOS A	1.4	35.9	0.32	0.32	0.32	27.7
2	T1	All MCs	614	2.0	614	2.0	0.242	2.5	LOS A	1.4	36.7	0.31	0.31	0.31	32.7
12	R2	All MCs	82	2.0	82	2.0	0.242	3.2	LOS A	1.4	36.7	0.30	0.29	0.30	27.9
Approach			723	2.0	723	2.0	0.242	2.8	LOS A	1.4	36.7	0.31	0.31	0.31	31.9
All Vehicles			1969	2.0	1969	2.0	0.337	2.9	LOS A	2.1	54.3	0.28	0.31	0.28	31.6

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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HCM 6th Signalized Intersection Summary
33: Capitol Blvd SE & Tumwater Blvd SW/Tumwater Blvd SE

2045 Baseline
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	246	334	20	340	50	282	458	30	100	640	310
Future Volume (veh/h)	50	246	334	20	340	50	282	458	30	100	640	310
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	273	187	22	378	50	313	509	31	111	711	161
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	421	489	53	623	82	302	1042	63	142	1061	464
Arrive On Green	0.06	0.23	0.23	0.03	0.20	0.20	0.09	0.31	0.31	0.08	0.30	0.30
Sat Flow, veh/h	1781	1870	1553	1781	3149	413	3456	3399	207	1781	3554	1554
Grp Volume(v), veh/h	56	273	187	22	212	216	313	266	274	111	711	161
Grp Sat Flow(s),veh/h/ln	1781	1870	1553	1781	1777	1785	1728	1777	1828	1781	1777	1554
Q Serve(g_s), s	2.1	9.1	6.5	0.8	7.4	7.6	6.0	8.4	8.4	4.2	12.0	5.6
Cycle Q Clear(g_c), s	2.1	9.1	6.5	0.8	7.4	7.6	6.0	8.4	8.4	4.2	12.0	5.6
Prop In Lane	1.00		1.00	1.00		0.23	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	102	421	489	53	352	353	302	545	560	142	1061	464
V/C Ratio(X)	0.55	0.65	0.38	0.41	0.60	0.61	1.04	0.49	0.49	0.78	0.67	0.35
Avail Cap(c_a), veh/h	156	810	811	156	770	773	302	744	765	156	1488	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	24.1	18.4	32.7	25.0	25.1	31.3	19.4	19.4	31.0	21.1	18.8
Incr Delay (d2), s/veh	1.7	1.7	0.5	1.9	1.7	1.7	61.1	0.8	0.8	20.9	0.9	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.9	2.2	0.4	3.1	3.2	4.9	3.3	3.4	2.5	4.7	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.1	25.8	18.9	34.5	26.7	26.8	92.4	20.2	20.2	51.9	22.0	19.4
LnGrp LOS	C	C	B	C	C	C	F	C	C	D	C	B
Approach Vol, veh/h		516			450			853			983	
Approach Delay, s/veh		24.1			27.1			46.7			24.9	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	27.3	8.1	21.7	12.0	26.8	9.9	19.9
Change Period (Y+Rc), s	6.0	6.3	6.0	6.3	6.0	6.3	6.0	6.3
Max Green Setting (Gmax), s	6.0	28.7	6.0	29.7	6.0	28.7	6.0	29.7
Max Q Clear Time (g_c+I1), s	10.2	10.4	2.8	11.1	8.0	14.0	4.1	9.6
Green Ext Time (p_c), s	0.0	3.5	0.0	2.1	0.0	5.4	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	31.8
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
34: Littlerock Rd SW & 77th Way SW/Black Hills School Drwy/77th Way SW

2045 Baseline
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	1	20	1	2	27	34	214	2	30	420	230
Future Volume (veh/h)	99	1	20	1	2	27	34	214	2	30	420	230
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.98		0.96	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	108	1	11	1	2	7	37	233	2	33	457	239
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	338	18	198	335	49	173	281	846	7	636	524	274
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.03	0.45	0.45	0.03	0.45	0.45
Sat Flow, veh/h	1392	130	1426	1389	355	1243	1795	1866	16	1795	1163	608
Grp Volume(v), veh/h	108	0	12	1	0	9	37	0	235	33	0	696
Grp Sat Flow(s),veh/h/ln	1392	0	1555	1389	0	1598	1795	0	1882	1795	0	1772
Q Serve(g_s), s	3.5	0.0	0.3	0.0	0.0	0.2	0.5	0.0	3.7	0.5	0.0	16.9
Cycle Q Clear(g_c), s	3.7	0.0	0.3	0.3	0.0	0.2	0.5	0.0	3.7	0.5	0.0	16.9
Prop In Lane	1.00		0.92	1.00		0.78	1.00		0.01	1.00		0.34
Lane Grp Cap(c), veh/h	338	0	216	335	0	222	281	0	853	636	0	798
V/C Ratio(X)	0.32	0.00	0.06	0.00	0.00	0.04	0.13	0.00	0.28	0.05	0.00	0.87
Avail Cap(c_a), veh/h	701	0	621	697	0	638	374	0	1147	734	0	1080
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.3	0.0	17.8	17.9	0.0	17.7	9.7	0.0	8.1	6.7	0.0	11.8
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	4.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	1.1	0.1	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.5	0.0	17.8	17.9	0.0	17.8	9.7	0.0	8.2	6.7	0.0	16.8
LnGrp LOS	B		B	B		B	A		A	A		B
Approach Vol, veh/h		120			10			272			729	
Approach Delay, s/veh		19.4			17.8			8.4			16.3	
Approach LOS		B			B			A			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.5	27.4		12.6	7.4	27.6		12.6
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s	4.6	29.0		19.0	4.0	29.0		19.0
Max Q Clear Time (g_c+I1), s	2.5	18.9		2.3	2.5	5.7		5.7
Green Ext Time (p_c), s	0.0	2.4		0.0	0.0	0.8		0.1

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	14.7
HCM 6th LOS	B

MOVEMENT SUMMARY

Site: 24 [35: Old Hwy 99 & Henderson Blvd (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Old Hwy 99 & Henderson Blvd
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Old Hwy 99 SE															
3	L2	All MCs	1	2.0	1	2.0	0.656	10.5	LOS B	7.3	184.9	0.54	0.44	0.54	28.0
8	T1	All MCs	681	2.0	681	2.0	0.656	4.9	LOS A	7.3	184.9	0.54	0.44	0.54	34.9
18	R2	All MCs	85	2.0	85	2.0	0.656	4.9	LOS A	7.3	184.9	0.54	0.44	0.54	32.9
Approach			767	2.0	767	2.0	0.656	4.9	LOS A	7.3	184.9	0.54	0.44	0.54	34.6
East: Henderson Blvd SE															
1	L2	All MCs	128	2.0	128	2.0	0.280	12.8	LOS B	1.7	42.7	0.75	0.74	0.75	30.4
6	T1	All MCs	1	2.0	1	2.0	0.280	7.3	LOS A	1.7	42.7	0.75	0.74	0.75	25.7
16	R2	All MCs	64	2.0	64	2.0	0.280	7.6	LOS A	1.7	42.7	0.75	0.74	0.75	30.8
Approach			193	2.0	193	2.0	0.280	11.1	LOS B	1.7	42.7	0.75	0.74	0.75	30.5
North: Capitol Blvd SE															
7	L2	All MCs	85	2.0	85	2.0	0.943	17.2	LOS D	26.5	671.9	1.00	0.84	1.16	30.4
4	T1	All MCs	979	2.0	979	2.0	0.943	11.6	LOS D	26.5	671.9	1.00	0.84	1.16	32.4
14	R2	All MCs	1	2.0	1	2.0	0.943	11.6	LOS D	26.5	671.9	1.00	0.84	1.16	26.6
Approach			1065	2.0	1065	2.0	0.943	12.0	LOS B	26.5	671.9	1.00	0.84	1.16	32.2
West: Driveway															
5	L2	All MCs	1	2.0	1	2.0	0.012	17.7	LOS B	0.1	2.0	0.97	0.72	0.97	24.7
2	T1	All MCs	1	2.0	1	2.0	0.012	12.7	LOS B	0.1	2.0	0.97	0.72	0.97	24.2
12	R2	All MCs	1	2.0	1	2.0	0.012	13.5	LOS B	0.1	2.0	0.97	0.72	0.97	25.0
Approach			3	2.0	3	2.0	0.012	14.6	LOS B	0.1	2.0	0.97	0.72	0.97	24.6
All Vehicles			2028	2.0	2028	2.0	0.943	9.2	LOS A	26.5	671.9	0.80	0.68	0.89	32.9

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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HCM 6th Signalized Intersection Summary
36: Old Hwy 99 SE & 88th Ave SE/Driveway

2045 Baseline
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	0	37	20	0	0	6	416	18	0	770	150
Future Volume (veh/h)	213	0	37	20	0	0	6	416	18	0	770	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1961	1885	1885	1961	1885	1885	1885	1885	1885	1885	1961
Adj Flow Rate, veh/h	248	0	10	23	0	0	7	484	-179	0	895	119
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	430	0	341	425	0	0	194	1021	0	123	1021	896
Arrive On Green	0.21	0.00	0.21	0.21	0.00	0.00	0.54	0.54	0.00	0.00	0.54	0.54
Sat Flow, veh/h	1413	0	1603	1422	0	0	560	1885	0	1083	1885	1654
Grp Volume(v), veh/h	248	0	10	23	0	0	7	305	0	0	895	119
Grp Sat Flow(s),veh/h/ln	1413	0	1603	1422	0	0	560	1885	0	1083	1885	1654
Q Serve(g_s), s	8.5	0.0	0.3	0.7	0.0	0.0	0.6	5.2	0.0	0.0	24.3	2.1
Cycle Q Clear(g_c), s	9.5	0.0	0.3	1.0	0.0	0.0	24.9	5.2	0.0	0.0	24.3	2.1
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	430	0	341	425	0	0	194	1021	0	123	1021	896
V/C Ratio(X)	0.58	0.00	0.03	0.05	0.00	0.00	0.04	0.30	0.00	0.00	0.88	0.13
Avail Cap(c_a), veh/h	611	0	547	612	0	0	279	1305	0	286	1305	1145
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	0.0	18.3	18.7	0.0	0.0	22.6	7.3	0.0	0.0	11.7	6.6
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.0	0.0	5.7	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.1	0.2	0.0	0.0	0.1	1.4	0.0	0.0	7.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.0	0.0	18.3	18.7	0.0	0.0	22.7	7.5	0.0	0.0	17.5	6.7
LnGrp LOS	C		B	B			C	A			B	A
Approach Vol, veh/h		258			23			312			1014	
Approach Delay, s/veh		22.8			18.7			7.8			16.2	
Approach LOS		C			B			A			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	39.0	19.7	39.0	19.7
Change Period (Y+Rc), s	7.2	7.2	7.2	7.2
Max Green Setting (Gmax), s	40.6	20.0	40.6	20.0
Max Q Clear Time (g_c+I1), s	26.9	11.5	26.3	3.0
Green Ext Time (p_c), s	1.3	0.5	5.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	15.7
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
37: I-5 SB onramp/I-5 SB offramp & 93rd Ave SW

2045 Baseline
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	260	60	163	147	0	0	0	0	420	0	500
Future Volume (veh/h)	0	260	60	163	147	0	0	0	0	420	0	500
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1826	1826	1826	1826	0				1826	1899	1826
Adj Flow Rate, veh/h	0	295	25	185	167	0				477	0	231
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	5	5	5	5	0				5	5	5
Cap, veh/h	0	533	452	490	895	0				598	0	500
Arrive On Green	0.00	0.29	0.29	0.11	0.49	0.00				0.33	0.00	0.33
Sat Flow, veh/h	0	1826	1547	1739	1826	0				1809	0	1513
Grp Volume(v), veh/h	0	295	25	185	167	0				477	0	231
Grp Sat Flow(s),veh/h/ln	0	1826	1547	1739	1826	0				1809	0	1513
Q Serve(g_s), s	0.0	7.0	0.6	3.4	2.6	0.0				12.3	0.0	6.2
Cycle Q Clear(g_c), s	0.0	7.0	0.6	3.4	2.6	0.0				12.3	0.0	6.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	533	452	490	895	0				598	0	500
V/C Ratio(X)	0.00	0.55	0.06	0.38	0.19	0.00				0.80	0.00	0.46
Avail Cap(c_a), veh/h	0	726	615	518	1117	0				860	0	719
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.3	13.1	10.0	7.3	0.0				15.6	0.0	13.6
Incr Delay (d2), s/veh	0.0	0.9	0.1	0.5	0.1	0.0				3.5	0.0	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.5	0.2	1.0	0.7	0.0				4.4	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	16.2	13.1	10.5	7.4	0.0				19.1	0.0	14.2
LnGrp LOS		B	B	B	A					B		B
Approach Vol, veh/h		320			352						708	
Approach Delay, s/veh		16.0			9.0						17.5	
Approach LOS		B			A						B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.2	19.6		21.6		29.8
Change Period (Y+Rc), s	4.6	4.6		4.6		4.6
Max Green Setting (Gmax), s	6.4	20.4		24.4		31.4
Max Q Clear Time (g_c+I1), s	5.4	9.0		14.3		4.6
Green Ext Time (p_c), s	0.0	1.2		2.7		0.8

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	15.0
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
38: I-5 NB offramp/I-5 NB onramp & 93rd Ave SW

2045 Baseline
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	490	0	0	260	370	30	0	100	0	0	0
Future Volume (veh/h)	200	490	0	0	260	370	30	0	100	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1826	1826	0	0	1826	1826	1826	1899	1826			
Adj Flow Rate, veh/h	225	551	0	0	292	0	34	0	20			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	5	5	0	0	5	5	5	5	5			
Cap, veh/h	721	1156	0	0	585		130	0	109			
Arrive On Green	0.16	0.63	0.00	0.00	0.32	0.00	0.07	0.00	0.07			
Sat Flow, veh/h	1739	1826	0	0	1826	1547	1809	0	1510			
Grp Volume(v), veh/h	225	551	0	0	292	0	34	0	20			
Grp Sat Flow(s),veh/h/ln	1739	1826	0	0	1826	1547	1809	0	1510			
Q Serve(g_s), s	2.1	4.9	0.0	0.0	4.0	0.0	0.6	0.0	0.4			
Cycle Q Clear(g_c), s	2.1	4.9	0.0	0.0	4.0	0.0	0.6	0.0	0.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	721	1156	0	0	585		130	0	109			
V/C Ratio(X)	0.31	0.48	0.00	0.00	0.50		0.26	0.00	0.18			
Avail Cap(c_a), veh/h	1683	4812	0	0	3232		1299	0	1085			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	4.4	3.0	0.0	0.0	8.6	0.0	13.7	0.0	13.6			
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.0	0.2	0.0	0.4	0.0	0.3			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.0	0.9	0.0	0.2	0.0	0.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	4.6	3.1	0.0	0.0	8.8	0.0	14.1	0.0	13.9			
LnGrp LOS	A	A			A		B		B			
Approach Vol, veh/h		776			292			54				
Approach Delay, s/veh		3.6			8.8			14.0				
Approach LOS		A			A			B				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		24.3			9.7	14.6		6.8				
Change Period (Y+Rc), s		4.6			4.6	4.6		4.6				
Max Green Setting (Gmax), s		82.2			22.4	55.2		22.4				
Max Q Clear Time (g_c+I1), s		6.9			4.1	6.0		2.6				
Green Ext Time (p_c), s		1.1			0.6	0.5		0.0				

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	5.4
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	66.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	350	170	104	336	170	80
Future Vol, veh/h	350	170	104	336	170	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	443	215	132	425	215	101

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	658	0	1240	551
Stage 1	-	-	-	-	551	-
Stage 2	-	-	-	-	689	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	930	-	~ 193	534
Stage 1	-	-	-	-	577	-
Stage 2	-	-	-	-	498	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	930	-	~ 157	534
Mov Cap-2 Maneuver	-	-	-	-	~ 157	-
Stage 1	-	-	-	-	577	-
Stage 2	-	-	-	-	405	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	2.2	$ 316.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	203	-	-	930	-
HCM Lane V/C Ratio	1.559	-	-	0.142	-
HCM Control Delay (s/veh)	$ 316.6	-	-	9.5	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q (veh)	20.1	-	-	0.5	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	9.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	640	50	120	310	60	230
Future Vol, veh/h	640	50	120	310	60	230
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	435	400	-	220	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	771	60	145	373	72	277

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	831	0	1434	771
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	663	-
Critical Hdwy	-	-	4.11	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.209	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	806	-	148	402
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	514	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	806	-	121	402
Mov Cap-2 Maneuver	-	-	-	-	121	-
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	421	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	2.9	39.9
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	121	402	-	-	806	-
HCM Lane V/C Ratio	0.597	0.689	-	-	0.179	-
HCM Control Delay (s/veh)	71.5	31.6	-	-	10.4	-
HCM Lane LOS	F	D	-	-	B	-
HCM 95th %tile Q (veh)	3	5	-	-	0.7	-

Future (2045) with Mitigation

HCM 6th Signalized Intersection Summary
8: Deschutes Way SW & Boston St SW

2045 with Mitigation
PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	87	593	460	30	130	140
Future Volume (veh/h)	87	593	460	30	130	140
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.97		0.99	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1810	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	102	698	541	35	153	165
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	1	1	1	1	1	1
Cap, veh/h	93	636	716	46	188	771
Arrive On Green	0.48	0.48	0.41	0.41	0.41	0.41
Sat Flow, veh/h	193	1320	1751	113	844	1885
Grp Volume(v), veh/h	801	0	0	576	153	165
Grp Sat Flow(s),veh/h/ln	1515	0	0	1864	844	1885
Q Serve(g_s), s	53.0	0.0	0.0	29.1	15.9	6.2
Cycle Q Clear(g_c), s	53.0	0.0	0.0	29.1	45.0	6.2
Prop In Lane	0.13	0.87		0.06	1.00	
Lane Grp Cap(c), veh/h	730	0	0	763	188	771
V/C Ratio(X)	1.10	0.00	0.00	0.76	0.82	0.21
Avail Cap(c_a), veh/h	730	0	0	763	188	771
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	0.0	0.0	27.8	48.6	21.0
Incr Delay (d2), s/veh	63.1	0.0	0.0	4.3	23.5	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	31.3	0.0	0.0	13.7	5.5	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	91.6	0.0	0.0	32.1	72.1	21.2
LnGrp LOS	F			C	E	C
Approach Vol, veh/h	801		576			318
Approach Delay, s/veh	91.6		32.1			45.7
Approach LOS	F		C			D

Timer - Assigned Phs		2				6	8
Phs Duration (G+Y+Rc), s		51.0				51.0	59.0
Change Period (Y+Rc), s		6.0				6.0	6.0
Max Green Setting (Gmax), s		45.0				45.0	53.0
Max Q Clear Time (g_c+I1), s		31.1				47.0	55.0
Green Ext Time (p_c), s		3.4				0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	62.8
HCM 6th LOS	E

MOVEMENT SUMMARY

Site: 24 [9: Black Lake Blvd & Black Lake Belmore Rd (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Black Lake Blvd & Black Lake Belmore Rd
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Black Lake Blvd															
8	T1	All MCs	189	1.0	189	1.0	0.251	4.2	LOS A	1.4	34.5	0.44	0.47	0.44	15.4
18	R2	All MCs	78	1.0	78	1.0	0.251	4.5	LOS A	1.4	34.5	0.44	0.47	0.44	27.3
Approach			267	1.0	267	1.0	0.251	4.3	LOS A	1.4	34.5	0.44	0.47	0.44	18.9
East: Black Lake Belmore Rd															
1	L2	All MCs	122	1.0	122	1.0	0.311	6.5	LOS A	1.8	45.3	0.42	0.45	0.42	26.8
16	R2	All MCs	222	1.0	222	1.0	0.311	2.3	LOS A	1.8	45.3	0.42	0.45	0.42	17.6
Approach			344	1.0	344	1.0	0.311	3.8	LOS A	1.8	45.3	0.42	0.45	0.42	21.2
North: Black Lake Blvd															
7	L2	All MCs	244	1.0	244	1.0	0.523	11.5	LOS B	4.0	99.7	0.43	0.55	0.43	28.5
4	T1	All MCs	367	1.0	367	1.0	0.523	5.8	LOS A	4.0	99.7	0.43	0.55	0.43	33.8
Approach			611	1.0	611	1.0	0.523	8.1	LOS A	4.0	99.7	0.43	0.55	0.43	31.5
All Vehicles			1222	1.0	1222	1.0	0.523	6.1	LOS A	4.0	99.7	0.43	0.50	0.43	25.6

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

Site: 24 [11: 7th Ave & Linwood Ave (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

7th Ave & Linwood Ave
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: 7th Ave															
3	L2	All MCs	1	2.0	1	2.0	0.004	2.2	LOS A	0.0	0.5	0.52	0.29	0.52	18.1
8	T1	All MCs	1	2.0	1	2.0	0.004	2.2	LOS A	0.0	0.5	0.52	0.29	0.52	18.1
18	R2	All MCs	1	2.0	1	2.0	0.004	2.2	LOS A	0.0	0.5	0.52	0.29	0.52	18.1
Approach			3	2.0	3	2.0	0.004	2.2	LOS A	0.0	0.5	0.52	0.29	0.52	18.1
East: Linwood Ave															
1	L2	All MCs	1	2.0	1	2.0	0.522	5.6	LOS A	4.3	109.7	0.20	0.17	0.20	18.6
6	T1	All MCs	333	2.0	333	2.0	0.522	0.6	LOS A	4.3	109.7	0.20	0.17	0.20	24.5
16	R2	All MCs	322	2.0	322	2.0	0.522	1.5	LOS A	4.3	109.7	0.20	0.17	0.20	24.4
Approach			657	2.0	657	2.0	0.522	1.0	LOS A	4.3	109.7	0.20	0.17	0.20	24.5
North: 7th Ave															
7	L2	All MCs	300	2.0	300	2.0	0.317	7.4	LOS A	1.7	43.8	0.52	0.61	0.52	22.9
4	T1	All MCs	1	2.0	1	2.0	0.317	5.8	LOS A	1.7	43.8	0.52	0.61	0.52	17.9
14	R2	All MCs	11	2.0	11	2.0	0.317	3.2	LOS A	1.7	43.8	0.52	0.61	0.52	23.0
Approach			312	2.0	312	2.0	0.317	7.3	LOS A	1.7	43.8	0.52	0.61	0.52	22.9
West: Linwood Ave															
5	L2	All MCs	22	2.0	22	2.0	0.192	7.0	LOS A	1.0	25.7	0.48	0.35	0.48	23.8
2	T1	All MCs	167	2.0	167	2.0	0.192	1.9	LOS A	1.0	25.7	0.48	0.35	0.48	24.0
12	R2	All MCs	1	2.0	1	2.0	0.192	4.1	LOS A	1.0	25.7	0.48	0.35	0.48	18.4
Approach			190	2.0	190	2.0	0.192	2.5	LOS A	1.0	25.7	0.48	0.35	0.48	23.9
All Vehicles			1162	2.0	1162	2.0	0.522	3.0	LOS A	4.3	109.7	0.33	0.31	0.33	23.9

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

Site: 24 [39: 93rd Ave & Tilley Rd SW (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

93rd Ave & Tilley Rd SW
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Tilley Rd SW															
3	L2	All MCs	215	2.0	215	2.0	0.359	14.1	LOS B	2.2	55.3	0.64	0.71	0.64	34.6
18	R2	All MCs	101	2.0	101	2.0	0.359	8.2	LOS A	2.2	55.3	0.64	0.71	0.64	35.1
Approach			316	2.0	316	2.0	0.359	12.2	LOS B	2.2	55.3	0.64	0.71	0.64	34.8
East: 93rd Ave															
1	L2	All MCs	132	2.0	132	2.0	0.527	11.2	LOS B	4.0	100.8	0.58	0.56	0.58	35.5
6	T1	All MCs	425	2.0	425	2.0	0.527	5.6	LOS A	4.0	100.8	0.58	0.56	0.58	34.2
Approach			557	2.0	557	2.0	0.527	6.9	LOS A	4.0	100.8	0.58	0.56	0.58	34.5
West: 93rd Ave															
2	T1	All MCs	443	2.0	443	2.0	0.578	5.1	LOS A	4.9	123.9	0.51	0.48	0.51	35.0
12	R2	All MCs	215	2.0	215	2.0	0.578	5.1	LOS A	4.9	123.9	0.51	0.48	0.51	36.9
Approach			658	2.0	658	2.0	0.578	5.1	LOS A	4.9	123.9	0.51	0.48	0.51	35.6
All Vehicles			1532	2.0	1532	2.0	0.578	7.2	LOS A	4.9	123.9	0.56	0.56	0.56	35.0

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: C:\fpbox\Box\-Projects\TC-Projects\2024\TC24-0105_Tumwater Transportation Master Plan and Impact Fees\Analysis\Operation Analysis\2050 Mitigation\Sidra\2050.sip9

MOVEMENT SUMMARY

Site: 24 [40: Old Hwy 99 & 93rd Ave (Site Folder: Tumwater)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Old Hwy 99 & 93rd Ave
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: 93rd Ave															
3	L2	All MCs	72	1.0	72	1.0	0.559	18.0	LOS B	4.8	121.5	0.91	0.88	1.13	32.9
18	R2	All MCs	277	1.0	277	1.0	0.559	12.4	LOS B	4.8	121.5	0.91	0.88	1.13	33.3
Approach			349	1.0	349	1.0	0.559	13.6	LOS B	4.8	121.5	0.91	0.88	1.13	33.2
East: Old Hwy 99															
1	L2	All MCs	145	1.0	145	1.0	0.431	11.8	LOS B	3.3	84.4	0.34	0.52	0.34	36.4
6	T1	All MCs	373	1.0	373	1.0	0.431	6.2	LOS A	3.3	84.4	0.34	0.52	0.34	39.9
Approach			518	1.0	518	1.0	0.431	7.8	LOS A	3.3	84.4	0.34	0.52	0.34	38.9
West: Old Hwy 99															
2	T1	All MCs	771	1.0	771	1.0	0.725	7.4	LOS A	7.5	188.0	0.64	0.54	0.64	39.6
12	R2	All MCs	60	1.0	60	1.0	0.725	7.1	LOS A	7.5	188.0	0.64	0.54	0.64	36.5
Approach			831	1.0	831	1.0	0.725	7.3	LOS A	7.5	188.0	0.64	0.54	0.64	39.3
All Vehicles			1699	1.0	1699	1.0	0.725	8.7	LOS A	7.5	188.0	0.60	0.61	0.65	37.8

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
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Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: C:\fpbox\Box\-Projects\TC-Projects\2024\TC24-0105_Tumwater Transportation Master Plan and Impact Fees\Analysis\Operation Analysis \2050 Mitigation\Sidra\2050.sip9

Transportation Plan

Appendix C – Bicycling, Walking, & Rolling Plan

City of Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 6, 2025

December 2025

Ordinance No. O2025-010

CITY OF TUMWATER

Transportation Plan

Appendix B – Bicycling, Walking, & Rolling Plan

Table of Contents

1. Introduction 4
A. Vision 4
B. Active Transportation 4
C. Reasons for Investment 5
D. Partnering Agencies 6
2. Framework and Analysis 8
A. Existing Plans 8
B. Key Destinations & Origins 10
C. Level of Traffic Stress 14
D. Pedestrian Network Analysis: Gaps 15
E. Bicycle Network Analysis: Gaps & Level of Traffic Stress 19
3. The Future Network 24
A. Active Transportation in the Community 24
B. Public Outreach 25
C. Mode Shift 25
D. Priority Networks & Near-Term Investments 27
E. Active Transportation Projects 30
F. Funding Opportunities 34
G. Programmatic Improvements 36

List of Tables

Table BWR-1. Pedestrian Level of Traffic Stress Classifications for Different Facilities. 17
Table BWR-2. Bicycle Level of Traffic Stress. 21
Table BWR-3. Bicycle Facility Types. 21
Table BWR-4. 20-Year Active Transportation Project List. 30

List of Figures

Figure BWR-1. Key Destinations in Tumwater. 12

DRAFT

Figure BWR-2. Level of Traffic Stress Breakdown. 14
Figure BWR-3. Existing Pedestrian Facilities. 16
Figure BWR-4. Existing Pedestrian Level of Traffic Stress. 18
Figure BWR-5. Existing Bicycle Facilities. 19
Figure BWR-6. Bicycle Level of Traffic Stress Definitions. 20
Figure BWR-7. Existing Bicycle Level of Traffic Stress. 23
Figure BWR-8. Share of Primary Travel Options for Commuting to Work. 26
Figure BWR-9. Tumwater's 2045 Mode Shift Goals. 26
Figure BWR-10. Pedestrian Priority Network. 28
Figure BWR-11. Bicycle Priority Network. 29

Abbreviations Used in Document

LTS – Level of Traffic Stress

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1. Introduction

A. Vision

The purpose of the Tumwater Bicycling, Walking, & Rolling[1] Plan is to establish a strategy to improve city-wide bicycle and pedestrian facilities, making the community's active transportation network safe, accessible, and inviting for all users.

To achieve this, Tumwater will develop new or strengthen existing bicycling and walking connections to key destinations such as transit centers, activity centers, trails, schools, and employment sites. The strategy also prioritizes providing frequent, high quality crossing opportunities for active transportation users, especially along transit routes and in densely populated areas.

In Tumwater, historic development patterns and the rising popularity of cars changed the ways people connected to places and communities. Railroad connections and topography initially made it difficult to include downtown on major transportation lines without steep uphill climbs on the bluff east of Deschutes River Valley. These choices altered the economic conditions and slowed the growth of Tumwater's downtown.

The construction of Capitol Blvd in 1938 moved traffic away from the historic downtown. Then in the 1950s, the construction of Interstate 5 through the historic downtown bisected Tumwater and disconnected communities. The increasing convenience and popularity in motorized vehicle travel resulted in environmental concerns such as greenhouse gas emissions, air pollution, water runoff pollution, and noise pollution.

The Bicycling, Walking, & Rolling Plan prioritizes human-scale investments that connect people and communities, enhance the environment, and revitalize local economy. The projects and priorities in this plan are guided by community engagement, gap analysis, and the work of previous Tumwater plans.

B. Active Transportation

Active transportation includes any primarily human-powered mode of transportation such as walking, bicycling, using a mobility device like a wheelchair or scooter, roller skating, skateboarding, or using electric micromobility devices including e-bikes and e-scooters. It does not include motorcycles or larger and higher speed vehicles.

All trips start and end with active transportation, like walking, rolling, or bicycling to or from a private vehicle or a bus stop.

Active transportation contributes to a healthy, active community while reducing pollution and negative health impacts from driving. Active transportation is also an important part of a

[1] Rolling includes using mobility devices like wheelchairs or scooters, roller skating or skateboarding, and using electric micromobility devices.

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successful transportation system, as it reduces roadway congestion.

The Interstate 5 and US 101 create major barriers to active transportation in Tumwater. Limited crossings, many without bike lanes and sidewalks, mean that people travelling without vehicles are at a distinct disadvantage. The terrain of Tumwater similarly presents obstacles as large elevation changes are difficult to traverse when using human powered modes.

C. Reasons for Investment

There are many reasons to prioritize investments in active transportation infrastructure. Improving the active transportation system increases the safety and accessibility for users, making it easier to use. Increasing the share of trips made by alternative transportation will help Tumwater improve community health, promote accessibility, and reach its per capita vehicle miles traveled reduction and mode shift goals.

1) Access

Travel choice is influenced by many factors including ability, socioeconomic status, and infrastructure. Active transportation investments promote accessibility by increasing transportation choices available to all members of the community regardless of ability or income. Developing a safe and complete active transportation network is essential in making this mode an accessible and inviting option to users.

People who do not or cannot drive may have no other choice but to use active transportation to get to school, work, and other key destinations. Based on a statewide study, it is likely that approximately 25 to 35 percent of Tumwater's residents are unable to Dr, either due to:

- Age (both young and old)
- The costs of purchasing, operating, and maintaining a car
- A disability or condition that prevents or limits driving
- Preference not to have a car
- Lack a driver's license[2]

In addition, people who tend to drive may be temporarily unable to drive due to car repairs or maintenance.

A lack of infrastructure allowing people to use active transportation safely and conveniently creates an access concern. A safe, and convenient active transportation network provides more travel choices to all residents, regardless of age or ability.

2) Community Health

Active transportation supports Tumwater's overall transportation system, promotes healthy lifestyles, improves air quality, and enhances economic conditions and community character.

Investment in active transportation infrastructure creates opportunities for people to build exercise into their daily routine. Active lifestyles reduce the risk of associated health conditions such as obesity, diabetes, and cardiovascular disease.

[2] https://leg.wa.gov/media/41gegl2v/nondriversstudyfinalreportsummaryreport.pdf.

Increasing the share of trips made by active transportation will help reduce vehicle trips and roadway congestion in Tumwater, reducing emissions and air pollution.

Air quality due to vehicle transportation is a significant area of focus for Tumwater. Pollution from vehicle transportation contributes to asthma and other respiratory illnesses and can make existing health conditions worse. People who live near heavy traffic roadways are exposed to higher levels of air pollution from diesel and gasoline exhaust.[3]

3) Vehicle Miles Traveled

Vehicle miles traveled is defined as the miles driven by cars on roads in Tumwater. Transportation is one of the largest contributors to greenhouse gas emissions in Tumwater, so reducing vehicle miles traveled is a key part of reaching Tumwater's greenhouse gas reduction goals.

Improving access for other modes of transportation can also reduce the need for expensive road capacity projects. Tumwater strives to achieve a 27 percent reduction in per capita vehicle miles traveled compared to 2022 base-year volumes by 2040 and a 41 percent reduction by 2050.

4) Mode Shift

Tumwater is committed to increasing the share of trips made by alternatives to driving alone and active transportation is an important part of achieving this goal. Tumwater has set goals of shifting 15 percent of single occupancy vehicle trips to walking, bicycling, and transit.

5) Transit

Many people who use active transportation also take transit as part of their trip to work, school, and other key destinations.

Intercity Transit operates four routes in Tumwater and is free and accessible to all users. Used in conjunction with active transportation, taking the bus connects people with a larger travel radius and more destinations. Intercity Transit buses are also equipped with bike racks, making transit a convenient option for people who bike to and from their bus stop.

Tumwater will continue to partner with Intercity Transit to ensure bus stops are accessible, safe, and convenient so people can easily transition from active transportation to taking the bus.

D. Partnering Agencies

Tumwater routinely coordinates with agencies and community groups on transportation.

For example, Tumwater works closely with Intercity Transit to ensure transit is accommodated on City roadways. Cross coordination also occurs between Tumwater and Thurston Regional Planning Council to implement the Regional Trails Plan and other regional transportation planning and projects.

[3] Health effects from diesel pollution - Washington State Department of Ecology

Tumwater will continue to seek opportunities to partner with neighboring jurisdictions to create more connectivity between boundaries. Tumwater will also explore partner with other agencies when applying for grants to make proposals more competitive.

Tumwater provided opportunities for key stakeholders to comment on this Bicycling, Walking, & Rolling Plan. The plan was reviewed and revised in coordination with the following community groups and government entities:

- Intercity Transit
- People First
- Puget Sound Asthma Coalition
- Thurston County
- Thurston County Developmental Disability Coalition
- Thurston Regional Planning Council
- Washington State Department of Transportation

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2. Framework and Analysis

A. Existing Plans

Several plans provide active transportation infrastructure that meets community priorities. The plans below include Tumwater specific plans.

1) Tumwater Transportation Plan

The Tumwater Transportation Plan serves as a guide for improvement and expansion of the transportation system to meet demands through a horizon year of 2045 and includes the Bicycling, Walking, and Rolling Plan as Appendix B. There are a number of Subarea Plans that are incorporated into the Transportation Plan update and project list development.

2) Parks, Recreation and Open Space Plan

The Parks, Recreation and Open Space Plan (2016) includes projects that serve both recreational and transportation purposes, such as trails. Existing trails maintained by Tumwater include:

- Deschutes Valley Trail
- Historic Park / Tumwater Falls Trail – 1.2 miles of dirt, paved, and brick trail connecting to Capitol Lake Interpretive Park in the Deschutes Valley
- Palermo Watershed Trail – 0.7 miles of dirt path near Tumwater Valley Golf Course.
- Pioneer Park Trails – 2.1 miles of looping dirt and paved nature paths
- Tumwater Hill Trail – 0.5 miles of dirt nature path beginning at Ridgeview Court SW adjacent to Tumwater Hill Elementary School.
- Tyee Drive Trail – 0.2 miles of mixed use trail extending from BPA easement northward.

More information about the trail system is found in the Parks, Recreation and Open Space Plan.

3) Americans with Disabilities Act Transition Plan Update

The purpose of the Americans with Disabilities Act Transition Plan is to ensure that Tumwater continues to create reasonable accessible paths of travel in the public right-of-way for everyone, including people with disabilities.

Tumwater conducted a self-assessment in 2020, inventorying sidewalks and noting deficiencies. Updated in 2021, the plan discusses methods Tumwater uses to identify, evaluate, and remove barriers. Barrier removal is prioritized based upon public input, location, condition, and cost effectiveness. A schedule for correcting these deficiencies as funding is available is needed.

4) Brewery District Plan

The Brewery District is centered around the former Olympia Brewery. This district is one of the oldest parts of Tumwater.

The Brewery District Plan aims to guide redevelopment in the area to improve transportation safety and access. Originally adopted in 2014 and amended in 2020, the plan has four goals:

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- Create a stronger sense of place by facilitating pedestrian access, establishing gathering places for residents, and fostering a distinct District identity.
- Improve transportation options, safety, and access within and across the District.
- Expand economic opportunity and activity.
- Improve the function and appearance of the built environment.

Improving alternative transportation is a priority both within the Brewery District and on the streets that connect the Brewery District to other parts of Tumwater. Connections to the district are part of the bicycle priority network shown in Figure BWR-11.

5) Capitol Blvd Corridor Plan

The Capitol Blvd Corridor is Tumwater's most traveled St, developed primarily in the 1950s and 1960s. It is located between the Southgate Shopping Center area and Israel Rd.

The Capital Blvd Corridor Plan was adopted in 2015 and has three main goals:

- Improve the business conditions.
- Improve safety and expand transportation options for all users of the corridor including pedestrians, bicycles, and vehicles.
- Improve the aesthetic appeal of the corridor as a whole.

This corridor is part of the bicycle priority network shown in Figure BWR-11.

6) Old Highway 99 Corridor Plan

Old Highway 99 Corridor Plan addresses the development and improvement of Old Highway 99 from 79th Ave to 93rd Ave.

The Plan incorporated land use, environmental, and transportation considerations as necessary to determine preferred alignment, cross sections, intersection control, stormwater strategies, mitigation strategies, right-of-way needs, implementation strategies, and future project estimates.

The Plan was adopted in 2024 and is used to prioritize projects, including projects that improve active transportation along the corridor.

7) Regional Plans

Connections throughout the region are essential to provide effective services for those traveling in Tumwater. Regional plans were considered during the development of the Plan. Details of some of the other agency plans are discussed below.

a) Thurston Regional Planning Council Regional Trails Plan

The goal of the Thurston Regional Trails Plan is to establish a comprehensive, well-connected non-motorized trail network that links all communities throughout the region. Eight government entities own and operate the region's major trails.

As of 2023, 14 major trail corridors in the region provide over 57 miles of trails. These trail corridors help connect people to the outdoors for recreation and provide a safe and convenient way to travel to key destinations and economic opportunities.

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The Thurston Regional Trails Plan outlines the proposed trail projects that will expand the regional trail system, enhance the current system, and increase connections within the trail network.

In Thurston Regional Planning Council's 2021 "Connect. Explore. Move. How do you trail?" survey, 20 percent of respondents used trails for commuting to work, school, or errands.[4] Respondents selected the following trails to prioritize in the next 20 years:

- **Deschutes Valley Trail** – connecting Tumwater and Olympia along the Deschutes River
- **Gate Belmore Trail** – connecting Tumwater and Olympia with Rochester and the Chehalis Reservation
- **Karen Fraser Woodland Trail Extension** – connecting Olympia southwest to Tumwater

The completion of the 0.8-mile segment of the Deschutes Valley Trail between Historical Park and Brewery Park at Tumwater Falls was the most recent milestone in the regional trail network.

The following trail corridors, extensions, and system enhancements are included in the Regional Trails Plan:

- **Capitol Lake to Belmore Trail Corridor**
  - Black Lake Trail – conceptual (20+ years)
- **Deschutes Valley Trail Corridor**
  - Tumwater Valley Dr extension – planned (2026)
  - Pioneer Park extension – planned (20+ years)
- **Tumwater to Downtown Olympia Union Pacific Line Corridor**
  - East Olympia Trail – conceptual (20+ years)
  - Bonneville Power Administration Shared Use Path – conceptual (20+ years)
- **Karen Fraser Woodland Trail Corridor**
  - Olympia Phase 4 extension, Henderson to Tumwater – planned (20+ years)

B. Key Destinations & Origins

Understanding where people want to travel is a key component to developing a transportation system that works for users.

For active transportation it is important to consider people using the system to access daily needs and connections to transit since they may not have other transportation options. Access to public education is also critical since very few of the people accessing those services can drive alone and congestion near schools for pick up and drop off is an increasing concern.

[4]https://www.trpc.org/DocumentCenter/View/12180/Regional-Trails-Plan-FINAL---December-2023.

Key destinations are shown in Figure BWR-1 and described in more detail below.

1) Schools

The Tumwater School District served 6,328 students as of 2025. The district includes ten K-12 schools within Tumwater's city limits.

- A.G. West Black Hills High School
- Black Lake Elementary School
- Cascadia High School
- George Bush Middle School
- Michael T. Simmons Elementary School
- New Market Skills Center
- Peter G. Schmidt Elementary School
- Tumwater High School
- Tumwater Hill Elementary School
- Tumwater Middle School

2) South Puget Sound Community College

Located in Olympia on Tumwater's northwest border, South Puget Sound Community College serves 6,000 students. The college is connected to Tumwater by designated bike routes as well as several Intercity Transit routes.

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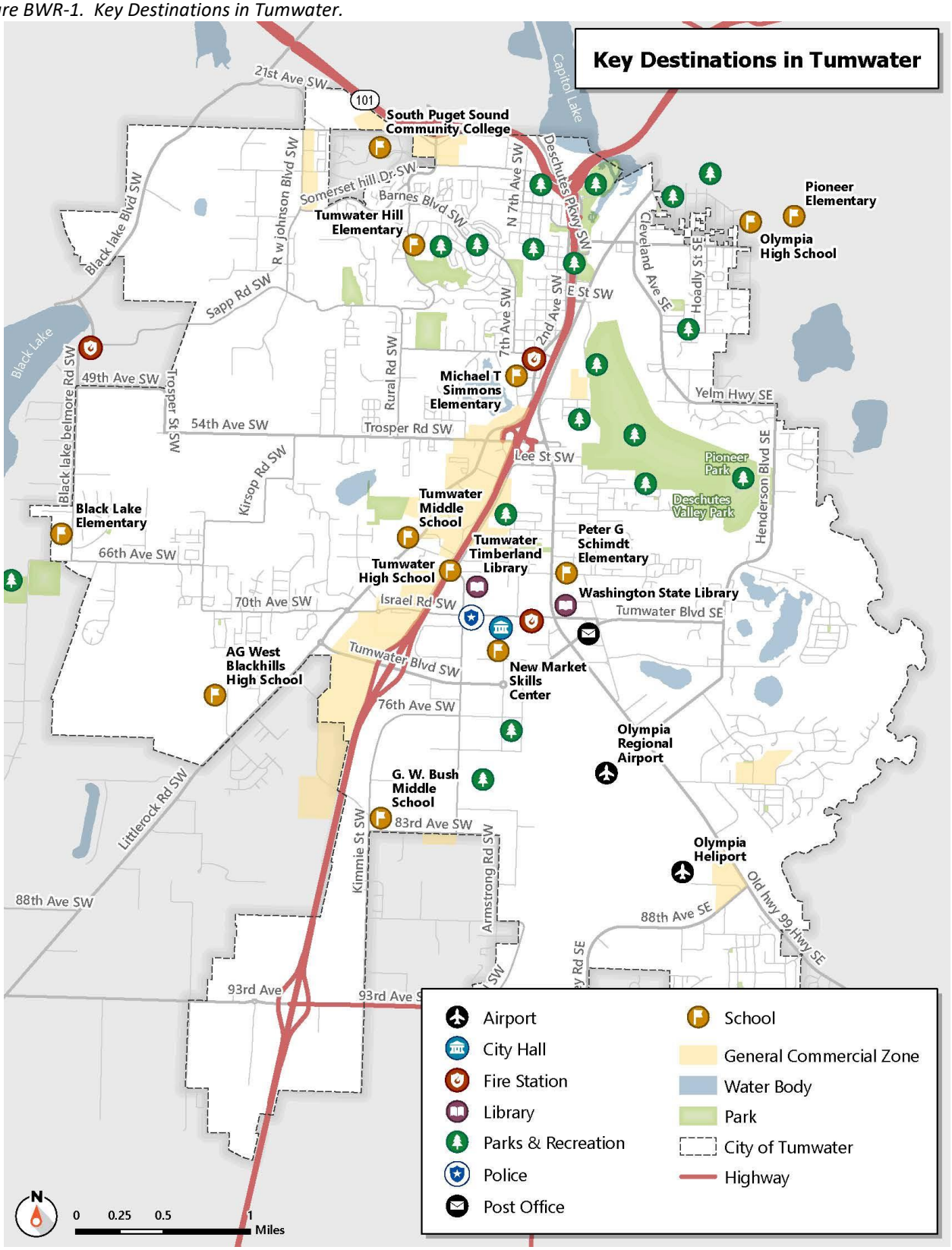
Figure BWR-1. Key Destinations in Tumwater.



3) Libraries

The Tumwater Timberland Library offers resources available to anyone with a library card.

The library provides computer access, meeting rooms, study spaces, and events, as well as books and other media. The library is also one of two locations that act as a cooling and warming center during inclement weather.

4) Food Banks

There are seven locations that function as food banks and serve Tumwater residents during certain hours[5]:

- Littlerock United Methodist Church
- Lutheran Church of the Good Shepherd
- Mountain View Church
- Northstar Church of God
- South Puget Sound Community College
- Tumwater Senior Center
- Tumwater United Methodist Church

5) Parks & Recreation

Tumwater operates 12 parks and recreation facilities, including neighborhood parks, waterfront parks, sports facilities, and trails. Parks are large attractions for active transportation users.

- **5th and Hayes Pocket Park**. This small neighborhood park features a basketball court and a playground.
- **Barclift Park**. This park has the following amenities: basketball court, picnic areas, playground, restroom, tennis court, and trails.
- **Deschutes Valley Park**. This park features picnic areas, a playground, and restrooms.
- **Tumwater Historical Park.** At 17 acres, this is one of the largest parks in Tumwater. Amenities include barbeque grills, boat launch, picnic areas, a large playground, restroom, rentable shelter, and trails.
- **Isabella Bush Park**. This park contains trails and wetlands.
- **Jim Brown Park**. This neighborhood park features basketball courts, picnic areas, a playground, and tennis courts.
- **Overlook Point Park**. This park offers picnic areas and viewpoints.
- **Palermo Pocket Park**. This neighborhood park has basketball courts and a playground.
- **Pioneer Park**. One of the largest parks in Tumwater, Pioneer Park, has the following amenities: barbeque grills, baseball field, horseshoe pits, picnic areas, a playground, restrooms, rentable shelter, soccer fields, trails, and volleyball courts.
- **Tumwater Hill Park**. This park has a baseball field, picnic areas, restroom, and trails.
- **Tumwater Valley Municipal Park**. This golf course offers 20 holes of

[5] https://tcfb.org/services/locations/pick-up/.

championship-caliber golf and a ten-acre driving range.

- **V St Park**. This small neighborhood park has a basketball court and a playground.

6) ASHHO Cultural Community Center

The ASHHO Cultural Community Center is a private event center used for meetings, conferences, retreats, fundraising events, parties, and markets.

7) Olympia Regional Airport

Operated by the Port of Olympia, the Olympia Regional Airport and the associated New Market Industrial Center covers 845 acres and supports over 500 jobs. The general aviation airport has two runways and offers aircraft service and maintenance, flight instruction, and hangar space.

Commercial passenger airline service is anticipated by not currently available, but charter flight service is offered. Shuttle services are available to transport passengers to Seattle-Tacoma International Airport.

C. Level of Traffic Stress

Tumwater is adopting new multimodal Level of Service metrics as part of the Transportation Plan update. These metrics show where the transportation system has strengths and opportunities for improvement. While congestion and delay are used to measure vehicle level of service, different multimodal level of service metrics are used for active transportation.

Level of Traffic Stress (LTS) provides a quantifiable tool to gauge the comfort and safety of active transportation infrastructure. Level of traffic stress ranges from 1, where a wide range of users feel safe and comfortable, to 4, representing the highest Level of Traffic Stress where most users feel uncomfortable and will likely not choose to walk or bicycle.

Figure BWR-2 illustrates all four levels of traffic stress.

Figure BWR-2. Level of Traffic Stress Breakdown.

Source: Fehr & Peers, 2025.

It is important to note that while levels of traffic stress 3 and 4 feel uncomfortable to most users, some people have no choice but to use active transportation on these facilities. Tumwater is committed to achieving a Level of Traffic Stress of 1 or 2 on its roadways. Achieving this goal will improve comfort for people who already use active transportation and will make active transportation a more attractive option for people who have a choice of transportation modes.

Given that levels of traffic stress for bicycling and walking are influenced by different factors, the breakdown for bike and pedestrian levels of traffic stress varies slightly.

D. Pedestrian Network Analysis: Gaps

Pedestrian facilities in Tumwater consist of sidewalks and shared-use trails. Sidewalks are available along many arterials, streets within the central business district, and in newer subdivisions. However, older residential areas often have incomplete or poorly maintained sidewalks. Tumwater has a total of 70 road miles with sidewalks of which roughly 33 miles are complete with pedestrian facilities on both sides of the St.

Figure BWR- 3 shows the existing pedestrian facilities in Tumwater.

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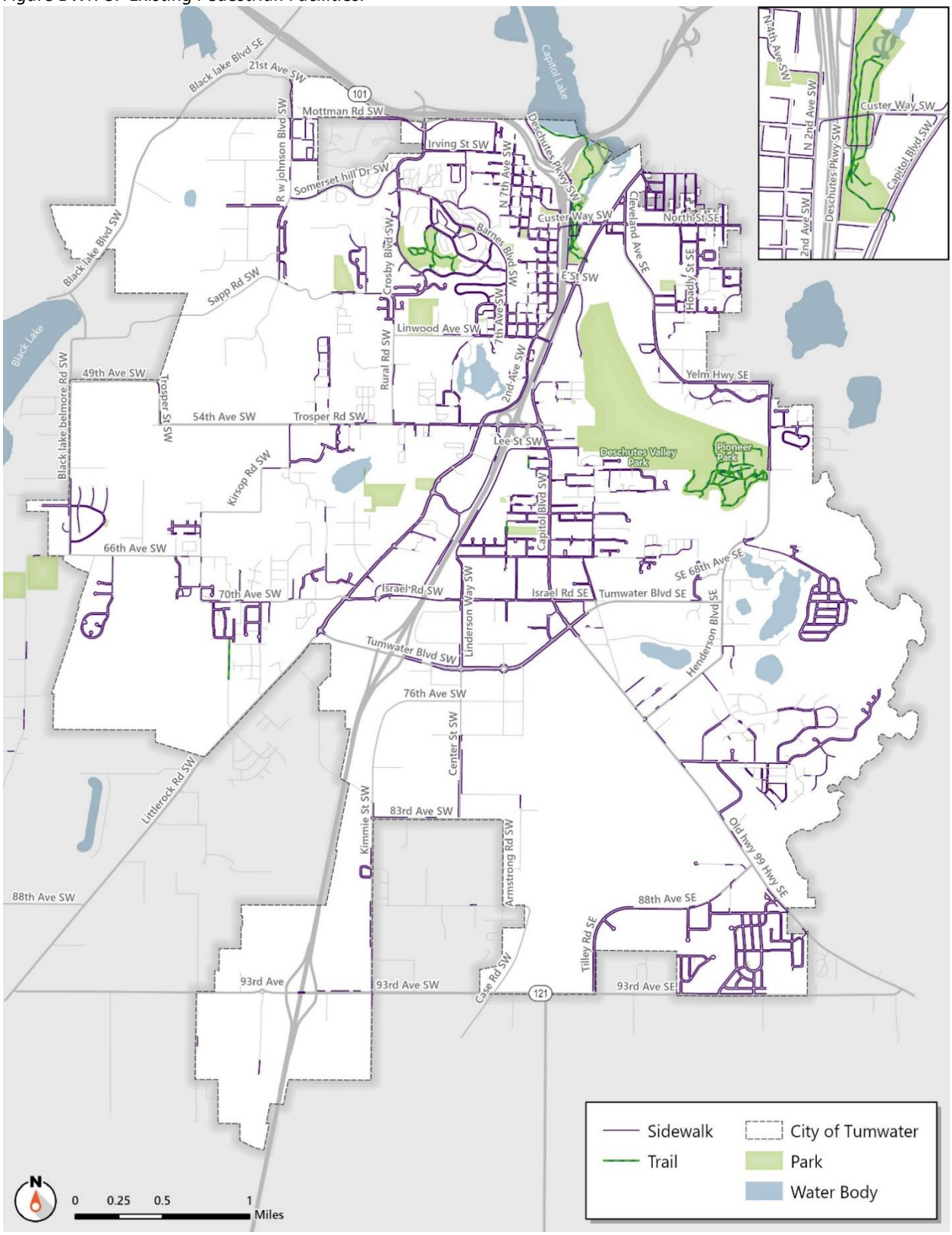
Figure BWR-3. Existing Pedestrian Facilities.



Source: Fehr & Peers, 2025.

1) Pedestrian Level of Traffic Stress

Pedestrian Level of Traffic Stress is based on the roadway classification and presence of pedestrian facilities. Table BWR-1 illustrates the breakdown of pedestrian level of stress values while Figure BWR-4 shows how Level of Traffic Stress values apply to the pedestrian network throughout Tumwater.

Major arterials typically receive a score of 2 given the presence of sidewalks on both sides of the St. Where there are no pedestrian facilities, a score of 4 is assigned.

It is important to note that Pedestrian Level of Traffic Stress is limited to the variables shown in the table and does not consider sidewalk condition and necessary maintenance, presence of a landscaped buffer, or other important characteristics.

Table BWR-1. Pedestrian Level of Traffic Stress Classifications for Different Facilities.

Roadway Classification	No Pedestrian Facility	Sidewalk One Side	Sidewalk Both Sides	Separated Path/Trail
Local	4	2	1	1
Collector	4	2	2	1
Arterial	4	3	2	1

Source: Fehr & Peers, 2025.

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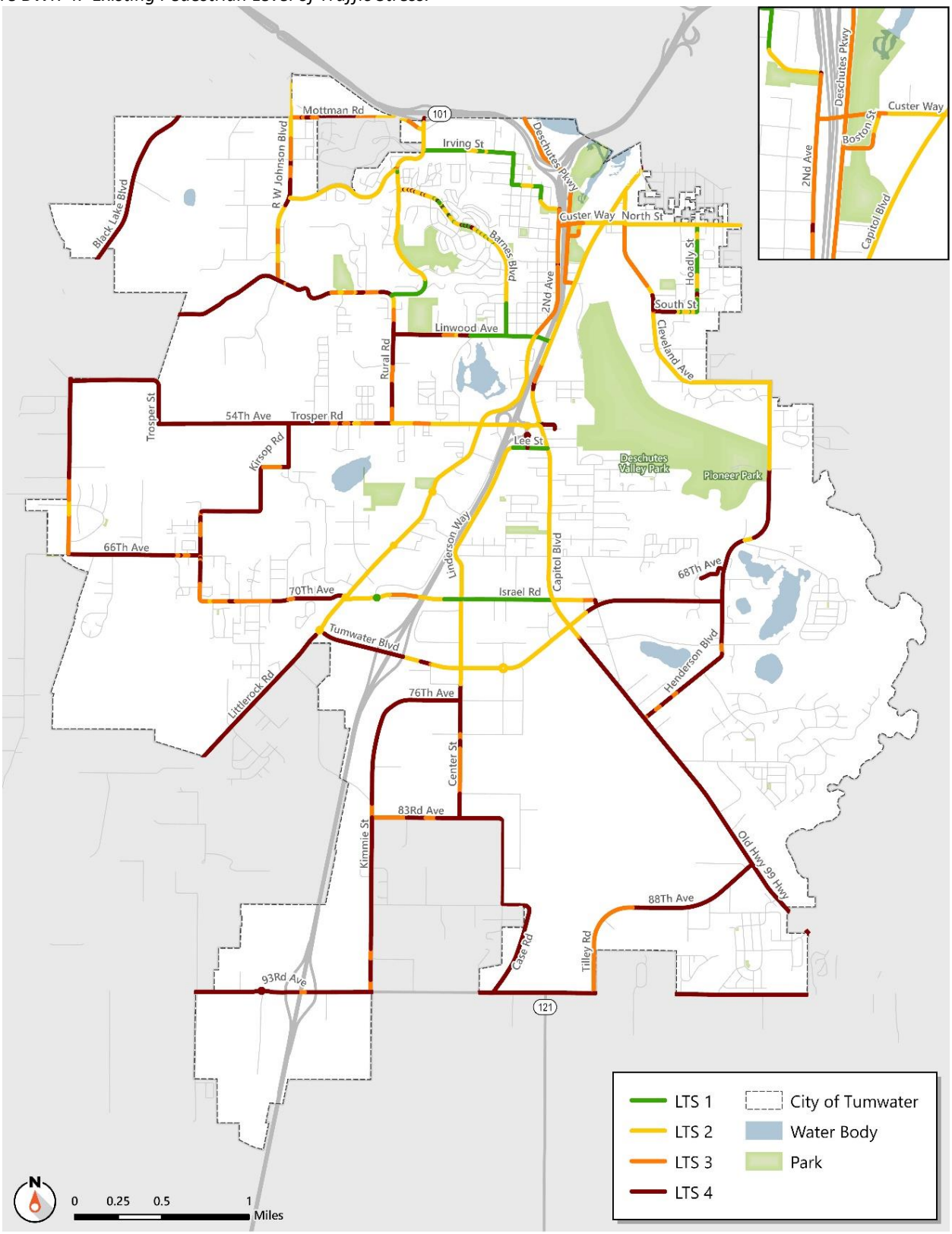
Figure BWR-4. Existing Pedestrian Level of Traffic Stress.

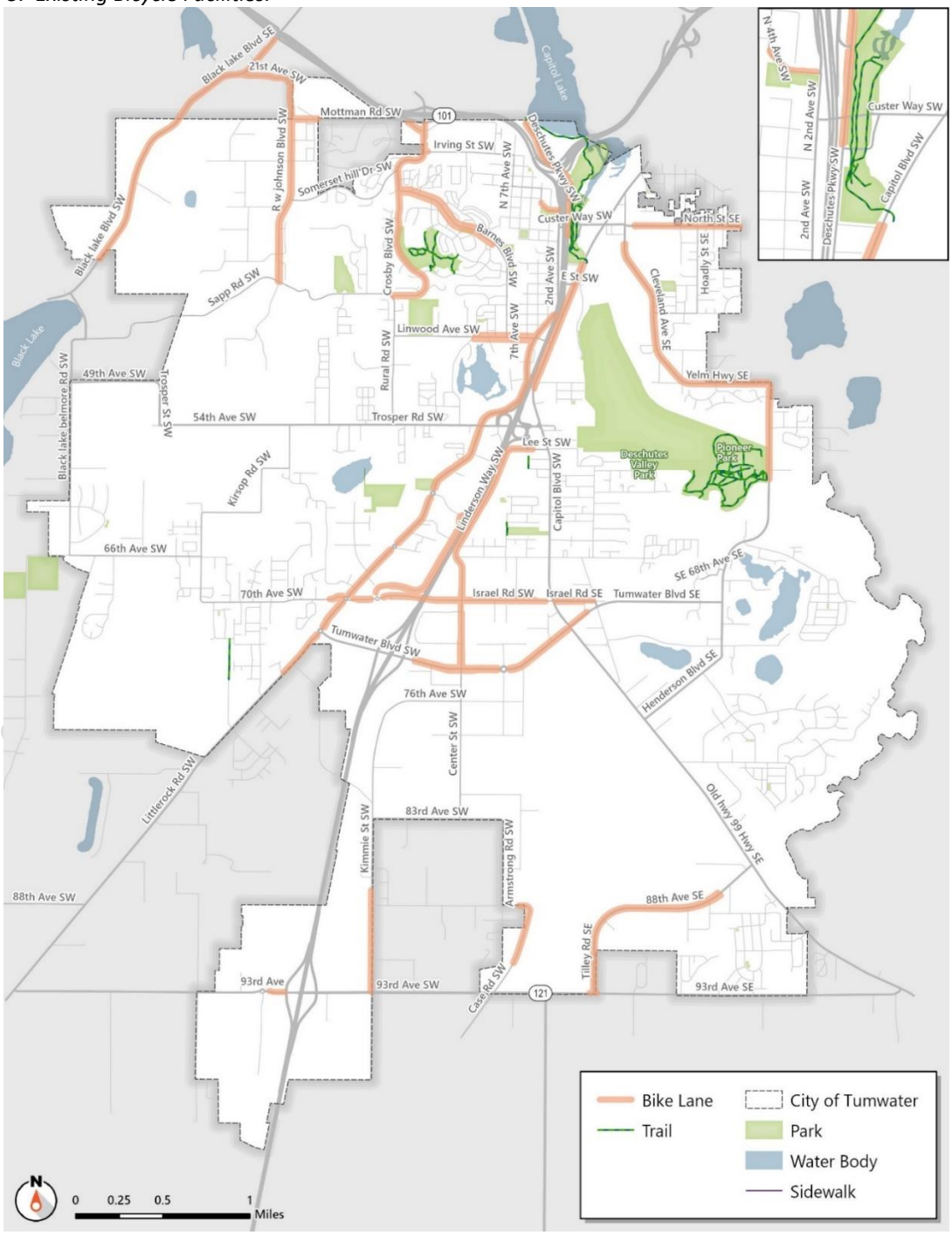


Source: Fehr & Peers, 2025.

E. Bicycle Network Analysis: Gaps & Level of Traffic Stress

The bicycle network within Tumwater primarily consists of bike lanes and shared-use trails as shown in Figure BWR-5. Of the 87 total miles in the bike network, about 27 miles (31 percent) are complete with bike facilities on both sides of the street.

Figure BWR-5. Existing Bicycle Facilities.



Source: Fehr & Peers, 2025.

2) Bicycle Level of Traffic Stress

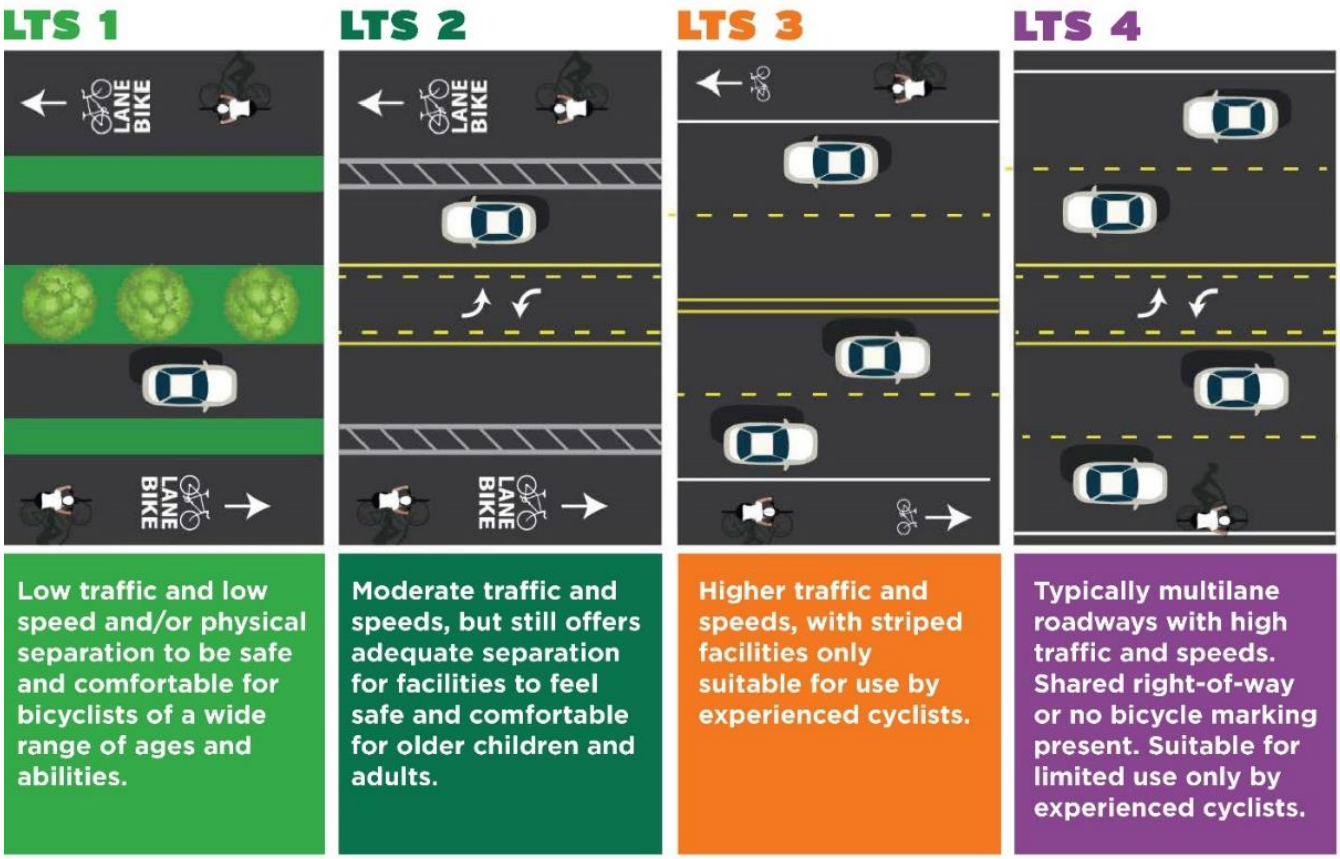
The way bicycle Level of Traffic Stress is determined is shown in Figure BWR-6**.** It incorporates factors such as posted speed limit, annual average daily vehicle traffic volume, and type of bicycle facility. Although features like buffered bike lanes and separated bike lanes are absent in Tumwater today, they are included for future reference.

Facilities like shared-use paths consistently receive a score of 1, as they are entirely separated from the roadway and are not affected by vehicular traffic. Striped bike lanes, which are common in Tumwater, score from 1 to 4 depending on the roadway speed limit and traffic volume.

Table BWR-2 and Figure BWR-7 shows the Level of Traffic Stress for bicycle facilities in Tumwater. This is further explained in Table BWR-3 which shows examples of bike facilities, and the Level of Traffic Stress score they receive.

The analysis shows the gaps within both the bicycle and pedestrian networks. However, it is crucial to acknowledge that both pedestrian and bicycle Level of Traffic Stress assessments lack considerations for factors such as maintenance, actual driver speeds as opposed to posted speed limits, roadway crossings, and facility width, which are crucial in ensuring optimal user experiences. Thus, any formulation of future bike and pedestrian projects in Tumwater should use the maps as a reference and holistically address these additional considerations.

Figure BWR-6. Bicycle Level of Traffic Stress Definitions.



Source: WSDOT, Fehr & Peers, 2025.

Table BWR-2. Bicycle Level of Traffic Stress.

Roadway Characteristics		Bicycle Facility Component					
Speed Limit (MPH)	Annual Average Daily Traffic	No Bicycle Facility	Wide Shoulder	Striped Bicycle Lane	Buffered Bicycle Lane (Horizontal)	Separated Bicycle Lane (Vertical)	Shared Use Path
25	<1,500	3	1	1	1	1	1
	1,500 – 7,000	3	2	2	2	1	1
	>7,000	4	2	2	2	1	1
30	<7,000	4	3	2	2	1	1
	7,000 – 15,000	4	3	3	2	1	1
	>15,000	4	4	3	3	2	1
35	<15,000	4	4	3	3	3	1
	>15,000	4	4	4	3	3	1
>35	Any	4	4	4	4	3	1

Source: Fehr & Peers, 2025.

Table BWR-3. Bicycle Facility Types.

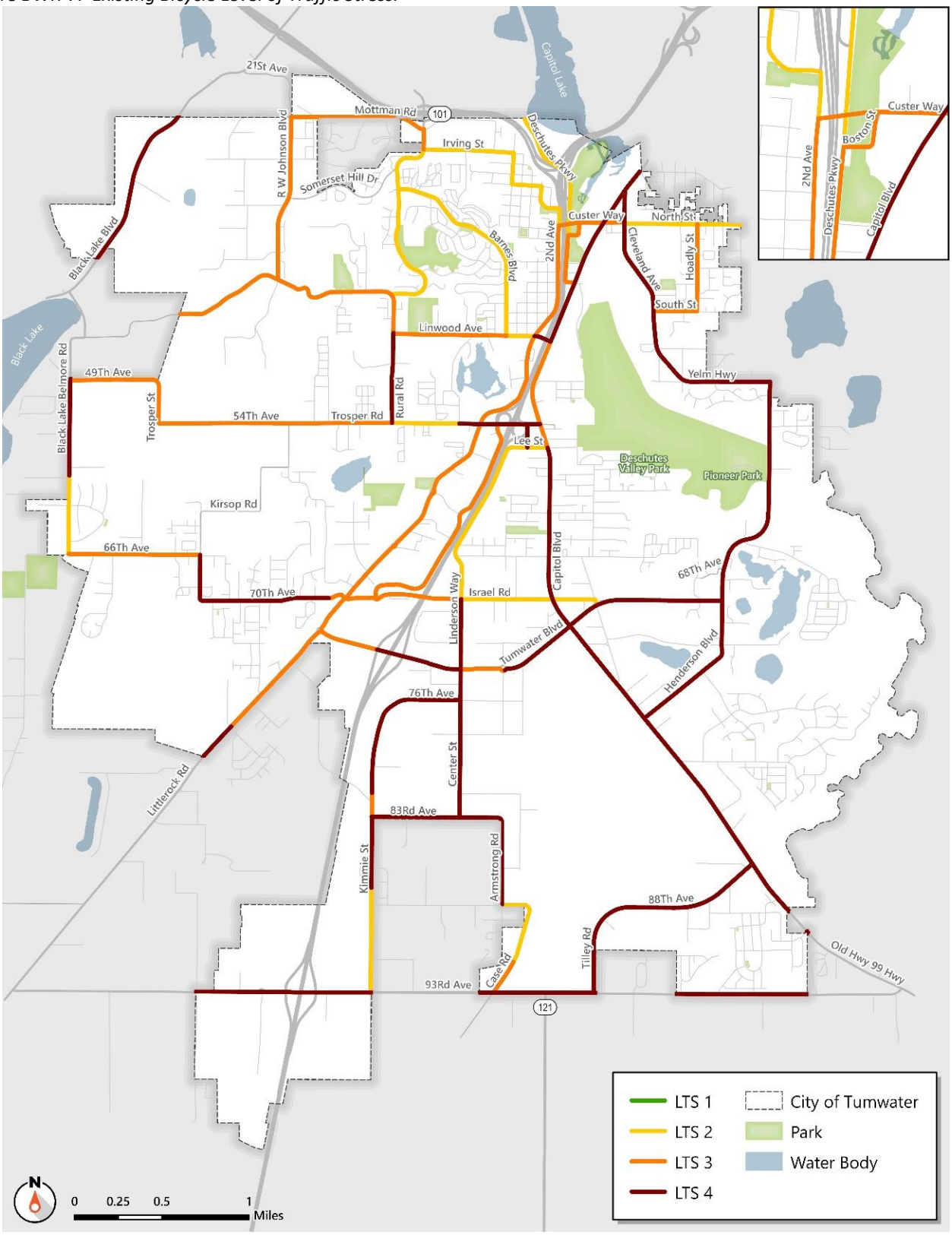
Facility Type	Description	Example
Off-Corridor Bike Network	Bike boulevards are low-volume and low-speed streets that prioritize bike travel. They incorporate signage, pavement markings, and traffic calming tools to improve the comfort and connectivity of the bike roadway network. Bike boulevards offer an alternative to bicycling on busy streets with high traffic volumes. Many bike boulevards couple speed management strategies with bike route signage to create safer streets.	
Striped Bike Lane	A conventional bike lane is a striped lane on a roadway that is designated for exclusive use by people riding bikes. Conventional bike lanes include pavement markings indicating one-way bike use. These facilities are established along roadways where there is current or anticipated bike demand and where it would be unsafe for bicyclists to ride in the travel lane.	

Facility Type	Description	Example
Buffered Bike Lane (Horizontal)	Buffered bike lanes are conventional bike lanes paired with a designated buffer space separating the bike lane from the adjacent motor vehicle travel lane and/or parking lane. These facilities are established along roadways with high travel speeds, volumes, and/or truck traffic.	
Separated Bike Lane (Vertical)	Separated bike lanes (vertical) are buffered bike lanes with vertical elements that provide further separation from motor vehicle traffic. Common vertical elements are vertical curbs, a painted buffer with planter boxes, parked cars, or a fixed barrier. These facilities keep motorists from crossing into the bike lane and to minimize maintenance costs due to decreased motor vehicle wear. They may be especially appropriate for curvy streets, areas with high drop off/pick up activity, and higher speed streets with few driveways and cross streets.	Source: NACTO, 2019.[6]
Physically Separated Bikeway / Shared Use Paths	Physically separated bikeways are paths distinct from the sidewalks. These include shared use paths, which are paved trails for the exclusive use of pedestrians, cyclists, skaters, and other active transportation users. They are wide enough for two-way travel. They are typically separated from motorized vehicular traffic by an open space, barrier, curb, or exist in an independent corridor. They can also be one-way bike facilities separate from – but adjacent to – the sidewalk.	

Note: All images are courtesy of Fehr & Peers unless otherwise noted.
Source: Fehr & Peers, 2025.

[6] https://nacto.org/2019/11/15/bellevues-downtown-demonstration-bikeway/

Figure BWR-7. Existing Bicycle Level of Traffic Stress.



Source: Fehr & Peers, 2025.

3. The Future Network

A. Active Transportation in the Community

The goal of the future active transportation network in Tumwater is to provide safe, accessible, and convenient active transportation routes so that all users of the transportation system have opportunities to travel to work, school, healthcare facilities, stores, and other key destinations.

Tumwater has an established network of pedestrian and bicycle infrastructure, but significant gaps exist. Many streets lack pedestrian or bicycle facilities. Many roadways with bike lanes have high traffic volumes and high speeds.

Level of Traffic Stress 3 and 4 bicycle facilities likely deter users who could choose to use active transportation instead of driving a motorized vehicle. For those that have no other option, navigating Level of Traffic Stress 3 or 4 adds stress for the user and subjects them to uncomfortable conditions.

Tumwater's vision of expanding its active transportation network will help improve the connectivity of the existing active transportation network, increase the number of facilities with a Level of Traffic Stress of 1 or 2, and meet vehicle miles traveled targets. Active transportation could be an alternative to driving on congested roadways for many people, but the existing infrastructure between major areas of interest suffers from a disconnected network and low levels of comfort.

the comfort and convenience of active transportation facilities improve, people are more likely to choose to use active transportation rather than drive, thus reducing vehicle miles traveled. Active transportation infrastructure improvements will also help those who already use active transportation in Tumwater to feel more comfortable while traveling. More information about safety can be found in Chapter 2 of the Transportation Plan.

Locations with a significant focus for improved active transportation access include schools, libraries, state resource offices, and senior centers as these locations service a high proportion of people who do not drive. As Schools serve a high concentration of people who do not drive, making these priority locations for safety improvements.

The road networks surrounding schools can become congested before and after the school day, raising safety concerns due to the simultaneous use of various modes of transportation within a compressed timeframe. Schools that do not have accessible active transportation routes generally experience more intense vehicle traffic in the peak periods, leading to congestion on nearby roadways.

Air quality around schools is a growing concern, particularly due to vehicle idling during drop-off and pick-up times. This issue is closely linked to the prevalence and severity of childhood asthma, affecting students' health and academic performance. Tumwater will prioritize active transportation improvements near schools, so students and school employees have accessible and convenient options to use active transportation.

B. Public Outreach

Outreach was completed in coordination with the overall Comprehensive Plan update, and included asking the community about their transportation priorities, locations of concern, and their day-to-day modal choices. The March 2025 outreach event also included map-based activities where community members could identify locations where they use active transportation and identify areas of concern.

Attendees denoted popular bicycling areas like Custer Way SW, Capitol Blvd SE, Henderson Blvd SE, Kirsop Rd SW, 66th Ave SW, Black Lake Belmore Rd SW, Sapp Rd SW, and various local streets. Challenges for cyclists include inconsistent bike lanes, overgrown vegetation encroaching on bike paths, and dangerous intersections such as Henderson Blvd SE at Deschutes Bridge, where multiple bicycle collisions have occurred. Residents also expressed the need for wide bike lanes and improvements near the library.

Attendees also marked common walking routes, including Cleveland Ave SE, 66th Ave SW, 70th Ave SW, Littlerock Rd SW, Israel Rd SW, Lindwood Ave SW, Kirsop Rd SW, and numerous local roads. Pedestrian concerns focus on the lack of continuous sidewalks, insufficient crosswalks, and overgrown vegetation obstructing pathways, particularly near the roundabout by the church on Mottman Blvd SW. There was also a call for more neighborhood connections, raised crosswalks, and pedestrian-level amenities like waste bins, streetlights, and benches.

C. Mode Shift

To achieve the Transportation Plan's safety, accessibility, and vehicle miles traveled reduction targets, some trips will need to shift from single occupancy vehicle trips to more efficient modes. These modes include carpooling, transit, and active transportation modes.

Current data in Figure BWR-8 shows that most trips in Tumwater are taken by car, with many being single occupancy vehicles. Tumwater is setting a goal to shift five percent of single occupancy vehicle trips to walking, five percent to bicycling, and five percent to transit as shown in Figure BWR-9.

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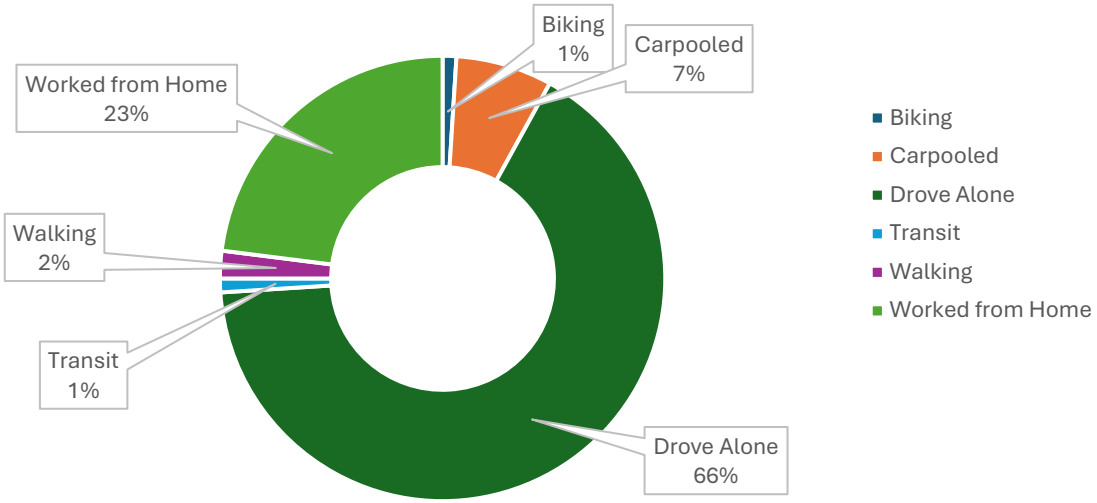
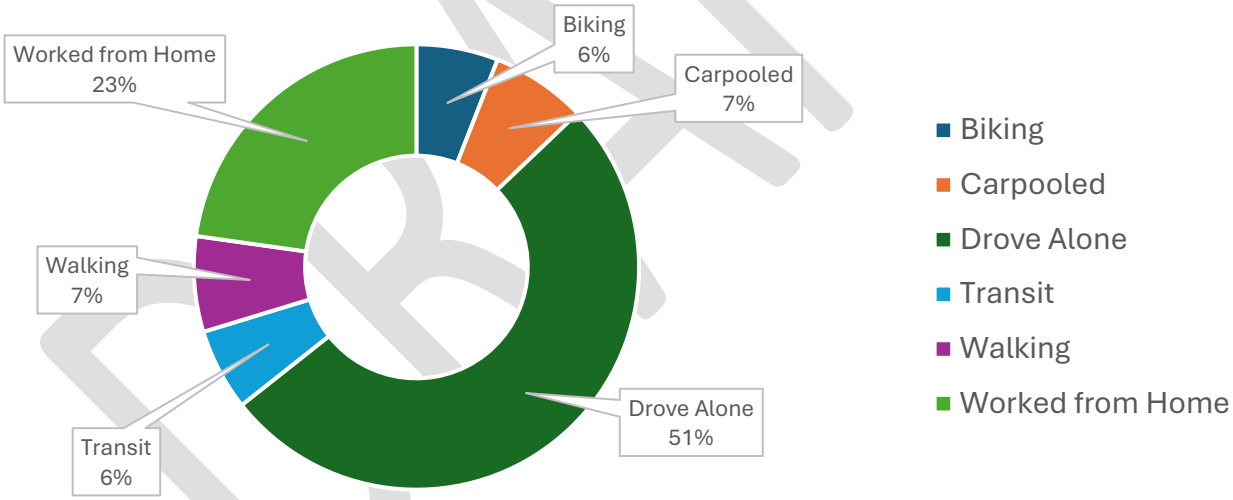
Figure BWR-8. Share of Primary Travel Options for Commuting to Work.



Source: American Community Survey, 2023.

Figure BWR-9. Tumwater's 2045 Mode Shift Goals.



Effecting mode shift is difficult, but can be done through a combination of strategies:

- Creating more walkable and bikeable communities by building a connected low stress network.
- Reducing or eliminating parking minimums.
- Charging for parking in higher density areas with transit and active mode networks.
- Increasing job and residential density.
- Integrating affordable and below market rate housing.
- Providing ridesharing program.

- Providing end of trip bicycle facilities.
- Providing employer-sponsored van pool.
- Using paid workplace parking.
- Implementing housing and employment parking cash-out.
- Providing electric vehicle charging infrastructure.
- Implementing conventional carshare program.
- Implementing transit-supportive roadway improvements.

Multimodal infrastructure is necessary to support mode shift and travel outside of a personal vehicle. Individual bike and pedestrian projects do not substantially reduce vehicles miles traveled or lead to mode shifts on their own, but greater benefits are seen once a complete network is constructed.

The projects listed in Table BWR-4 combined with the current active transportation network contribute to a more complete multimodal network. These improvements will help Tumwater reach its mode shift targets.

D. Priority Networks & Near-Term Investments

Public input, gap analysis, previous plans and analysis, and key destinations were all considered in determining priority projects. Tumwater's priority networks identify areas of need to complete the layered multimodal network.

Multimodal priority networks promote the diverse needs of all users – pedestrians, cyclists, transit riders, and freight. By employing a layered network strategy, modal emphasis is assigned to different streets, ensuring that each mode of transportation is accommodated effectively. This method acknowledges that while all traveler types need to be accommodated within a community, no single road can serve all modes equally.

The priority network was developed using the following factors:

1. **Pedestrian and bicycle levels of traffic stress.** This data was analyzed for existing conditions to understand deficiencies. Streets with a Level of Traffic Stress of 3 or 4 will be further refined using locations with prominent network gaps and projected land use growth.
2. **Land use growth projected for 2045**. This data analyzed population, housing, and employment forecasts to determine opportunities to increase modal share.
3. **Network gaps and potential connectivity improvements.** This data demonstrates areas that prevent continuous travel to key locations such as those pointed out at public outreach events to improve connections between modes.

Building bicycle and pedestrian priority networks will provide Tumwater with a more accessible transportation system for all users. The priority networks concentrate investments in the densest areas and help fill in missing gaps

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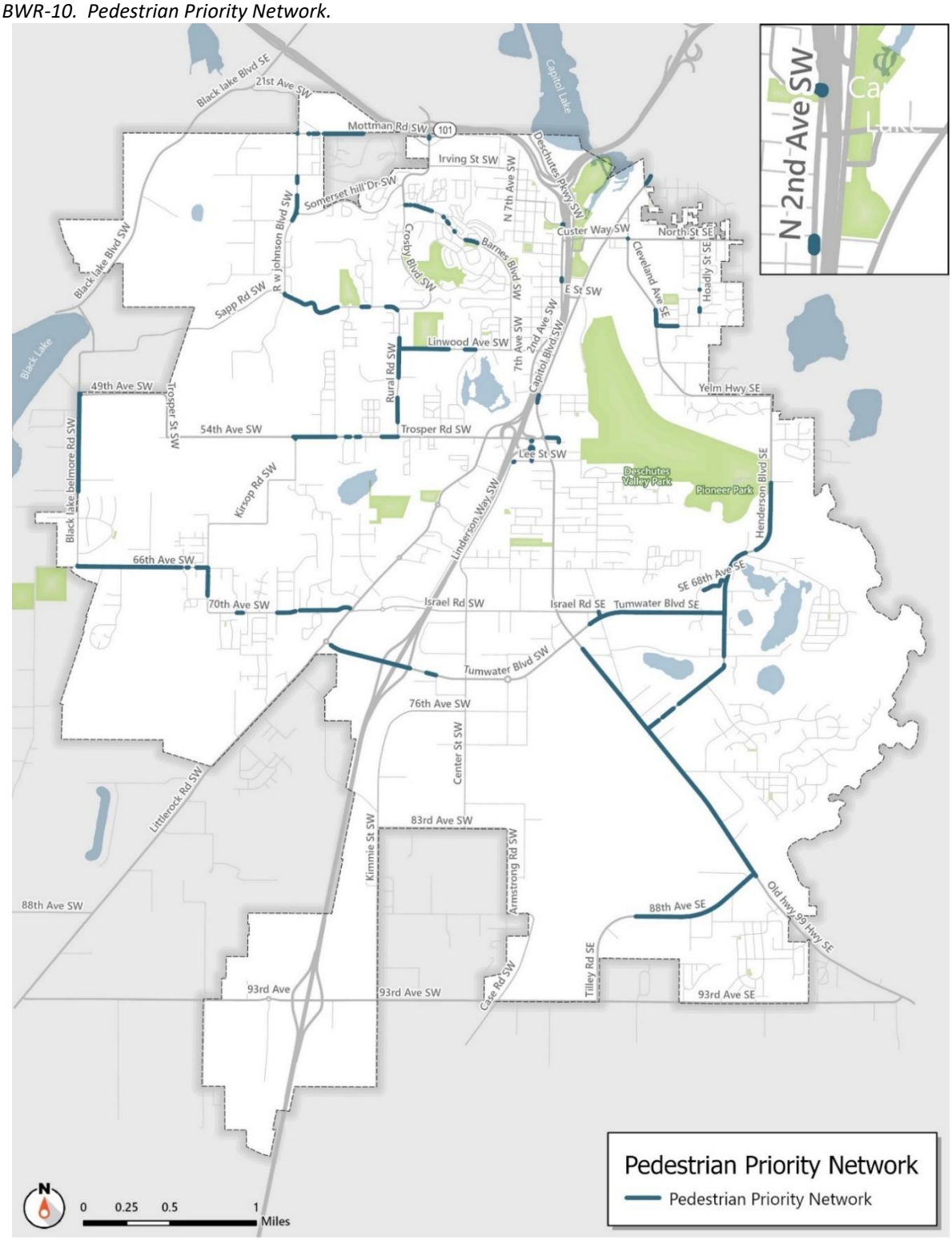
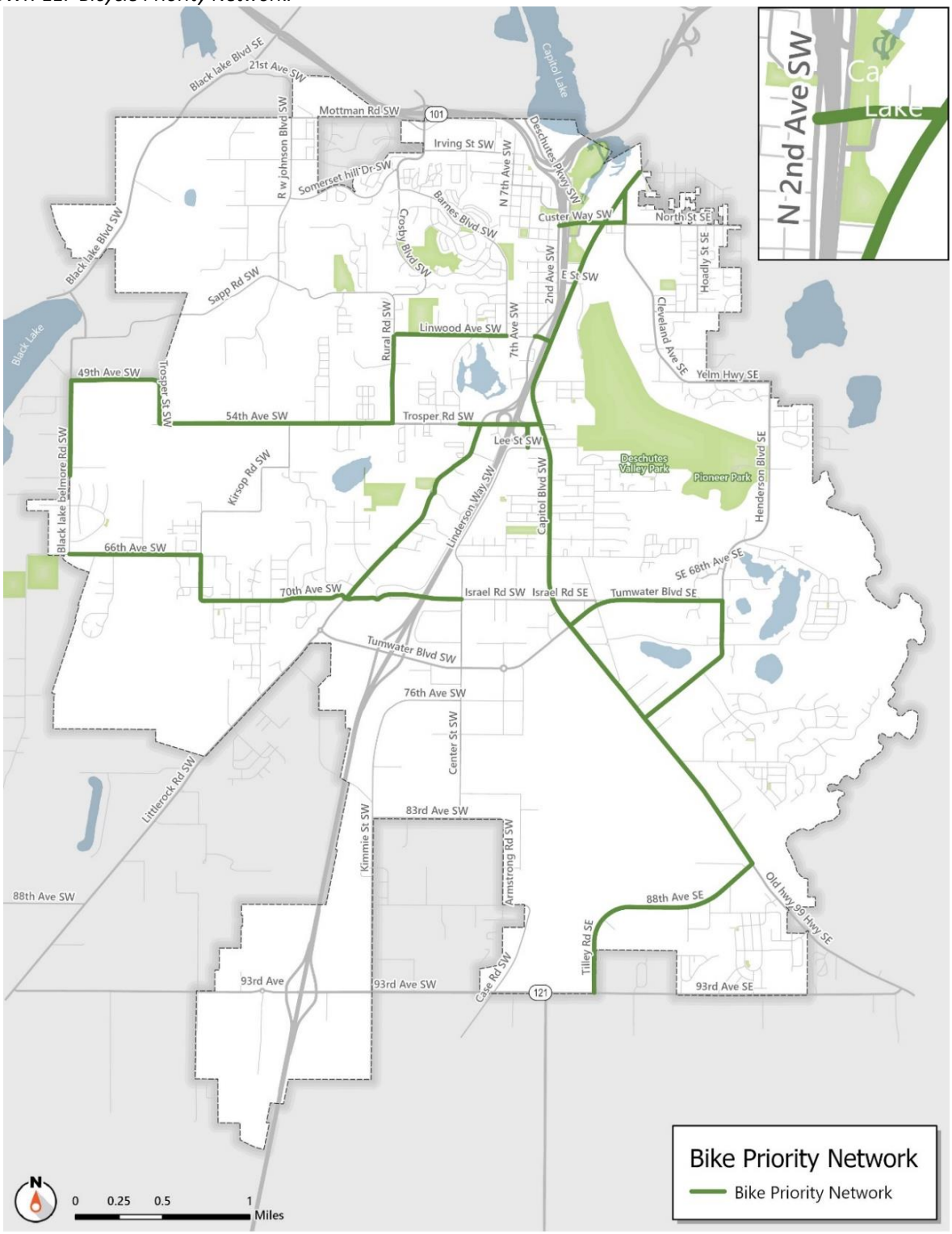
so that more people can safely travel outside of vehicles. The pedestrian priority network is shown in Figure BWR-10. The bicycle priority network is shown in Figure BWR-11.

Figure BWR-10. Pedestrian Priority Network.



Source: Fehr & Peers, 2025.

Figure BWR-11. Bicycle Priority Network.



Source: Fehr & Peers, 2025.

E. Active Transportation Projects

The list of long-term projects in Table BWR-4 was compiled from existing Tumwater plans and an analysis of gaps in the bike and pedestrian priority networks. Many of the projects listed below will achieve Tumwater's goal of Level of Traffic Stress 1 or 2 facilities. Some projects will only achieve a Level of Traffic Stress of 3 or 4.

These projects will need to be further refined before design work is completed to determine what type of facility can achieve the Level of Traffic Stress standard.

Table BWR-4. 20-Year Active Transportation Project List.

Project ID	Project Title	Project Description	Mode	Cost	Level of Traffic Stress
1	Mottman Rd SW Sidewalk and Bike Lane Improvements	Install sidewalk on the north side of Mottman Rd SW from the vicinity of Crosby Blvd SW to R.W. Johnson Blvd SW. Note that sidewalks and bike lanes will be added to both sides of Mottman Rd SW between Mottman Ct SW and R.W. Johnson Blvd SW during a pavement resurfacing project	Bike / Pedestrian	$1,900,000	Bike: 3 Ped: 2
2	76th Ave SW / Kimmie St Bike Facilities	From 83rd Ave SW to 93rd Ave SW	Bike	$500,000	Bike: 3
3	83rd Ave Bike SW Facilities	From Kimmie St SW to Center St SW	Bike	$700,000	Bike: 4
4	Bonniewood Dr SE Bike Facilities	From Dennis St SE to Old Highway 99 SE	Bike	$1,200,000	Bike: 2
5	Black Lake-Belmore Rd SW Bike Lanes	From 66th Ave SW to Black Lake Blvd SW (some partial programmatic potential)	Bike	$4,000,000	Bike: 3
6	Linwood Ave SW Bike Facilities	From Sapp Rd SW to G St SW	Bike	$2,400,000	Bike: 3
7	88th Ave SW Bike Facilities	From just west of Cabot Dr SE to 85th Ave SE	Bike	$400,000	Bike: 4

Project ID	Project Title	Project Description	Mode	Cost	Level of Traffic Stress
8	Trosper Rd SW Bike Facilities	From Lake Park Dr SW to Rural Rd SW	Bike	$50,000	Bike: 2
9	Center St SW Bike Facilities	From Tumwater Blvd SW to 83rd Ave SW	Bike	$50,000	Bike: 3
10	Lake Park Dr SW Bike Facilities	From Linwood Ave SW to Trosper Rd SW	Bike	$200,000	Bike: 2
11	Vista Loop SW Bike Facilities	From Crosby Blvd SW to Barnes Blvd SW	Bike	$200,000	Bike: 2
12	12th Ave SW / Vista Loop SW Bike Facilities	From Barnes Rd SW to Irving St SW	Bike	$500,000	Bike: 2
13	Somerset Hill Rd SW Bike Facilities	From R.W. Johnson Blvd SW to Crosby Blvd SW. Consider widening existing 8' path to 12' in lieu of on-street bike facilities	Bike	$800,000	Bike: 1
14	Lee St / SW Boston Ave SW / Hazelhurst SW Bike Facilities	From Capitol Blvd SE to Elm St SE	Bike	$30,000	Bike: 2
15	7th Ave SW / Bates St SW / 3rd Ave SW Bike Facilities	From 2nd Ave SW to Crosby Blvd SW	Bike	$150,000	Bike: 2
16	Desoto St SW / 4th Ave SW / Ferry St SW Bike Facilities	From 7th Ave SW to 2nd Ave SW	Bike	$100,000	Bike: 2
17	X St SW Shared Bike Streets	Upgrade as necessary and sign with 'sharrows' X St SW, from Elm St SW to 7th Ave SW. (Programmatic potential)	Bike	$30,000	Bike: 3

Project ID	Project Title	Project Description	Mode	Cost	Level of Traffic Stress
18	New Pedestrian Connection from Linderson Way SW to Elm St SW, in vicinity of T St SW	Pedestrian facilities offering a direct route between Linderson Way SW and Elm St SW with a crossing at Capitol Way. Preferred route roughly aligns with T St SW and Pinehurst Dr SW	Pedestrian	$500,000	Ped: 1
19	Elm St SW Sidewalks	Completion of sidewalk facilities on Elm St SW between Pinehurst Dr SW and W St SW	Pedestrian	$160,000	Ped: 1
20	North-South Pedestrian Connection between X St SW and Dennis St SW	Create a new pedestrian / non-motorized connection through the future shared-use pathway on the BPA alignment to connect X St SW and Dennis St SW in the vicinity of Tumwater High School	Pedestrian	$300,000	Ped: 1
24	Trosper Rd SW – Lake Park Dr SW to Rural Rd SW	Repurpose asphalt to provide 3 travel lanes and bike lanes	Motorized Vehicle / Bike	$225,000	Bike: 2
27	Old Highway 99 SE -- 73rd Ave SE to 88th Ave SE	Widen to 4 lanes with median, bike lanes and intersection improvements at Bonniewood Dr SE, Henderson Blvd SE, and 88th Ave SE	Motorized Vehicle / Bike	$22,000,000	Bike: 4
34	Capitol Blvd SE – Custer Way SE to Carlyon Ave SE	Reduce to 4 lanes, install bike lanes	Motorized Vehicle / Bike	$100,000	Bike: 3
35	Capitol Blvd SE – M St SW to Israel Rd SW	Reduce to 4 lanes, construct roundabouts at select intersections, install bike lanes, and construct median	Motorized Vehicle / Bike	$30,000,000	Bike: 3

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Project ID	Project Title	Project Description	Mode	Cost	Level of Traffic Stress
50	2nd Ave SW Pedestrian and Bike Improvements	Identify gaps and add facilities to achieve Level of Traffic Stress 2	Bike / Pedestrian	$3,855,000	Bike: 2 Ped: 2
51	Rural Rd SW Shoulder Improvements	Widen shoulder and provide sidewalks to connect Sapp Rd SW to Trosper Rd SW.	Bike / Pedestrian	$500,000	Bike: 4 Ped: 4
55	66th Ave SW / 70th Ave SW Bike Lanes	From Black Lake-Belmore Rd SW to Littlerock Rd SW	Bike	$3,400,000	Bike: 3
58	Old Highway 99 SE Bike Connectivity Improvement	Bike lanes that connect the southern extents of Old Highway 99 SE until 88th Ave SE	Bike		Bike: 4
60	Trosper Rd SW Bike Gap Infill	Infilling Bike network gaps to ensure Trosper Rd SW meets Level of Traffic Stress 2 standard	Bike		Bike: 2
61	Linwood Ave SW East West Connector	Provides an east west bike connection that crosses Interstate 5 and connects eastern and western portions of Tumwater	Bike		Bike: 2
62	Capitol Blvd SE Bike Level of Traffic Stress Improvement	Provides a northern connection with a Level of Traffic Stress of 2 for the main Capitol Blvd SE improvement	Bike		Bike: 2
63	70th Ave SW Pedestrian Improvements	Infill pedestrian sidewalk gaps to improve Level of Traffic Stress and provide critical connections	Pedestrian		Ped: 2
63	66th Ave SW Sidewalk Improvements	Infill pedestrian sidewalk gaps to improve Level of Traffic Stress and provide critical connections	Pedestrian		Ped: 2

DRAFT

Project ID	Project Title	Project Description	Mode	Cost	Level of Traffic Stress
64	88th Ave SW Sidewalk Improvements	Infill pedestrian sidewalk gaps to improve Level of Traffic Stress and provide critical connections	Pedestrian		Ped: 2
65	Tumwater Blvd SW Sidewalk Extension	Infill pedestrian sidewalk gaps to improve Level of Traffic Stress and provide critical east west connection	Pedestrian		Ped: 2
66	Rural Rd SW Sidewalk Development	Infill pedestrian sidewalk gaps to improve Level of Traffic Stress and provide critical connections	Pedestrian		Ped: 2
67	Linwood Ave SW Sidewalk Infill	Infill pedestrian sidewalk gaps to improve Level of Traffic Stress and provide critical connections	Pedestrian		Ped: 2
68	Tumwater Blvd SW Bike Lane Development	This project will convert wide lanes on Tumwater Blvd SW to bike lanes to improve the associated Level of Traffic Stress of the facility	Bike		Bike: 3
B	Safe Routes to School Projects	Improve pedestrian and bicyclist safety near schools. Projects include sidewalks, lighting, flashing beacons, signage, markings, and other measures. Project details developed as a part of the six-year Transportation Improvement Plan process.	Programmatic	$2,000,000	-

F. Funding Opportunities

There are many sources to help Tumwater pay for active transportation improvements, and these programs can and do change over time.

The funding opportunities below are a selection of external funding sources that may be a good

match for Tumwater's active transportation improvements.

1) Transportation Improvement Board

The Transportation Improvement Board facilitates state investment in local transportation projects and distributes grant funding to cities and counties generated from the statewide gas tax. The Transportation Improvement Board offers several grant programs including the Active Transportation Program, which provides funding to improve pedestrian and cyclist safety, enhance pedestrian and cyclist mobility connectivity, or improve the condition of existing facilities.[7]

2) Pedestrian & Bicycle Program

The Washington State Department of Transportation Pedestrian and Bicycle program awards funding for projects that enhance safety and mobility for people who walk or bike. The goal of the program is to eliminate fatal and serious injury pedestrian and bicyclist crashes, build connected low stress walk and bike networks, and increase walking and bicycling.

Two types of projects are eligible for this funding: construction projects and design-only projects. Design-only projects allow agencies the opportunity to engage with the community to develop projects that appeal to a wide range of users. The Active Transportation Programs Design Guide provides details for treatments intended to provide safer conditions for users of the active transportation network.

3) Safe Routes to School

The goal of the Safe Routes to School program is to improve the safety and mobility of children by enabling and encouraging them to use active transportation to school. This program provides funding for infrastructure projects within two miles of a school serving children in kindergarten through 12th grade. Construction, design-only, and education projects are all eligible for funding under this program.

4) Sandy Williams Connecting Communities Program

This program was established to improve active transportation connectivity in overburdened communities[8] along state and legacy highways. The program name honors Sandy Williams, a community activist who worked to reconnect her African American neighborhood after the construction of Interstate 90 divided the Spokane.

The focus of this program is on communities most affected by barriers to opportunity and environmental health disparities. This grant can be used to fund projects that enhance safety, comfort, and connectivity, making it easier for community members to access essential services and community spaces. Funding from this program can be used for planning, design, or construction, and can be used as a match for a federal grant award.

[7] https://www.tib.wa.gov/grants/grants.cfm

[8] https://experience.arcgis.com/experience/03cb82fc4a524e8c9723192e72c80a0e

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5) Transportation Alternatives Program

Transportation Alternatives projects encompass smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trail projects, and safe routes to school.

6) Active Transportation Infrastructure Investment Program.

This program is a competitive federal grant program for projects proving safe and connected active transportation facilities in active transportation networks or spines. The program awards both planning and design and construction grants. Projects seeking planning and design grants must have costs of at least $100,000, and projects seeking construction grants must have total costs of at least $15 million to be eligible.[9] The goal of this grant is to integrate active transportation infrastructure with transit service to improve access and connectivity.

7) Surface Transportation Block Grant

Bicycle, pedestrian, and trail projects are eligible for funding under this flexible grant program. The Washington State Department of Transportation allocates Surface Transportation Block Grant funds to Metropolitan Planning Organizations and County Lead Agencies to select projects that align with regional priorities.[10]

G. Programmatic Improvements

While constructing active transportation infrastructure upgrades is an effective way to improve Tumwater's active transportation network, construction is costly and time intensive. Tumwater will explore other options to improve active transportation access and convenience. Some of these non-capital alternatives are explored below.

1) E-Bike Rebate Program

Many cities in the region have adopted e-bike rebate programs to help residents offset the cost of an e-bike. Tumwater can choose to open the program to all residents or restrict applicants to meet income qualifications. E-bikes present a faster, more comfortable, and convenient alternative to standard bicycles, making bicycling a more appealing choice for some users of the transportation system.

2) Bike Share & Micromobility

Bike share programs involve renting bicycles from designated docking stations while e-scooter and dockless e-bike rentals are examples of shared micromobility options. These programs offer residents the option to bike and roll without the cost of purchasing, maintaining, and storing a bike or scooter. Bike shares and

[9] https://www.fhwa.dot.gov/environment/bicycle_pedestrian/atiip/.

[10] https://wsdot.wa.gov/business-wsdot/support-local-programs/funding-programs/surface-transportation-block-grant.

DRAFT

micromobility presents a convenient and affordable alternative to driving.

3) Bike Storage & Parking

Investing in bike racks, shelters, and lockers help make bicycling a more attractive and convenient option for cyclists. Offering bike storage and parking at key destinations like transit hubs, schools, and activity centers is an important aspect of bicycle infrastructure.

Guidelines could be created for bike parking, especially at key destinations and commercial areas. Bike storage with outlets would be especially beneficial to e-bike users who need to charge their bike before continuing their trip. Tumwater can also encourage employers and apartment buildings to offer secure bicycle parking for their employees.

4) Education

Education plays a crucial role in promoting safe and effective active transportation in cities. Educating users about road safety, traffic laws, and route selection can encourage participation.

Tumwater could establish a wayfinding plan for people who use active transportation and ensure proper distribution. Engagement with schools, community organizations, and businesses helps increase awareness, answer questions, and foster a culture that values active transportation as a transportation mode.

Tumwater can also take advantage of state and national initiatives like Bike Month or Walk, Bike, and Roll to School Day as educational opportunities.

5) Employer Partnerships

Tumwater could partner with employers to incentivize active transportation to work and encourage office buildings to provide showers and secure bicycle parking. Workplaces can also establish parking maximums, pricing strategies, and other policies that disincentivize driving alone to work or take an active role in the Commute Trip Reduction program, which affects worksites with at least 100 full-time employees who begin their shift between 6:00 – 9:00 am on weekdays.

6) Maintenance & Enforcement

Once bicycle and pedestrian facilities are built, Tumwater must ensure that they function as designed. There are several strategies Tumwater can employ to do this. Increase enforcement of parking restrictions in bike lanes. Properly maintain bike and pedestrian facilities by regularly cleaning up trash and debris, trimming vegetation, and removing obstacles. Tumwater can also develop speeding enforcement strategies on key bike connections.

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Utilities Element

Part 1 – Goals, Policies, and Implementation Actions

City of Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 6, 2025

December 2025

Ordinance No. O2025-010

CITY OF TUMWATER

Utilities Element

Part 1 – Goals, Policies, and Implementation Actions

Table of Contents

1. Introduction 3
A. Background 3
B. How to Read this Part of the Element 3
2. Growth Management Act – Element Goals 5
3. County-Wide Planning Policies 6
4. Element Goals and Policies 7
A. How to Read These Tables 7
B. Growth Management Goals 7
Appendix A – Draft Implementation Actions 10
1. How to Read These Tables 10

Abbreviations Used in Document

CDD – Community Development Department

RCW – Revised Code of Washington

TED – Transportation & Engineering Department

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1. Introduction

A. Background

The Utilities Element is part of Tumwater's Comprehensive Plan and was prepared in response to the Growth Management Act (Chapter 36.70A RCW). The Element meets the requirements of RCW 36.70A.070(4) for utilities elements that are found in Appendix B *State Requirements*.

Tumwater's Vision, Mission, and Belief Statements that provide overarching direction for the future of Tumwater are found in the Comprehensive Plan Summary.

The Utilities Element aligns and is consistent with the other elements of the Comprehensive Plan.

Part 1 – Goals Policies, and Implementation Actions establishes Tumwater's goals and policies that set forth a direction to create and maintain private utilities that support development in Tumwater.

The goals and policies of the Utilities Element are guided by the state Growth Management Act and the Thurston County County-Wide Planning Policies and the vision of a Tumwater. These goals and policies are coordinated with the other Elements and regional plans.

The Utilities Element supports the Land Use Element of the Comprehensive Plan by ensuring that the policies for provision of efficient and sustainable utilities to serve anticipated growth and development are consistent with the Land Use Element, which establishes the overall growth strategy for Tumwater and its urban growth area. Expansion of utility systems and services follows growth and the demand for reliable services.

The Utilities Element's goals and policies are the policy basis for those draft implementation actions in the Utilities Element and those future actions that will be developed over the next 20 years which will be the foundation for Tumwater's annual work programs to address private utilities and development.

Part 2 – Technical Information provides the background information on private utilities needed to support the twenty-year growth projections for Tumwater.

B. How to Read this Part of the Element

In Part 1, Chapters 2 and 3 discuss the Utility Element's connection to the goals of the state Growth Management Act and the Thurston County County-Wide Planning Policies.

Chapter 4 presents each goal with introductory text, and an explanation of the lead and timeline for each policy.

Appendix A contains the draft implementation actions, which are intended to be a source of annual work program items that serve to implement the goals and policies of the Utilities Element.

The annual work programs will further refine the implementation actions prior to their being put into practice. It is expected that implementation

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actions will be further amended, added, or subtracted as needed over the course of the 20 year Comprehensive Plan as new opportunities arise to meet the intent of the Utilities Element's goals and policies.

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2. Growth Management Act – Element Goals

Chapter 36.70A RCW requires that Tumwater show how the Utilities Element meets the relevant planning goals contained within the Act. The following is a listing of the applicable goals for the Utilities Element, and an analysis of how the Element addresses these goals:

1. ***Urban Growth***. *Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.*

   The Utilities Element has goals and policies that ensure that private utility services provided by the private sector, such as natural gas, electricity, or telecommunication services, are consistent with Tumwater's Comprehensive Plan and can support the community's growth and development as anticipated over the twenty-year planning period.

12. ***Public Facilities and Services***. *Ensure that those public facilities and services necessary to support development shall be adequate.*

The Utilities Element, as required by the Growth Management Act, includes an inventory of the general location of all existing and proposed private utility facilities and a description of the current capacity and the expected future capacity of each utility.

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3. County-Wide Planning Policies

The Growth Management Act requires that Tumwater's Comprehensive Plan be consistent with the Thurston County County-Wide Planning Policies, as amended in 2025.

The following is a list of the relevant policies that apply to this Element. All County-Wide Planning Policies are adopted as Appendix B to the Comprehensive Plan. The relevant sections of the County-Wide Planning Policies to this Element are cited below.

I. General Policies

The Utilities Element contains goals, policies, and actions that address County-Wide Planning Policy 1.12. These goals, policies, and actions contribute to energy independence, economic stability, reduced climate impacts, and long-term household and community health.

II. Urban Growth Areas

The purpose of the Utilities Element is to plan the provision of private utilities to Tumwater and its urban growth area.

III. Promotion of Contiguous and Orderly Development, Provision of Urban Services, and Protection of Rural Areas

The Utilities Element seeks to find the most effective way to serve the greatest number of people at the lowest cost possible through examining how private utilities are currently provided, what providers have planned, and how future demand will shape utility distribution.

VII. Economic Development and Employment

In addition to the provision of natural gas and electricity, the Utility Element outlines the provision of telecommunication networks, which supports businesses of all types as internet access becomes increasingly vital to the success of a business.

IX. Transportation

Teleworking is supported by the provision of the internet as covered in Section 5.1.

X. Environmental Quality

Goals U-2 and U-4 of this element address reducing energy consumption and increasing energy generation from renewable sources to minimize Tumwater's carbon footprint.

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4. Element Goals and Policies

A. How to Read These Tables

The Utilities Element's goals and policies are not in priority order.

Appendix A provides a list of the draft implementation actions by goal and policy that will be considered when developing annual work programs for implementing the Utilities Element's goals and policies.

1) Department Leads

Implementation of the Utilities Element's policies are associated with two different Tumwater departments:

CDD Community Development

TED Transportation & Engineering

2) Period

Each of the Utilities Element's policies and draft implementation actions are associated with estimated start dates, length of time to complete, and target completion dates, if appropriate based on adequate funding for staff and resources. Most policies are ongoing with no set target completion date.

B. Growth Management Goals

Goal U-1 Promote efficiency when planning for and siting private utilities.

Goal U-1 establishes policies for Tumwater to work with private utility providers to reduce the cost and increase efficiency of providing service to the community.

1) Why is this Goal Important?

Goal U-1 contributes to energy independence, economic stability, reduced climate impacts, and long-term household and community health. Increased efficiency reduces costs to private utility providers that are in turn passed on to consumers in the form of reduced housing and service related costs.

	Policies	Lead	Period
U-1.1	**Coordinate with private utility providers to allow utilities to meet anticipated demand.**	CDD TED	Term of the Plan
U-1.2	**Be aware of public service obligations when a local review of private utility improvements occurs and process permits and**	CDD TED	Term of the Plan

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	Policies	Lead	Period
	approvals for private utility facilities in a fair and timely manner, and in accordance with development regulations that foster predictability.		
U-1.3	**Locate private utility facilities near compatible adjacent land uses.**	**CDD TED**	Term of the Plan
U-1.4	**Encourage utilities to collocate or consolidate facilities within rights-of-way whenever feasible to protect health, safety, ensure reliability to the utility system, and reduce visual impacts.**	**TED**	Term of the Plan
U-1.5	**Provide timely notification to all affected private utilities prior to road construction or projects that may impact services.**	**TED**	Term of the Plan
U-1.6	**Review and approve related private utility permits as part of larger project review and approval processes whenever feasible.**	**CDD TED**	Term of the Plan
U-1.7	**Protect existing electrical transmission corridors and public rights-of-way to maintain their usefulness in meeting future utility and other public needs.**	**CDD TED**	Term of the Plan
U-1.8	**Coordinate with neighboring jurisdictions to ensure consistency of the respective Utility Elements to facilitate orderly private utility service.**	**CDD TED**	Term of the Plan

Goal U-2 Support enhancement of electricity generation, distribution, monitoring, and storage infrastructure serving Tumwater that uses clean technologies and practices.

Goal U-2 establishes policies for Tumwater to support the use of cleaner technologies and practices that enhance the electricity generation, distribution, monitoring, and storage infrastructure used to support Tumwater.

1) Why is this Goal Important?

Goal U-2 would protect the health of Tumwater residents by supporting the movement of energy systems to less polluting alternatives.

Policies		Lead	Period
U-2.1	**Monitor system or grid-scale energy storage innovations and use the experiences of communities that begin to deploy them to inform updates to Tumwater codes and permitting.**	**CDD**	Term of the Plan

Goal U-3 Support the efforts of private utility providers to ensure that vital utilities are created, operated, and maintained in a safe manner.

Goal U-3 establishes policies for Tumwater to support work with private utility providers to make sure that vital utilities function as intended.

1) Why is this Goal Important?

Goal U-3 would help to ensure that private utilities are available to Tumwater residents and community members and to reduce the number and effects of disruptions.

Policies		Lead	Period
U-3.1	**Coordinate with private utility providers to implement actions in the Natural Hazards Mitigation Plan to reduce service interruptions and provide services that are more dependable during hazard events.**	**CDD TED**	Term of the Plan
U-3.2	**Support undergrounding private utilities to increase public safety.**	**CDD TED**	Term of the Plan
U-3.3	**Encourage pipeline safety through public awareness and regulations.**	**CDD**	Term of the Plan
U-3.4	**Support private provider's actions to increase the safety of utilities infrastructure and operations through appropriate siting and maintenance.**	**CDD**	Term of the Plan

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Appendix A – Draft Implementation Actions

Each of the Lands for Public Purposes Element goals and policies in Chapter 4 will require Tumwater to take specific actions to implement over the course of the 20 year term of the Comprehensive Plan.

The draft implementation actions in the tables below were developed in coordination with the stakeholders, the community, and Tumwater staff. The draft implementation actions in the tables below are intended to serve as the building blocks for developing the annual Tumwater work programs that will implement the goals and policies of the Utilities Element.

The draft implementation actions will need further refinement before they are incorporated into annual Tumwater work programs.

As the Comprehensive Plan is put into action over the next twenty years, the draft implementation actions will change as new, unforeseen opportunities emerge: new ones may be added, proposed ones may be modified or replaced by other actions.

1. How to Read These Tables

The Lands for Public Purposes Element goals, policies, and the implementation actions associated with them are not in priority order.

Draft implementation actions that can only be undertaken by other entities are not included in this plan.

a) Department Leads

Implementation of the Utilities Element's policies and implementation actions are associated with two different Tumwater departments:

CDD Community Development

TED Transportation & Engineering

b) Period

Each of the Utilities Element's policies and draft implementation actions are associated with estimated start dates, length of time to complete, and target completion dates, if appropriate based on adequate funding for staff and resources. Most policies are ongoing with no set target completion date.

Goal U-1 Promote efficiency when planning for and siting private utilities.

Policies and Implementation Actions		Lead	Period
U-1.1	**Coordinate with private utility providers to allow utilities to meet anticipated demand.**	**CDD TED**	**Term of the Plan**
U-1.1.1	Provide growth projections to private utility providers to allow for utilities to be appropriately planned for and sized to meet anticipated demand.	**CDD**	Term of the Plan

Policies and Implementation Actions		Lead	Period
U-1.1.2	Notify private utility providers when project proposals for large developments are submitted to ensure adequate services will be provided.	CDD TED	Term of the Plan
U-1.1.3	Identify areas with disadvantaged populations and work with private utility providers to support extensions and updates to infrastructure in these areas.	CDD TED	2026-28
U-1.1.4	Explore ways to provide affordable, reliable services such as broadband and cable to communities with barriers with assistance from private utility providers.	CDD	2026-28
U-1.2	**Be aware of public service obligations when a local review of private utility improvements occurs and process permits and approvals for private utility facilities in a fair and timely manner, and in accordance with development regulations that foster predictability.**	CDD TED	**Term of the Plan**
U-1.3	**Locate private utility facilities near compatible adjacent land uses.**	CDD TED	**Term of the Plan**
U-1.3.1	Update Tumwater development regulations to address noise, odor, heat, and visual impacts of new private utility facilities on surrounding properties.	CDD TED	2026-28
U-1.4	**Encourage utilities to collocate or consolidate facilities within rights-of-way whenever feasible to protect health, safety, ensure reliability to the utility system, and reduce visual impacts.**	TED	**Term of the Plan**
U-1.5	**Provide timely notification to all affected private utilities prior to road construction or projects that may impact services.**	TED	**Term of the Plan**
U-1.5.1	Seek input from private utility providers when developing policies that affect their service and activities, such as street excavation, street obstructions, and fees.	TED	Term of the Plan

Policies and Implementation Actions		Lead	Period
U-1.5.2	Coordinate with private utilities providers on the design and timing of utilities trenching and street repair in public rights of way to reduce disruption.	TED	Term of the Plan
U-1.6	**Review and approve related private utility permits as part of larger project review and approval processes whenever feasible.**	CDD TED	**Term of the Plan**
U-1.7	**Protect existing electrical transmission corridors and public rights-of-way to maintain their usefulness in meeting future needs.**	CDD TED	**Term of the Plan**
U-1.8	**Coordinate with neighboring jurisdictions to ensure consistency of the respective Utility Elements to facilitate orderly private utility service.**	CDD TED	**Term of the Plan**
U-1.8.1	Coordinate with Thurston County and the cities of Lacey and Olympia when private, multijurisdictional private utility additions and improvements are being planned.	TED	2026-28

Goal U-2 Support enhancement of electricity generation, distribution, monitoring, and storage infrastructure located in Tumwater that uses clean technologies and practices.

Policies and Implementation Actions		Lead	Period
U-2.1	**Develop and implement policies which support the development of grid-scale energy storage adjacent to critical utility infrastructure and use the experiences of communities that begin to deploy them to inform updates to Tumwater codes and permitting.**	CDD	**Term of the Plan**
U-2.1.1	Collaborate with energy providers for the deployment and siting of such storage solutions.	CDD	2026-28

Goal U-3 Support the efforts of private utility providers to ensure that vital utilities are created, operated, and maintained in a safe manner.

Policies and Implementation Actions		Lead	Period
U-3.1	**Coordinate with private utility providers to implement actions in the Natural Hazards Mitigation Plan to reduce service interruptions and provide services that are more dependable during hazard events.**	**CDD TED**	**Term of the Plan**
U-3.1.1	Work with private utility providers to harden the existing electrical grid to reduce peak demand and maintain reliable energy, especially during extreme weather events.	**TED**	Term of the Plan
U-3.1.2	Refer to the most current Natural Hazards Mitigation Plan to identify areas where private utility providers should reinforce and harden their utilities to remain dependable during hazard events.	**TED**	Term of the Plan
U-3.2	**Support undergrounding private utilities to increase public safety.**	**CDD TED**	**Term of the Plan**
U-3.2.1	Identify areas at high risk for natural hazards and require that private utilities be placed underground as part of new development and redevelopment.	**CDD**	Term of the Plan
U-3.2.2	Develop and maintain a management plan, consistent with the Tumwater Municipal Code and the Engineering Development and Design Standards, for underground and overhead private utilities as part of Tumwater's franchise agreements.	**TED**	Term of the Plan
U-3.2.3	Support a change in state policies to increase the share of funding for undergrounding overhead wires to reduce power outages.	**CDD**	Term of the Plan
U-3.2.4	Work with private utility providers to utilize construction projects and infrastructure updates as an opportunity to install underground utilities.	**TED**	Term of the Plan

Policies and Implementation Actions		Lead	Period
U-3.2.5	Work with neighborhood associations to encourage the development of local improvement districts to provide funding for undergrounding existing private utilities.	CDD TED	Term of the Plan
U-3.3	**Encourage pipeline safety through public awareness and regulations.**	CDD	**Term of the Plan**
U-3.3.1	Adopt regulations that limit high-risk uses near pipelines to protect both the public and the pipelines themselves.	CDD	Term of the Plan
U-3.3.2	Support public education on pipeline safety and pipeline locations within Tumwater.	CDD	Term of the Plan
U-3.3.3	Discourage above-ground natural gas gate stations from being located in nonindustrial areas.	CDD	Term of the Plan
U-3.4	**Support private provider's actions to increase the safety of utilities infrastructure and operations through appropriate siting and maintenance.**	CDD	**Term of the Plan**
U-3.4.1	If permitting new large scale energy storage systems, ensure private utility facilities are located with compatible surrounding land uses with regard to the size of exposed apparatuses, the production of audible noise, and public health and safety.	CDD	2026-28
U-3.4.2	When a private provider proposes a large new scale energy storage system, require adequate safety and maintenance plans and documentation be provided as part of project review in accordance with federal and state regulations.	CDD	2026-28

Utilities Element

Part 2 – Technical Information

City of Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

DRAFT VERSION OCTOBER 6, 2025

December 2025

Ordinance No. O2025-010

CITY OF TUMWATER

Utilities Element

Part 2 – Technical Information

Table of Contents

1. Introduction 4
A. Background 4
B. How to Read this Part of the Element 5
2. Utilities Regulations 6
A. Federal Regulation 6
B. State Regulation 6
C. City Franchise Agreements 7
3. Natural Gas 8
A. Systems Analysis 8
B. Supply 8
C. Natural Gas Usage 8
D. Demand 9
4. Electricity 10
A. Regulatory Context 10
B. System Analysis 11
C. Electricity Generation, Transmission, & Distribution 12
D. Demand 13
5. Natural Gas and Fuel Pipelines 15
A. Olympic Pipeline 15
B. Williams Northwest Pipeline 15
C. Puget Sound Energy Natural Gas Pipelines 15
6. Telecommunication 17
A. Broadband 17
B. Digital Subscriber Line 17
C. Cable 17
D. Wireless 17
E. Satellite 18
F. Mobile 18
G. Fiber Optic 18

DRAFT

7. Meeting Future Demand 19
8. Potential Impacts Of Climate Change 21
Appendix A Foundational Documents 22
Appendix B Private Utility Contact Information 23

List of Tables

Table U-1. Tumwater and Urban Growth Area 20-Year Population Projection 20
Table U-2. Foundational Documents for the Utilities Element. 22
Table U-3. Private Utility Contact Information. 23

List of Figures

Figure U-1. Natural Gas Usage by Sector in Tumwater, 2023. 9
Figure U-2. Sources of Electrical Power Generation in Tumwater, 2023. 12
Figure U-3. Electricity Usage by Sector in Kilowatt-hours, Thurston County, 2023. 14
Figure U-4. Long Term Load Forecasting, 2024. 19

List of Maps

Map U-1. Fuel Pipeline, Gas, & Major Electric Lines

Abbreviations Used in Document

RCW – Revised Code of Washington

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1. Introduction

A. Background

The Utilities Element ensures that utility services provided by private suppliers are consistent with Tumwater's Comprehensive Plan and support the community's anticipated growth and development over the 20-year planning period.

The Utilities Element supports the Land Use Element of the Comprehensive Plan by ensuring that the policies for provision of efficient and sustainable utilities to serve anticipated growth and development are consistent with the Land Use Element, which establishes the overall growth strategy for Tumwater and its urban growth area. Expansion of utility systems and services follows growth and the demand for reliable services.

The Utilities Element aligns and is consistent with the Climate Element.

Goals and policies within this Element address private utilities such as:

- Natural gas
- Electricity
- Telephone
- Utility pipelines
- Cable television
- Wireless
- Broadband internet

Services that are provided by Tumwater or other public agencies such as water, wastewater, and waste management services are addressed in the Lands for Public Purposes Element.

As required by the Growth Management Act, the Utilities Element must include an inventory of the general location of all existing and proposed utility facilities and a description of the current capacity and the expected future capacity of each utility. This Element identifies ways of improving the quality of these services and includes policies that ensure utilities are coordinated with land use. Staff worked with private utility suppliers to anticipate future needs and areas of growth.

Tumwater will implement these policies through its franchise and master use agreements with the utilities and through the land use permit process.

Appendix A: *Foundational Documents* provides a list of the plans that provide the foundation for this element of the Comprehensive Plan.

The Utilities Plan incorporates a number of new issues as part of this update:

- Mitigating for the impacts of climate change.
- Supporting the development of infrastructure to enable the widespread integration of renewable energy sources and energy storage.
- Responding to rapidly changing technology and consumer needs, while maintaining a system of aging infrastructure.
- Creating resiliency to impacts of climate change and reliability of services.

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B. How to Read this Part of the Element

Part 2 of the Utilities Element consists of the following chapters.

- **Chapter 1 – Introduction:** Discusses the State requirements for the Element and background.
- **Chapter 2 – Utilities Regulations**: Identifies the major pieces of legislation and organizations that are most prominent in the utilities sector.
- **Chapter 3 – Natural Gas**: Provides a summary of the private natural gas systems in Tumwater and a discussion of expected demand.
- **Chapter 4 – Electricity**: Provides a summary of the private electricity systems in Tumwater and a discussion of expected demand.
- **Chapter 5 – Natural Gas and Fuel Pipelines**: Provides a summary of the private natural gas and fuel pipelines in Tumwater.
- **Chapter 6 – Telecommunications**: Provides a summary of the telecommunications systems in Tumwater and a discussion of expected demand.
- **Appendix A – Foundational Documents**: Provides a list of the documents used to create the Utilities Element's Technical Summary.
- **Appendix B – Private Utility Contact Information –**Provides a list of the contact information for private utilities in Tumwater that was used in the development of the Utilities Element.

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2. Utilities Regulations

Both public and private agencies are involved with regulation, coordination, production, delivery, and supply of services. This chapter identifies the major pieces of legislation and organizations that are most prominent in the utilities sector.

A. Federal Regulation

The Federal Energy Regulatory Commission is an independent commission working with the U.S. Department of Energy. The commission regulates the interstate transmission of natural gas, oil, and electricity, as well as licensing natural gas and hydropower generation projects.

The Federal Communications Commission regulates communication utilities in each cellular geographic service area, and in Tumwater and its urban growth area, there are several commission licensed providers. An independent U.S. government agency overseen by Congress, the commission is the United States' primary authority for communications laws, regulation, and technological innovation.

B. State Regulation

1) Utilities and Transportation Commission

The primary regulatory agency for most private utilities in the State is the Washington Utilities and Transportation Commission which was established by Title 80 RCW. The commission ensures that services of regulated companies are safe, available, dependable, and fairly priced. The commission regulates the rates, services, facilities, and practices of investor-owned electric utilities, telecommunications companies, natural gas and water companies, solid waste collection companies, and pipeline companies, among other things. The commission does not regulate the rates of broadband services, cellular, cable, or Internet service.

The commission defines electricity and standard telephone utilities as critical services that must be provided upon demand. To fulfill public service obligations, these utility providers must plan to extend or add to their facilities when needed. Natural gas is considered a utility of convenience. The commission prohibits utility providers from passing the cost of new construction onto the existing rate base.

As part of its mission to protect consumers, the commission maintains a call center for customer complaints at 1-888-333-9882 and coordinates the 811 Call Before You Dig line, a free service for locating utilities on public or private property that anyone can use.

2) Clean Energy Acts

Starting in 2019, the State Legislature has passed a set of bills setting an ambitious, multi-decade agenda that changes how electric and natural gas utilities acquire resources and provide energy services to state businesses and consumers.

DRAFT

Engrossed Second Substitute Senate Bill 5116 is known as the Clean Energy Transformation Act. Under the act, all electric utilities must generate 100 percent of their power from renewable or zero carbon resources. This also includes requirements for an equitable distribution of the benefits of clean energy and reductions in burdens of communities facing barriers and front line communities. Utility providers must demonstrate progress in making energy assistance available to low-income households.

In 2024 the State passed a bill to reduce the use of natural gas. House Bill 1589 incentivizes customers and pressures utility companies to move away from fossil fuels. Under state law, Puget Sound Energy must generate 80 percent of its energy from renewable energy sources by 2030 and 100 percent by 2045.

The act also contains provisions to safeguard consumers and prevent electric bills from rapidly increasing as a result of utilities' transition into clean energy sources. The Washington Utilities and Transportation Commission will review and monitor utilities' financial plans through an established rate case process.

These acts of legislation will shape Tumwater's future and change the way the community receives energy and utility services.

C. City Franchise Agreements

Franchise agreements are a non-exclusive right to occupy the public right-of-way.

Several private service providers are available in the community that provide television, cable, internet, and telephone services. Some companies lease underground broadband infrastructure conduit from Tumwater.

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3. Natural Gas

Natural gas is a fossil fuel used to create heat. In a home, natural gas creates heat through furnaces, boilers, and space heaters. The gas is burned, creating energy. Residential, commercial, industrial uses may use natural gas for space heating, water heating, and cooling.

Puget Sound Energy serves all municipalities within Thurston, King, Pierce, Lewis, Snohomish, and Kittitas Counties. Tumwater has seen a 29 percent increase in natural gas usage amongst all sectors since 2016, though gas usage went down from 2022-2023.

How natural gas is distributed is explained in Chapter 5.

A. Systems Analysis

The Utilities and Transportation Commission requires Puget Sound Energy to maintain and serve natural gas based on demand. Extension of service is based on request and the results of a market analysis to determine if revenues from an extension will offset the cost of construction. Puget Sound Energy installs natural gas service to anyone who requests it. This keeps the existing ratepayers from financing improvements in other areas and limits service delivery of natural gas to new areas.

Natural gas is a private utility and Puget Sound Energy addresses gas infrastructure needs within the system in accordance with regulatory requirements and operating practices outlined in their Integrated Resource Plans. Over the next decade, Puget Sound Energy states they plan to modernize their natural gas system and focus on pipeline safety statewide.

According to the Puget Sound Energy rate department, the average house (using natural gas for both heat and hot water) consumes about 1,000 therms per year. Ten therms are equal to approximately one “mcf” (thousand cubic feet) of gas so 1,000 therms per house equals approximately 100,000 cubic feet of gas per household per year.

B. Supply

Natural Gas is supplied by pipelines. More information on how gas is supplied, and the general locations can be found in Chapter 5-Natural Gas and Fuel Pipelines.

C. Natural Gas Usage

Property owners in Tumwater used natural gas to create over 8.6 million therms of heat energy in 2023. Residential uses consumed more natural gas than commercial or industrial uses.

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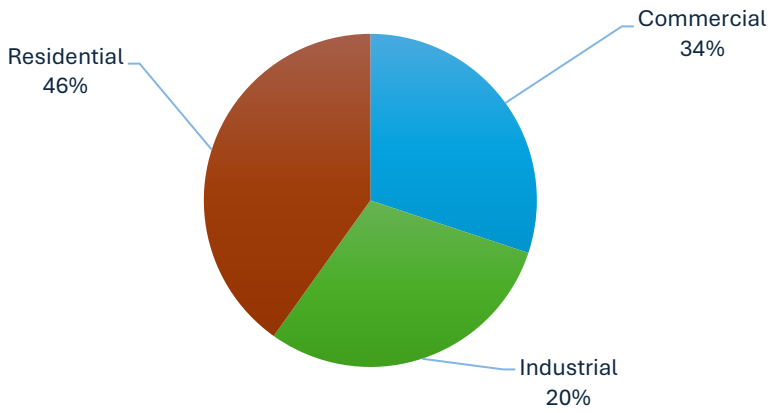
Figure U-1. Natural Gas Usage by Sector in Tumwater, 2023.



Source: Puget Sound Energy.
Notes: 2023 total natural gas usage was 8,616,398 Therms.

D. Demand

Puget Sound Energy does not have any major projects planned in Tumwater at this time, but new projects can be developed in the future at any time due to:

1. New or replacement of existing facilities to increased capacity requirements due to new building construction and conversion from alternate fuels.
2. Main replacement to facilitate improved maintenance of facilities.
3. Replacement or relocation of facilities due to municipal and state projects.

Statewide Puget Sound Energy plans to:

1. Build or upgrade seven gate or limit stations and 16 district regulator stations supplied by the Northwest Pipeline. These upgrades will increase capacity by handling more load.
2. Add about 24 miles of high-pressure main and 23 miles of intermediate-pressure main as demand grows in our service area.
3. Adress aging infrastructure and do ongoing maintenance.

These projects will help ensure reliable service and meet future demand for customers within Tumwater.

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4. Electricity

The electricity that Puget Sound Energy delivers to customers is generated from hydroelectric dams, coal, natural gas, wind, and to a much smaller degree from nuclear, and other sources such as solar, biomass landfill gas, petroleum, and waste.

Residential customers are Puget Sound Energy's largest customer class, with approximately 88 percent share of electric customers in 2024. There is an expected growth rate of 1.1 percent per year over the next 20 years. Commercial customers are the second largest customer class and are expected to grow at an annual rate of 1.3 percent per year over the next 20 years. By 2045 there will be an estimated 1.57 million customers.

Puget Sound Energy builds, operates, and maintains an extensive electrical system consisting of generating plants, transmission lines, substations, and distribution systems.

The Bonneville Power Administration, a power-marketing agency of the U.S. Federal Government, owns and operates the principal high voltage bulk transmission lines serving the Puget Sound region that cross Tumwater. Puget Sound Energy relies on Bonneville Power Administration for bulk transmission services of power generated by federal hydro dams and Energy Northwest generators.

Puget Sound Energy is the largest utility producer of renewable energy in the state and has goals to reduce emissions from electric operations to be net zero by 2030 and beyond net zero carbon energy company by 2045.

A. Regulatory Context

The policies of the Western Electricity Coordinating Council and Northwest Power and Conservation Council coordinate Puget Sound Energy and the Bonneville Power Administration activities. The Federal Energy Regulatory Commission and the Washington Utilities and Transportation Commission provide regulation for the system. The role and structure of the Washington Utilities and Transportation Commission, which regulates all utilities, is described in Chapter 2. Organizations and regulations that are specific to electricity supply are described below.

1) Western Electricity Coordinating Council

Western Electricity Coordinating Council is responsible for coordinating electricity supply across the western United States. It covers all of the United States west of the Rockies and parts of Mexico and Canada. Its primary function is to coordinate wheeling of power between the regions and to provide safeguards in the national grid so that a power disturbance in one part of the country will not leave another region without power.

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2) Northwest Power Pool

Northwest Power Pool is an integrated system of generating resources and transmission facilities owned by Northwest Utilities. The pool was formed in 1942 to coordinate sales and interchange of power within the region. Puget Sound Energy is a member of the Northwest Power Pool.

3) Northwest Power and Conservation Council

The Council was authorized by Congress in 1980 in the Northwest Power Act, giving the states of Idaho, Montana, Oregon, and Washington a greater voice in how we plan our energy future and protect our fish and wildlife resources.

The Council's primary responsibilities, along with developing a fish and wildlife program, is to create a 20-year, least-cost power plan for the Pacific Northwest and update it at least every five years. The plan includes an electricity demand forecast, electricity and natural gas price forecasts, an assessment of the cost of effective energy efficiency that can be acquired over the term of the plan, and a least-cost generating resources portfolio. The plan informs Bonneville's resource decision-making to meet its customers' electricity load requirements.

4) Western Interstate Energy Board

The Western Interstate Energy Board was created by the Western Interstate Nuclear Compact. It is an organization of governors and premiers of the eleven western states and three western Canadian provinces. The Board's purpose is to provide the instruments and framework for cooperative state efforts to enhance the economy of the West and contribute to the well-being of the region's people. Most of the Board's work is conducted through its three committees:

1. The High-Level Radioactive Waste Committee works with the U.S. Department of Energy to develop a safe and publicly acceptable system for transporting spent nuclear fuel and high-level radioactive waste under the Nuclear Waste Policy Act.
2. The Energy Minerals Reclamation Committee works to improve the administration of the Surface Mining Control and Reclamation Act in coal producing states.
3. The Committee on Regional Electric Power Cooperation works with the Western Conference of Public Service Commissioners to improve the efficiency of the western electric power system.

B. System Analysis

Puget Sound Energy is the electrical service provider for Tumwater. In Thurston County, Puget Sound Energy serves approximately 140,877 total electrical customers as of 2023. Puget Sound Energy is required to provide services to customers who apply and can be suitably furnished with available electricity.

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C. Electricity Generation, Transmission, & Distribution

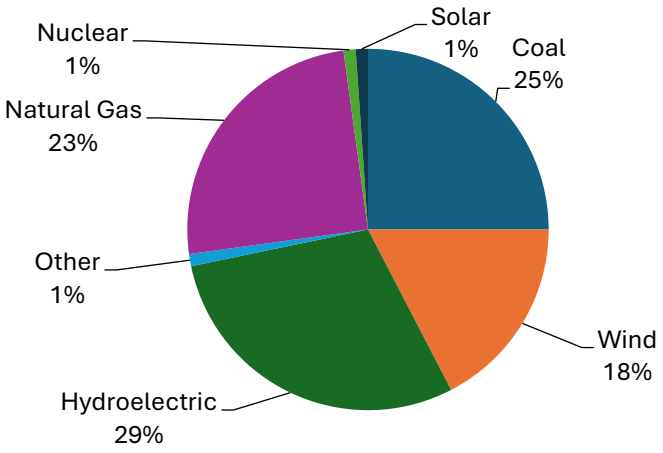
1) Generation

The first tier of Puget Sound Energy's electrical supply system is generation. Hydroelectric plants generate a sizable proportion of the electricity consumed in the Pacific Northwest. Much of the power comes from dams on the Columbia River to the east of the Cascades. Puget Sound Energy owns or has long term operating contracts on:

- 13 Hydroelectric plants.
- 3 Wind farms.
- 4 Solar resources.
- 2 Coal fired plants.
- 9 Natural gas-fired plants.
- 1 Battery Storage System.

Puget Sound Energy's two remaining coal fired sources will be shut down by 2025 to meet clean air standards, regulations, and goals in Washington and Montana. As shown in Figure U-2 shows the breakdown of the sources of electrical power generation in Tumwater.

Figure U-2. Sources of Electrical Power Generation in Tumwater, 2023.



Source: Puget Sound Energy.

2) Solar data

Tumwater is a SolSmart Silver designated community and is committed to going solar. Staff have created a streamlined permitting process so residents can quickly have solar panels installed on homes or at businesses. There are at least 270 solar energy systems installed citywide, six of which are commercial.

3) Transmission

The transmission system is the second tier in the electricity supply system. Puget Sound Energy's transmission system covers Thurston County and Tumwater. It is a grid, which provides a link between Bonneville Power Administration's Bulk Transmission System, the powerful transmission lines that feed energy from generating sources, to the smaller local feeder system, which

connects with customers throughout the service area.

Tumwater is included in a Puget Sound Energy service area, which also covers Thurston County. There is one power generation station in Centralia near the sub-area that feeds electricity into Puget Sound Energy's transmission system. Other sources of power outside this subarea flow through three transmission stations in Thurston County.

D. Demand

1) Local Level

Currently, Puget Sound Energy does not have any anticipated projects for the Tumwater. Unlike some other private utilities, providers of electricity such as Puget Sound Energy must provide electricity upon demand and in accordance with State and Utilities and Transportation Commission requirements. To meet service obligations, Puget Sound Energy extends or adds to its electric facilities when needed to keep up with demand. Puget Sound Energy owns, operates, and maintains all electric transmission and distribution substations, as well as the electrical transmission and distribution lines within Tumwater. Projects across Thurston County could help increase service capacity for new and existing Tumwater customers.

2) Regional Level

As the use of coal is phased out and more people are going electric; the region will need produce sources to meet the power demand. Over the next 20 years, the Northwest Power and Conservation Council forecasts the demand for electricity will be driven by many factors including economic growth, climate change, regional demographics, and expanding applications of electricity to reduce the use of fossil fuels. The council also predicts a quickly growing electric load in the transportation sector and for data centers. There will be a growth in renewable generation, the region will need to rethink how system capacity needs are measured and how and what resources can accomplish those needs.

The distribution system is the third and final tier in the electricity supply system. Power is supplied from the transmission system into the Tumwater's local feeder system at five distribution sub-stations, three of which are located in the Tumwater and its urban growth area. The remaining two are located in Olympia and its urban growth area.

3) State Level

Programs to ensure a reliable and economic power system can be found in Puget Sound Energy's *2021 Integrated Resource Plan,* which forecasts conservation resources and supply-side resources to meet the growing needs of Puget Sound Energy customers over the next 20 years. Energy delivery system infrastructure planning is done on a ten-year basis, and those plans are updated continually as conditions, technologies, and customer behavior change. Although the IRP is not specific to Thurston County, Puget Sound Energy anticipates future

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improvements will benefit their service network region wide.

a) Transmission

Puget Sound Energy anticipates building over 104 miles of new transmission lines (100 kV and above) and upgrading over 122 miles of existing transmission lines. In addition, Puget Sound Energy anticipates needing to add up to three 230 kV bulk power substations across their service area. These planned improvements do not include transmission needed to support the broader region or improvements needed as a result of providing interconnections for large generation resources.

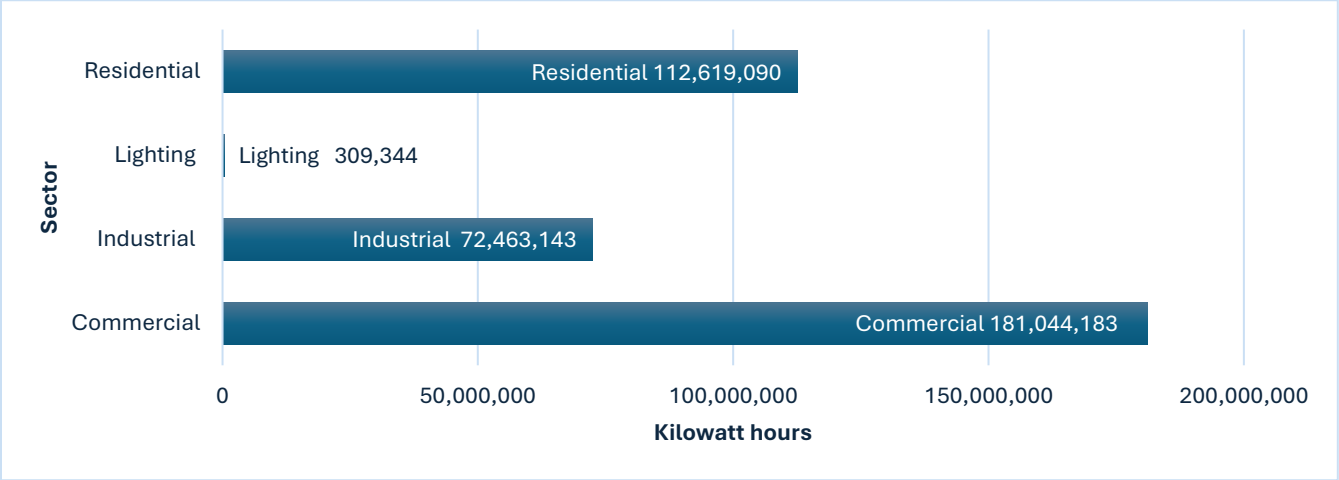
b) Distribution

Puget Sound Energy anticipates the need to build approximately six to eight new distribution substations to serve load as the existing substation capacity is exceeded and another two to four new substations to serve specific point loads. They anticipate upgrading approximately three existing substations to replace aging infrastructure and adding additional capacity to serve local load growth. Puget Sound Energy will continue to work on improving the reliability of its worst performing circuits and installing smart ready equipment for increasing the resiliency of the grid.

c) Ongoing Maintenance

Puget Sound Energy anticipates the replacement of several major substation components because of ongoing inspection and diagnostics. Puget Sound Energy anticipates the replacement of its current aging and obsolete Automated Meter Reading communication system as well as its electric customer meters with Advanced Metering Infrastructure technology to enable smart grid enhancements and customer offerings in the future.

Figure U-3. Electricity Usage by Sector in Kilowatt-hours, Thurston County, 2023.[1]



Source: Puget Sound Energy.

[1] Puget Sound Energy, Energy Use Table, September 9, 2024

5. Natural Gas and Fuel Pipelines

Two major natural gas and fuel pipelines pass within the Tumwater and its urban growth area:

- Olympic Pipeline (2.8 miles long located within Tumwater)
- Williams Northwest Pipeline (2.5 miles long located within Tumwater)

A. Olympic Pipeline

The Olympic Pipeline spur was used to carry liquid fuels from Olympic Pipelines' main north-south pipeline east of Tumwater to a bulk storage tank facility at the corner of Linderson Way and Tumwater Boulevard. The lease for that bulk storage facility has lapsed and the facility has been removed. The spur pipeline and easement remain in place but is currently inactive. No plans are currently on file to relocate the bulk storage facility or reactivate this pipeline spur.

B. Williams Northwest Pipeline

The Williams Northwest Company pipeline conveys natural gas from Williams Northwest Company Pipeline main north-south pipeline east of Tumwater to the Satsop Business Park in Grays Harbor County. This pipeline consists of two parallel 16-inch diameter gas pipelines located within a right of way that pass through the southern portion of Tumwater and its urban growth area. This pipeline is active, and no further expansion of this pipeline is planned at this time.

C. Puget Sound Energy Natural Gas Pipelines

Puget Sound Energy maintains an extensive network of pipelines that distribute natural gas to customers throughout Tumwater.

The Williams Northwest Company supplies natural gas to Puget Sound Energy through four gate stations in the Olympia area.

1. Olympia Gate Station is located at Flying Carpet and Fir Tree. This gate station also serves the Cities of Olympia and Lacey.
2. Olympia Town Border Station is located at 42nd and Boulevard. This station also serves the Cities of Olympia and Lacey.
3. Littlerock Gate Station is located at 90th Lane SW and Littlerock Road.
4. Black Lake Gate Station is located at Delphi and 62nd Avenue SW.

Other additional gas facilities serving the City of Tumwater include the following:

- A six-inch gas main from Olympia Gate to the Capitol, serving about 5,000 residential customers.
- A four-inch West Olympia Main from Black Lake to Evergreen College serving about 1,600 residential customers.

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- A four-inch main from Littlerock to Tumwater serving about 1,600 residential customers.

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6. Telecommunication

The telecommunications industry continues to undergo large advances in technology. Cellular and optical fiber technology have changed the way telecommunications services are delivered. The telecommunications industry is expected to undergo significant changes in the coming years, driven by advancements in artificial intelligence, 5G, 6G, and other technologies while focusing on sustainability and ensuring infrastructure can support advancements and more customers.

A. Broadband

Broadband is a high speed internet connection that can be delivered through a variety of technologies, including cable, fiber-optic cable, digital subscriber line, and mobile wireless. A lack of broadband connectivity can increasingly have a negative impact on social and economic development by excluding those who lack broadband access. It is becoming an increasingly important utility since more educational, occupational, health care, public safety, communication, and entertainment opportunities are dependent on this service.

In Tumwater, nine service providers offer broadband connections over a variety of methods to both residences and businesses. CenturyLink and Xfinity are the leading providers in Tumwater. According to BroadbandNow, an organization that assesses broadband access, currently 51.9 percent of Tumwater has access to CenturyLink's digital subscriber lines, 98.2 percent has access to Xfinity services.

B. Digital Subscriber Line

Digital subscriber lines use existing telephone lines to connect to the internet, similar to dial-up, but still allows for simultaneous phone and internet usage.

C. Cable

Cable uses existing television cables to connect to the internet without interfering with the television signals.

D. Wireless

Wireless internet connections are broadcast over the airways via a ground station provider to antennas. This method requires a clear line of sight between the antenna and the ground station making it susceptible to weather conditions. Wireless is a method of communication that uses radio waves, light, or other methods to transmit data without wires. Wireless technology has become a key part of modern computing, allowing for more flexible and convenient interactions with devices.

DRAFT

E. Satellite

Satellite internet is a form of wireless internet that uses satellites to connect to the internet. In the future, satellite communication is expected to play a crucial role in providing widespread, high-speed internet access, especially in remote areas, by utilizing large constellations of small satellites in low Earth orbit, bridging the digital divide and offering reliable connectivity even in disaster situations; with advancements in technology allowing for faster speeds, lower latency, and more efficient use of spectrum.

Satellites receive and send signals to ground station satellites, whether it is a dish that connects to a modem or router, or a larger ground station that connects to fiber optic cables and internet.

F. Mobile

Most phones, tablets, and smart devices access the internet using the cellular phone network. Cellular networks use radio waves to enable wireless communication between devices through a network of cell towers.

G. Fiber Optic

Fiber optic technology uses thin glass fibers to convert electrical data signals into light for faster and more reliable connections. Fiber optic cables are less likely to experience outages and are more resistant to severe weather conditions compared to other types of cables. Tumwater has some fiber conduits and is currently planning how to best use these assets.

Many providers of digital subscriber line, cable, or satellite phone and television services use the same infrastructure to provide internet services.

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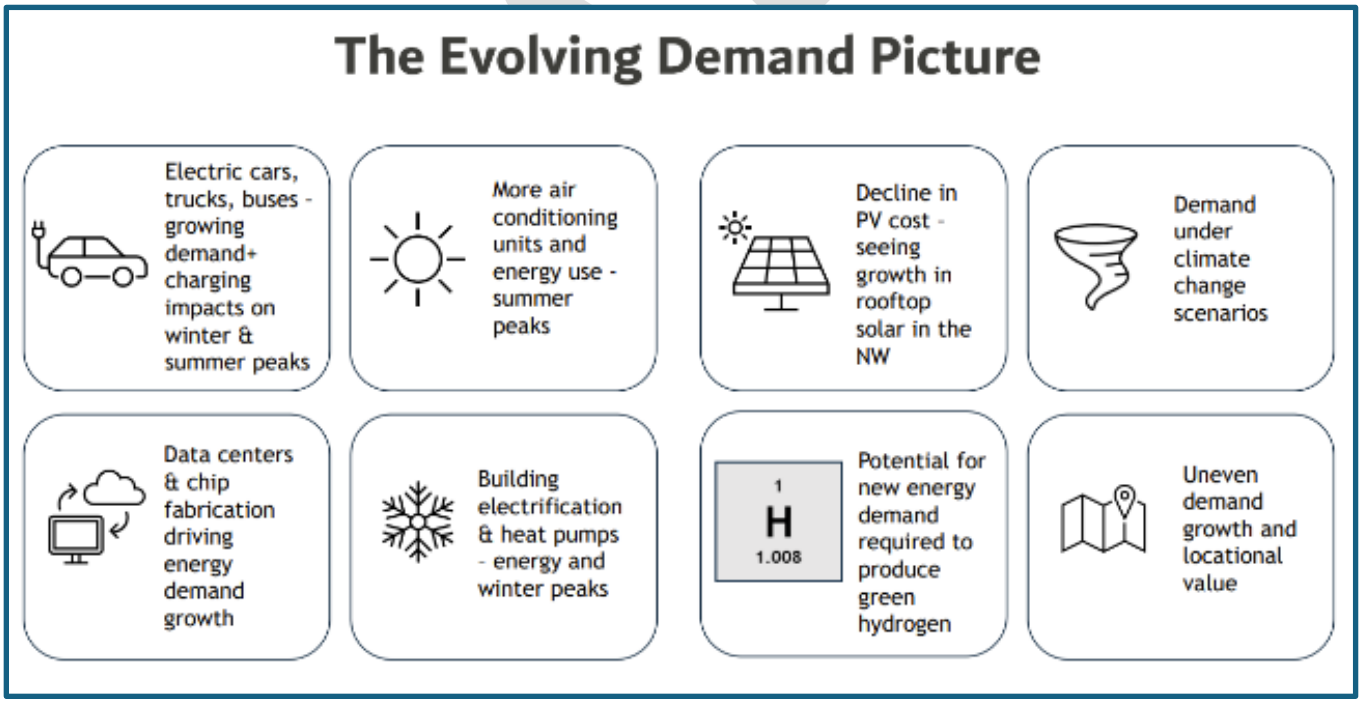
7. Meeting Future Demand

In the six-county service area of Puget Sound Energy, an inflow of more than 898,000 new residents between 2024 and 2040 is expected to increase Puget Sound Energy's electric service territory population to almost 5.33 million by 2045.

As shown in Figure U-4, the demand for electricity is expected to increase with the addition of new customers, solar and renewable energy, electric vehicles, advancements in broadband services and technology, artificial intelligence and data storage, and climate change laws.

As we transition away from generating energy from nonrenewable sources and moving towards a more electric grid, we need to plan for the creation and storage of more power. This could mean more solar energy, wind farms, nuclear energy, and sitting battery energy storage systems. The changes in how we generate energy will affect the ability to meet demand for electricity during different seasons and times of day.

Figure U-4. Long Term Load Forecasting, 2024.



Source: Northwest Power and Conservation Council.

Additionally, housing and employment is expected to grow at an average annual rate of 0.46 percent between 2024 and 2045. Manufacturing employment is expected to decline annually by 0.32 percent on average between 2024 and 2050, and local employers are expected to create about 205,681 jobs between 2024 and 2045, driven by growth in the commercial sector.

Growth in Tumwater follows closely with growth trends in other parts of the Puget Sound Energy service area. There were 27,030 jobs in Tumwater and its urban growth area in 2017. As shown in Table U-1, over the 20-year period of the Comprehensive Plan, Tumwater is projected to add an additional 10,730 jobs for a 54 percent gain in total employment primarily in the areas of government, professional services, and retail. The biggest changes in employment occur in manufacturing, construction, and retail trade.

These projections form the basis of the utility forecast for Tumwater, helping ensure adequate services are in place and identify potential changes or adjustments needed.

Table U-1. Tumwater and Urban Growth Area 20-Year Population Projection.

	2020 Population[2]	2045 Population	Population Increase
Tumwater	25,573	37,380	11,807
Urban Growth Area	3,134	8,690	5,556
Combined Areas	**28,707**	**46,070**	**17,360**

Source: [1] U.S. Census, 2020.
[2] The Profile, December 2024, Thurston Regional Planning Council, and the Population and Employment Forecast for Thurston County Final Report

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[2] Source, U.S. Census, 2020. 2020 Population includes the Census calibrated numbers both within the City of Tumwater (25,573) and its urban growth area (3,134).

8. Potential Impacts Of Climate Change

There are at least two ways in which climate change can affect utility demand and availability. First, long-term changes in temperature will alter electricity demand and change precipitation patterns, river flows, and hydroelectric generation. Second, policies enacted to reduce greenhouse gases will affect future resource choices. Greenhouse gases come from burning fossil fuels for heat and energy, which in turn causes global warming.

Tumwater is experiencing warmer summers, wetter and warmer fall and winters, and increased wildfire risks, impacting power and energy reliability. Lower summer streamflow can reduce summer hydropower resources and energy production. Increased wildfires could interrupt or damage power generation facilities and energy transmission and distribution infrastructure.

The summer of 2024 in the Pacific Northwest set a record for peak seasonal power demand in July, higher than the record set in the 2021 heat dome event in June. In a cold snap that hit in January 2024, the Northwest set the record for winter peak demand at 35,500 MW. These record-breaking events impact the grid and costs to the consumer.

No single sector or fuel type can provide the needed emission reductions to slow temperature increases. Limiting overall global warming requires largely phasing out coal use by 2025, reducing CO2 emissions from industry by 75–90 percent by 2050 (relative to 2010), supplying most electricity from renewables and significantly enhancing energy efficiency.

It will be critical for the private sector, public sector, and the individual to do their part to help reduce greenhouse gas emissions and use renewable energy. More information on climate change and what Tumwater is doing to address it can be found in the Climate Element, the 2023 Natural Hazard Mitigation Plan, the Thurston Climate Mitigation Plan, and the Thurston Climate Adaption Plan.

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Appendix A Foundational Documents

Table U-2 identifies the foundational planning documents that form the basis for the Utilities Element.

Table U-2. Foundational Documents for the Utilities Element.

Topic Index	Supporting Plans and Materials
Natural Gas	• Land Use Planning in Proximity to Natural Gas and Hazardous Liquid Transmission Pipelines in Washington State, Washington Utilities and Transportation Commission (2006) • Pipeline Safety Act, Washington State (Chapter 81.88 RCW) (2007)
Electricity	• Ninth Northwest Conservation and Electric Power Plan, Appendix M Climate Impacts, Northwest Power and Conservation Council (2021) • State Energy Data System, U.S. Energy Information Administration (2024) • Sustainable Thurston Energy White Paper, Thurston Regional Planning Council (2011) • The 2021 Northwest Power Plan, Northwest Power and Conservation Council (2021)
Puget Sound Energy (Natural Gas and Electricity Provision)	• Clean Energy Implementation Plan, Puget Sound Energy (2021) • Integrated Resource Plan, Puget Sound Energy (2023)
Telecommunications	• Broadband Feasibility Assessment Study & Outreach Summary, Thurston County Public Utility District (2022)
Comcast (Telecommunications Service Provision)	• Comcast Franchise Agreement, City of Tumwater and Comcast (2021)
General	• Capital Facilities Plan (2025-2031) • Climate Element (2025) • County-Wide Planning Policies, Thurston County (2025) • Natural Hazards Mitigation Plan for the Thurston Region (2024) • Lands for Public Purposes Element (2025) • Land Use Element (2025) • Sustainable Thurston, Thurston Regional Planning Council (2013)

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Appendix B Private Utility Contact Information

Table U-3 identifies the contact information for Private Utility Providers as required by RCW 36.70A.070(4)(b).

Table U-3. Private Utility Contact Information.

Provider	Contact Information
Puget Sound Energy	Phone: 1-888-225-5773 Email: customer.care@pse.com Website: https://www.pse.com/en In case of emergency call 1-888-225-5773
Olympic Pipeline	Email: BPDamagePrevention@bp.com Website:https://www.bp.com/en_us/united-states/home/products-and-services/pipelines.html In case of Emergency call Washington (Olympic Pipeline System): 1-888-271-8880
Williams Northwest Pipeline	Phone: 1-800-945-8723 Email: media@williams.com Website: https://www.williams.com/ In case of Emergency call 1-800-972-7733
Century Link	Phone: 800-603-6000 Website: https://www.centurylink.com/home/help/contact.html
Xfinity (Comcast)	Phone: 1-888-936-4968 Website: https://www.xfinity.com/support/
Washington Utilities and Transportation Commission	Phone: 360-664-1160 Website: https://www.utc.wa.gov/contact-us
Northwest Power and Conservation Council	Phone: 800-452-5161 Email: info@nwcouncil.org Website: https://www.nwcouncil.org/

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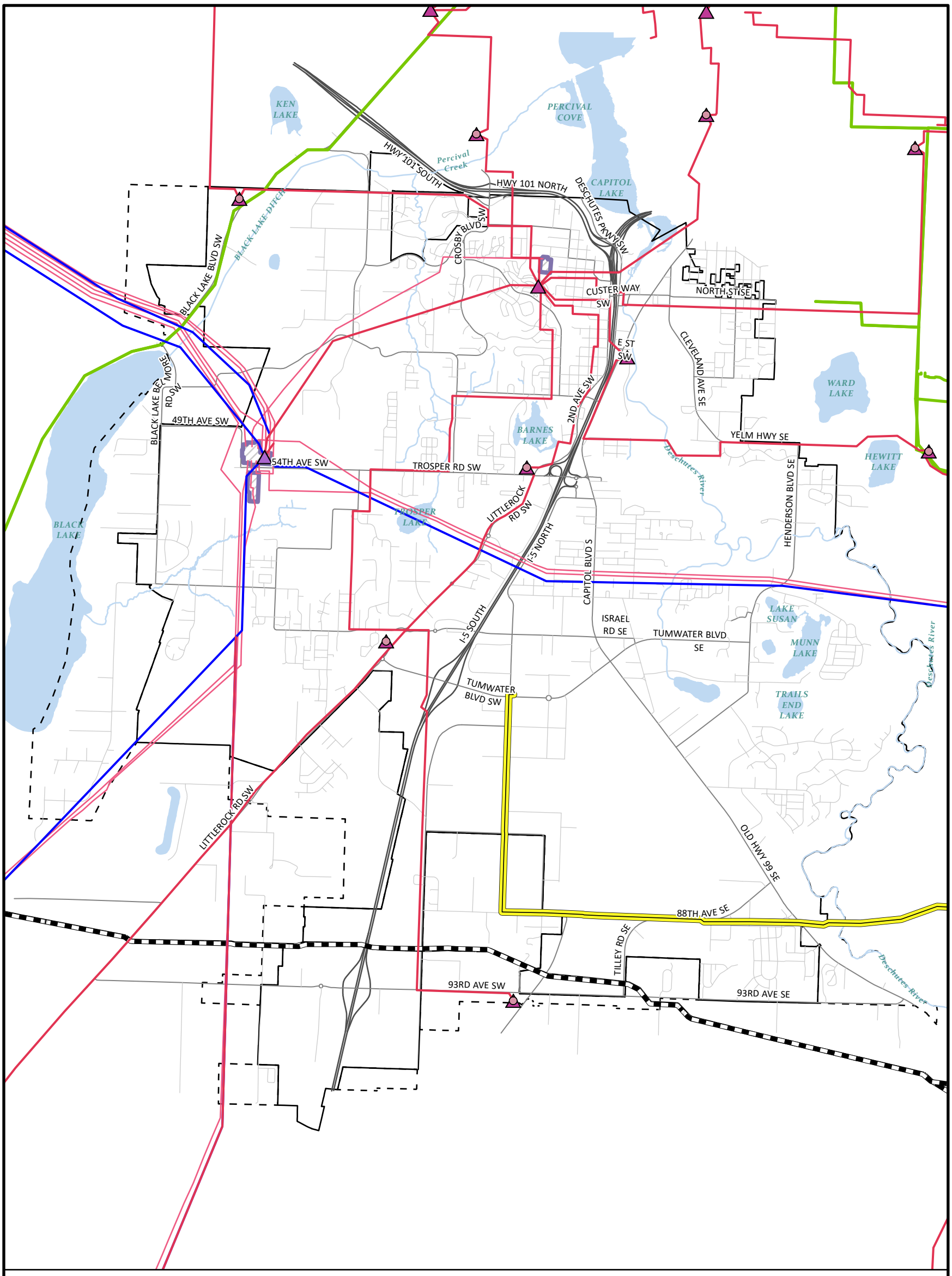
Attachment K.3.



1655

Fuel, Gas, & Major Electric Lines

- PSE Transmission
- Powerlines
- Existing Transmission PSE
- Exsisting Distribution PSE
- BPA Main Grid Transmission
- BPA Main Grid Transmission Substations
- Power Substation Area
- Olympic Gas Pipeline
- PSE High Pressure Line
- Williams Gas Pipeline
- PSE Gas Gate Stations
- City Limits
- Tumwater Urban Growth Area

N

0 0.25 0.5 1 Miles

Map created by the City of Tumwater Transportation and Engineering Department using ArcGIS Pro 3.3.2.
Data courtesy City of Tumwater Transportation and Engineering Department.
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