

City Council Regular Meeting Agenda Monday, November 21, 2022, 7:00 PM Council Chambers, 616 NE 4th Avenue

NOTE: The City welcomes public meeting citizen participation. TTY Relay Service: 711. In compliance with the ADA, if you need special assistance to participate in a meeting, contact the City Clerk's office at (360) 834-6864, 72 hours prior to the meeting so reasonable accommodations can be made (28 CFR 35.102-35.104 ADA Title 1)

To Participate Remotely:

OPTION 1 – Video & Audio (able to public comment)

Use Zoom app and Meeting ID - 811 3741 7324; or click https://us06web.zoom.us/j/81137417324

OPTION 2 – Audio-only (able to public comment)

By phone: 877-853-5257, Meeting ID - 811 3741 7324

OPTION 3 – Observe video & audio (no public comment ability)

Go to www.cityofcamas.us/meetings and click "Watch Livestream" (left on page)

For Public Comment:

- 1. On Zoom app click Raise Hand icon
- 2. On phone hit *9 to "raise hand"
- 3. Or, email publiccomments@cityofcamas.us (400 word limit); routes to Council

CALL TO ORDER

PLEDGE OF ALLEGIANCE

ROLL CALL

PUBLIC COMMENTS

This is the public's opportunity to comment about any item on the agenda, including items up for final Council action.

CONSENT AGENDA

NOTE: Consent Agenda items may be removed for general discussion or action.

- Camas City Council November 1, 2022 Special Meeting, November 7, 2022 Workshop and Regular Meetings Minutes Approval
- 2. Automated Clearing House and Claim Checks Approved by Finance Committee
- \$134,005.64 October 2022 Emergency Medical Services (EMS) Write-off Billings;
 \$107,940.76 Monthly Uncollectable Medicare and Medicaid Accounts Balances;
 \$26,064.88 Ground Emergency Medical Transport funding (Submitted by Cathy Huber Nickerson, Finance Director)
- 4. MOU between Camas Police Officers' Association and the City of Camas (Submitted by Jennifer Gorsuch, Administrative Services Director)

NON-AGENDA ITEMS

- 5. Staff
- 6. Council

MAYOR

7. Mayor Announcements

MEETING ITEMS

8. Clark County Transportation Alliance 2023 Policy Statement
Presenter: Jeff Swanson, Interim City Administrator
Time Estimate: 10 minutes

9. Public Hearing for Ordinance No. 22-024 Establishing 2% Utility Tax on City-Owned Utilities

<u>Presenter: Cathy Huber Nickerson, Finance Director</u> Time Estimate: 30 min.

- Public Hearing for Ordinance No. 22-021 Amending the City of Camas' 2022 Budget Presenter: Cathy Huber Nickerson, Finance Director Time Estimate: 5 minutes
- 11. Public Hearing for 2023 Property Tax Levies
 Presenter: Cathy Huber Nickerson, Finance Director
 Time Estimate: 10 minutes
- 12. Ordinance No. 22-022 Levying the ad valorem taxes for the General Fund for 2023
 Presenter: Cathy Huber Nickerson, Finance Director
 Time Estimate: 10 minutes
- Ordinance No. 22-023 Levying the ad valorem taxes for the EMS Fund for 2023
 Presenter: Cathy Huber Nickerson, Finance Director
 Time Estimate: 10 minutes
- 14. Resolution No. 22-015 Adopting the 2022 update to the General Sewer Plan Presenter: Steve Wall, Public Works Director
 Time Estimate: 5 minutes
- 16. Ordinance No. 22-025 Adopting Fire Capital Facilities Plan Presenter: Cliff Free, Fire Chief

Time Estimate: 5 minutes

Public Hearing – Resolution No. 22-016 Fire Impact Fee Schedule Update
 Presenter: Cliff Free, Fire Chief
 Time Estimate: 5 minutes

18. Resolution No 22-014 Revising the City of Camas fee schedule for 2023

Presenter: Cathy Huber Nickerson, Finance Director

Time Estimate: 5 minutes

19. Ordinance No. 22-017 Amendment to Comprehensive Plan and Zoning Maps
Presenter: Robert Maul, Planning Manager
Time Estimate: 5 min

20. Ordinance No. 22-020 North Shore Subarea Plan Presenter: Robert Maul, Planning Manager Time Estimate: 5 min

21. Ordinance No. 22-018 Camas School District Capital Facility Plan Presenter: Robert Maul, Planning Manager
Time Estimate: 5 min

22. Ordinance No. 22-019 Washougal School District Capital Facility Plan Presenter: Robert Maul, Planning Manager Time Estimate: 5 min

23. Ordinance No. 22-022 Levying the ad valorem taxes for the General Fund for 2023
Presenter: Shawn MacPherson, City Attorney
Time Estimate: 10 minutes

PUBLIC COMMENTS

CLOSE OF MEETING



City Council Annual Planning Conference Day 8 Special Meeting Minutes - Draft Tuesday, November 01, 2022, 4:00 PM Council Chambers, 616 NE 4th AVE

CALL TO ORDER

Mayor Hogan called the meeting to order at 4:00 p.m.

ROLL CALL

Present: Council Members Greg Anderson, Marilyn Boerke, Bonnie Carter, Don

Chaney, Leslie Lewallen, and John Nohr

Excused: Council Member Tim Hein

Staff: Bernie Bacon, Kevin Bergstrom, Debra Brooks, Carrie Davis, Cliff Free,

Jennifer Gorsuch, Cathy Huber Nickerson, Michelle Jackson, Mitch Lackey, Trang Lam, Robert Maul, Bryan Rachal, Heather Rowley, Ron Schumacher,

Jeff Swanson, Connie Urquhart, and Steve Wall

Press: No one from the press was present

WORKSHOP TOPICS

1. Introduction and Review

Presenters: Cathy Huber Nickerson, Finance Director and Jeff Swanson, Interim City Administrator

Swanson summarized the Planning Conference workshop topics to date.

Huber Nickerson provided an overview of the budget process and a summary of the Operating Budget. Discussion ensued.

2. Budget Discussion

Presenter: Cathy Huber Nickerson, Finance Director

- 2023-2024 Adjusted Budget Decision Packages
- Utility Tax Scenarios with Decision Package Adjustments
- Property Tax 1% Scenarios with Decision Package Adjustments

Huber Nickerson summarized the budget materials provided to Council. Discussion ensued.

The meeting recessed at 5:29 p.m.

The meeting resumed at 5:39 p.m.

Swanson resumed the budget discussion with Council. Discussion ensued.

3. Next Steps

Presenters: Cathy Huber Nickerson, Finance Director and Jeff Swanson, Interim City Administrator

Swanson and Huber Nickerson provided scenarios about a 3% Utility Tax. Discussion ensued.

A Capital Budget presentation will be placed on the November 7, 2022 City Council Workshop Agenda.

Huber Nickerson announced the Budget Open House event on November 2, 2022.

CLOSE OF MEETING

The meeting closed at 7:15 p.m.



City Council Workshop Minutes - Draft Monday, November 07, 2022, 4:30 PM Council Chambers, 616 NE 4th Avenue

NOTE: Please see the published agenda packet for item file attachments

CALL TO ORDER

Mayor Steve Hogan called the meeting to order at 4:30 p.m.

ROLL CALL

Present: Council Members Greg Anderson, Marilyn Boerke, Bonnie Carter, Don Chaney,

Tim Hein, Leslie Lewallen, and John Nohr

Staff: Bernie Bacon, Debra Brooks, James Carothers, Carrie Davis, Cliff Free, Cathy

Huber Nickerson, Michelle Jackson, Mitch Lackey, Trang Lam, Robert Maul, Bryan

Rachal, Jeff Swanson, Connie Urguhart, and Steve Wall

Press: Kelly Moyer, Camas-Washougal Post-Record (5:01 p.m.)

PUBLIC COMMENTS

Claudia Hickock, Camas, commented about proposed tax increases.

Randal Friedman, Camas, commented about proposed tax increases.

John Ley, Camas, commented about proposed tax increases.

Helen Gerde, Camas, commented about proposed tax increases.

WORKSHOP TOPICS

 Fire Impact Fee Schedule Update Presenter: Cliff Free, Fire Chief

Free and consultants from FCS Group provided an overview of the proposed Fire Impact Fee options. Discussion ensued. An ordinance will be placed on the November 21, 2022 Regular Meeting Agenda for Council's consideration following a public hearing.

 Library Strategic Planning, Part I Presenter: Connie Urguhart, Library Director

Urquhart provided an overview of the Library Strategic Plan. Part 2 of this item will be placed on a future agenda.

3. City of Camas 2023-2024 Mayor's Recommended Capital Budget Presentation Presenter: Cathy Huber Nickerson, Finance Director and Debra Brooks, Financial Analyst

Brooks presented the proposed Capital Budget. Discussion ensued. This item will be part of the scheduled public hearing and 2023–2024 Budget Ordinance for Council's consideration on December 5, 2022.

4. City of Camas 2023-2024 Budget Operating Funding Discussion Presenter: Cathy Huber Nickerson, Finance Director

Due to time constraints this item was deferred to the November 7, 2022 Regular Meeting Agenda.

COUNCIL COMMENTS AND REPORTS

Due to time constraints, Council Comments and Reports were deferred to the November 7, 2022 Regular Meeting Agenda.

PUBLIC COMMENTS

Randal Friedman, Camas, commented about proposed tax increases and the lakes water quality.

John Ley, commented about fire department funding.

Debi Debansinskas, commented about the North Shore.

CLOSE OF MEETING

The meeting closed at 6:35 p.m.



City Council Regular Meeting Minutes - Draft Monday, November 07, 2022, 7:00 PM Council Chambers, 616 NE 4th Avenue

NOTE: Please see the published agenda packet for item file attachments

CALL TO ORDER

Mayor Steve Hogan called the meeting to order at 7:00 p.m.

PLEDGE OF ALLEGIANCE

Present: Council Members Greg Anderson, Marilyn Boerke, Bonnie Carter, Don Chaney,

Tim Hein, Leslie Lewallen, and John Nohr

Staff: Bernie Bacon, Carrie Davis, Cliff Free, Cathy Huber Nickerson, Mitch Lackey,

Trang Lam, Shawn MacPherson, Robert Maul, Bryan Rachal, Jeff Swanson,

Connie Urquhart, and Steve Wall

Press: Kelly Moyer, Camas-Washougal Post-Record (7:11 p.m.)

PUBLIC COMMENTS

This is the public's opportunity to comment about any item on the agenda, including items up for final Council action.

Heather Gulling, Camas, commented about the City's tree ordinance.

Mayor announced that due to time constraints during the workshop, the City of Camas 2023-2024 Budget Operating Funding Discussion was added to the end of the agenda.

OATH OF OFFICE

1. Confirmation of Mayor Appointment of Fire Chief and Oath of Office

It was moved by Anderson, and seconded, to confirm the Mayor's appointment of Cliff Free to the position of Fire Chief. The motion carried unanimously.

CONSENT AGENDA

NOTE: Consent Agenda items may be removed for general discussion or action.

- 2. Camas City Council October 11, 2022 Special Meeting, October 17, 2022 Workshop and Regular Meetings, and October 25, 2022 Special Meeting Minutes Approval
- \$1,219,682.60 Automated Clearing House and Claim Checks Numbered 152381 to 152544; \$2,918,131.50 Automated Clearing House, Direct Deposit and Payroll Accounts Payable Checks Numbered 152373 through 135380

- 4. \$14,203.11 Pro-Vac WWTP Aeration Basin #1 Cleaning Change Order (Submitted by Rob Charles, Utilities Manager)
- 5. 2022 Camas Cemetery Paving Karvonen Sand & Gravel Inc. Final Acceptance (Submitted by James Carothers, Engineering Manager)
- 6. Municipal Court Lease Addendum with Port of Camas-Washougal (Submitted by Jeff Swanson, Interim City Administrator)

It was moved by Carter, and seconded, to approve the Consent Agenda. The motion carried unanimously.

NON-AGENDA ITEMS

7. Staff

Wall commented the Nakia Creek Fire and process for assessing related damage to the Jones and Boulder Creek watershed areas.

Lam announced the Camas Parks Foundation's annual Turkey Bingo event.

Swanson provided an overview of the November 3, 2022 Salary Commission meeting.

8. Council

Carter welcomed Council Member Nohr, congratulated Fire Chief Free, commented about the Joint Camas, Washougal and Port of Camas-Washougal Special Meeting and requested consideration of utilizing resources between the agencies. Carter attended the Budget Open House event and the Finance Committee meetings.

Mayor sought and received Council consensus to explore an agreement with the Port for arborist services.

Hein congratulated Free and welcomed Nohr.

Lewallen attended the Joint Special Meeting, met with citizens regarding the City's budget, attended a Camas-Washougal Rotary meeting, and reminded everyone to vote.

Nohr thanked Council and staff for briefing him about the City, and congratulated Free.

Chaney congratulated Free, welcomed Nohr, thanked all veterans for their service, and reminded everyone to vote.

Anderson welcomed Nohr, congratulated Free, and will attend a C-TRAN budget meeting.

MAYOR

Mayor congratulated Fire Chief Free.

9. Empowerment Starts With Me Day Proclamation

Mayor proclaimed November 6, 2022, as Empowerment Starts With Me Day in the City of Camas.

10. Native American Heritage Month Proclamation

Mayor proclaimed November 2022, as Native American Heritage Month in the City of Camas.

11. Veterans Day Proclamation

Mayor proclaimed November 11, 2022, as Veterans Day in the City of Camas.

MEETING ITEMS

12. Public Hearing - Fire Capital Facilities Plan Presenter: Cliff Free. Fire Chief

Mayor opened and closed the public hearing at 7:26 p.m. as no one from the public wished to speak.

It was moved by Anderson, and seconded, to approve the Fire Capital Facilities Plan and direct the City Attorney to prepare an ordinance for Council's consideration at the next Regular Meeting. The motion carried unanimously.

13. Public Hearing - Camas and Washougal School District Capital Facility Plan Updates Presenter: Robert Maul, Interim Community Development Director

Mayor opened and closed the public hearing at 7:30 p.m. as no one from the public wished to speak.

It was moved by Boerke, and seconded, to approve the Camas and Washougal School District Capital Facility Plan Updates and direct the City Attorney to prepare an ordinance for Council's consideration at the next Regular Meeting. The motion carried unanimously.

14. Public Hearing - Annual Review Request to Modify Comprehensive Plan and Zoning Presenter: Robert Maul, Interim Community Development Director

Mayor opened and closed the public hearing at 7:36 p.m. as no one from the public wished to speak.

It was moved by Hein, and seconded, to approve the request to modify the Comprehensive Plan and Zoning and direct the City Attorney to prepare an ordinance for Council's consideration at the next Regular Meeting. The motion carried unanimously.

Public Hearing - North Shore Subarea Plan
 Presenter: Robert Maul, Interim Community Development Director

Mayor opened the public hearing at 8:20 p.m. The following members of the public provided testimony:

Lynn Johnston, Camas
Randal Friedman, Camas
Brian Wiklem, Camas
Heather Gulling, Camas
Mike Andreotti, Clark County
Brett Webberly, Camas
Steve Rementeria, Vancouver
Kim Logan, Vancouver
Dave Ripp, Camas
Debi Dabasinskas, Camas
Mike Robinson, emailed public comment

The public hearing closed at 8:42pm Discussion ensued.

It was moved by Carter, and seconded, to approve the North Shore Subarea Plan and direct the City Attorney to prepare an ordinance for Council's consideration at the next Regular Meeting. The motion carried with six votes in favor and one abstention.

 Ordinance No. 22-015 Electoral Ward Boundary Amendments Presenter: Shawn MacPherson, City Attorney

It was moved by Chaney, and seconded, that Ordinance No. 22-015 be adopted and published according to law. The motion carried unanimously.

17. Ordinance No. 22-016 Condemnation of Real Property for Water System Facilities Access

Presenter: Shawn MacPherson, City Attorney

It was moved by Boerke, and seconded, that Ordinance No. 22-016 be adopted and published according to law. The motion carried unanimously.

The meeting recessed at 9:05 p.m. The meeting resumed at 9:10 p.m.

ITEMS ADDED TO THE AGENDA

Due to time constraints, these items were moved from the November 7, 2022 Workshop Meeting Agenda.

18. Staff Presentation - City of Camas 2023-2024 Budget Operating Funding Discussion Presenter: Cathy Huber Nickerson, Finance Director

Huber Nickerson provided an overview of the proposed funding options. Discussion ensued. Two ordinances will be placed on the November 21, 2022 Regular Meeting Agenda for Council's consideration following public hearings for each ordinance.

PUBLIC COMMENTS

Helen Gerde, Camas, commented about the proposed City Budget.

CLOSE OF MEETING

The meeting closed at 10:08 p.m.

MEMORANDUM OF UNDERSTANDING BETWEEN THE CAMAS POLICE OFFICERS ASSOCIATION AND THE CITY OF CAMAS, WASHINGTON

To clarify and add provisions related to overtime, the parties agree to revise certain subsections of Article 5 of the collective bargaining agreement as underlined below:

ARTICLE 5 OVERTIME

- 5.2 The overtime rate of pay is one and one-half (1.5) times the regular rate of pay as defined by the Fair Labor Standards Act. <u>Double time (overtime) is defined as two (2) times the regular rate of pay.</u>
- 5.3 Employees called back to work on a scheduled workday or to appear in court shall be compensated at a minimum of two (2) hours at the overtime rate of pay for each call back, in addition to overtime pay for actual time/hours worked.

"Call Back" shall mean that an employee is required to physically return to work outside their regular scheduled work hours and that the employee was unaware of the work assignment at the end of the employee's previous shift.

Also, for purposes of this section "outside of an employee's regular work hours"

means the employee's scheduled days off, any paid leave which has been pre-approved and also means the time when an employee has left work on a regularly scheduled work day to the time the employee is due to return to work for the employee's regularly scheduled shift. <u>Uniformed employees who are compensated with double time pay for filling an overtime patrol shift or extra duty assignment (having been provided less than twenty-four (24) hours' notice) are not also entitled to the "call back" premium.</u>

5.11 Overtime opportunities for standard patrol overtime shall be offered to all eligible CPOA members based upon a seniority schedule, with those most

senior being given preference. Overtime opportunities for approved extra duty overtime shall be offered to all eligible CPOA members based upon a rotational schedule. In both instances, there will be no preference given for rank, unless the opportunity is restricted to a supervisor.

An employee is not eligible for the provisions of this Article where work schedules, known commitments, or other policies and/or procedures would disqualify them from being able to work the opportunity. Certain CPOA members in a probationary status may be restricted from these opportunities if in the opinion of the Chief, the probationary employee is not yet qualified to fill the opening.

Supervisors have the responsibility to fill overtime shifts in the schedule. When it comes to the attention of the department that a patrol overtime shift or extra duty assignment exists it shall be filled as soon as possible by the following methods:

PATROL SCHEDULE VACANCY/EXTRA DUTY ASSIGNMENT THAT IS MORE THAN 30 DAYS OUT:

Supervisors will offer it to all members but are not required to fill the opening, should there be no volunteers, until it is 30 days out.

PATROL SCHEDULE VACANCY/EXTRA DUTY ASSIGNMENT THAT IS LESS THAN 30 DAYS OUT:

Although it should be filled as soon as possible, it shall be filled within 72 hours after it comes to the attention of the department for all instances of a vacancy that occurs in the next 30 days. If for some reason an overtime shift is not filled per the requirements of this clause, the double time rate of pay (emergency) clause would not apply.

CPOA will provide the City a list, in order of seniority, indicating a single telephone contact number at which the employee may be reached for the purpose of filling available overtime opportunities. This list may be updated by CPOA at any time, as needed. If the employee cannot be reached at the number provided, the Department shall not be required to try any other telephone number and may move on to the next person on the list. If no employees accept the overtime opportunity, the Department will mandate, in reverse order of seniority, the most junior member that is able to be contacted to take the overtime duty.

Absent extraordinary conditions, no employee will be mandated to work more than two overtime shifts in a series of days off. If this situation occurred, the department would then move to the next most junior member who is able to be contacted. Examples of "extraordinary conditions" would be a natural disaster, flood, earthquake, fire or large instances of social unrest, such as riots or violent protests.

When multiple overtime opportunities are available, and are being filled at the same time, employees are limited to selecting one (1) date/time only until the complete seniority list or rotational list has been exhausted. The intent of this provision is to distribute the limited overtime opportunities as equitably as 7 practical, between all members of CPOA.

Provided, at certain times the employer, for valid reasons of "business necessity" or "emergency" may elect to not follow these processes. Any overtime opportunity that is brought to the attention of the department with less than 24 hours to fill said opening shall be deemed to be an "emergency." In addition, certain overtime opportunities are restricted based upon a "business necessity" which means only certain individuals have the qualifications and skills needed for a specific assignment or function. When employees are given emergency notice (less than 24 hours) to fill an overtime patrol shift or extra duty assignment, it shall be compensated at the double time rate.

This also would not apply to situations where patrol officers are held over, "shift extension", or when patrol officers are scheduled to begin their shift early. In those two instances, the standard overtime rate applies.

This provision will not apply to standard patrol overtime opportunities of three (3) hour blocks or less. Should the employer fail to follow the above outlined process and end up skipping past a member or members who were eligible to work an overtime opportunity, the department shall be responsible to award the same amount of overtime to those affected, to be split equally. In no event will the penalty under this clause be more time than the original overtime that was wrongfully awarded. Overtime awarded to members under this article will be rounded up to the nearest quarter hour. In the case mentioned above, the word "skipping" is defined as no attempt was made to contact the eligible member.

of November , 2022.	of Understanding is executed this the day
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FOR THE UNION	FOR THE CITY OF CAMAS
Bir Jelman	
Brian Salwasser, President	Steve Hogan
Camas Police Officers Association	Mayor, City of Camas

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From the Front Control

Commence of the Broken



Staff Report

November 21, 2022 Council Regular Meeting

Clark County Transportation Alliance 2023 Policy Statement

Presenter: Jeff Swanson, Interim City Administrator

Time Estimate: 10 minutes

Phone	Email				
360-834-6864	jswanson@cityofcamas.us				

BACKGROUND: Each year the Clark County Transportation Alliance (CCTA) generates a policy statement for the upcoming year. The statement includes local and regional transportation project priorities and is endorsed by a variety of local government agencies, businesses, and associations such as Identity Clark County and the Columbia River Economic Development Council. Included on the statement are projects of importance to the City, including the Camas Slough Bridge replacement and Everett Street Corridor improvements.

SUMMARY: Council is asked to endorse the statement, allowing for use of the City's logo on the document along with other endorsers.

RECOMMENDATION: Staff recommends Council endorse the 2023 Clark County Transportation Alliance policy statement.

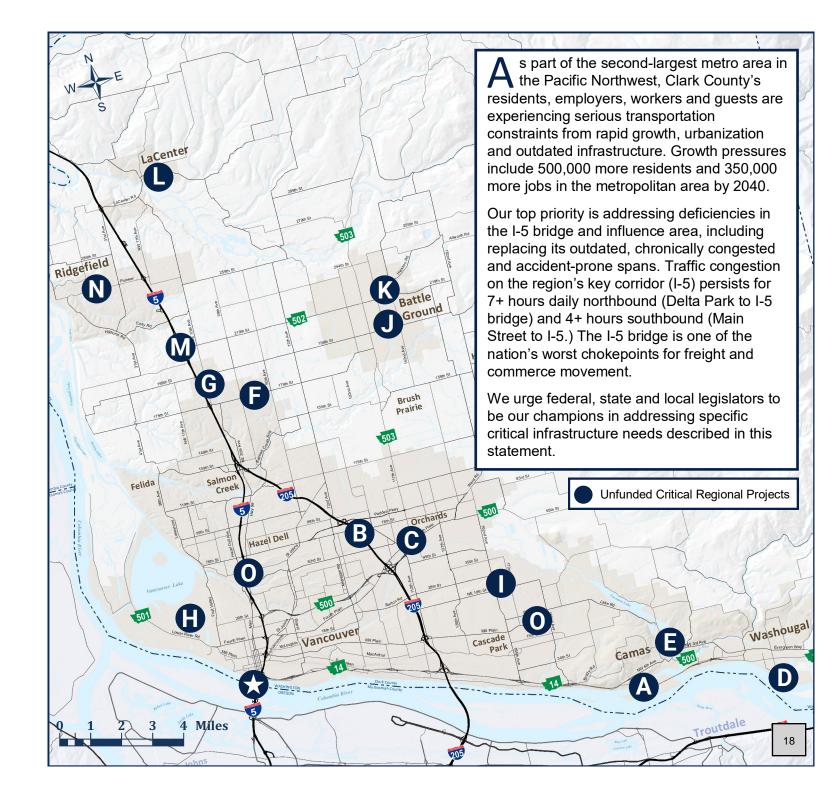
Clark County Transportation Alliance 2023 Policy Statement

[LOGOS HERE]

Sponsoring Organizations:

[LIST HERE]

Clark County Transportation Alliance 2023 Policy Statement



A CALL TO FURTHER ACTION

I-5 Bridge Replacement and Influence **Area Improvements**

Action #1 Support Timely I-5 Bridge Replacement: We fully support replacement of the I-5 bridges and related corridor improvements:

- Supplemental EIS: support timely completion of studies, reports and permit applications
- Bi-state legislative consensus: drive toward regional consensus for long-term solution responsive to economic prosperity, climate stewardship and social equity
- Funding commitments: secure balanced project funding including emerging federal bridge and transit grants, commitments from both states and local contributions

The I-5 spans are functionally obsolete and require outsized maintenance investments to remain operational. A bi-state approach focused on practical solutions that improve mobility throughout this primary freight, commerce and commuter corridor is a regional imperative congruent with the 2002 I-5 Corridor Strategic Plan.

Additionally, we place high priority on long-range landuse and transportation corridor planning given steadily rising population and commerce forecasts.



105-year old I-5 Bridge

Regional Maintenance and Operations Needs

Action #2

Pursue Funding to Advance State of Good Repair and Operations: carefully evaluate recommendations of the Joint Transportation Committee's Statewide Transportation Needs Assessment, and consider enhanced and new funding models (e.g. road-usage charge).

Fund Critical Area Operations: dedicate additional maintenance, planning and traffic operations funds for critical urban areas (SR-14, SR-500, I-5, I-205) to optimize safety and mobility on our existing system.

The 2022 Move Ahead Washington package was a welcome down payment on our maintenance and preservation backlog. Additional funding is needed to support our regional economy and community with an optimized transportation network.

Catalytic Economic Development Investments

Action #3

Fund Job- and Employer-Enabling Improvements: support funding catalytic investments, which serve the objective of accelerating shovel-ready land for jobs and industry expansion.

- Prioritize prime opportunities:
 - Discovery Corridor (I-5/179th St)
 - Section 30 (SE 1st St)
 - Washougal Town Center/Port of Camas Washougal (32nd St)
 - Port of Vancouver USA Industrial Corridor (NW 32nd Ave)
- Support long-range transportation corridor scenario planning and needs analysis
- Refine tax increment financing (TIF) to facilitate economic and infrastructure opportunities
- Stabilize statewide programs including the Public Works Trust Fund, CERB, FMSIB, TIB, and FRAP

Critical Regional Projects and Needs

Action #4

Fund Regionally Critical Projects to Address Immediate Needs: secure funding for priorities that reduce congestion hotspots, improve safety and deliver multi-modal investments. Each project has been vetted through the regional planning process.

Following are critical regional projects (lead agency):

A) West Camas Slough Bridge Widening (\$50M): develop parallel bridge structure for westbound SR-14 traffic and added capacity (WSDOT)



West Camas Slough Bridge

- B) I-205/SR-500 to Padden Exwy (\$50M): add auxiliary lanes to address congestion hotspot (WSDOT)
- C) SR-500/Fourth Plain/SR-503 (\$20M): following recent planning study, provide funds for initial intersection improvement to address congestion hot spot (WSDOT)
- D) Washougal Town Center Transportation Access Improvement (\$80M): improve corridors connecting Washougal including 32nd Street Rail Underpass; Town Center Connectors; 27th/Index Improvements for Port and SR-14 access (City of Washougal)

Continued...

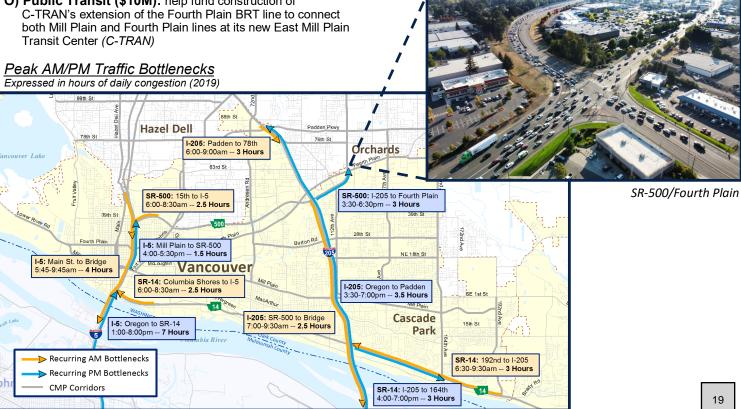
E) SR-500/Everett St Corridor Improvements Phase 1 (\$15M): install new Lacamas Lake Bridge above the floodplain with multimodal capacity (City of Camas)

- F) 179th St from NE 15th to NE 50th Ave (\$65.7M): improve roadway to multimodal arterial standards supporting expanded capacity and economic development opportunities (Clark County)
- G) NE 15th Ave from 179th St to NE 10th Ave (\$21.8M): add arterial connection to increase capacity in conjunction with 179th/I-5 interchange upgrade (Clark County)
- H) NW 32nd Ave Industrial Corridor (\$125M): planning, engineering, environmental review for new north-south freight arterial (City of Vancouver)
- I) NW 18th St at 138th Ave to 192nd Ave (\$40M): arterial widening and multi-modal upgrade; leverages significant private sector investments (City of Vancouver)
- J) Eaton Blvd from SW 20th Ave to SR-503 (\$3.3M): improve roadway to urban arterial standards and improve traffic safety (City of Battle Ground)
- K) Downtown Revitalization and Circulation Study (\$0.35M): planning and design for downtown circulation plan including focus on alternative transportation options (City of Battle Ground)
- L) E 4th St Widening/Brezee Creek Culvert (\$12M): complete street makeover with fish bearing culvert replacement for improved environmental outcomes (City of La Center)
- M) NW 219th St Extension/I-5 to Hillhurst Rd (\$5M): add western ramp access at I-5 and arterial street extension to Hillhurst Rd (City of Ridgefield)
- N) SR-501/Pioneer between 56th and 51st Ave (\$10M): improve roadway to multimodal standards supporting economic development and community partnership opportunities (City of Ridgefield)
- O) Public Transit (\$10M): help fund construction of C-TRAN's extension of the Fourth Plain BRT line to connect Transit Center (C-TRAN)

Facilitating Transportation Mobility **Economic Growth and Equity**

We urge legislators to embrace the following priorities where possible:

- Support the evaluation of transportation investments to help ensure equity and climate goals
- Support broadband infrastructure to disperse economic opportunity, foster telecommuting and better compete in the evolving digital economy
- Support funding to adequately maintain the Columbia River marine highway shipping channel for the next 20-years, and for ongoing implementation of the channel maintenance plan
- Fund regionally significant freight mobility improvements for river, road and rail for Ports, as well as track improvements for the county-owned Chelatchie Prairie Railroad
- Support the Workforce Impact Fund to increase the supply of highly skilled and job ready individuals
- Support (\$3.5M) the Port of Vancouver USA's Terminal 1 Waterfront development project for safety, commerce and tourism
- Enhance or expand funding programs to improve Complete Streets by promoting safety and accessibility for everyone, including increased funding for safe bike and pedestrian pathways, sidewalks and street crossings
- Actively embrace smart technologies to ease pressures on the transportation grid and improve safety for all users



Courtesy SW Regional Transportation Council



Staff Report – Public Hearing for Ordinance No. 22-024

November 21, 2022 Regular Meeting

Public Hearing for Ordinance No. 22-024 Establishing 2% Utility Tax on City-Owned

Utilities

Presenter: Cathy Huber Nickerson, Finance Director

Time Estimate: 30 min.

Phone	Email				
360.817.1537	chuber@cityofcamas.us				

SUMMARY: Utility taxes are considered part of the "Three-Legged Stool" for revenue to fund general operations of a city in Washington State. Utility taxes are imposed on the utility business and not on individual utility customers. Cities are permitted to levy the utility tax upon the income of public and private utilities providing services within the boundaries of that city. In addition, cities may also levy taxes on revenues generated by the city's own utility both inside and outside the city limits.

Currently, the City of Camas imposes a 3% utility tax on natural gas companies with the exception on the gas consumed by the City's industrial customers.

Ordinance 22-024 would establish 2% utility tax on City of Camas water, sewer, solid waste, and stormwater utilities. This tax is estimated to generate approximately \$1,051,119 over the 2023-2024 biennium or approximately \$500,000 a year. As an example of the impact to a variety of customers, a table below calculates the potential impact:

2% Utility Tax Scenarios

	Residence 1				Residence 2					Residence 3								
City Utilities	Bi-	-monthly	2%	Util Tax	Bi-N	Monthly Total	Bi-	monthly	2%	Util Tax	Bi-I	Monthly Total	Bi-	monthly	2%	Util Tax	Bi-N	Monthly Total
Water	\$	144.50	\$	2.89	\$	147.39	\$	74.90	\$	1.50	\$	76.40	\$	316.18	\$	6.32	\$	322.50
Sewer	\$	142.12	\$	2.84	\$	144.96	\$	82.06	\$	1.64	\$	83.70	\$	283.69	\$	5.67	\$	289.36
Garbage	\$	43.10	\$	0.86	\$	43.96	\$	29.30	\$	0.59	\$	29.89	\$	33.90	\$	0.68	\$	34.58
Stormwater	\$	26.32	\$	0.53	\$	26.85	\$	26.32	\$	0.53	\$	26.85	\$	26.32	\$	0.53	\$	26.85
Total	\$	356.04	\$	7.12	\$	363.16	\$	212.58	\$	4.25	\$	216.83	\$	660.09	\$	13.20	\$	673.29
Annualized	\$	2,136.24	\$	42.72	\$	2,178.96	\$ 1	1,275.48	\$	25.51	\$	1,300.99	\$	3,960.54	\$	79.21	\$	4,039.75

Ordinance 22-024 also provides for utility tax assistance program in form of a rebate and a sunset clause to end at the end of the biennium or the formation of a Regional Fire Authority whichever is first.

EQUITY CONSIDERATIONS:

What are the desired results and outcomes for this agenda item? This ordinance will provide diversification of the City's revenues similar to the City's neighboring jurisdictions as well as bridge a funding gap in the City's General Fund until a solution for new funding of the CWFD.

What's the data? What does the data tell us? The data shows the City is not utilizing all the revenue options available.

How have communities been engaged? Are there opportunities to expand engagement? Staff provided an open house to educate the public on the need and impact of a utility tax. In addition, outreach was provided through social media each week in the month of October. The public also has this hearing to provide comment on the ordinance.

Who will benefit from, or be burdened by this agenda item? All citizens and businesses within the City stand to benefit from the enhance level of service which additional revenues could fund.

What are the strategies to mitigate any unintended consequences? Utilities customers may see higher utility bills but there are options available to the City to mitigate the impact on low-income households.

Does this agenda item have a differential impact on underserved populations, people living with disabilities, and/or communities of color? Please provide available data to illustrate this impact. There may be impacts on some lower income or disabled households, but the City will provide assistance.

Will this agenda item improve ADA accessibilities for people with disabilities? N/A

What potential hurdles exists in implementing this proposal (include both operational and political N/A.

How will you ensure accountabilities, communicate, and evaluate results? N/A

How does this item support a comprehensive plan goal, policy, or other adopted resolution? The City's Strategic Plan identifies a goal to diversify revenues.

RECOMMENDATION: Staff recommends Council open the Public Hearing to consider public comment followed by a motion to approve Ordinance 22-024.

ORDINANCE NO. 22-024

AN ORDINANCE adding a new Chapter 3.10 of the Camas Municipal Code establishing a utility tax to provide revenue for City services, establishing a special referendum procedure; and an effective date; and providing a sunset of this ordinance.

WHEREAS, the City of Camas has authority as a municipal corporation of the State of Washington to impose a utility business and occupation tax pursuant to RCW 35A.82.020; and

WHEREAS, utility taxes by law may be imposed upon the income generated from public and private utilities including the provision of electricity, natural gas, telephone, cable television, sewer, solid waste, stormwater and water; and

WHEREAS, while electricity, natural gas, and telephone utility taxes are limited to a 6% rate without voter approval, state law prescribes no limit to the maximum utility rate which may be imposed upon sewer, solid waste, stormwater, and water utility services; and

WHEREAS, the City of Camas imposes 3% utility tax on natural gas companies with an exemption for gas revenues generated from city industrial customers; and

WHEREAS, upon due consideration the Council of the City of Camas has determined that municipally operated utilities to include water, sewer, stormwater, and solid waste, with the exception of recycling services, should be subject to a utility tax rate; and

WHEREAS, being mindful of the potential impact of any utility tax the City Council has further determined that a process to allow for the waiver or decrease in such utility tax should be provided for low-income families; and

WHEREAS, pursuant to RCW 35.92.460 a City imposing a utility tax must disclose the tax rate on all billing statements and the City Finance Department shall be directed to abide by such provision; and

WHEREAS, upon adoption of any initial utility tax ordinance state law allows for such ordinance to be subject to referendum allowing for the repeal thereof; and

WHEREAS, the Council of the City of Camas has determined that the public interest is best served by the implementation of a utility tax.

NOW THEREFORE, the Council of the City of Camas do ordain as follows:

Section I

A new Chapter 3.10 of the Camas Municipal Code, entitled "Utility Tax", is hereby added to provide as follows:

3.10.010 Use and Accountability of Tax Proceeds

All revenues collected pursuant to this Ordinance shall be deposited into the General Fund, and shall be used for the funding of City services as the Council shall direct through its biennial budget.

3,10.020 Utility Tax

The tax provided for in this Ordinance shall be known as the "utility tax" against and upon the gross earnings of the water, sewer, solid waste and stormwater utility funds and on all water, sewer, solid water and stormwater utilities at the rates set forth in this chapter. The tax shall, however, be subordinate to any payments required to be made by any utility funds from gross earning into any fund or funds created for the payment of and interest on revenue bonds issued by the City.

3.10.030 Definitions

- A. Use of Words and Phrases. As used in this Ordinance, unless the context or subject matter clearly requires otherwise, the words or phrases defined in this section shall have the indicated meanings.
- B. "Finance Director" means the Finance Director of the City of Camas, Washington or his or her designee.
 - C. "Gross earnings" means the consideration, whether money, credits, rights or property

expressed in terms of money, proceeding or accruing by reason of transaction of business and includes gross proceeds of sales, compensation of rendition of services, gains realized from interest, rents, royalties, fees, commissions, dividends and other emoluments, however designated, all without any deduction on account of cost of property sold, materials used, labor, interest, losses, discount and any other expense whatsoever.

- D. "Water Service" means any connection to the City water system and shall be further defined by customer class.
- E. "Sewer Service" means any connection to the City sewer system and shall be defined by customer class. "
- F. "Solid waste collection business" means every person who receives solid waste or recyclable materials, or both, as defined in this section, for transfer, storage, or disposal including but not limited to all collection services, public or private solid waste disposal sites, transfer stations, and similar operations.

"Solid waste" or "wastes" means all putrescible and non-putrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials.

G. "Stormwater Operation" means any connection to the City stormwater system and shall be defined by customer class.

3.10.040 Tax Rate

There is levied upon water, sewer, solid waste, stormwater utilities, taxes in the amount to be determined by the application of rates given gross earnings as follows:

Activity	Tax Rate
A. Water Operations	2%
B. Sewer Operations	2%

C. Solid Waste
D. Stormwater
2%

3.10.050 Tax Year

The tax year for purposes of this utility tax shall commence January 1, 2023, and end December 31, 2023, and thereafter commence January 1 and end December 31.

3.10.060 Exceptions and Deductions

In computing, the gross earning tax due under the provisions of this chapter, there shall be deducted from the measure of the tax the following items:

- A. Uncollected accounts, if the books of the utility are on an accrual basis as distinguished from a cash basis.
- B. Amounts received through contemplated or actual condemnation proceedings or in account of any federal, state, or local public works project.
 - C. Contributions for or in aid of construction.
 - D. Amounts collected as sales tax.

3.10.070 Finance Director Administrative Responsibility

The Finance Director shall have the power to adopt and enforce rules and regulations not inconsistent with this chapter or with the law for the purposes of carrying out the provisions set forth.

3.10.080 Utility Tax Assistance

The City of Camas will provide utility tax relief to low-income households within the City of Camas service area in the form of a rebate check from utility taxes paid to the City. The City will automatically issue a utility tax rebate to approved Utility Assistance Program customers. Customers

who qualify for the program may apply once a year through October 1 through November 15 each year. The Finance Director will establish administrative rules and procedures not inconsistent with the City of Camas Emergency Utility Assistance Program as heretofore adopted.

Section II

Referendum Procedure

The provisions of this Ordinance are subject to the referendum procedure as follows:

- A. A referendum petition seeking to repeal this Ordinance shall be filed with the City Clerk, who shall be designated the person to receive petitions of all types, within seven days of the passage by the City Council of this Ordinance or publication thereof, whichever is later.
- B. Within ten days, the City Clerk shall confer with the petitioner concerning the form and style of the petition, issue an identification number for the petition, and cause to be written a ballot title for the measure.
- C. The ballot title shall be posed as a question, so that an affirmative answer to the question and affirmative vote on the measure results in the tax or tax rate increase being imposed, and a negative answer to the question and a negative vote on the measure results in the tax or tax rate increase not being imposed. The petitioner shall be notified of the identification number and ballot title within this ten-day period.
- D. After notification of the identification number and ballot title, the petitioner shall have thirty days in which to secure on petition forms the signatures of not less than fifteen percent of the registered voters of the City and to file the signed petitions with the City Clerk.
- E. Each petition form shall contain the ballot title and the full text of the measure to be referred. The City Clerk shall verify the sufficiency of the signatures on the petitions. If sufficient

valid signatures are properly submitted, the City Clerk shall cause the referendum measure to be submitted to the City voters at the next election within the City or at a special election as provided pursuant to RCW 35.17.260(2).

Section III

Exclusive Procedure

Pursuant to RCW 35.21.706, the referendum procedure set forth in Section II above, shall be the exclusive referendum procedure for the utility tax imposed herein, and shall supersede the procedures, to the extent applicable, under chapters 35.17 and 35A.11 and all other statutory provisions for initiative or referendum which might otherwise apply.

Section IV

Severability

Should any section, paragraph, sentence, clause or phrase of this Ordinance, or its application to any person, entity, or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this Ordinance be pre-empted by state or federal law or regulation, such decision or pre-emption shall not affect the validity of the remaining portions of this Ordinance or its application to other persons or circumstances.

Section V

Effective Date

This Ordinance shall take force and be in effect five (5) days from and after its passage, approval, and publication according to law, subject to the provisions of Section II herein in the event of the filing of a referendum.

Section VI

Sunset Provision

This Ordinance shall sunset and no longer be in force or effect at 11:59 pm on December 31, 2024 or on the effective date of any Regional Fire Authority Agreement executed by the City of Camas, whichever shall be earlier.

PASSED BY the Council and APPROVED by the Mayor this 21st day of November, 2022.

	SIGNED:	Mayor	
	ATTEST:	Clerk	
APPROVED as to form:			
City Attorney	_		

ORDINANCE NO. 22-024

AN ORDINANCE adding a new Chapter 3.10 of the Camas Municipal Code establishing a utility tax to provide revenue for City services, establishing a special referendum procedure; and an effective date; and providing a sunset of this ordinance.

WHEREAS, the City of Camas has authority as a municipal corporation of the State of Washington to impose a utility business and occupation tax pursuant to RCW 35A.82.020; and

WHEREAS, utility taxes by law may be imposed upon the income generated from public and private utilities including the provision of electricity, natural gas, telephone, cable television, sewer, solid waste, stormwater and water; and

WHEREAS, while electricity, natural gas, and telephone utility taxes are limited to a 6% rate without voter approval, state law prescribes no limit to the maximum utility rate which may be imposed upon sewer, solid waste, stormwater, and water utility services; and

WHEREAS, the City of Camas imposes 3% utility tax on natural gas companies with an exemption for gas revenues generated from city industrial customers; and

WHEREAS, upon due consideration the Council of the City of Camas has determined that municipally operated utilities to include water, sewer, stormwater, and solid waste, with the exception of recycling services, should be subject to a utility tax rate; and

WHEREAS, being mindful of the potential impact of any utility tax the City Council has further determined that a process to allow for the waiver or decrease in such utility tax should be provided for low-income families; and

WHEREAS, pursuant to RCW 35.92.460 a City imposing a utility tax must disclose the tax rate on all billing statements and the City Finance Department shall be directed to abide by such provision; and

WHEREAS, upon adoption of any initial utility tax ordinance state law allows for such ordinance to be subject to referendum allowing for the repeal thereof; and

WHEREAS, the Council of the City of Camas has determined that the public interest is best served by the implementation of a utility tax.

NOW THEREFORE, the Council of the City of Camas do ordain as follows:

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3,10.020 Utility Tax

The tax provided for in this Ordinance shall be known as the "utility tax" against and upon the gross earnings of the water, sewer, solid waste and stormwater utility funds and on all water, sewer, solid water and stormwater utilities at the rates set forth in this chapter. The tax shall, however, be subordinate to any payments required to be made by any utility funds from gross earning into any fund or funds created for the payment of and interest on revenue bonds issued by the City.

3.10.030 Definitions

- A. Use of Words and Phrases. As used in this Ordinance, unless the context or subject matter clearly requires otherwise, the words or phrases defined in this section shall have the indicated meanings.
- B. "Finance Director" means the Finance Director of the City of Camas, Washington or his or her designee.
 - C. "Gross earnings" means the consideration, whether money, credits, rights or property

expressed in terms of money, proceeding or accruing by reason of transaction of business and includes gross proceeds of sales, compensation of rendition of services, gains realized from interest, rents, royalties, fees, commissions, dividends and other emoluments, however designated, all without any deduction on account of cost of property sold, materials used, labor, interest, losses, discount and any other expense whatsoever.

- D. "Water Service" means any connection to the City water system and shall be further defined by customer class.
- E. "Sewer Service" means any connection to the City sewer system and shall be defined by customer class. "
- F. "Solid waste collection business" means every person who receives solid waste or recyclable materials, or both, as defined in this section, for transfer, storage, or disposal including but not limited to all collection services, public or private solid waste disposal sites, transfer stations, and similar operations.

"Solid waste" or "wastes" means all putrescible and non-putrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials.

G. "Stormwater Operation" means any connection to the City stormwater system and shall be defined by customer class.

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There is levied upon water, sewer, solid waste, stormwater utilities, taxes in the amount to be determined by the application of rates given gross earnings as follows:

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A. Water Operations	2%
B. Sewer Operations	2%
C. Solid Waste	2%

D. Stormwater 2%

3.10.050 Tax Year

The tax year for purposes of this utility tax shall commence January 1, 2023, and end December 31, 2023, and thereafter commence January 1 and end December 31.

3.10.060 Exceptions and Deductions

In computing, the gross earning tax due under the provisions of this chapter, there shall be deducted from the measure of the tax the following items:

- A. Uncollected accounts, if the books of the utility are on an accrual basis as distinguished from a cash basis.
- B. Amounts received through contemplated or actual condemnation proceedings or in account of any federal, state, or local public works project.
 - C. Contributions for or in aid of construction.
 - D. Amounts collected as sales tax.

3.10.070 Finance Director Administrative Responsibility

The Finance Director shall have the power to adopt and enforce rules and regulations not inconsistent with this chapter or with the law for the purposes of carrying out the provisions set forth.

3.10.080 Utility Tax Assistance

The City of Camas will provide utility tax relief to low-income households within the City of Camas service area in the form of a rebate check from utility taxes paid to the City. The City will automatically issue a utility tax rebate to approved Utility Assistance Program customers. Customers who qualify for the program may apply once a year through October 1 through November 15 each

year. The Finance Director will establish administrative rules and procedures not inconsistent with the City of Camas Emergency Utility Assistance Program as heretofore adopted.

Section II

Referendum Procedure

The provisions of this Ordinance are subject to the referendum procedure as follows:

- A. A referendum petition seeking to repeal this Ordinance shall be filed with the City Clerk, who shall be designated the person to receive petitions of all types, within seven days of the passage by the City Council of this Ordinance or publication thereof, whichever is later.
- B. Within ten days, the City Clerk shall confer with the petitioner concerning the form and style of the petition, issue an identification number for the petition, and cause to be written a ballot title for the measure.
- C. The ballot title shall be posed as a question, so that an affirmative answer to the question and affirmative vote on the measure results in the tax or tax rate increase being imposed, and a negative answer to the question and a negative vote on the measure results in the tax or tax rate increase not being imposed. The petitioner shall be notified of the identification number and ballot title within this ten-day period.
- D. After notification of the identification number and ballot title, the petitioner shall have thirty days in which to secure on petition forms the signatures of not less than fifteen percent of the registered voters of the City and to file the signed petitions with the City Clerk.
- E. Each petition form shall contain the ballot title and the full text of the measure to be referred. The City Clerk shall verify the sufficiency of the signatures on the petitions. If sufficient valid signatures are properly submitted, the City Clerk shall cause the referendum measure to be

submitted to the City voters at the next election within the City or at a special election as provided pursuant to RCW 35.17.260(2).

Section III

Exclusive Procedure

Pursuant to RCW 35.21.706, the referendum procedure set forth in Section II above, shall be the exclusive referendum procedure for the utility tax imposed herein, and shall supersede the procedures, to the extent applicable, under chapters 35.17 and 35A.11 and all other statutory provisions for initiative or referendum which might otherwise apply.

Section IV

Severability

Should any section, paragraph, sentence, clause or phrase of this Ordinance, or its application to any person, entity, or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this Ordinance be pre-empted by state or federal law or regulation, such decision or pre-emption shall not affect the validity of the remaining portions of this Ordinance or its application to other persons or circumstances.

Section V

Effective Date

This Ordinance shall take force and be in effect five (5) days from and after its passage, approval, and publication according to law, subject to the provisions of Section II herein in the event of the filing of a referendum.

Section VI

Sunset Provision

This Ordinance shall sunset and no longer be in force or effect at 11:59 pm on December 31,

2024 or on the effective date of any Regional Fire Authority Agreement executed by the City of Camas, whichever shall be earlier.

PASSED BY the Council and APPROVED by the Mayor this 2 day of

November, 2022.

SIGNED:

Mayo

Cle

APPROVED as to form:

City Attorney



Staff Report – Public Hearing for Ordinance 22-021

November 21, 2022 Regular Meeting

Public Hearing for Ordinance No. 22-021 Amending the City of Camas' 2022 Budget

Presenter: Cathy Huber Nickerson, Finance Director

Time Estimate: 5 minutes

Phone	Email				
360.817.1537	chuber@cityofcamas.us				
360-817-7025 x4425	dbrooks@cityofcamas.us				

SUMMARY: The 2022 Fall Omnibus are items which address unforeseen budget requirements or unanticipated costs increases. This Omnibus Budget also includes administrative budget appropriations which generally are budget neutral, meaning there are additional revenues to offset the expenditures.

Staff presented the proposed 2022 Fall Omnibus to City Council during the October 17, 2022 Workshop. This meeting will provide Council an opportunity to consider public comment for Ordinance 22-021 which contains the Fall Omnibus Budget adjustments for 2022.

Council will open the public hearing and it will remain open until the Council Regular Meeting which is scheduled for December 5, 2022. During the December 5th meeting, Council will consider any remaining public comment, close the public hearing to consider approving Ordinance No. 22-021.

Below is a list of budget packages in Ordinance 22-021:

Administrative List

	Department	Description	Amount	Reason
A-01	CWFD	CWFD Radio Replacements	\$ -	replace fire rig radios w/ mobilization reimb
A-02	Debt	Transfer remaining Library Bond Funds	\$ -	transfer excess levy funds to fund LTGO debt
A-03	Brady Road	Transfer unused Brady Rd funds	\$ -	transfer excess to 38th Ave. Phase 3 project
A-04	Lake & Everett	Transfer unused Lake/Everett funds	\$ -	transfer excess to 38th Ave Phase 3 project
A-05	ARPA	ARPA Professional Services	\$ (3,311,446)	budget second half of ARPA, plus expenses
	Total		\$ (3,311,446)	

Supplemental List

	Supplemental List				
	Department	Description	Am	ount	Reason
S-01	Police	Police Overtime	\$	75,000	Overtime accruals and anticipated vac buybacks
S-02	CWFD	CWFD Staffing	\$	1,297,164	large impacts from understaffing, ext leave, hiring
S-03	Retiree Medical	Retiree Benefits	\$	20,000	costincreases
S-04	Executive	Executive Services (Consulting)	\$	400,000	Interim City Admin contract extension
S-05	Legal	Legal Services Contract	\$	60,000	increased costs with litigation work
S-06	IT	Riverview Tenant Improvements	\$	235,000	prep for temporary staff housing during annex reno
S-07	Library	Library Services	\$	108,406	cost increases for annual collection acquisitions
S-08	Streets	Everett Street Corridor Study	\$	100,000	cost for consultant study
S-09	CWFD	CWFD Insurance	\$	27,200	costincreases
S-10	CWFD	CWFD Repairs & Maintenance	\$	95,000	Repairs due to aging eqpmt/bldgs
S-11	CWFD	CWFD Service Needs	\$	42,000	Merina study, cost increases
S-12	Multiple	Citywide Fuel Increases	\$	191,950	cost increases due to 2022 fuel prices
S-13	Legislative	Council Chambers Furniture	\$	24,500	furniture purchased for council chambers remodel
S-14	CWFD	CWFD Tools & Equipment	\$	210,000	CARES-funded equipment (carryforward)
S-15	Streets Capital	Pavement Preservation	\$	225,000	for expanded Sierra St scope (Council direction)
S-16	Streets Capital	ADA Improvements	\$	46,738	for expanded downtown ADA scope
S-17	Streets Capital	2nd Avenue Project	\$	135,000	construction costs
S-18	Facilities Capital	Library Roofing/Exterior Repairs	\$	750,000	construction costs
S-19	Facilities Capital	Library HVAC Repairs	\$	249,550	construction costs
S-20	Storm Capital	Lake Management Plan	\$	200,000	consultant for study
S-21	Storm Capital	Vactor Truck Increases	\$	243,058	cost increase and correct Spring Omnibus entry
S-22	Sewer Capital	General Sewer Plan	\$	75,000	consultant for study
	Total		\$	4,810,566	

Total Omnibus Budget Packages \$ 1,499,120

EQUITY CONSIDERATIONS:

What are the desired results and outcomes for this agenda item? This agenda item is to consider public comment on the 2022 Fall Omnibus.

What's the data? What does the data tell us? N/A

How have communities been engaged? Are there opportunities to expand engagement? This public hearing will be opened at this Regular Council Meeting and be held open for two weeks through the December 5, 2022 Regular Council Meeting.

Who will benefit from, or be burdened by this agenda item? All City residents will benefit from most of these decision packages.

What are the strategies to mitigate any unintended consequences? N/A

Does this agenda item have a differential impact on underserved populations, people living with disabilities, and/or communities of color? Please provide available data to illustrate this impact. N/A

Will this agenda item improve ADA accessibilities for people with disabilities? Yes, there is additional funding for ADA sidewalk improvements.

What potential hurdles exists in implementing this proposal (include both operational and political)? N/A

How will you ensure accountabilities, communicate, and evaluate results? N/A

How does this item support a comprehensive plan goal, policy, or other adopted resolution? These items are in line with the City's Strategic Plan.

RECOMMENDATION: Staff recommends Council open the Public Hearing and for the hearing to remain open until the City Council Meeting on December 5, 2022.

AN ORDINANCE amending the City of Camas' 2022 Budget Ordinance Nos. 21-012 and 22-004.

WHEREAS, the City Council of the City of Camas approved Ordinance No. 20-011 and adopted a biennium budget for fiscal years 2021-2022; and

WHEREAS, the City Council of the City of Camas approved Ordinance 21-012 amending the Budget Ordinance 20-011 for the fiscal year 2022; and

WHEREAS, the City Council of the City of Camas approved Ordinance 22-004 amending the Budget Ordinance 21-012 for the fiscal year 2022; and

WHEREAS, the City Council of the City of Camas desires to effectively utilize and manage the City's financial resources; and,

WHEREAS, the City will receive additional revenues that were not anticipated at the time of adopting the budget for 2022; and

WHEREAS, funds received in excess of estimated revenues during the current fiscal year when authorized by an ordinance amending the original budget may be included in the expenditure limitation; and

WHEREAS, the City desires to undertake activities which were not foreseen at the time of adopting the 2022 budget; and

WHEREAS, the financial activities in the following funds could not have been reasonably foreseen at the time of adopting the 2022 budget.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CAMAS AS FOLLOWS:

Section I

Budget Amendment: The City of Camas' 2022 Budget as adopted in Ordinance No. 21-012 and amended by Ordinance 22-004 is amended as follows:

- 1. Modify the 2022 Budget for 2022 CWFD radio replacements
- 2. Modify the 2022 Budget to transfer excess Library bond levy tax collections to pay for current general obligation bonds.
- 3. Modify the 2022 Budget to transfer unspent Brady Road funding to 38th Avenue Phase 3.
- 4. Modify the 2022 Budget to transfer unspent Lake/Everett funding to 38th Avenue Phase 3.
- 5. Modify the 2022 Budget for second half of ARPA funding and expenses.

- 6. Supplement the 2022 Budget for additional labor costs for Police.
- 7. Supplement the 2022 Budget for additional labor costs for CWFD.
- 8. Supplement the 2022 Budget for retiree medical benefit increases.
- 9. Supplement the 2022 Budget for additional contract services for interim city administrator.
- 10. Supplement the 2022 Budget for increased costs with potential litigation.
- 11. Supplement the 2022 Budget for tenant improvements for temporary office space.
- 12. Supplement the 2022 Budget for cost increases for library collection.
- 13. Supplement the 2022 Budget for Everett Street Corridor Study
- 14. Supplement the 2022 Budget for insurance cost increases for CWFD.
- 15. Supplement the 2022 Budget for CWFD station repairs
- 16. Supplement the 2022 Budget for CWFD Merina study
- 17. Supplement the 2022 Budget for increased fuel costs
- 18. Supplement the 2022 Budget for Council Chambers remodel
- 19. Supplement the 2022 Budget for CWFD tools funded with CARES Act funds in prior year.
- 20. Supplement the 2022 Budget for Sierra Street preservation project scope change
- 21. Supplement the 2022 Budget for expanded ADA project for downtown
- 22. Supplement the 2022 Budget for 2nd Avenue project
- 23. Supplement the 2022 Budget for Library Roofing/Exterior repairs
- 24. Supplement the 2022 Budget for Library HVAC repairs
- 25. Supplement the 2022 Budget for Lake Management Plan
- 26. Supplement the 2022 Budget for Vactor Truck cost increase
- 27. Supplement the 2022 Budget for consulting services for General Service Plan

Section II

Budget Amendment – Effect on Fund Revenues and Expenses: The foregoing increases affect the City funds as shown on Attachment A.

Section III

Effective Date. This ordina	ance shall take force and be in effect five days from and after its
publication according to law.	
PASSED BY the Council at	nd APPROVED by the Mayor this day of
, 2022.	
	SIGNED:
	SIGNED:
APPROVED as to form:	Clerk
City Attorney	

Item 10.

2022 Budget Amendment - Fund Summary

	Beg	Fund Balance	R	Budget evenues (1)	E	Budget Expenses (1)	Enc	Estimated d Fund Balance		Budget Ar Revenues	nen	dment Expenses		Amended und Balance	Note: Budget Packages
Operating Funds															
General	\$	13,030,398	\$	29,185,398	\$	(32,419,303)	\$	9,796,493	\$	-	\$	(1,722,106)	\$	8,074,387	S-01, S-03, S-04, S-05, S-06, S-07, S-12, S-13, S-18
Streets	\$	1,624,957	\$	4,419,198	\$	(5,212,816)	\$	831,339	\$	100,000	\$	(355,000)	\$	576,339	S-08, S-12, S-15
Tree Fund	\$	15,508	\$	225	\$	-	\$	15,733	\$	-	\$	-	\$	15,733	
American Rescue Plan Act	\$	3,308,118	\$	-	\$	(125,000)	\$	3,183,118	\$	3,411,446	\$	(100,000)	\$	6,494,564	A-05
Camas/Washougal Fire & EMS	\$	3,438,425	\$	12,605,832	\$	(13,999,672)	\$	2,044,585	\$	21,193	\$	(1,742,307)	\$	323,471	A-01, S-02, S-09, S-10, S-11, S-12, S-14
Cemetery	\$	229,014	\$	256,117	\$	(336,886)	\$	148,245					\$	148,245	
				•								•			,
Capital/Enterprise Funds															
Unlimited GO Debt Service	\$	15,824	\$	7,392	\$	-	\$	23,216	\$	-	\$	(23,216)	\$	-	A-02
Limited GO Debt Service	\$	-	\$	4,198,725	\$	(4,198,725)	\$	-	\$	23,216	\$	-	\$	23,216	A-02
REET	\$	7,436,191	\$	4,033,744	\$	(4,346,211)	\$	7,123,724	\$	170,000	\$	(351,738)	\$	6,941,986	S-16, S-17
Park Impact Fee	\$	6,149,601	\$	1,311,504	\$	(2,006,750)	\$	5,454,355	\$	-	\$	-	\$	5,454,355	
Transportation Impact Fee	\$	4,341,602	\$	1,526,109	\$	(1,280,542)	+	4,587,169	\$	-	\$	(100,000)	\$	4,487,169	S-08
Fire Impact Fee	\$	1,249,562	\$	212,905	\$	(360,000)	+-	1,102,467	\$	-	\$		\$	1,102,467	
Brady Road	\$	446,220	\$		\$	(308,296)	+-	161,741	\$	-	\$	-	\$	-	A-03
NW 38th Ave Phase 3	\$	493,197	\$	979,000	\$	(1,198,000)	+-	274,197	\$	331,648	\$	_ ` ` `	\$	605,845	A-03, A-04
Facitilies Capital Fund	\$	1,467,790	\$	625,000	\$	(1,739,874)	+-	352,916	\$	1,749,550	\$	-	\$	103,366	S-19, S-20
Legacy Lands	\$	5,484,379	\$	-	\$	(500,000)	÷	4,984,379	\$	-	\$		۶ \$	4,984,379	22,520
Lake & Everett Improvements	\$	218,235	\$	_	\$	(48,328)	+	169,907	\$		\$	(169,907)	_	-,504,575	A-04
Storm Water	\$	2,717,493	\$	2,116,992	\$	(2,706,145)	+-	2,128,340	\$	221,500	\$		۶ \$	1,685,282	S-20, S-21
	\$		H		÷		+-	2,888,867	_	· · · · · · · · · · · · · · · · · · ·	ı.		÷	2,848,867	·
Solid Waste	<u> </u>	3,345,894	\$	3,270,202	\$	(3,727,229)	+-		\$	-	\$, , ,	\$		S-12
Water/Sewer	\$	15,102,522	\$		\$	(17,977,572)	-	12,128,536	\$	-	\$, , ,	\$	12,030,536	S-12, S-22
W/S Capital Projects	\$	- 250 000	\$	1,480,000	\$	1,480,000		- 250,000	\$	-	\$		\$	250.000	
North Shore Construction Project	\$	250,000	\$	-	\$		\$	250,000	\$	-	\$		\$	250,000	
Water Capital Projects	\$	4,966,632	\$	50,000	\$	(2,940,000)	+-	2,076,632	\$	-	\$		\$	2,076,632	
WS Capital Reserve	\$	15,683,093	\$	4,748,879	\$	(477,500)	-	19,954,472	\$	-	\$		\$	19,954,472	
WS Bond Reserve	\$	1,218,016	\$	-	\$	-	\$	1,218,016	\$	-	\$	-	\$	1,218,016	
Reserve Funds			1		ı		1				ı				
Lodging Tax	\$	38,930	\$,	\$	(10,000)	-	49,970	_	-	\$		\$	49,970	
Equipment Rental and Replacement	\$	1,808,880	\$	1,835,503	\$	(2,637,846)	\$	1,006,537	\$	-	\$	-	\$	1,006,537	
Firemen's Pension	\$	2,010,562	\$	12,279	\$	(89,889)	\$	1,932,952	\$	-	\$	-	\$	1,932,952	
Retiree Medical	\$	31,566	\$	130,315	\$	(138,799)	\$	23,082	\$	20,000	\$	(20,000)	\$	23,082	S-03
LEOFF 1 Disability Board	\$	528,735	\$	166,551	\$	(217,593)	\$	477,693	\$	-	\$	-	\$	477,693	
(1) Budgeted revenues and expenses	\$ reflect	96,651,344 the 2022 Adop				(97,522,976)		84,388,681	\$	6,048,553	\$ \$	(7,547,673) (1,499,120)	\$	82,889,561	
	Ord	Budget	\$	170,586,145	\$	170,689,983		•	\$	3,432,639		(121,193)			
	202	1 Budget	\$	88,206,097	\$	89,120,521	Sup		\$	1,391,050		(6,201,616)			
		ng 2021 Adj	\$	1,139,500		4,441,500			ć	1 022 600	Ċ	(6 222 900)			
		2021 Adj usted 2021	\$	5,384,365 94,729,962		4,656,610 98,218,631			Þ	4,823,689	\$	(6,322,809) (1,499,120)			
	Spri Fall	2 Budget ng 2022 Adj 2022 Adj usted 2022	\$ \$ \$	87,473,228 715,876 6,048,553 94,237,657	\$	91,474,514 9,874,343 7,547,673 108,896,530	_								

Attachment A					Current		Proposed		Rev Increase	Rev Decrease		
Adjustment #	Description	Note	Fund		Budget		Budget	GL Code	Exp Decrease	Exp Increase		Item 10.
											\$	-
A-01	Office & Operating Supplies	2 replacement radios	115	\$	26,934	\$	48,127	115-09-522-210-31		\$ (21,193) \$	(21,193)
A-01	Fire Mobilization Reimb	2 replacement radios	115	\$	-	\$	21,193	115-09-342-604-00	\$ 21,193		\$	21,193
A 03	Transfors Out Fund 240	LTCO to LUTCO	220	ċ		ć	22.216	220 00 507 240 00		¢ /22.216	ا د	(22.216)
A-02 A-02	Transfers Out - Fund 240 Adjust fund balance	LTGO to ULTGO Fund Bal Adj	239	\$	23,216	\$	23,216	239-00-597-240-00 239-00-508-000-00	\$ 23,216	\$ (23,216) \$ \$	
A-02	Transfers In - Fund 239	ULTGO from LTGO	240	\$		\$			\$ 23,216		\$	
A-02	Adjust fund balance	Fund Bal Adj	240	\$	-	\$		240-00-308-000-00	Ψ 20,210	\$ (23,216	_	
		·										
A-03	Transfers Out - Fund 313	Brady to 38th	315	\$	-	\$	161,741	315-00-597-313-00		\$ (161,741	_	
A-03	Adjust fund balance	Fund Bal Adj	315	\$	161,741	\$	-	315-00-508-000-00	\$ 161,741		\$,
A-03	Transfer In - Fund 315	38th from Brady	313	\$	-	\$	161,741	313-00-397-315-00	\$ 161,741	4 464 744	\$	
A-03	Adjust fund balance	Fund Bal Adj	313	\$	274,197	\$	435,938	313-00-308-000-00		\$ (161,741) \$	(161,741)
A-04	Transfers Out - Fund 313	Lake/Ev to 38ths	321	\$	_	\$	169,907	321-00-597-313-00		\$ (169,907) \$	(169,907)
A-04	Adjust fund balance	Fund Bal Adj	321	\$	169,907	\$	-	321-00-508-000-00	\$ 169,907	Ç (103,307	\$	
A-04	Transfer In - Fund 321	38th from Lake/Ev	313	\$	-	\$	169,907	313-00-397-321-00	\$ 169,907		\$	
A-04	Adjust fund balance	Fund Bal Adj	313	\$	274,197	\$	444,104	313-00-308-000-00		\$ (169,907) \$	(169,907)
A-05	Professional Services	Small grant, util overage	113	\$	-	\$	100,000	113-00-562-620-41		\$ (100,000) \$	(100,000)
A-05	Covid-19 ARPA Fed Stimulus Fds	Second half of ARPA	113	\$	-	\$		113-00-332-920-10	\$ 3,411,446		_	3,411,446
A-05	Adjust fund balance	Fund Bal Adj	113	\$	3,183,118	\$	6,494,564	113-00-308-000-00		\$ (3,311,446) \$	(3,311,446)
0.01		P. II. 07	201		454.000		225.002	204 00 504 200 40		A (75.000	١ ۵	(75.000)
S-01	Overtime	Police OT overage	001	\$	151,993	\$		001-08-521-220-12	ć 75.000	\$ (75,000		, , ,
S-01	Adjust fund balance	Fund Bal Adj	001	\$	9,796,493	\$	9,721,493	001-00-508-000-00	\$ 75,000		\$	75,000
S-02	Overtime	EMS OT overage	115	\$	213,400	\$	473 400	115-00-522-720-12		\$ (260,000) \$	(260,000)
S-02	Fire Suppress Salaries & Wages	Fire Salary overage	115	\$	4,164,330	_		115-09-522-210-11		\$ (600,012	_	, ,
S-02	Overtime	Fire OT overage	115	\$	862,446	\$		115-09-522-210-12		\$ (200,000	_	
S-02	Personnel Benefits	Fire Benefits overage	115	\$	1,306,049	\$		115-09-522-210-21		\$ (100,000	_	
S-02	VEBA Benefit	Fire Benefits overage	115	\$	72,618	\$	92,618	115-00-522-720-26		\$ (20,000) \$	(20,000)
S-02	Uniforms & Clothing	Fire Uniforms overage	115		33902	\$	39,054	115-09-522-210-22		\$ (5,152) \$	(5,152)
S-02	Protective Clothing	Fire Turnouts overage	115	\$	53,550	\$	153,550	115-09-522-210-23		\$ (100,000) \$	(100,000)
S-02	Miscellaneous	Fire Training overage	115	\$	45,678	-		115-09-522-450-49		\$ (12,000	_	
S-02	Adjust fund balance	Fund Bal Adj	115	\$	9,796,493	\$	8,499,329	115-00-508-000-00	\$ 1,297,164		\$	1,297,164
6.00			640		100 700		450 700	640.00.547.000.04		400,000	١ ۵	(20.000)
S-03	Personnel Benefits	Retiree Medical	612	\$	138,799	-		612-00-517-200-21	† 20.000	\$ (20,000	_	
S-03 S-03	Transfer In - General Fund Transfer Out - Retiree Medical	Ret Med from Gen Fund Gen Fund to Ret Med	612 001	\$	85,635 85,635	_		612-00-397-001-00 001-00-597-612-00	\$ 20,000	\$ (20,000	\$) \$	•
S-03	Adjust fund balance	Fund Bal Adj	001	\$	9,796,493	_		001-00-597-612-00	\$ 20,000	\$ (20,000) > \$	
3-03	Adjust fullu balance	r unu bar Auj	001	ڔ	3,730,433	٧	3,770,433	001-00-308-000-00	\$ 20,000		۲	20,000
S-04	Professional Services	Exec consulting	001	\$	134,945	\$	534.945	001-03-513-100-41		\$ (400,000) \$	(400,000)
S-04	Adjust fund balance	Fund Bal Adj	001	\$	9,796,493	_		001-00-508-000-00	\$ 400,000	, ,	\$	
S-05	Professional Services (Civil)	Contract CPI increase	001	\$	138,000	\$	198,000	001-05-515-302-41		\$ (60,000) \$	(60,000)
S-05	Adjust fund balance	Fund Bal Adj	001	\$	9,796,493	\$	9,736,493	001-00-508-000-00	\$ 60,000		\$	60,000
S-06	Professional Services	Riverview Tenant Impv	001	_	265,945			001-07-518-900-41		\$ (235,000	_	
S-06	Adjust fund balance	Fund Bal Adj	001	\$	9,796,493	Ş	9,561,493	001-00-508-000-00	\$ 235,000		\$	235,000
S-07	Drofossional Comises	Ingrance Library cycs	001	\$	66 672	ċ	175 070	001 20 572 200 41		¢ /109.406	ا د	(100,406)
S-07	Professional Services Adjust fund balance	Increase Library svcs Fund Bal Adj	001	\$	9,796,493	_		001-30-572-200-41 001-00-508-000-00	\$ 108,406	\$ (108,406) \$ \$	
3-07	Adjust fulla balance	runu bai Auj	001	Ş	3,730,433	Ş	9,000,007	001-00-308-000-00	3 108,400		Ş	108,400
S-08	Professional Services	Everett Corridor Study	112	\$	660,966	Ś	760.966	112-00-543-300-41		\$ (100,000) \$	(100,000)
S-08	Transfers In - TIF	Streets from TIF	112	\$	-	\$		112-00-397-302-00	\$ 100,000	(===)===	\$	
S-08	Transfers Out - Streets	TIF to Streets	302	\$	-	\$		302-00-597-112-00		\$ (100,000	_	
S-08	Adjust fund balance	Fund Bal Adj	302	\$	4,587,169	\$	4,487,169	302-00-508-000-00	\$ 100,000		\$	100,000
S-09	Insurance	EMS Insurance Inc	115		48,377		66,177	115-00-522-720-46		\$ (17,800		
S-09	Insurance	Fire Insurance Inc	115	\$	91,889	_		115-09-522-210-46		\$ (9,400		
S-09	Adjust fund balance	Fund Bal Adj	115	\$	1,687,474	\$	1,660,274	115-00-508-000-00	\$ 27,200		\$	27,200
0.10			445		25.000		25.022	445 00 500 700 40		444.000	١ ۵	(44.000)
S-10	Repairs & Maintenance	Amb repairs & Lucas	115	-	25,922 48,784			115-00-522-720-48 115-09-522-210-48		\$ (11,000 \$ (44,000		
S-10 S-10	Repairs & Maintenance Repairs & Maintenance	Fire engine repairs Stn 43 flood repairs	115 115	\$	61,430			115-09-522-210-48		\$ (44,000		
S-10	Adjust fund balance	Fund Bal Adj	115	\$	1,687,474	_		115-09-522-500-48	\$ 95,000	(40,000 ج) > \$	
3-10	rajust runu valance	i ana bai Auj	113	ڔ	1,007,474	ڔ	1,332,414	113 00-300-000-00	000,000 پ		ڔ	33,000
S-11	Professional Services	Merina Consult/Study	115	\$	34,357	\$	56.357	115-09-522-210-41		\$ (22,000) \$	(22,000)
S-11	Professional Services	Janitorial/Security	115		11,111			115-09-522-500-41		\$ (20,000		
S-11	Adjust fund balance	Fund Bal Adj	115		1,687,474	_		115-00-508-000-00	\$ 42,000		\$	
S-12	Fuel Consumed	PD & Work Crew fuel	001	\$	48,458	_		001-08-521-220-32		\$ (26,000	_	
S-13	Fuel Consumed	Engineering fuel	001	\$	3,090	_		001-13-518-910-32		\$ (7,700		
S-14	Fuel Consumed	Parks Maint fuel	001	_	23,350			001-18-576-800-32		\$ (12,000		
S-15	Fuel Consumed	Facilities fuel	001	\$	1,650	\$	5,150	001-23-518-300-32		\$ (3,500) \$	()

Attachment A

Adjustment Description Note Fund Ball Adj 001 S 979,6493 Budget GL Code Rev Increase Rev Decrease Section Sect	Attachment A					•		B		-	1	B. B		
Section Adjust fund balance Fund fall Adj O01 S 9786-893 S 9,747,293 O01.00-508-000-00 S 49,200 S 30,000 S 120,000 S 120,0	Adiustment #	Description	Note	French		Current		Proposed	CI Codo			Rev Decrease		Item 10.
S-12 Fuel Consumed Streets Fuel 112 \$ 23,575 \$ 33,575 \$ 12,00-542.30-0.22 \$ 3,00,000 \$ 3,00							ċ			•		exp increase		40 200 T
S-12 Adjust fund balance							·	-, ,		Ş	49,200	¢ (20,000)	_	
S-12 Fuel Consumed							·			ċ	20.000	\$ (30,000)	_	_ `
S-12 Fuel Consumed		,	,				_			Ş	30,000	¢ (20.2EU)	•	
S-12 Adjust fund balance					_		·						_	
S-12 Fuel Consumed Solid Waste Fuel 422 S 61,600 \$101,600 \$220-0337-900-32 \$ 40,000 \$ 40,000 \$ 40,000 \$ 40,000 \$ 40,000 \$ 40,000 \$ 512 \$ Fuel Consumed Water/Sewer fuel 424 \$ 27,800 \$ 50,800 \$ 24400-508-800-00 \$ 40,000 \$ 40,000 \$ 40,000 \$ 512 \$ \$ \$ \$ \$ \$ \$ \$ \$							_	-,-		Ċ	<i>1</i> 0 750	\$ (21,300)	_	_ , ,
S-12 Adjust fund balance Fund Bal Adj 422 \$ 2,888,867 \$ 2,248,987 \$ 22,00.596,000.00 \$ 40,000 \$ 40,000 \$ 5					_		_			7	73,730	\$ (40,000)	_	
S-12 Fuel Consumed Water/Sewer Fuel 424 \$ 27,800 \$ 5,000 \$ 424-00-534-810-32 \$ (23,000) \$ (23,000) \$ 5,23,000 \$ 5			_				_			Ś	40.000	7 (40,000)	_	
S-12					_					7	+0,000	\$ (23,000)	_	
S-13 Office & Operating Supplies Chambers furniture 001 \$ 4,167 \$ 28,667 001-01-511-600-31 \$ (24,500) \$ (24,500) \$ (24,500) \$ 24,500			·				·			\$	23 000	\$ (23,000)	_	
S-13 Adjust fund balance Fund Bal Adj 001 S 9,796,493 S 9,771,993 001-00-508-000-00 S 24,500	3 12	Adjust furia balance	r una barriaj	12	Ÿ	12,120,550	Ÿ	12,103,330	121 00 300 000 00	<u>, </u>	23,000		Ý	25,000
S-13 Adjust fund balance Fund Bal Adj 001 S 9,796,493 S 9,771,993 001-00-508-000-00 S 24,500	S-13	Office & Operating Supplies	Chambers furniture	001	\$	4 167	Ś	28 667	001-01-511-600-31			\$ (24.500)	Ś	(24 500)
S-14 Small Tools & Minor Equipment CARES funded equipmt 115 S 54,294 S 224,294 115-00-522-720-35 S (170,000) S (170,							·			\$	24 500	Ç (24,500)		
S-14 Small Tools & Minor Equipment Stoves, Desks 115 S 8,621 S 48,621 115-09-522-500-35 S (40,000) S (40,000) S 210,000 S	3 13	Adjust furia balance	r una barriaj	001	Ÿ	3,730,433	Ÿ	3,771,333	001 00 300 000 00	<u> </u>	24,500		Ý	24,500
S-14 Small Tools & Minor Equipment Stoves, Desks 115 S 8,621 S 48,621 115-09-522-500-35 S (40,000) S (40,000) S 210,000 S	S-14	Small Tools & Minor Equipment	CARES funded equipmt	115	\$	54 294	Ś	224 294	115-00-522-720-35			\$ (170,000)	Ś	(170,000)
S-14 Adjust fund balance Fund Bal Adj 115 \$ 1,687,474 \$ 1,477,474 115-00-508-000-00 \$ 210,000 \$ 210,000 \$ 210,							_						_	
S-15 Roadway Preservation Expanded Sierra scope 112 \$ 1,568,287 \$ 1,793,287 112-76-595-300-65 \$ (225,000) \$ 225,000 \$			<u> </u>				·			\$	210.000	\$ (40,000)	_	<u> </u>
S-15 Adjust fund balance Fund Bal Adj 112 \$ 831,339 \$ 606,339 112-00-508-000-00 \$ 225,000 \$ 225,000 \$ \$ 225,000 \$ \$ 225,000 \$ 22	3 14	Adjust furia balance	r una barriaj	113	Ÿ	1,007,474	Ÿ	1,477,474	113 00 300 000 00	<u> </u>	210,000		Ý	210,000
S-15 Adjust fund balance Fund Bal Adj 112 \$ 831,339 \$ 606,339 112-00-508-000-00 \$ 225,000 \$ 225,000 \$ \$ 225,000 \$ \$ 225,000 \$ 22	S-15	Roadway Preservation	Expanded Sierra scope	112	\$	1 568 287	Ś	1 793 287	112-76-595-300-65			\$ (225,000)	Ś	(225,000)
S-16 Other Imp-ADA Ramps-RT1 Expanded Downtown scope 300 \$ 50,000 \$ 96,738 300-0-594-760-63 \$ (46,738) \$ (46,758) \$ (46,758) \$ (46,758) \$ (46,758) \$ (46,758) \$ (46,758) \$ (46,758) \$ (46,758) \$							_			\$	225 000	ÿ (223,000)	_	
S-16 Adjust fund balance Fund Bal Adj 300 \$ 7,123,724 \$ 7,076,986 300-00-508-000-00 \$ 46,738 \$ \$ 46,738 \$ \$ 46,738 \$ \$ \$ 46,738 \$ \$ \$ 46,738 \$ \$ \$ \$ \$ 46,738 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5 15	rajest rana salamet	r arra sarriaj		Ť	002,000	Ť	000,000	112 00 300 000 00		223,000		Ť	223,000
S-16 Adjust fund balance Fund Bal Adj 300 \$ 7,123,724 \$ 7,076,986 300-00-508-000-00 \$ 46,738 \$ \$ 46,738 \$ \$ 46,738 \$ \$ \$ 46,738 \$ \$ \$ 46,738 \$ \$ \$ \$ \$ 46,738 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	S-16	Other Imp-ADA Ramps-RT1	Expanded Downtown scope	300	Ś	50,000	\$	96.738	300-00-594-760-63			\$ (46.738)	Ś	(46.738)
S-17 NE 2nd Ave Project Construction 300 \$ - \$ 305,000 300-0595-950-65 \$ (305,000) \$ (305,000) \$ (305,000) \$ (315,000)							·			Ś	46.738	ψ (10)/30)	_	
\$-17 CDBG - Indirect HUD CDBG funding 300 \$ -	<u> </u>				Ť	.,,	Ť	.,,		Ť	,		Ť	,
S-17 CDBG - Indirect HUD CDBG funding 300 \$ - \$ 170,000 300-0-333-140-00 \$ 170,000 \$ 170,000 S-17 Adjust fund balance Fund Bal Adj 300 \$ 7,123,7724 \$ 6,988,724 300-00-508-000-00 \$ 135,000 \$ 135,000 S-18 Library Roofing Improvements Construction 318 \$ - \$ 1,250,000 318-00-594-720-62 \$ (1,250,000) \$ 500,000 S-18 State Grant - DOC Dept of Commerce grant 318 \$ - \$ 500,000 318-00-394-720-62 \$ 500,000 \$ 500,000 S-18 Transfers In - DO1 Cap Facilities from Gen Fun 318 \$ - \$ 750,000 318-00-397-001-00 \$ 750,000 \$ 750,000 S-18 Transfers Out - 318 Gen Fund to Cap Facilities 001 \$ - \$ 750,000 318-00-397-001-00 \$ 750,000 \$ 750,000 \$ 750,000 \$ 750,000 \$ 750,000 \$ 750,000 \$ 750,000 \$ 750,000 \$ 750,000 \$ 750,000 \$ 750,000 \$ 750,000 \$ 750,000 \$ 750,000 \$ 750,000 \$ 750,000 \$ 750,0	S-17	NE 2nd Ave Project	Construction	300	\$	-	\$	305,000	300-00-595-950-65			\$ (305,000)	\$	(305,000)
S-17 Adjust fund balance Fund Bal Adj 300 \$ 7,123,724 \$ 6,988,724 300-05-08-000-00 \$ 135,000 \$ 135,000 S-18 Library Roofing improvements Construction 318 \$ - \$ 1,250,000 318-00-594-720-62 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 750,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 750	S-17	,	CDBG funding	300		-	_	170.000		Ś	170.000	(,,	_	
S-18 State Grant - DOC Dept of Commerce grant 318 \$ 500,000 318-00-334-040-20 \$ 500,000 \$ 500,000 S-18 Transfers In - 001 Cap Facilities from Gen Fund 318 \$ - \$ 750,000 318-00-397-001-00 \$ 750,000 <td></td> <td>Adjust fund balance</td> <td>•</td> <td>300</td> <td>\$</td> <td>7,123,724</td> <td>\$</td> <td>6,988,724</td> <td></td> <td>\$</td> <td></td> <td></td> <td>_</td> <td></td>		Adjust fund balance	•	300	\$	7,123,724	\$	6,988,724		\$			_	
S-18 State Grant - DOC Dept of Commerce grant 318 \$ 500,000 318-00-334-040-20 \$ 500,000 \$ 500,000 S-18 Transfers In - 001 Cap Facilities from Gen Fund 318 \$ - \$ 750,000 318-00-397-001-00 \$ 750,000 <td></td> <td></td> <td></td> <td></td> <td></td> <td><u> </u></td> <td></td> <td>, ,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						<u> </u>		, ,						
S-18 State Grant - DOC Dept of Commerce grant 318 \$ 500,000 318-00-334-040-20 \$ 500,000 \$ 500,000 S-18 Transfers In - 001 Cap Facilities from Gen Fund 318 \$ - \$ 750,000 318-00-397-001-00 \$ 750,000 <td>S-18</td> <td>Library Roofing Improvements</td> <td>Construction</td> <td>318</td> <td>\$</td> <td>-</td> <td>\$</td> <td>1,250,000</td> <td>318-00-594-720-62</td> <td></td> <td></td> <td>\$ (1,250,000)</td> <td>\$ (</td> <td>(1,250,000)</td>	S-18	Library Roofing Improvements	Construction	318	\$	-	\$	1,250,000	318-00-594-720-62			\$ (1,250,000)	\$ ((1,250,000)
S-18 Transfers In - 001 Cap Facilities from Gen Fund 318 \$ \$ 750,000 \$ 750,000 \$ 750,000 S-18 Transfers Out - 318 Gen Fund to Cap Facilities 001 \$ - \$ 750,000 001-00-597-318-00 \$ (750,000) \$	S-18	, , ,	Dept of Commerce grant	318	\$	-	\$	500,000		\$	500,000	, , , , ,		
S-18 Adjust fund balance Fund Bal Adj 001 \$ 9,796,493 \$ 9,046,493 001-00-508-000-00 \$ 750,000 \$	S-18	Transfers In - 001		318	_	-		750,000						
S-19 Library HVAC Repair/Replace Construction 318 \$ 250,000 \$ 999,100 318-00-594-721-62 \$ (749,100) \$ (749,100) \$ 5.19 State Grant - DOC Dept of Commerce grant 318 \$ - \$ 499,550 318-00-334-040-20 \$ 499,550 \$ 499,550 \$ 499,550 \$ 499,550 \$ 5.19 Adjust fund balance Fund Bal Adj 318 \$ 352,916 \$ 103,366 318-00-508-000-00 \$ 249,550 \$ 249,550 \$ 249,550 \$ 249,550 \$ 5.20 Lac. Lake Wtr Quality Study Consulting 419 \$ 150,000 \$ 350,000 419-00-553-501-41 \$ (200,000) \$ (200,000) \$ 5.20 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,928,340 419-00-508-000-00 \$ 200,000 \$ 200,000 \$ 200,000 \$ 5.21 Machinery & Equipment Vactor increase/correction 419 \$ 125,000 \$ 589,558 419-00-594-530-64 \$ (464,558) \$ (464,558) \$ 5.21 State Grant - DOE Dept of Ecology grant 419 \$ - \$ 221,500 419-00-334-030-10 \$ 221,500 \$ 221,500 \$ 223,058 \$ 5.21 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,885,282 419-00-508-000-00 \$ 243,058 \$ 243,058 \$ 5.22 Prof Svs-General Sewer Plan Consulting 424 \$ - \$ 75,000 424-00-535-812-41 \$ (75,000) \$ (75,000)	S-18	Transfers Out - 318	Gen Fund to Cap Facilities	001	\$	-	\$	750,000	001-00-597-318-00			\$ (750,000)	\$	(750,000)
S-19 Library HVAC Repair/Replace Construction 318 \$ 250,000 \$ 999,100 318-00-594-721-62 \$ (749,100) \$ (749,100) \$ (749,100) \$ S-19 State Grant - DOC Dept of Commerce grant 318 \$ - \$ 499,550 318-00-334-040-20 \$ 499,550 \$ 499,550 \$ 499,550 \$ 499,550 \$ 5-19 Adjust fund balance Fund Bal Adj 318 \$ 352,916 \$ 103,366 318-00-508-000-00 \$ 249,550 \$ 249,550 \$ 249,550 \$ 249,550 \$ 5-20 Lac. Lake Wtr Quality Study Consulting 419 \$ 150,000 \$ 350,000 419-00-553-501-41 \$ (200,000) \$ (200,000) \$ 5-20 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,928,340 419-00-508-000-00 \$ 200,000 \$ 200,000 \$ 200,000 \$ 5-21 Machinery & Equipment Vactor increase/correction 419 \$ 125,000 \$ 589,558 419-00-594-530-64 \$ (464,558) \$ (464,558) \$ 5-21 State Grant - DOE Dept of Ecology grant 419 \$ - \$ 221,500 419-00-334-030-10 \$ 221,500 \$ 221,500 \$ 221,500 \$ 5-21 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,885,282 419-00-508-000-00 \$ 243,058 \$ 243,058 \$ 5-22 Prof Svs-General Sewer Plan Consulting 424 \$ - \$ 75,000 424-00-535-812-41 \$ \$ (75,000) \$ (75,000)	S-18	Adjust fund balance	Fund Bal Adj	001	\$	9,796,493	\$	9,046,493	001-00-508-000-00	\$	750,000	, , ,	\$	750,000
S-19 State Grant - DOC Dept of Commerce grant 318 \$ - \$ 499,550 \$ 499,550 \$ 499,550 S-19 Adjust fund balance Fund Bal Adj 318 \$ 352,916 \$ 103,366 318-00-508-000-00 \$ 249,550 \$ 249,550 S-20 Lac. Lake Wtr Quality Study Consulting 419 \$ 150,000 \$ 350,000 419-00-553-501-41 \$ (200,000) \$ (200,000) S-20 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,928,340 419-00-508-000-00 \$ 200,000 \$ 200,000 S-21 Machinery & Equipment Vactor increase/correction 419 \$ 125,000 \$ 589,558 419-00-594-530-64 \$ (464,558) \$ (464,558) S-21 State Grant - DOE Dept of Ecology grant 419 \$ - \$ 221,500 \$ 221,500 \$ 221,500 S-21 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,885,282 419-00-508-000-00 \$ 221,500 \$ 221,500 S-22 Prof Svs-General Sewer Plan Consulting 424 \$ - \$ 75,000 <td></td> <td></td> <td></td> <td></td> <td></td> <td><u> </u></td> <td></td> <td>, ,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						<u> </u>		, ,						
S-19 Adjust fund balance Fund Bal Adj 318 \$ 352,916 \$ 103,366 318-00-508-000-00 \$ 249,550 \$ 249,550 \$ 249,550 \$ 5.20 Lac. Lake Wtr Quality Study Consulting 419 \$ 150,000 \$ 350,000 419-00-553-501-41 \$ (200,000) \$ (200,000) \$ 5.20 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,928,340 419-00-508-000-00 \$ 200,000 \$ 200,000 \$ 200,000 \$ 5.21 Machinery & Equipment Vactor increase/correction 419 \$ 125,000 \$ 589,558 419-00-594-530-64 \$ (464,558) \$ (464,558) \$ (464,558) \$ 5.21 State Grant - DOE Dept of Ecology grant 419 \$ - \$ 221,500 419-00-334-030-10 \$ 221,500 \$ 221,500 \$ 221,500 \$ 5.21 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,885,282 419-00-508-000-00 \$ 243,058 \$ 243,058 \$ 5.22 Prof Svs-General Sewer Plan Consulting 424 \$ - \$ 75,000 424-00-535-812-41 \$ (75,000) \$ (75,000)	S-19	Library HVAC Repair/Replace	Construction	318	\$	250,000	\$	999,100	318-00-594-721-62			\$ (749,100)	\$	(749,100)
S-20 Lac. Lake Wtr Quality Study Consulting 419 \$ 150,000 \$ 350,000 419-00-553-501-41 \$ (200,000) \$ (200,000) S-20 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,928,340 419-00-508-000-00 \$ 200,000 \$ 200,000 S-21 Machinery & Equipment Vactor increase/correction 419 \$ 125,000 \$ 589,558 419-00-594-530-64 \$ (464,558) \$ (464,558) S-21 State Grant - DOE Dept of Ecology grant 419 \$ - \$ 221,500 419-00-334-030-10 \$ 221,500 \$ 221,500 S-21 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,885,282 419-00-508-000-00 \$ 243,058 \$ 243,058 S-22 Prof Svs-General Sewer Plan Consulting 424 \$ - \$ 75,000 424-00-535-812-41 \$ (75,000) \$ (75,000)	S-19	State Grant - DOC	Dept of Commerce grant	318	\$	-	\$	499,550	318-00-334-040-20	\$	499,550	, , ,	\$	499,550
S-20 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,928,340 419-00-508-000-00 \$ 200,000 \$ 200,000 S-21 Machinery & Equipment Vactor increase/correction 419 \$ 125,000 \$ 589,558 419-00-594-530-64 \$ (464,558) \$ (464,558) S-21 State Grant - DOE Dept of Ecology grant 419 \$ - \$ 221,500 419-00-334-030-10 \$ 221,500 \$ 221,500 S-21 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,885,282 419-00-508-000-00 \$ 243,058 \$ 243,058 S-22 Prof Svs-General Sewer Plan Consulting 424 \$ - \$ 75,000 424-00-535-812-41 \$ (75,000) \$ (75,000)	S-19	Adjust fund balance	Fund Bal Adj	318	\$	352,916	\$	103,366	318-00-508-000-00	\$	249,550		\$	249,550
S-20 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,928,340 419-00-508-000-00 \$ 200,000 \$ 200,000 S-21 Machinery & Equipment Vactor increase/correction 419 \$ 125,000 \$ 589,558 419-00-594-530-64 \$ (464,558) \$ (464,558) S-21 State Grant - DOE Dept of Ecology grant 419 \$ - \$ 221,500 419-00-334-030-10 \$ 221,500 \$ 221,500 S-21 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,885,282 419-00-508-000-00 \$ 243,058 \$ 243,058 S-22 Prof Svs-General Sewer Plan Consulting 424 \$ - \$ 75,000 424-00-535-812-41 \$ (75,000) \$ (75,000)						<u> </u>		<u>, </u>						
S-20 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,928,340 419-00-508-000-00 \$ 200,000 \$ 200,000 S-21 Machinery & Equipment Vactor increase/correction 419 \$ 125,000 \$ 589,558 419-00-594-530-64 \$ (464,558) \$ (464,558) S-21 State Grant - DOE Dept of Ecology grant 419 \$ - \$ 221,500 419-00-334-030-10 \$ 221,500 \$ 221,500 S-21 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,885,282 419-00-508-000-00 \$ 243,058 \$ 243,058 S-22 Prof Svs-General Sewer Plan Consulting 424 \$ - \$ 75,000 424-00-535-812-41 \$ (75,000) \$ (75,000)	S-20	Lac. Lake Wtr Quality Study	Consulting	419	\$	150,000	\$	350,000	419-00-553-501-41			\$ (200,000)	\$	(200,000)
S-21 Machinery & Equipment Vactor increase/correction 419 \$ 125,000 \$ 589,558 419-00-594-530-64 \$ (464,558) \$ (464,558) S-21 State Grant - DOE Dept of Ecology grant 419 \$ - \$ 221,500 419-00-334-030-10 \$ 221,500 \$ 221,500 S-21 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,885,282 419-00-508-000-00 \$ 243,058 \$ 243,058 S-22 Prof Svs-General Sewer Plan Consulting 424 \$ - \$ 75,000 424-00-535-812-41 \$ (75,000) \$ (75,000)	S-20		•	419	\$		\$	1,928,340		\$	200,000	, ,	_	
S-21 State Grant - DOE Dept of Ecology grant 419 \$ - \$ 221,500 419-00-334-030-10 \$ 221,500 \$ 221,500 S-21 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,885,282 419-00-508-000-00 \$ 243,058 \$ 243,058 S-22 Prof Svs-General Sewer Plan Consulting 424 \$ - \$ 75,000 424-00-535-812-41 \$ (75,000) \$ (75,000)														
S-21 State Grant - DOE Dept of Ecology grant 419 \$ - \$ 221,500 419-00-334-030-10 \$ 221,500 \$ 221,500 S-21 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,885,282 419-00-508-000-00 \$ 243,058 \$ 243,058 S-22 Prof Svs-General Sewer Plan Consulting 424 \$ - \$ 75,000 424-00-535-812-41 \$ (75,000) \$ (75,000)	S-21	Machinery & Equipment	Vactor increase/correction	419	\$	125,000	\$	589,558	419-00-594-530-64			\$ (464,558)	\$	(464,558)
S-21 Adjust fund balance Fund Bal Adj 419 \$ 2,128,340 \$ 1,885,282 419-00-508-000-00 \$ 243,058 \$ 243,058 S-22 Prof Svs-General Sewer Plan Consulting 424 \$ - \$ 75,000 424-00-535-812-41 \$ (75,000) \$ (75,000)	S-21			419		-	_			\$	221,500	, , , , ,	_	<u> </u>
S-22 Prof Svs-General Sewer Plan Consulting 424 \$ - \$ 75,000 424-00-535-812-41 \$ (75,000) \$ (75,000)	S-21	Adjust fund balance		419	\$	2,128,340	\$	1,885,282	419-00-508-000-00	\$			_	
	S-22	Prof Svs-General Sewer Plan	Consulting	424	\$	-	\$	75,000	424-00-535-812-41			\$ (75,000)	\$	(75,000)
	S-22	Adjust fund balance	•	424	\$	12,128,536	\$	12,053,536		\$	75,000	, , ,	_	

\$ 11,213,983 \$ (11,213,983) \$
Net Total \$ 5,165,430 \$ (3,666,310) \$
\$ 1,499,120 \$ (1,499,120) \$

 Carry Forward
 \$ \$

 Net Balance
 \$ \$

 Administrative
 \$ 3,787,503
 \$ (476,057)

 Net Balance
 \$ 3,311,446
 \$ 3,311,446

 Supplemental
 \$ 2,261,050
 \$ (7,071,616)

 Net Balance
 \$ (4,810,566)
 \$ (4,810,566)

 \$ (1,499,120)

Budget Summary		
Total	\$ 5,165,430	\$ (3,666,310)
		\$ 1,499,120
		\$ (1,499,120)
		\$ _

2022 Fall Omnibus Budget - Fund Balance Impacts

Revenues \$ Expenditures \$ Projected Ending Fund Balance \$ Carry Forward Packages Total Carry Forward \$	5 13,030,398 5 29,185,398 6 (32,419,303) 6 9,796,493 30 7 9,796,493 30	\$ 4,419,198 \$ (5,212,816) 0% \$ 831,339 \$ -	\$ -	\$ (13,999,672) \$ 2,044,585 \$ -	\$ 7,392 \$ 4 \$ - \$ (4 \$ 23,216 \$	4,198,725 \$ 4,198,725) \$	\$ 4,033,744 \$ \$ (4,346,211) \$	4,341,602 \$ 446,220 1,526,109 \$ 23,817 (1,280,542) \$ (308,296) 4,587,169 \$ 161,741	\$ 979,000 \$ (1,198,000)	\$ 625,000 \$ (1,739,874)	\$ - \$ (48,328)	\$ 2,116,992) \$ (2,706,145)	\$ 3,270,202 \$ (3,727,229)	\$ 15,102,522 \$ \$ 15,003,586 \$ \$ (17,977,572) \$ \$ 12,128,536 \$	31,566 130,315 (138,799) 23,082	
Expenditures \$ Projected Ending Fund Balance \$ Carry Forward Packages Total Carry Forward \$ Subtotal Fund Balance \$ Administrative Packages CWFD Radio Replacements WildFire Mobilization Reimb Trnsf Remaining Lib Bond Funds	5 (32,419,303) 5 9,796,493 30 5 -	\$ (5,212,816) 0% \$ 831,339 \$ -	\$ (125,000) \$3,183,118 \$ -	\$ (13,999,672) \$ 2,044,585 \$ -	\$ - \$(\ \$ 23,216 \$	4,198,725) \$ - \$	\$ (4,346,211) \$	(1,280,542) \$ (308,296)	\$ (1,198,000)	\$ (1,739,874)	\$ (48,328)	\$ (2,706,145)	\$ (3,727,229)	\$ (17,977,572) \$	(138,799)	
Projected Ending Fund Balance \$ Carry Forward Packages Total Carry Forward \$ Subtotal Fund Balance \$ Administrative Packages CWFD Radio Replacements WildFire Mobilization Reimb Trnsf Remaining Lib Bond Funds	9,796,493 30	\$ -	\$3,183,118	\$ 2,044,585	\$ 23,216 \$	- \$										
Carry Forward Packages Total Carry Forward \$ Subtotal Fund Balance \$ Administrative Packages CWFD Radio Replacements WildFire Mobilization Reimb Trnsf Remaining Lib Bond Funds	s -	\$ -	\$ -	\$ -			5 7,123,724 \$	4,587,169 \$ 161,741	\$ 274,197	\$ 352,916	\$ 169,907	\$ 2,128,340	\$ 2,888,867	\$ 12,128,536 \$	23,082	
Total Carry Forward \$ Subtotal Fund Balance \$ Administrative Packages CWFD Radio Replacements WildFire Mobilization Reimb Trnsf Remaining Lib Bond Funds			•		\$ 23.216 \$	\$										
Subtotal Fund Balance \$ Administrative Packages CWFD Radio Replacements WildFire Mobilization Reimb Trnsf Remaining Lib Bond Funds			•		\$ 23 216 \$	\$										
Administrative Packages CWFD Radio Replacements WildFire Mobilization Reimb Trnsf Remaining Lib Bond Funds	9,796,493 30	0% \$ 831,339	\$3,183,118	\$ 2,044,585	\$ 23 216 \$		\$ - \$	-	\$ -	\$ -		\$ -	\$ -	\$ -	ç	<u></u>
CWFD Radio Replacements WildFire Mobilization Reimb Trnsf Remaining Lib Bond Funds					7 23,210 7	- \$	7,123,724 \$	4,587,169 \$ 161,741	\$ 274,197	\$ 352,916	\$ 169,907	\$ 2,128,340	\$ 2,888,867	\$ 12,128,536 \$	23,082	
WildFire Mobilization Reimb Trnsf Remaining Lib Bond Funds																
Trnsf Remaining Lib Bond Funds				\$ (21,193)											\$	\$ (
				\$ 21,193											\$	
					\$ (23,216) \$	23.216									\$	
					. , , , .	,		\$ (161,741)	\$ 161,741						\$	
Trnsf unused Lake/Everett funds									\$ 169,907		\$ (169,907))			\$	5
ARPA Professional Services			\$ (100,000)								. ,===,00,7				Ś	
Second Tranche			\$ 3,411,446												т	\$ 3,
Total Administrative \$		\$ -	\$3,311,446	\$ -	\$ (23,216) \$	23,216 \$	s - \$	- \$ (161,741)	\$ 331,648	\$ -	\$ (169,907)	١ \$ -	\$ -	\$ - \$	- \$	
<u> </u>	9,796,493 30)% \$ 831,339	\$6,494,564				7,123,724 \$						•	\$ 12,128,536 \$	23,082	J
Supplemental Packages																
··· •	(75,000)														\$	
T	(75,000)			¢ (1.207.164)											,	
CWFD Staffing				\$ (1,297,164)										A		\$ (1,
Retiree Benefits	(20.000)													\$	(20,000) \$	
General Fund to Fund \$, , ,													\$	20,000 \$	
Executive Services (Consulting) \$	• • •														\$	
Legal Services Contract \$	(//														\$	
Riverview Tenant Improvements \$. , ,														\$	
Library Services \$	(108,406)	± (100 000)													\$	
Everett Street Corridor Study		\$ (100,000)						(400.000)							\$	\$ (
Partially TIF Funded		\$ 100,000					\$	(100,000)							\$	
CWFD Insurance				\$ (27,200)											\$	
CWFD Repairs & Maintenance				\$ (95,000)											\$	
CWFD Service Needs				\$ (42,000)											\$	
Citywide Fuel Increases \$	(- / /	\$ (30,000)		\$ (49,750)									\$ (40,000)	\$ (23,000)	\$	
Council Chambers Furniture \$	(24,500)														\$	
CWFD Tools & Equipment				\$ (210,000)											\$	
Pavement Preservation		\$ (225,000)													\$	
ADA Improvements							(46,738)								\$	
2nd Avenue Project							(305,000)								\$	•
Grant Funding - CDBG						\$	170,000								\$	\$
Library Roofing/Exterior Repairs										\$ (1,250,000)					\$	' '
Grant Funding - Dept of Comm										\$ 500,000					ţ	\$
General Fund to Fund \$	(750,000)									\$ 750,000					ţ	i
Library HVAC Repairs										\$ (749,100)					\$	\$ (
Grant Funding - Dept of Comm										\$ 499,550					\$	\$
Lake Management Plan												\$ (200,000)			\$	\$ (
Vactor Truck Increases												\$ (464,558)			\$	\$ (
Grant Funding - Dept of Ecology												\$ 221,500			\$	\$
General Sewer Plan														\$ (75,000)	\$	\$
	(1,722,106)	\$ (255,000)	\$ -	\$ (1,721,114)	\$ - \$	- \$	(181,738) \$	(100,000) \$ -	\$ -	\$ (249,550)	\$ -	\$ (443,058)	\$ (40,000)		- ¢	\$ (4,

City of Camas 2022 Fall Omnibus Budget - Description of Packages

Package	Title	Description	Fund Impacted	erall proriation
A-01	CWFD Radio Replacements	Two replacement radios. A dash mount for the brush rig that mobilizes on wildland fires to improve the range in remote terrain, and the second for the training captain vehicle, which is a response vehicle.	CWFD	\$ -
A-02	Transfer remaining Library Bond Funds	The Library Bond was fully paid in 2021; however, due to late-paid taxes, the City is still receiving taxes for this bond. These funds would be transferred to the LTGO Fund to offset other debt.	Debt	\$ -
A-03	Transfer unused Brady Rd funds	The Brady Rd Improvement project was completed in a prior budget year. This transfers the remaining fund balance to the 38th Ave Project Fund.	Brady/38th	\$ -
A-04	Transfer unused Lake/Everett funds	The Lake/Everett Intersection project was completed in a prior budget year. This transfers the remaining fund balance to the 38th Ave Project	Lake & Everett/38th	\$ -
A-05	ARPA Professional Services	Records the revenue for the second half of ARPA funds, and allocates some expense budget for potential unforseen expenses and to cover a small grant to Our City Cares for the Signs of Hope campaign.	ARPA	\$ (3,311,446)
S-01	Police Overtime	The department had some staff on leave, which resulted in unanticipated overtime costs. Additional funds allocated to this line item will ensure adequate funds at year end.	General	\$ 75,000
S-02	CWFD Staffing	A new position of fire training captain was proposed for reclass by former Chief Swinhart and approved by Council via head nod in Spring 2022. This required a backfill of a line position due to the internal promotion.	CWFD	\$ 1,297,164
		 Four early backfills for retirements were hired in Spring after head nod approval from council in order to get the new staff thru academy before the senior staff retire. Three of the backfills remain double-filled at this time with anticipation of retirements in 2023. 		
		Four new, permanent staff were approved via head nod in Summer 2022. Separate from the 4 retirement backfills, these positions are meant to provide permanent additional coverage for vacancies that routinely occur, like injuries and military leave.		
		 Much larger overtime costs were incurred in 2022 due to understaffing, retirements, new staff still in academy, and several employees on long- term leave. 		
		• Additional expenses for benefits, training, and equipment have resulted due to the staff growth in 2022.		
S-03	Retiree Benefits	Actual expenses for retiree benefits in 2022 slightly exceeded the budgeted amount.	Retiree Medical	\$ 20,000
S-04	Executive Services (Consulting)	The City hired a consultant to perform executive functions while the vacant City Administrator position was recruited. Due to the delays in successful recruitment, additional consulting costs for 2022 have been	General	\$ 400,000
S-05	Legal Services Contract	Provides additional budget for the increaes to the Legal consultant contract approved by council 10/4/2021.	General	\$ 60,000
S-06	Riverview Tenant Improvements	Provides budget for the Riverview Tenant Improvements Contract approved by council on 9/19/2022.	General	\$ 235,000
S-07	Library Services	Provides additional professional services budget for the Library to address on-going contracts for services.	General	\$ 108,406
S-08	Everett Street Corridor Study	Provides funding for a study to examine the traffic impacts and neeeds in the Everett Street Corridor, as approved by council 8/1/2022. This follows the Lake & Everett intersection improvements completed in 2021.	General	\$ 100,000
S-09	CWFD Insurance	Provides funds to cover higher insurance premiums than were anticipated for 2022.	CWFD	\$ 27,200
S-10	CWFD Repairs & Maintenance	The Fire Dept experienced a number of large, unanticipated 2022 costs for maintaining aging buildings, ambulances, and fire engines.	CWFD	\$ 95,000

City of Camas 2022 Fall Omnibus Budget - Description of Packages

Package	Title	Description	Fund Impacted	Ove App	rall roriation
S-11	CWFD Service Needs	Provides budget for the Merina study agreed upon by JPAC, some costs for training software, and increased costs incurred for increases for janitorial and security monitoring (City-wide contracts).	CWFD	\$	42,000
S-12	Citywide Fuel Increases	Provides additional budget for fuel in General Fund, Streets, CWFD, Solid Waste, and the Water/Sewer fund to cover the high fuel costs in 2022.	General, Streets, CWFD, Solid Waste, Water/Sewer	\$	191,950
S-13	Council Chambers Furniture	Furniture added during the remodel of the Council Chambers for improved hybrid meeting functionality.	General	\$	24,500
S-14	CWFD Tools & Equipment	Equipment ordered with CARES Funding was delayed, so expenses are in current year although revenue was in a prior year (as fund balance). Also replaced some furniture and appliances in fire stations.	CWFD	\$	210,000
S-15	Pavement Preservation	Provides budget for the expanded scope of the Sierra Street improvements directed by Council when approving the bid on 7/5/2022.	Streets	\$	225,000
S-16	ADA Improvements	Provides aditional funding as directed by council during bid approval for downtown ADA improvements on 5/2/2022.	REET Capital	\$	46,738
S-17	2nd Avenue Project	Provides additional budget to cover the cost increases that occurred between development of a project estimate and the actual bidding in	REET Capital	\$	135,000
S-18	Library Roofing/Exterior Repairs	Provides matching funds for the grant funds the City is anticipating receiving from Dept of Commerce to complete repairs to the Library, which was approved 8/15/2022. If grant funds are not secured as expected, alternative funding mechanisms will be brought back to council.	Facilities Capital	\$	750,000
S-19	Library HVAC Repairs	Provides the adding additional matching funds necessary to secure a Grant from Dept of Commerce	Facilities Capital	\$	249,550
S-20	Lake Management Plan	Provides additional funding necessary for further work on the next phase(s) of the Lake Management Plan.	Storm Water	\$	200,000
S-21	Vactor Truck Increases	The current delays in receiving equipment resulted in increased costs for the vehicle, which were incorrectly stated in the Spring 2022 omnibus. This entry corrects to budget the necessary increase to the expense (corrects netting against the grant funding).	Storm Water	\$	243,058
S-22	General Sewer Plan	Provides the budget needed to finalize the updates to the General Sewer Plan.	Water-Sewer	\$	75,000

Total \$ 1,499,120

Pkg # Carry Forward List

Department	Description	Amount	Reason
Total		\$ -	

Administrative List

	Department	Description	Amount	Reason
A-01	CWFD	CWFD Radio Replacements	\$ -	replace fire rig radios w/ mobilization reimb
A-02	Debt	Transfer remaining Library Bond Funds	\$ -	transfer excess levy funds to fund LTGO debt
A-03	Brady Road	Transfer unused Brady Rd funds	\$ -	transfer excess to 38th Ave. Phase 3 project
A-04	Lake & Everett	Transfer unused Lake/Everett funds	\$ -	transfer excess to 38th Ave Phase 3 project
A-05	ARPA	ARPA Professional Services	\$ (3,311,446)	budget second half of ARPA, plus expenses
	Total		\$ (3,311,446)	

Supplemental List

	Department	Description	An	nount	Reason
	Police	Police Overtime	\$	75,000	Overtime accruals and anticipated vac buybacks
S-02	CWFD	CWFD Staffing	\$	1,297,164	large impacts from understaffing, ext leave, hiring
S-03	Retiree Medical	Retiree Benefits	\$	20,000	cost increases
S-04	Executive	Executive Services (Consulting)	\$	400,000	Interim City Admin contract extension
S-05	Legal	Legal Services Contract	\$	60,000	increased costs with litigation work
S-06	IT	Riverview Tenant Improvements	\$	235,000	prep for temporary staff housing during annex reno
S-07	Library	Library Services	\$	108,406	cost increases for annual collection acquisitions
S-08	Streets	Everett Street Corridor Study	\$	100,000	cost for consultant study
S-09	CWFD	CWFD Insurance	\$	27,200	cost increases
S-10	CWFD	CWFD Repairs & Maintenance	\$	95,000	Repairs due to aging eqpmt/bldgs
S-11	CWFD	CWFD Service Needs	\$	42,000	Merina study, cost increases
S-12	Multiple	Citywide Fuel Increases	\$	191,950	cost increases due to 2022 fuel prices
S-13	Legislative	Council Chambers Furniture	\$	24,500	furniture purchased for council chambers remodel
S-14	CWFD	CWFD Tools & Equipment	\$	210,000	CARES-funded equipment (carryforward)
S-15	Streets Capital	Pavement Preservation	\$	225,000	for expanded Sierra St scope (Council direction)
S-16	Streets Capital	ADA Improvements	\$	46,738	for expanded downtown ADA scope
S-17	Streets Capital	2nd Avenue Project	\$	135,000	construction costs
S-18	Facilities Capital	Library Roofing/Exterior Repairs	\$	750,000	construction costs
S-19	Facilities Capital	Library HVAC Repairs	\$	249,550	construction costs
S-20	Storm Capital	Lake Management Plan	\$	200,000	consultant for study
S-21	Storm Capital	Vactor Truck Increases	\$	243,058	cost increase and correct Spring Omnibus entry
S-22	Sewer Capital	General Sewer Plan	\$	75,000	consultant for study
	Total		\$	4,810,566	

Total Omnibus Budget Packages \$ 1,499,120



Staff Report – Public Hearing 2023 Property Tax Levies

November 21, 2022 Regular Meeting

Public Hearing for 2023 Property Tax Levies

Presenter: Cathy Huber Nickerson, Finance Director

Time Estimate: 10 minutes

Phone	Email
360.817.1537	chuber@cityofcamas.us

SUMMARY: Property taxes are the primary revenue source for funding of general fund services and emergency medical services for the City of Camas. Property taxes are complicated with different limitations but the one limit which requires City Council's annual consideration is the Levy Increase Limit. In Washington State, property taxes increases are not based on the increasing value of properties but rather on the amount of property taxes that are assessed from the prior year. Each year's levy may be increased by no more than 1% or the Implicit Price Deflator (IPD) whichever is less. The IPD is the percentage change in the implicit price deflator for personal consumption as published by the Bureau of Economic Analysis by September 25th. The IPD for the 2022 property tax levy 6.457%. Therefore, the lawful highest levy would be 1% increase.

EQUITY CONSIDERATIONS:

What are the desired results and outcomes for this agenda item? To hear and consider public comment regarding the 1% property tax increase.

What's the data? What does the data tell us? The data from previous studies show that eliminating cross-staffing at this station will improve response times and service coverage to the citizens in our response area.

How have communities been engaged? Are there opportunities to expand engagement? The public had an opportunity to address Council at the Workshop on September 19, 2022 and has an opportunity to comment in this public hearing

Who will benefit from, or be burdened by this agenda item? All property owners in the City of Camas will be impacted by this agenda item.

What are the strategies to mitigate any unintended consequences? The Clark County Assessor's Office can provide exemptions for homeowners who are within certain age and income groups as well as homeowners who may be disabled.

Does this agenda item have a differential impact on underserved populations, people living with disabilities, and/or communities of color? Please provide available data to illustrate this

impact. The Clark County Assessor's Office can provide exemptions for homeowners who are within certain age and income groups as well as homeowners who may be disabled.

Will this agenda item improve ADA accessibilities for people with disabilities? This agenda item can provide funding for ADA accessibility projects such as the street and sidewalk improvements and crossings.

What potential hurdles exists in implementing this proposal (include both operational and political)? N/A

How will you ensure accountabilities, communicate, and evaluate results? N/A

How does this item support a comprehensive plan goal, policy or other adopted resolution? This item contributes to ensuring sufficient revenue to meet the City's desired level of service.

RECOMMENDATION: Staff recommends Council open a public hearing to consider public comment regarding the increase in property taxes of 1%.

AN ORDINANCE levying the ad valorem taxes for obligations of the General Fund for fiscal year ending December 31, 2023.

WHEREAS, the Council of the City of Camas has met and considered its budget for the calendar year 2023, and

WHEREAS, the Council of the City of Camas after hearing and after duly considering all relevant evidence and testimony presented, determined that the City of Camas requires a regular levy in the amount of \$14,361,749 which is equal to the property tax revenue from the previous year, and excludes amounts resulting from the addition of new construction and improvements to property and any increase in the value of state-assessed property, and amounts authorized by law as a result of any annexations that have occurred and refunds made, in order to discharge the expected expenses and obligations of the City and in its best interest;

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF CAMAS as follows:

SECTION I

The dollar amount of the increase over the actual levy amount from the previous year shall be \$143,617 which is a percentage increase of 1.0% from the previous year. This is exclusive of additional revenue resulting from the addition of new construction and improvements to property and any increase in the value of state assessed property, and any additional amounts resulting from any annexation that have occurred and refunds made.

SECTION II

A CERTIFIED BUDGET request or estimate shall be filed with the County Assessor's

Ordinance No. 22-022

Office, separate from this ordinance. As required by RCW 84.52.020, that filing certifies the total amount to be levied by the regular property tax levy. The form for this purpose is titled "Levy Certification" and is available through the Assessor's Office. Certification is made in a manner prescribed by the County Assessor's Office.

SECTION III

This Ordinance shall take force and be in effect five days from and after its publication according to law.

PASSED by the council and APPROVED by the Mayor this 21st day of November, 2022.

	SIGNED:		
		Mayor	
	ATTEST:		
		Clerk	
APPROVED as to form:			
City Attorney	-		

AN ORDINANCE levying the ad valorem taxes for obligations of the Emergency Rescue Fund for fiscal year ending December 31, 2023.

WHEREAS, the Council of the City of Camas has met and considered its budget for the calendar year 2023, and

WHEREAS, the Council of the City of Camas after hearing and after duly considering all relevant evidence and testimony presented, determined that the City of Camas requires a levy in the amount of \$2,463,518, which is equal to the property tax revenue from the previous year, and excludes amounts resulting from the addition of new construction and improvements to property and any increase in the value of state-assessed property, and amounts authorized by law as a result of any annexations that have occurred and refunds made, for the purpose of providing emergency medical services;

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF CAMAS as follows:

SECTION I

The dollar amount of the increase over the actual levy amount from the previous year shall be \$24,635, which is a percentage increase of 1.0% from the previous year. This is exclusive of additional revenue resulting from the addition of new construction and improvements to property and any increase in the value of state assessed property, and any additional amounts resulting from any annexation that have occurred and refunds made.

SECTION II

This Ordinance shall take force and be in effect five days from and after its publication according to law.

Ordinance No. 22-023

PASSED by the council and APPROVED by the Mayor this 21st day of November, 2022.

	SIGNED:		
		Mayor	
	ATTEST:		
APPROVED as to form:		Clerk	
City Attorney	-		

AN ORDINANCE levying the ad valorem taxes for obligations of the Emergency Rescue Fund for fiscal year ending December 31, 2023.

WHEREAS, the Council of the City of Camas has met and considered its budget for the calendar year 2023, and

WHEREAS, the Council of the City of Camas after hearing and after duly considering all relevant evidence and testimony presented, determined that the City of Camas requires a levy in the amount of \$2,463,518, which is equal to the property tax revenue from the previous year, and excludes amounts resulting from the addition of new construction and improvements to property and any increase in the value of state-assessed property, and amounts authorized by law as a result of any annexations that have occurred and refunds made, for the purpose of providing emergency medical services;

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF CAMAS as follows:

SECTION I

The dollar amount of the increase over the actual levy amount from the previous year shall be \$24,635, which is a percentage increase of 1.0% from the previous year. This is exclusive of additional revenue resulting from the addition of new construction and improvements to property and any increase in the value of state assessed property, and any additional amounts resulting from any annexation that have occurred and refunds made.

SECTION II

This Ordinance shall take force and be in effect five days from and after its publication according to law.

Ordinance No. 22-023

PASSED by the council and APPROVED by the Mayor this 21st day of November, 2022.

SIGNED:

Mayor

ATTEST:

Clerk

APPROVED as to form:

City Attorney



Staff Report - Resolution

November 21, 2022 Council Workshop / Regular Meeting

Resolution No. 22-015 Adopting the 2022 update to the General Sewer Plan

Presenter: Steve Wall, Public Works Director

Time Estimate: 5 minutes

Phone	Email
360.817.7899	swall@cityofcamas.us

INTRODUCTION/PURPOSE/SUMMARY: In accordance with Washington Administrative Code (WAC) 173-240-050, the City is required to update and adopt a General Sewer Plan. The General Sewer Plan is intended to address the following key issues:

- The need and timing of the replacement of older, deteriorating sanitary sewer facilities within large, neighborhood-size areas within the City.
- The evaluation of the City's system capacity to address both system deficiency and potential development.
- The evaluation of sanitary sewer lift stations and force mains for removal, rehabilitation, and replacement.
- The City's Infiltration and Inflow (I/I) program to evaluate options and needs for I/I reduction.
- Implementation of recommended improvements by priority which maintains affordable rates for the system users

Staff presented a completed (draft) of the 2022 General Sewer Plan at the October 3, 2022 City Council Workshop and did not receive any comments or questions that required revisions to the Plan. A State Environmental Policy Act (SEPA) checklist has been completed for the Plan and is currently being processed and staff will forward the Plan to the Department of Ecology for review and approval after adoption by the City Council. Based on past experience, Ecology's review of the Plan will likely take a number of months. If any significant changes are necessary, staff will bring back an amended copy for Council's consideration at that time.

As an additional item of interest, this Plan also includes the Capital Facilities Plan element that is the basis for the City's Sewer System Development Charge that is also anticipated to be adopted at the November 21, 2022 Regular City Council Meeting.

RECOMMENDATION: Staff recommends the City Council adopt Resolution 22-015 as presented.

RESOLUTION NO. 22-015

A RESOLUTION adopting the June 2022 update to the City of Camas General Sewer Plan subject to requested revisions by the Washington State Department of Ecology

WHEREAS, the City has updated its General Sewer Plan as required by State law; and WHEREAS, the update to the General Sewer Plan is consistent with local comprehensive plans, land use plans and development regulations in accordance with WAC 173-240-050; and WHEREAS, the City is concurrently completing the annual amendment to its City-wide

WHEREAS, the City Council reviewed the plan at a regularly scheduled public meeting on October 3, 2022; and

WHEREAS, the General Sewer Plan will be submitted to the Washington State

Department of Ecology for review and approval; and

Comprehensive Plan; and

WHEREAS, the City Council desires to adopt the 2022 General Sewer Plan as presented at the October 3, 2022 meeting subject to any revisions required by the Washington State Department of Ecology in response to its review of the materials submitted by the City.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF CAMAS AS FOLLOWS:

SECTION I

The City hereby adopts the 2022 General Sewer Plan including all Capital Facilities Plan elements associated thereto pursuant to RCW 36.70A.070 subject to required revisions by the Washington State Department of Ecology and concurrent with the annual City-wide Comprehensive Plan Amendment and with the City's Budget process.

SECTION II

The City Capital Facilities Plan is hereby amended to include the updated elements of the 2022 General Sewer Plan as set forth under RCW 36.70A.070.

SECTION III

The City of Camas Public Works Director is directed to maintain a copy of the 2022 General Sewer Plan available for public inspection.

SECTION IV

This Ordinance shall take force and be in effect five (5) days from and after its publication according to law.

PASSED BY THE COUNC	CIL OF THE CITY OF CAMAS AND APPROVED BY	
THE MAYOR this day of	, 2022.	
	SIGNED:	
	Mayor	
	ATTEST:	
APPROVED as to form:	Clerk	
City Attorney	_	





City of Camas

GENERAL SEWER PLAN

DRAFT | June 2022





City of Camas

GENERAL SEWER PLAN

DRAFT | June 2022

This document is released for the purpose of information exchange review and planning only under the authority of Joshua R. Miner, June 23, 2022, State of Washington PE No. 22015138.

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Abbreviations

°F degrees Fahrenheit

AACE American Associate of Cost Estimators

AAF average annual flow

AB aeration basin

AC alternating current

ACH changes per hour

ADWF Average Dry Weather Flow

AKART all known, available and reasonable methods of prevention, control and treatment

Anx Anoxic Zone

aSRTs aerobic solids retention times
ATS automatic transfer switch
BOD biochemical oxygen demand

BOD₅ 5-day biochemical oxygen demand CARA Critical Aguifer Recharge Area

Carollo Carollo Engineers, Inc.
CCTV closed-circuit television

CFD computational fluid dynamics

CFM cubic feet per minute

CFR Code of Federal Regulations

cfs cubic feet per second
CIP Capital Improvement Plan

City City of Camas

CMC Camas Code of Ordinances / Municipal Code

CMMS Computerized Maintenance Management System

CWA Clean Water Alliance

d depth
D diameter

d/D depth versus diameter

DMR discharge monitoring report

DMZ demilitarized zone

DNS determination of non-significance

DO dissolved oxygen

DOE Department of Ecology

DWF dry weather flow

E&IC electrical instrumentation and control

EA Environmental Assessment

Ecology Washington State Department of Ecology



ENR Engineering News Report

EIS Environmental Impact Statement

EPA U.S. Environmental Protection Agency

FEMA Federal Emergency Management Agency

FOG fats, oil and grease

FONSI finding of no significant impact

ft feet

ft/sec feet per second ft³ cubic feet gal gallon

GIS geographic information system

GMA Washington Growth Management Act

gpad gallons per acre per day gpcd gallons per capita day

gpd gallons per day

gpd/sq ft gallons per day per square foot

gpm gallons per minute
GSP general sewer plan
GWI groundwater infiltration
HDPE high-density polyethylene
HGL Hydraulic Grade Line
HMI human-machine interface

hp horsepower

hr hour

I/I Inflow and Infiltration

IDWF Influent Dry Weather Flow

in inch(es)

lbs/day pounds per day

LEL Lower Explosive Limit

LF linear feet
LOS level of service
LS lift station(s)
MG million gallons

Mg(OH)₂ Magnesium Hydroxide mg/L milligrams per liter mgd million gallons per day

MH manhole
mi mile
mL milliliter

mL/g milliliters per gram

MLSS mixed liquor suspended solids

mm millimeter

MMF maximum monthly flow

MS4 Municipal Separate Storm Sewer System

n Manning's Coefficient

N/A Not applicable

NASSCO National Association of Sewer Service Companies

NEPA National Environmental Policy Act

NH4 ammonia

NOAA National Oceanic and Atmospheric Administration
NPDES National Pollutant Discharge Elimination System

NRCS National Resources Conservation Service

O&M operation and maintenance

Orange Book Ecology's Criteria for Sewage Works Design book

Ox Aerobic Zone
PC primary clarifier

PCB polychlorinated biphenyl PDCs power distribution centers

PDF peak day flow/load PDX Portland Airport

Penn Valley Penn Valley Pump Company, Inc.

PHD peak hour demand
PHDF peak hour demand flow

PHF peak hour flow

Plan City of Camas General Sewer Plan
PLC programmable logic controller

ppcd pounds per capita day

ppd pounds per dayppm parts per millionPS Pump Station???

psi pounds per square inch
PVC polyvinyl chloride
PWWF peak wet weather flow

QA/QC quality assurance and quality control

RAS Return Activated Sludge RCW Revised Code of Washington

RDI/I rainfall dependent infiltration and inflow

RIOs remote input/output



R&R repair and replacement SAx Anaerobic Selector Zone

SC secondary clarifier

SCADA supervisory control and data acquisition

SEPA State Environmental Policy Act

SPA state point analysis

SR State Route

SSO sanitary sewer overflow
STE septic tank effluent
STEF septic tank effluent filter
STEG septic tank effluent gravity
STEP septic tank effluent pump

SU standard units

SVI sludge volume index

SWCAA Southwest Clean Air Agency

SWPPP stormwater pollution prevention plan
TCLP toxic characteristic leachate procedure

TM technical memorandum

TP treatment plant

TSS Total Suspended Solids
UGA Urban Growth Area

UGB Urban Growth Boundary

UV ultraviolet

VCP vitrified clay pipe

VFD variable frequency drive

WAC Washington Administrative Code

WAS Waste Activated Sludge
WRF water reclamation facility
WSE water surface elevations
WTP water treatment plant

WWTF wastewater treatment facility

WWTFO Washington Wastewater Treatment Facility Operator

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EXECUTIVE SUMMARY

ES.1 Introduction

The City of Camas (City) is located in Clark County, Washington near the border of Washington and Oregon along the Columbia River near Vancouver, Washington. The City owns and operates most of the sewer collection system within the City limits and its urban growth boundary (UGB). The collection system is a combination of gravity sewers, pump stations, force mains, and septic tank effluent pump (STEP) systems. Wastewater is collected and treated by the City at the Camas Wastewater Treatment Plant and then discharged to the Columbia River.

The purpose of the City's General Sewer Plan (Plan) is to develop a clear and logical path to manage the collection system over the next 20 years. The Plan results from an evaluation of the sanitary sewer system which identified deficiencies and concerns that must be addressed to provide service to existing users, as well as improvements needed to accommodate growth. Key elements addressed in the Plan include:

- The need and timing of the replacement of older, deteriorating sanitary sewer facilities within large, neighborhood-size areas within the City.
- The evaluation of system capacity to address both existing deficiencies and potential development.
- The identification of sanitary sewer lift stations and force mains requiring removal, rehabilitation, and replacement.
- The City's Infiltration and Inflow (I/I) program to evaluate options and needs for I/I reduction.
- Implementation of recommended improvements by priority which maintains affordable rates for the system users.

ES.1.1 Sewer Service Area

A map of the sewer service area is presented in Figure ES.1.

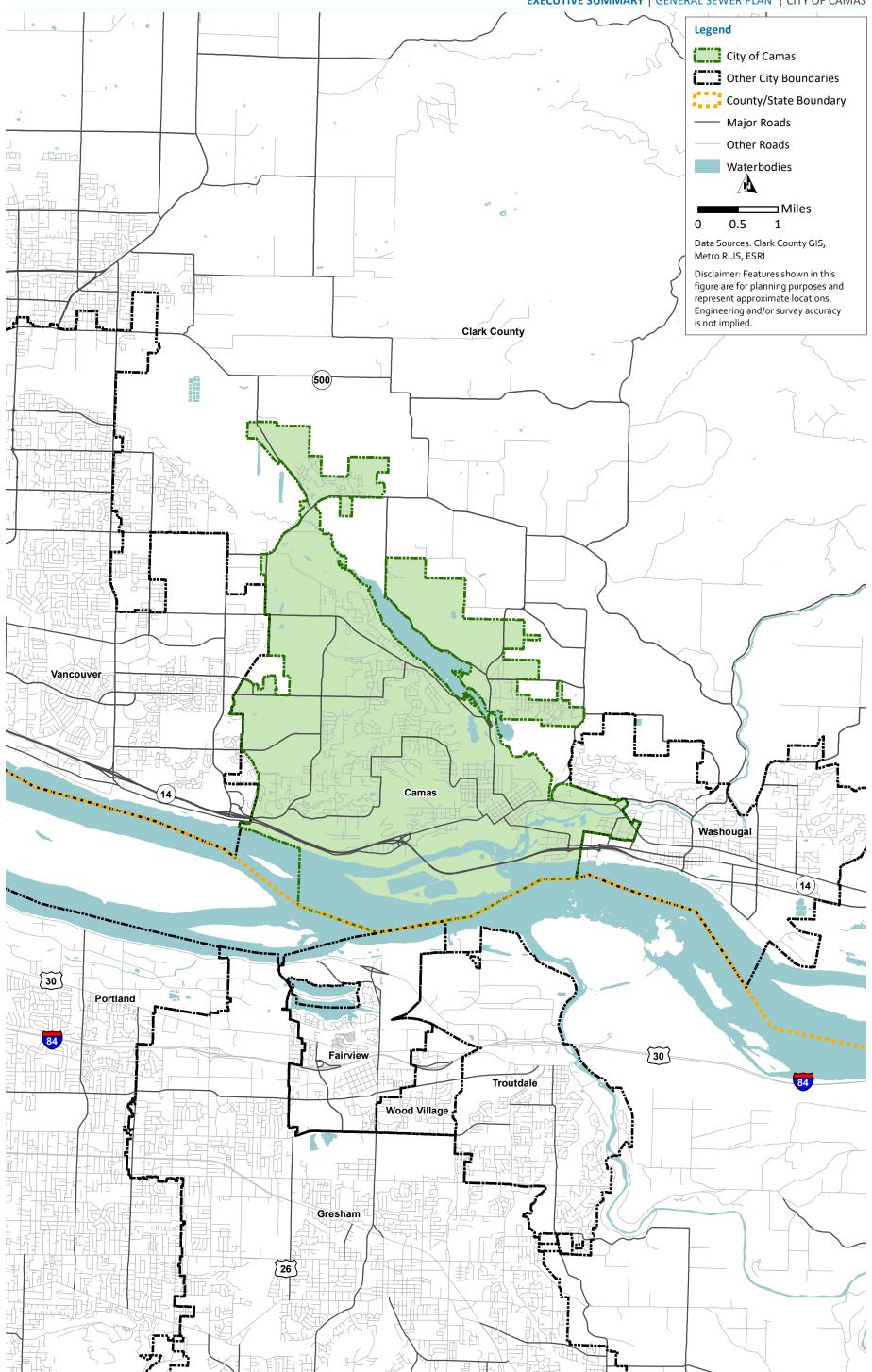
ES.2 Policies

The City is responsible for managing and operating its wastewater system in accordance with all local, state, and federal regulations. To best manage the wastewater system and comply with regulations, the City has adopted wastewater system policies and criteria. These policies guide the development and financing of the infrastructure required to provide wastewater service and document the City's commitments to current wastewater system customers as well as those considering service from the City. The following policies and criteria are summarized in Chapter 2 - Policies:

- Environmental Stewardship.
- Design Criteria and Standards.
- Financial Policies.
- Regulatory Requirements.



Figure ES.1 Vicinity Map



ES.3 Basis of Planning

Chapter 3 of the Plan presents flow projections for the collection system and wastewater treatment facility (WWTF) based on demographic growth projections from the 2035 Comprehensive Plan. Slightly different methodologies are used to project wastewater flows in the collection system and WWTF due to the requirements of the analyses and availability of data. Two major factors drive these differences. First, the collection system analysis considered flow monitoring data collected during a four-month period in the winter of 2018 and 2019, while the WWTF analysis uses historical influent data from 2015 through 2018. Second, the WWTF was assessed using flows projected for 2035, while collection system flows consider both 2035 and buildout of the service area. Collection system piping is typically sized using the buildout period projections since these pipes have a 75-year service life.

ES.3.1 Collection System Flow Projections

The collection system flow projections were developed for use in the City's calibrated hydraulic model of the sewer system. The modeled system corresponds with the study area of the 2019 flow monitoring program, which focused on the lower basins in the collection system closest to the WWTF. The data collected during the flow monitoring program was used along with population growth projections, land use development projections, and wastewater flow factors to develop the flow projections presented in Table ES.1.

Table ES.1 Hydraulic Model Flow Projections Summary

Planning Horizon	ADWF (mgd)	PWWF (mgd)	Peaking Factor (PWWF : ADWF)
2018	0.80	5.45	6.8
2035	1.63	13.33	8.2
Buildout	2.63	14.86	5.7

Notes:

Abbreviations: ADWF - average dry-weather flow; mgd - million gallons per day; PWWF - peak wet weather flow.

ES.3.2 WWTF Flow and Load Projections

The City's WWTF receives flows from the gravity collection system, septic tank effluent, and the septage receiving station. The sum of these flows is greater than the collection system flow projections because the analysis performed for this Plan only focused on the portion of the system included in the hydraulic model and did not include septic tank flows, which constitute up to 50 percent of the total influent flow. Thus, load and peak hour flow projections were developed independently for the WWTF based on measured influent flows and wastewater characteristics, typical septage and STEP system characteristics, and population growth projections. The City expects that half of additional plant flow from population growth within the service area will come from the gravity sewer system, while the other half of the additional flow will come from the STEP system. The influent flow projections developed for the WWTF are summarized in Table ES.2.



Table ES.2 Current and Projected WWTF Flows

Flow Parameter	2021 Flow (mgd)	2035 Flow (mgd)
ADWF	2.2	3.4
AAF	2.8	4.0
MMF	4.8	6.2
PDF	8.4	10.8
PHF	10.0	13.5

Notes:

Abbreviations: AAF - average annual flow; MMF - maximum monthly flow; PDF - peak day flow/load; PHF - peak hour flow.

Wastewater loading data which are related to effluent limitations contained in the City's WWTF National Pollution Discharge Elimination System (NPDES) permit were also projected to evaluate treatment capacity for future conditions. Historical values for 5-day biochemical oxygen demand (BOD₅), total suspended solids (TSS), and ammonia (NH₃) and projections to 2035 are detailed in Table ES.3.

Table ES.3 Current and Projected WWTF Loads

Load Parameter	2021 Load (ppd)	2035 Load (ppd)
Sewered Population ⁽¹⁾	18,900	36,000
BOD₅ (ppd)		
Average Annual	2,400	6,000
Max Month	3,300	8,200
Max Week	4,300	10,600
Peak Day	5,300	13,000
TSS (ppd)		
Average Annual	2,400	6,300
Max Month	3,300	10,500
Max Week	4,300	17,000
Peak Day	5,300	19,300
Ammonia (ppd)		
Average Annual	900	1,400
Max Month	1,100	2,000
Peak Day	1,800	4,300
Notes: (1) Current sewered population is based on	2035 Comprehensive Plan	

(1) Current sewered population is based on 2035 Comprehensive Plan.

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ES.4 Existing System

Chapter 4 describes the sewer system within the City's service area, which is owned, maintained, and operated by the City. A map of the existing system is shown in Figure ES.2. The City's conventional system (modeled for this Plan) includes 236,200 linear feet of gravity mains, 29 lift stations, and 38,260 linear feet of force main, which convey nearly half of the total influent flow to the City's WWTF. The septic tank effluent systems convey the remainder of the total flow treated by the City's WWTF through 263,110 linear feet of dedicated sewer mains. The septic tanks provide preliminary wastewater treatment, solids settling, and some digestion such that the effluent is not as strong as raw sewage collected in the conventional system. Each septic tank in the City's service area is pumped out on a five-year cycle and the solids are trucked to the WWTF for treatment.

The City's WWTF is located along the Columbia River in the southeastern portion of its sewer service area. The WWTF was originally constructed in 1972 and has had several modifications since that time to increase capacity and improve treatment capabilities to continue to meet all effluent permit requirements. The City's NPDES effluent discharge limitations, prohibitions, and requirements are similar to other municipal facilities with standard 30/30 monthly TSS and BOD concentration limits with a mandatory 85 percent reduction in each. However, the WWTF has ammonia limits of 20 milligrams per liter (mg/L) (NH $_3$ as N) in the summer and 7 mg/L (NH $_3$ as N) in the winter. An aerial view of the WWTF with each unit process and building identified is shown in Figure ES.3.



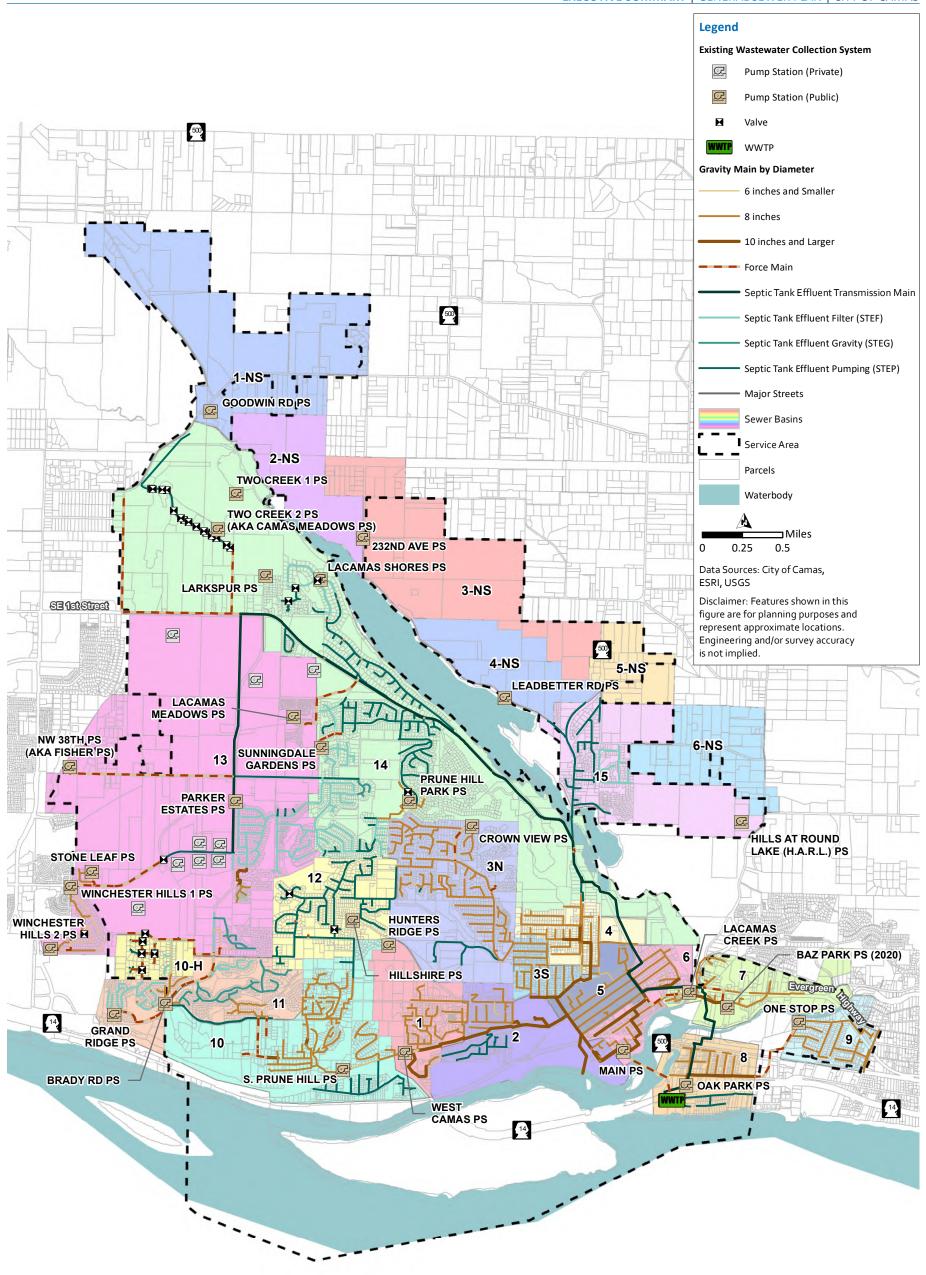




Figure ES.3 WWTF Aerial Image with Site Plan

ES.5 Infiltration and Inflow Program

Chapter 5 of this plan summarizes the City's efforts to reduce I/I from 2016 through 2020 and the quantifiable, positive improvement that has been accomplished in reducing I/I. Infiltration and inflow consist of two components which may combine or act independently to increase flow volume and peak flows in the sewer system. If too much I/I enters the sewer system such that the sewer system is operating at or above its capacity, sanitary sewer overflows (SSO) could occur. More dilute wastewater can also be more difficult to treat under percent removal NPDES permits such as those held by the City.

In 2016, the City commissioned an evaluation of the collection system to document existing infiltration and inflow as a condition of their new stormwater permit. The results of this study showed that there was excessive inflow compared to the EPA's guidelines. Since 2016, the City initiated an I/I reduction program and has completed improvement projects each year, totaling well over \$1 million. A follow up study completed in 2020 showed significant improvements in I/I and improved WWTF performance. Table ES.4 summarizes the improvements in per capita I/I observed in the City's collection system. The City is continuing to invest in the collection system to further reduce I/I through a pipeline repair and replacement program along with improvements to two key lift stations: Crown View pump station and Lacamas Creek pump station.

Table ES.4 Per Capita I/I Compared to EPA Criteria

Parameter	EPA Criteria for Excessive I/I (gpcd)	I/I Value for Camas in 2014 (gpcd)	Current I/I Value for Camas (gpcd)
EPA Excessive Infiltration Criteria	120	80	46
EPA Excessive Inflow Criteria	275	348	176

Notes:

Abbreviations: gpcd - gallons per capita day.

ES.6 System Analysis

Chapter 6 describes the hydraulic modeling analysis conducted for gravity pipes and pump stations in the modeled portion of the City's collection system. The modeled collection system is primarily large gravity sewers which represent a skeletonized version of the system that does not include the septic tank effluent infrastructure. The analysis identified capacity deficiencies associated with current and projected future use and recommends improvements to alleviate any identified concerns. The collection system was evaluated applying three planning scenarios:

- **Existing:** Matching existing conditions.
- 2035: Incorporating flows related to growth through 2035 as identified in the City's comprehensive plan.
- Build-Out: Development of the full service area including urban growth boundary.



Performance and design criteria for the conveyance system are outlined below:

- Performance Criteria: During PWWF for the design storm, water levels should not
 exceed a maximum depth to diameter flow ratio (d/D) of 1.2 for build-out conditions,
 and a d/D of 1.0 for existing conditions. No surcharging (d/D>1.0) is allowed at manholes
 where the distance between crown of pipe and manhole rim is less than three feet.
- **Design Criteria:** New sewers shall be designed to flow at a maximum d/D of 1.0 at peak flow rates for both existing and build-out conditions.

The City's lift stations should have sufficient firm capacity to pump the PWWF during the design storm with the largest pump out of service. Other pump station and force main design criteria are presented in Chapter 2 of the Plan.

ES.6.1 Gravity Collection System Evaluation

For each planning scenario, the associated PWWF was routed through the hydraulic model. The peak hydraulic grade line in manholes and gravity pipelines was compared to the established performance criteria. Under existing conditions there are seven potential problem areas where the capacity is deficient to convey the PWWF. Two additional deficiency areas were identified in the build-out scenario.

ES.6.2 Lift Station Evaluation

The City's hydraulic model includes five out of the seven lift stations located in the gravity collection system. The estimated current and future PWWFs were compared to the five lift station firm capacities in the hydraulic model. For the two lift stations not in the model, firm capacity was compared to projected influent flows. Four of the seven lift stations did not meet the firm capacity criteria under current conditions and the deficiencies were exacerbated under build-out conditions.

ES.6.3 Recommended Improvements

When an increase in capacity is required, existing sewers can be upsized to a larger diameter pipe, or parallel or relief sewers can be constructed. Table ES.5 summarizes the recommended pipe capacity improvement project details.

It is recommended that the Main, South Prune Hill, West Camas, and Crown View Plaza PSs all be upgraded to provide pump redundancy under existing PWWF conditions. These stations do not meet the required firm capacity, based on the City's performance criteria. Table ES.6 summarizes the recommended lift station improvement project details.

Table ES.5 Recommended Pipe Capacity Improvements Projects

Project ID	Improvement Type	Location	Existing Size (inch)	Proposed Size (inch)	Length (feet)	Phase
P-1	Gravity	NW Fargo Street between NW 23rd and NW 19th Avenue	8	12	1,007	Short-term
P-2	Gravity	Division Street between NW 18th and NW 11th Avenue	8	12	2,043	Short-term
P-3	Gravity	NW 6th Place, just upstream of South Prune Hills PS	8 10	12 12	188 616	Short-term
P-4	Gravity	NW 6th Place between South Prune Hills PS and West Camas PS	10	12	588	Short-term
P-5	Gravity	NW 6th Avenue downstream of West Camas PS and through Forest Home Park	12 12	15 18	311 1,340	Short-term
P-6	Gravity	NW 6th Avenue between NW 7th Avenue and SE Adams Street	12 8	18 21	817 401	Short-term
P-7	Gravity	NE and SE Adams Street between SE 3rd Avenue and NW 6th Avenue	21 24	24 27	773 925	Short-term
P-8	Gravity	NW 18th Loop	8	12	609	Long-term
P-9	Gravity	NE 15th Avenue between NE Garfield Street and NE Franklin Street	8	18	256	Long-term

Table ES.6 Recommended Lift Station Improvement Projects

Project ID	Improvement Type	Location	Description	Phase
PS-1	Gravity	South Prune Hills	Add pump capable of pumping 664 gpm.	Existing
PS-2	Gravity	West Camas	Add pump capable of pumping 723 gpm.	Existing
PS-3	Gravity	Crown View Hill	Add pump capable of pumping 382 gpm.	Existing
PS-4	Gravity	Main	Add pump capable of pumping 1,831 gpm.	Existing
PS-5	Gravity	Lacamas Shores, Sunningdale Gardens, Winchester Hills 2	Add flow monitors and pressure sensors to get a better understanding of what happens during peak flows and their capacity to aid in future capital improvement planning.	Existing

Abbreviations: gpm - gallons per minute.



ES.7 Wastewater Treatment Facility

Chapter 7 summarizes efforts to identify shortfalls in WWTF capacity that will prevent the City from reliably treating and disposing of projected flow and loads in compliance with their NPDES permit at the end of the planning period (i.e., year 2035). To address the identified deficiencies, an alternatives analysis of the most viable improvement options was conducted, which resulted in the development of 14 projects to be incorporated into the Plan's capital improvement program (CIP). Table ES. 7 summarizes the recommended WWTF improvement project details.

Table ES.7 Recommended WWTF Improvement Projects

Project ID	Description	Improvement Type	Phase
TP-1	This project will improve the aeration basin's performance and increase treatment capacity.	Capacity	Short-Term
TP-2	This project includes the replacement of an aging secondary clarifier and replacement of RAS pumps for another secondary clarifier.	Capacity/Con dition	Short-Term
TP-3	This project replaces two of the existing aeration blowers with larger high-speed turbo blowers to meet projected aeration demands	Capacity	Short-Term
TP-4	This project enhances plant hydraulics in several areas and includes the replacement of obsolete UV disinfection equipment.	Condition/ Capacity	Short-Term
TP-5	This project increases the effluent pump station's capacity, as required, to pump 100% of 2035's projected PHFs to the outfall in the Columbia River by replacing the existing effluent pumps with larger units.	Capacity	Short-Term
TP-6	This project replaces the existing grit-separation equipment, including hydrocyclones and grit classifiers, and increases the capacity of the odor control systems servicing the grit-handling area and dewatering building, which will extend the life and reduce maintenance of new installed equipment.	Condition	Short-Term
TP-7	This replaces the existing thickened primary sudge pumps with new progressive cavity pumps.	Condition	Long-Term
TP-8	This project replaces the existing digested sludge pumps with new double-disc piston-style pumps.	Condition	Long-Term
TP-9	This project rehabilitates the existing dewatering centrifuge and modifies the space to accommodate a standby unit for redundancy.	Condition	Short-Term
TP-10	This project repairs the existing plant drain pump station No. 1's structure and replaces its pumps.	Capacity/ Condition	Short-Term
TP-11	This project prepares a SCADA master plan that will provide the City with a roadmap to prioritize and implement planned system upgrades designed to address system deficiencies and enhance facility operation. This project includes an in-depth investigation of the existing SCADA control system for the City's WWTF and associated remote sites.	Planning	Short-Term

Project ID	Description	Improvement Type	Phase
TP-12	This project upgrades the existing SCADA system to provide redundancy and take advantage of modern features, including advanced data analysis, report generation, and secure remote accessibility	Network	Short-Term
TP-13	This project includes replaces existing Modicon Quantum hardware with new, standardized PLCs and RIO cabinets for all process areas at the WWTF.	Network	Short-Term
TP-14	This project plans for a future secondary treatment expansion to accommodate flows and loads outside the planning windows.	Planning	Long-Term

ES.8 Operations and Maintenance

Chapter 8 provides an overview of the City's wastewater utility organization, staffing, and operations and maintenance (O&M) program. City staff for the drinking water system and sewer system are combined. The staff works to provide effective and efficient service for utility rate payers through regular operation and maintenance activities on these systems as outlined in the program included in this Chapter.

ES.9 Capital Improvement Plan

The CIP presented in Chapter 9 includes projects needed to accommodate growth, repair and replace aged infrastructure, and attain level of service goals. The CIP is organized and prioritized in two separate project categories short-term (2022-2031) and long term (2032-2041) periods. Projects are grouped into pipeline, pump station, STEP, I/I, maintenance, treatment plant, and general types of infrastructure work. The CIP consists of the cost estimates and schedules for the recommended improvements. Table ES.8 summarizes the recommended CIP projects and estimated project costs. Approximately \$41,000,000 of capital improvement projects have been identified for the short-term and an additional \$21,435,00 in improvement projects have been identified for the long-term.

ES.10 Financial Analysis

Chapter 10 presents the financial analysis performed as part of this Plan to assess program needs that will allow the City's sewer utility to remain financially viable throughout the planning period. This financial viability analysis considered the historical financial conditions, current and identified future financial and policy obligations, O&M needs, and the financial impacts of the capital projects identified in this Plan. The results of this analysis indicate that rates must increase to provide revenue sufficient to cover all utility financial obligations, including the addition of new debt and partial cash funding of the capital program through 2031. In addition to the adopted annual increases of 3.30 percent in 2022 and 2023, annual 1.75 percent adjustments from 2024 through 2026 should provide for continued financial viability while maintaining generally affordable rates.



Table ES.8 Capital Improvement Plan Summary

City of Camas General Sewer Plan Capital Improvement Plan



Capital Improvement Plan Summary																	
	CIP Project	Total	_					CIF	Phasing							Project Type	
Project	Subtotal ⁽¹⁾	CIP Cost											Short-term	Long-term	Growth	Repair &	Level of Service
	Subtotal	Estimate	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	(2022-2031)	(2032-2041)	Growth	Replacement	Level of Service
Gravity Pipeline																	
P-01 NW Fargo St Upsize	\$ 354,000	\$ 644,000	\$ -	\$ 644,000	\$ -	\$ -	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ 644,000	\$ -	0%	0%	100%
P-02 Division St Upsize	\$ 717,000	\$ 1,306,000	\$ -	\$ 1,306,000	\$ -	\$ -	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ 1,306,000	\$ -	0%	0%	100%
P-03 NW 6th Pl West Upsize	\$ 282,000	\$ 514,000	\$ -	\$ 514,000	\$ -	\$ -	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ 514,000	\$ -	0%	0%	100%
P-04 NW 6th Pl East Upsize	\$ 207,000	\$ 376,000	\$ -	\$ 376,000	\$ -	\$ -	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ 376,000	\$ -	0%	0%	100%
P-05 NW 6th Ave West Upsize	\$ 454,000	\$ 825,000	\$ -	\$ 825,000	\$ -	\$ -	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ 825,000	\$ -	0%	0%	100%
P-06 NW 6th Ave East Upsize	\$ 339,000	\$ 617,000	\$ -	\$ 617,000	\$ -	\$ -	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ 617,000	\$ -	0%	0%	100%
P-07 Adams St Upsize	\$ 678,000	\$ 1,235,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - !	\$ 554,000	\$ 681,000	\$ -	\$ 1,235,000	\$ -	50%	0%	50%
P-08 NW 18th Loop Upsize	\$ 214,000	\$ 389,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ -	\$ 389,000	50%	0%	50%
P-09 NE 15th Ave Upsize	\$ 98,000	\$ 179,000			\$ -	\$ -	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ -	\$ 179,000	50%	0%	50%
Gravity Subtotal		\$ 6,085,000	\$ -	\$ 4,282,000	\$ -	\$ -	\$ -	\$ -	\$ - !	\$ 554,000	\$ 681,000	\$ -	\$ 5,517,000	\$ 568,000			
Pump Station	4	A 510 000		A 510 000			4	4			•	4	A 540,000	4	00/	20/	4000/
PS-01 South Prune Hills Pump Station Improvements	\$ 280,000		\$ -	\$ 510,000	\$ -	\$ -	\$ -	\$ -	\$ - !	-	\$ -	\$ -	\$ 510,000	\$ -	0%	0%	100%
PS-02 West Camas Pump Station Improvements	\$ 280,000	\$ 510,000	\$ - ¢	\$ -	\$ - \$ 510.000	> -	\$ 510,000	\$ -	\$ - S	> -	\$ -	\$ - \$ -	\$ 510,000	\$ -	50% 0%	0%	50% 100%
PS-03 Crown View Hill Pump Station Improvements	\$ 280,000	\$ 510,000	\$ -	\$ -	\$ 510,000	\$ -	\$ -	\$ -	\$ - \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	-	\$ - \$ 510,000	1	\$ 510,000	\$ -	50%	0%	50%
PS-04 Main Pump Station Improvements	\$ 280,000	\$ 510,000	\$ -	\$ -	\$ -	\$ 1,747,000	\$ -	\$ -	\$ - :	\$ - 4	\$ 510,000	\$ -	\$ 510,000 \$ 1,747,000	\$ - \$ 12,912,000	50%	0%	50%
PS-05 Upgrade Pump Station Telemetry	\$ 320,000	\$ 14,560,000		•	•		\$ - \$ F10,000	\$ -	\$ - 3	- •	\$ - \$ F10.000	\$ -	. , ,	\$ 12,813,000	50%	0%	50%
Pump Station Subtotal General		\$ 16,600,000	\$ -	\$ 510,000	\$ 510,000	\$ 1,747,000	\$ 510,000	\$ -	\$ - ;	-	\$ 510,000	<u>\$ -</u>	\$ 3,787,000	\$ 12,813,000			
G-01 Gravity Collection System Model	\$ 270,000	\$ 491,000	ċ	ċ	\$ -	ċ	\$ -	ė	ė ,	÷	ċ	\$ -	\$ -	\$ 491,000	75%	0%	25%
General Subtotal	3 270,000	\$ 491,000		•	\$ -	\$ -	\$ -	\$ -	\$	۶ - د -	\$ - \$ -	\$ -	\$ -	\$ 491,000	7376	076	23/6
STEP General Subtotal		3 431,000	y	, <u> </u>	,	, -	,	,	,	, -	,	y -		3 431,000			
S-01 STEP Main Flows	\$ 126,000	\$ 229,000	Ś -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ -	\$ 229,000	75%	0%	25%
S-02 STEP Main Modeling	\$ 53,000	\$ 96,000		\$ -	\$ -	\$ -	\$ -	\$ -	\$ - !	, \$ -	\$ -	\$ -	\$ -	\$ 96,000	75%	0%	25%
S-03 STEP Main Condition Assessment/ Cleaning	\$ 451,000	\$ 821,000		\$ -	\$ 821,000	\$ -	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ 821,000	\$ -	0%	0%	100%
STEP System Subtotal		\$ 1,146,000		\$ -	\$ 821,000	\$ -	\$ -	\$ -	s - !	s -	\$ -	\$ -	\$ 821,000	\$ 325,000			
Inflow and Infiltration		, , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			, ,,,,,						,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ,,,,,,			
I&I-01 Ongoing I&I Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ -	\$ -	50%	0%	50%
Inflow and Infiltration Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ -	\$ -			
Maintenance																	
M-01 WWTP R&R	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ 2,000,000	\$ -	0%	100%	0%
M-02 Pump Station R&R	\$ 12,000,000	\$ 12,000,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 6,000,000	\$ 6,000,000	0%	100%	0%
M-03 Sewer Main R&R	\$ 3,000,000	\$ 3,000,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 1,500,000	\$ 1,500,000	0%	100%	0%
M-04 STEP Tank R&R	\$ 2,800,000	\$ 5,095,000	\$ -	\$ 1,019,000	\$ 1,019,000	\$ 1,019,000	\$ 1,019,000	\$ 1,019,000	\$ - !	\$ -	\$ -	\$ -	\$ 5,095,000	\$ -	0%	100%	0%
Maintenance Subtotal		\$ 22,095,000	\$ 2,750,000	\$ 1,769,000	\$ 1,769,000	\$ 1,769,000	\$ 1,769,000	\$ 1,769,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 14,595,000	\$ 7,500,000			
Treatment Plant															200/	200/	90/
TP-01 Aeration Basin Improvements	\$ 189,223			\$ -	\$ -	\$ -	\$ -	\$ -	\$ 376,000		\$ -	\$ -	\$ 376,000	\$ -	80%	20%	0%
TP-02 Secondary Clarifier Improvements	\$ 2,785,535	\$ 5,539,000		\$ -	\$ -	\$ -	\$ -	\$ -	\$ - !	\$ 5,539,000	\$ -	\$ -	\$ 5,539,000	\$ -	50% 100%	50% 0%	0% 0%
TP-03 Aeration Blower Replacement	\$ 936,557	\$ 1,862,000	4	•	\$ -	\$ -	\$ -	\$ -	\$ - !	> -	\$ 1,862,000	\$ -	\$ 1,862,000	\$ -	20%	80%	0%
TP-04 Disinfection Building / Hydraulic Improvements TP-05 Effluent Pump Station Improvements	\$ 629,472 \$ 641,550	\$ 1,252,000 \$ 1,276,000	\$ - \$ -	\$ 1,252,000	\$ -	\$ -	\$ -	\$ -	\$ 1,276,000	- -	\$ -	\$ - \$ -	\$ 1,252,000 \$ 1,276,000	\$ -	100%	0%	0%
TP-05 Effluent Pump Station Improvements TP-06 Grit Separation / Odor Control Improvements	\$ 507,998	\$ 1,276,000	\$ - ¢ -	\$ - \$ -	\$ - \$ -	\$ 1,010,000	\$ - ¢ -	\$ - ¢ -	\$ 1,276,000	- -	\$ - \$ -	\$ -	\$ 1,276,000	\$ - ¢ -	0%	100%	0%
TP-07 TPS Pump Replacement	\$ 77,520	\$ 1,010,000	÷ -	٠ د	٠ د	\$ 1,010,000	٠ د	٠ د	÷ .	- د	٠ د	\$ -	\$ 1,010,000	\$ 154,000	0%	100%	0%
TP-08 Sludge Recirculation Pump Replacement		\$ 509,000		\$ -	\$ -	٠ د -	\$ -	\$ -	¢ .	- د -	\$ -	\$ -	\$ -	\$ 509,000	0%	100%	0%
TP-09 Mechanical Dewatering Improvements		\$ 1,648,000		Ÿ	\$ -	\$ -	\$ 1,648,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,648,000	\$ 505,000	0%	100%	0%
TP-10 Plant Drain Pump Station No. 1 Improvements		\$ 517,000		\$ 517,000		\$ -	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ 517,000	\$ -	50%	50%	0%
TP-11 SCADA Master Plan		\$ 209,000			\$ 209,000	\$ -	\$ -	\$ -	\$ - G	\$ -	\$ -	\$ -	\$ 209,000		50%	50%	0%
TP-12 SCADA Improvements		\$ 645,000		\$ -	\$ -	\$ 645,000	T	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ 645,000		50%	50%	0%
TP-13 PLC & RIO Improvements		\$ 1,946,000		\$ -	\$ -	\$ 1,946,000		\$ -	\$ - !	\$ -	\$ -	\$ -	\$ 1,946,000		50%	50%	0%
TP-14 Secondary Treatment Expansion Planning	\$ 75,000				\$ -	\$ -	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$ -	\$ 75,000	100%	0%	0%
Treatment Plant Subtotal		\$ 17,018,000	\$ -	\$ 1,769,000	\$ 209,000	\$ 3,601,000	\$ 1,648,000	\$ -	\$ 1,652,000	\$ 5,539,000	\$ 1,862,000	\$ -	\$ 16,280,000				
CIP Total		\$ 63,435,000				\$ 7,117,000	\$ 3,927,000	\$ 1,769,000	\$ 2,402,000	\$ 6,843,000	\$ 3,803,000	\$ 750,000	\$ 41,000,000	\$ 22,435,000	\$ 17,495,700	\$ 30,920,800	\$ 15,018,500
Annual Cost		\$ 3,172,000	\$ 2,750,000	\$ 8,330,000	\$ 3,309,000	\$ 7,117,000	\$ 3,927,000	\$ 1,769,000	\$ 2,402,000	\$ 6,843,000	\$ 3,803,000	\$ 750,000	\$ 4,100,000	\$ 2,244,000	\$ 875,000	\$ 1,546,000	\$ 751,000



^{1.} CIP Project Subtotal is project cost before contingency costs are added. CIP Project Cost = Estimated Construction Cost. Total CIP Project Cost = Estimated Construction Cost plus merkups for contingency, construction overhead (as applicable), engineering, and administration.

2. Part of existing City CIP Project.

Chapter 1

INTRODUCTION

1.1 Introduction

The purpose of the City of Camas's (City) General Sewer Plan (Plan) is to present policies and an assessment of the system to recommend facility improvements. The Plan is intended to provide a road map for accommodating growth and maintaining a high level of service for existing customers. The existing system is aging and will continue to require investment to maintain a high level of service.

The Plan results from an evaluation of the existing sanitary sewer system which provides the groundwork for recommendations to resolve existing deficiencies and concerns, as well as accommodating growth. This chapter presents the objectives of this Plan, and a brief overview of the City's wastewater collection system. A list of abbreviations is provided in the Table of Contents to assist the reader in understanding the information presented in this Plan.

This Plan and recommended improvements were prepared in accordance with requirements of Washington Administrative Code (WAC) 173-240-050, which is administered by the Washington State Department of Ecology (Ecology) and meets the requirements of the Washington Growth Management Act (GMA).

This Plan addresses the following key issues:

- The need and timing of the replacement of older, deteriorating sanitary sewer facilities within large, neighborhood-size areas within the City.
- The evaluation of the City's system capacity to address both system deficiency and potential development.
- The evaluation of sanitary sewer lift stations and force mains for removal, rehabilitation, and replacement.
- The City's Infiltration and Inflow (I/I) program to evaluate options and needs for I/I reduction.
- Implementation of recommended improvements by priority which maintains affordable rates for the system users.

1.2 Background and Goals

The City is located in Clark County, Washington near the border of Washington and Oregon. It is next to Vancouver, Washington along the Columbia River as shown in Figure 1.1. The City owns and operates most of the sewer collection system within the City limits and its urban growth boundary (UGB). The collection system is a combination of gravity sewers, pump stations, force mains, and septic tank effluent Pump (STEP) systems. Wastewater is collected and treated by the City at the Camas Wastewater Treatment Plant and then discharged to the Columbia River.

The City completed its last General Sewer Plan in 2010. The Plan provides a recognized framework for making decisions about Camas's sanitary sewer service area which includes



properties both inside the City and UGB limits. It is intended to aid decision-makers as well as users, including Wastewater Utility, City Council members, the Mayor, City staff, builders, developers, community groups, and other government agencies.

1.3 Referenced Documents

The following documents were referenced in the preparation of this Plan:

- City of Camas 2010 General Sewer Plan.
- Camas 2035 Comprehensive Plan.
- Camas Code of Ordinances.
- Washington Administrative Code, Title 173. Defines the structure of general sewer plans.
- Criteria for Sewage Works Design (Ecology, 2008). Provides guidance for the design of municipal sewer systems and establishes minimum requirements in the State of Washington.
- Camas 2016 Water System Plan.

1.4 Washington State Requirements

The goals of this Plan, to meet the requirements from the Washington State Criteria for Sewage Works Design, include:

• Prepare the Plan in compliance with WAC Chapter 173-240-050.

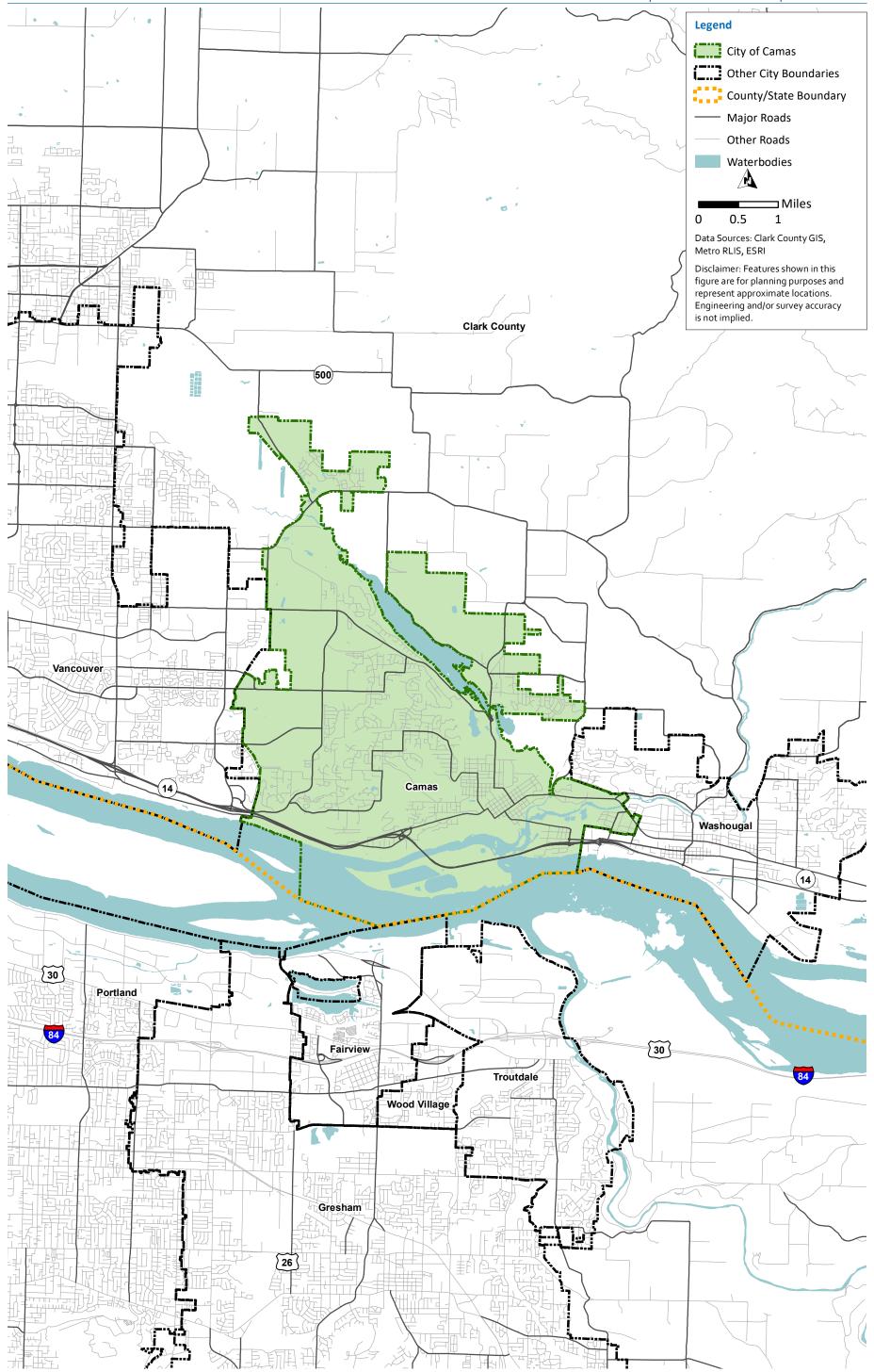
Each WAC requirement is detailed in Table 1.1 as well as the location within the plan.

Table 1.1 WAC Plan Requirements

Requirement	Location in Plan
Purpose and need for the proposed plan	Chapter 1
Discussion of who will own, operate, and maintain the system	Chapter 2
Existing and proposed service boundaries	Chapter 4
Layout map including:	
 Proposed sewers and areas proposed to be served by each. 	Figures 4.1 and 4.2
Boundary lines of municipality or district and vicinity.	Figure 1.1
Existing sewers and areas served by each.	Figure 4.2
 Topography and elevations of existing and proposed ground. 	Figure 4.3
• Information on streams, lakes, other bodies of water, and discharges.	Figure 4.6 and 4.8
Information on water systems.	Figure 4.8
Population trends and methods used to determine those trends	Chapter 3
Information on existing wastewater facilities in the area	Chapter 4, Chapter 7
Discussion of infiltration and inflow problems	Chapter 5
Discussion of the provisions for treatment, discharge, and reuse	Chapter 6, Chapter 7
Information on facilities producing industrial wastewater	Chapter 4
Information on existing wells or other water supply sources	Chapter 4
Discussion of alternatives evaluated, and alternatives chosen	Chapter 6, Chapter 7
Information on existing and proposed cost per service	Chapter 10
Statements regarding compliance with SEPA and, if applicable, NEPA	Appendix A
Notes: Abbreviations: SEPA – Washington State Environmental Policy Act; NEPA – National Environmental Environmental Policy Act; Nepa – National Environmental Environment	•

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Figure 1.1 Vicinity Map



1.5 Report Organization

This Plan contains ten chapters, followed by appendices that provide supporting documentation for the information presented in the report. The chapters are briefly described below:

- Chapter 1 Introduction: This chapter presents the need for this Plan and the objectives of the study. Lists of abbreviations and reference materials are also provided to assist the reader in understanding the information presented.
- Chapter 2 Regulations, Policies, and Criteria: This chapter documents applicable regulations, summarizes City policies impacting long-term sewer system planning, and presents the City's design criteria which are relevant to sewer system planning.
- Chapter 3 Basis of Planning: This chapter presents an evaluation of historical
 wastewater flows and loads through the City's collection system and entering the
 wastewater treatment facility (WWTF). This chapter also establishes the WWTF's flow
 and load projections based upon future population growth for a 2035 projection and
 build out.
- **Chapter 4 Existing System:** This chapter describes the City's existing sewer collection system, adjacent sewer service areas, and WWTF.
- Chapter 5 I/I Program: This Chapter focuses on summarizing the City's efforts on I/I
 reduction from 2016 through 2018. It summarizes the amount of I/I for these years and
 specific projects completed to address I/I.
- Chapter 6 Collection System: This chapter presents an evaluation of the available capacity of the existing system to convey current and future sewer flows.
 Recommendations are provided for improvement projects to address capacity deficiencies and level of service goals.
- Chapter 7 Wastewater Treatment Facility: This chapter summarizes the WWTF
 Engineering report including condition of existing processes, capacity of existing
 processes and recommendations that will allow the City to reliably and cost-effectively
 serve their customers now and into the future.
- Chapter 8 Operations and Maintenance: This chapter provides an overview of the City's Wastewater Utility organization, staffing, and operation and maintenance (O&M) program. This chapter documents existing practices and identifies changes that may improve system operation and maintenance.
- Chapter 9 Capital Improvement Program: This chapter describes the improvements necessary to resolve existing and future deficiencies and accommodate growth. The proposed improvements are also listed by priority and project type.
- Chapter 10 Financial Analysis: This chapter evaluates the financial status of the City's wastewater utility and the ability to finance CIP projects.

Additionally, Technical Memoranda (TM) are included in the appendices as follows:

Appendix E - TM 01: Hydraulic Model Update and Calibration.

Other appendices are included as follows:

- Appendix A Approvals.
- Appendix B Agency Comment Letters and Responses.
- Appendix C Demographic Projections.
- Appendix D Flow Monitoring Report.



- Appendix E TM 01: Hydraulic Model Update and Calibration.
- Appendix F I/I Program Reports.
- Appendix G Local Limits Program Reports.
- Appendix H Wastewater Treatment Plant Permits.
- Appendix I Wastewater Treatment Engineering Report.
- Appendix J Spill Response Plan.
- Appendix K CIP Project Sheet.
- Appendix L Financial Backup.
- Appendix M O&M APE Examples.

1.6 SEPA and Approval Process

A SEPA Checklist has been prepared for this Plan and is presented in Appendix A. It is anticipated that this proposed Plan will not have a probable significant adverse impact on the environment and that an environmental impact statement (EIS) will not be required. However, many of the projects proposed herein will require SEPA checklists and an engineering determination will be made with each individual project.

This Plan includes review by adjacent utility systems. All comments are included in Appendix B, Agency Comment Letters and Responses.

1.7 Acknowledgements

Carollo Engineers, Inc. (Carollo) and their team members would like to acknowledge and thank the following individuals for their efforts and assistance in completing this Plan. Their cooperation and courtesy in obtaining a variety of necessary information were valuable components in completing and producing this report:

- Bob Busch, City of Camas, Wastewater Treatment Plant Operations Supervisor.
- Sam Adams, City of Camas, Utilities Manager.

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Chapter 2

POLICIES AND CRITERIA

2.1 Introduction

The City of Camas (City) is responsible for managing and operating its wastewater system in accordance with all local, state, and federal regulations. To best manage the wastewater system and comply with regulations, the City has adopted wastewater system policies and criteria. These policies guide the development and financing of the infrastructure required to provide wastewater service and document the City's commitments to current wastewater system customers as well as those considering service from the City. The following sections outline the City's policies and design criteria that are relevant to sewer system planning. Existing policies are listed in Table 2.2 through Table 2.5. Proposed new policies are also listed in each table. These policies and criteria will guide the planning process throughout this General Sewer Plan (Plan).

The policies and criteria are organized into the following categories:

- Table 2.1 Service Policies and Extensions.
- Table 2.2 Environmental Stewardship.
- Table 2.3 to Table 2.5 Design Policies and Criteria.
- Table 2.6 Financial Policies.

2.2 Sewer Service

Table 2.1 summarizes the existing policies regarding the wastewater service area and extension of sewer service to additional customers. The City is committed to serving customers in its sewer service area in accordance with established policies. The current sewer service area includes approximately 7,400 acres within its corporate boundaries. The future service area has been defined as the City's Urban Growth Boundary (UGB).



Table 2.1 Service Policies and Extensions

Subject	Policy	Source
Service Area	Where service is available, require connection to public water for domestic and irrigation needs and connection to sewer systems. The intent is to not wait for the malfunction of a well or septic system if service is available.	Camas 2035 Comprehensive Plan U-1
Service Area	Within UGAs, the City should be the sole provider of urban services.	Camas 2035 Comprehensive Plan U-4
Service Area	Extend public sanitary sewer service, which is required within urban areas, throughout urban areas. Service may be provided outside urban areas to serve areas where imminent health hazards exist.	Camas 2035 Comprehensive Plan SS-1
Utility Extension	Do not extend utilities without annexation or commitments for annexation. Exceptions may be made in cases where human health is threatened. In areas where utilities presently extend beyond City limits, but are within UGAs, the City should plan development jointly with the County. A joint development must be consistent with City standards.	Camas 2035 Comprehensive Plan U-5
System Ownership	The sanitary sewage disposal system of the city, including the treatment plant and all other parts of such system and all additions and improvements thereto and extensions thereof, which may be made hereafter, shall be considered as a part of and belonging to the water works utility of the city. The cost of the construction and installation of the hereinafter provided additions, improvements and extensions and the cost of maintenance and operation of such system as improved shall be charged to the water works utility of the city, and any rates and charges which may be collected hereafter for sewage disposal service shall be paid into the "water and sewer revenue fund" of the city, to be hereafter created.	(CMC) 13.60.010
Ownership of System - Commercial and Industrial	All STEP systems serving commercial, industrial, and other nonresidential properties shall be owned by the owner of the subject property, except for the service box at the point where the STEP system connects to the city sanitary sewer system, which shall be owned by the city. The owner shall be responsible for maintaining all components of the STEP system and its ownership and shall be responsible for pumping the STEP tank as needed and for disposing of the waste in an approved manner. The owner shall further be responsible for paying all electrical costs associated with the operation of the STEP system.	CMC 13.62.060(B)
Ownership of System - Residential	After inspection and acceptance of an installed STEP system on residential property, the city shall be the owner of all components of the STEP system with the exception of the sewer line from the structure to the tank, which shall be owned by the property owner. The city will be responsible for maintaining the components of the STEP system owned by the city, and in addition will be responsible for pumping the STEP tank and disposing of waste material when required. The owner will be responsible for maintaining the sewer line connecting the tank to the structure on the subject property. The owner will further be responsible for paying for all electrical costs associated with the operation of the STEP system.	CMC 13.62.060(A)
Construction	On and after May 1, 1949, it shall be unlawful to construct any means of sewerage or excreta disposal such as septic tanks without having first obtained a permit from the city health officer or his authorized representative.	CMC 13.60.040
Sewer Lien and Ownership	The city shall have a lien against premises to which sewer service is available for delinquent and unpaid charges for sewer services, for penalties levied pursuant to <u>Section 13.60.050(B)</u> , for unpaid connection charges, and for unpaid sewer system development charges. All such delinquent charges shall bear interest at the rate of eight percent per annum. Such lien shall be superior to all other liens and encumbrances except general taxes and local and special assessments.	CMC 13.60.055(A)
Connections	All property owners whose property abuts a street or alley in which there is a public sanitary sewer or which is within one hundred fifty feet of a public sanitary sewer may be required to connect their private drains and sewers to the city sanitary sewer system at the direction of the city engineer. Those properties which abut a street or alley in which there is a public sanitary sewer or which are located within one hundred fifty feet of a public sanitary sewer, and which are located within a designated health hazard area or which pose a threat to the general health, shall be connected to the sanitary sewer. Such connection shall be in the most direct manner possible and with a separate connection for each residence or structure.	CMC 13.60.050(A)
Prohibited Connection	Prohibit construction of new private wells and subsurface sewage disposal systems in new developments.	Camas 2035 Comprehensive Plan U-2



Subject	Policy	Source
Application to Connect a STEP System	Any property owner seeking to connect his property to the sanitary sewer system of the city by means of a STEP system shall file an application with the public works department on a form provided by the city. The application shall contain the name and address of the owner, the location of the property to be connected to the sanitary sewer system, the nature of the structure to be constructed on the subject property, the proposed use of the subject property, the proposed location of the STEP system, the design of the STEP system, and such other information as the public works department may require. Upon receipt of any such application, the public works director, or his authorized designee, shall review the application and grant the same if he determines that the subject property is suitable for use of a STEP sanitary sewer system, and if the design, location and other information set forth in the application comply with the standards and specifications adopted by the city for STEP systems and the criteria set forth in this chapter.	CMC 13.62.030
Installation Responsibility of a STEP system	The individual owner shall be responsible for and shall pay for the installation of the STEP/ STE system, including but not limited to, service connection per CMC 13.64.050 if required, the tank, pump apparatus, control box, electrical wiring, conduit, plumbing from the structure to the tank, plumbing from the tank to the service box, excavation and backfill material. The city shall, prior to installation, determine the appropriate size tank.	CMC 13.62.040(A)
Sewer Responsibility	 Sanitary sewers shall be provided to each lot at no cost to the city and designed in accordance with city standards: Detached units shall have their own sewer service and STEP or STEF or conventional gravity system as required. Duplex units may have up to two sewer services at the discretion of the engineering and public works departments. Multifamily units shall have one sewer lateral per building. Commercial or industrial units shall have privately owned and maintained sewer systems acceptable to the city. 	CMC 17.19.040(C)
Right-of-Entry Agreement	Any owner seeking to connect his property to the sanitary sewer system of the city by means of a STEP system shall be required to execute a right-of-entry agreement authorizing the city and its employees to have access to the owner's property for the purpose of maintaining and inspecting the STEP system and appurtenances thereto. Such right-of-entry agreement shall be executed upon approval of an application for a STEP system.	CMC 13.62.050
Inspection	The superintendent and other duly authorized employees of the city bearing proper credentials and identification shall be permitted to enter upon all properties for the purpose of inspecting, observing, measuring, sampling, and testing sewer connections, operations, and facilities in accordance and to ensure compliance with the provisions of this chapter. No such entry or inspection shall be made without the consent of the owner or occupant of such building or premises unless the city employee shall have obtained a search warrant, or unless exigent circumstances exist that would justify an inspection and entry without obtaining a warrant.	CMC 13.68.030
Enforcement	It shall be the duty of the city health officer or his authorized agent to enforce the provisions of Sections 13.60.020 through 13.60.110 and in the performance of this duty the health officer or his duly authorized agent is authorized to enter at any reasonable hour any premises as may be necessary in the enforcement of Sections 13.60.020 through 13.60.110.	CMC 13.60.080
FOG and Capacity	Grease, oil and sand interceptors shall be provided, when in the opinion of the superintendent, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts, or any flammable wastes, sand, and other harmful ingredients, except that such interceptors shall not be required for private living quarters. All interceptors shall be of a type and capacity approved by the superintendent and shall be located as to be readily and easily accessible for cleaning and inspection.	
Private System - Flush toilet	Every residence, place of business or other building or place where persons congregate, reside or are employed and which does not abut a street or alley in which there is a public sanitary sewer shall be provided with a private water-flush toilet by the owner or agent of the premises; said water-flush toilet system to be built or rebuilt, constructed and maintained in such a manner as to meet the requirements of construction and maintenance hereinafter described.	CMC 13.60.060

2.2.1 Environmental Stewardship

The following section summarizes existing policies regarding environmental stewardship.

Table 2.2 Environmental Stewardship Policies

Subject	Policy	Source
Allowable Discharges	Examples of allowable discharges include the following: Broken water mains. Diverted stream flows. Rising ground waters. Uncontaminated ground water infiltration, as defined in 40 CFR 35.2005(20). Uncontaminated pumped ground water. Foundation drains. Air conditioning condensation.	CMC 14.04.070
Conditional Discharges	The following types of discharges shall not be considered illegal discharges for the purposes of this chapter if they meet the stated conditions, or unless the Director determines that the type of discharge, whether singly or in combination with others, is causing or is likely to cause pollution of surface water or groundwater: • Potable water, including water from water line flushing, hyperchlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water. Planned discharges shall be de-chlorinated to a concentration of 0.1 ppm or less, pH-adjusted, if necessary and in volumes and velocities controlled to prevent re-suspension of sediments in the stormwater system. • Lawn watering and other irrigation runoff are permitted but shall be minimized.	
Septic System Elimination	Coordinate with Clark County to eliminate septic systems.	
licit Connections	 The following connections, both past, current, and future, to the stormwater system are expressly prohibited: The construction, use, maintenance, or continued existence of illicit connections to the storm drain system is prohibited. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection. A person is considered to be in violation of this chapter if the person connects a line conveying sewage to the MS4 or allows such a connection to continue. 	
Vastewater Discharges	Except as hereinafter provided, no person shall discharge or cause to be discharged any of the following described water or wastes to any public sewer: Any liquid or vapor having a temperature higher than 150 °F. Any water or waste which may contain more than 100 ppm by weight, of FOG. Any gasoline, benzene, naphtha, fuel oil, motor oil, lubricants or other flammable or explosive liquid, solid or gas. Any garbage that has not been properly shredded. Any ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch manure, or any other solid or viscous substance capable of causing obstruction	

Notes:
Abbreviations: °F - degrees Fahrenheit; AKART - all known, available and reasonable methods of prevention, control and treatment; CFR - Code of Federal Regulations; MS4 - Municipal Separate Storm Sewer System; NPDES - National Pollutant Discharge Elimination System, ppm - parts per million; SWPP - stormwater pollution prevention plan



2.2.2 Design Criteria and Standards

The City's wastewater system design standards, design details, specifications, and construction standards are documented in the Camas Design Standards Manual (2019) available from this City's Public Works department website. Additional design requirements and recommendations applicable to the City's sewer system are found in the Washington State Department of Ecology's (Ecology) Criteria for Sewage Works Design book, also known as the Orange Book. Current design criteria policies are outlined in Table 2.3.

The following section summarizes the existing and proposed policies regarding system design. It is recommended that the proposed new policies listed below be adopted by the City. Within this Plan, the capacity limitations of the collection system are evaluated against the proposed new design criteria policies.

Table 2.3 Design Criteria Policies

Subject	Policy	Source
Design	• Sewer systems shall be designed and constructed to achieve total containment of sanitary wastes and maximum exclusion of I/I. No new combined sewers will be approved.	Orange Book Section C1-1.3
Sewer location	• Siting of public sanitary sewer mains and MHs shall be restricted to the public right-of-way and/or easement dedicated for this utility.	Orange Book SectionC1-1.5
Design Period	 Service laterals shall be designed for the ultimate development of the parcel being served. Collection sewers (that is, laterals and submains) shall be designed for the ultimate development of the tributary area. Selection of the design period for trunk and interceptor sewers shall be based on an evaluation of economic, functional, and other considerations. 	
Design Flows	 Sewer systems shall be designed on the basis of per capita flows for the design period in conjunction with a peaking factor or approved alternative methods. Generally, the sewers shall be designed to carry at least the peak hourly flow when operating at capacity. Peak hourly flow should be the design average daily flow in conjunction with a peaking factor. 	
Lift Station Design Criteria	 The firm capacity of a pumping station shall be equal to or greater than the peak hourly design flow. Because mechanical and electrical equipment is typically designed for a 20-year life, it is recommended that the peak design flow be based on a 20-year forecast or greater. The number of pumps selected shall allow the station to provide the peak design flow with the largest pump out of order. The station shall be designed to remain fully operational during the 100- year flood/wave event. 	Orange Book Sections C2-1.2.1 C2-1.2.3 C2-1.1
Lift Station Pump	• Pumps should be designed for pumping sewage and capable of passing solids at least three inches in diameter. Pump suction and discharge should be four inches or greater.	
Design Storm	 In accordance with all applicable federal, state, and local regulations, the City should design its wastewater system facilities to adequately and reliably convey peak hour flows associated with a Design Storm event without overflowing or discharging to any water bodies. The Design Storm is defined as a 20-year interval, 24-hour storm recorded at Portland International Airport rain gauge. 	
• All sewage pump stations should be designed with capability for emergency power in case the primary electrical feed is out of service. A portable engine generator unit that is plugged into a pigtail at the pump station commonly provides emergency power for small pump stations. Larger pump stations should have permanent engine generator units with automatic transfer switches to transfer the electrical feed from the primary to the standby unit when a power failure is detected by the instrumentation and control system.		Orange Book Section C2-1.8.3
Surcharging	• The City's design criteria require the depth of flow versus the diameter of the pipe (d/D) ratio to be equal to or less than 1 during the design storm (no surcharging).	Proposed New Policy
nflow/ Infiltration	Future development shall be designed for a peak inflow and infiltration rate of 1,100 gpad.	Proposed New Policy



2.2.2.1 Wastewater Treatment Plant Design Criteria

The Ecology maintains requirements for hydraulic and loading capacities as well as the redundancy of treatment processes and equipment. These requirements are presented in the Orange Book, Ecology's guidelines for WWTF design (2008) and are derived from the Federal standards developed by the U.S. Environmental Protection Agency (EPA). Flow requirements are detailed in Table 2.4.

Ecology's criteria for designation of WWTFs are divided into three reliability classes based on the nature of their receiving water. Corresponding redundancy and reliability requirements are presented in Table 2.5 based on Ecology's guidelines and Federal standards. These requirements are the basis of the capacity analysis.

Table 2.4 Flow Requirement

WWTF Component	Flow Requirement	Source
Influent Screens	A backup screen designed for mechanical or manual screening must be provided. Influent screens must accommodate all flows.	(1)
Primary Clarifiers	Units must be sufficient in number and size to allow peak hour design flow including recirculation flow for overflow rate and weir loading rate. Surface overflow rates recommended are 400 to 600 gpd/sq ft at average design flow and 1,200 to 1,500 gpd/sq ft at peak design flow.	
Primary Sludge Pumps	A backup pump must be provided that that matches the largest pump and motor. Pumps must handle peak design flows with the largest units out of service.	(1)
Degritting Cyclone and Grit Classifier	The system must contain components to remove grit and other heavy inorganic solids.	(1), (2)
Aeration Basins	A backup basin will not be required. At least two equal volume basins must be provided. All units in service for peak flow and loading conditions.	(1)
Internal Recycle Pumps	A backup pump must be provided that that matches the largest pump and motor. Pumps must handle peak design flows with the largest units out of service.	(1), (2)
Aeration Systems	A sufficient number of aerators to enable the design oxygen transfer to be maintained with the largest unit out of service.	(1), (2)
Secondary Clarifiers	Units must be sufficient in number and size to allow PHDF including recirculation flow for overflow rate and weir loading rate.	(1)
RAS Pumps	A backup pump must be provided that that matches the largest pump and motor. Pumps must handle peak design flows with the largest units out of service.	(1)
WAS Pumps	A backup pump must be provided that that matches the largest pump and motor. Pumps must handle peak design flows with the largest units out of service.	(1)
Effluent Filters	Secondary effluent polishing filters must pass all flows requiring tertiary treatment.	(1)
UV Channel	Equipment sized to provide maximum day design flow with to meet disinfection requirements and accommodate peak hour design flow hydraulically.	(1)
Effluent Pump Station	A backup pump must be provided that that matches the largest pump and motor. Pumps must handle peak design flows with the largest units out of service.	(1)
Gravity Thickener	Redundant units provided for equipment maintenance. Ability to thicken and dewater maximum sludge production with all units in service.	(1)(2)
Rotary Drum Thickener	Redundant units provided for equipment maintenance. Ability to thicken and dewater maximum sludge production with all units in service.	(1) (2)
Primary Anaerobic Digesters	Redundant units provided for equipment maintenance. Ability to thicken and dewater maximum sludge production with all units in service.	(1) (2)
Digested Sludge Pumps	A backup pump must be provided that that matches the largest pump and motor. Pumps must handle peak design flows with the largest units out of service.	(1)
Dewatering Centrifuge	Redundant units provided for equipment maintenance. Ability to thicken and dewater maximum sludge production with all units in service.	(1) (2)
Biosolids Dryer	Redundant units provided for equipment maintenance. Ability to thicken and dewater maximum sludge production with all units in service.	(1) (2)

Notes

Abbreviations: gpd/sg ft - gallons per day per square foot; PHDF - peak hour demand flow; RAS - return activated sludge; UV - ultraviolet; WAS - waste activated sludge.



⁽¹⁾ Criteria for Sewage Works Design (Ecology, 2008).

⁽²⁾ Design Criteria for Mechanical, Electric, and Fluid Systems and Component Reliability (EPA, 1974).

 Table 2.5
 Wastewater Treatment Plant Redundancy and Reliability Requirements

WWTF Component	Flow Criteria	Load Requirement	Redundancy
Influent Screens	Pass all flows	-	1 Unit Out of Service
Primary Clarifiers	PHF + Recirculation	Peak Hour Design Load ⁽¹⁾	All Units in Service
Primary Sludge Pumps	Peak Instantaneous Design Flow	Maximum Daily Design Load	1 Unit Out of Service
Degritting Cyclone	PHF	-	Minimum 2 Units
Grit Classifier	PHF	-	1 Unit Out of Service
Aeration Basins	Maximum Week Design Flow	Maximum Daily Design Load	All Units in Service
Aeration dasins	Maximum Daily Design Flow	Maximum Daily Design Load	All Units in Service
Internal Recycle Pumps	PHF	-	1 Unit Out of Service
Aeration Systems	-	Peak Hour Design Load (2)	1 Unit Out of Service
Secondary Clarifiers	PHF + Recirculation	Peak Hour Design Load (1)	All Units in Service
RAS Pumps	MMF	-	1 Unit Out of Service
WAS Pumps	Peak Instantaneous Design Flow	Maximum Daily Design Load	1 Unit Out of service
Effluent Filters	All flows requiring tertiary treatment	-	-
UV Channel	PHF	-	1 Unit Out of Service
Effluent Pump Station	Peak Instantaneous Design Flow	-	1 Unit Out of Service
Gravity Thickener	-	Maximum Daily Design Load (2)	1 Unit Out of Service
Rotary Drum Thickener	-	Maximum Daily Design Load (2)	1 Unit Out of Service
Primary Anaerobic Digesters	-	Maximum Daily Design Load (2)	1 Unit Out of Service
Digested Sludge Pumps	-	-	1 Unit Out of Service
Dewatering Centrifuge	-	Maximum Daily Design Load (2)	1 Unit Out of Service
Biosolids Dryer	-	Maximum Daily Design Load (2)	1 Unit Out of Service
Notes:			

Notes:
(1) Total suspended solids (TSS) loading only.
(2) 5-day biochemical oxygen demand (BOD₅) loading only.
Abbreviations: PHF - peak hour flow; MMF - maximum monthly flow



2.2.3 Financial Policies

The City's financial polies support the operation of the wastewater utility. A summary of financial polices applicable to the Plan are outlined in Table 2.6.

Table 2.6 Financial Policies

Subject	Policy	Source
Credits	Those properties that have been disconnected from the city sewer system since January 1, 1972, shall receive a credit for the prior connection. The credit for the prior connection shall be in an amount equal to the sewer system development charge imposed under this chapter shall be the difference between the amount due under the present use classification less the amount that would have been assessed under the use classification for the prior connection, provided however, that the city shall not be required to reimburse the property owner in the event the credit exceeds the sewer system development charge for the new connection.	CMC 13.72.040(A)
Credits	Those properties that are not presently connected to the city's sewer system but which have been assessed and paid a monthly penalty pursuant to Section 13.60.050(B) shall receive a credit against the sewer system development charge in an amount equal to the total monthly penalties paid prior to connection, provided however, that the city shall not be required to reimburse the property owner in the event the credit exceeds the sewer system development charge for the new connection.	CMC 13.72.040(B)
/iolation	Any person, firm or corporation who violates or refuses or fails to comply with any of the provisions of Sections 13.60.020 through 13.60.110 shall be guilty of a misdemeanor and shall be punished by a fine of not less than twenty-five dollars nor more than one hundred dollars or imprisoned in the city jail for a period of thirty days or by both such fine and prison term.	CMC 13.60.090
nflow Connection	There is imposed upon those property owners who are within the area served by the sanitary system and who refuse to connect to such sanitary sewer system a penalty in an amount equal to the charge that would have been made for sewer service if such property had been connected to the sanitary sewer system. Such penalties as provided herein shall accrue monthly until such property is connected to the sanitary sewer system. All penalties collected pursuant to this provision shall be considered revenue of the sanitary sewer system.	CMC 13.60.050(B)
sewer Service Development	Pursuant to the authority conferred upon cities and towns by RCW 35.92.020 and 35.92.025, the city council of the city finds that property owners who seek to connect property to the sewer system of the city should be assessed a charge in order that such property shall bear its equitable share of the cost of the sewer system. The council further finds that the charge should be based upon the property owner's anticipated use of the sewer system as related to the historical cost of the sewer system and the projected cost of additions to the sewer system to meet new demand. That portion of the charge based upon the historical costs of the sewer system shall be measured by the undepreciated value of the sewer system and plant in service at the time the charge is imposed. That portion of the charge based upon the projected cost of future improvements shall be based upon appropriate studies by engineers and/or financial consultants. The charge imposed by this chapter shall be denominated as a "sewer system development charge" and shall be in addition to any sewer connection or permit fees imposed by other ordinances of the city.	CMC 13.72.010
amage to STEP	The cost of repairing any damage to a STEP system which has resulted from the negligence, gross negligence, or intentional acts of the owner shall be the responsibility of the owner. This responsibility includes any clogging which may result due to improper use of the STEP system by the owner.	CMC 13.62.070
Except as hereinafter provided, the connection charge for connecting a STEP/STE sewer system to the Camas municipal sewer system shall be the cost of materials, the costs of labor for city personnel at then prevailing rate for such personnel, and the amount of any fees or charges required to be paid to any third parties in order to make such connection.		CMC 13.64.050(A)
onnection Charges for STEP	The connection charge for connecting a STEP/STE sewer system to the Camas municipal sanitary sewer system with a one-inch service line or less shall be as per the fee schedule established by the city council per resolution, or the actual cost to the city calculated in accordance with subsection A of this section, whichever is greater.	CMC 13.64.050(B)
onnection Charges for STEP	No connection charge will be assessed if a service line has already been installed connecting the subject property to the city sanitary sewer system.	CMC 13.64.050(C)



2.2.4 Regulatory Requirements

The City's criteria is developed based on federal and state statues, regulations, and permits. These laws help to determine the design criteria for the City's collection, treatment, and disposal facilities. These regulatory requirements are outlined in Table 2.7.

Table 2.7 Regulatory Requirements

Subject	Policy
Federal Clean Water Act Condition S1	Condition S.1 of the City's permit requires the treatment plant effluent to meet limits for BOD ₅ , TSS, fecal coliform bacteria, pH, and total ammonia.
Federal Clean Water Act Condition S2	Condition S.2.lists monitoring requirements including influent and effluent flow, BOD ₅ , TSS, pH, temperature, total ammonia, fecal coliform, priority pollutant metals, oil and grease and cyanide. A program to address oil and grease is also required. The City must monitor twice per 5 years for effluent whole effluent toxicity and conduct quarterly and yearly priority pollutant monitoring of its influent and effluent in support of its industrial pretreatment program. Additionally, per the terms of the City's coverage under the Statewide Biosolids permit, the City must annually test its biosolids for pollutants and compliance with pathogen reduction and vector attraction reduction criteria.
Federal Clean Water Act Condition S4	Condition S.4.A specifies the WWTF design capacity for maximum month BOD ₅ loading is 5,616 lbs/day and 6,405 lbs/day for TSS. The peak hour flow, dry weather monthly average, and maximum month average flow capacities for the WWTF are 11.09, 2.86 and 6.10 mgd, respectively. Condition S.4.B requires the City to prepare a plan to maintain adequate capacity when flows and loadings to the WWTF exceed 85% of design capacity for 3-consecutive months.
National Environmental Policy Act	The NEPA was established in 1969 and requires federal agencies to determine environmental impacts on all projects requiring federal permits or funding. Federally delegated activities such as NPDES permits or Section 401 Certification are considered state actions and do not require NEPA compliance. If a project involves federal action (through, for example, an Army Corps of Engineers Section 404 permit), and is determined to be environmentally insignificant, a (FONSI) is issued, otherwise an Environmental Assessment (EA) or Environmental Impact Statement (EIS) would be required. NEPA is not applicable to projects that do not include a federal component.
Federal Clean Air Act	The Federal Clean Air Act requires all wastewater facilities to plan to meet the air quality limitations of the region. The City falls in the jurisdiction of the Southwest Clean Air Agency (SWCAA). The SWCAA is responsible for enforcing federal, state and local outdoor air quality standards and regulations in Clark, Cowlitz, Lewis, Skamania and Wahkiakum counties of southwest Washington state. The Camas generator is permitted by SWCAA.
State Water Pollution Control Act	The intent of the state Water Pollution Control Act is to "maintain the highest possible control standards to ensure the purity of all waters of the state consistent with public health and the enjoymentthe propagation and protection of wildlife, birds, game, fish and other aquatic life, and the industrial development of the state." Under the RCW 90.48 and the (WAC) 173-240, Ecology issues permits for wastewater treatment facilities and land application of wastewater under WAC 246-271.
Criteria for Sewage Works Design, Ecology	Ecology has published design criteria for collection systems and wastewater treatment plants. While these criteria are not legally binding, their use is strongly encouraged by Ecology since the criteria are used by the agency to review engineering reports for upgrading wastewater treatment systems. Commonly referred to as the "Orange Book," these design criteria primarily emphasize unit processes through secondary treatment, and also includes criteria for planning and design of wastewater collection systems. Any expansion or modification of the City collection system and/or WWTF plant will require continued conformance with Ecology criteria.
Certification of Operators of Wastewater Treatment Plants, WAC 173-230	Wastewater treatment plant operators are certified by the state Water and Wastewater Operators Certification Board. The operator assigned overall responsibility for operation of a wastewater treatment plant is defined by WAC 173-230 as the "operator in responsible charge." This individual must have state certification at or above the classification rating of the plant. The City WWTF is currently assigned a Class 4 rating and the operating staff assigned to the plant have the required certification. (One of the operators has a Class 4 certification; two have Class 3 certification, and one has Class 2 certification).
Surface-Water Quality Standards (WAC 173-201A)	In the State of Washington, WAC 173-201A establishes water quality standards for surface waters based on maintaining public health, recreational use and protection of fish, shellfish, and wildlife. Surface water quality standards include five groups: AA (extraordinary), A (excellent), B (good), C (fair), and Lake Class. Each class has its own characteristic use and measurable criteria. Measurable parameters used to distinguish the different surface water classifications include fecal coliform levels, dissolved oxygen concentration, temperature, pH, and turbidity. The surface water criteria include 29 toxic substances, including ammonia, residual chlorine, several heavy metals, polychlorinated biphenyls (PCBs), and pesticides.
State Environmental Policy Act	WAC 173-240-050 requires a statement in all wastewater comprehensive plans regarding proposed projects in compliance with the SEPA, if applicable. The capital improvements proposed in this plan will fall under SEPA regulations. A SEPA checklist is included in Appendix A of this report for use in the environmental review for the project. In most cases a DNS is issued; however, if a project will have a probable significant adverse environmental impact an EIS will be required.
Accreditation of Environmental Laboratories (WAC 173-050)	The State of Washington established a requirement that all laboratories reporting data to comply with NPDES permits must be generated by an accredited laboratory. This accreditation program establishes specific tasks for QA/QC that are intended to ensure the integrity of laboratory procedures. Accreditation requirements must be met for any on-site laboratory or outside laboratory used to analyze samples. Only accredited laboratories may be used for analyses reported for compliance with NPDES permits. In planning for an on-site laboratory, staffing must be sufficient to allow for QA/QC procedures to be performed. The Camas WWTF lab is currently accredited for determination of the following parameters TSS, BOD ₅ , ammonia, dissolved oxygen, pH and fecal coliform.
Minimal Standards for Solid Waste Handling (WAC 173-304)	Grit and screenings are not subject to the sludge regulations in WAC 173-308, but their disposal is regulated under the state solid waste regulations, WAC 173-304. Waste placed in a municipal solid waste landfill must not contain free liquids, nor exhibit any of the criteria of a hazardous waste as defined by WAC 173-303. To be placed in a municipal solid waste landfill, grit, screenings, and incinerator ash must pass the paint filter test. This test determines the amount of free liquids associated within the solids, and includes the TCLP test, which determines if the waste has hazardous characteristics.
Shoreline Management Act	The Shoreline Management Act of 1971 (RCW 90.58) establishes a broad policy giving preference to shoreline uses that protect water quality and the natural environment, depend on proximity to the water, and preserve or enhance public access to the water. The Shoreline Management Act jurisdiction extends to lakes or reservoirs of 20 acres or greater, streams with a mean annual flow of 20 cfs or greater, marine waters, and an area inland 200 ft from the ordinary high-water mark. Projects are reviewed by local governments according to state guidelines and a local Shoreline Master Program. The Camas wastewater treatment plant and portions of the collection system are located within shoreline areas.

Notes

Abbreviations: cfs - cubic feet per second; DNS - determination of non-significance; FONSI - finding of no significant impact; lbs/day - pounds per day; NEPA - National Environmental Policy Act; TCLP - toxic characteristic leachate procedure; QA/QC - quality assurance and quality control; WAC - Washington Administrative Code



2.2.4.1 NPDES Permit

Table 2.8 presents a brief overview of relevant design criteria and effluent limitations contained in the City's WWTF NPDES Permit No. WA0020249. The City's current permit was issued September 15, 2015 and effective October 1, 2015. This NPDES permit places limits on various water quality parameters, flow rates, and waste loading pertaining to the discharge of treated effluent from the WWTF.

Table 2.8 NPDES Influent Design Criteria and Effluent Limits

NPDES Influer	t Design Criteria and Effluent L	imits
NPDES Influent Design Criteria		
Parameter		Value
MMF		6.1 mgd
Monthly Average Dry Weathe	r Flow	2.86 mgd
BOD₅ Max Month Loading		5,616 lbs/day
TSS Max Month Loading		8,011 lbs/day
NH₃-N Max Month Loading		1,956 lbs/day
NPDES Effluent Limits		
Parameter	Average Monthly Limit	Average Weekly Limit
BOD₅	20 mg/L74% removal of influent1,017 lbs/day	30 mg/L1,525 lbs/day
TSS	20 mg/L76% removal of influent1,017 lbs/day	30 mg/L1,525 lbs/day
Fecal Coliform Bacteria ⁽¹⁾	• 200 organisms/100 mL	400 organisms/100 ml
NH₃-N Summer ⁽²⁾	• 20 mg/L	• N/A
NH₃-N Winter	• 7 mg/L	• N/A

Abbreviations: mg/L - milligrams per liter; mL - milliliter; NH₃-N - ammonia.



⁽¹⁾ Geometric mean.

⁽²⁾ Summer ammonia limits apply to the months of June through September.

Chapter 3

BASIS OF PLANNING

3.1 Introduction

This chapter presents an evaluation of historical wastewater flows and loads through the City of Camas's (City's) collection system and entering the wastewater treatment facility (WWTF). This chapter establishes the WWTF's flow and load projections based upon future population growth through 2035.

The remainder of this Chapter is divided into four sections:

- Section 3.2 provides definitions for the wastewater flow terminology used in this chapter, as it is not commonly used outside of planning and design evaluations.
- Section 3.3 presents the collection system flow monitoring results, which are used to set a baseline for flow projections and development of the hydraulic model.
- Section 3.4 presents projected flows and loads for the City's collection system, which are
 used in hydraulic modelling evaluations.
- Section 3.5 presents projected flows and loads for the WWTF, which are used in unit process capacity evaluations.

The collection system and WWTF projections are based on demographic growth projections from the 2035 Comprehensive Plan. However, slightly different methodologies are used to project wastewater flows in the collection system and WWTF due to the requirements of the analyses and availability of data. Two major factors drive these differences. First, the collection system uses flow monitoring data from four-month period in the winter of 2018 and 2019, while the WWTF analysis uses historical influent data from 2015 through 2018. Second, the WWTF flows ware only projected for 2035, while collection system flows are projected for 2035 and buildout period. Collection system piping is typically sized using the buildout period projections since these pipes have a 75-year service life.

3.2 Definitions

Wastewater flows are analyzed by separating dry weather flow from wet weather flow to establish base flows. These base flows identified during dry weather are then used as the basis to project both wet and dry weather flows. Due to the separate collection system and WWTF projections established, the following terminology was utilized to differentiate the various flow parameters:

Influent Dry Weather Flow (IDWF) is the average daily flow during the two driest
months of the year (July and August). The IDWF includes the base flow generated by the
City's residential and commercial connections plus the dry weather groundwater
infiltration (GWI) component. For the City, the IDWF was estimated throughout the
service area based on the historical influent flow data from the WWTF.



- Average Dry Weather Flow (ADWF) establishes a similar flow parameter as IDWF;
 ADWF was differentiated as it was based upon collection system flow monitoring data period of record that differs from the IDWF.
- Average Annual Flow/Load (AAF/AAL) is the average flow or load that occurs over a calendar year. AAF and AAL were estimated based on the historical influent flow and load data from the City's WWTF.
- Maximum Month Flow/Load (MMF/MML) is the maximum 30-day running average
 influent flow observed at the WWTF during a calendar year. MMF and MML were
 estimated based on the historical influent flow and load data from the City's WWTF.
- Peak Day Flow/Load (PDF/PDL) is the maximum 24-hour average flow and load observed at the WWTF during a calendar year. PDF and PDL were estimated based on the historical influent flow and load data from the City's WWTF.
- Peak Hour Flow (PHF) is the highest observed hourly flow that occurs during the design storm. Wet weather inflow and infiltration (I/I) causes flows in the collection system to increase. PHF is typically used for designing sewers and lift stations. Therefore, the PHF and the collection system "Design Flow" are synonymous and will be used interchangeably throughout this Plan.

3.3 Collection System Flow Monitoring Results

The City contracted with ADS to conduct a temporary flow monitoring program within the City's sanitary sewer collection system. The purposes of the Flow Monitoring Program were to collect data for correlating real collection system flows with the hydraulic model's predicted flows, evaluate the system's capacity, and estimate basin I/I. The temporary flow monitoring data was collected from November 16, 2018, to March 18, 2019. The "Camas Flow Monitoring Report 2019" prepared by ADS summarizes the flow monitoring program and was submitted to the City as a stand-alone report. The report can be found as Appendix D - Temporary Flow Monitoring and RDII Analysis (ADS, 2019).

3.3.1 Average Dry Weather Flow Data

Average dry weather flow projections are derived from land use category data and corresponding wastewater flow factors. This method assumes that areas with similar land uses, such as low-density residential parcels, produce equivalent quantities of wastewater flow on a per area basis. System-wide flows can be compared to recorded flows obtained from temporary collection system flow monitors, or from the treatment plant influent flow meter to verify accuracy. This method of estimating base flows is an industry standard providing sufficiently accurate data for planning purposes.

3.3.1.1 ADWF Development

Existing ADWFs for each basin were estimated using data from the Camas flow monitoring report for each of the flow monitoring basins. ADWF was then developed using the driest days from the flow monitoring period based on the following set of minimum criteria:

- Less than 0.1 inch of rain in the previous day.
- Less than 0.4 inches of rain in the previous 3 days.
- Less than 1.0 inch of rain in the previous 5 days.
- In addition, those dry days that exhibited unusual flow patterns were not used to generate net dry day flow values for a basin.

Ccarollo

Characteristic dry weather 24-hour diurnal flow patterns were developed for each basin from hourly data. The hourly flow data were also used to calibrate the hydraulic model for the observed dry weather flows during the flow monitoring period. Hourly patterns for weekday and weekend flows vary and were separated to better define dry weather flow. An example of the dry weather flow diurnal patterns from Flow Meter 5-1-1, are shown in Figure 3.1.

Carollo Engineers, Inc. (Carollo) estimated the average weekday and weekend dry weather levels and velocities at each site from the data provided by ADS for use in the model calibration process.

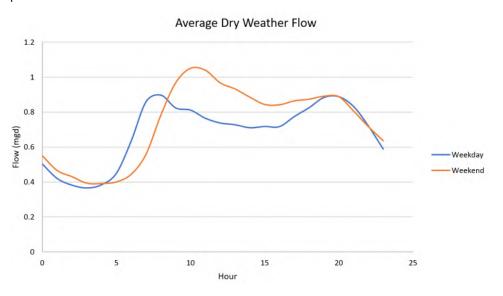


Figure 3.1 Typical Weekday vs Weekend Dry Weather Flow Variation (Meter 5-1-1)

Further detail on dry weather flow (DWF) development can be found in Appendix E - Hydraulic Model Development (Carollo, 2020).

3.3.2 Rainfall Data

An important part of the flow monitoring program is the collection and analysis of rainfall data. Three significant rainfall events occurred during the flow monitoring period, as well as other minor events. The storms recorded during this period caused an I/I response in the collection system, therefore were appropriate for I/I analysis and model calibration purposes. Further detail on the three storms used to calibrate the model can be found in Appendix E - Hydraulic Model Development (Carollo, 2020).

3.3.3 Wet Weather Flow Data

The flow monitoring data were also evaluated to determine how the collection system responds to wet weather events. As mentioned above, the flow monitoring program captured three main rainfall events. The rainfall event that occurred on December 23, 2018, was associated with the largest rainfall dependent infiltration and inflow (RDI/I) response during the flow monitoring period and is the most appropriate to be used for RDI/I analysis.

Figure 3.2 shows an example of the wet weather response at Meter 5-1-1 during the December 23, 2018, rainfall event. This figure also illustrates the volume of RDI/I that entered the system from the collection system upstream of Meter 5-1-1. The light grey line represents the



ADWF, while the green line represents the measured flow during the storm event. As can be seen in the figure, the flow increased by 4 to 8 times ADWF due to RDI/I entering the system during the wet weather events.

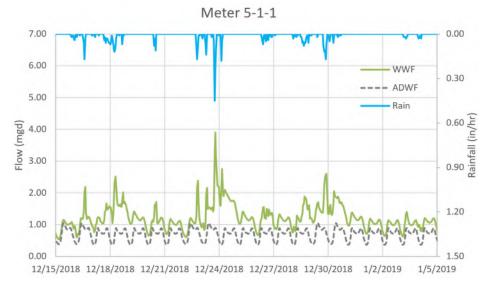


Figure 3.2 Example Wet Weather Response (Meter 5-1-1)

3.4 Collection System Flow Projections

Wastewater collection systems has several distinct flow sources based on the contributors in the service area:

- 1. Residential flow and base infiltration.
- 2. Commercial and industrial flow.
- 3. Wet weather I/I.

The flow from these sources have been grouped into these categories based on typical analytical procedures and the availability of information for each source. Residential flows include contributions from single family homes and multifamily units. The Washington State Department of Ecology (Ecology) issues discharge permits for the City's large industrial customers since the City does not have a pretreatment program in place. Wet weather I/I is caused by rainfall events and includes contributions from connected impervious areas such as roof drains and catch basins (inflow), and groundwater (infiltration) leaking into the collection system. The sum of these components is the complete flow through the collection system into the WWTF.

The flows throughout the collection system were estimated using the calibrated hydraulic model to predict dry and wet weather flows, as presented in Appendix E - Hydraulic Model Development (Carollo, 2021).

3.4.1 Sewered Population

Population projections are determined from the 2035 Comprehensive Plan, the Water SystemPlan (Carollo Engineers, 2016), and the North Urban Growth Area Buildout Memo (BergerABAM, 2014), which are summarized by year in Table 3.1. Additional details on the

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methods for population projection are available in Appendix E - Hydraulic Model Development (Carollo, 2021).

Table 3.1 Population Summary

Year	Population Projections	Source
2020	26,065	(1) (2)
2035	36,000	(3)

Notes:

- (1) Population data from the Comprehensive Plan was provided for 2015.
- (2) The 2020 population was taken from April 2020 census data. https://www.census.gov/quickfacts/fact/table/camascitywashington/PST045219.
- (3) Population data from the Water System Plan and the North Shore Population Estimate Memo was provided for 2035. Half of the North Shore area was assumed to be developed.

3.4.2 Land Use

Land use designations and regulations provide important information for evaluating sewer system capacity. Existing and future land use information is an integral component in projecting wastewater generation within the service area. The type of land use in an area will affect the volume of the wastewater generated. Adequately estimating the generation of wastewater from various land use types is important in sizing collection system facilities.

The City has six major land use categories for parcels within the UGB, as shown in Figure 3.3, which are sub-divided into the nine categories used in the 2035 Comprehensive Plan. Acreage totals for each land use category are summarized by acreage in Table 3.2.

Table 3.2 Comprehensive Plan Land Use Summary

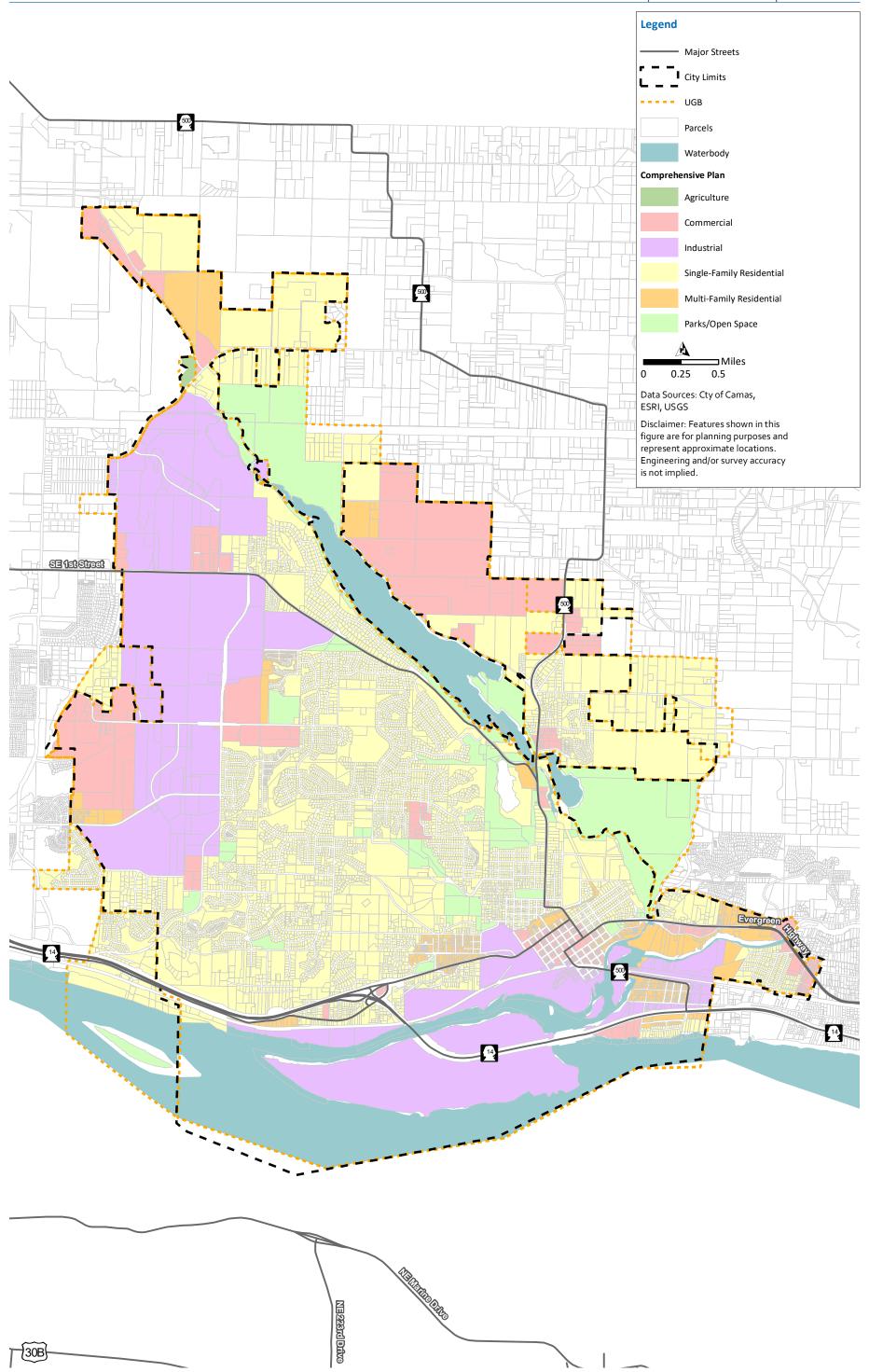
Comprehensive Plan Designation	Total Acreage ⁽¹⁾
Single Family High	425
Single Family Medium	3,617
Single Family Low	871
Multi Family High	246
Multi Family Low	279
Commercial	992
Industrial	2427
Parks ⁽²⁾	851
Open Space/Green Space	492
Gross Total	10,200
Rights-of-Way and Stormwater Facilities	-27.7% ⁽³⁾
Net Total	7,375

Notes:

- (1) Total area within each comprehensive plan designation within the urban growth boundary.
- (2) Applies only to land held in public trust.
- 3) Based on typical County infrastructure deduction used in Clark County Buildable Lands Report.

Maps of the City's existing and future land use within the Service Area were developed with data provided by the City's Planning Department. Existing development information was taken from zoning data. Additional details on developing flows by land use type can be found in Appendix E - Hydraulic Model Development (Carollo, 2020).





3.4.3 Wastewater Flow Factors

Relationships between land use and wastewater generation were developed to project wastewater flows and allocate future flows to the collection system. These relationships, called wastewater flow factors, are established based on the average wastewater flow generated for each existing land use type. The land use flow factors were established to project the estimated ADWF through future development of the City's wastewater collection system and project future flows within the Study Area boundary.

Average wastewater flow coefficients are volume rates, usually expressed in gallons per acre per day (gpad), applied to either gross or net acres to calculate average day flow generated from a particular land use. A flow coefficient was developed for each of the land use classifications that were discussed in Section 3.4.2. The flow coefficient provides a means to transform a land use category from acreage into wastewater flow. The resulting flow is then applied to the appropriate sewer area in the sewer system model. Wastewater flow coefficients for residential areas typically range between 500 to 3,000 gpad, and commercial or industrial areas might range from 1,000 to 4,000 gpad, with typical values averaging approximately 1,500 gpad. Land uses designated as open space and parks are assumed to generate negligible amounts of sewage flow, and as a result have a flow coefficient of zero. Additional detail on the development of these flow factors is provided in Appendix E - Hydraulic Model Development (Carollo, 2021). Table 3.3 summarizes the flow factors used to project dry weather flows.

Table 3.3 Wastewater Flow Factor Development Summary

Land Use Type	Developed Area (acres)	Wastewater Flow Factor (gpad)	Existing ADWF (mgd)
Single Family Low	95	450	0.04
Single-Family Medium	693	670	0.46
Single Family High	22	800	0.02
Multi-Family Low	11	1,250	0.01
Multi-Family High	123	1,520	0.19
Commercial	110	1,270	0.14
Industrial	98	1,000	0.10
Agriculture	0	0	0.00
Park/Open Space	117	0	0.00
	Total E	Estimated Existing ADWF	0.96
	Measured Existing ADWF		0.97
		Percent Difference	-0.2%

3.4.4 Industrial Customer Flows

The City currently has three major industrial customers which must submit industrial discharge monitoring reports to Ecology for various flows, constituents, and characteristics as a condition of their discharge permits. The collective AAF from these contributors is 0.92 million gallons per day (mgd) with a PDF of 1.1 mgd as shown in Table 3.4. These flows can represent a large portion of influent flows for the WWTF. Flow data was taken from available DMR data from 2017 to 2022, as reported to and recorded on the Department of Ecology's Water Quality Permitting and Reporting Information System (PARIS).



Table 3.4 **Industrial Customer Flows**

Industry	MDF (gpd)	PDF (gpd)	AAF (gpd)
Wafertech Industries	525,000	737,000	629,408
Analog Devices	222,100	381,697	288,812
nLIGHT	156	9,971	3,014
All Flows	747,256	1,128,668	921,234

Notes:

Abbreviations: gpd – gallons per day; MDF - minimum daily flow.

3.4.5 Hydraulic Model Dry Weather Flow Projections

Developing an accurate estimate of the future quantity of wastewater generated at buildout of the collection system is an important step in sizing sewer system facilities for future scenarios. To estimate ADWF for specific areas, such as individual wastewater basins, dry weather flows are typically estimated based on the area contributing to flows and flow factors developed for each land use type. This method is developed based on the assumption that areas with similar land uses, such as low-density residential parcels, produce equivalent quantities of wastewater flow. System-wide flows can be compared to known flows at flow monitors, or at the treatment plant to verify accuracy of planning flow factors based on current development and measured flows. This method of estimating base flows is an industry standard for planning and provides sufficiently accurate data for planning purposes. Table 3.5 outlines the projected ADWFs for each flow monitoring basin for current, 2035, and buildout conditions.

Table 3.5 ADWF Projections for Hydraulic Modelling

Flow Meter Basin	Existing ADWF (mgd)	2035 ADWF (mgd)	Buildout ADWF (mgd)
Basin 5-1-1	0.53	1.25	2.12
Basin 5-1-2	0.15	0.25	0.38
Basin 10-10-12	0.17	0.19	0.22
Basin 8-1-1	0.12	0.13	0.13

3.4.6 Design Storm

Design storms are rainfall events used to analyze the performance of a collection system during peak flows and volumes and have a specific recurrence interval and rainfall duration. The design storm is used for sizing projects. The National Oceanic and Atmospheric Administration (NOAA) publishes isopluvial (rainfall contour) maps that approximate the total rainfall depth for a range of storm size recurrence intervals for standardized storm durations.

The first step in the development or selection of the design storm is to define its recurrence interval and rainfall duration. The recurrence interval is based on the probability that a given rainfall event will occur or be exceeded in any given year. For example, a "100-year storm" means there is a 1 in 100 chance that a storm as large as, or larger, than this event will occur at a specific location in any year. Duration is the length of time in which the rainfall occurs.

¹Miller, J., R. Frederick, and R, Tracey. Precipitation-Frequency Atlas of the Western United States, Volume IX-Washington. Washington DC, NOAA 1973.

Discrete storm events are established based on the period of time that there is no rainfall between rain events. A 20-year recurrence interval is recommended to match the pump station life cycle sizing in Ecology's Criteria for Sewage Works Design book (Orange Book); therefore the collection system must also be able to convey a 20-year storm.

The NOAA information is based on older data and does not provide a hydrograph corresponding to the accumulated rainfall. To find a suitable storm hydrograph, a statistical analysis on historical rainfall records recorded by the City and other nearby gauges was conducted. 20-year rainfall records from the City's HYDRA Rainfall Network and a 60-year record from the Portland International Airport were used to select a 20-year occurrence rainfall event on December 6, 2015. This storm had 3.37 inches of rainfall in 24 hours, which was consistent with 20-year recurrence intervals from other regional rain gauges. However, we will refer to this event as a 10-year design storm as it aligns with a 10-year recurrence defined by NOAA.

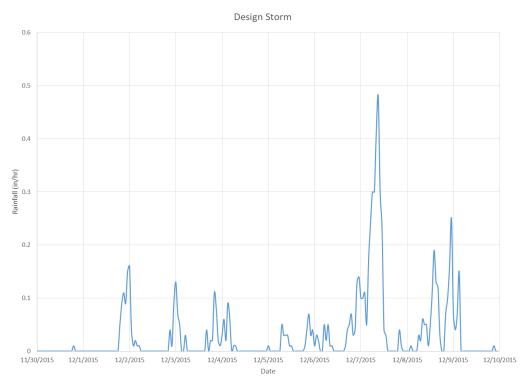


Figure 3.4 Design Storm Hyetograph

3.4.7 Hydraulic Model Wet Weather Flow Projections

To predict future Peak Wet Weather Flow (PWWF), I/I in the future service area must be defined. It is assumed that maintenance will keep up with system degradation, so no net change in I/I was used for future modeling scenarios within the existing service area. Additional area was added to the model for future scenarios in the North Shore that will add additional I/I flows into the system. The North Shore scenarios used the calibrated I/I parameters from Basin 8-1-1, as Basin 8-1-1 has a low I/I response indicative of recent construction. This corresponded to an I/I flow rate of 2000 gpad. Table 3.6 outlines the projected PWWF's for each flow monitoring basin for current, 2035, and buildout conditions. To properly convey the flows throughout the system to find the true peaks, significant upsizing was done on the piping and pump station capacity to eliminate hydraulic restrictions.



Table 3.6 PWWF Flow Projections for Hydraulic Modelling

Flow Meter Basin	Existing PWWF (mgd)	2035 PWWF (mgd)	Buildout PWWF (mgd)
Basin 5-1-1	4.63	11.38	12.76
Basin 5-1-2	0.39	1.51	1.66
Basin 10-10-12	0.54	0.56	0.59
Basin 8-1-1	0.43	0.44	0.44

3.4.8 Hydraulic Model Flow Projections Summary

Table 3.7 presents the total projected ADWF and PWWF for the three planning periods for the modeled portion of the system (gravity and Septic Tank Effluent Pump [STEP] that is upstream of gravity). The table also includes the ratio between PWWF to ADWF, called the Peaking Factor, which ranges from 5.7 to 8.2.

Table 3.7 Flow Projections Summary

Planning Horizon	ADWF (mgd)	PWWF (mgd)	Peaking Factor (PWWF:ADWF)
2018	0.80	5.45	6.8
2035	1.63	13.33	8.2
Buildout	2.63	14.86	5.7

3.5 WWTF Flow and Load Projections

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The City's WWTF receives flows from the gravity collection system, septic tank effluent, and the septage receiving station. The sum of these flows is greater than the collection system flow projections because that analysis only focused on the portion of the system included in the hydraulic model and did not include septic tank flows, which make up to 50 percent of the total influent flow. Thus, load and peak hour flow projections were developed independently for the WWTF based on measured influent flows and wastewater characteristics, typical septage and STEP system characteristics, and population growth projections. The City expects that half of additional plant flow from population growth within the service area will come from the gravity sewer system, while the other half of the additional flow will come from the STEP system.

The influent flow projections developed for the WWTF are summarized in Table 3.8. Note that the 2035 PHF projection was developed by multiplying the projected PDF of 10.8 mgd by a diurnal peaking factor of 1.25 recorded during a peak flow event in February 2017. Additionally, it is assumed that no additional flow enters the collection system due to inflow and infiltration (I/I) as the City mitigates existing sources of I/I and installs new sewer and STEP system connections which do not contribute to overall I/I.

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Table 3.8 **WWTF Influent Flow Projection**

Flow Parameter	2021 Flow (mgd)	2035 Flow (mgd)
ADWF	2.2	3.4
AAF	2.8	4.0
MMF	4.8	6.2
PDF	8.4	10.8
PHF	10.0	13.5

Wastewater loading data are important for sizing several critical treatment processes. The wastewater loading components of principal interest are the 5-day biological oxygen demand (BOD₅), the total suspended solids (TSS), and ammonia (NH4). Influent loading was projected using the same method described for influent flow projections. Historical values for BOD₅, TSS, and NH₃ and projections to 2035 are detailed in Table 3.9 and Figure 3.5 below.

Table 3.9 Current and Projected WWTF Loads

Load Parameter	2021 Load (ppd)	2035 Load (ppd)
Sewered Population ⁽¹⁾	18 , 900 ⁽¹⁾	36,000
BOD₅ (ppd)		
Average Annual	2,400	6,000
Max Month	3,300	8,200
Max Week	4,300	10,600
Peak Day	5,300	13,000
TSS (ppd)		
Average Annual	2,400	6,300
Max Month	3,300	10,500
Max Week	4,300	17,000
Peak Day	5,300	19,300
Ammonia (ppd)		
Average Annual	900	1,400
Max Month	1,100	2,000
Peak Day	1,800	4,300
Notes:		

Current sewered population is based on 2035 Comprehensive Plan.



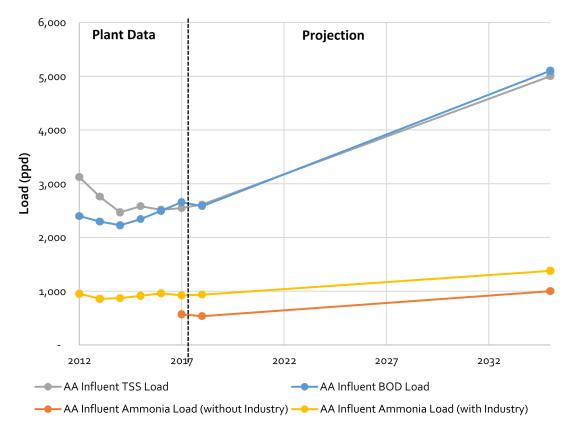


Figure 3.5 Current and Projected WWTF Loads

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Chapter 4

EXISTING SYSTEM

4.1 Introduction

The purpose of a sewage collection system is to adequately convey sewage to locations where it can be treated and safely discharged. This chapter describes the City of Camas's (City's) existing sewer collection system, adjacent sewer service areas, and wastewater treatment facility (WWTF). The City's collection system utilizes both conventional gravity sewer with lift stations (LS) as well as Septic Tank Effluent (STE) Pumping Stations (STEP), Septic Tank Effluent Filter Systems (STEF), and Septic Tank Effluent Gravity Systems (STEG) to convey wastewater to the WWTF. These systems are influenced by the natural environment, critical areas, and the service area which are summarized in this Chapter.

This chapter will serve as the framework on which to base the General Sewer Plan (Plan), which was last updated in 2010. These considerations establish the basis of planning for the demographic and system analysis which will be the framework for identifying potential for development within the established service area. Consideration for the adequacy of the system to serve the anticipated development within the service area study boundaries is also reliant upon existing system characteristics.

4.2 Sewer Service Area

The City's service area is shown in Figure 4.1. The service area contains approximately 7,400 acres. The current service area includes the City limits and the future service area extends to the Urban Growth Area (UGA). Adjacent sewer systems include City of Vancouver, the Discovery Clean Water Alliance (CWA), and City of Washougal. These systems are described in greater detail in Section 4.5.

4.3 Collection System

The City's sewer system is comprised of four major facility types:

- 1. Conventional Gravity Sewer.
- 2. STE Systems.
- 3. STEP Transmission Mains.
- 4. Lift Stations (LS) with Force Mains.

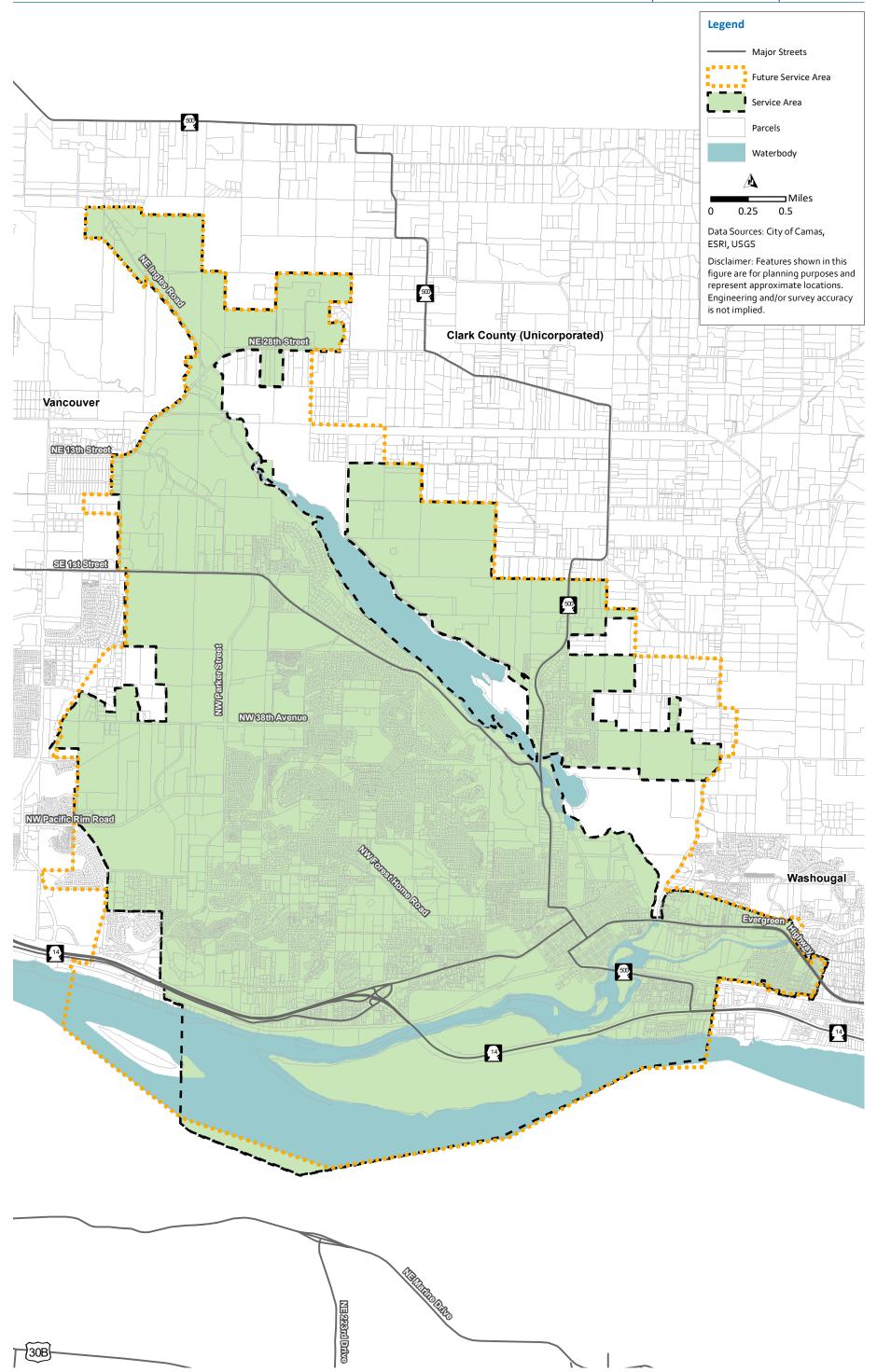


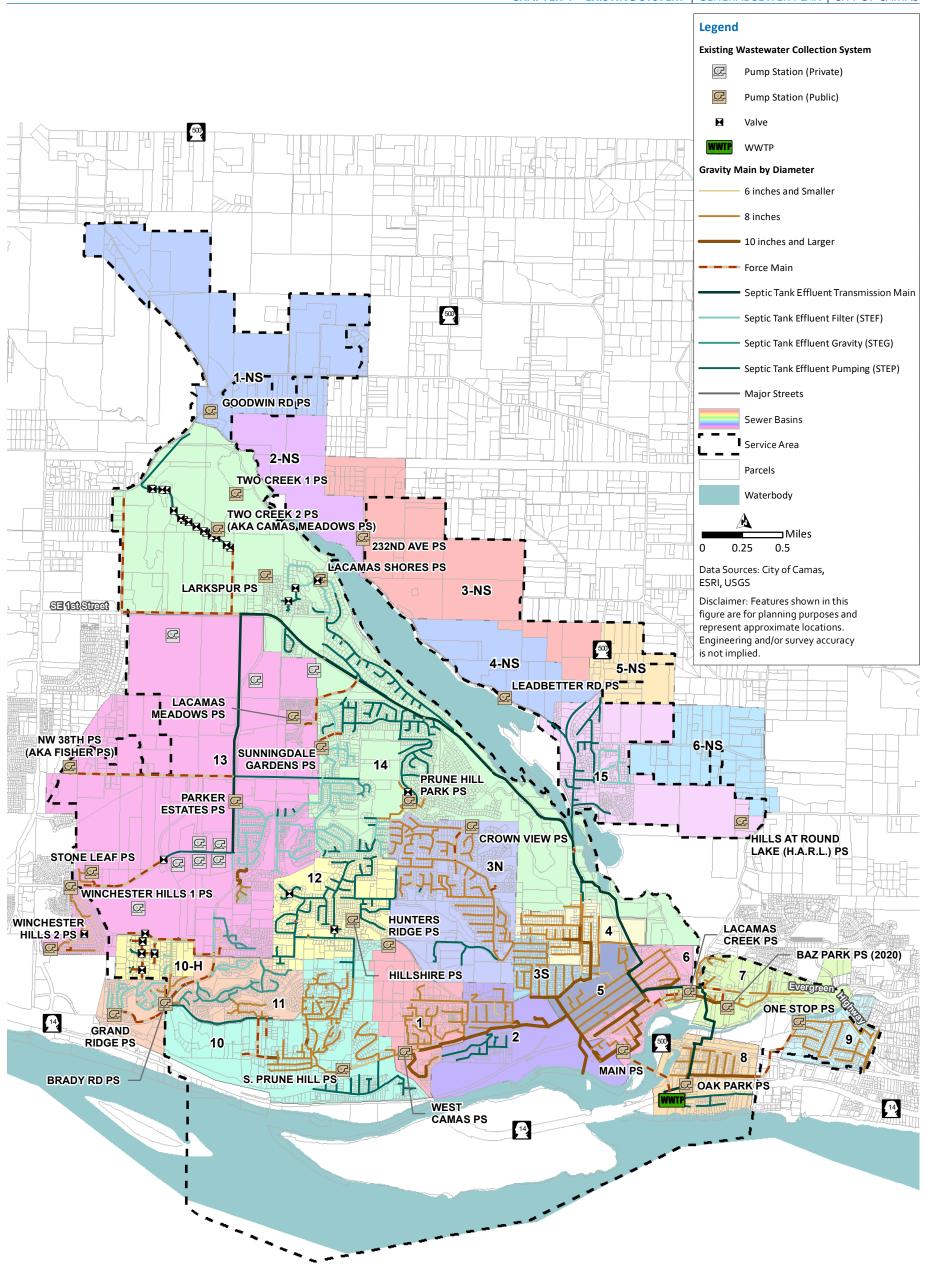
The conventional gravity sewer system is the most common sewer conveyance method in the region and relies on a downward slope throughout the profile to convey flow to a WWTF or intermediate LS. In addition to the conventional gravity sewer system and LS, three STE systems are utilized in the City's collection system: STEF, STEG, and STEP, which are explained in further detail in Section 4.3.2. Twenty-nine LS are located within the service area which convey sewage and STE for treatment where gravity sewers are not effective. Properties within the sewer service area outside of the gravity sewer portion of the City's collection system use on-site septic tank systems which provide some wastewater treatment, solids settling, and digestion. Similar to LS, STEP systems allow service where gravity systems may not be effective, or which were originally located outside the public boundaries of a public sewer system service area.

Figure 4.2 and Table 4.1 below details the pipe infrastructure in the City's system by sewer type. As previously mentioned, the infrastructure is predominantly gravity sewer and nearly half of the City's pipelines serve STE systems.

Table 4.1 Summary of Pipe Infrastructure by Type

Sewer Type	Pipe Length (feet)	Pipe Length (miles)
Gravity Main	236,200	44.7
Force Main	38,260	7.2
STEP Main	255,070	48.3
STEP Bypass Main	8,040	1.5
Total	537,570	101.8





4.3.1 Gravity System

Portions of the system served by conventional gravity sewers date from its beginning in the 1920's and includes the following basins identified in Figure 4.2: Downtown, Oak Park, Parkers Landing, basins along the Columbia River and State Route (SR) 14, and portions of Prune Hill. The North Shore area is and will continue to be served from conventional gravity sewers. Properties served by STE systems are located on the northern and western sides of the City.

The earliest portions of the gravity sewer system was constructed with vitrified clay pipe (VCP). Much of this VCP was later replaced with cast iron, concrete, and eventually polyvinyl chloride (PVC). Therefore, the relative age of sanitary sewer can be identified by the material type. The system utilizes a pipe diameter ranging from four inch to 24-inch segments where the majority of the system is eight inches or less in diameter. A summary of pipe infrastructure by diameter is shown in Table 4.2.

Pipe Diameter (inches)	Pipe Length (feet)	Pipe Length (miles)
4	40	0.01
6	13,760	2.6
8	191,920	36.3
10	9,380	1.8
12	9,640	1.8
15	2,610	0.5
18	3,570	0.7
21	3,140	0.6
24	1,150	0.2

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Table 4.2 Summary of Gravity Sewer Infrastructure by Size

4.3.2 STE Systems

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Starting in the 1985, the City required new customers in the western portion of the service area to be served using the STE system. Due to the City's topography and shallow bedrock, the STE systems allowed the City to serve areas without the costly installation of gravity sewers. The three STE systems address site specific challenges within the City's collection system. STEP systems consist of a septic tank equipped with a pump at the outlet to convey effluent flows to the STEP transmission main, rather than an on-site drain field. STEG systems consist of a septic tank with an outlet that conveys effluent flows by gravity to the STE transmission main. STEF systems utilize a siphon to convey effluent flows to the STE transmission main. Figure 4.2 shows the STEF, STEG, and STEP systems and STE transmission mains within the City's conventional gravity collection system.

The City owns and maintains residential STE systems. The City pumps out the septage from the STE systems on a five-to-seven-year cycle. Commercial and Industrial systems are owned and maintained by the property owner. The City receives and treats septage from both systems at the WWTF.



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Table 4.3 Summary of STE Infrastructure by Size

Pipe Diameter (inches)	Pipe Length (feet)	Pipe Length (miles)
Unknown	40	0.01
1	1,880	0.4
2	50,235	9.5
3	9,740	1.9
4	23,680	4.5
6	57,440	10.9
8	40,980	7.8
10	25,950	4.9
12	320	0.06
18	2,450	0.5
21	230	0.04

4.3.3 STEP Transmission Main

The STEP transmission main is a transmission main that conveys STE system flows and major industrial dischargers to the WWTF. The pressurized transmission main is shown in Figure 4.2, The STEP main is approximately 36,970 linear feet in length and is 21-inches to 24-inches in diameter. The transmission main conveys flows directly to the WWTF without receiving flows from the other sewer systems.

4.3.4 Lift Stations

The City currently operates twenty-nine LS, whose characteristics are summarized in Table 4.4. Of these twenty-nine LS, thirteen serve the gravity system and fifteen serve the STE systems. One LS is dedicated to odor control. The LS are identified in Figure 4.2. There are approximately 51,460 ft, or 9.7 miles, of force main associated with the LS ranging from 4-inches to 18-inches in diameter. The majority of LS serve relatively small service areas and have capacities less than 500 gallons per minute (gpm). The Main LS, with a capacity of 7,700 gpm station, conveys the majority of the gravity system to the WWTF through an 18-inch diameter force main under Lacamas Creek.

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Table 4.4 Summary of Lift Stations

	Lift Station	Location	Basin Number	STE or RAW	Quantity of Pumps	Pump Motor Size (HP)	Pump Capacity (gpm, ea.)	Total Station Capacity (gpm, 1 standby)	TDH (feet)
1	232nd Avenue	Near 618 NE 232rd Avenue	2-NS	RAW	2*	15.2	365	365	87
2	Baz Park	1906 NE 3rd Loop	7	RAW	2	7.5	488	488	38
3	Brady Road	919 NW Brady Road	11	STE	2	35	511	511	60
4	Camas Meadows	6902 NW Morgan Way	14	STE	2	35	221	221	222
5	Crown View	3222 NW Ivy Lane	3	RAW	2	20	222	222	124
6	Fisher	5870 NW 38th	13	STE	2	23	126	126	206
7	Goodwin Rd	2305 NE Goodwin Road	1-NS	RAW	2*	15.2	300	300	94
8	Grand Ridge	843 NW Grande Ridge Road	11	STE	2	11	133	133	160
9	Hills at Round Lake (HARL)	1960 NE Tanoak Drive	15	STE	2	11	256.9	256.9	93.2
10	Hillshire	2303 NW Artz Court.	12	RAW	2	10	175	175	70.1
11	Hunters Ridge	2021 NW 17th Avenue	1	RAW	2	23	152	152	174
12	Lacamas Creek	1641 NE 3rd Avenue	7	RAW	2*	25	950	950	67
13	Lacamas Meadows	3263 NE 45th Avenue	13	STE	2	23	173	173	203
14	Lacamas Shores	6230 NW El Rey Drive	14	STE	2	23	195	195	168
15	Larkspur	6162 NW Larkspur	14	STE	2	23	264	264	154
16	Leadbetter Rd	1050 SE Leadbetter Road	4-NS	RAW	2*	26.6	605	605	111
17	Lower (aka South) Prune Hill	2381 NW 6th Place	10	RAW	2	10	600	600	39
18	Main Station	480 SE 3rd Avenue	5	RAW	3	125	3850	7700	85
19	Oak Park	907 SE Polk Street	8	RAW	2	10	350	350	57
20	One Stop	200 SE Yale	9	RAW	2	5	231	231	36.2
21	Parker Estates	3436 NW Parker	13	STE	2	20	339	339	103
22	Prune Hill Park	3403 NW Sierra Drive	14	STE	2	7.5	350	350	53
23	Stone Leaf	5713 NW 26th Avenue	13	STE	2	23	423	423	81.2
24	Sunningdale Gardens	4043 NW Dahlia Loop	14	STE	2	10	260	260	63
25	Two Creeks	7402 NW Morgan Way	14	STE	2	10	166	166	70.7
26	West Camas	1625 NW 6th Place	1	RAW	2	30	1000	1000	74
27	Winchester Hills 1	19617 SE 34th Street	13	STE	2	6.5	97.9	97.9	66.7
28	Winchester Hills 2	19320 SE 42nd Circle	13	STE	2	5	125	125	65
29	Remote Odor Control Station	325 NE 23rd Avenue	14	N/A	N/A	N/A	N/A	N/A	N/A



4.4 Wastewater Treatment Facility

The City's WWTF is located along the Columbia River in the southeastern portion of its sewer service area. The WWTF was originally constructed in 1972 and has had several modifications since that time. The first major upgrade and expansion of liquid stream processes was completed in February of 2000. A subsequent Phase 2A upgrade, primarily addressing solids treatment, including anaerobic digesters and sludge drying facilities, was completed in 2012. Phase 2B, completed in 2014 improved blower controls, added a third secondary clarifier, new effluent filters, and digester gas treatment facilities.

The facility process flow diagram is shown in Figure 4.4. An aerial view of the WWTF with each unit process and building identified is shown in Figure 4.5. The liquid stream treatment begins with climbing bar screens at the plant headworks to remove larger material which is washed, compacted, and disposed of at a landfill. Primary solids-liquid separation occurs in two circular primary clarifiers with the primary effluent discharging to a splitter box where it is combined with return activated sludge (RAS) from the secondary clarifiers (SC) and split between three aeration basins (ABs), where biomass is aerated to promote biological oxidation and improve water quality. Secondary treatment in the ABs consists of influent channel selector zones followed by two aerated and three anoxic zones to remove carbonaceous material and reduce ammonia concentrations. Magnesium hydroxide (Mg(OH)₂) is added at the SC splitter box to provide supplemental alkalinity.

Mixed liquor from the three ABs is combined and split between three secondary clarifiers. The three clarifiers provide separation of the biomass from the secondary treatment processes (termed activated sludge) and discharge of liquid effluent to two mechanical disc filters. Ultraviolet (UV) disinfection is provided in an open channel system with four banks of UV lamps prior to discharge to the outfall in the Columbia River.

The effluent either flows by gravity or is pumped to the outfall via the three effluent pumps, which are operated with two duty and one standby configuration. Transitions between gravity and pumped effluent flow are performed automatically when the pumps are placed in "auto" mode. When the Columbia River level rises, gravity effluent discharge is stopped by closing the flap gate in the effluent manhole. The existing outfall is a 36-inch corrugated metal pipe (CMP) and extends approximately 850 feet south into the Columbia River channel. The diffuser portion of the outfall is located along the outer 150 feet of the pipe and is equipped with 16 vertical risers, with each oriented vertically with rubber Tideflex check valve-type nozzles. The vertical risers discharge effluent perpendicular to the flow of the Columbia River.

Solids from the primary clarifiers are first conveyed to two hydro-cyclones and a classifier for degritting then thickened in the gravity thickener. Thickened primary sludge (TPS) is then pumped to anaerobic digesters. Solids from the secondary clarifiers are moved by a sludge-scraper mechanism to a wet well and then withdrawn by pumps. The settled solids (RAS) are pumped back to the aeration basin splitter box. Excess activated sludge wasted (WAS) from SC Number 3 is sent to a storage tank and thickened in a rotary drum thickener. Thickened primary and secondary solids are then combined in anaerobic digesters for stabilization, removal of volatile solids, and production of biogas. Dewatering of the digested sludge is accomplished through a centrifuge and then conveyed to a belt dryer, which evaporates most of the remaining water content in the biosolids. The dewatered and dried biosolids are dried to achieve Class A



and are hauled off-site for land application. Odors are controlled at the plant through unit-specific odor control ductwork. The odorous air is then blown through a bark media biofilter.

The unit capacity for each major unit at the WWTF is summarized in Table 4.5.

Table 4.5 Unit Process Capacity

Unit	Number of Units	Design Criteria ⁽¹⁾
Bar Screens		
Climbing Bar Screens	2	• Perforation Size: 1/4 in (6 mm)
Manual Coarse Bar Screen (Bypass)	1	Bar Spacing: 3/4 in (19 mm)
Primary Clarifiers	2	Diameter: 60 ft (each)Depth: 10 feetVolume: 211,500 gallons
Aeration Basins	3	• Volume: 100,800 ft³ (each)
Aerobic	3	• Total Volume: 176,400 ft ³
Anoxic	2	• Total Volume: 108,360 ft ³
Selector (SAx)	3	 SAx-1 Volume: 2,700 ft³ SAx-2 Volume: 1,600 ft³ SAx-3 Volume: 4,500 ft³ SAx-4 Volume: 9,000 ft³
Secondary Clarifiers		
SC Number 1	1	Diameter: 75 feetDepth: 13 feetVolume: 424,000 gallons
SC Number 2	1	Diameter: 75 feetDepth: 17 feetVolume: 461,800 gallons
SC Number 3	1	Diameter: 75 feetDepth: 14 feetVolume: 462,700 gallons
Effluent Disc Filters	2	 Capacity: 3.0 mgd (each)
UV Disinfection ⁽¹⁾	4	 Peak Day Process Flow: 10.04 mgd
Hydrocyclones	2	Capacity: 220 gpm
Gravity Thickener	1	Diameter: 30 feetDepth: 10 feet
Anaerobic Digesters	2	• Volume: 24,500 ft³ (each)
Centrifuge	1	Capacity: 130 gpm
Rotary Screen Thickener	1	• Capacity: 100-300 gpm
Notes: Abbreviations: ft³ - cubic feet; mm - millimeter.		

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CHAPTER 4 – EXISTING SYSTEM | GENERAL SEWER PLAN | CITY OF CAMAS

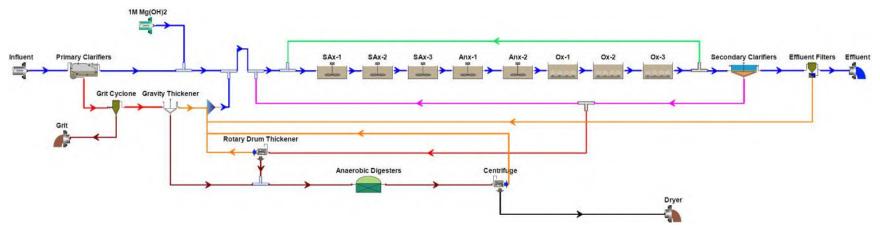


Figure 4.4 BioWin Process Flow Diagram





Figure 4.5 WWTF Aerial Image with Site Plan

4.4.1 Recent Plant Upgrades

As noted, several upgrades have taken place at the WWTF since the previous General Sewer Plan (Gray and Osborne, 2010), which have increased capacity and efficiency:

- **WWTF Improvements Phase 2A (2012):** Several improvements took place with this design to improve the following:
 - The addition of solids handling equipment which includes a rotary screen thickener, two anaerobic digesters, a waste gas burner, and sludge holding tank.
 - Modifications to headworks which includes the addition of Bar Screen No. 2 and Washer/Compactor No. 2.
 - Installation of the Plant Drain Pump Station No. 2, Biofilter No. 2, and the Septage/Centrate/ WAS Storage Tank.
 - Reduction to the height of the aeration basins (AB) and the addition of baffle walls within the selector zone.
- **WWTF Improvements Phase 2B (2014):** This project focused on modifications to the sludge storage area, the addition of Secondary Clarifier No. 3, modification of Secondary Clarifier No. 2, and addition of two effluent disk filters.
- Installation of a Thermal Dryer (2012): This allowed the facility to produce Class A
 Biosolids for land application.

Additionally, two studies have been completed focusing on assessing the condition of equipment. The WWTF and Pump Station Condition Assessment Report (HDR, 2018) recommended several improvements in the immediate term which include an odor control evaluation, polymer usage evaluation, replacement/upgrading grit hydrocyclones and classifiers, modeling of the AB's, blower filter replacement, a cross connection evaluation, supervisory control and data acquisition (SCADA) upgrade, replacement of variable frequency drive (VFDs) in the equipment building and plant effluent building, and replacement of pH and dissolved oxygen (DO) analyzers. An additional condition assessment was completed on the gravity thickener which identified six major components which were severely deteriorated as well as the conduit and wiring within.

4.4.2 Plant Flows

The WWTF receives influent flows from the Main and Oak Park pump stations and a septage truck unloading station. STEP flows in the collection system are conveyed to the plant through the Main and Oak Park pump stations. The combined flow from the pump stations and septage truck unloading station are measured by a Parshall flume. The combined flow measured by the Parshall flume is recorded as the WWTF influent flow.

The WWTF has a five-year average annual flow (AAF) of 2.8 mgd from the collection system with approximately 33 percent of the AAF from industrial users. This relatively high percentage of industrial users increases the influent ammonia concentrations but decreases the total suspended solids (TSS) and biochemical oxygen demand (BOD) concentrations resulting in a high nitrogen and low carbon influent compared to a typical municipal facility. The previously described STEP and STEF system which contributes nearly 60 percent of the average day dry weather influent flows also contributes to unique influent characteristics when brought into the facility due to an estimated 35 percent reduction of BOD in the 5-day test (BOD $_5$) and a 60 percent reduction of TSS in the septic tank. Although septic tank solids are also returned to the facility through septic delivery, these solids also have reduced BOD $_5$ and TSS loadings due to



the nearly five-year detention time. National Pollution Discharge Elimination System (NPDES) effluent discharge limitations, prohibitions, and requirements are similar to other municipal facilities with standard 30/30 monthly TSS and BOD concentration limits with a mandatory 85 percent reduction in each. However, the WWTF has ammonia limits of 20 mg/L (NH $_3$ as N) in the summer and seven mg/L (NH $_3$ as N) in the winter.

4.4.3 NPDES Violations

The current NPDES permit was effective October 1, 2015, and expired September 30, 2020, but as of February 2022 the City is working with Ecology on an extension request. The plant has had few permit violations since issuance of the latest permit, with the last violation occurring in October 2019. These violations include minimum pH value, average monthly ammonia concentration, average weekly TSS concentration and load, and average weekly BOD₅ concentration and load. A list of permit violations is shown in Table 4.6. The violations in 2017 occurred due to a toxic slug introduced in the influent which reduced the viable mixed liquor population resulting in floating sludge and higher than expected discharge concentrations from the secondary clarifiers which overwhelmed the filters pushing a higher percentage of flow through the filter by-pass.

Table 4.6 Five-Year NPDES Permit Violation Summary

Violation Date	Type / Parameter	Measurement Value ⁽²⁾	Effluent Limit ⁽²⁾	
October 2019	pH Daily Minimum	5.9	6 (min)	
February 2018	Ammonia Winter ⁽¹⁾ Monthly Average	13.2 mg/L	7 mg/L	
February 2017	TSS Weekly Average	51.5 mg/L 3,532 ppd ⁽²⁾	30 mg/L 1,525 ppd	
February 2017	bruary 2017 BOD₅ Weekly Average		30 mg/L 1,525 ppd	

Notes:

4.5 Adjacent Sewer Service Areas

Four sewer service areas with their own WWTFs are within a 20-mile radius of the Camas WWTF. All of the facilities listed in Table 4.7 have Columbia River outfalls. Distances vary from the closest, Washougal WWTF, approximately 3.5 miles away, to the farthest, Salmon Creek WWTF, approximately 20 miles away.

Table 4.7 Adjacent Service Areas WWTFs

Abbreviations: MMF - maximum monthly flow.

Facility/Service Area	MMF (mgd) ⁽¹⁾	Biological Treatment Process	Disinfection	Biosolids	
Salmon Creek (Clark County)	10.3	Aeration Basins	UV	Land Applied	
Marine Park (Vancouver)	16.1	Aeration Basins	UV	Incinerated	
Westside (Vancouver)	28.3	Aeration Basins	UV	Incinerated	
Washougal	2.2	Oxidation Ditch	UV	Lagoon	
Notes:					

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⁽¹⁾ Winter Ammonia limits apply to the months of October through May. Abbreviations: mg/L - milligrams per liter; ppd - pounds per day.

All of these nearby treatment facilities utilize activated sludge treatment processes and UV disinfection; however, the greatest variation in treatment can be seen in the processing of biosolids. Salmon Creek WWTF operates similarly to Camas through the land application of biosolids. Marine Park and Westside incinerate of solids produced at those City of Vancouver facilities.

4.5.1 City of Vancouver

The City of Vancouver currently uses 716 miles of sanitary sewer and forty-one pump stations to convey sewage to Vancouver's Marine Park and Westside WWTFs. Vancouver's collection system is divided into three basins currently: the Westside Basin, Eastside Basin, and Diversion Basin. Wastewater generated in the Eastside Basin is conveyed to and treated exclusively at the Marine Park facility. Diversion Basin wastewater is conveyed to and treated at either the Marine Park or Westside WWTF. Westside Basin sewage is conveyed to and treated exclusively at the Westside Treatment Facility.

The largest nearby treatment facility is Westside in Vancouver at 28.3 mgd average annual flow. Altogether, Marine Park and Westside WWTFs serve 195,000 residents per2022 census data. Currently, Marine Park does not treat its solids on-site and instead conveys them to Westside through a force main and gravity sewer. Once at Westside, a fluidized bed furnace incinerates scum and solids from the primary and secondary clarifiers at both plants.

4.5.2 City of Washougal

The City of Washougal currently operates fourteen LS throughout the City and conveys sewage through more than 1.5 miles of force mains to the Washougal Treatment Plant. The treatment plant consists of an oxidation ditch followed by a secondary clarifier and UV disinfection. Similar to other pants in the region, effluent is discharged to the Columbia River.

4.5.3 Clark County

Clark County formed the Discovery Clean Water Alliance (CWA) in January 2013 to provide framework for regional wastewater collection. The CWA serves unincorporated Clark County, the City of Battle Ground, the City of Ridgefield, and Clark Regional Wastewater District.

Nearby Salmon Creek WWTF is part of the CWA and serves approximately 100,000 residents. Although the average annual flow is typically between 8-10 mgd, the plant has the capacity to treat up to 15 mgd. Future expansion is underway to improve the Columbia River outfall as well as increase capacity to 17.5 mgd. Odor control will be built as well due to odorous air present particularly during the summer and early fall.

4.6 Natural Environment and Critical Areas

Topics considered to describe the existing system's natural environment include topography, soils and geology, and climate including rainfall. Critical areas within the natural environment highlight the connection between the sewer system and these characteristics. Critical areas include wetlands, critical aquifer recharge areas (CARA), geologically hazardous areas, frequently flooded areas, and fish and wildlife habitat conservation areas.



4.6.1 Natural Environment

Relatively steep topography with slow to moderate infiltration rates comprise a majority of the City's geography. The City enjoys moderate temperatures between the average high of 62 degrees Fahrenheit (°F) and average low of 37°F. Heavy rainfall, characteristic of the Pacific Northwest region, provides an average annual precipitation of 84 inches while snowfall is not typically heavy, annually averaging 9 inches.

4.6.1.1 Topographical Characteristics

As shown in Figure 4.3, elevation ranges from slightly above sea level (20 feet) to greater than 750 feet in the City. Steep slopes comprise a large portion of the landscape which range from 5 to 15 percent. A relatively flat plateau is present at the most central portion of the City near Prune Hill while the older, denser zones lie along the Columbia River. Similarly, the UGA was developed on a steep slope with the plateau at 470 feet elevation residing just outside of the City Limits.

4.6.1.2 Soils and Geology

According to the National Resources Conservation Service (NRCS), Clark County is approximately 5 percent cinebar stony silt loam with 30 to 70 percent slopes. However, the City is a much higher percentage of Lauren gravelly loam from 0 to 8 percent slopes and Hesson Clay loam from 0 to 8 percent slopes. These soil types are categorized as hydrological soil groups B and C, respectively, which indicate slow to moderate infiltration rates when wet with a slow to moderate rate of water transmission. This indicates moderate runoff coefficients for the region. Additional details on the soil groups are available in Figure 4.2.

4.6.1.3 Climate

The City's climate is characterized by a combination of rainfall, wind, and temperature patterns for the nearby region. The average high temperature is 62°F and the average low is 37°F. The temperature is known to vary from 36°F to 84°F throughout the year with a warm season from June to September. Altogether, summers last approximately three months with warm weather and winters are cold with the heaviest rainfall occurring late November or early December.

Historical precipitation data was gathered from Airport Way #2 Rain Gage (Station 111) of the City of Portland HYDRA Rainfall Network. The average five-year rainfall patterns indicate the November through February period averaging five inches per month or more with a peak in January at approximately 6.4 inches. The maximum annual rainfall occurred in 2017 at 53.24 inches total which is 32 percent greater than the average. The driest month of the year is typically July with no rainfall recorded for 2017 and 2018. The average annual rainfall patterns are detailed in Table 4.4. Average annual snowfall is nine inches and average annual precipitation is approximately 84 inches.

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Table 4.8 City of Portland Station Precipitation 2017-2022

Year	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Annual
2017	4.25	11.63	9.02	5.33	2.64	1.49	0	0.12	2.54	5.33	7.06	3.83	53.24
2018	6.08	2.85	3.16	5.54	0.27	1.99	0	0.08	1.11	3.61	3.29	6.09	34.07
2019	3.31	5.2	1.7	4.46	1.77	2.13	0.28	1.25	3.85	1.8	1.73	4.73	32.21
2020	9.6	2.59	3.37	1.29	3.42	3.11	0.04	0.59	2.53	1.92	6.14	6.03	40.63
2021	7.64	4.36	2.41	0.5	1.6	0	0.02	0.09	4.09	4.87	7.8	8.89	42.27
2022	7.25	3.14	-	-	-	-	-	-	-	-	-	-	-
Average	6.36	4.96	3.93	3.42	1.94	1.74	0.07	0.43	2.82	3.51	5.20	5.91	40.30
Minimum	3.31	2.59	1.70	0.50	0.27	0.00	0.00	0.08	1.11	1.80	1.73	3.83	16.92
Maximum	9.60	11.63	9.02	5.54	3.42	3.11	0.28	1.25	4.09	5.33	7.80	8.89	69.96



4.6.2 Critical Areas

Critical areas define crucial components for planning in an area including protected lands, e.g., wetlands, CARAs, and conservation areas, as well as areas with greater risk to its inhabitants, e.g., frequently flooded areas and geologically hazardous areas. Identifying these areas allows for the mitigation of unnecessary risk or harm to protected lands; additionally, policies in the *Camas 2035 Comprehensive Plan* (Camas, 2016) outline goals to protect and restore these sites.

4.6.2.1 Wetlands

Ecology currently rates wetlands based upon several key factors including their 'ability to be replaced, sensitivity to disturbances, rarity, functional performance, and importance in biodiversity' (Ecology, 2006). These levels include categories I-IV with a Category I wetland requiring the greatest protection. As defined by the wetland rating system, Category I wetlands have valuable biodiversity and hydrogeomorphic functionality in pollutant removal, stormwater storage, and even buffering natural disasters.

Within the City, there are >1,200 acres of recognized wetland which are protected by several local, state, and federal ordinances and laws including the Growth Management Act, Critical Areas Ordinance, Clean Water Acts, and City municipal code (CMC) 18.31.050. These regulations entail the study of a wetland's functionality and that adverse impacts be avoided or reduced. Figure 4.6 illustrates the City's wetlands delineated using reports filed with the city and published data.

4.6.2.2 Critical Aquifer Recharge Areas

The majority of raw water supply for the City is provided by groundwater resources. This critical resource is protected by the CARA ordinance and the CMC. CMC 16.70.050 focuses on Aquifer Recharge Areas and required reports for proposed activities.

CARAs are located in multiple regions of the City and surrounding areas. Currently, two wellhead protected areas are within the City limits with the southernmost protected area extending beyond the UGA. Figure 4.4 shows these regions in relation to wells which serve more than 20 people.

4.6.2.3 Frequently Flooded Areas

Frequently flooded areas are defined as regions with >1 percent chance of flooding per year. These regions are near surface water bodies which include Lacamas Lake, Columbia River, Washougal River, Jones Creek, Boulder Creek, Round Leaf Lake, and Fallen Leaf Lake. Due to low elevations, portions of the southeastern region of the City are located within the 100-and 500-year Federal Emergency Management Agency (FEMA) floodplain. Construction regulations focus on decreasing flood hazards of the structure which area detailed in a critical area report.

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4.6.2.4 Geologically Hazardous Areas

Geologically hazardous areas are typically defined by the possibility of natural disasters including earthquakes and volcanic activity. These hazard potentials are then increased by the presence of steep slopes prone to landslide, particular soil groups prone to liquefaction, and other circumstances which have the potential to compound emergency scenarios. The United State currently operates on a Category 1-4 system to determine building code stringency as it pertains to natural disasters where category 4 is the most stringent. The City is rated as a Category 4 which indicates a high potential for landslides and other events.

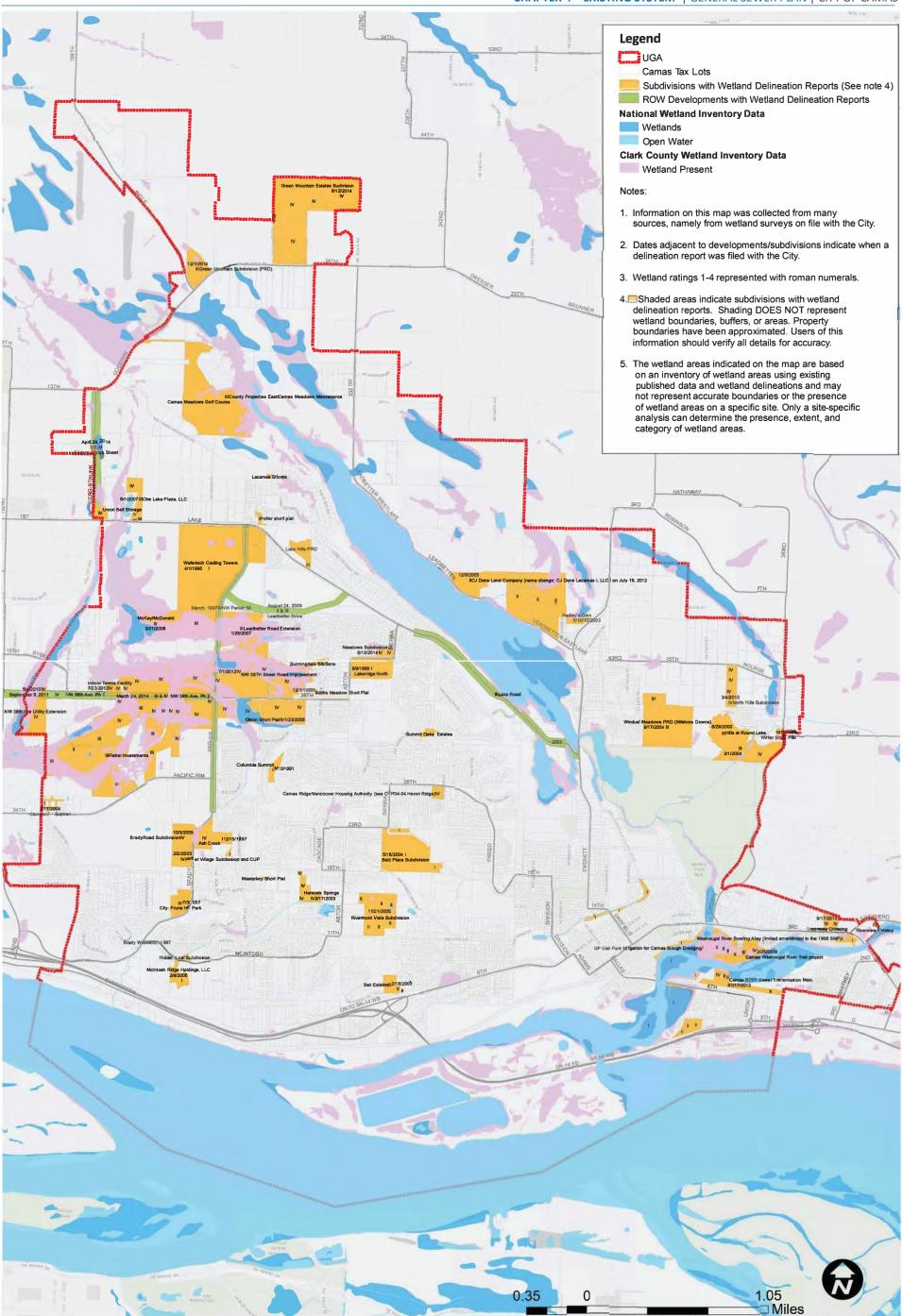
In Chapter 40.430, Clark County defines three types of geologic hazard areas which include seismic, landslide, and steep slope. The county's Geologic Hazard regulation requires developers to have a Geologic Hazard Area Study completed on any property which is identified in a hazard area.

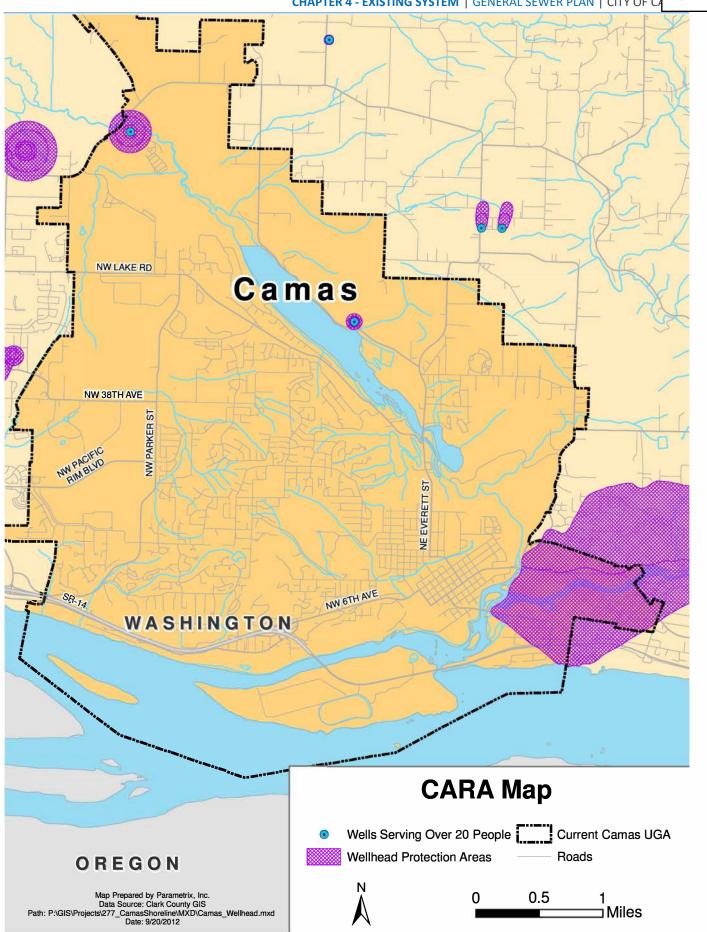
4.6.2.5 Fish and Wildlife Habitat Conservation Areas

As defined in the City's 2035 Comprehensive Plan, one of the primary plans for the City is to protect "habitat and safe passage for wildlife from Green Mountain to the Columbia River" (Camas, 2035). Multiple threatened species have been found to inhabit or pass through the region, and regulations are currently in place to prevent harm to any habitat including Washington Administrative Code (WAC) 365-190-130. These regions are defined as Fish and Wildlife Habitat Conservation Areas which are protected.

Regulations include completing a habitat assessment before construction. These regulations impact any proposed sanitary sewer pipelines or pump stations in order to protect the fish and wildlife habitat.







4.7 Water System

The City owns and operates a multi-source municipal water system, shown in Figure 4.8, which uses ground water and surface water to supply, treat, store, and distribute potable water to residential and commercial customers. The City currently obtains its water from ten groundwater wells and two surface water resources. The wellhead protection areas are regulated to prevent leakage from the sanitary sewer system from infiltrating a well; these areas are shown in Figure 4.9. The surface water resources include the Jones Creek Intake constructed in 1913 and the Boulder Creek Intake constructed in 1931. These intakes are permitted to flow at 1,570 gpm and have lower operating expense than groundwater sources. The ten groundwater wells are located in the 343 Zone excluding Well 9 which is located in the 544 Zone.

The City currently maintains the capacity to store 8.45 million gallons (MG) at multiple facilities including Butler Reservoir (1.2 MG), Gregg Reservoir (0.1 MG), Lacamas Reservoir (2.0 MG), Lower Prune Hill Reservoirs (2.0 MG), and the Upper Prune Hill Reservoirs (3.15 MG). This capacity is available for normal and emergency conditions, such as fire suppression. Service is provided to customers across five major pressure zones and 18 subzones. Eight booster pump stations are used to move water between pressure zones. Table 4.9 below lists the booster pump stations and their capacities.

Table 4.9 Camas Booster Pump Stations

Booster Pump Station	Capacity (gpm)					
Butler	1,400					
New Gregg	1,000					
Forest Home	3,500					
Lower Prune Hill	2,500					
Lacamas	2,500					
Angelo	4,000					
Upper Prune Hill	2,900					
Crown Road	1,600					

The City owns over 143 miles of pipelines in its water transmission and distribution system compared to only 87.5 miles of collection system. Approximately 47 percent of the pipeline is Ductile Iron followed by Cast Iron at 15 percent. Additionally, the distribution system includes numerous meters, isolation valves, and hydrants. An emergency intertie is available with the City of Washougal as well while an agreement with the City of Vancouver includes the use of two fire hydrants located at SE 1st and Friberg.



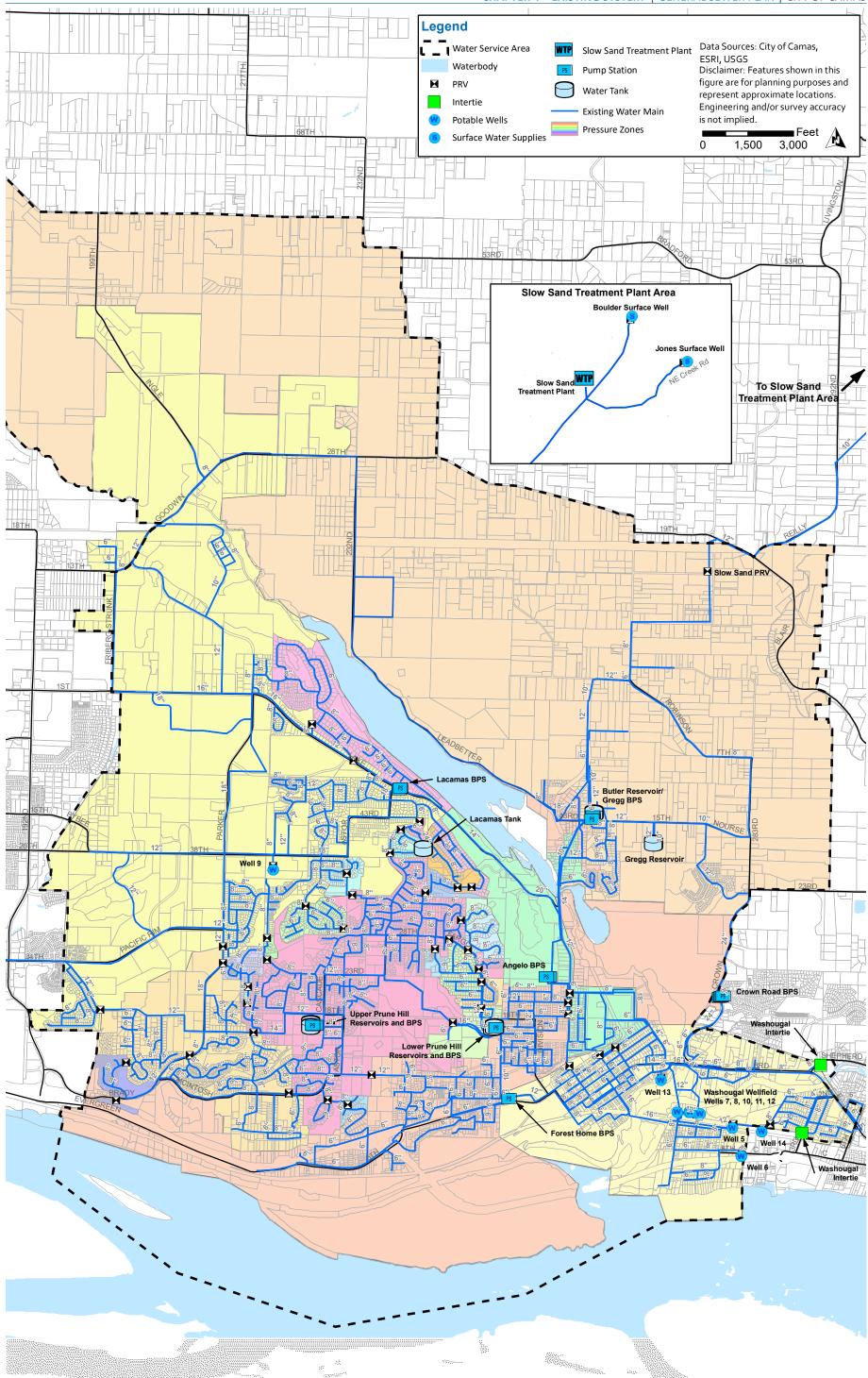




Figure 4.9 Wellhead Protection Capture Zones

2007 Aerial Photo from Clark County

Washougal Supply Well

1 Year Capture Zone

5 Year Capture Zone

Chapter 5

INFLOW / INFILTRATION PROGRAM

5.1 Introduction

Special condition S.4.E of the City's 2015 National Pollutant Discharge Elimination System (NPDES) Permit required the City to submit an annual Inflow and Infiltration (I/I) Analysis Report. The City received lower than typical treatment plant process removal efficiencies in their 2015 NPDES permit to account for the dilute Septic Tank Effluent Pump (STEP); Septic Tank Effluent Filter (STEF); and Septic Tank Effluent Gravity (STEG), which contribute approximately half of the plant influent, as well as low strength industrial wastewater. This accounts for the lower biological solids loading expected from septic tank effluent, which makes removal efficiency more difficult to achieve at the WWTF. This lower treatment standard could also potentially mask excessive I/I. Therefore, the City was required to conduct an Annual I/I Analysis report to prove the City is controlling I/I. The City completed the following reports: Infiltration and Inflow Study (Gray & Osborne, 2016); the May 2016-April 2017 Annual Inflow and Infiltration Report; the May 2017-April 2018 Annual Inflow and Infiltration Report; and the May 2018- April 2019 Annual Inflow and Infiltration Report. In 2020 an Infiltration and Inflow Follow-Up Study (Gray & Osborne, 2020) was completed to document improvements within the City's collection system. This section references findings from these reports as well as generally describing the City's I/I program.

Infiltration and inflow consist of two components which may combine or act independently to increase flow volume and peak flows in the sewer system. If too much I/I enters the sewer system such that the sewer system is operating at or above its capacity, sanitary sewer overflows (SSO) could occur. More dilute waste can also be difficult to treat if using percent removal criteria as the basis, as noted above. Proper attention to the lower than typical biological solids loading under these conditions is warranted in design and operation of the WWTF. The definitions of infiltration and inflows are described below:

- Infiltration: Infiltration is defined as stormwater or groundwater flows that enter the sewer system by percolating through the soil and then through defects in pipelines, manholes (MH), and joints. Examples of infiltration entry points are cracks in pipelines, misaligned joints, and root penetration. Due to this process, infiltration may be seen hours after a storm has occurred.
- Inflow: Inflow may be seen immediately after or during the storm. Inflow occurs when stormwater enters the sewer system via storm drain cross connections, leaky MH covers, or cleanouts. Examples of inflow entry points are roof drains and downspout connections, leaky MH covers, and illegal storm drain connections. Gross pipeline or system structural defects can be severe enough to allow storm or groundwater to enter the system rapidly and exhibit response time characteristics that could be categorized as inflow.



Key adverse effects of I/I on wastewater collection and treatment facilities include:

- Surcharging of sewer MHs.
- Sewage backups in facilities.
- Hydraulic overloading of unit processes at the wastewater treatment facility (WWTF).
- Reduced treatment efficiency at the WWTF due to dilute concentrations.
- Prematurely reaching capacity for collection systems and/or WWTF components.

This Chapter focuses on summarizing the City's efforts on I/I reduction from 2016 through 2020 and the quantifiable, positive improvement that has been accomplished in reducing I/I. It summarizes the amount of I/I for these years and specific projects completed to address I/I.

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5.2 Historical I/I Control Efforts

The City has conducted I/I studies since 1977. The City has spent more than \$4.55 million in collection system I/I work and \$750,000 in wastewater treatment facility improvements to address I/I flows.

The 1977 I/I Report attributed approximately 2.6 million gallons per day (mgd) to infiltration and 2.1 mgd to inflow. Major infiltration sources identified included roof and foundation drains, catch basins and multi-hole MH covers. By 1987, a sealing project was underway for individual sewer services.

In 1994, CH2M Hill wrote a memorandum stating that estimated I/I entering the system was 3.54 mgd and the major source was likely faulty service connections. It was concluded that a more cost-effective alternative to reducing I/I would be to increase treatment capacity.

In 1997, a Facility Plan determined the City had excessive I/I based on U.S. Environmental Protection Agency (EPA) criteria, and an 8-year sewer system rehabilitation program began based upon basins with the highest risk. During this study, a peak I/I flow of 3.4 mgd was determined.

In 2007, excessive inflow was determined at 62 gpcd for infiltration and 383 gpcd for inflow. This is based on the EPA criteria for excessive I/I to be 120 gallons per capita day (gpcd) for infiltration and 275 gpcd for inflow. At total of 26 collection system projects were identified to address capacity and condition issues, 18 of which would reduce I/I.

In 2016, the City commissioned an evaluation of the collection system to document existing infiltration and inflow as a condition of their new stormwater permit. This evaluation utilized pump station run time, WWTF flow, and precipitation records to identify basins that were yielding high I/I values. This provided data to confirm the basins with high I/I, which were 3s, 3n, 4, and 10. Then smoke testing, manhole inspection, and CCTV inspection were used to identify specific locations within basins where improvements could be made to lower I/I. The results of 2016 I/I Study were used to plan and prioritize projects in order to reduce I/I:

In 2020, the City commissioned a follow-up study to document the reduction in I/I
achieved by implementing the recommendations of the 2016 evaluation. The specific
objectives of the 2020 study included: Comparing the I/I with that measured in previous

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flow monitoring efforts completed for the 2016 I/I Study to assess the efficacy of rehabilitation efforts

- 2. Identifying areas of the City where the I/I related peaking factor exceeds 3.4:1
- 3. Identifying additional areas of high I/I in order to new areas for rehabilitation

The 2020 Study demonstrated that since 2016, the City has observed a reduction in peak WWTF flows and high flow events, even though the population of the City and the extent of the sewer system have both increased over this time. Additionally, the City's WWTF no longer experiences excessive infiltration or inflow as defined by the EPA, which is examined below in Section 5.7.3.

The most recent I/I projects completed are summarized in this report. Future planned projects can be viewed in Appendix F.

5.3 Required I/I Reporting

Special condition S.4.E of the 2015 Camas WWTP NPDES permit required the City to conduct a study of inflow sources and annual analysis of I/I using the Washington State Department of Ecology's (Ecology) Information Manual for Treatment Plant Operators. Special condition S.4.E indicates the Annual I/I Report should include:

- 1. Average monthly flow and total precipitation for each month for the past year.
- 2. Maximum monthly and peak hourly hydraulic design capacity for the plant.
- 3. Design population equivalent for the treatment plant and population served by the facility for the past year.
- 4. The amount of I/I for each year since the base year and the percent of maximum monthly design capacity each year's I/I represents.
- 5. Percent increase or reduction in I/I for each year after the base year I/I.
- Additional lengths of sewer lines added to collection system for the past year.

The Annual I/I reports for 2016, 2017, and 2018 and the City's I/I Program are provided in Appendix F and summarized throughout this chapter. Values in this Chapter are based on numbers that were reported in the Annual Reports. Please note that the City is updating their treatment plant capacity and values may change after completion.

5.4 Calculated I/I

Special condition S4.E.3 of the 2015 NPDES permit states that the annual period for the required I/I reporting is May 1st through April 30th. The 2016 Annual Report selected May 2011-April 2012 to be the base year to compare future I/I against, which is highlighted in Table 5.1. This base year was selected because it represents the 20-year median rainfall very closely. The average 12-month rainfall in Camas from the twenty-year period of 1997 to 2017 was 46.43 in, and from May 2011-April 2012 the rainfall was 47.60 in, which was the 50th percentile of all twenty 12-month totals and only 1.17 inches more than the twenty-year average. Additionally, using 2011-2012 as the selected base year incorporates the City's recent growth. Per permit requirements, the I/I was compared with maximum monthly hydraulic design capacity for the Camas Wastewater Treatment Plant. Additionally, I/I was compared with the previous year. The fluctuations seen in I/I in Table 5.1 are largely due to variations in rainfall. Reductions in I/I from specific projects are presented in further sections.



Table 5.1 Annual Report Calculated I/I

Year	Calculated I/I (mgd)	I/I as Percent of Design Capacity	I/I Percent Increase/Decrease
2011	1.511	25%	N/A
2012	2.340	38%	+55%
2013	0.591	10%	-75%
2014	0.985	16%	+67%
2015	2.277	37%	+131%
2016	1.920	31%	-16%
2017	1.021	17%	-47%
2018	1.052	17%	+3%

5.5 Field Investigation

Several evaluations were conducted to determine areas of excessive I/I. Field investigation methods include flow monitoring and analysis, smoke testing, MH inspection, and video inspection.

5.5.1 Flow Monitoring and Analysis

According to the NPDES permit, the City is required to:

- Quantify the level of inflow from each collection system basin or sub-basin in order to identify areas exceeding a peak day to monthly average peaking factor of 3.4:1 during the design rainfall event.
- Prioritize the list of projects to most cost effectively reduce the level of inflow to a peaking factor of 3.4:1 or less.

The analysis for flow monitoring includes evaluation of WWTF flow data, pump station run-time data, and collection system flow monitoring data. The highest-ranking storm event identified occurred on January 1, 2009 with 3.1 inches rainfall and 7.711 mgd WWTF influent followed by January 19, 2012 at 2.0 inches rainfall and 7.534 mgd WWTF influent. The design storm was estimated with the January 1, 2009, rainfall event. For pump station run-time, Crown View, Lacamas Creek, South Prune Hill, and West Camas were identified to exceed the peaking factor criterion of 3.4:1. Thus, the basins these pump stations are located in were targeted for further flow assessment.

Major storm events and corresponding WWTF influent flow are typically indicative of I/I activity in a collection system. During the 2016 I/I Study, basins of concern were Crown View (Basin 3N), Lacamas Creek (Basin 7), South Prune Hill (Basin 10), and West Camas (Basin 10) with ratio normalized to peak day of 5.904, 5.433, 3.554, and 3.299, respectively.

The highest priority flow monitoring locations are Basins 3 and 4 with the greatest I/I which exceeds the NPDES Peaking Factor criterion. Basins 3 and 4 are shown in Figure 4.2 in Chapter 4.

For the 2020 I/I Follow-up Study, temporary flow meters were installed in October 2019 in the collection system to determine the state of I/I in the City and assess the impact of previous I/I reduction projects. From this evaluation, the City was able to see areas still with peaking factors exceeding the NPDES Peaking Factor Criterion for peak day to average flow of 3.4:1.

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5.5.2 Smoke Testing

Smoke testing is a typical means of conducting a physical assessment of a wastewater collection system. Smoke testing locates potential sources of I/I by blowing artificial smoke into a collection system, typically at a MH, and visually observing where the smoke escapes, indicating breaks in the collection system as well as cross connections between the sewer system and storm drain systems and roof drains.

Smoke testing was conducted from August 14 to August 26, 2015 as a part of the 2016 I/I Study. The test identified 92 locations where inflow could potentially occur where a majority was cleanouts that were either broken or without covers or where smoke was observed coming out of the ground. The highest observed sources of smoke occurred in Basin 3N, 3S, 4, and 5, as summarized in Table 5.2. A small number of roof drains and catch basins connected to the sewer system were identified. Defects were also identified near two MHs in Basin 3N through smoke testing.

Table 5.2	2015 Smoke	Test Results
Table 5.2	- 2015 SMOKE	Lest Results

Basin	Cleanouts	Catch Basins	MHs	Roof Drains	"Ground Smoke" (Likely Side Sewers)	Total
1	1	0	0	0	1	2
2	3	0	0	0	1	4
3N	12	0	2	1	3	18
3S	2	0	0	1	13	16
4	4	1	0	1	6	12
5	2	1	0	1	10	14
6	0	2	0	2	3	7
7	1	0	0	0	0	1
8	4	0	0	0	1	5
9	3	0	0	0	0	3
10	6	1	0	0	3	10
Total	38	5	2	6	41	92

5.5.3 Manhole Inspection

Wastewater collection system MHs represent a relatively easy means of viewing what is occurring in a collection system because they:

- Allow for a visual inspection of flow.
- Are potential sources of I/I themselves due to deterioration or how they were constructed.
- Are insertion points for flow meters to measure flows within a collection system.

During the investigations in 1997 and 2015, all basins were tested. In the 1997 study, leaking MHs were found in Basins 1, 2, 3N, 4, 5, 6, 7, and 10. In the 2016 study, of the 95 MHs inspected in Basin 3S, 3N, 4, 5, and 7, only 14 were found to have reportable issues. Defects identified in these MHs are summarized in Table 5.3.



Table 5.3 2015 Manhole Inspection Results

Basin	Number of MHs leaking (2015)
3S	3
3N	4
4	2
5	4
7	1
Total	14

5.5.4 Video Inspection

The City contracts with specialist firms to perform regular closed-circuit television (CCTV) inspections of its gravity sewer system. The inspections identify structural and operational defects, such as broken pipes, cracks, grease, roots, sag, separated and offset joints, and other problems. Several structural defects identified in CCTV inspections were repaired when identified. Other defects may be addressed through increased preventative maintenance, repair, or monitoring. In 2016 as a result of the flow monitoring work completed for the 2016 I/I Study, the City selected an area of the sewer system that frequently exceeded the 3.4:1 peak to average flow ratio. This area was the section of sewer system that drains to the Crown View Lift Station, and CCTV inspections were evaluated to identify potential I/I sources. The results were used to develop a list of projects which the City incorporated into their ongoing repair and replacement program.

5.6 Identified I/I Projects

From the field investigation, projects were developed and given a level of priority based on their potential to remove I/I. Priority basins for I/I reduction were 3N, 3S, and 4. Future I/I projects are slated for the City's other basins.

High priority projects developed to guide the likely schedule of I/I mitigation projects were described as follows:

- Action explicitly required by NPDES permit.
- Disconnect catch basins from sanitary sewer and connect to storm sewer.
- Repair cleanouts with > 500 gallons per day (qpd) estimated inflow.
- Disconnect downspouts.
- Replace significantly deteriorated MHs.
- Raise MH lids to minimize inflow.
- Repair significantly deteriorated or sagging pipe, with highest priority on problems observed in Basins 3N, 3S and 4, followed by Basins 5 and 6.

With the completion of high priority work only, the sewer system is anticipated to achieve the NPDES permits required ratio of peak day to monthly average flows in all basins. If it is not reduced, then the medium high priority projects will be completed, then the medium and lastly the low. Table 5.4 includes basins targeted and total capital required to complete the projects. The suggested timeline was for high priority projects to be completed in 2016-18, medium high priority in 2019, medium priority in 2020-2025, and low priority from 2026-2029.

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Basins	Targeted Cost ⁽¹⁾
3N, 3S, 4	\$328,000
1, 2, 3N, 3S, 4, 5, 6, 10	\$380,000
2, 3N, 3S, 4, 5, 6, 7	\$500,000
5, 7, 8, 9, 10	\$130,000
3N	\$150,000
3N, 3S	\$135,000
3S ,	\$150,000
3S, 4	\$150,000
4, 5, 8, 9	\$150,000
9, 10	\$50,000
1, 2, 5, 6, 7, 8, 9	\$325,000
	1, 2, 3N, 3S, 4, 5, 6, 10 2, 3N, 3S, 4, 5, 6, 7 5, 7, 8, 9, 10 3N 3N, 3S 3S, 3S, 4 4, 5, 8, 9 9, 10

Notes:

(1) All cost values were determined by Gray & Osborne. All values are believed to be in 2016 dollars.

The 2015 I/I report included a project schedule with all planned projects for the next 10 years. The 2016, 2017, and 2018 Annual Reports denote on the project schedule which projects have been completed.

5.7 Completed I/I Projects

As mentioned previously, five high priority projects have been completed, as shown in Table 5.5. These projects have cost the City in excess of \$1.5 million dollars. The City conducted pre- and post- construction monitoring for the two largest projects, which are summarized in Section 5.7.1 and 5.7.2.

Table 5.5 Completed I/I Projects

Year	Basin	Project Title	Description	Project Cost ⁽¹⁾
2019	10	View Ridge Court Sewer Replacement	Replacement of sewers	\$370 , 000 ⁽³⁾
2017	4	NE Dallas Street Sewer Replacements	Replacement of several sewer pipes	\$129 , 000 ⁽³⁾
2017	4	NE Adams Street Sewer Replacements	Replacement of several sewer pipes	\$100,000 ⁽³⁾
2017	4	Everett and Franklin Sewer Replacement	Replacement of sewer line from 19th and Franklin to Everett and Everett to 21st	\$352,000 ⁽³⁾
2016	4	Franklin Street Sewer Improvement	Replace sewer line between MH 4-1-1 and MH 4-1-4	\$952,883 ⁽²⁾
2018	3S	Mill Ditch Repair	Replaced section of sewer line between Dallas Street and Birch Street	ф/17 10 г ⁽²⁾
2018	3S	Mill Ditch Repair	Rehabilitate or replace 15-inch CONC from MH 3-2-6 to 3-1-1 (1,370 feet)	\$417 , 105 ⁽²⁾

Notes:

- (1) Cost values reflect actual construction costs at the time of completion.
- (2) Value from the 2017 Annual Report.
- (3) Value from the I/I Follow-Up Study.



5.7.1 Franklin Street Sewer Improvement Project

The Franklin Street Sewer Replacement Project was completed in October 2016. The project involved replacing and upsizing approximately 1,600 feet of sewer line that had been video inspected along Franklin Street between NE 19th Avenue and NE 14th Avenue and were found to contain cracks and sag. Table 5.6 summarizes the inflow before the project and changes in flow observed after project completion. The project effectively reduced inflow by approximately half during typical flow conditions. No reduction was seen during the largest storm monitored, which is likely due to upstream inflow sources outside of the scope of the project.

Table 5.6 Franklin Street Sewer Project I/I and Flow

Manhole		Flow MeterFlo			Daily Flows (mgd)			Rainfall/ days ⁽¹⁾
	Measured	Installed	Removed	(mgd)	Min	Ave	Max	(in/day)
MH 3-2-6	4	1/5/2016	1/20/2016	Flow	0.411	0.749	1.019	0.3593
Pre-Construction	4	1/3/2010	1/20/2010	Inflow	0.303	0.641	0.911	0.5555
MH 3-2-6		3/4/2017	3/30/2017	Flow	0.127	0.447	1.054	0.3362
Post-Construction	4	3/4/201/	3/30/2017	Inflow	0.017	0.337	0.944	0.5302

Notes:

(1) This is the total cumulative rainfall over the duration the flow metered.

5.7.2 Mill Ditch Repair Project

The Mill Ditch Sewer Line Replacement was completed in April 2018. The project included replacing approximately 900 feet of deteriorated 15-inch concrete main with 21-inch high-density polyethylene (HDPE) pipe and manholes. Table 5.7 summarizes the inflow before the project and changes in flow observed after project completion. The project effectively reduced inflow by approximately half during typical flow conditions. Due to the timing of the project and dry spring weather, post construction flow monitoring was not completed until 2019. The increase in inflow during the largest storm monitored is likely due to differences in rainfall intensity between the pre- and post-construction periods and upstream inflow sources outside of the scope of the project.

Table 5.7 Mill Ditch Project I/I and Flow

Manhole	Basin Flow Met	Flow Meter	Flow Meter	Paramete	Daily Flows (mgd)			Rainfall ⁽¹⁾
Mailiole	Measured	Installed	Removed	r (mgd)	Min	Ave	Max	(in/day)
MH 5-8-1 Pre- Construction	3N, 3S, 4	2/5/2016	2/23/2016	Flow Inflow	0.352 0.68	0.909 1.114	1.969 1.617	0.1756
MH 5-8-1 Post- Construction	3N, 3S, 4	3/19/2019	6/4/2019	Flow Inflow	0.46 0.245	0.795 0.58	2.496 2.28	0.0906

Notes:

(1) This is the total cumulative rainfall over the duration the flow metered.

5.7.3 I/I Reduction Summary

In 2020, the City commissioned a follow-up study to document the reduction in I/I achieved by implementing the recommendations of the 2016 evaluation. The purpose of this work was to compare estimated per capita I/I from the 2016 study and 2020 against EPA criteria. The EPA's threshold for excessive infiltration is 120 gallons per capita per day (gpcd) is and the threshold for

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excessive inflow is 275 gpcd. The per capita infiltration flow accounts for domestic wastewater flow, infiltration, and nominal industrial and commercial flows. Inflow values are based on the maximum daily influent flow at the WWTF between 2019 and 2020.

The initial Infiltration and Inflow Study (Gray & Osborne, 2016) determined that per capita infiltration in the collection system was 80 gpcd, which was below the EPA threshold for excessive infiltration. This study determined that inflow was a much more significant source of I/I in the collection system with an estimated flow 348 gpcd, which is excessive per EPA criteria. As a result of I/I projects completed between 2016 and 2020 the City's per capita infiltration was reduced to 46 gpcd. During this same period the City's per capita inflow was reduced to 176 gpcd and is no longer considered excessive.

Table 5.8 summarizes the improvements in per capita I/I for the City's collection system.

Since 2016, the City has completed I/I reduction projects each year, totaling well over \$1 million. According to the 2020 Follow-up I/I Study, along with the reduction of I/I since 2016, the performance of the WWTF has improved as well. The WWTF has not experienced an I/I related effluent violation for over three years (since February 2017). While the I/I reduction is presumably not the only reason the WWTF's efficacy has improved, reductions in I/I due to the City's reduction efforts has certainly played a crucial role.

Table 5.8 Per Capita I/I Compared to EPA Criteria

Parameter	EPA Criteria for Excessive I/I (gpcd)	I/I Value for Camas in 2014 (gpcd)	Current I/I Value for Camas (gpcd)
EPA Excessive Infiltration Criteria	120	80	46
EPA Excessive Inflow Criteria	275	348	176

5.8 Planned I/I Projects

The City has two major pump station improvements projects planned to be constructed within the next five years. These are the Crown View Pump Station Improvements project and the Lacamas Creek Pump Station Replacement project. The design for each of these projects was completed in 2020 but bidding documents have not been issued for construction. In addition, the City will continue to address I/I throughout the collection system through their ongoing repair and replacement program. The 2020 Follow-up I/I Study expects that the Crown View Pump Station Improvement will significantly reduce I/I in Basin 3n, and the Lacamas Creek project will significantly reduce I/I in Basin 7.

Table 5.9 Planned I/I Projects

Year	Basin	Project Title	Description	Project Cost
Ongoing	N/A	Gravity Main Repair and Replacement	Ongoing repair and replacement of gravity mains at end of useful life.	\$150,000/year
2020	3N	Crown View Pump Station Improvements	Includes stormwater improvements to reduce I/I entering the pump station	-
2020	7	Lacamas Creek Pump Station	Includes replacing the pump station and sewer pipe	\$4.03M



Chapter 6

COLLECTION SYSTEM

6.1 Introduction

The City of Camas's (City) customer base continues to increase through system expansion. With this growth, some of the City's sewer infrastructure may reach conveyance capacity. This chapter presents an evaluation of the available capacity of the existing system to convey current and future sewer flows. The City's collection system is broken up between gravity mains and septic tank effluent pumping (STEP) systems that flow to the Treatment Plant separately.

Using the City's updated sewer model, major pipes and pump stations in the modeled collection system were evaluated for meeting established capacity criteria. The modeled collection system is primarily large gravity sewers which represent a skeletonized version of the system. The City has a limited GIS inventory of the collection system so no updates to the extent of the system that is modeled could be made. The STEP system was not included in the hydraulic model. Thus, capacity evaluation was only performed for the modeled gravity portion of the collection system. An overview of the modeled collection system is shown in Figure 6.1. The current modeled service area, in pink, represents the portion of the model evaluated in the existing scenario based on flow monitoring. The system was calibrated with four flow meters, which delineated the model system into four flow monitoring basins with similar diurnal patterns and wet weather flow parameters, also shown in Figure 6.1. The 2035 year and build-out scenarios expanded the modeled service area to the NUGA in the North of the system, shown in green. Additional details on the model used to evaluate the collection system can be found in Appendix E - TM Hydraulic Model Development. This chapter identifies recommended projects that correct capacity deficiencies and will be required to serve future users.

6.2 Evaluation Criteria

Defining performance criteria is a critical step in the master planning process because it sets metrics by which the collection system infrastructure will be evaluated to meet service goals set by the City. Sewer pipe capacities are dependent on many factors, including roughness of the pipe, the maximum allowable depth of flow, or slope of pipe. The City's application of these factors and established requirements are discussed below.

It is important to differentiate performance and design criteria when judging the performance of collection system infrastructure. Design criteria establish the standards for designing and constructing new sewers. Performance criteria establish the standards that are used to analyze adequacy of existing facilities and to trigger future infrastructure needs. Performance criteria are commonly less stringent than design criteria because existing sewer systems typically have aged significantly and would require extensive reconstruction to meet standards for new design. It is generally inappropriate to use standard design criteria as performance criteria, especially when significant wet weather flows impact an existing collection system (as is the case with an aged sewer system). For instance, new sewers are designed to convey flow under non-surcharged conditions (assuming limited inflow and infiltration [I/I]), while surcharging may be permissible



during the analysis of existing sewers, especially during peak wet weather flows (PWWFs). The following sections describe the City's established design criteria and performance criteria used herein.

6.2.1 Design Criteria

The design criteria are used to size new infrastructure recommended to alleviate system deficiencies for this system evaluation.

6.2.1.1 Conveyance System

It is common practice to use diameter-based flow depth criteria for pipes when designing new gravity sewers. The depth/diameter (d/D) ratio is defined as the depth of flow in a pipe during peak flow conditions divided by the pipe's diameter. The City's Sewer Standards define the acceptable d/D values for design of new sewers under design storm conditions:

- All sewers shall be designed to flow at a d/D no greater than 1.2 at peak flow rates under build-out conditions, and d/D of 1.0 for existing condition.
- No surcharging (d/D>1) is allowed at shallow manholes. Shallow manhole are defined as manholes where the distance between crown of pipe and manhole rim is less than three feet.
- During the PWWF for design storm, water levels were not allowed to rise up to three feet below manhole rim.

6.2.1.2 Pump Stations and Force Mains

Any new pump stations recommended will need to follow the City's Sewer Standards for pump stations and force main construction to meet Department of Ecology (DOE) requirements. These are detailed in Section 2.2.2 of Chapter 2 - Policies.

6.2.2 Performance Criteria

6.2.2.1 Design Storm

The sewer system hydraulic capacity analysis was performed using a historical 10-year, 24-hour rainfall event (Station Portland Airport (PDX), HYDRA Rain Gauge Network) on December 6, 2015. This design storm is discussed in Section 3.4.6 of Chapter 3 - Basis of Planning.

For this general sewer plan (Plan), the HYDRA historical event referenced above was selected as the design storm for modeling system response and system performance evaluation to realistically represent peak wet weather conditions. The historical HYDRA event was chosen for three reasons:

- The National Oceanic and Atmospheric Administration (NOAA) Precipitation Atlas defines a 10 year, 24-hour event as 3.5 inches per 24 hours based on isopluvial lines through Camas.
- The rain gauge measured 3.37 inches per 24 hours and includes storm hydrograph data.
 This event had a 20-year recurrence interval based on evaluation of the historical dataset.
- The City 's historical 20-year, 24-hour volume is approximately the same as the NOAA, 10-year.

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6.2.2.2 Conveyance System

When evaluating existing sewers, using a conservative d/D ratio may lead to unnecessary replacement of existing pipelines. The PWWF was defined using the standards summarized in Section 6.2.1.1.

Sewer pipes were allowed to surcharge under these PWWF conditions. If the flow depth was greater than the maximum allowable Hydraulic Grade Line (HGL), then the sewer was deemed deficient and mitigation might be proposed to provide greater flow capacity. Shallow manholes locations are shown on Figure 6.1.

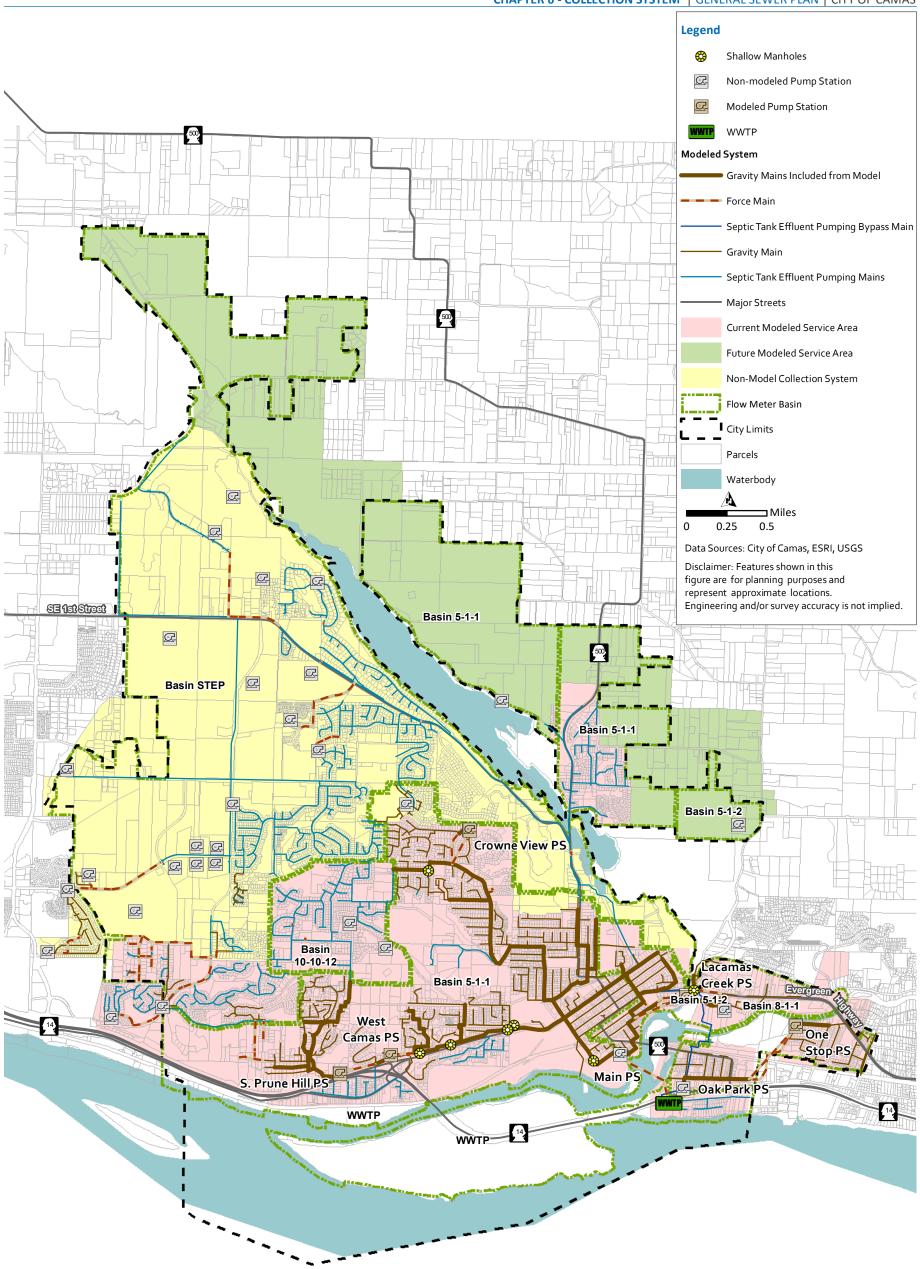
6.2.2.3 Pump Stations and Force Mains

The City's performance criteria for existing pump stations include firm capacity, which is capacity with largest pump out of service and force main velocities. According to City Sewer Standards:

- Firm pump capacity shall be provided to handle the PWWF from the pump station's tributary area.
- Firm pump capacity is defined as the largest pump out of service.

The evaluation of existing force mains is based on a maximum pipe velocity of eight feet per second (ft/sec) for the design storm. No such evaluation was performed in this Plan as the hydraulic model was set up with simplified pump station assumptions and did not model force mains directly.





6.3 Gravity Collection System Evaluation

A capacity analysis of the modeled collection system was performed using the City's calibrated hydraulic model and using the evaluation criteria identified above in Section 6.2. The capacity analysis entailed identifying areas in the sewer system where the performance criteria for surcharging was exceeded, or where the capacity of pump stations was exceeded. The collection system was evaluated for three development scenarios:

- Existing: Matching existing conditions.
- 2035: Incorporating growth through 2035 as identified in the previous comprehensive plan.
- Build-Out: Development of the full-service area including urban growth boundary (UGB).

For the remainder of the chapter, the system evaluation will focus on the existing and build-out system. The difference between the 2035 year and build-out system were negligible in terms of collection system capacity criteria.

6.3.1 Key Causes of Deficiencies

The calibrated hydraulic model was exercised under design storm conditions and predicted results analyzed using the performance criteria to identify segments of the system not meeting that criteria. The key causes triggering deficiencies in the City's collection system include:

- Adverse slopes and misaligned inverts.
- Shallow manholes.
- Pipe restrictions caused by a single or few smaller diameter pipes between larger diameter pipes.
- Pipe diameter not sufficient to convey the PWWF.
- Pump station firm capacity not sufficient to pump the PWWF.
- Backwater condition.

6.3.2 Existing System Problem Areas

For the existing sewer collection system, the PWWF was routed through the hydraulic model to assess performance. In accordance with the established criteria for existing sewers, where the model predicted potential deficiencies, these were identified. In general, the smaller sewer mains further upstream in the system have sufficient capacity to convey existing flows during the design storm. Existing deficiencies are primarily located in Flow Monitoring Basin 5-1-1, with primary capacity issues in the downstream larger trunk lines receiving flow from smaller tributary areas and delivering sewage to NE Adams. Specific manhole locations of these deficiencies are discussed in Section 6.5. Each portion of the system with localized capacity issues is broken into seven different existing system problem areas, further discussed in Section 6.5. Basin 5-1-1 experiences elevated I/I that appears to be the main cause of observed deficiencies along 6th Avenue, Division Street, and NW Fargo Street. The locations of these predicted deficiency problem areas under existing PWWF conditions are shown on Figure 6.2 in red.



6.3.3 Build-Out System Problem Areas

The Service Area scenario (build-out) system analysis was performed in a similar manner to the existing system analysis. The build-out condition evaluated whether or not the sewers would be adequately sized to convey the future PWWFs, including urban reserve areas. This analysis incorporates the preliminary assumptions made for how/where to connect the growth areas to the existing system.

Two additional deficiency problem areas occur during build-out conditions. The additional projected flows from the North Shore area add significant amounts of flow and are predicted to exceed the criteria and cause additional surcharging in the system. Additional growth upstream of 6th Avenue NW causes existing deficiencies to worsen under build-out conditions. The build-out deficiency problem areas are shown in red on Figure 6.3.

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CHAPTER 6 - COLLECTION SYSTEM | GENERAL SEWER PLAN | CITY OF CAMAS Legend Deficient Pump Stations Pump Stations Flooded Manholes **Modeled Links** Not Surcharging Surcharging CROWN VIEW PS —Major Streets **WWTP** WWTP Force Main City Limits Area 2 Flow Monitoring Basin ■ Basin 10-10-12 Basin 5-1-1 Area 1 LACAMAS ■ Basin 5-1-2 CREEK PS ■ Basin 8-1-1 Waterbody Area 4 Evergreen & ONE STOP PS A Miles 0.25 0.5 MAIN PS S. PRUNE HILL PS Area 6 Area 5 OAK PARK PS Data Sources: City of Camas, ESRI, USGS WEST Area 7 Disclaimer: Features shown in this CAMAS PS figure are for planning purposes and represent approximate locations. Engineering and/or survey accuracy Area 3 is not implied.

CHAPTER 6 - COLLECTION SYSTEM | GENERAL SEWER PLAN | CITY OF CAMAS Legend Deficient Pump Stations Pump Stations Flooding Manholes **Modeled Links** Not Surcharging Surcharging CROWN VIEW PS —Major Streets **WWTP** WWTP Force Main City Limits Flow Monitoring Basin Area 8 ■ Basin 10-10-12 Basin 5-1-1 LACAMAS ■ Basin 5-1-2 **CREEK PS** ■ Basin 8-1-1 Waterbody Evergreen ONE STOP PS A Miles 0.25 0.5 MAIN PS S. PRUNE HILL PS OAK PARK PS Data Sources: City of Camas, ESRI, USGS WEST Disclaimer: Features shown in this CAMAS PS figure are for planning purposes and represent approximate locations. Engineering and/or survey accuracy is not implied.

6.4 Pump Station Evaluation

Ensuring that pump stations have adequate capacity to convey peak flows is important to prevent sewage overflows at or near pump stations. In accordance with the established performance criteria, the City's existing pump stations were evaluated using the calibrated system model to determine if each one has available capacity to convey existing and future PWWFs. If a pump station has inadequate capacity to pump the PWWFs, the water level in the wet well may rise to the overflow point, spilling sewage. Pump stations predicted to experience an influent PWWF greater than the existing firm capacity of the station were flagged as deficient. The firm capacity of a pump station is defined as the capacity with the largest pump out of service.

The City's hydraulic model includes five of the seven pump stations located in the City's Gravity Collection System. In addition to the five collection system pump stations included in the model, there are two additional pump stations located just upstream of the WWTF (Oak Park and Main). These two stations were also evaluated utilized existing and projected influent flows, despite not being included in the model. All seven stations are shown in Figure 6.1 in blue. The estimated current and future peak flows were compared the to the pump station firm capacities. Table 6.1 summarizes the results of the pump station evaluation. Figures 6.2 and 6.3 show deficient pump stations in red and pump stations meeting the firm capacity in blue. Firm capacities were based on draw down testing performed by the City. Table 6.1 includes the total capacity at each station, as an additional point of reference for the modeled PWWF's. The total capacity was conservatively assumed to be twice the field measured firm capacity as all stations have two pumps.

Table 6.1 Pui	np Station	Evaluation
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Pump Station Name	Firm Capacity (gpm)	Existing Modeled PWWF (gpm)	Build-Out Modeled PWWF (gpm)	Firm Excess Deficiency	Build-Out Excess Deficiency
One Stop	229	67	72	No	No
South Prune Hill	449	1,104	1,113	Yes	Yes
West Camas	579	1,302	1,302	Yes	Yes
Crown View Plaza	148	512	530	Yes	Yes
Lacamas Creek ⁽¹⁾	Current = 346, Build-out = 570	215	525	No	No
Oak Park	426	148	153	No	No
Main	3,851	3,909	5,682	Yes	Yes

Notes:

Based on the analysis and the results presented in Table 6.1, four of the City's pump stations are considered deficient per the City's firm capacity performance criteria. Deficiencies are identified for these four pump stations under existing conditions. These deficiencies are exacerbated under service area build-out conditions.



Lacamas Creek has been design, but not yet constructed. The designed capacity is shown as the 1.27 cfs value for firm capacity. This is used to evaluate the pumps under build-out conditions.
 Abbreviations: gpm - gallons per minute; cfs - cubic feet per second.

The collection system model had a simplified set up of the pump stations. Force mains were not included in the model, pumps were setup to discharge into the gravity system at the location of the force main, and associated losses were factored into the pump curves. This setup was consistent with how the model had previously been set up. Future analysis should add force mains to the model, so that force main velocity evaluation can occur. For this plan, no recommendations were made for pump station force mains.

6.4.1 Pump Station Run Times

The gravity collection system model includes only five pump stations and has PWWF information upstream of seven pump stations. The City's STEP system includes 20 pump stations. These stations are not included in the model, therefore no evaluation of performance was available for PWWFs. Historical pump station run times were analyzed for all pump stations to gauge the average capacity of the stations. The station run time data was typically weekly by hour. The number of hours between data points was divided by the number of hours the pump ran to estimate a daily average. This daily average was converted to an annual average for every station. The resulting capacity is displayed in Table 6.2. No conclusions could be made on how pump stations performed during peak wet weather events utilizing the average daily run times. It is difficult to make any determinations from this data, and all stations should undergo additional evaluation to confirm capacity is appropriate to expected wastewater flow conditions.

Table 6.2 STEP Pump Station Percent of Time Running During the Day Based on Pump Hours

Pump Station Name	2014	2015	2016	2017	2018	2019	Potential Capacity Deficiency
Harl	3%	7%	7%	9%	10%	12%	No
Leadbetter	-	-	-	-	1%	1%	No
232nd	-	-	-	-	1%	1%	No
Goodwin	-	-	-	-	1%	2%	No
Two Creeks	3%	3%	3%	4%	3%	5%	No
Camas Meadows	3%	3%	2%	2%	3%	3%	No
Larkspur	2%	3%	3%	4%	5%	2%	No
Lacamas Shores	18%	24%	43%	50%	60%	48%	Yes
Lacamas Meadows	35%	19%	14%	15%	15%	15%	No
Sunningdale Gardens	37%	41%	51%	66%	50%	69%	Yes
Prune Hill Park	6%	6%	6%	6%	6%	6%	No
Hillshire	15%	15%	11%	13%	8%	8%	No
Hunter Ridge	3%	3%	4%	4%	4%	5%	No
Brady Rd	14%	15%	17%	16%	16%	16%	No
Grand Ridge	13%	18%	20%	19%	27%	21%	No
Winchester Hills 2	50%	32%	24%	22%	25%	36%	Yes
Winchester Hills 1	15%	17%	20%	19%	19%	22%	No
Stone Leaf	2%	2%	3%	3%	3%	3%	No
Parker Estates	16%	18%	21%	20%	18%	17%	No
Fisher	1%	1%	1%	1%	1%	2%	No

The relation between average pump station capacities to PWWF depends on the peaking factor of the tributary area, and therefore varies for every station. Considering the limitations in the pump station operational data (daily run times), for the stations identified in Table 6.2, where percent capacity is estimated at 40 percent or higher, the City should assume there is a substantial risk of failing to meet capacity during existing PWWF events. Applying the methodology described herein, Lacamas Shores, Sunningdale Gardens, and Winchester Hills 2 all have exhibited average capacity above 40 percent at some point in the last five years. These stations should be prioritized and undergo future evaluation, possibly including focused flow and pressure monitoring to gain a better understanding of what happens during peak flows and their capacity to inform future capital improvement planning. No future projections were performed for these stations. Future projects should prioritize projecting flows and understanding how the upstream tributary areas of these stations will develop.

6.5 Capacity Evaluation Summary

The City's model predicted several locations where the sewer system may have inadequate capacity for existing PWWF conditions. The deficiencies increase with projected additional growth and City expansion.

Four of the City's seven gravity system pump stations included in the model are considered deficient due to lack of pump redundancy. Additionally, three STEP system pump stations evaluated based on run times may be deficient in the future.

Figures 6.2 and 6.3 highlight the location of system piping and pumping capacity deficiencies identified in this analysis based on the established performance criteria.

Following the completion of the existing, 20 year, and build-out system analysis, improvement projects and alternatives were identified to mitigate capacity deficiencies predicted in the existing and build-out pipeline system. The City has nine localized areas of capacity system deficiencies and four pump stations that will need to be upgraded to meet firm capacity criteria. The following sections describe each of the nine problem areas and the suggested pipeline improvements in addition to proposed pump station upgrades. Figure 6.4 identifies the proposed pipeline improvements for each problem area, discussed in the following sections.



CHAPTER 6 - COLLECTION SYSTEM | GENERAL SEWER PLAN | CITY OF CAMAS Legend Deficient Pump Stations Pump Stations Short-term Improvements Long-term Improvements -Modeled Pipes —Major Streets CROWN VIEW PS WWTP WWTP Force Main City Limits Flow Monitoring Basin Area 2 ■ Basin 10-10-12 Basin 5-1-1 ■ Basin 5-1-2 Area 1 LACAMAS ■ Basin 8-1-1 **CREEK PS** Waterbody Area 4 Evergreen & Area 8 ONE STOP PS A Miles 0.25 0.5 MAIN PS Area 6 S. PRUNE HILL PS Area 5 OAK PARK PS Data Sources: City of Camas, ESRI, USGS WEST Area 7 Disclaimer: Features shown in this CAMAS PS figure are for planning purposes and represent approximate locations. Engineering and/or survey accuracy Area 3 is not implied.

6.5.1 Area 1

Area 1 experiences surcharging along NW Fargo Street, as illustrated in Figure 6.2, under existing conditions. The model showed potential manhole flooding during the design storm at modeled manholes 3-1-26 and 3-1-25. This deficiency is caused by capacity limitations due to pipe diameter and slope constraints in the reach, as shown in Figure 6.5 of the pipe profile plot with HGL in blue. The proposed improvements to mitigate these deficiencies consist of upsizing pipes between manholes 3-1-26 to 3-1-22 from 8-inch to 12-inch, shown in red on Figure 6.4. This piping upsize effectively alleviates the surcharging and meets the City's design criteria, as illustrated in Figure 6.6.

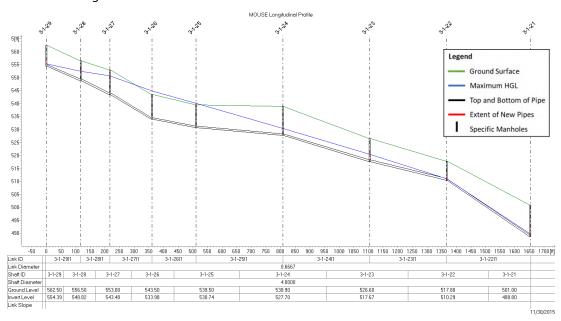


Figure 6.5 Area 1: HGL and Profile Plot

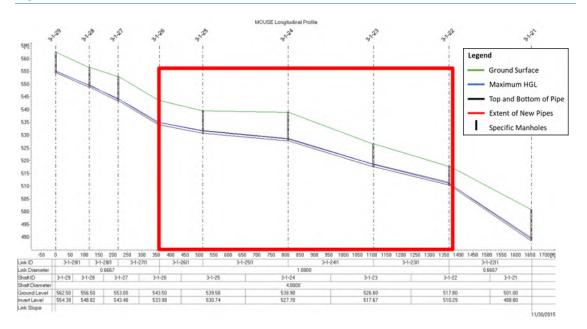


Figure 6.6 Area 1: HGL and Profile Plot after Improvements



6.5.2 Area 2

Area 2 experiences surcharging along Division St, during existing conditions. The model showed potential manhole flooding during the design storm at model manholes 3-1-11, 3-1-10, and 3-1-6. This deficiency is caused by capacity limitations at the lower sloped pipelines in the reach, as shown through the pipe profile plot and HGL on Figure 6.7. The proposed improvements consist of upsizing pipes between manholes 3-1-11 to 3-1-2 from 8-inch to 12-inch, shown boxed in on Figure 6.4. This effectively alleviates the surcharging and meets the City's design criteria, as shown in Figure 6.8.

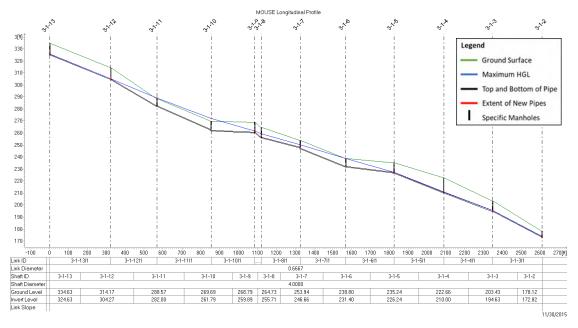


Figure 6.7 Area 2: HGL and Profile Plot

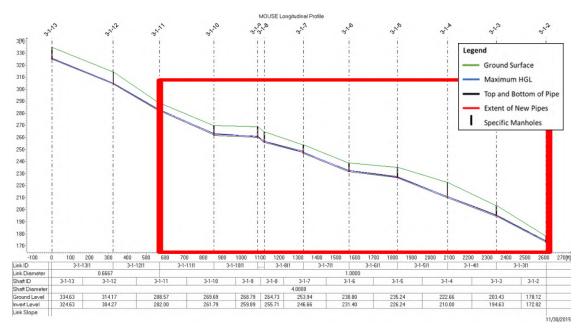


Figure 6.8 Area 2: HGL and Profile Plot after Improvements

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6.5.3 Area 3

Area 3 experiences surcharging along NW 6th Place just upstream of the South Prune Hills Pump Station (PS), during existing conditions. The model showed potential manhole flooding during the design storm at manhole 10-1-8. This deficiency is caused by the significant change in grade from the steep upstream slopes to the shallow downstream slope near the pump station. An additional capacity restriction occurs further upstream between manholes 10-1-11 and 10-1-10, due to a shallow slope. This deficiency is shown through the profile plot and HGL in blue on Figure 6.9. The proposed improvements consist of upsizing pipes between manholes 10-1-11 to 10-1-10 from 8-inch to 12-inch and 10-1-8 to 10-1-5 from 10-inch to 12-inch, shown on Figure 6.4. This effectively alleviates the surcharging and meets the City's design criteria, as shown in Figure 6.10.

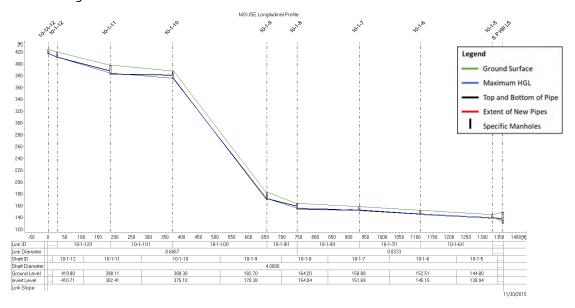


Figure 6.9 Area 3: HGL and Profile Plot

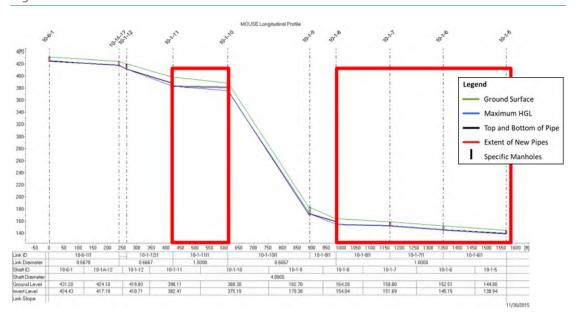


Figure 6.10 Area 3: HGL and Profile Plot after Improvements



6.5.4 Area 4

Area 4 experiences surcharging and flooding along NW 6th Place, shown in Figure 6.2, during existing conditions. The model showed potential manhole flooding during the design storm at manhole 10-1-3, just downstream of the South Prune Hills PS. This deficiency is caused by capacity limitations between the pump stations coupled with backwatering from the West Camas PS. This is shown through the profile plot and HGL in blue on Figure 6.11. The proposed improvements consist of upsizing pipes between manholes 10-1-3 and the West Camas PS wet well from 10-inch to 18-inch, shown on Figure 6.4. This effectively alleviates the surcharging and meets the City's design criteria, as shown in Figure 6.12. Note this deficiency depends upon the timing and extent of the proposed West Camas PS improvements as well, identified in Section 6.4. The results shown above assume that the lift station is upsized to convey its firm capacity.

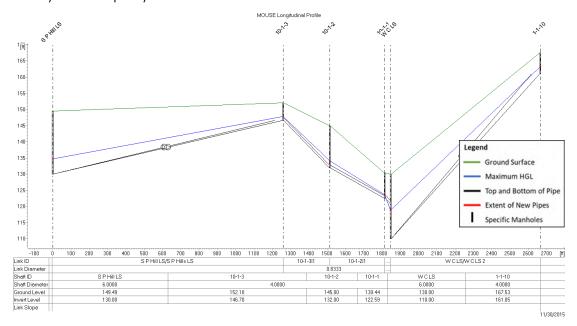


Figure 6.11 Area 4: HGL and Profile Plot

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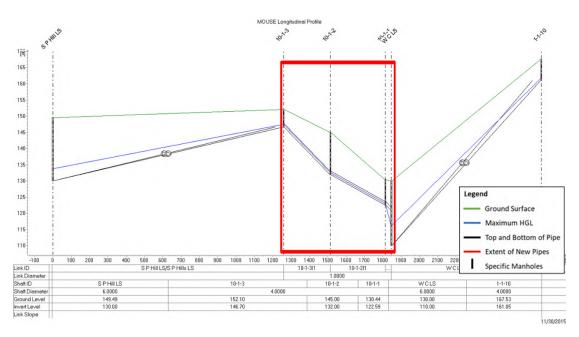


Figure 6.12 Area 4: HGL and Profile Plot after Improvements

6.5.5 Area 5

Area 5 experiences surcharging and flooding downstream of the West Camas PS along NW 6th Place and through Forest Home Park, during existing conditions. The model showed potential manhole flooding during the design storm at manholes 1-1-9, 1-1-8, and 1-1-7. This deficiency is caused by capacity limitations due to both pipe size and slope, as shown in the profile plot and HGL in Figure 6.13. The proposed improvements consist of upsizing pipes between manholes 1-1-9 to 1-1-7 from 12-inch to 15-inch and upsizing pipes between manhole 1-1-7 to 1-1-2 from 12-inch to 18-inch, shown on Figure 6.4. This effectively alleviates the surcharging and meets the City's design criteria, as shown by the HGL in Figure 6.14.

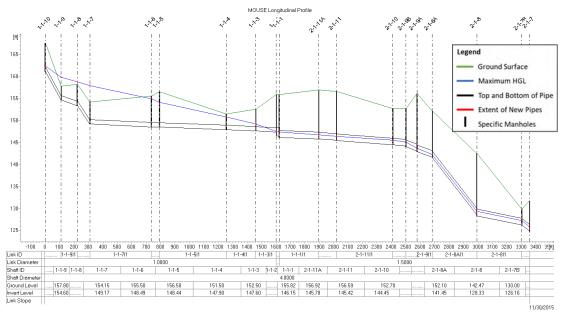


Figure 6.13 Area 5: HGL and Profile Plot



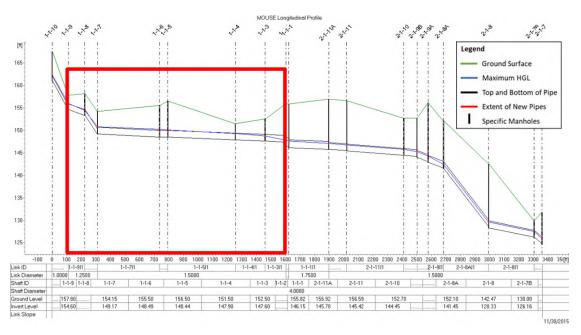


Figure 6.14 Area 5: HGL and Profile Plot after Improvements

6.5.6 Area 6

Area 6 experiences surcharging and flooding along NW Fargo Street, during existing conditions. The model showed no potential manhole flooding during the design storm, however flooding is very close at Manholes 2-1-2. This deficiency is caused by capacity limitations at the lowered sloped pipelines and a drop manhole at 2-1-1. The HGL and pipe profile through the reach is shown in Figure 6.15. The proposed improvements consist of upsizing pipes between manholes 2-1-3 to 2-1-1 from 12-inch to 18-inch, manholes 2-1-1 to 5-1-12 from 12-inch to 21-inch, shown on Figure 6.4. This effectively alleviates the surcharging and meets the City's design criteria, as shown by the HGL in Figure 6.16.

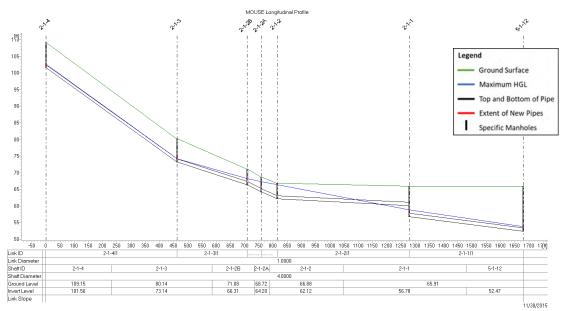


Figure 6.15 Area 6: HGL and Profile Plot

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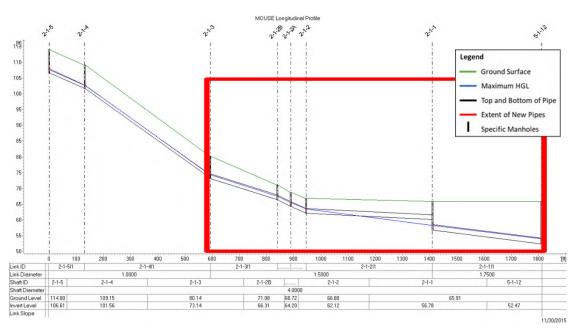


Figure 6.16 Area 6: HGL and Profile Plot after Improvements

6.5.7 Area 7

Area 7 experiences surcharging along SE 3rd Avenue, during existing conditions. Under build-out conditions, additional flows from the North Shore expansion and from 6th Avenue as a result of improvement projects for Areas 3, 4, 5 and 6, the surcharging at Area 7 greatly increases, shown in Figure 6.3. The model showed potential manhole flooding during the design storm for build-out conditions with upstream capacity improvements at manholes 5-1-5 and 5-1-6. This deficiency is caused by capacity limitations due to pipe slope constraints. This is shown through the profile plot and HGL in blue on Figure 6.18. Figure 6.17 shows the profile under existing conditions where the surcharging is less severe. The proposed improvements consist of upsizing pipes between manholes 5-1-10 to 5-1-12 from 21-inch to 24-inch, manholes 5-1-10 to 5-1-8 from 24-inch to 27-inch, manholes 5-1-6 to 5-1-2 from 24-inch to 27-inch, shown on Figure 6.4. This effectively alleviates the surcharging and meets the City's design criteria, as shown by the HGL in Figure 6.19.



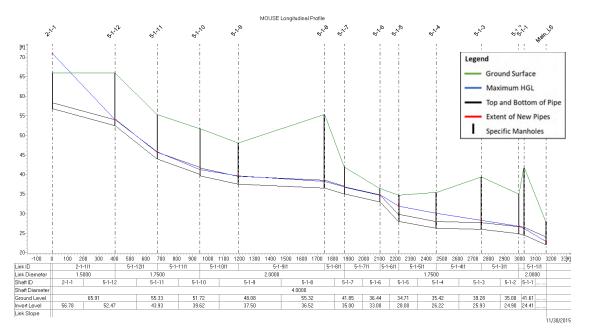


Figure 6.17 Area 7: HGL and Profile Plot Under Existing Conditions

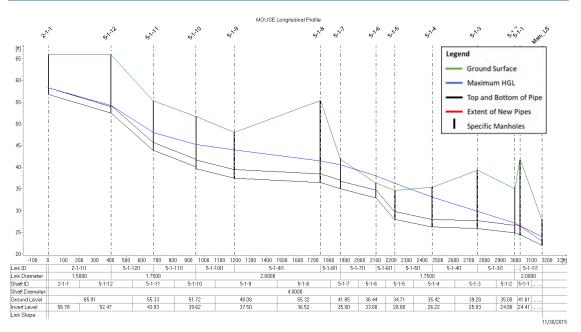


Figure 6.18 Area 7: HGL and Profile Plot under Build-Out Conditions with Upstream Improvement Projects Completed

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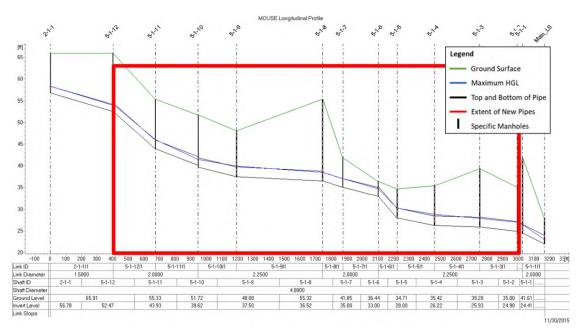


Figure 6.19 Area 7: HGL and Profile Plot under Build-Out Conditions with All Improvement Projects Completed

6.5.8 Area 8

Area 8 experiences surcharging along NW 18th Loop, during build-out conditions. There is no risk of flooding. This deficiency is caused by increased flows under future conditions which cause capacity issues. This is shown through the profile plot and HGL in blue on Figure 6.20. The proposed improvements consist of upsizing pipes between manholes 3-1-1 to 3-1-16 and manhole 3-1-13 to 3-1-12, from 8-inch to 12-inch, shown on Figure 6.4. This effectively alleviates the surcharging and meets the City's design criteria, as shown by the HGL in Figure 6.21.

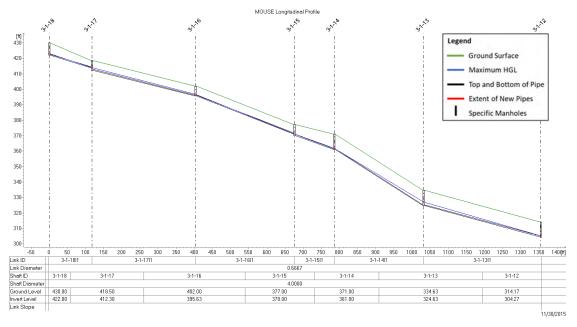


Figure 6.20 Area 8: HGL and Profile Plot under Build-Out Conditions



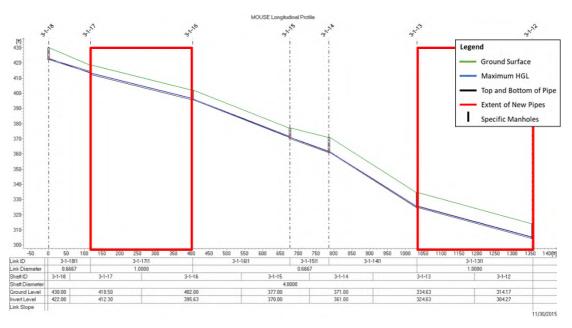


Figure 6.21 Area 8: HGL and Profile Plot under Build-Out Conditions, with Improvement Project

6.5.9 Area 9

Area 9 experiences surcharging along NE 15th Avenue between NE Garfield Street and NE Franklin Street, during build-out conditions. There is no risk of flooding. This deficiency is caused by increased flows under future conditions which cause capacity issues. This is shown through the profile plot and HGL in blue on Figure 6.22. The proposed improvements consist of upsizing pipes between manholes 4-1-2 to 4-2-1, from 8-inch to 18-inch, shown on Figure 6.4. This effectively alleviates the surcharging and meets the City's design criteria, as shown by the HGL in Figure 6.23. There is no threat of surcharging, so fixing this deficiency is a low priority and long-term project.

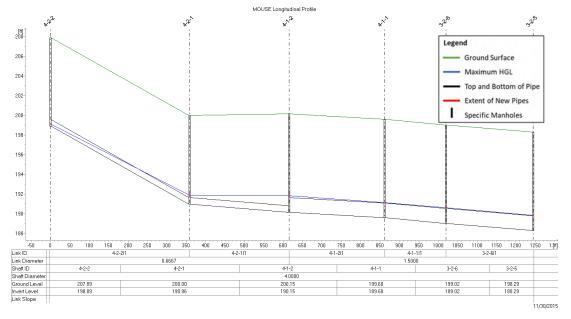


Figure 6.22 Area 9: HGL and Profile Plot under Build-out Conditions

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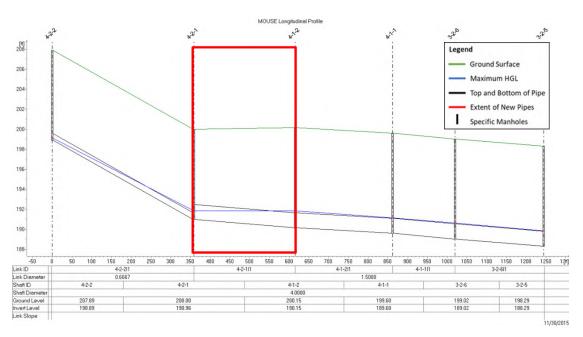


Figure 6.23 Area 9: HGL and Profile Plot under Build-out Conditions, with Improvement Project

6.6 Recommended Collection System Improvements

A number of recommended gravity collection system improvement projects for both pipes and pump stations have been identified to mitigate potential existing, 2035 Year Planning Horizon, and build-out deficiencies and to serve future users. The pipeline improvement projects were described in Section 6.5 and are summarized in Section 6.6.1. Pump Station Improvements are summarized in Section 6.6.2.

Figure 6.4, Table 6.3, and Table 6.4 identify the location and relevant components of the recommended system improvement projects. Table 6.3 and 6.4 referenced details of the improvement (length, diameter, street location, etc.). The improvements summarized in Table 6.3 and 6.4 utilize a numbering system cross-referenced with Figure 6.4. The deficiencies addressed by each project are explained in Section 6.5. The columns used in Table 6.3 and 6.4 refer to the following:

- Project ID: Assigned unique identifier associated with each improvement project. This is
 an alphanumeric number that starts with one letter indicating the type of improvement
 P= Pipe, PS = Pump Station, and continues with a number and a letter.
- Improvement Type: Gravity pipelines or pump stations.
- Location: Street in which the improvement is proposed.
- Existing Size: This represents the diameter of the existing pipelines (inches), or the total capacity of existing pump stations (million gallons per day [mgd]).
- Proposed Size: This represents the diameter of the proposed pipelines, or the total capacity of pump stations after proposed improvement, or upon construction if a new facility to serve future growth.



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- Length: Estimated length of the proposed improvement in feet. It should be noted that the length estimates do not account for re-routing the alignment to avoid unknown conditions, if more detailed planning and design identifies such constraints.
- Phase: Phase in which the improvement is recommended. Improvements are recommended either for Short-term (Existing) or Long-term (2035 Year Planning Horizon or Build-out).

All proposed improvement projects are allocated to Short-Term (Existing Deficiency) and Long-Term (Build-out deficiency or no risk of flooding) phases based on when the model scenarios predict they are required. Detailed project prioritization based on condition of pipes and funding availability is presented separately in Chapter 9 - CIP and Chapter 10 - Financial Analysis. The two planning phases can be further described as follows:

- Short-term (2022-2031): Proposed facilities that alleviate deficiencies under existing flow conditions.
- Long-term (2032 2041): Proposed facilities that alleviate deficiencies for estimated
 2035 or UGB flows and proposed facilities to serve service area expansion required under build-out conditions.

The projects were phased based on the best available information for how the City plans to develop moving forward. The actual implementation of the improvements serving future users ultimately depends on growth. The phasing presented below are estimates and will change with the City's planning assumptions or growth projections. Table 6.3 and 6.4 show all collection system projects allocated to the two planning periods.

6.6.1 Recommended Pipeline Improvements

Certain proposed improvements will serve future users, even when an improvement calls for the upgrade of an existing facility. In these cases, an existing sewer or pump station may have sufficient capacity to convey current PWWFs, but as growth continues and more users are added to the system, the increased flow results in capacity deficiencies. These projects, as well as new trunk sewers to extend sewer collection system service to future growth areas, are future improvements.

In most cases, a project is needed to correct an existing capacity deficiency but is sized to accommodate additional flows from future development.

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Table 6.3 Recommended Pipe Capacity Projects

Project ID	Improvement Type	Location	Existing Size (inch)	Proposed Size (inch)	Length (feet)	Phase
P-1	Gravity	NW Fargo Street between NW 23rd and NW 19th Avenue	8	12	1,007	Short-term
P-2	Gravity	Division Street between NW 18th and NW 11th Avenue	8	12	2,043	Short-term
P-3	Gravity	NW 6th Place, just upstream of South Prune Hills PS	8 10	12 12	188 616	Short-term
P-4	Gravity	NW 6th Place between South Prune Hills PS and West Camas PS	10	12	588	Short-term
P-5	Gravity	NW 6th Avenue downstream of West Camas PS and through Forest Home Park	12 12	15 18	311 1,340	Short-term
P-6	Gravity	NW 6th Avenue between NW 7th Avenue and SE Adams Street	12 8	18 21	817 401	Short-term
P-7	Gravity	NE and SE Adams Street between SE 3rd Avenue and NW 6th Avenue	21 24	24 27	773 925	Short-term
P-8	Gravity	NW 18th Loop	8	12	609	Long-term
P-9	Gravity	NE 15th Avenue between NE Garfield Street and NE Franklin Street	8	18	256	Long-term



6.6.2 Recommended Pump Station Improvements

It is recommended that the Main, South Prune Hill, West Camas, and Crown View Plaza PSs all be upgraded to provide pump redundancy under existing conditions. These stations do not meet the required firm capacity, based on the City's performance criteria. It is recommended that the City improve these pump stations through addition of redundant pumps. Table 6.4 shows the recommended pump station improvements.

Table 6.4 Recommended Pump Station Improvement Projects

Project ID	Improvement Type	Location	Description	Phase
PS-1	Gravity	South Prune Hills	Add pump capable of pumping 664 gpm	Existing
PS-2	Gravity	West Camas	Add pump capable of pumping 723 gpm	Existing
PS-3	Gravity	Crown View Hill	Add pump capable of pumping 382 gpm.	Existing
PS-4	Gravity	Main	Add pump capable of pumping 1,831 gpm.	Existing
PS-5	Lacamas Shores, PS-5 Gravity Sunningdale Gardens, Winchester Hills 2		Add flow monitors and pressure sensors to get a better understanding of what happens during peak flows and their capacity to aid in future capital improvement planning	Existing

6.7 Recommended Collection System Future Projects

Our collection system evaluation was limited to the collection system that was modeled. The collection system includes gravity and STEP elements, but only portions of the gravity system and none of the STEP system were set up for capacity evaluation with the hydraulic model. There was insufficient data to evaluate the STEP system; therefore, specific improvement projects were not developed. Other factors such as limited pump telemetry and a lack of extensive city-wide geographic information system (GIS) limited the scope of the collection system evaluation. The following bullet points explain future projects the City should undergo to allow more effective evaluation of the gravity and STEP system, respectively:

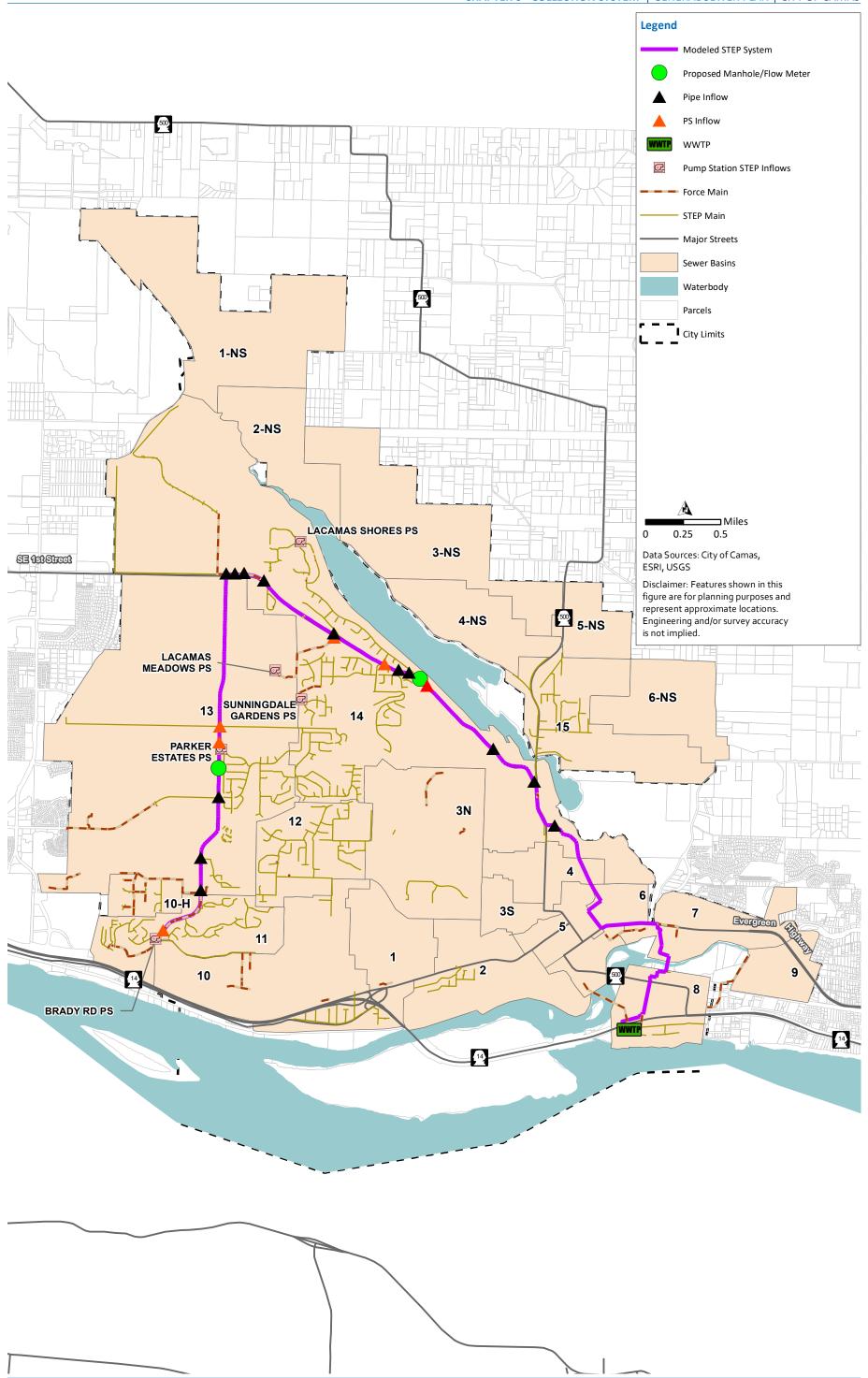
- Gravity Collection System Model: The gravity collection system model is skeletonized, only 24 percent of the gravity system pipes and none of the force mains are included. While most of the critical trunks are included, a full pipe or less skeletonized model is needed for a more robust evaluation of the system. In order to expand the model, accurate and updated GIS for the collection system should be developed.
- Gravity Pump Station Instrumentation: The lack of pump station instrumentation limited the extent stations could be evaluated. The City conducted draw down testing that resulted in lower capacities than previous modeling concluded. It is recommended that the City improve instrumentation of these stations to better understand the reasons for these revisions.

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- STEP Main Flows: As discussed in Chapter 7, with the City's combined treatment plant influent monitoring restricted the ability to separate out STEP flows from Gravity System Flows with a high degree of confidence. Recently, this issue was resolved and future monitoring will allow a greater understanding of the STEP Main flows. If Oak and Main PSs are flow metered, the STEP system flow can be determined. A future study is recommended once sufficient historical data is available.
- STEP Main Modeling: The STEP system should be added to the collection system model in order to evaluate that portion of the system. Additional metering at pump stations further upstream would allow proper calibration of the STEP portion of the model. While these pump stations would not need to be included in the model. Accurate data on Pump Station inflows to the STEP system would need to be determined. The addition of a manhole with a flow meter near NW Lake Rd and NW Lacamas Drive or NW Parker Street and NW Knapp Lane to aid in calibration should also be considered. Figure 6.24 shows the potential overview of a STEP main model, in dark grey, and proposed monitoring locations to add to the STEP system. Inflows are shown in orange and black triangles. These inflows are based on the Gray and Osborne 2009 General Sewer Plan Appendix F, Figure F-1. These inflows give an overview of where additional monitoring could be implemented in order to further refine the system during STEP model calibration.
- STEP Main Condition Assessment: The addition of manholes to the STEP system
 would help facilitate investigation of the STEP mains condition and allow any partially
 obstructed portion of the STEP Main to be identified. A future investigation of debris,
 solids, and other obstruction is recommended in the sags in the system.
- STEP System Lift Stations: The STEP System Lift stations could not be evaluated
 under PWWF events using the system model, due to a lack of data. Supervisory control
 and data acquisition (SCADA) with historian capabilities would assist with the evaluation
 of all stations and determining pump run times at these stations. Based on the City's
 pump station run time tests, a representative peak flow could be determined. This
 program should start with the most at risk stations defined in Section 6.4, and expand to
 all city owned pump stations.



Figure 6.24 Overview of Potential STEP Main Model



Chapter 7

WASTEWATER TREATMENT FACILITY

7.1 Introduction

The City of Camas (City) serves the water quality needs of approximately 8,500 residential, industrial, and commercial accounts by maintaining and operating their wastewater treatment facility (WWTF) which has a maximum month design flow of 6.1 million gallons per day (mgd).

To support development of the City's General Sewer Plan (the Plan), a unit process analysis was completed to identify shortfalls in plant capacity that will prevent the City from reliably treating and disposing of projected flow and loads at the end of the planning period (i.e., year 2035). To address the identified deficiencies, an alternatives analysis of the most viable improvement options was conducted, which resulted in the development of 14 projects to be incorporated into the general sewer plan's capital improvement program (CIP).

This chapter summarizes the methods and results of these tasks, thus defining the condition and capacities of the WWTF's unit processes and presenting sequenced recommendations that will allow the City to reliably and cost-effectively serve their customers now and into the future.

7.1.1 Current National Pollution Discharge Elimination System Permit

The City's WWTF effluent must comply with limits on biological oxygen demand, total suspended solids, ammonia, pH, and fecal coliform bacteria as conditions of their National Pollutant Discharge Elimination System (NPDES) permit. The current permit, Permit Number (No.) WA0020249, was issued in 2015 effective through September 2020. The City began coordinating with the Washington Department of Ecology (Ecology) to request a permit extension in March 2020, but a formal extension or new permit has not been issued as of January 2022. The City will continue to work with Ecology to extend or renew their NPDES permit and will continue to comply with their current discharge limits, which are summarized in Table 7.1.



Table 7.1 NPDES Permit Effluent Limits for Permit No. WA0020249

NPDES Permit Effluent Limits					
Parameter	Average Monthly	Average Weekly			
Biological oxygen demand (BOD ₅)	20 mg/L1,017 ppd74% removal	30 mg/L1,525 ppd			
Total suspended solids (TSS)	20 mg/L1,017 ppd76% removal	30 mg/L1,525 ppd			
Ammonia (NH3 as N) during summer ⁽¹⁾	• 20 mg/L	-			
Ammonia (NH3 as N) during winter ⁽²⁾	• 7 mg/L	-			
Parameter	Minimum	Maximum			
рН	• 6 SU	• 9 SU			
Parameter	Monthly Geometric Mean	7-Day Geometric Mean			
Fecal coliform bacteria	• 200/100 mL	• 400/100 mL			

Notes:

Abbreviations: BOD_5 - five-day biochemical oxygen demand; mg/L - milligrams per liter; mL - milliliter; ppd - pounds per day; SU - standard units.

7.1.2 Past Evaluation of Reuse

In the 2010 iteration of the general sewer plan, the City explored their potential to practice wastewater reclamation, or the production and beneficial use of reclaimed water. As such, an evaluation was completed to understand the feasibility of reusing effluent from the WWTF or constructing a new water reclamation facility (WRF) to treat wastewater for reuse.

The evaluation determined that, though environmental and social benefits are difficult to quantify and assess, the City and their surrounding communities can benefit indirectly from the use of reclaimed water in the following ways:

- Development of additional outdoor recreational sites for the community.
- Irrigation of parks and playfields, which can potentially increase property values.
- Conservation of the quality and quantity of the City's water resources.
- A flexible and reliable alternative water source for industrial water customers.

However, the evaluation also confirmed that the production of reclaimed water is only economically feasible if the cost of producing reclaimed water is less than or equal to the cost of purchasing water or developing additional water rights.

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⁽¹⁾ Summer months include June through July.

⁽²⁾ Winter months include October through May (inclusively).

Capital, operation, and maintenance costs for the two alternatives were taken from the 2010 general sewer plan and converted from 2006 dollars to 2021 dollars. A new 20-year present worth analysis was conducted with the updated values. Both the 2010 general sewer plan and the current 20-year present worth analysis found that neither the costs to modify the existing WWTF nor construct a satellite WRF were less than or equal to the cost of developing additional water rights, which are available at notably lower costs. The cost to develop and acquire additional water rights was expected to not exceed 5 million dollars in 2006 which would be 7.9 million dollars in 2021.

Comparisons of the two alternatives are shown in Table 7.2. Alternative 1 has a 20-year present worth of \$15.8 million dollars and alternative 2 has a 20-year present worth of \$42.6 million dollars. Both alternatives are considerably larger than the 7.9 million dollars to develop and acquire additional water rights. Therefore, water reclamation and reuse were determined to be economically infeasible at this time and not pursued at the City's WWTF.

Chapter 10 of the 2010 General Sewer/Wastewater Facility Plan (Gray & Osbourne, Inc. 2010) documents the feasibility evaluation of reuse in further detail.

Table 7.2 Reuse Alternative Cost Comparison

	Alternative 1 Modify Existing WWTF	Alternative 2 Construct Satellite WRF
Capital Cost ⁽¹⁾	\$12,837,000	\$35,878,000
Annual O&M Cost ⁽²⁾	\$157,700	\$350,500
20-year Present Worth ⁽³⁾	\$15,841,000	\$42,554,000

Notes:

- (1) 2010 general sewer plan used 2006 costs. The ENR CCI 20-City Average for June 2006 and June 2021 were used.
- (2) 2010 general sewer plan reported 2004 costs. Costs were updated using the ENR CCI 20-City Average for March 2004.
- (3) Discount rate assumed 5% bond repayment rate and 4% inflation for a total rate of 1%.

Abbreviations: O&M - operations and maintenance.

7.2 Unit Process Analysis

A unit process analysis comparing the design or rated capacity of each WWTF unit process against its requisite treatment demands under current and projected flows and loads. This comparison identified deficiencies or limitations in the plant's current installed capacity to meet its various regulatory and operational requirements by 2035.

To this end, the unit process analysis was completed in the following six sequential tasks:

- Compile and analyze five years (i.e., January 2014 to December 2018) of WWTF data.
- Develop a hydraulic model of the collection system (collection system model) to estimate future peak hour flow (PHF) at the WWTF under the design storm.
- Estimate future flows and loads from 2019 through 2035 to approximate each unit process's necessary treatment performance.
- Develop and calibrate hydraulic and BioWin models to assess how future flows and loads will affect existing plant facilities and their performances.
- Conduct plant tours to complete condition assessments of the existing facilities and identify operational limitations.
- Determine future treatment capacities for existing unit processes and estimate the ideal timing of future plant improvements.



The following sections highlight key points and findings from these six tasks.

7.2.1 Flows and Loads

Tables 7.3 and 7.4 present the current and projected flows and loads, which must be treated and discharged to the Columbia River. These projections were developed according to measured influent flows and wastewater characteristics, typical septage and septic tank effluent pump (STEP) system characteristics, and population growth projections. Chapter 3 details the method by which these flows and loads were analyzed.

Table 7.3 **Current and Projected Flows**

Flow Parameter	Current Flow (mgd)	2035 Flow (mgd)
ADWF	2.2	3.4
AAF	2.8	4.0
MMF	4.8	6.2
PDF	8.4	10.8
PHF	10.0	13.5

Notes:

Abbreviations: AAF - average annual flow; ADWF - average dry-weather flow; MMF - maximum monthly flow.

Table 7.4 **Current and Projected Loads**

Load Parameter	Current Load (ppd)	2035 Load (ppd) 50% STEF/STEP
BOD₅		
Average Annual	2,400	6,000
Max Month	3,300	8,200
Max Week	4,300	10,600
Peak Day	5,300	13,000
TSS		
Average Annual	2,500	6,300
Max Month	4,200	10,500
Max Week	7,000	17,000
Peak Day	7,900	19,300
Ammonia		
Average Annual	900	1,400
Max Month	1,100	2,000
Peak Day	1,800	4,300
Notes: Abbreviations: STEF - Septic tank effluent filter; Hydraulic Modeling.		

Carollo Engineers' Hydraulix® modeling software was used to establish the hydraulic capacities of individual unit processes and water surface elevations (WSE) under current and future flows. More specifically, this software modeled the flow through the WWTF by calculating both energy grade lines and hydraulic grade lines according to headloss and velocity at each hydraulic element under various influent flow conditions identified in Table 7.3.

Each individual unit process was considered "at risk" when the model indicated less than 18 inches of freeboard in a structure or less than six inches of fall from flow over a weir to the downstream water surface. A unit process was considered "overloaded," or as having a true hydraulic limitation, when the model indicated less than 12 inches of freeboard or a weir was submerged. Less than 12 inches of freeboard in an open channel puts the WWTF at risk of flow overtopping a structure and must be avoided at all costs.

7.2.2 BioWin Modeling

BioWin version 6.1 was employed to develop an overall process model of the WWTF. This model was calibrated using existing treatment facility operational data and then confirmed by running the calibrated model as a steady-state simulation using average plant influent and effluent values (BOD, TSS, ammonia) from 2018.

Once the calibration effort was deemed acceptable, parameters were established for future conditions under which the WWTF must operate. Specifically, this effort adopted the flows and load projections presented in Tables 7.3 and 7.4 while assuming that effluent limits on ammonia would be as low as seven mg/L for all scenarios.

Finally, the BioWin model was used to model performance of the secondary treatment unit processes under anticipated future conditions, under the following future scenarios:

- A TSS removal rate of 65 percent under current AAF, current MMF, and 2035 AAF conditions and 52 percent under 2035 MMF conditions.
- A minimum aerobic solids retention times (aSRT) of eight days under average conditions and 6.6 days under maximum month conditions.
- The sludge volume index (SVI), which is aquantification of mixed liquor suspended solids (MLSS) settleability, cannot exceed 150 milliliters per gram (mL/g) if capacity limitations are to be prevented.

In regard to the final point, the highest allowable maximum month MLSS concentration, 3,500 milligrams per liter (mg/L), is limited by the capacity for suspended solids to settle in the SCs under peak day flow (PDF). A state point analysis (SPA) was conducted to determine the maximum allowable MLSS concentration, which was 2,330 mg/L with one SC out of service and all three ABs in service. The loading conditions that will result in this maximum month MLSS concentration at a 6.6-day aSRT is a PDF of 9.0 mgd. Section 7.4.2.1 discusses this topic further.

7.2.3 Condition Assessment

A condition assessment was conducted to identify major facility deficiencies and provide a general priority rating for mechanical equipment, treatment units, structures, and electrical, instrumentation, and control (E&IC) systems. The information compiled was used during the planning process to determine which portions of the facility can be retained, which require major upgrades, and which should be abandoned or replaced.

To begin, the assessment team reviewed each unit process's drawings and design criteria, including the Washington State Department of Ecology's (Ecology) recommended WWTF redundancy criteria for flows and loads as published in *Criteria for Sewage Works Design* (2008).

Table 7.5 summarizes the criteria that each facility component must meet.



Table 7.5 Design Criteria for Each WWTF Component

WWTF Component	Flow Criteria	Load Requirement	Redundancy
Influent Screens	• PHF.	-	• 1 unit out of service.
Primary Clarifiers	• PHF + Recirculation.	 Peak hour design load 	All units in service.
Aeration Basins	Maximum month design flow.AAF.	Maximum month design load.Average annual load.	All units in service1 unit out of service.
Internal Recycle Pumps	• PDF.	-	• 1 unit out of service.
Aeration Systems	-	 Maximum week design load. 	• 1 unit out of service.
Secondary Clarifiers	• PDF + Recirculation.	 Maximum month design load. 	• all units in service.
RAS Pumps	100% of MMF.50% of PHF.	-	• 1 unit out of service.
Effluent Filters	 All flows requiring tertiary treatment. 	-	-
UV Channel	• PHF.	-	• 1 unit out of service.
Primary Sludge Pumps	 Peak instantaneous design flow. 	 Maximum daily design load. 	• 1 unit out of service.
Degritting Cyclone	• PHF.	-	• N/A
Grit Classifier	• PHF.	-	• N/A
Gravity Thickener	-	 Maximum daily design load. 	• N/A
WAS Pumps	 Peak instantaneous design flow. 	 Maximum daily design load. 	• 1 unit out of service.
Rotary Drum Thickener	-	 Maximum daily design load. 	• 1 unit out of service.

Abbreviations: N/A - not applicable; RAS - return activated sludge; UV - ultraviolet; WAS - waste activated sludge.

Next, the team discussed maintenance history, plant shortcomings, and general operational issues with City staff, who also accompanied the team on walk-through inspections of the WWTF's following processes and associated major equipment:

- Preliminary treatment.
- Primary treatment.
- Secondary treatment.
- Aeration blowers.
- Tertiary filtration.
- UV disinfection.
- Effluent pump station and pumps.
- Primary sludge and degritting.

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- WAS system.
- Anaerobic digestion and waste gas flare.
- Dewatering centrifuge.
- Biosolids belt dryer.
- Plant drain and non-potable pump station.
- Biofilters and septage-receiving station.
- Facility control systems, including the programmable logic controller (PLC) and central supervisory control and data acquisition (SCADA).

Note that, although they were a part of the assessment, anaerobic digestion and the waste gas flare, dewatered sludge conveyance, and the biosolids belt dryer were not evaluated in detail since they were recently upgraded. Additionally, the biofilters and septage-receiving station were not analyzed in detail and should be more closely reviewed in a subsequent project.

Table 7.6 summarizes each key WWTF component's condition and capacity findings.

Table 7.6 Conditions and Capacity Findings from the WWTF Conditions Assessment

WWTF Component	Condition	Capacity
Influent Screens	 No significant conditions issues identified. 	• 14.0 mgd
Primary Clarifiers	 No condition issues identified. 	• 2,380 gpd/sq ft PHF
Aeration Basins (AB)	 Weir walls between zones are uneven. 	 8.37 mgd (2 ABs, 2 SCs per SPA) (max month)
Secondary Clarifiers (SC)	 SC No. 1 in poor condition. 	9.12 mgd (3 ABs, 2 SCs per SPA)9.71 mgd (3 ABs, 3SCs per SPA)
Internal Recycle Pumps	 No condition issues identified. 	
Aeration Systems	 Unable to control blowers when operating multiple in parallel. 	
RAS Pumps	 No condition issues identified. 	
Effluent Filters	 No condition issues identified. 	• 6.0 mgd
UV Channel	 No condition issues identified. 	• 13.7 mgd at 70% UV Transmittance
Primary Sludge Pumps	 No condition issues identified. 	• 220 gpm (each)
Degritting Cyclone	End of useful life.	• 220 gpm (each)
Grit Classifier	End of useful life.	• 15 gpm
Gravity Thickener	End of useful life.	• 400 gpm
WAS Pumps	 No condition issues identified. 	• 200 gpm



WWTF Component	Condition	Capacity
Rotary Drum Thickener	 Significant Observed Deterioration. 	• 200 gpm.
Centrifuge	 Near end of useful life. 	
Plant Drain Pump Stations	 Show signs of concrete corrosion and pumps at the end of useful life. 	 Plant Drain Pump Station No. 1: 250 gpm at 35 feet TDH Plant Drain Pump Station No. 2: 500 gpm at 40 feet TDH
Non-Potable Pumps	 No condition issues identified. 	• 200 gpm at 185 feet TDH
Effluent Pump Station	 No condition issues identified. 	• 12.4 mgd at 18 feet TDH

Notes:

Abbreviations: gpd/sq ft -gallons per day per square foot; gpm - gallons per minute; TDH - total dynamic head.

7.3 Summary of Key Improvements and Preferred Alternatives

Comprehensive analysis of the WWTF's unit processes identified several current and anticipated condition or capacity issues in the WWTF's hydraulic, liquid treatment, solids treatment, and plant support systems. The following sections highlight key issues with unit processes at the WWTF and also recommend improvements to mitigate them; collectively, this information served as the basis for the subsequent alternatives analysis and project development for inclusion in the general sewer plan's recommended CIP.

Each unit process's complete description; condition findings, hydraulic capacity, and process capacity analyses; and recommendations for improvements and alternatives are available in Appendix I: Wastewater Treatment Facility Engineering Reports.

7.3.1 Basis of Project Costs

Cost estimates for treatment projects include 30 percent for construction contingency, 1.3 percent for builder's risk and insurance, 15 percent for general contractor overhead, risk, and profit, and 1 percent for performance and payment bond for a total overall construction adjustment factor of 53 percent. Planning adjustment mark-ups include 25 percent for engineering, legal, and design and 5 percent for owner's reserve for change orders for a total overall planning adjustment factor of 30 percent.

All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021). Cost estimates were developed using a Class 4 budget estimate, as established by the American Associate of Cost Estimators (AACE). This level of estimate is used for feasibility studies and assumes a one percent to 15 percent level of project definition. The expected accuracy range is of the Class 4 cost estimates are -30 percent to +50 percent.

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7.3.1.1 Total Treatment Project Capital Improvement Cost

The costs presented in this Plan are high-level planning costs to help the City in making financial decisions.

As shown in the following sample calculation of the capital improvement cost, the total cost of all project contingencies (construction and planning) and allied costs (engineering services, construction management, and project administration) is 82 percent of the baseline project cost.

Example:

Baseline Project Cost	\$1,000,000
Overall Construction Adjustment Factor (53%)	\$530,000
Construction Cost	\$1,530,000
Engineering, Legal, Design (25%)	\$382,500
Owner's Reserve (5%)	\$76 , 500
Total Capital Improvement Cost	\$1,989,000

7.3.2 Hydraulics

To ensure that the plant's unit processes have adequate capacity to handle future flows, hydraulic improvements are recommended in the following areas.

7.3.2.1 Inlet to the Headworks Channel

The headworks's hydraulic capacity is currently limited by the inlet pipe's configuration. Flow from the existing inlet pipe enters a shallow influent channel vertically from below, directing flow *upward* instead of *toward* the flume. As a result, flow upstream of the Parshall flume occasionally sprays out over the top of the headworks structure, especially at high influent flow rates.

To prevent flow measurements from being skewed and raw sewage from splashing over the top of the structure, the inlet pipe to the headworks channel is recommended to be modified by installing a rigid plate or slab over the top of the influent channel to the flume. The new tread plate will replace the existing metal cover with a resilient, watertight alternative.

The estimated total project cost of these modifications is \$6,000. They may be implemented at any time either by City staff or a general contractor as part of a larger project. Before implementing the project, the tread plate's load rating must be considered, and the anchorage design must be reviewed to resist the thrust caused by peak flows.

7.3.2.2 Tertiary Filter Bypass System

The plant's two tertiary disc filters are hydraulically bottlenecked by a set of serpentine bypass weirs whose current configuration provides minimal freeboard in the filter influent channel. At sufficiently reduced freeboard, flow may flood the SCs' effluent weirs, splash out of the channel, and potentially damage sensitive equipment and electronics, particularly those of the UV system. If left unmodified, the filters' removal efficiency will decrease as future flows increase and require more bypass, which will also decrease the removal rate of TSS.



To prevent the weirs from limiting the plant's overall hydraulic capacity, the tertiary filter bypass system is recommended to be reconfigured in the following manner:

- Remove the original weir wall between the filter influent channel and the existing serpentine weirs.
- Remove the concrete fill in the corners of the bypass channel to increase the depth and decrease the flow velocity.
- Reverse the serpentine weirs so that flow enters up between and through the launders, allowing for a uniform velocity as flow approaches the bypass weir, which, in turn, leads to more uniform weir loading.

As shown in Table 7.7, the total estimated project cost of the recommended modifications is approximately \$49,000. These modifications can be implemented as a standalone project or along with other project efforts to reduce overhead costs. Although the timing of this improvement is not constrained, implementation during the dry weather season is recommended since the work will require temporary bulkheads upstream and downstream of each bypass channel.

Table 7.7 Filter Bypass Modification Costs

Description	Cost ⁽¹⁾
Demolition of Existing Structures	\$7,000
New Concrete	\$5,000
Structural Steel	\$10,000
Bypass Weir Removal and Reinstallation	\$3,000
Total Direct Cost	\$25,000
Total Estimated Construction Cost	\$38,000
Total Estimated Project Cost	\$49,000

Notes:

7.3.3 Liquids Treatment

To address process and condition issues identified in the plant's secondary treatment system, modifications in the following areas are recommended.

7.3.3.1 Secondary Clarifier No. 1

The WWTF's three SCs all have differing effective sidewater depths and configurations, with SC Nos. 2 and 3 performing well. SC No. 1, however, performs poorly and unreliably not only because of the condition of its mechanical equipment but also because it has a center-well sludge-collection mechanism without a sloped floor to its center.

This clarifier is a major existing limitation and, as such, restoring it to its full design capacity is key to also restoring the process and hydraulic capacities associated with the secondary treatment process. As it stands, with all three ABs operating under MMF conditions and using only the two SCs that are currently operable, the secondary system will have insufficient capacity by approximately year 2024.

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⁽¹⁾ All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021).

As such, SC No. 1 is recommended to be replaced with a new 75-foot-diameter, sloped-bottom clarifier similar in design to SC No. 3 since past retro-fit projects have not improved the clarifier's performance. Operating three fully functional SCs will increase the allowable maximum month MLSS concentration from 2,330 mg/L to 2,950 mg/L and slightly increase the allowable PDF from nine mgd to 9.4 mgd.

As shown in Table 7.8, the total estimated project cost to replace SC No. 1 is approximately \$5.15 million. To replace SC No. 1, the plant must be operated using only two SCs through at least one wet weather season when peak flow events are likely, placing it at a higher risk of permit violations during construction.

Table 7.8 Replacement Costs for Secondary Clarifier No. 1

Description	Cost ⁽¹⁾
Demolition of Existing Equipment and Structure	\$333,000
New Concrete Basin (Similar to SC No. 3)	\$1,357,000
75-foot-diameter Spiral Scraper Mechanism	\$420,000
Two 30-hp Vertical Centrifugal RAS Pumps	\$147,000
Piping Modifications	\$158,000
Electrical, Instrumentation, and Controls Upgrades	\$175,000
Total Direct Cost	\$2,590,000
Total Estimated Construction Cost	\$3,958,000
Total Estimated Project Cost	\$5,146,000

Notes:

Abbreviations: hp - horsepower.

7.3.3.2 Secondary Treatment System

The plant's existing secondary treatment system has the following notable issues:

- Aerated volume in existing ABs is insufficient to maintain the eight-day aSRT necessary for stable nitrification.
- The baffle walls that divide the ABs' zones were poorly cut to their current top elevation and/or in deficient condition.
- RAS pumps for SC No. 2 are undersized and cannot prevent a sludge blanket failure under peak flow and load conditions.

The following sections detail each of these issues and their recommended improvements.

Aeration Basins

Flow and load projections predict that approaching 2030, the ABs' current capacity will become insufficient in maintaining an MLSS concentration below 3,500 mg/L under average loading conditions with one basin out of service at the 8-day aSRT required for stable nitrification.



⁽¹⁾ All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021).

To resolve this issue, the City is recommended to convert the existing ABs' anoxic zone volume into usable aerobic zone volume. If aeration diffusers are added to the final anoxic zone, the overall aerated volume can be increased by approximately 31 percent, leading to an approximate 24 percent decrease in the MLSS concentration allowing the system to maintain an eight-day aSRT. At this rate, the year when the firm AB capacity is exceeded might be prolonged from 2030 to 2038, and the overall SC capacity increases.

Supports for the diffusers in the new aerated zone must be designed to withstand forces exerted by the existing mixer so this zone can operate flexibly as a swing zone that provides either anoxic or aerobic conditions. To this end, the conversion of the current final anoxic zone to an aerated swing zone will require the following modifications:

- Install a new diffuser grid: The new diffusers are recommended to be the same type as
 those currently installed in each of the ABs' oxic zones, which are nine-inch Sanitaire
 membrane diffusers.
- Connect the diffuser grid to the existing air pipe header: Each new zone's aeration piping will include a modulated airflow control valve and a thermal mass flow meter accessible from the walkways between the ABs.

As shown in Table 7.9, the total estimated project cost for these modifications is approximately \$340,000.

Table 7.9 Aeration Basin Diffuser Modification Costs

Description	Cost ⁽¹⁾
Three New Sanitaire Diffuser Grids	\$69,000
Air Piping Modifications	\$60,000
Electrical, Instrumentation, and controls Upgrades	\$42,000
Total Direct Cost	\$171,000
Total Estimated Construction Cost	\$261,000
Total Estimated Project Cost	\$340,000

Notes

Aeration Basins' Baffle Walls

The marine plywood baffle walls in the ABs' selector zones are in poor condition. In addition, the concrete baffle walls between the ABs' anoxic/oxic zones are uneven and have exposed rebar. These issues not only compromise the structural integrity of the baffle walls but also may cause short-circuiting and backflow between the zones.

To resolve these issues, the marine plywood baffle walls in the selector zones are recommended to be removed, but not replaced. Meanwhile, the concrete baffle walls between the anoxic/oxic zones are recommended to be repaired to cover the exposed rebar and provide an even top of wall elevation. The total estimated project cost for these improvements is approximately \$40,000.

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All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021).

Secondary Clarifier No. 2's RAS Pumps

According to the state point analysis introduced in Section 7.2.3, under max month MLSS concentrations and PDF, the current RAS rate is insufficient in preventing the sludge blanket in the SCs from rising. The current rated capacity of the RAS pumps in SC No. 1 is only 1,000 gallons per minute (gpm) and 1,050 gpm in SC No. 2, well below SC No. 3's RAS firm pumping capacity of 1,400 gpm.

Even if SC No. 1 is rehabilitated and additional aerated zones are added to the ABs, PDF will still be limited to 10.6 mgd at a maximum month MLSS concentration of approximately 2,725 mg/L. However, additionally increasing both SC nos. 1 and 2's RAS pumping capacities to 1,400 gpm will increase the allowable maximum month MLSS concentration to 3,000 mg/L at a PDF of 10.9 mgd. This capacity expansion extends the predicted point in time at which the secondary treatment process runs out of capacity to handle PDFs and maximum month MLSS concentrations from 2033 to 2036.

Since SC No. 1 is recommended to be wholly replaced, only SC No. 2's two RAS pumps are recommended to be replaced. The pumps were assumed to be replaced with larger units, although the existing pumps may be sufficient with replacement of impellers.

As detailed in Table 7.10, the total project cost to replace SC No. 2's RAS pumps is approximately \$391,000.

Table 7.10 SC No. 2's RAS Pumps Replacement Costs

Description	Cost ⁽¹⁾
Removal of Existing Pump	\$3,000
Two 30-hp Vertical Centrifugal RAS Pumps	\$147,000
Electrical, Instrumentation, and Controls Upgrades	\$47,000
Total Direct Cost	\$197,000
Total Estimated Construction Cost	\$300,000
Total Estimated Project Cost	\$391,000

Notes:

Timing of the Recommended Improvements for the Secondary Treatment System

The recommended improvements to SC No. 1, the ABs, and the RAS pumps will provide the WWTF with sufficient secondary treatment capacity through 2036, beyond the planning horizon. However, these projects must be implemented with considerations made for permit requirements and process implications.

To replace SC No. 1, the plant must operate with only two units online during a wet weather season when peak flow events will likely increase the risk of violating permit demands when the new SC is being constructed. However, if the aeration improvements are implemented before the new SC is constructed, the secondary treatment process can be operated at a significantly lower MLSS concentration, reducing the risk of settling failure in SC Nos. 2 and 3. Ideally, aeration improvements and SC reconstruction could occur during the same dry weather period when the plant has sufficient capacity to operate with tanks out of service, allowing the aeration improvements to be completed before wet weather flows occur.



⁽¹⁾ All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021).

The replacement of SC No. 1 is also a sensible time to replace the existing RAS pumps for both SC Nos. 1 and 2. Since SC No. 2 is required while SC No. 1 is under construction, increasing SC No. 2's RAS rate to match that of SC No. 3 will provide an additional buffer against sludge blanket failure while SC No. 1 is out of service.

Section 7.4.2 discusses potential implementation years for these projects. Note that, even with these efforts complete, the City must still begin preparing even more secondary treatment capacity, either by process expansion or intensification, no later than 2031.

7.3.3.3 Aeration Blowers

The WWTF's four multistage centrifugal aeration blowers have the following notable issues:

- The blowers' firm capacity is insufficient to meet projected 2035 air demands.
- The blowers' current operational configuration risks overloading the blower motors and, thus, the four units cannot be run simultaneously.
- Each blower's variable frequency drives (VFD) cannot effectively modulate airflow by changing blower speeds.
- The control valves are oversized and ineffective in controlling dissolved oxygen (DO).
- Adding a fourth aerated zone to each AB will place additional demand on an already undersized system.

To provide capacity, redundancy, and control over a range of current and projected air demands, as well as to meet NPDES permit limits, two of the existing aeration blowers are recommended to be replaced with high-speed turbo blowers, which are more compact, efficient, with VFD speed control, better suited to the task than the existing multistage centrifugal blowers.

Preliminary analyses indicate that two new 300-hp turbo blower units in a duty/standby configuration alongside the two existing 150-hp multistage centrifugal blowers have enough capacity to fulfill 2035 peak air demands. Under these peak conditions, one of the new turbo blowers can be run in parallel with the existing blowers to supply the airflow rate required for aeration, with the second new turbo blower ready on standby. For conditions with low air demand, the plant may continue to use the two existing multistage centrifugal blowers.

As shown in Table 7.11, the total estimated project cost to replace the WWTF's aeration blowers, along with necessary mechanical and electrical improvements, is \$1.86 million.

Table 7.11 Aeration Blower Replacement Costs

Description	Cost ⁽¹⁾
Two 300-hp turbo blowers	\$691,000
Equipment pads	\$3,000
Air piping modifications	\$15,000
Electrical, instrumentation, and controls upgrades	\$228,000
Total Direct Cost	\$937,000
Total Estimated Construction Cost	\$1,432,000
Total Estimated Project Cost	\$1,861,000

Notes

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All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021).

7.3.3.4 UV Disinfection System

The WWTF's existing UV disinfection system is nearing the end of its useful life and, given this age, many of its replacement components are no longer manufactured. As the current system continues to age, repair and replacement parts will become increasingly difficult to procure even as the frequency of component failure likely increases.

To eliminate the risk of losing the plant's UV capacity permanently upon a non-replaceable component failing, the UV system is recommended to be replaced with more modern equipment designed specifically for wastewater and water reuse applications.

The following modifications to the existing UV channel and ancillary equipment are recommended to install a newer model system:

- Complete computational fluid dynamics (CFD) modeling to ensure appropriate and even velocity distribution for flow entering the first new UV bank.
- Replace the existing level control gate with a new unit to provide the deeper water level required by newer UV equipment.
- Demolish and replace the existing ramp up to the level control gate to suit the design requirements of the replacement equipment.
- Replace the four existing banks of UV lamps with three new banks.
- Replace the existing power distribution centers (PDC) with three new PDCs.
- Remove the four step-down transformers currently installed for the existing UV system.
- Cut a small trench in the channel floor for routing hydraulic hoses if required by the new UV system manufacturer.

As shown in Table 7.12, the estimated project cost to replace the existing UV system, including the temporary disinfection process, is approximately \$1.15 million. To minimize the volume of bypass pumping and disinfection required, this work is recommended to be performed during an extended low flow period (e.g., dry weather season). A temporary disinfection process, such as a skid-mounted UV disinfection system, will be required while the UV channel is being modified.

Table 7.12 UV Disinfection System Replacement Costs

Description	Cost ⁽¹⁾
New UV Equipment	\$340,000
Existing UV Channel Modifications	\$65,000
Electrical, Instrumentation, and Controls Upgrades	\$65,000
Temporary Disinfection	\$110,000
Total Direct Cost	\$580,000
Total Estimated Construction Cost	\$887,000
Total Estimated Project Cost	\$1,153,000

Notes:

 All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021).



7.3.3.5 Effluent Pump Station

The effluent pump station is a low-head pump station that is only required under elevated river conditions, which occur infrequently. Although the pump station is in good condition, its current firm capacity is insufficient by at least 1 mgd to handle the projected 2035 PHF. The process implications of exceeding the effluent pumps' capacity are catastrophic since flow cannot be removed from the effluent wet well quickly enough to avoid submerging the upstream processes.

To ensure that treated effluent is effectively conveyed out of the plant under 2035 PHF conditions with one pump out of service, the effluent pump station's capacity is recommended to be expanded by replacing the pumps with units capable of providing sufficient flow capacity for condition projected through 2035.

As shown in Table 7.13, the total project cost to replace the existing effluent pumps is estimated to be \$1,275,000. The effluent pump station is recommended to be modified during a low river stage when the pumps are unlikely to be needed.

Table 7.13 Effluent Pump Replacement Costs

Description	Cost ⁽¹⁾
Three Centrifugal Pumps, 4,700 gpm at 21 feet TDH	\$485,000
Structural and Mechanical Modifications	\$11,000
Electrical, Instrumentation, and Controls Upgrades	\$146,000
Total Direct Cost	\$642,000
Total Estimated Construction Cost	\$981,000
Total Estimated Project Cost	\$1,275,000

Notes:

7.3.4 Solids Treatment

To resolve redundancy and condition-related deficiencies identified in the solids processes, modifications to the following areas are recommended.

7.3.4.1 Grit-Separation System

The WWTF's degritting room is filled with odorous air that likely contains significant levels of hydrogen sulfide, which corrodes the degritting equipment in the space; as evidence of this, the cyclones, classifier, gravity thickener, and turbo pumping systems (TPS) pumps all exhibit conditions that indicate a corrosive atmosphere and signify the end of their useful life, requiring extensive rehabilitation or replacement.

In addition to increasing the number of air changes in the degritting room and implementing air treatment using biofilters, the entire grit separation system is recommended to be replaced. As shown in Table 7.14 the total project cost to replace the existing grit separation system is estimated to be \$954,000. This project is recommended to be implemented within the next five to 10 years, though replacement may be required sooner if the existing equipment's condition continues to deteriorate.

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All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021).

Table 7.14 Grit-Separation Improvement Costs

Description	Cost ⁽¹⁾
Demolition	\$20,000
New Degritting Equipment	\$294,000
Piping Modifications	\$9,000
Electrical, Instrumentation, and Controls Upgrades	\$157,000
Total Direct Cost	\$480,000
Total Estimated Construction Cost	\$734,000
Total Estimated Project Cost	\$954,000

Notes:

7.3.4.2 Thickened Primary Sludge Pumps

As with the rest of the equipment in the degritting room, the two existing, 130-gpm, progressive cavity TPS pumps have also been corroded by high levels of hydrogen sulfide and are nearing the end of their useful life. Furthermore, these pumps are oversized for the City's sludge flow and concentrations which unnecessarily increases maintenance costs. As such, the existing units are recommended for replacement with new, appropriately sized, 70-gpm progressive cavity units.

As shown in Table 7.15, the projected cost to replace the two existing TPS pumps is \$154,000. The priority and timing for this replacement depend on the availability of replacement parts as well as the integrity of the pumps' non-replaceable parts.

Table 7.15 Thickened Primary Sludge Pump Replacement Cost

Description	Cost ⁽¹⁾
Demolition of Existing Pumps	\$10,000
Two New 70-gpm Progressing Cavity Pumps	\$43,000
Piping Modifications	\$6,000
Electrical, Instrumentation, and Controls Upgrades	\$19,000
Total Direct Cost	\$78,000
Total Estimated Construction Cost	\$119,000
Total Estimated Project Cost	\$154,000

Notes:

7.3.4.3 Sludge Recirculation Pumps

The plant's rotary-lobe-style sludge recirculation pumps have historically had significant issues with microplastics infiltrating the pump shaft seal and damaging the overall unit. Despite replacements and corrections by the manufacturer, the frequency and severity of the maintenance issues have not improved.



All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021).

All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021).

Given that the solids content in the WWTF's digester ranges from 1.9 to 5.6 percent, a heavy-duty piston-style pump is recommended to replace the existing pumps. This new unit's shaft seal is located on top of the disk instead of underneath, which eliminates the leaking issue that piston-style pumps often have. And, because the seal has no gaps like a traditional mechanical seal might, infiltration of round microplastics is not anticipated to be an issue. While the seal must be replaced when it wears, the wear parts on this type of pump are anticipated to last three to four times longer than they might on progressive cavity or rotary-lobe pumps.

As shown in Table 7.16, the projected cost to replace the three existing rotary-lobe pumps with three double-disc piston-style pumps is \$509,000. This project may be implemented at any time when the budget becomes available, and, to minimize risk, may be piloted to determine its application suitability.

Table 7.16 Sludge Recirculation Pump Replacement Cost

Description	Cost ⁽¹⁾
Demolition	\$20,000
Three Double-Disc Piston Pumps: 200 gpm, 54 feet TDH	\$144,000
Piping Modifications	\$24,000
Electrical, Instrumentation, and Controls Upgrades	\$68,000
Total Direct Cost	\$256,000
Total Estimated Construction Cost	\$391,000
Total Estimated Project Cost	\$509,000

Notes:

7.3.4.4 Rotary Drum Thickener

After 10 years of operation, the plant's rotary drum thickener is showing significant signs of wear. Although the City recently added a new manufacturer-designed stabilization wheel that may allow this existing unit to continue operating, it remains a single point of failure without an operational plan in place to accommodate such a failure.

For full redundancy, a new thickening building capable of housing two RDTs and associated support equipment is required; however, the City's budgetary and site constraints do not currently allow for this construction to take place. Therefore, the City is recommended to continue monitoring and carefully implementing their current protocol for when the RDT is unavailable and proceed with other improvements to the WWTF's unit processes.

The City's current RDT protocol relies on use of the WAS storage tank when the RDT must be taken offline for maintenance. Process modeling of the WWTF indicates that the WAS-wasting rate, which has historically averaged approximately 37,000 gallons per day (gpd), may exceed 100,000 gpd under 2035 MM conditions. This means that, with the RDT offline, the current tank's capacity will be exceeded within one and a half days. Given these projections, planned maintenance activities must be scheduled during demand seasons when the WAS-wasting rate is low, and the RDT operation schedule must be extended during high demand periods to keep the WAS storage tank's levels as low as feasible.

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All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021).

Once the storage tank has reached its maximum capacity, excess WAS is directed to the gravity thickener to be co-thickened with primary sludge. However, this temporary operation affects performance in the following ways:

- Percent capture and thickened sludge concentrations are considerably reduced compared to what would be observed under normal operations.
- Hydraulic loading to the digesters is increased, resulting in a reduction of hydraulic residence time below the recommended 15 days when co-thickening.

While co-thickening's effects may be less severe at lower flows and loads, the temporary operation will not provide reliable thickening relief beyond one to two days at peak flows such as those projected under the 2035 MMF scenario.

With this being said, implementing the recommended improvements to the ABs will allow the secondary treatment process to be operated at a significantly lower MLSS, reducing the risk of settling failure in SC Nos. 2 and 3 and allowing SC No. 1 to be used for additional WAS storage during an emergency. In its current configuration, SC No. 1 can provide nearly 430,000 gallons of storage, which is equivalent to four days of continuous wasting under the 2035 MMF scenario. Note that using this SC for emergency storage will require connections and temporary piping routed from the control building No. 1 for SC Nos. 2's and 3's WAS pump.

7.3.4.5 Dewatering Centrifuge

The plant's existing DS-403 Sharple dewatering centrifuge is over 20 years old and, thus, exhibiting signs of being at the end of its useful life. In 2021 the City purchased a second, refurbished DS-403 Sharple centrifuge to provide dewatering redundancy. In the near term the centrifuge will act as a spare unit should an emergency replacement be required. The City is currently developing plans to modify the dewatering room and install the stand-by centrifuge, which will include the following modifications:

- Install a redundant centrifuge.
- Upsize the centrate piping to reduce any hydraulic restrictions.
- Increase the number of air changes per hour in the room.
- Clean out the existing odor-control piping connected to the centrate chute to confirm that nothing is blocking the ventilation of the centrifuge.

Table 7.17 shows costs for the modifications needed to install the redundant centrifuge in the existing building.

Table 7.17 Dewatering Centrifuge Improvement Costs

Description	Cost ⁽¹⁾
Existing Centrifuge Overhaul	\$106,000
Piping and Mechanical Modifications	\$39,000
Electrical, Instrumentation, and Controls Upgrades	\$168,000
Total Direct Cost	\$313,000
Total Estimated Construction Cost	\$479,000
Total Estimated Project Cost	\$622,000

Notes:

⁽¹⁾ All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021).



7.3.4.6 Biosolids Belt Dryer

As mentioned earlier, the biosolids belt dryer was not analyzed or assessed in detail, per the City's direction. However, the condition and capacity of the biosolids dryer are recommended for evaluation within the next five years.

7.3.5 Plant Support Systems

To accommodate future flows and provide reliable operation, modifications are recommended in the following plant support systems.

7.3.5.1 PLC, RIO, and SCADA

The City WWTF's control system includes a mixture of owner PLC systems and vendor PLC systems, which communicate to a central SCADA system that monitors and controls the entire plant. The existing PLC hardware utilizes the Modicon Quantum PLC platform, which includes remote input/output (RIO) racks. Meanwhile, data transfer utilizes older Data Highway Plus (DH+) serial communications.

The existing Modicon Quantum PLCs are outdated and no longer commercially available through the manufacturer. Since the failure of an existing module without a spare in stock could suspend automated control of a portion of the facility, the continued use of this PLC platform poses a significant operational risk.

In addition, the plant's existing Wonderware SCADA application is installed on a single computer server without redundancy, meaning this computer represents a single point of failure. If the computer fails for any reason or Wonderware is corrupted, the WWTF can no longer be governed via the control room. In a worst-case scenario, operators will be required to run all equipment manually from the field until the SCADA system is brought back online.

To minimize risks and employ up-to-date technologies, the WWTF's existing PLC network and SCADA system are recommended to be upgraded.

The following PLCs require replacement:

- Control building 1, PLC E, 1 rack.
- Control building 2, PLC E, 1 rack.
- UV building, PLC D1, 1 rack.
- UV building, UV panel, 1 rack.
- Equipment building, PLC C1, 1 rack.
- Digester building, PLC F, 3 rack.
- Main influent pump station, 1 rack.

Additionally, the following remote input/output cabinets require replacement:

- UV building, PLC D1, 2 RIO.
- Equipment building, PLC C1, 4 RIO.

These units are recommended to be replaced by modern equivalents on a standardized communication protocol, which will allow for a sequenced conversion process. Note that any changes made to the PLC programs by other facility equipment upgrades or changes in operational sequences will increase replacement costs since more PLC programming time will be required.

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Meanwhile, the SCADA system must be upgraded and expanded to incorporate a level of redundancy. To develop a modern system with desired features, including advanced data analysis, report generation, and secure remote accessibility, the following upgrades are recommended:

- Replace the existing SCADA server with matching redundant SCADA servers.
- Upgrade the SCADA human-machine interface (HMI) application to a redundant configuration.
- Upgrade or add a SCADA historian application.
- Add a SCADA reporting application.
- Harden the system for improved remote access security by upgrading the network switch with a demilitarized zone (DMZ).
- Rebuild HMI graphics to take advantage of increased system functionality, correct existing errors with data collection and display, and provide robust communications with the upgraded PLC hardware.
- Integrate the existing Hach WIMS data with the SCADA historian and reporting applications.

In addition, the City is recommended to develop a comprehensive and living SCADA master plan that identifies and prioritizes system improvements at the WWTF as well as the City's 27 remote sites, including lift stations, pump stations, and tanks. At this time, controls at these sites are a mix of older hard-wired controls and some PLC control, with hard-wired being the norm; as such, all of the City's remote sites are recommended to be converted to PLC-based controls that utilize a standard format control panel design with radio telemetry communications to the WWTF.

Upgrades to improve the telemetry system are recommended for Lacamas Shores, Sunningdale Gardens, and Winchester Hills 2 in the near term, given that these sites' run-time data all showed risks of capacity deficiencies; the addition of flow meters and pressure sensors is recommended to better understand these stations' capacities or lack thereof. Updates to the other 22 sites are recommended in the long term as the City's budget allows.

Table 7. 18 represents a budgetary cost estimate to implement the proposed upgrades to the City's SCADA, PLC, and RIO systems.

Table 7.18 Camas WWTF Control System Upgrade Cost

Description	Total Estimated Project Cost ⁽¹⁾
SCADA Master Plan	\$210,000
SCADA System Upgrade	\$644,000
PLC Hardware Upgrade (Nine Cabinets)	\$1,295,000
RIO Hardware Upgrade (Six Cabinets)	\$650,000

Notes

(1) All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021).



7.3.5.2 Plant Drain Pump Station No. 1

Plant drain pump station No. 1 shows signs of concrete corrosion, and its pumps are nearing the end of their useful life. In addition to these condition-related issues, this station is already required to operate at its total installed hydraulic capacity for extended periods under current conditions and is unlikely to reliably accommodate future recycle flows and loads.

As such, plant drain pump station No. 1 is recommended to be rehabilitated through the following improvements:

- Replace the existing pumps with a new set of submersible pumps, each capable of pumping 500 gpm. The existing motor starter may be reused and connected to the new pumps.
- Install a liner in the existing wet well to extend the life of the existing structure.
- Replace the control panel, pump guide rails, and discharge piping within the wet well.

As shown in Table 7.19, the projected cost to replace plant drain pump station No. 1's pumps and accessories is \$517,000.

Table 7.19 Plant Drain Pump Station No. 1 Replacement Cost

Description	Cost ⁽¹⁾
Demolition and Temporary Pumping	\$42,000
Wet Well Liner	\$95,000
Plant Drain Pumps and Piping	\$60,000
Electrical, Instrumentation, and Controls Upgrades	\$63,000
Total Direct Cost	\$260,000
Total Estimated Construction Cost	\$398,000
Total Estimated Project Cost	\$517,000

Notes:

7.3.5.3 Non-Potable Pump No. 3

The non-potable water pump station's three pumps are in reasonably good condition. However, non-potable water pump No. 3 is not currently usable since its intake is located below the UV channel's discharge weir due to air entrainment caused by cascading water and prevents the unit from properly priming, which also causes it to fail.

To mitigate this issue, this pump is recommended to be relocated within the wet well but out of the direct flow path of the weir. While modifications to the pump column are not necessary, a new hole must be cut in the elevated slab over the non-potable pump station's wet well. The total estimated project cost to relocate non-potable water pump No. 3 is approximately \$43,000.

Because air entrainment is a persistent issue, any future improvements to the UV system must be made with consideration for the location of these pumps. If a second parallel UV channel must be installed at some point, the entire non-potable water pump station must be modified or most likely relocated to sit within the effluent pump station, and the pumps must be relocated close to the existing UV equipment, which may potentially complicate access to the effluent pump station's electrical room and back-up generator.

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All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021).

7.3.5.4 Odor Control and Treatment

Located in the WWTF's equipment building, the centrifuge room and primary sludge degritting room share a combined odor-control system. Because these rooms lack sufficient airflow, both experience persisting odor issues and corrosion of the assets contained within.

The current centrifuge room exhausts air at a rate of 700 cubic feet per minute (cfm), accounting for approximately 3.5 air changes per hour (ACH). The room also has point-source odor control, which pulls 500 cfm of air from various equipment, accounting for approximately 2.5 ACH. Combined, the room exhausts six ACH.

To improve odor control, the ducting is recommended to be balanced to exhaust 1200 cfm from the overall centrifuge room, 400 cfm from the cake conveyor, and 100 cfm from each centrifuge. This solution will provide the room with 6 ACH, in addition to a more robust point-source connection to prevent odorous air from escaping the centrifuge, for a total of 8.5 ACH. To supply the space with the proper amount of intake air, this alternative requires the installation of a second intake louver on the west wall.

Meanwhile, the primary-sludge-degritting room exhausts 700 cfm of air, accounting for approximately 6.3 ACH. Increasing the exhaust airflow to 1350 cfm is recommended. Furthermore, the three duct drops on the west wall must be balanced to pull 250 cfm each, and the drops above the storage containers must be balanced to pull 300 cfm each. Together, these modifications will provide the space with a total of 12.2 ACH. Similar to that of the centrifuge room, this solution requires a second intake louver to be installed on the east or south wall to supply the proper amount of intake air into the space.

The improvements recommended for both rooms require the shared odor-control fan to exhaust 4850 cfm in total. The current fan only exhausts 3600 cfm. If the fan does not have sufficient capacity to provide the required increase in airflow, a new odor-control fan must be installed in the same location as the existing unit.

Table 7.20 shows the estimated costs associated with the odor-control improvements, including a new fan. Note that this improvement plan's increased airflow will reduce contact time with the biofilter, thus reducing some of the filter's effectiveness and the quality of the air passing through and leaving it. Therefore, the frequency at which media should be replaced will be modestly increased.

Table 7.20 Odor Control Improvement Costs

Description	Cost ⁽¹⁾
Additional Ducting and Louvers	\$6,000
New Exhaust Fan Capable Of Exhausting 4,850 cfm	\$21,000
Testing and Balancing	\$1,000
Total Direct Cost	\$28,000
Total Estimated Construction Cost	\$42,000
Total Estimated Project Cost	\$55,000

Notes:



⁽¹⁾ All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021).

7.4 Recommended WWTF Improvement Projects

The improvements recommended to address WWTF capacity limitations over the next 20 years and address current condition issues that prohibit reliability or performance are summarized in this section. The recommended alternatives presented in Section 7.3 were re-organized and, in some cases, grouped together to suggest construction sequencing and project timing the City should consider when implementing these improvements.

The following 14 distinct projects were developed for incorporation into the City's general sewer system plan CIP:

- **TP-1 Aeration Basin Improvements:** This project improves the ABs' performance by making the following modifications:
 - Install new aeration diffusers and associated zone controls in each AB's final anoxic zone to create a new aerated swing zone.
 - Demolish the marine plywood baffle walls at the upstream end of the ABs.
 - Repair and relevel the concrete baffle walls dividing each zone in each AB.
- **TP-2 Secondary Clarifier Improvements:** This project enhances the SCs' performance and capacity by making the following modifications:
 - Demolish SC No. 1 and replace it with a new clarifier that matches SC No. 3's design including RAS pumping capacity.
 - Replace SC No. 2's RAS pumps to provide a firm capacity that matches those of SC No. 3.
- **TP-3 Aeration Blower Replacement:** This project replaces two of the existing aeration blowers with larger high-speed turbo blowers to meet projected aeration demands.
- **TP-4 Disinfection Building and Hydraulic Improvements:** This project enhances plant hydraulics and modifies the disinfection building with the following improvements:
 - Replace the existing UV disinfection equipment and provide a temporary UV skid to bypass the existing channel.
 - Modify the filter bypass so it does not limit the plant's hydraulic capacity.
 - Reconfigure the non-potable water pump station to prevent air entrainment in the pump suction.
 - Redirect the headworks channel inlet pipe to improve flow measurements and prevent splashing of raw sewage out of the top of the structure.
- TP-5 Effluent Pump Station Improvements: This project increases the effluent pump station's capacity, as required, to pump 100 percent of 2035's projected PHFs to the outfall in the Columbia River by replacing the existing effluent pumps with larger units.
- TP-6 Grit-Separation and Odor-Control Improvements: This project replaces the
 existing grit-separation equipment, including hydrocyclones and grit classifiers, and
 increases the capacity of the odor control systems servicing the grit-handling area and
 dewatering building, which will extend the life and reduce maintenance of new installed
 equipment.
- TP-7 Thickened Primary Sludge Pump Replacement: This replaces the existing TPS pumps with new progressive cavity pumps.
- TP-8 Sludge Recirculation Pump Replacement: This project replaces the existing digested sludge pumps with new double-disc piston-style pumps.

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- TP-9 Mechanical Dewatering Improvements: This project rehabilitates the existing dewatering centrifuge and modifies the space to accommodate a standby unit for redundancy.
- **TP-10 Plant Drain Pump Station Improvements:** This project repairs the existing plant drain pump station No. 1's structure and replaces its pumps.
- TP-11 SCADA Master Plan: This project prepares a SCADA master plan that will provide
 the City with a roadmap to prioritize and implement planned system upgrades designed
 to address system deficiencies and enhance facility operation. This project includes an
 in-depth investigation of the existing SCADA control system for the City's WWTF and
 associated remote sites.
- TP-12 SCADA Improvements: This project upgrades the existing SCADA system to
 provide redundancy and take advantage of modern features, including advanced data
 analysis, report generation, and secure remote accessibility.
- TP-13 PLC and RIO Cabinet Improvements: This project includes replaces existing Modicon Quantum hardware with new, standardized PLCs and RIO cabinets for all process areas at the WWTF.
- TP-14 Secondary Treatment Expansion Planning Project: This project plans for a
 future secondary treatment expansion to accommodate flows and loads outside the
 planning windows.

7.4.1 Cost Summary of the Improvement Projects

Table 7.21 summarizes the total project cost for each improvement project. Costs are rendered in 2021 dollars and include all construction, engineering, legal, and administrative markups.

Table 7.21 Recommended WWTF Project Costs

Project ID	Improvement Type	Total Project Cost ⁽¹⁾
TP-1 Aeration Basin Improvements	Capacity	\$376,000
TP-2 Secondary Clarifier Improvements	Capacity/Condition	\$5,539,000
TP-3 Aeration Blower Replacement	Capacity	\$1,862,000
TP-4 Disinfection Building and Hydraulic Improvements	Condition/Capacity	\$1,252,000
TP-5 Effluent Pump Station Improvements	Capacity	\$1,276,000
TP-6 Grit Separation and Odor Control Improvements	Condition	\$1,010,000
TP-7 TPS Pump Replacement	Condition	\$154,000
TP-8 Sludge Recirculation Pump Replacement	Condition	\$509,000
TP-9 Mechanical Dewatering Improvements	Condition	\$622,000
TP-10 Plant Drain PS Improvements	Capacity/Condition	\$517,000
TP-11 SCADA Master Plan	Planning	\$209,000
TP-12 SCADA Improvements	Network	\$645,000
TP-13 PLC and RIO Cabinet Improvements	Network	\$1,946,000
TP-14 Secondary Treatment Expansion Planning	Planning	\$75,000
WWTF Recommended Improvements Total	_	\$15,992,000

Notes



⁽¹⁾ All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021).

7.4.2 Implementation Timing for the Improvement Projects

Implementation timing for the 14 projects was considered in the context of the following factors:

- Each project's high or low criticality to the WWTF's operation: Criticality to the
 process was higher for processes that are essential for liquid treatment and less so for
 solid treatment processes.
- The risk of failure associated with the equipment being addressed by a project: Risk of failure was high or low depending on the age of the equipment, availability of replacement parts from manufacturers, and installed redundancy.

Table 7.22 lists the projects, possible sequencing, start years for design and planning, possible years of implementation for capacity reasons (if applicable), and brief explanations of project prioritization rationale. It is suggested that the City closely track key factors, including growth within service area, useful life, and condition of plant components, to allow for optimal timing and phasing of improvements. Proper timing and phasing of projects will prevent the City from incurring unnecessary construction, operation, and maintenance costs to increase capacity before it is needed to serve users.

Table 7.22 Recommended WWTF Project Implementation Schedule

Project ID	Recommended Start Year	Year Required Online	Reason for Prioritization
TP-1 Aeration Basin Improvements	2026	2030	Improve capacity before TP-2.
TP-2 Secondary Clarifier Improvements	2027	2030	Meet capacity only.
TP-3 Aeration Blower Replacement	2028	2032	Meet capacity only.
TP-4 Disinfection Building and Hydraulic Improvements	2021	2026	Address aging equipment whose parts are unavailable from manufacturers.
TP-5 Effluent Pump Station Improvements	2026	2029	Meet capacity only.
TP-6 Grit Separation and Odor Control Improvements	2023	2027-2032	Eliminate ongoing corrosion in the building and improve workspaces.
TP-7 TPS Pump Replacement	2032	N/A	Anticipated end of useful life.
TP-8 Sludge Recirculation Pump Replacement	2032	N/A	Anticipated end of useful life.
TP-9 Mechanical Dewatering Improvements	2024	N/A	Create redundancy.
TP-10 Plant Drain Pump Station Improvements	2021	2021	Address immediate capacity needs and corrosion issues.
TP-11 SCADA Master Plan	2022	N/A	Update out-of-date software.
TP-12 SCADA Improvements	2023	N/A	Update out-of-date software.
TP-13 PLC and RIO Cabinet Improvements	2023	N/A	Update out-of-date software.
TP-14 Secondary Treatment Expansion Planning	2031	N/A	Secondary treatment inadequate by 2036.

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Chapter 8

OPERATION AND MAINTENANCE

8.1 Introduction

This chapter provides an overview of the City of Camas (City) Wastewater Utility organization, staffing, and operation and maintenance (O&M) program. This chapter documents existing practices and identifies changes that may improve system operation and maintenance.

8.2 Organization Structure

The City Public Works Department is organized as shown in Figure 8.1 and is managed by Steve Wall. The Utility group is managed by Rob Charles. There are various groups relevant to this General Sewer Plan (Plan) including the wastewater treatment facility (WWTF), and a combined group with responsibilities pertaining to sewer and water disciplines. The WWTF is supervised by Bob Busch.

Note, Stormwater and Sewer/Water groups assist each other during abnormal conditions, such as cleanup after a major storm or repairs requiring specialized staff and equipment.

The Capital Engineering group managed by James Carothers leads major wastewater capital projects, such as new lift stations. The Utility group leads lift station retrofits, "repair & replacement" projects, and operations and maintenance projects.

8.3 Staffing

8.3.1 Maintenance and Operations Staff

The City combines staff for water and sewer disciplines. Therefore, staff under this branch will work on both water and sewer mains including the septic tank effluent (STE) systems. They are also in charge of making sewer system repairs. Operational staff work full shifts on weekdays and there is always at least one person on duty during the day on weekends. There is always at least one person on call in the evenings to address emergencies.

No additional positions are sought although as of March 2022, there are three vacant water/sewer staff positions the City is seeking to fill.

8.3.2 Wastewater Utility Engineering Staff

WWTF staff work primarily on the treatment plant and are also in charge of the sewer lift stations in the conveyance system. The City's WWTF National Pollutant Discharge Elimination System (NPDES) permit requires a Washington Wastewater Treatment Facility Operator (WWTFO) Class IV certified operator to be responsible for the plant at all times. Table 8.1 lists WWTF staff certifications. The City has two Class IV operators in the case that one is unavailable. The NPDES permit does not require anyone other than the responsible operator(s) to hold a certification, but the City requires all operators to have a Class I certification or have the ability to acquire one within six months of employment.



Table 8.1 Wastewater Utility Operator Certifications

Name	e Position Certificat	
Bob Busch	WWTF Supervisor	WWTFO Class IV
William Blake	WWTF Operator Lead	WWTFO Class IV
Ole Helland	WWTF Operator	WWTFO Class II
Ken Murray	WWTF Operator	WWTFO Class I
Steve Carroll	WWTF Operator	WWTFO Class I
Joe Calderone	WWTF Operator	WWTFO Class I
Matt Golphenee	WWTF Operator	WWTFO Class II
Jacob Taylor	WWTF Operator	WWTFO Class II

8.4 Records

For O&M record keeping, the WWTF uses a Computerized Maintenance Management System (CMMS), data-tracking Excel spreadsheets, handwritten logbooks, and an electronic repository of equipment documentation. The WWTF staff have a "WWTF" shared drive at the plant, which is a reference library of construction documents, O&M documentation for individual equipment, training materials, etc.

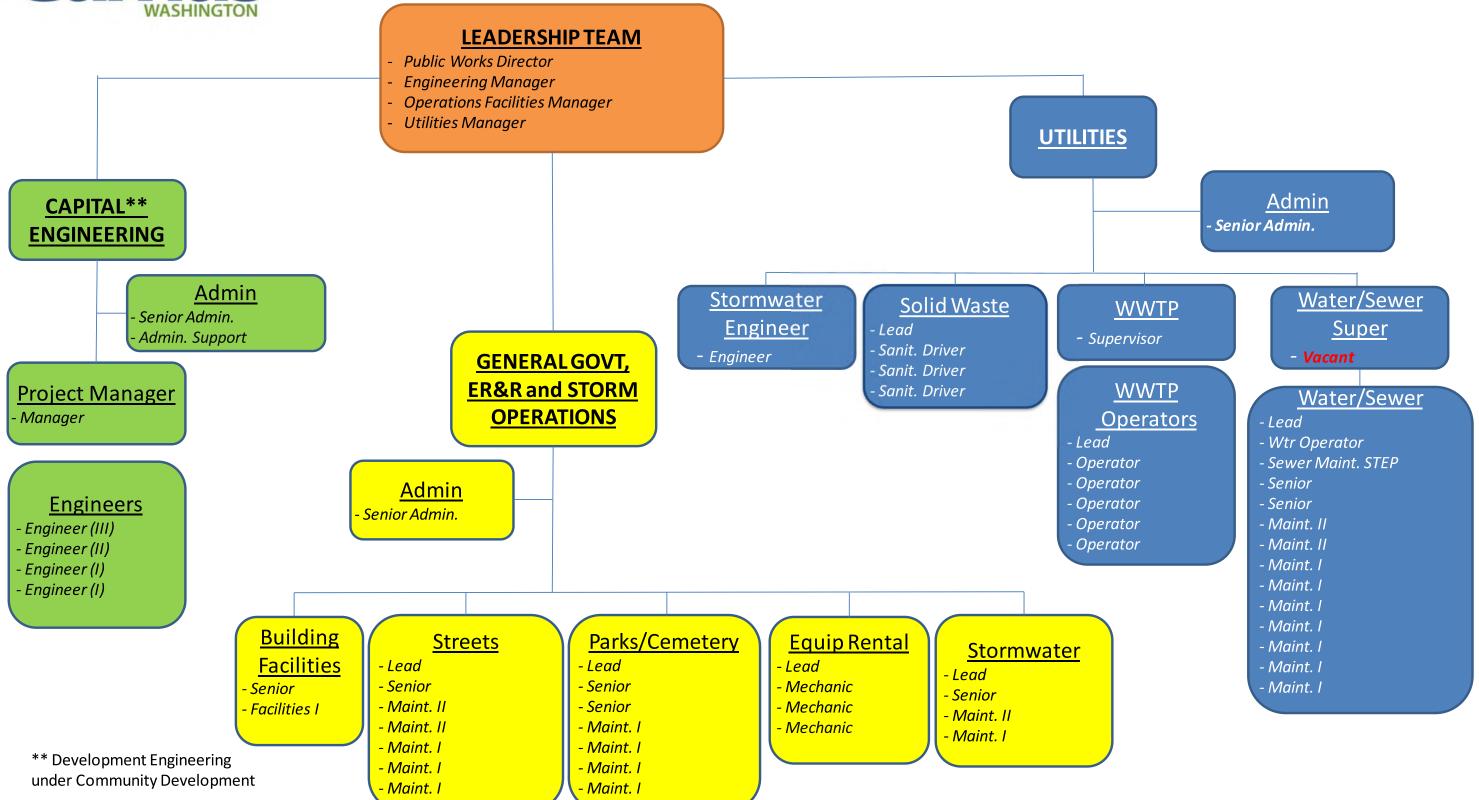
Septic tank effluent pump (STEP) systems are tracked in a separate management system involving record keeping, both on paper and on a tablet. The City currently uses IAUDIT on iPads to document work and plans to move to the same software as the WWTF in the future to better track current activities. The implementation plan is to add new activities to the software as it comes up.

City staff and third-party customer service representatives receive utility-related calls made by system users, and information is dispatched to the appropriate utility staff.

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PUBLIC WORKS DEPARTMENT - ORGANIZATIONAL CHART



8.5 Current Operation and Maintenance Program

8.5.1 Maintenance

8.5.1.1 Lift Station Inspection and Maintenance

Lift station inspection and maintenance is completed by City WWTF Operators listed in Table 8.1.

For all lift stations, pump run hours are closely tracked to identify potential issues. Additionally, periodic maintenance is completed. Table 8.2 presents each activity and frequency staff completes for the sewer lift stations.

Table 8.2 Summary of WWTF Sewer Lift Station Maintenance

Frequency	Component	Activity								
Deily	SCADA	Review lift station alarm history. Check pump/level/pressure/flow trend charts.								
Daily	Record Keeping	 Update pump runtime tracking spreadsheets. Review updated sheets for anomalies. Submit requests for any necessary maintenance via CMMS. 								
	Controller	 Check for active alarms. Verify pumps, level indicator, and other controller-monitored equipment is operating normally in "AUTO". Document pump run hours. Verify no tripped breakers. 								
	Pumps	Run pumps in hand to verify proper operation. Inspect for unusual sounds, vibration, or leaks.								
	Genset	• Check ATS status and verify there are no faults and system is ready for emergency operation. Check generator fuel. Check generator for leaks or signs of mechanical failure. Check generator control paned for faults. Generator auto-exercises on Thursdays.								
Weekly	Dry Well	• Verify dry well is dry. Verify sump pump or floor drain is functioning properly. When running pumps, verify check valves open/close. Verify force main pressure (static and pumping). Check for piping leaks.								
	• Inspect influent flow, verifying it is not abnormally high or low, color, odor, etc. Inspect for excess debris or grease accumulation. If able, b out. Verify level sensors are free of debris or obstructions, clean, as necessary.									
	Odor Control System	 Verify proper operation and odor level. Inspect for unusual sounds, vibration, odor, and leaks. 								
	Surge Tank	Verify proper operation, checking controller for any faults.								
	Grounds	• Monitor physical appearance of station. Remove any accumulated trash or debris. Monitor and control vegetation. Monitor for odors emanating from station.								
	Pumps	Perform draw down testing for each pump.								
Quarterly	Record Keeping	Update pump tracking spreadsheet with draw down test results.								
	Odor Control System	Change out carbon media at Lacamas Meadows Lift Station. In depth check of biofilter systems.								
	Gas Sensors	Calibrate lower explosive limit meters.								
Bi-Annually	Grounds	Herbicide application, where necessary.								
DI-Allifoldity	Odor Control System	Change out odor control media on carbon absorber units.								
	Isolation Valves	Exercise isolation valves at all lift stations to maintain operability.								
	Generator	Third-party preventative maintenance.								
	Pumps	Pull pumps for visual inspection.								
	Main Pump Station Pumps	Third-party preventative maintenance.								
Annually	Piping	Winterize any water piping.								
	Odor Control System	 Winterize biofilters prior to freezing weather. Turn off odor control units that are not operated during winter months. Turn on odor control units that are operated during summer months. 								
	Wet Well	Cleaning of any wet wells that have accumulated excessive FOG/floatables/debris.								
Every 3 Years	Pumps	Third-party pump inspections and testing.								

Notes

Abbreviations: ATS - automatic transfer switch; FOG - fats, oils, and grease; SCADA - Supervisory Control and Data Acquisition.



8.5.1.2 Pipeline Video Inspection

A closed-circuit television (CCTV) inspection of the gravity main by push camera was completed in 2013. For future inspections, the City will contract with CCTV inspection contractors on an as needed basis for their CCTV and manhole inspection programs. Inspections will be performed in accordance with all industry standards and best practices.

8.5.1.3 Manhole Inspection and Maintenance

The City inspects manholes on an as-needed basis and the manhole inspection program will be contracted out to a third party as well. The City may choose to implement their own standards for manhole inspections, rather than rely on the NASSCO standards.

8.5.1.4 Root Cutting

Root maintenance is completed as needed. It is anticipated that additional root cutting tasks may be identified through contracted video inspection on an as needed basis.

8.5.1.5 Grease Removal

The City educates customers on FOG as part of their general education program. It is anticipated that through video inspection, the City may identify pipes with heavy FOG. Initially, it is recommended the preventative maintenance activities involving FOG include outreach to local business or industries and or more frequent cleaning, especially if an area is persistently found to be impacted by FOG. If FOG is more widespread than currently thought, then the City may consider a FOG program.

8.5.1.6 Hydraulic Line Cleaning

Flushing is done every month for flat areas in the system. Where normal flushing is insufficient to address known problem areas, pipe jetting is completed either as preventative maintenance or on an as needed basis. The City would like to implement a comprehensive jetting program that may be completed by the City or will be contracted out to a third party.

8.5.1.7 Repair Sewers

Point repairs are conducted to address pipe deficiencies identified through CCTV inspection and are undertaken as required and as resources allow. Work may be completed by City staff or through a small works type contract.

8.5.1.8 STEP Maintenance

The City owns and maintains the STEP system. Currently, the City conducts solids pumping from about 600 STEP tanks annually through contractors. Additional it maintains the step tanks, pumps, and telemetry concurrently. The City has an active STEP tank education program with customers.

It is recommended to conduct a STEP tank condition assessment to identify repair and replacement needs including inspection of the STEP tank and connections to the STEP tank as well as an inspection of the proper function of the STEP tank. From this condition assessment, a STEP repair and replacement program should be developed and included in the City's Capital Improvement Program (CIP). Current STEP tank replacement costs are about \$11,000 per STEP tank to be installed by a contractor.



8.5.2 Operations

The City operations group are generally divided into treatment, pump stations, and pipes.

The City operators at the WWTF conduct various activities, including: monitoring and adjusting treatment parameters, conducting water quality measurements and other related lab tests, and managing the City's Class A, Exceptional Quality Biosolids program.

The WWTF operators are also responsible to monitor the pump stations throughout the collection system. The treatment facility operators monitor the sanitary pump stations while the water/sewer staff monitor the septic tank effluent systems throughout the City.

City staff are responsible for pipe activities associated with operating the collection system, including repairing pipelines.

City staff also lead operations during emergencies or natural disasters. Emergency operations include preparing and planning for emergencies and conducting drills.

Individual staff duties and operations include administration tasks, training, and tool maintenance. Staff have their own administrative duties to complete weekly as well as meetings to attend in addition to their normal operator duties. They are also in charge of maintaining and cleaning their tools and equipment. The City values the importance of training staff; thus, staff will also allocate time annually to training and conferences as a means to further develop their skills.

8.6 Future Operation and Maintenance Needs

The WWTF plans to expand their internal maintenance capabilities while reducing dependency on third-party maintenance contracting. The WWTF is working to develop deeper pump, clarifier and instrumentation inspection and maintenance skills. The WWTF plans to constantly expand and improve their usage of the CMMS and its work ordering and tracking capabilities. Furthermore, the WWTF has an ongoing effort to develop an extensive set of Standard Operating Procedures for common operations, maintenance, safety, and administrative tasks.

As stated above, the City will contract with CCTV inspection contractors to complete video inspection in the collection system. It is recommended to develop a hydraulic line cleaning program while completing the video inspection. The hydraulic line cleaning program can be completed by the City or third-party contractors. With this inspection and cleaning program, it is expected that other repair needs will be identified for roots, FOG, and point repairs.

Currently the City's staffing focus is to fill the current vacant water/sewer supervisor and staff positions. In the future, to aid in the development of non-capital utility projects the City wants to add a staff civil engineer and an electrician to the utility team.

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Chapter 9

CAPITAL IMPROVEMENT PLAN

9.1 Introduction

This chapter summarizes the Capital Improvement Plan (CIP) for the City of Camas (City) General Sewer Plan (Plan). The CIP includes projects needed to accommodate growth, repair and replace aged infrastructure, and attain level of service goals. The CIP is arranged in terms of short-term (2022-2031) and long term (2032-2041) periods. Projects are grouped into pipeline, pump station, septic tank effluent pump (STEP), inflow and infiltration (I/I), maintenance, treatment plant, and general types of infrastructure work. The CIP consists of the cost estimates and schedules for the recommended improvements.

The following sections present cost estimating assumptions, recommended projects, estimated costs for each project, and a summary of the CIP.

9.2 Cost Estimating Assumptions

Cost estimates were developed for each of the recommended projects in the CIP for budgeting purposes. The CIP costs are planning level estimates only and should be refined during pre-design of the projects as final costs of a project with depend on actual labor and materials costs, competitive market conditions, final project scope, implementation schedule, and other variable factors. The CIP cost estimate should be periodically reevaluated to account for changes in inflation.

All costs are in 2021 dollars and are benchmarked to an Engineering News Report (ENR) Construction Cost Index 20-city average of 12112 (June 2021). Cost estimates were developed using a Class 4 budget estimate, as established by the American Associate of Cost Estimators (AACE). This level of estimate is used for feasibility studies and assumes a one percent to 15 percent level of project definition. The expected accuracy range is of the Class 4 cost estimates are -30 percent to +50 percent.

9.2.1 Conveyance Cost Assumption

This section provides the CIP for pipelines, lift stations, and STEPs. Cost estimates for conveyance infrastructure represent total project cost including materials, construction, engineering, legal, and administrative costs. Costs were represented as unit costs, as described in subsequent sections. Costs are based on costs provided by the City or similar projects completed by Carollo Engineers. The following are the total marks-ups to direct costs: 30 percent for construction management contingency, 30 percent for engineering, legal, and design costs, and 10 percent for administration contingency.

9.2.1.1 Total Conveyance Project Capital Improvement Cost

The costs presented in this Plan are high-level planning costs to help the City in making financial decisions.



As shown in the following sample calculation of the conveyance projects capital improvement cost, the total cost of all project contingencies (construction and planning) and allied costs (engineering services, construction management, and project administration) is 82 percent of the baseline project cost.

Example:

Baseline Project Cost Construction Management Contingency (30%)	\$1,000,000 \$300,000
Construction Cost Engineering, Legal, Design (30%)	\$1,300,000 \$390,000
Administration (10%)	\$130,000
Total Capital Improvement Cost	\$1,820,000

9.2.1.2 Pipeline Unit Costs

For pipes, baseline project costs are calculated by multiplying the estimated new pipe length by a proposed unit cost. All of the known pipelines involved in this CIP are between eight-inches and 27-inches. Pipeline unit costs are available in Table 9.1; broken down by pipeline diameter and depth of installation. These unit costs were used to estimate the total cost of replacement. The unit costs assume open-trench construction in improved areas. Costs include pavement cutting, excavation, hauling, shoring, pipe materials and installation, backfill material and installation, and pavement replacement.

Table 9.1 Pipeline Construction Unit Costs

Pipeline Diameter (inches)	Cost per LF (10+ feet deep)	Cost per LF (5 feet deep)				
8	\$330	\$223				
10	\$341	\$233				
12	\$351	\$243				
15	\$372	\$266				
18	\$383	\$277				
21	\$388	\$282				
24	\$397	\$287				
27	\$404	\$298				

Notes:

Abbreviations: LF - linear feet.

9.2.1.3 Pump Station Unit Costs

Pump station unit costs were based on costs to similar projects Carollo Engineers has completed in the past. There are unit costs for pump station upgrades and telemetry. Pump station upgrades include repair and replacement to the station itself and force main cleaning. Pump station telemetry includes upgrading or updating the SCADA system at the pump stations.

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9.2.1.4 STEP Unit Costs

Since there was no data for the STEP systems, STEP CIP projects are targeted to assess the conditions of the STEP system to determine future maintenance and repair and replacement projects. STEP main conditioning assessment and cleaning, and STEP system lift stations SCADA were based on similar projects Carollo Engineers have completed for other cities in the past.

9.2.2 Treatment Cost Assumptions

Cost estimates for treatment projects include 30 percent for construction contingency, 1.3 percent for builder's risk and insurance, 15 percent for general contractor overhead, risk, and profit, and one percent for performance and payment bond for a total overall construction adjustment factor of 53 percent. Planning adjustment mark-ups include 25 percent for engineering, legal, and design and 5 percent for owner's reserve for change orders for a total overall planning adjustment factor of 30 percent.

9.2.2.1 Total Treatment Project Capital Improvement Cost

The costs presented in this Plan are high-level planning costs to help the City in making financial decisions.

As shown in the following sample calculation of the capital improvement cost, the total cost of all project contingencies (construction and planning) and allied costs (engineering services, construction management, and project administration) is 82 percent of the baseline project cost.

Example:

Baseline Project Cost Overall Construction Adjustment Factor (53%)	\$1,000,000 \$530,000
Construction Cost Engineering, Legal, Design (25%)	\$1,530,000 \$382,500
Owner's Reserve (5%)	\$382,300 \$76,500
Total Capital Improvement Cost	\$1,989,000

9.3 Capital improvement Plan

As discussed, the CIPs are prioritized based on their urgency and risk to mitigate deficient systems. The timing for implementing these improvement projects is based on the affordability and urgency of the project. It is recommended that the City monitor growth and adjust project implementation accordingly.

9.3.1 Planning Periods

The following terms are used to define timing and prioritization into three planning periods:

- Short-term (2022 2031). Proposed facilities determined to be a high priority.
- **Long-term (2032 2041).** Proposed facilities determined to be a low priority or proposed facilities to service major growth areas to be developed in the long-term.



9.3.2 Project Types

Projects are categorized by type. These types include the following:

- "G" = Growth.
- "R&R" = Repair and Replacement.
- "LOS" = Level of Service.

Growth projects are focused on updating infrastructure to address the needs of expanding. Repair and replacement projects are focused on renewing or replacing infrastructure in poor condition. Level of Service projects are focused on upgrading infrastructure to address level of service concerns. The types aid the City in determining the appropriate funding sources.

9.3.3 Project and Program Naming

An individual Project Sheet was generated for each CIP project and includes project identifiers, description, costs, project type, and comments to aid in future implementation. Project are separated into the following categories:

- "P" = Pipeline.
- "PS" = Pump Station.
- "G" = General.
- "S" = STEP.
- "I&I" = Inflow and infiltration.
- "M" = Maintenance.
- "TP" = Treatment plant.

A summary of all CIP projects by facility type and project type is shown in Table 9.2. A summary of costs by project category and type is presented at the end of the chapter.

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Table 9.2 Capital Improvement Plan Summary

City of Camas General Sewer Plan Capital Improvement Plan



Capital Im	provement Plan Summary																	
									-						T			
CIP Project			Total	CIP Phasing													Project Type	1
Project		Subtotal ⁽¹⁾	CIP Cost Estimate	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Short-term (2022-2031)	Long-term (2032-2041)	Growth	Repair & Replacement	Level of Service
Gravity P	Pipeline													(=====	(======			
P-01	NW Fargo St Upsize	\$ 354,000	\$ 644,000	\$ -	\$ 644,000	\$ -	\$ -	\$ - :	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 644,000	\$ -	0%	0%	100%
P-02	Division St Upsize	\$ 717,000	\$ 1,306,000	\$ -	\$ 1,306,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,306,000	\$ -	0%	0%	100%
P-03	NW 6th PI West Upsize	\$ 282,000	\$ 514,000	\$ -	\$ 514,000	\$ -	\$ -	\$ - :	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 514,000	\$ -	0%	0%	100%
P-04	NW 6th Pl East Upsize	\$ 207,000	\$ 376,000	\$ -	\$ 376,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 376,000	\$ -	0%	0%	100%
P-05	NW 6th Ave West Upsize	\$ 454,000	\$ 825,000	\$ -	\$ 825,000	\$ -	\$ -	\$ - :	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 825,000	\$ -	0%	0%	100%
P-06	NW 6th Ave East Upsize	\$ 339,000	\$ 617,000	\$ -	\$ 617,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 617,000	\$ -	0%	0%	100%
P-07	Adams St Upsize	\$ 678,000	\$ 1,235,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 554,000	\$ 681,000	\$ -	\$ 1,235,000	\$ -	50%	0%	50%
P-08	NW 18th Loop Upsize	\$ 214,000	\$ 389,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 389,000	50%	0%	50%
P-09	NE 15th Ave Upsize	\$ 98,000	\$ 179,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 179,000	50%	0%	50%
	Gravity Subtotal		\$ 6,085,000	\$ -	\$ 4,282,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 554,000	\$ 681,000	\$ -	\$ 5,517,000	\$ 568,000			
Pump Sta	ation																	
PS-01	South Prune Hills Pump Station Improvements	\$ 280,000	\$ 510,000	\$ -	\$ 510,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 510,000	\$ -	0%	0%	100%
PS-02	West Camas Pump Station Improvements	\$ 280,000	\$ 510,000	\$ -	\$ -	\$ -	\$ -	\$ 510,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 510,000	\$ -	50%	0%	50%
PS-03	Crown View Hill Pump Station Improvements	\$ 280,000	\$ 510,000	\$ -	\$ -	\$ 510,000	\$ -	\$ - :	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 510,000	\$ -	0%	0%	100%
PS-04	Main Pump Station Improvements	\$ 280,000	\$ 510,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 510,000	\$ -	\$ 510,000	\$ -	50%	0%	50%
PS-05	Upgrade Pump Station Telemetry	\$ 320,000	\$ 14,560,000	\$ -	\$ -	\$ -	\$ 1,747,000	\$ - :	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,747,000	\$ 12,813,000	50%	0%	50%
	Pump Station Subtotal		\$ 16,600,000	\$ -	\$ 510,000	\$ 510,000	\$ 1,747,000	\$ 510,000	\$ -	\$ -	\$ -	\$ 510,000	\$ -	\$ 3,787,000	\$ 12,813,000			
General																		
G-01	Gravity Collection System Model	\$ 270,000	\$ 491,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 491,000	75%	0%	25%
	General Subtotal		\$ 491,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 491,000			
STEP																		
S-01	STEP Main Flows	\$ 126,000	\$ 229,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 229,000	75%	0%	25%
S-02	STEP Main Modeling	\$ 53,000	\$ 96,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Ÿ	\$ -	\$ -	\$ 96,000	75%	0%	25%
S-03	STEP Main Condition Assessment/ Cleaning	\$ 451,000	\$ 821,000	\$ -	\$ -	\$ 821,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 821,000	\$ -	0%	0%	100%
	STEP System Subtotal		\$ 1,146,000	\$ -	\$ -	\$ 821,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 821,000	\$ 325,000			
Inflow ar	nd Infiltration																	
I&I-01	Ongoing I&I Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	50%	0%	50%
	Inflow and Infiltration Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -			
Mainten																		
	WWTP R&R		\$ 2,000,000	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000,000		0%	100%	0%
M-02	Pump Station R&R	\$ 12,000,000	\$ 12,000,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	+,	\$ 600,000	\$ 6,000,000	\$ 6,000,000	0%	100%	0%
	Sewer Main R&R		\$ 3,000,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 1,500,000	\$ 1,500,000	0%	100%	0%
M-04	STEP Tank R&R	\$ 2,800,000	\$ 5,095,000	\$ -	\$ 1,019,000	\$ 1,019,000	\$ 1,019,000	\$ 1,019,000	\$ 1,019,000	\$ -	\$ -	\$ -	\$ -	\$ 5,095,000	\$ -	0%	100%	0%
	Maintenance Subtotal		\$ 22,095,000	\$ 2,750,000	\$ 1,769,000	\$ 1,769,000	\$ 1,769,000	\$ 1,769,000	\$ 1,769,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 14,595,000	\$ 7,500,000			
Treatmen		ć 400.222	ć 276 000	ć	<u>^</u>	Ċ.	Ć.	ć	<u> </u>	ć 276.000	Ć.	ć	ć	ć 276.000	ć	80%	20%	0%
	Aeration Basin Improvements	\$ 189,223 \$ 2,785,535	\$ 376,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 376,000	\$ -	\$ -	\$ -	\$ 376,000	\$ -	80% 50%	20% 50%	0%
TP-02	Secondary Clarifier Improvements	+ -//	\$ 5,539,000	\$ -	۶ - د	\$ -	۶ - د	۶ - د	\$ - \$ -	ې - د	\$ 5,539,000	\$ 1,862,000	\$ -	\$ 5,539,000 \$ 1,862,000	۶ - د	100%	0%	0%
TP-03	Aeration Blower Replacement	\$ 936,557 \$ 629,472	\$ 1,862,000 \$ 1,252,000		\$ 1,252,000	\$ - \$ -	\$ -	\$ -	\$ - \$ -	\$ -	\$ -	. , ,		\$ 1,862,000	\$ -	20%	80%	0%
	Disinfection Building / Hydraulic Improvements	\$ 629,472	\$ 1,252,000	\$ - \$ -	\$ 1,252,000	\$ -	\$ -	\$ -	\$ - \$ -	\$ 1,276,000	\$ -	Ÿ	\$ -	\$ 1,252,000	\$ -	100%	0%	0%
TP-05	Effluent Pump Station Improvements	\$ 507,998	\$ 1,276,000	\$ - \$ -	\$ -	\$ -	\$ 1,010,000	<u>۽</u> -	ş - \$ -	\$ 1,276,000	- د		\$ - \$ -	\$ 1,276,000	\$ -	0%	100%	0%
TP-06	Grit Separation / Odor Control Improvements	\$ 77,520	\$ 1,010,000	7	,	Ť	\$ 1,010,000	\$ - ¢	\$ - \$ -	٠ د	\$ -	T	T.	\$ 1,010,000	\$ 154,000	0%	100%	0%
TP-07	TPS Pump Replacement Sludge Recirculation Pump Replacement	\$ 77,520	\$ 154,000	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ -	\$ -	\$ - \$ -	\$ - \$ -	¢		\$ - \$ -	÷	\$ 154,000	0%	100%	0%
	Mechanical Dewatering Improvements	\$ 256,077	\$ 1,648,000	\$ -	\$ -	\$ -	\$ -	\$ 1,648,000	\$ - \$ -	\$ -	\$ -	7	\$ -	\$ 1,648,000	\$ 509,000	0%	100%	0%
TP-10	Plant Drain Pump Station No. 1 Improvements	\$ 260,057	\$ 517,000	\$ -	\$ 517,000	\$ -	\$ -	\$	- خ -	\$ -	\$ _	-	\$ -	\$ 517,000	ς _	50%	50%	0%
	SCADA Master Plan	\$ 208,964	\$ 209,000	\$ -	\$ -	\$ 209,000	\$ -	\$ -	, - \$ -	\$ -	\$ -	7	\$ -	\$ 209,000	\$ -	50%	50%	0%
TP-11 :	SCADA Improvements	\$ 324,439	\$ 645,000	\$ - \$ -	\$ - \$ -	\$ 209,000	\$ 645,000	¢ _	ş - \$ -	¢	¢	•	\$ - \$ -	\$ 645,000	ć	50%	50%	0%
	PLC & RIO Improvements	\$ 978,424	\$ 1,946,000	\$ -	\$ -	\$ -	\$ 1,946,000	\$ -	\$ - \$ -	\$ -	\$ -	7	\$ -	\$ 1,946,000	\$ -	50%	50%	0%
	Secondary Treatment Expansion Planning	\$ 75,000	\$ 75,000	Ψ	¥ -	\$ -	\$	ς _	- خ -	\$ -	\$ _	ς _	\$ -	\$ 1,340,000	\$ 75,000	100%	0%	0%
11 - 14	Treatment Plant Subtotal	7 73,000	\$ 17,018,000	\$.	\$ 1,769,000	\$ 209,000	\$ 3,601,000	\$ 1,648,000	\$ - \$ -	\$ 1,652,000	\$ 5,539,000	\$ 1,862,000	š -	\$ 16,280,000	\$ 738,000	100/0	5 /0	0/0
			A T1,010,000	Υ -	¥ 1,703,000	203,000	· · ·		Υ		· · · · ·	· , , , , , , , , , , , , , , , , , , ,	Ÿ -	· , , , , , , , , , , , , , , , , , , ,				
CIP Total			\$ 63,435,000	\$ 2,750,000	\$ 8,330,000	\$ 3.309.000	\$ 7,117,000	\$ 3,927,000	\$ 1,769,000	\$ 2,402,000	\$ 6.843.000	\$ 3.803.000	\$ 750,000	\$ 41.000.000	\$ 22,435,000	\$ 17,495,700	\$ 30,920,800	\$ 15,018,500

1. CIP Project Subtotal is project cost before contingency costs are added. CIP Project Cost = Estimated Construction Cost. Total CIP Project Cost = Estimated Construction Cost plus merkups for contingency, construction overhead (as applicable), engineering, and administration.

2. Part of existing City CIP Project.



9.4 Pump Station Projects

Pump stations in the CIP are all recommended to be upgraded to provide pump redundancy under existing conditions. These stations do not meet the required firm capacity. It is recommended that the City improve these pump stations redundancy and add a third redundant pump with the same capacity as the current pumps.

9.4.1 PS-01: South Prune Hills Pump Station

The South Prune Hills Pump Station captures flows from the Southwest portion of the system. Based on the modeled flows to the pump station wet well, and City draw down testing, the pump station receives more peak wet weather flow (PWWF) than its firm capacity during existing and buildout conditions. The stations firm capacity needs to convey more than double its current firm capacity from 449 gallons per minute (gpm) to 1,113 gpm. Extensive upgrades to the station are recommended in the short-term. The estimated cost is \$510,000 in 2023.

9.4.2 PS-02: West Camas Pump Station Improvements

The West Camas Pump Station captures flows from the Southwest portion of the system and is just downstream of the south Prune Hills PS. Based on the modeled flows to the pump station wet well, and City draw down testing, the pump station receives more PWWF than its firm capacity during existing and buildout conditions. The stations firm capacity needs to convey more than double its current firm capacity from 579 gpm to 1,302 gpm. Extensive upgrades to the station are recommended in the short-term, but later than project PS-01, which currently restricts flow to the West Camas Pump Station. The estimated cost is \$510,000 and is planned for 2026.

9.4.3 PS-03: Crown View Hill Pump Station

The Crown View Hill Pump Station captures flows from the Northern portion of the system. Based on the modeled flows to the pump station wet well, and City draw down testing, the pump station receives more PWWF than its firm capacity during existing and buildout conditions. The stations firm capacity needs to convey more than triple its current firm capacity from 148 gpm to 530 gpm. Extensive upgrades to the station are recommended in the short-term. The estimated cost is \$510,000 and is planned for 2024.

9.4.4 PS-04: Main Pump Station Improvements

The Main Pump Station captures flows from the majority of the system, except Flow Monitoring Basin 8-1-1. This station is just upstream on the WWTP. Based on the modeled flows to the pump station wet well, and City draw down testing, the pump station receives more PWWF than its firm capacity during existing and buildout conditions. The stations firm capacity needs to convey more than its current firm capacity from 3,851 gpm to 5,682 gpm. Extensive upgrades to the station are recommended in the long-term, after upstream stations have been upgraded. The estimated cost is \$510,000 and is planned for 2030.

9.4.5 PS-05: Upgrade Pump Station Telemetry

The telemetry and control system is how flow rates are measures and maintenance needs are updated. Supervisory control and data acquisition (SCADA) systems collect data from City lift stations, which can then be accessed by Civil Engineers and control sub consultant to help the City maintain the system. Upgrades to improve the telemetry system are recommended for



Lacamas Shores, Suningdale Gardens, and Winchester Hills 2 in the near term. These sites run time data all showed a risk of capacity deficiencies. The addition of flow meters and pressure sensors is recommended to better understand these stations capacity or lack thereof. Updates to the other 22 stations are recommended in the long-term. The near-term section of the project is planned for 2025 and the estimated cost is \$1,747,000. The remainder of the project has an estimated cost of \$12,813,000 and is planned for the long term.

9.5 STEP Projects

Since data was not available to evaluate the STEP system, improvement projects were not developed. However, CIP STEP projects include monitoring, modeling, and condition assessments to evaluate the STEP system in the future.

9.5.1 S-01: STEP Main Flows

Issues with treatment plant inflow monitoring restricted the ability to separate out STEP flows from Gravity System Flows. Recently, this issue was resolved, and future monitoring will allow a greater understanding of the STEP Main flows. If Oak and Main PSs are flow metered, the STEP system flow can be determined. A future study is recommended once sufficient historical data is available. The estimated cost is \$229,000 and is planned for the long term.

9.5.2 S-02: STEP Main Modeling

The STEP system should be added to the collection system model in order to evaluate that portion of the system. Additional metering at pump stations further upstream would allow calibration of the STEP portion of the model. The addition of a manhole with a flow meter near Northwest (NW) Lake Rd and NW Lacamas Drive or NW Parker Street and NW Knapp Lane to aid in calibration should also be considered. Figure 6.24 shows the potential overview of a STEP main model and proposed monitoring locations to add to the STEP system, shown as green circles. Inflows are shown in red and black triangles. These are based on the Gray and Osborne 2010 General Sewer Plan Appendix F. These inflows give an overview of where additional monitoring could be available in order to divide up the system during STEP model calibration. The estimated cost is \$96,000 and is planned for the long term.

9.5.3 S-03: STEP Main Condition Assessment and Cleaning

The addition of manholes to the STEP system would help investigation of the STEP mains condition and allow any partially obstructed portion of the STEP Main to be identified. A future investigation of debris, solids, and other obstruction is recommended in the sags in the system. The estimated cost is \$821,000 and is planned for 2024.

9.6 Pipeline Projects

CIP pipeline projects were determined from the results of a skeletonized model evaluation. Most pipeline projects address level of service concerns and some are combined growth and level of service projects.

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9.6.1 P-01: NW Fargo Street Upsize

Model surcharging and manhole flooding at manholes 3-1-26 and 3-1-25 revealed the need for upsizing. To alleviate surcharging 1,007 LF of pipe between manholes 3-1-26 to 3-1-22 should be upsized from 8- to 12-inch pipe, along NW Fargo Street between NW 23rd and NW 19th Avenue. This project is at a depth of approximately 10 feet. This estimated cost is \$644,000 and is planned for 2023.

9.6.2 P-02: Division Street Upsize

Model surcharging and manhole flooding at manholes 3-1-11, 3-1-10, and 3-1-6 revealed the need for upsizing. To alleviate surcharging 2,043 LF of pipe between manholes 3-1-11 to 3-1-2 should be upsized from 8 to 12-inch pipe. This project is a gravity pipeline along Division Street between NW 18th and 11th Avenue, at an approximate depth of 10 feet. The estimated cost is \$1,306,000 and is planned for 2023.

9.6.3 P-03: NW 6th Place West Upsize

Model surcharging and manhole flooding at manholes 10-1-8 revealed the need for upsizing. To alleviate surcharging 188 LF of pipe between manholes 10-1-11 to 10-1-10 should be upsized from 8 to 12-inch pipe and 616 LF of pipe between manholes 10-1-8 to 10-1-5 from 10 to 12-inch pipe. This project is a gravity pipeline along NW 6th Place, just upstream of the South Prune Hills Pump Station, at an approximate depth of 10-15 feet. The estimated cost is \$514,000 and is planned for 2023.

9.6.4 P-04: NW 6th Place East Upsize

Model surcharging and manhole flooding at manholes 10-1-3 revealed the need for upsizing. To alleviate surcharging 188 LF of pipe between manhole 10-1-3 to the West Camas Pump Station wet well should be upsized from 10 to 12-inch pipe. This project is a gravity pipeline along NW 6th Place between South Prune Hills PS and West Camas PS, at an approximate depth of 5-10 feet. The estimated cost is \$376,000 and is planned for 2023.

9.6.5 P-05: NW 6th Avenue West Upsize

Model surcharging and manhole flooding at manholes 1-1-9, 1-1-8, and 1-1-7 revealed the need for upsizing. To alleviate surcharging 311 LF of pipe between manholes 1-1-9 to 1-1-7 should be upsized from 12- to 15-inch pipe, and 1,340 LF of pipe between manholes 1-1-7 to 1-1-2 should be upsized from 12-inch to 18-inch. This project is a gravity pipeline along NW 6th Avenue, downstream of the West Camas PS and through Forest Home Park, at an approximate depth of five feet. The estimated cost is \$825,000 and is planned for 2023.

9.6.6 P-06: NW 6th Avenue East Upsize

Model surcharging occurs between manholes 2-1-3 to 5-1-12, along NW 6th Avenue. To alleviate surcharging 817 LF of pipe between manholes 2-1-3 to 2-1-1 should be upsized from 12 to 18-inch pipe, and 401 LF of pipe between manholes 2-1-1 to 5-1-12 should be upsized from 12-inch to 21-inch. This project is a gravity pipeline along NW 6th Avenue, between NW 7th Avenue and Southeast (SE) Adams Street, at an approximate depth of five feet. The estimated cost is \$617,000 and is planned for 2023.



9.6.7 P-07: Adams Street Upsize

Model surcharging occurs along SE 3rd Avenue, and flooding emerges at manholes 5-1-5 and 5-1-6 during buildout conditions. To alleviate surcharging 773 LF of pipe between manholes 5-1-10 to 5-1-12 and manholes 5-1-6 to 5-1-8 should be upsized from 21 to 24-inch pipe, and 925 LF of pipe between manholes 5-1-10 to 5-1-8 and manholes 5-1-6 to 5-1-2 should be upsized from 24-inch to 27-inch. This project is a gravity pipeline along Northeast (NE) and SE Adams Street between SE 3rd Avenue and NW 6th Avenue, at an approximate depth of 5-10 feet. The total estimated cost is \$1,235,000 and is planned for \$554,00 in 2027 and \$681,000 in 2030.

9.6.8 P-08: NW 18th Loop Upsize

Model surcharging occurs along NW 18th Loop, during buildout conditions. To alleviate surcharging 609 LF of pipe between manholes 3-1-1 to 3-1-16 and manholes 3-1-13 to 3-1-13 should be upsized from 8 to 12-inch pipe. This project is a gravity pipeline along NW 18th Loop, at an approximate depth of 5-10 feet. The estimated cost is \$389,000 and is planned for the long-term.

9.6.9 P-09: NE 15th Avenue Upsize

Model surcharging occurs along NE 15th Avenue, during buildout conditions. To alleviate surcharging 256 LF of pipe between manholes 4-1-2 to 4-2-1 should be upsized from 8 to 18-inch pipe. This project is a gravity pipeline along NE 15th Avenue between NE Garfield Street and NE Franklin Street, at an approximate depth of 10 feet. The estimated cost is \$179,000 and is planned for the long-term.

9.7 Inflow and Infiltration Projects

9.7.1 I&I-01: Ongoing I&I Program

The City has an on-going I&I program which should continue and focus on high I&I areas from the modeling efforts. Further discussion is provided in Chapter 5.

9.8 Maintenance Projects

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9.8.1 M-01: WWTP Repair and Replacement

Ongoing R&R is an item in the City's 2020 Sewer Capital Budget. No construction, E/L/D, or admin are applied, as the \$2,000,000 cost is from the City's budget.

9.8.2 M-02: Pump Station Repair and Replacement

Ongoing R&R is an item in the City's 2020 Sewer Capital Budget. No construction, E/L/D, or admin are applied, as the \$600,000 cost is from the City's budget. The cost is multiplied by a quantity of 20 for an estimated total cost of \$12,000,000.

9.8.3 M-03: Sewer Main Repair and Replacement

Ongoing R&R is an item in the City's 2020 Sewer Capital Budget. No construction, E/L/D, or admin are applied, as the \$150,000 cost is from the City's budget. The cost is multiplied by a quantity of 20 for an estimated total cost of \$3,000,000.

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9.8.4 M-04: STEP Tank Repair and Replacement

A STEP Tank R&R program is recommended to maintain the STEP collection system and prevent aging infrastructure and increases to infiltration in the system. This program will be a three-step process of assessment, repairs, and replacement. This should be performed for all tanks in the STEP system over the next 5 years. The estimated cost is \$5,100,000 and is planned from 2023 to 2028.

9.9 Treatment Plant Projects

Treatment plant projects in the CIP occur at the Wastewater Treatment Plant (WWTP). The projects aim to mitigate capacity limitations over the next 20 years and address current condition issues that prohibit reliability or performance. Projects were grouped together to consider construction sequencing and project timing.

9.9.1 TP-01: Aeration Basin Improvements

This project includes general modifications to the aeration basin to improve performance, including the following:

- Demolition of the existing marine plywood baffle walls at the upstream end of the aeration basin.
- Installation of new aeration diffusers and associated zone controls in the final anoxic zone to create a new aerated swing zone.
- Repair and releveling of the concrete walls dividing each zone in each aeration basin.

The estimated cost is \$376,000 and is planned for 2028.

9.9.2 TP-02: Secondary Clarifier Improvements

This project involves the replacement of two of the existing aeration blowers with larger high-speed turbo blowers to meet projected future aeration demands. The estimated cost is \$5,539,000 and is planned for 2029.

9.9.3 TP-03: Aeration Blower Replacement

This project includes the demolition of the existing Secondary Clarifier No. 1 and replacement with a new clarifier matching the design of the existing Secondary Clarifier No. 3, as well as replacement of the existing Secondary Clarifier No. 2 RAS pumps to provide firm capacity matching that of Secondary Clarifier No. 3. The estimated cost is \$1,862,000 and is planned for 2030.

9.9.4 TP-04: Disinfection Building / Hydraulic Improvements

This project includes modifications to the Disinfection Building and general hydraulic improvements, including the following:

- Replacing the existing UV disinfection equipment and providing temporary UV skid to bypass existing channel.
- Modifying the filter bypass so it does not limit the plant hydraulic capacity.
- Reconfiguring the NPW Pump Station to prevent air entrainment in pump suction.
- Redirecting the headworks channel inlet pipe to improve flow measurement and prevent splashing of raw sewage out of the top of the structure.



The estimated cost is \$1,252,000 and is planned for 2023.

9.9.5 TP-05: Effluent Pump Station Improvements

This project involves increasing the capacity of the existing effluent pump station as required to pump 100 percent of projected 2035 peak hour flows to the outfall in the Columbia River. It assumes that this is accomplished by replacement of the existing effluent pumps with larger pumps. The estimated cost is \$1,276,000 and is planned for 2028.

9.9.6 TP-06: Grit Separation / Odor Control Improvements

This project involves replacement of existing grit separation equipment, including hydrocyclones and grit classifiers, as well as increasing the capacity of the odor control systems servicing the grit handling area and the dewatering building. The estimated cost is \$1,010,000 and is planned for 2025.

9.9.7 TP-07: TPS Pump Replacement

This project involves replacement of the existing thickened primary sludge pumps with new progressive cavity pumps. The estimated cost is \$154,000 and is planned for the long-term.

9.9.8 TP-08: Sludge Recirculation Pump Replacement

This project involves replacement of the existing digested sludge pumps with new double disc piston-style pumps. The estimated cost is \$509,000 and is planned for the long-term.

9.9.9 TP-09: Mechanical Dewatering Improvements

This project involves rehabilitation of the existing dewatering centrifuge and the addition of a second dewatering centrifuge for redundancy. The estimated cost is \$1,648,000 and is planned for 2026.

9.9.10 TP-10: Plant Drain Pump Station No. 1 Improvements

This project involves repair of the existing Plant Drain Pump Station No. 1 structure and replacement of the existing pumps. The estimated cost is \$517,000 and is planned for 2023.

9.9.11 TP-11: SCADA Master Plan

The SCADA master plan will provide the City with a road map to planned system upgrades designed to address system deficiencies and enhance facility operation. Development of the master plan will include an in-depth investigation of the existing SCADA control system for the City's wastewater treatment facility (WWTF) and the associated remote sites. The estimated cost is \$209,000 and is planned for 2024.

9.9.12 TP-12: SCADA Improvements

Upgrades to the existing SCADA system to provide redundancy and take advantage of modern features including advanced data analysis, report generation, and secure remote accessibility. The estimated cost is \$654,000 and is planned for 2025.

9.9.13 TP-13: PLC and RIO Improvements

This project includes replacement of the existing Modicon Quantum hardware with the Modicon M580 PLC and X80 I/O. The estimated cost is \$1,946,000 and is planned for 2025.

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9.9.14 TP-14: Secondary Treatment Expansion Planning

This project plans for a future secondary treatment expansion to accommodate flows and loads outside the planning windows. The estimated cost is \$75,000 and is planned for the long-term.

9.10 General Projects

9.10.1 G-01: Gravity Collection System Model

The gravity collection system model is heavily skeletonized, only 24 percent of the gravity system pipes are included. A full pipe or less skeletonized model is needed for a more robust evaluation of the system. In order to expand the model, accurate and updated GIS for the collection system should be developed. The estimated cost is \$491,000 and is planned for the long-term.

9.11 Summary of CIP

Recommended improvements include five pump station projects, three STEP projects, nine pipeline projects, one inflow and infiltration project, four maintenance projects, 14 treatment plant projects, and one general project. Most projects are allocated as repair and replacement projects at \$30.9 M. Level of service projects are at \$17.5 M and growth projects are at \$15.0 M. The total CIP is \$63.4 M.

The CIP recommends budgeting \$41.0 M in the short term. The average annual short-term cost for all recommended projects is approximately \$4.1 M per year from 2022 through 2031. The CIP recommends \$22.4 M in the long-term with an average annual long-term cost of approximately \$2.2 M per year from 2032 through 2041.

Detailed sheets for each CIP project presented in this chapter can be found in Appendix K of the Plan. Table 9.3 summarizes the total cost and annual cost for each planning period.

Table 9.3 CIP Planning Period Summary

Planning Period	Total Cost	Annual Cost
Short-term (2022-2031)	\$41.0 M	\$4.1 M
Long-term (2032-2041)	\$22.4 M	\$2.2 M

Maintenance projects accounts for 35 percent of the CIP projects at \$22.1 M, followed by treatment plant projects at \$17.0 M (27 percent) and pump station projects at \$16.6 M (26 percent). Table 9.4 summarizes the total estimated capital costs by facility type. Figure 9.1 shows the various project types of CIP allocation.



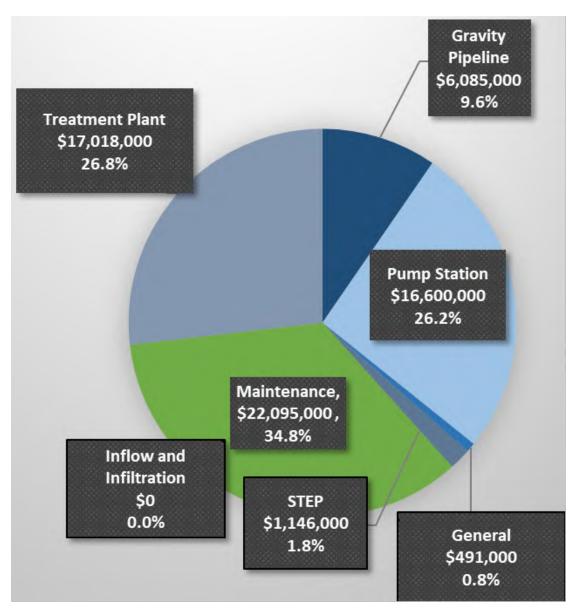


Figure 9.1 Cost by Project Type

Table 9.4 CIP Summary by Project Type

			Planning Period			
Project ID	Title	Total Capital Cost	Short-term (2022-2031)	Long-term (2032-2041)		
Pump Station						
PS-01	South Prune Hills Pump Station Improvements	\$510,000	\$510,000			
PS-02	West Camas Pump Station Improvements	\$520,000	\$510,000			
PS-03	Crown View Hill Pump Station Improvements	\$520,000	\$510,000			
PS-04	Main Pump Station Improvements	\$520,000	\$510,000			
PS-05	Upgrade Pump Station Telemetry	\$14,560,000	\$1,747,000	\$12,813,000		
STEP						
S-01	STEP Main Flows	\$229,000		\$229,000		
S-02	STEP Main Modeling	\$96,000		\$96,000		
S-03	STEP Main Condition Assessment/ Cleaning	\$821,000	\$821,000			
Pipeline						
P-01	NW Fargo Street Upsize	\$664,000	\$664,000			
P-02	Division Street Upsize	\$1,306,000	\$1,306,000			
P-03	NW 6th Place West Upsize	\$514,000	\$514,000			
P-04	NW 6th Place East Upsize	\$376,000	\$376,000			
P-05	NW 6th Avenue West Upsize	\$825,000	\$825,000			
P-06	NW 6th Avenue East Upsize	\$617,000	\$617,000			
P-07	Adams Street Upsize	\$1,235,000	\$1,235,000			
P-08	NW 18th Loop Upsize	\$389,000		\$389,000		
P-09	NE 15th Avenue Upsize	\$179,000		\$179,000		
Inflow and Infiltration	n					
I&I-01	Ongoing I&I Program					



			Planning Period			
Project ID	Title	Total Capital Cost	Short-term (2022-2031)	Long-term (2032-2041)		
Maintenance						
M-01	WWTP Repair and Replacement	\$2,000,000	\$2,000,000			
M-02	Pump Station Repair and Replacement	\$12,000,000	\$6,000,000	\$6,000,000		
M-03	Sewer Main Repair and Replacement	\$3,000,000	\$1,500,000	\$1,500,000		
M-04	STEP Tank Repair and Replacement	\$5,095,000	\$5,095,000			
Treatment Plant						
TP-01	Aeration Basin Improvements	\$376,000	\$376,000			
TP-02	Secondary Clarifier Improvements	\$5,539,000	\$5,539,000			
TP-03	Aeration Blower Replacement	\$1,862,000	\$1,862,000			
TP-04	Disinfection Building / Hydraulic Improvements	\$1,252,000	\$1,252,000			
TP-05	Effluent Pump Station Improvements	\$1,276,000	\$1,276,000			
TP-06	Grit Separation / Odor Control Improvements	\$1,010,000	\$1,010,000			
TP-07	TPS Pump Replacement	\$154,000		\$154,000		
TP-08	Sludge Recirculation Pump Replacement	\$509,000		\$509,000		
TP-09	Mechanical Dewatering Improvements	\$1,648,000	\$1,648,000			
TP-10	Plant Drain Pump Station No. 1 Improvements	\$517,000	\$517,000			
TP-11	SCADA Master Plan	\$209,000	\$209,000			
TP-12	SCADA Improvements	\$645,000	\$645,000			
TP-13	PLC and RIO Improvements	\$1,946,000	\$1,946,000			
TP-14	Secondary Treatment Expansion Planning	\$75,000		\$75,000		
General						
G-01	Gravity Collection System Model	\$491,000		\$491,000		



Chapter 10

FINANCIAL PLAN

10.1 Introduction

This chapter was prepared by FCS GROUP to provide a financial program that allows the City of Camas (City) sewer utility to remain financially viable during the planning period. This financial viability analysis considers the historical financial condition, current and identified future financial and policy obligations, operation and maintenance (O&M) needs, and the financial impacts of the capital projects identified in this General Sewer Plan (Plan). Furthermore, this chapter provides a review of the sewer utility's current rate structure with respect to rate adequacy and customer affordability.

10.2 Past Financial Performance

This section includes a historical summary of financial performance as reported by the City, including fund resources and uses arising from cash transactions, as well as a historical summary of comparative statements of net position, which are useful indicators of the City's financial position.

10.2.1 Comparative Financial Statements

The City legally owns and operates both a water and sewer utility. Operations and financial reporting occur on a combined utility fund basis. Table 10.1 shows a summary of the utility fund resources and uses arising from cash transactions for the previous 6 years (2015 through 2020) for the water and sewer utilities combined. Table 10.2 shows a summary of assets and liabilities, with the difference between the two reported as "net position." Increases or decreases in net position are useful indicators of the financial position of the City's utility fund. Noteworthy findings and trends are discussed following each table to demonstrate the historical performance and condition of the City's combined utility fund.



 Table 10.1
 Summary of Historical Fund Resources and Uses Arising from Cash Transactions

	2015	2016	2017	2018	2019	2020
Operating Revenues						
Charges for Service	\$11,202,674	\$11,411,593	\$12,034,637	\$12,436,638	\$12,625,383	\$13,595,484
Total Operating Revenues	\$11,202,674	\$11,411,593	\$12,034,637	\$12,436,638	\$12,625,383	\$13,595,484
Operating Expenses						
Water Operations and Maintenance	\$1,885,556	\$2,453,392	\$2,102,232	\$1,820,073	\$3,175,678	\$2,918,824
Sewer Operations and Maintenance	2,300,528	2,730,173	2,160,594	2,328,923	2,366,102	2,362,571
Customer Accounts	39,123	77,005	81,347	103,290	82,415	113,647
Administration	1,277,740	1,181,535	1,744,099	1,692,329	1,667,443	1,643,828
Taxes	389,507	435,240	470,531	517,704	589,618	535,323
Depreciation and Amortization	3,071,893	3,183,705	3,521,386	3,758,016	4,474,904	4,661,734
Total Operating Expenses	\$8,964,347	\$10,061,050	\$10,080,189	\$10,220,335	\$12,356,160	\$12,235,927
Operating Income (Loss)	\$2,238,327	\$1,350,543	\$1,954,448	\$2,216,303	\$269,223	\$1,359,557
Nonoperating Revenues (Expenses)						
Interest Earnings	\$26,983	\$204,446	\$249,358	\$403,216	\$1,000,866	\$547,253
State and Federal Grants	-	-	-	-	-	67,417
Interest and Fiscal Charges	(842,275)	(1,136,153)	(1,132,064)	(1,081,102)	(1,723,672)	(1,578,632)
Gain (Loss) on Disposal of Assets	(30,508)	3,821	(126,326)	298	-	(109,215)
Miscellaneous Revenue (Expense)	161,635	641,503	204,474	511,028	292,041	13,650
Debt Issuance Cost	-	-	-	-	(147,928)	-
Total Non-Operating Revenues (Expenses)	\$(684,165)	\$(286,383)	\$(804,558)	\$(166,560)	\$(578,693)	\$(1,059,527)
Income (Loss) before Contributions and Transfers	\$1,554,162	\$1,064,160	\$1,149,890	\$2,049,743	\$(309,470)	\$300,030
Capital Contributions	2,601,733	5,881,163	7,175,669	12,838,554	17,022,644	12,594,638
Transfers In	-	-	191,461	117,744	86,217	132,782
Transfers Out	-	-	(139,172)	-	-	-
Increase (Decrease) in Net Position	\$4,155,895	\$6,945,323	\$8,377,848	\$15,006,041	\$16,799,391	\$13,027,450
Total Net Position Beginning of Year	\$68,680,879	\$71,814,867	\$78,614,731	\$86,899,537	\$101,905,578	\$119,750,648
Change in Accounting Principles	(1,021,907)	-	(154,994)	-	-	-
Prior Period Adjustment	-	(145,459)	61,952	-	1,045,679	(223,860)
Total Net Position, End of Year	\$71,814,867	\$78,614,731	\$86,899,537	\$101,905,578	\$119,750,648	\$132,554,238
O&M Coverage Ratio	125.0%	113.4%	119.4%	121.7%	102.2%	111.1%
Net Operating Income as a % of Operating Revenue	20.0%	11.8%	16.2%	17.8%	2.1%	10.0%
Debt Service Coverage Ratio	5.93	10.45	3.58	3.89	3.09	3.94



Table 10.2 Summary of Historical Comparative Statements of Net Position

Current Assets	2015	2016	2017	2018	2019	2020
Cash, Cash Equivalents, Pooled Investments	\$4,619,622	\$6,652,747	\$7,300,446	\$16,034,437	\$19,009,248	\$12,109,932
Receivables	4 1,013,022	\$0,032,7 17	47,300,110	\$10,03 t, 137	¥13,003,210	412,103,33
Accounts	1,603,637	1,705,130	2,467,888	1,683,994	1,700,675	1,987,362
Developer Agreement	-	-	-	-	166,096	332,192
Restricted Assets					200,000	00-1-0-
Cash and Cash Equivalents	6,743,812	6,433,517	10,348,092	5,218,201	5,120,589	19,444,546
Investments	15,024,018	15,119,563	6,475,060	1,496,284	11,143,904	2,092,214
Interest Receivable	8,858	600	-	-	821	-
Total Current Assets	\$27,999,947	\$29,911,557	\$26,591,486	\$24,432,916	\$37,141,333	\$35,966,24
Long Term Assets		, ,				<u> </u>
Developer Agreement	\$-	\$-	\$-	\$-	\$1,670,408	\$1,504,312
Non-Depreciable Assets						, , ,
Land and Improvements to Land	1,108,023	1,015,178	942,835	942,835	1,073,895	1,930,433
Land Rights	-	92,845	477,394	537,394	1,619,493	3,024,486
Construction In Progress	10,074,376	4,155,957	12,576,133	2,893,525	2,600,268	4,949,841
Deferred Charges	-	-	-	-	-	-
Property, Plant and Equipment (Net)						
Building	20,913,401	21,438,584	20,914,486	24,929,225	23,949,529	23,022,438
Intangible Assets	388,526	385,721	-	55,674	310,067	255,323
Improvements Other than Buildings	5,177,60	9,918,134	9,546,801	10,483,732	10,605,403	18,545,390
Machinery and Equipment	18,567,85	18,986,219	17,816,343	16,851,938	16,236,367	16,785,492
Infrastructure	39,776,49	45,498,995	49,354,925	68,820,466	79,901,446	81,112,850
Total Noncurrent Assets	\$96,006,27	\$101,491,633	\$111,628,917	\$125,514,789	\$137,966,876	\$151,130,56
Total Assets	\$124,006,225	\$131,403,190	\$138,220,403	\$149,947,705	\$175,108,209	\$187,096,83
Total Deferred Outflows of Resources	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ,	, , - ,	, -,- ,	,,	
Deferred Amount on Refunding	246,166	223,615	201,065	127,163	171,584	\$31,247
Amounts Related to Pensions	150,855	280,188	181,133	,	35,152	233,890
Total Deferred Outflows of Resources	397,021	503,803	382,198	127,163	206,736	\$265,137
Liabilities	337,021	303,003	302,130	12,,103	200,730	4203,137
Current Liabilities						
Accounts Payable	\$1,161,415	\$633,737	\$1,412,772	\$1,115,924	\$445,392	\$241,793
Customer Deposits	-	-	-	-	-	2,714
Accrued Interest Payable	227,132	293,713	275,429	146,455	360,199	344,933
Accrued Employee Benefits	12,916	15,476	11,162	12,417	14,053	17,002
Line of Credit	-	2,647,259	40,664	-	-	1,050,000
Unearned Revenues	35,000	-	-	_	_	2,892
Total OPEB liability - Short Term	-	_	_	_	_	13,182
Bonds, Notes and Loans Payable	2,752,641	3,012,332	3,260,036	3,367,485	3,121,308	2,642,168
Payable from Restricted Assets	78,375	407	890,039	495,674	35,330	101,849
Total Current Liabilities	\$4,267,479	\$6,602,924	\$5,890,102	\$5,137,955	\$3,976,282	\$4,416,533
Annual Revenue Bond Debt Service	\$896,195	\$433,960	\$1,531,475	\$1,534,175	\$1,534,775	\$1,530,075
Non-Current Liabilities	Ψ030,133	Ψ + 33,300	Ψ1,331,473	Ψ1,554,175	Ψ1,33 1 ,773	Ψ1,330,073
Bonds, Notes and Loans Payable	\$45,838,121	\$44,347,386	\$43,590,207	\$41,307,897	\$49,591,611	\$48,401,81
Unearned Revenue - Developer Credit	1,083,944	604,647	453,149	310,525	694,296	689,310
Net Pension Liability		-		712,058		647,872
Accrued Employee Benefits	1,031,588	1,500,278	1,195,273	<u> </u>	552,735	153,020
Total OPEB Liability	208,142	200,800	352,597	111,755 273,813	126,478 243,715	231,418
Total Non-Current Liabilities	\$48,161,795	\$46,653,111	\$45,591,226	\$42,716,048	\$51,208,835	\$50,123,43
Total Liabilities	\$52,429,274	\$53,256,035	\$51,481,328	\$47,854,003	\$55,185,117	\$50,123,43
Deferred Inflows of Resources	\$32,423,274	\$33,230,033	\$31,401,320	\$47,654,005	\$33,103,117	\$34,333,37
	#1FO 10F	#2C 227	#221 72 <i>C</i>	#21F 207	#2F1 112	¢212.700
Amounts Related to Pensions Inflows - Amounts Related to OPEB	\$159,105 \$-	\$36,227 \$-	\$221,736 \$-	\$315,287 \$-	\$351,113	\$212,790
					\$28,067	\$24,949
Total Deferred Inflows of Resources Net Position	\$159,105	\$36,227	\$221,736	\$315,287	\$379,180	\$237,739
	¢64, ECO 715	¢67,000,073	¢72.962./15	¢0F 00/ 30/	¢00 157 / C/	¢106 (0/ 3
Net Investment in Capital Assets	\$64,569,715	\$67,960,072	\$73,863,415	\$85,894,304	\$98,157,464	\$106,694,34
Restricted for Debt Service Restricted for Capital Purposes	1,548,179	1,567,095	1,603,591	1,622,623	1,698,047	1,716,329
RESTRICTED for Capital Purposes	2,208,041	5,776,990	5,100,355	6,650,823	12,208,294	11,582,557
·	3,488,932	3,310,574	6,332,176	7,737,828	7,686,843	12,561,008
Unrestricted		70 (1/ 721	0.000 ====	101 005 570	110 750 010	
Unrestricted Total Net Position	71,814,867	78,614,731	86,899,537	101,905,578	119,750,648	132,554,23
Unrestricted		78,614,731 1.3 0.6	86,899,537 1.7 0.5	101,905,578 3.4 0.4	119,750,648 5.3 0.4	132,554,23 3.3 0.4



10.2.2 Findings and Trends

- The City's combined water and sewer charges for services increased from \$11.2 million (M) in 2015 to \$13.6M in 2020. The average annual compounding increase is 4.0 percent per year, with a total increase of 21.4 percent from 2015 to 2020. Expenses range from \$9.0M in 2015 to \$12.2M in 2020, showing increases every year. With an average annual compounding increase of 6.4 percent, expenses have grown faster than revenues over the past 6 years and have increased 36.5 percent overall. While combined water and sewer maintenance and operations expenses have increased 26.2 percent, the largest contributor to increases in expenses is depreciation and amortization, growing by 51.8 percent since 2015.
- The O&M coverage ratio (total operating revenues divided by total operating expenses) started at 125.0 percent in 2015 and has trended downward reaching a low of 102.2 percent in 2019 before recovering to 111.1 percent in 2020. A ratio of 100.0 percent or greater shows that revenue will successfully cover expenses, and the City has remained above this ratio for the past six-year period.
- Net operating income as a percent of operating revenue was 20.0 percent in 2015. This metric has varied over the past 6 years with a high of the 2015 figure of 20.0 percent reaching a low of 2.1 percent in 2019 before increasing to 10.0 percent in 2020. Similar to the O&M coverage ratio, these trends help to show how successfully operating revenue actually covered operating expenses, with higher positive numbers being the best and negative numbers showing need for improvement. In addition, these trends demonstrate the ability of the utility to invest in capital, whether through direct cash transfers or the issuance and servicing of debt.
- The debt service coverage ratio measures the amount of cash flow available to meet interest and principal payments. Typically, bond debt service coverage requires a minimum factor of 1.25 during the life of the loans. This ratio is calculated by dividing cash operating income (revenues less expenses before depreciation) by annual revenue bond expenses. The debt service coverage ratio for revenue bond debt ends 2015 at 5.93 and fluctuates year to year to a low of 3.09 in 2019 and a high of 10.45 in 2016. The ability of this ratio to remain at levels significantly higher than the bond covenant minimum of 1.25 indicates a stable capacity for new debt and will likely result in more favorable terms when entering the bond market.
- The current ratio is a measure of short-term liquidity or the City's ability to pay its current bills it is calculated by dividing unrestricted current assets (excluding inventories and prepaid items) by current liabilities. A ratio of 1.0 indicates that the utility has exactly enough to pay its bills; higher values are desirable as they suggest an ability to pay large or unanticipated bills. The ratio begins at 1.5 in 2015 decreasing to 1.3 in 2016 before rebuilding to a high of 5.3 in 2019 and ending 2020 at 3.3 suggesting that the City has capacity to meets its short-term financial obligations.



10.3 Financial Plan

The sewer utility is responsible for generating sufficient revenue to meet all of its costs. The primary source of funding is derived from ongoing monthly service charges, with additional revenue coming from inspection fees, investment earnings, space and facilities leases, rents and charges and other miscellaneous revenues. The City controls the level of user service charges and, with City Council approval, can adjust user service charges as needed to meet financial objectives.

The financial plan can only confirm financial feasibility if it considers the total system costs of providing sewer services, both operating and capital. To meet these objectives, the following elements have been completed:

- Capital Funding Plan. Identifies the total capital improvement plan (CIP) obligations of
 the planning period. The plan defines a strategy for funding the CIP, including an
 analysis of available resources from rate revenues, existing reserves, connection
 charges, debt financing, and any special resources that may be readily available (e.g.,
 grants, developer contributions, etc.). The capital funding plan impacts the financial plan
 through the use of debt financing (resulting in annual debt service) and the assumed rate
 revenue made available for capital funding.
- 2. Financial Forecast. Identifies future annual non-capital costs associated with the operation, maintenance, and administration of the sewer system. Included in the financial plan is a reserve analysis that forecasts cash flow and fund balance activity, along with testing for satisfaction of actual or recommended minimum fund balance policies. The financial plan ultimately evaluates the sufficiency of utility revenues in meeting all obligations, including cash uses such as operating expenses, debt service, capital outlays, and reserve contributions, as well as any coverage requirements associated with long-term debt. The plan also identifies the future adjustments required to fully fund all utility obligations in the planning period.

10.3.1 Capital Funding Plan

To properly evaluate future capital funding needs, capital costs were escalated by 3.50 percent annually to the year of planned spending. The CIP used for this PLAN identifies \$47.5M in project costs over the 10-year planning horizon from 2022-2031. The 20-year period through 2041 includes \$86.0M in total project costs.

A summary of the 10-year and 20-year CIPs are shown in Table 10.3. As shown, each year has varied capital cost obligations depending on construction schedules and infrastructure planning needs. Table 10.4 provides more detail for the 10-year CIP.

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Table 10.3 10-Year and 20-Year CIPs

Year	Escalated \$
2022	\$2,846,250
2023	8,923,304
2024	3,668,747
2025	8,166,921
2026	3,445,478
2027	2,174,553
2028	3,056,015
2029	9,010,924
2030	5,183,099
2031	1,057,949
10-Year Total	\$47,533,240
2032 - 2041	38,425,499
20-Year Total	\$85,958,739



Table 10.4 10-Year CIP (Escalated \$)

Project	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Gravity Pipeline										
Northwest Fargo Street Upsize		\$689,869								
Division Street Upsize		1,399,020								
Northwest 6th Place West Upsize		550,610								
Northwest 6th Place East Upsize		402,781								
Northwest 6th Avenue West Upsize		883,761								
Northwest 6th Avenue East Upsize		660,946								
Adams Street Upsize								729,512	928,133	
Pump Station										
South Prune Hills Pump Station Improvements		546,325								
West Camas Pump Station Improvements					605,720					
Crown View Hill Pump Station Improvements			565,446							
Main Pump Station Improvements									695,078	
Upgrade Pump Station Telemetry				2,004,723						
БТЕР										
STEP Main Condition Assessment/ Cleaning			910,257							
Maintenance										
WWTP R&R	2,070,000									
Pump Station R&R	621,000	642,735	665,231	688,514	712,612	737,553	763,368	790,085	817,738	846,359
Sewer Main R&R	155,250	160,684	166,308	172,128	178,153	184,388	190,842	197,521	204,435	211,590
STEP Tank R&R		1,091,578	1,129,784	1,169,326	1,210,252	1,252,611				
Freatment Plant										
Aeration Basin Improvements							478 , 377			
Secondary Clarifier Improvements								7,293,805		
Aeration Blower Replacement									2,537,715	
Disinfection Building / Hydraulic Improvements		1,341,174								
Effluent Pump Station Improvements							1,623,428			
Grit Separation / Odor Control Improvements				1,158,998						
Mechanical Dewatering Improvements					738,741					
Plant Drain Pump Station No. 1 Improvements		553,823								
SCADA Master Plan			231,722							
SCADA Improvements				740,152						
PLC & RIO Improvements				2,233,080						
Total	\$2,846,250	\$8,923,304	\$3,668,747	\$8,166,921	\$3,445,478	\$2,174,553	\$3,056,015	\$9,010,924	\$5,183,099	\$1,057,94

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10.4 Available Funding Assistance and Financing Resources

Feasible long-term capital funding strategies must be defined to ensure that adequate resources are available to fund the CIP identified in this PLAN. In addition to the City's resources, such as accumulated cash reserves, capital revenues, and rate revenues designated for capital purposes, capital needs can be met from outside sources, such as grants, low-interest loans, and bond financing. The following is a summary of the City's internal and external resources.

10.4.1 City Resources

Resources appropriate for funding capital needs include accumulated cash in the capital fund, rate revenues designated for capital spending purposes, developer contributions, and capital-related charges such as connection fee revenue. The first two resources will be discussed in the Fiscal Policies section of the Financial Forecast. Capital-related charges are discussed below.

10.4.1.1 System Development Charges

A connection charge such as the City's system development charge (SDC) refers to a one-time charge imposed on new customers as a condition of connecting to the sewer system. The purpose of the SDC is two-fold: 1) to promote equity between new and existing customers; and 2) to provide a source of revenue to fund capital projects. Revenue can only be used to fund utility capital projects or to pay debt service incurred to finance those projects. In 2021, the City charged all new customers an SDC dependent upon the location of the property. A charge of \$2,493 per meter capacity equivalent (MCE) was charged for connections in the South Area while a charge of \$4,420 per MCE was charged for connection in the North Shore Area.

10.4.1.2 Local Facilities Charges

While a connection charge is the manner in which new customers pay their share of system investment costs, local facilities charge funding is used to pay the costs of local facilities that connect each property to the system's infrastructure. Local facilities funding is often overlooked in rate forecasting because it is funded upfront by either connecting customers and developers, or through an assessment to properties, but never from rates.

A number of mechanisms can be considered toward funding local facilities. One of the following scenarios typically occurs: (a) the utility charges a connection fee based on the cost of the local facilities (under the same authority as the facilities assessment fee); (b) a developer funds an extension of the system to its development and turns those facilities over to the utility (contributed capital); or (c) a local assessment is set up called a Utility Local Improvement District (ULID/LID) or a Local Utility District (LUD), which collects tax revenue from benefited properties.

A local facilities charge (LFC) is a variation of the connection charge. It is a city-imposed charge to recover the cost related to service extension to local properties. Often called a front-footage charge and imposed on the basis of footage of the main "fronting" a particular property, it is usually implemented as a reimbursement mechanism to a city for the cost of a local facility that directly serves a property. It is a form of connection charge and thus can accumulate up to 10 years of interest. It typically applies in instances when no developer-installed facilities are needed through developer extension due to the prior existence of available mains already serving the developing property.



The developer extension is a requirement that a developer install on-site and sometimes off-site improvements as a condition of extending service. These are in addition to the connection charge required and must be built to City standards. Part of the agreement between the City and the developer planning to extend service might include a latecomer agreement, resulting in a latecomer charge to new connections for the developer extension.

Latecomer charges are a variation of developer extensions, whereby new customers connecting to a developer-installed improvement make a payment to the City based on their share of the developer's cost. The City passes this charge on to the developer who installed the facilities. As part of the developer extension process, this defines the allocation of costs and records latecomer obligations on the title of affected properties. No interest is allowed, and the reimbursement agreement cannot exceed 20 years in duration.

ULID/LID is another mechanism for funding infrastructure that assesses benefited properties based on the special benefit received by the construction of specific facilities. Most often used for local facilities, some ULIDs also recover related general facilities costs. Substantial legal and procedural requirements can make this a relatively expensive process, and there are mechanisms by which a ULID can be rejected.

10.4.2 Outside Resources

This section outlines various grant, loan, and bond opportunities available to the City through federal and state agencies to fund the CIP identified in the Plan.

10.4.2.1 Grants and Low-Cost Loans

Historically, federal and state grant programs were available to local utilities for capital funding assistance. However, these assistance programs have been mostly eliminated, substantially reduced in scope and amount, or replaced by loan programs. Remaining grant programs are generally lightly funded and heavily subscribed. Nonetheless, the benefit of low-interest loans makes the effort of applying worthwhile.

Appendix L to this Plan contains a document entitled "Funding Programs for Drinking Water and Wastewater Projects; Updated 2-14-2022". This document is maintained by the State of Washington's Department of Commerce and contains details on government programs, eligibility requirements, and contact information, should the City wish to inquire about program offerings and eligibility requirements.

10.4.2.2 Bond Financing

General Obligation Bonds - General obligation (G.O.) bonds are bonds secured by the full faith and credit of the issuing agency, committing all available tax and revenue resources to debt repayment. With this high level of commitment, G.O. bonds have relatively low interest rates and few financial restrictions. However, the authority to issue G.O. bonds is restricted in terms of the amount and use of the funds, as defined by the Washington constitution and statute. Specifically, the amount of debt that can be issued is linked to assessed valuation.

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Revised Code of Washington (RCW) 39.36.020 states:

- (2)(a)(ii) Counties, cities, and towns are limited to an indebtedness amount not
 exceeding one and one half percent of the value of the taxable property in such counties,
 cities, or towns without the assent of three-fifths of the voters therein voting at an
 election held for that purpose.
 - (b) In cases requiring such assent counties, cities, towns, and public hospital districts are limited to a total indebtedness of two and one-half percent of the value of the taxable property therein.

While bonding capacity can limit the availability of G.O. bonds for utility purposes, these can sometimes play a valuable role in project financing. A utility rate savings may be realized through two avenues: the lower interest rate and related bond costs, and the extension of repayment obligation to all tax-paying properties (not just developed properties) through the authorization of an ad valorem property tax levy.

Revenue Bonds - Revenue bonds are commonly used to fund utility capital improvements. The debt is secured by the revenues of the issuing utility. With this limited commitment, revenue bonds typically bear higher interest rates than G.O. bonds and require security conditions related to the financial performance (added bond debt service coverage) and may require maintenance of dedicated reserves (a bond reserve). The City agrees to satisfy these requirements by resolution as a condition of bond sale.

Revenue bonds can be issued in Washington without a public vote. There is no bonding limit, except perhaps the practical limit of the utility's ability to generate sufficient revenue to repay the debt and provide coverage. In some cases, poor credit might make issuing revenue bonds problematic.

10.4.2.3 Capital Financing Strategy

An ideal capital financing strategy would include the use of grants and low-cost loans when debt issuance is required. However, these resources are very limited and competitive in nature and do not provide a reliable source of funding for planning purposes. It is recommended that the City pursue these funding avenues but for planning purposes assume revenue bond financing to meet the needs which can't be met by available cash resources. The capital financing strategy developed to fund the CIP identified in this Plan assumes the following funding resources:

- Accumulated cash reserves, which may include proceeds from previously issued bonds,
- Transfers of excess cash (over minimum balance targets) from the Operating Fund,
- System development charge revenues, and
- Interest earned on Construction Fund balances and other miscellaneous capital resources.



The cash resources described above are anticipated to fund 61.29 percent of the 10-year CIP and 78.59 percent of the 20-year CIP. The remaining funding is assumed to come from new debt obligations. Table 10.5 presents the 10-year and 20-year capital financing strategy.

Table 10.5 10-Year and 20-Year Capital Financing Strategy

Year	Capital Expenditures Escalated	Revenue Bond Financing	Cash Funding	Total Financial Resources
2022	\$2,846,250	-	\$2,846,250	\$2,846,250
2023	8,923,304	2,500,000	6,423,304	8,923,304
2024	3,668,747	-	3,668,747	3,668,747
2025	8,166,921	6,900,000	1,266,921	8,166,921
2026	3,445,478	-	3,445,478	3,445,478
2027	2,174,553	-	2,174,553	2,174,553
2028	3,056,015	-	3,056,015	3,056,015
2029	9,010,924	9,000,000	10,924	9,010,924
2030	5,183,099	-	5,183,099	5,183,099
2031	1,057,949	-	1,057,949	1,057,949
Subtotal	\$47,533,240	\$18,400,000	\$29,133,240	\$47,533,240
2032 - 2041	38,425,499	-	38,425,499	38,425,499
Total	\$85,958,739	\$18,400,000	\$67,558,739	\$85,958,739

10.5 Financial Forecast

The financial forecast, or revenue requirement analysis, forecasts the amount of annual revenue that needs to be generated by user rates. The analysis incorporates operating revenues, O&M expenses, debt service payments, rate-funded capital needs, and any other identified revenues or expenses related to operations. The objective of the financial forecast is to evaluate the sufficiency of the current level of rates. In addition to annual operating costs, the revenue needs also include debt covenant requirements and specific fiscal policies and financial goals of the City.

The analysis determines the amount of revenue needed in a given year to meet that year's expected financial obligations. For this analysis, two revenue sufficiency tests have been developed to reflect the financial goals and constraints of the City: cash needs must be met; and debt coverage requirements must be realized. In order to operate successfully with respect to these goals, both tests of revenue sufficiency must be met.

Cash Test: The cash flow test identifies all known cash requirements for the City in each year of the planning period. Typically, these include O&M expenses, debt service payments, rate-funded system reinvestment funding or directly funded capital outlays, and any additions to specified reserve balances. The total annual cash needs of the City are then compared to projected cash revenues using the current rate structure. Any projected revenue shortfalls are identified and the rate increases necessary to make up the shortfalls are established.

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Coverage Test: The coverage test is based on a commitment made by the City when issuing revenue bonds and some other forms of long-term debt. For the purposes of this analysis, revenue bond debt is assumed for any needed debt issuance. As a security condition of issuance, the City would be required per covenant to agree that the revenue bond debt would have a higher priority for payment (a senior lien) compared to most other expenditures; the only outlays with a higher lien are O&M expenses. Debt service coverage is expressed as a multiplier of the annual revenue bond debt service payment. For example, a 1.00 coverage factor would imply that no additional cushion is required. A 1.25 coverage factor means revenue must be sufficient to pay O&M expenses, annual revenue bond debt service payments, and an additional 25 percent of annual revenue bond debt service payments. The excess cash flow derived from the added coverage, if any, can be used for any purpose, including funding capital projects. Targeting a higher coverage factor can help the City achieve a better credit rating and provide lower interest rates for future debt issues.

In determining the annual revenue requirement, both the cash and coverage sufficiency tests must be met, and the test with the greatest deficiency drives the level of needed rate increase in any given year.

10.5.1 Current Financial Structure

The City maintains a fund structure and implements financial policies that target management of a financially viable and fiscally responsible sewer system.

10.5.1.1 Fiscal Policies

A summary of the key financial policies employed by the City, as well as those recommended and incorporated in the financial program, are discussed below.

Operating Fund: Operating reserves are designed to provide a liquidity cushion to ensure that adequate cash working capital will be maintained to deal with significant cash balance fluctuations, such as seasonal fluctuations in billings and receipts, unanticipated cash expenses, or lower than expected revenue collections. Like other types of reserves, operating reserves also serve another purpose: they help smooth rate increases over time. Target funding levels for an operating reserve are generally expressed as a certain number of days of O&M expenses, with the minimum requirement varying with the expected revenue volatility. Industry practice for utility operating reserves ranges from 30 days (8 percent) to 120 days (33 percent) of O&M expenses, with the lower end more appropriate for utilities with stable revenue streams and the higher end more appropriate for utilities with significant seasonal or consumption-based fluctuations.

This financial plan targets a minimum balance in the sewer utility Operating Fund equal to 60 days of O&M expenses.

Capital Fund: A utility capital contingency reserve is an amount of cash set aside in case of an emergency should a piece of equipment or a portion of the utility's infrastructure fail unexpectedly. The reserve also could be used for other unanticipated capital needs, including capital project cost overruns. Industry practices range from maintaining a balance equal to 1 to 2 percent of fixed assets, an amount equal to a five-year rolling average of CIP costs, or an amount determined sufficient to fund equipment failure (other than catastrophic failure). The final target level should balance industry standards with the risk level of the City.



The City currently aims to maintain a capital fund balance target of \$750,000 and is the target used in this financial plan.

System Reinvestment: System reinvestment funding promotes system integrity through ongoing repair and replacement of system infrastructure. Ideally, a detailed asset management plan would guide the level of rate funded system reinvestment, however, in absence of this level of effort, annual depreciation expense is commonly used as a measure of the decline in asset value associated with routine use of the system. Particularly for utilities that do not already have an explicit system reinvestment policy in place, implementing a funding level based on full depreciation expense could significantly impact rates. An alternative benchmark is annual depreciation expense net of debt principal payments on outstanding debt. This approach recognizes that customers are still paying for certain assets through the debt component of their rate and intends to avoid simultaneously charging customers for an asset and its future replacement. The specific benchmark used to set system reinvestment funding targets is a matter of policy that must balance various objectives, including managing rate impacts, keeping long-term costs down, and promoting "generational equity" (i.e., not excessively burdening current customers with paying for facilities that will serve a larger group of customers in the future).

The City does not currently have a policy in place for system reinvestment funding. No dedicated system reinvestment funding is assumed in this financial plan; however, on average, the City is able to fund approximately \$2.0M annually through rates from 2022 through 2041. Dedicated system reinvestment funding is recommended for consideration during future policy review and rate planning.

Debt Management: It is prudent to consider policies related to debt management as part of a broader utility financial policy structure. Debt management policies should be evaluated and formalized, including the level of acceptable outstanding debt, debt repayment, bond coverage, and total debt coverage targets. The City has one outstanding sewer revenue bond, which will be fully redeemed in 2035. This bond carries a coverage requirement of 1.25. In addition to revenue bonds, the City has four junior lean debt obligations without a coverage requirement. While not an official policy, the City should target debt coverage ratio of 1.00 or greater on total debt to make sure enough cash is generated for the repayment of all debt.

10.5.1.2 Financial Forecast

The financial forecast is primarily based upon the City's 2022 budget and takes into consideration other key factors and assumptions needed to develop a complete portrait of the City's annual sewer utility financial obligations. The following is a list of the key revenue and expense factors and assumptions used to develop the financial forecast.

- Growth Rate revenue escalation is based on the forecast of annual average flow provided in Chapter 3 of this PLAN. On average, annual growth for the forecast period is 2.14 percent.
- Revenue The City has two general revenue sources: 1) sewer service charges (rate revenue); and 2) miscellaneous (non-rate) revenue. In the event of a forecasted annual shortfall, rate revenue can be increased to meet the annual revenue requirement. For the purpose of this financial forecast, rate revenues are forecasted to increase with customer growth. Non-rate revenues are forecasted to increase with either customer growth or general cost inflation.

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- System Development Charge Revenue The current SDC is forecast to generate revenue between \$1.1M in 2022 and \$1.7M in 2041 collected from an average of 424 new meter capacity equivalents per year.
- Expenses O&M expense projections are based on the City's 2022 budget and forecast
 to increase with general cost inflation of 2.0 percent, labor cost inflation increases of 3.0
 percent, and benefit cost inflation increases of 5.0 percent in subsequent years. Budget
 figures were used for taxes in 2022; future taxes are calculated based on forecasted
 revenues and prevailing tax rates.
- Existing Debt The City's sewer utility currently has five outstanding debt issues, including one revenue bond, three PWTF loans, and one Department of Ecology loan. The revenue bond payments are on average \$1.5M per year 2022 through 2035. PWTF payments range from \$816,000 in 2022 to \$190,000 in 2032. DOE loan payments range from \$350,000 in 2021 to \$175,000 in 2032. The total annual existing debt service obligations begin 2022 at \$2.7M and are reduced to \$1.5M in 2035, the year of final existing debt redemption.
- Future Debt The capital financial strategy developed for this PLAN forecasts the need for \$18.4M in new debt proceeds in three separate instances throughout the twenty-year forecast. The analysis performed assumes all new debt is through revenue bond financing. Annual new debt service obligations begin in 2023 at \$221,000 increasing to \$1.6M by 2029.
- Transfers to Capital Operating fund balance above the minimum requirement is assumed to be available to fund capital projects and projected to be transferred to the Capital Fund each year. On average, the utility transfers \$2.2M to the Capital Fund annually from 2022 to 2041.

Although the financial plan is completed through 2041, the rate strategy focuses on the shorter-term planning period of 2022 through 2031. It is recommended that the City revisit the proposed rates every 2 to 3 years to ensure that the rate projections developed remain adequate. Any significant changes should be incorporated into the financial plan and future rates should be adjusted as needed.

Table 10.6, following, summarizes the annual revenue requirements based on the forecast of revenues, expenditures, fund balances, and fiscal policies.



Table 10.6 11-Year Financial Forecast

Revenue Requirement	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Revenues										
Rate Revenues Under Existing Rates	\$8,497,745	\$8,679,362	\$8,864,860	\$9,054,322	\$9,247,834	\$9,445,482	\$9,647,354	\$9,853,541	\$10,064,134	\$10,279,228
Non-Rate Revenues	371,282	358,954	358,973	376,704	380,896	347,830	359,665	364,879	384,018	221,005
Total Revenues	\$8,869,027	\$9,038,316	\$9,223,833	\$9,431,026	\$9,628,730	\$9,793,312	\$10,007,019	\$10,218,420	\$10,448,152	\$10,500,233
Expenses										
Cash Operating Expenses	\$5,281,720	\$5,468,388	\$5,624,604	\$5,786,121	\$5,952,570	\$6,123,721	\$6,301,205	\$6,484,319	\$6,673,633	\$6,865,930
Existing Debt Service	2,695,128	2,695,053	2,690,328	2,688,603	2,684,627	2,678,403	2,629,788	2,074,276	2,074,528	2,071,804
New Debt Service		220,505	220,505	829,100	829,100	829,100	829,100	1,622,920	1,622,920	1,622,920
Total Expenses	\$7,976,848	\$8,383,946	\$8,535,438	\$9,303,824	\$9,466,298	\$9,631,224	\$9,760,093	\$10,181,515	\$10,371,080	\$10,560,654
Total Surplus (Deficiency)	\$892,179	\$654,369	\$688,395	\$127,202	\$162,432	\$162,088	\$246,926	\$36,905	\$77,071	\$(60,421)
Annual Rate Adjustment	3.30%	3.30%	1.75%	1.75%	1.75%	0.00%	0.00%	0.00%	0.00%	0.00%
Cumulative Annual Rate Adjustment	3.30%	6.71%	8.58%	10.48%	12.41%	12.41%	12.41%	12.41%	12.41%	12.41%
Rate Revenues After Rate Increase	\$8,778,171	\$9,261,651	\$9,625,137	\$10,002,888	\$10,395,465	\$10,617,641	\$10,844,564	\$11,076,338	\$11,313,066	\$11,554,853
Additional Taxes from Rate Increase	7,206	14,964	19,537	24,376	29,492	30,122	30,766	31,423	32,095	32,781
Net Cash Flow After Rate Increase	\$1,165,398	\$1,221,696	\$1,429,135	\$1,051,392	\$1,280,572	\$1,304,125	\$1,413,371	\$1,228,279	\$1,293,908	\$1,182,423
Coverage After Rate Increases	3.54	3.25	3.38	2.55	2.68	2.69	2.74	2.03	2.08	1.98

The financial forecast indicates that at existing rate levels the utility becomes deficient in 2031 as new debt is added to fund the capital program. This financial analysis recognizes the annual 3.30 percent adopted rate increases in 2022 and 2023. In addition to the adopted increases annual increases of 1.75 percent are needed starting in 2024 through 2026 to meet the forecast annual operating and capital needs of the system.

10.5.2 City Funds and Reserves

Table 10.7 shows a summary of the projected Operating Fund and Capital Fund ending balances through 2031 based on the rate forecasts presented above. The Operating Fund is maintained at a minimum of 60 days of O&M expenses, and the Capital Fund balance continues to exceed the annual \$750,000 target.

Table 10.7 Ending Cash Balance Summary

Ending Fund Balances	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Operating Fund	\$868,228	\$898,913	\$924,592	\$951,143	\$978,505	\$1,006,639	\$1,035,814	\$1,065,915	\$1,097,036	\$1,128,646
Capital Fund	5,976,844	1,934,563	860,365	1,826,388	883,982	1,249,973	878,759	3,387,097	865,896	2,335,899
Total	\$6,845,072	\$2,833,476	\$1,784,957	\$2,777,531	\$1,862,487	\$2,256,612	\$1,914,574	\$4,453,012	\$1,962,931	\$3,464,545



10.6 Current and Projected Rates

10.6.1 Current Rates

The City's current rate structure consists of a fixed monthly charge based on customer class and a variable charge per hundred cubic feet (ccf) for all use. Customer located outside the City limits have an outside City multiplier of 1.50 added to both the fixed monthly charge and the variable charge of their rates. Table 10.8 shows the existing rate schedule.

Table 10.8 Existing Schedule of Rates

	2021 Monthly Rates
Base Rate	per Account
Residential	
Inside City	\$27.26
Outside City	40.89
Commercial / Industrial	
Inside City	\$13.07
Outside City	19.62
Volume Charge	per ccf
Residential	
Inside City	\$4.15
Outside City	6.24
Commercial / Industrial	
Inside City	\$5.55
Outside City	8.33

10.6.2 Projected Rates

The financial forecast discussed above indicates that while the sewer utility is covering all financial obligations in the near term, with the addition of new debt, rate increases are needed to satisfy all future financial responsibilities. In addition to the adopted 3.3 percent rate increase in 2022 and 2023, a rate strategy of 1.75 percent annually from 2024 through 2026 is recommended to satisfy this forecast deficiency. Table 10.9 shows the projected rates with increases applied uniformly to all rate components in all classes.



Table 10.9 Proposed Schedule of Rates

Monthly Dates	Existing	Ado	pted				Prop	osed				
Monthly Rates	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Base Rate (per Account)												
Residential												
Inside City	\$27.26	\$28.16	\$29.09	\$29.60	\$30.12	\$30.65	\$30.65	\$30.65	\$30.65	\$30.65	\$30.65	
Outside City	40.89	42.24	43.63	44.39	45.17	45.96	45.96	45.96	45.96	45.96	45.96	
Commercial / Industrial												
Inside City	13.07	13.50	13.95	14.19	14.44	14.69	14.69	14.69	14.69	14.69	14.69	
Outside City	19.62	20.27	20.94	21.31	21.68	22.06	22.06	22.06	22.06	22.06	22.06	
Volume Charge (per cfs)												
Residential												
Inside City	\$4.15	\$4.29	\$4.43	\$4.51	\$4.59	\$4.67	\$4.67	\$4.67	\$4.67	\$4.67	\$4.67	
Outside City	6.24	6.45	6.66	6.78	6.90	7.02	7.02	7.02	7.02	7.02	7.02	
Commercial / Industrial												
Inside City	5.55	5.73	5.92	6.02	6.13	6.24	6.24	6.24	6.24	6.24	6.24	
Outside City	8.33	8.60	8.88	9.04	9.20	9.36	9.36	9.36	9.36	9.36	9.36	



10.7 Affordability

The Washington State Department of Health and the Department of Commerce Public Works Board use an affordability index to prioritize low-cost loan awards depending on whether rates exceed 2.00 percent of the median household income for the service area. The median household income for the City, expressed in 2019 dollars, was \$111,584 between 2015 and 2019 according to the U.S. Census Bureau. The 2019 value is escalated based on the 2020 and 2021 Employment Cost Index Wages and Salaries index and utilizes the 2020 and 2021 two-year average of 2.15 percent to project the median household income in future years starting in 2022. Table 10.10 presents the City's monthly sewer bill projected to 2031, tested against the 2.00 percent monthly affordability threshold.

Table 10.10 Community Affordability Test

Year	Inflation	Median HH Income	2% Monthly Threshold	Projected Monthly Bill ⁽¹⁾	% of Median HH Income
2019		\$111 , 584	\$185.97	\$52.78	0.57%
2020	2.22%	114,065	190.11	54.53	0.57%
2021	2.08%	116,439	194.07	56.31	0.58%
2022	2.15%	118,945	198.24	58.19	0.59%
2023	2.15%	121,506	202.51	60.10	0.59%
2024	2.15%	124,121	206.87	61.17	0.59%
2025	2.15%	126,793	211.32	62.25	0.59%
2026	2.15%	129,522	215.87	63.34	0.59%
2027	2.15%	132,310	220.52	63.34	0.57%
2028	2.15%	135,157	225.26	63.34	0.56%
2029	2.15%	138,067	230.11	63.34	0.55%
2030	2.15%	141,038	235.06	63.34	0.54%
2031	2.15%	144,074	240.12	63.34	0.53%

Notes:

(1) Average monthly bill assumes 7ccf water use.

Applying the 2.00 percent test, the City's rates are forecasted to remain within the indicated affordability range through 2031.

10.8 Conclusion

The results of this analysis indicate that rates must increase to provide revenue sufficient to cover all utility financial obligations, including the addition of new debt and partial cash funding of the capital program through 2031. In addition to the adopted annual increases of 3.30 percent in 2022 and 2023, annual 1.75 percent adjustments from 2024 through 2026 should provide for continued financial viability while maintaining generally affordable rates.

It is important to remember that the analysis performed in this chapter assumes growth rates from Chapter 3 of this Plan. If the future growth rates change, the existing rate strategy may need to be updated and revised.

It is recommended that the City regularly review and update the key underlying assumptions that compose the multi-year financial plan to ensure that adequate revenues are collected to meet the City's total financial obligations.





Staff Report – Public Hearing for Ordinance

November 21, 2022 Council Regular Meeting

Public Hearing for Ordinance No. 22-026 Amending Camas Municipal Code 13.72 and adopting new Sewer System Development Charges

Presenter: Steve Wall, Public Works Director

Time Estimate: 5 minutes

Phone	Email
360.817.7899	swall@cityofcamas.us

INTRODUCTION/PURPOSE/SUMMARY: The 2022 update to the City's General Sewer Plan has been completed, which includes the Capital Facilities Plan element that provides for a schedule of capital improvements necessary to provide continued sewer service through the planning horizon and consistent with the City's Comprehensive Plan. As part of the City's financial plan to complete the necessary capital improvements, the City has also elected to move forward with adoption of a new Sewer System Development Charge (SDC). The basis for the proposed Sewer SDC is the General Sewer Plan that has been prepared by Carollo Engineers, will be submitted to the Washington State Department of Ecology for review and approval before the end of 2022, and is anticipated to be adopted at the November 21, 2022 Regular City Council Meeting (subject to any Ecology revisions). FCS Group, the City's financial consultant, has completed the necessary calculations to determine the "Maximum Allowable" Sewer SDC. Ordinance No. 22-026 amends Chapter 13.72 of the Camas Municipal Code. The revised chapter includes the following general amendments:

- Section 13.72.020 (Definitions) Removal of reference to and definitions for what was once referred to as the North Urban Growth Area ("NUGA") and non-North Area Urban Growth Area. These definitions are no longer necessary.
- Section 13.72.040 (Credits) Removal of sub-sections 1 and 2 that reference outdated credits for connections made prior to 1972 and for properties that were paying penalties.
- Section 13.72.070 (Rates)
 - o Inserted a new table implementing Council's direction to have a "system-wide" SDC that is equal to \$7,120 (for a 3/4-inch meter, or residential home). As such, beginning in 2020, the City will no longer have a North Zone and a South Zone.
 - Section 13.72.070(B) has been modified to clarify the process to determine the Sewer SDC for industrial and unique commercial customers that discharge a high volume or high strength of waste to the City's system.
 - Section 13.72.020(C) has been added to apply an index to the Sewer SDC to ensure the charge keeps up with the cost of inflation and to maintain consistency with the code adoptions for Park Impact Fees and Water System Development Charges.

In prior discussions with Council, considerations affecting the outcome of the maximum allowable charge were presented and discussed. Specifically, Council elected to use a "system wide" approach moving forward. Under the existing code provisions there are two areas, or Zones, included in the charge, each with their own unique Sewer SDC. Under a system-wide approach, development across the entire City will be charged the same amount. Among other things, it will be better administratively for both the City and Developers when paying SDCs and tracking or issuing SDC Credits.

Additionally, in determining the maximum allowable charge, the City Council also considered the differences between charging based on a water Meter Capacity Equivalent (MCE) or based on the estimated flows, or Equivalent Residential Units (ERU), for each development. The pros and cons of each were discussed and Council elected to use the MCE approach as a review of historical data indicates that over the review period, one MCE is approximately equal to one ERU. Also, using the MCE approach is easier to understand and provides more certainty for prospective developers. Ultimately, the proposed revisions to CMC 13.72 include a system-wide Sewer SDC based on water Meter Capacity Equivalents that is less than the maximum allowable.

EQUITY CONSIDERATIONS:

What are the desired results and outcomes for this agenda item?

Hold a public hearing on the changes to CMC Chapter 13.72 and on the potential increase of the Sewer System Development Charges.

What's the data? What does the data tell us?

The Capital Facilities Plan element included in the 2022 update to the General Sewer Plan includes a significant number of new projects that will be necessary to serve future growth. As part of the financial strategy, adoption of a new Sewer SDC will provide additional revenues to support the projects.

How have communities been engaged? Are there opportunities to expand engagement?

Council considered options at a regularly scheduled Council Workshop and a Public Hearing is being held prior to any adoption of a new Sewer SDC.

How does this item support a comprehensive plan goal, policy or other adopted resolution?

This item directly supports implementation of the sewer capital facilities element of the City's Comprehensive Plan.

BUDGET IMPACTS: Adoption of this ordinance does not have an immediate or direct impact on the adopted budget. However, adoption of a new Sewer SDC will potentially lessen the burden on the sewer system monthly rates to pay for new capital improvements necessary to serve future growth. It is noted that adoption of the Sewer SDC as recommended will increase the SDC on the South side of Lacamas Lake by \$4,627 (from \$2,493 to \$7,120) and on the North side of Lacamas Lake by \$2,700 (from \$4,420 to \$7,120).

RECOMMENDATION: Staff recommends the City Council hold a public hearing on Ordinance No. 20-026 and adopt the Ordinance as presented.

Alternatively, if Council would like to make changes after the public hearing is held, Council may request that staff revise the Ordinance and bring it back to a future meeting for adoption.

ORDINANCE NO. 22-026

AN ORDINANCE amending certain sections of Chapter 13.72 of the Camas Municipal Code relating to Sewer System Development Charges.

WHEREAS, Section 35.92.025 of the Revised Code of Washington provides the statutory authority for cities to charge property owners seeking to connect to the sewer system of the City; and

WHEREAS, the Council of the City of Camas commissioned Corollo Engineers to complete an update to its General Sewer Plan; and

WHEREAS, the 2022 update to the General Sewer Plan has heretofore been completed and adopted by Council subject to any requested revisions by the Washington State Department of Ecology; and

WHEREAS, the General Sewer Plan includes a revised 20-year Capital Improvement Plan consistent with the City's Comprehensive Plan; and

WHEREAS, the City Council has commissioned FCS Group, a professional financial consultant with vast experience in rate, impact fee and system development charge analysis, to prepare an update to the Sewer System Development Charges of the City; and

WHEREAS, FCS Group has completed an updated calculation of the maximum allowable Sewer System Development Charge based on the capital improvement plan provided for in the completed update to the General Sewer Plan; and

WHEREAS, the City Council has held public meetings in which the calculation and basis of the Sewer System Development Charges has been presented and discussed; and

WHEREAS, the City Council has considered the information provided by FCS Group and staff, including but not limited to the number of system development charge zones and

structure to be used in the system development charge calculation, and the equitable financial share proposed developments have in the system; and

WHEREAS, taking all information into consideration, the City Council has elected to adopt a system-wide Sewer System Development Charge that is less than the calculated maximum allowable.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF CAMAS DO ORDAIN AS FOLLOWS:

Section I

Section 13.72.020 of the Camas Municipal Code is hereby amended as follows:

13.72.020 Definitions.

Unless otherwise specifically defined, the terms used in this chapter shall have the following meanings:

"Average day flow" means the average volume of waste water flowing from a user over a twenty-four-hour period measured in million gallons per day (MGD).

"Biochemical oxygen demand (BOD)" means the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five days at twenty degrees Centigrade, and shall be measured in pounds per day.

"City" means that use classification for the city and other public or nonprofit customers whose waste flows are typical of those associated with single-family residential structures.

"Commercial" means that use classification of nonresidential properties who contribute flows to the sewer system except those users classified as Industrial or Non-Typical.

"Engineer" means the engineer of the City of Camas, or his duly authorized deputies or representatives.

"Industrial or Non-Typical" customers means that use classification of nonresidential property owners who contribute sewage with a flow and/or strength in excess of the typical Commercial class.

"Multifamily" means that use classification of residential property owners whose structure contains two or more residential dwelling units.

"Sewage" means a combination of water-carried waste from residences, business buildings, institutions and industrial establishments, together with such ground, surface, and storm waters as may be present.

"Sewer system" means all facilities for collecting, transporting, pumping, treating and disposing of sewage.

"Single-family" means that use classification of residential property owners whose structure contains one residential dwelling unit.

"Suspended solids (SS)" means solids that either float on the surface of or are suspended in water, sewage, or other liquids, and which are removable by laboratory filtering, and which shall be measured in pounds per day.

Section II

Section 13.72.040 of the Camas Municipal Code is hereby amended by repealing subsections A and B thereof.

Section III

Section 13.72.060 of the Camas Municipal Code is hereby amended as follows:

13.72.060 Rates.

(a) The sewer system development charge for properties classified as single family, multi-family, city and commercial shall be as follows:

CITY OF CAMAS SEWER SYSTEM DEVELOPMENT CHARGE RATES

Effective from January 1, 2023

Meter Size	City-Wide Charge
Residential	\$7,120
Commercial	
3/4"	\$7,120
1"	\$11,866
1.5"	\$23,732
2"	\$37,971
3"	\$71,195
4"	\$118,659

- (b) The sewer system development charge for properties classified as Industrial or Non-Typical Customer, shall be determined by the public works director based on a separate engineering study to be completed by the applicant and approved by the City. The factors used to determine the Industrial or Non-Typical system development charges shall include such things as the average daily flow, peak flow, BOD pounds per day and suspended solids pounds per day discharged to the City's system, and other such factors deemed necessary by the City.
- (c) The sewer system development charge may be indexed annually, beginning January 1, 2024, to address inflation based on the Engineering News Record Construction Cost Index for the City of Seattle.

Section IV

This Ordinance shall be published according to law and shall take force and be in effect as of January 1, 2023.				
PASSED BY the Council and, 2022.	APPROVED by the Mayor this day of			
	SIGNED:			
	Mayor			
	ATTEST:			
	Clerk			
APPROVED as to form:				
City Attorney				

Title 13 - PUBLIC SERVICES Division II. - Sewer System Chapter 13.72 SEWER SERVICE DEVELOPMENT CHARGE

Chapter 13.72 SEWER SERVICE DEVELOPMENT CHARGE

13.72.010 Purpose.

Pursuant to the authority conferred upon cities and towns by RCW 35.92.020 and 35.92.025, the city council of the city finds that property owners who seek to connect property to the sewer system of the city should be assessed a charge in order that such property shall bear its equitable share of the cost of the sewer system. The council further finds that the charge should be based upon the property owner's anticipated use of the sewer system as related to the historical cost of the sewer system and the projected cost of additions to the sewer system to meet new demand. That portion of the charge based upon the historical costs of the sewer system shall be measured by the undepreciated value of the sewer system and plant in service at the time the charge is imposed. That portion of the charge based upon the projected cost of future improvements shall be based upon appropriate studies by engineers and/or financial consultants. The charge imposed by this chapter shall be denominated as a "sewer system development charge" and shall be in addition to any sewer connection or permit fees imposed by other ordinances of the city.

(Ord. 2119 § 1, 1997: prior code § 13.30.010)

13.72.020 Definitions.

Unless otherwise specifically defined, the terms used in this chapter shall have the following meanings:

"Average day flow" means the average volume of waste water flowing from a user over a twenty-four-hour period measured in million gallons per day (MGD).

"Biochemical oxygen demand (BOD)" means the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five days at twenty degrees Centigrade, and shall be measured in pounds per day.

"City" means that use classification for the city and other public or nonprofit customers whose waste flows are typical of those associated with single-family residential structures.

"Commercial-I" means that use classification of nonresidential properties who contribute flows to the sewer system except those users classified as Commercial II.

"Commercial II" means that use classification of nonresidential property owners who contribute higher than average flows or strengths to the sewer system, and shall include industrial and unusual requirement customers.

"Engineer" means the engineer of the City of Camas, or his duly authorized deputies or representatives.

"Industrial or Non-Typical" and unusual requirement-customers" means that use classification of nonresidential property owners who contribute sewage with a flow and or strength in excess of the Commercial class.

"Multifamily" means that use classification of residential property owners whose structure contains two or more residential dwelling units.

"NON-NUGA" means the area identified in the adopted 2004 City of Camas Urban Growth Boundary and within the water service area depicted in the Adopted Clark County Coordinated Water System Plan.

"NUGA" means the North Urban Growth Area defined as all property north of the 2004 adopted Urban Growth Boundary and within the water service area depicted in the Adopted Clark County Coordinated Water System Plan.

"Sewage" means a combination of water-carried waste from residences, business buildings, institutions and industrial establishments, together with such ground, surface, and storm waters as may be present.

"Sewer system" means all facilities for collecting, transporting, pumping, treating and disposing of sewage.

"Single-family" means that use classification of residential property owners whose structure contains one residential dwelling unit.

"Suspended solids (SS)" means solids that either float on the surface of or are suspended in water, sewage, or other liquids, and which are removable by laboratory filtering, and which shall be measured in pounds per day.

(Ord. 2119 §§ 2, 3, 1997; Ord. 1830 §§ 1—3, 1991; prior code § 13.30.020)

(Ord. No. 2593, § I, 7-19-2010; Ord. No. 2624, § I, 5-16-2011)

13.72.030 Imposition.

Except as provided in Section 13.72.040, there is imposed on every property that connects to the city sewer system of the city a sewer system development charge, which charge shall be assessed in accordance with the rates set forth in Section 13.72.050 and shall be collected prior to inspection by the city of the connection of the sewer line to the structure on the property owner's premises.

(Prior code § 13.30.030)

13.72.040 Credits.

A. Repealed. Prior Connection:

- 1. Those properties that have been disconnected from the city sewer system since January 1, 1972, shall receive a credit for the prior connection. The credit for the prior connection shall be in an amount equal to the sewer system development charge for the use classification of the prior connection. The sewer system development charge imposed under this chapter shall be the difference between the amount due under the present use classification less the amount that would have been assessed under the use classification for the prior connection, provided however, that the city shall not be required to reimburse the property owner in the event the credit exceeds the sewer system development charge for the new connection.
- B. Repealed. Credit for Penalties Paid for Non-Connection:
- 1. Those properties that are not presently connected to the city's sewer system but which have been assessed and paid a monthly penalty pursuant to section 13.60.050(B) shall receive a credit against the sewer system development charge in an amount equal to the total monthly penalties paid prior to connection, provided however, that the city shall not be required to reimburse the property owner in the event the credit exceeds the sewer system development charge for the new connection.

C. Development Credit:

A developer (as defined in CMC 3.88.030.K) shall be entitled to a credit against the applicable system
development charge for the dedication of land or for the design or engineering or construction of an
"eligible improvement". For purposes of this section, an eligible improvement shall mean an
improvement or real property that is: required as a condition of development approval; identified in

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- the general sewer plan or capital improvement plan; and included in the current system development charge calculation as being funded by system development charges.
- 2. The amount of the credit shall be the dollar amount assigned to the improvement or to the land in the system development charge calculation. Where only a portion of the improvement is constructed, or a portion of the land is dedicated, the amount of the credit shall be pro-rated.
- 3. Credits earned for one category of system development charge, e.g. water, may not be applied against a different system development charge, e.g. sewer.
- 4. Approval from the city council shall be required prior to the start of construction or dedication of any eligible improvement. "Approval" in the context of this subsection (4) shall be satisfied if the city requires the construction or dedication of the eligible improvement as a condition of approval for a land use application. If a developer wishes to construct an eligible improvement that is not otherwise a condition to an approved land use application, prior approval must be obtained from the city council.
- 5. No system development charge credit shall be granted until either the eligible improvements have been designed, engineered, or constructed by the developer, and such work has been accepted by the city; or until the land has been dedicated by the developer and such dedication has been accepted by the city.
- 6. If system development charges become due and payable prior to the developer becoming eligible for the issuance of credits as provided in section (5), the developer may apply to the public works director to defer collection of the charges until construction or dedication is completed. The public works director may condition deferral upon:
 - a. The developer posting a bond or other financial security satisfactory to the city in an amount equal to one hundred twenty-five percent (125%) of the deferred system development charges, which bond or other financial security shall be conditioned upon the developer either paying the deferred system development charges or completing construction or dedication within a specified time,
 - b. The withholding of an occupancy permit, or
 - c. Such other conditions acceptable to the city.
- 7. If the developer is dissatisfied with the decision of the community development director, the developer may seek to have that decision reviewed by the city council.
- 8. Upon acceptance of the eligible improvement, the developer may submit an application for the system development charge credit to the finance department on a form to be created by the finance department. After submission of the application and verification of entitlement thereto, the finance department shall issue a credit voucher to the developer specifying the amount of the system development charge credit and the type of credit.
- 9. The credit may, at the option of the developer, be applied all or in part to the system development charges owing for the developer's project.
- 10. To the extent the credit exceeds the amount of the system development charges owed by the developer, or the developer chooses not to apply the credit to the developer's project, the unused credit may be applied to a different project of the developer or to the project of a different developer.
- 11. Before the system development charge can be transferred to a different project or a different developer, the holder of the system development charge credit shall file with the finance department an application to transfer the credit on a form to be created by the finance department. The application shall identify the transferee, and the amount of the system development charge credit

- being transferred. The transfer application shall be accompanied by an administrative fee in an amount as may be set by resolution of the city council.
- 12. When credits are to be redeemed, the holder of the system development charge credit shall file an application for redemption on a form to be created by the finance department. Redemption shall be permitted only in increments equal to whole system development charge, or when redemption will exhaust the entire system development charge credit. The application for redemption shall be accompanied by an administrative fee in such amount as may be set by resolution of the city council. When system development charge credits are being redeemed, such redemption shall not allow for system development charge credits to be pro-rated among more than one residential lot in amounts that are less than the existing system development charge per lot. For example, where system development charges are five thousand dollars per residential lot and a developer wishes to redeem eleven thousand dollars worth of credits, the developer shall not be allowed to apply one thousand dollars per residential lot over eleven lots. The developer may apply five thousand dollars to two residential lots and the remaining one thousand dollars to one residential lot.
- 13. The finance department shall be responsible for maintaining appropriate records documenting the issuance, transfer, and redemption of system development charge credits.
- 14. Expiration of Credits. Any credits issued after the effective date of this ordinance shall expire and become null and void ten years from the date of approval of the original credit by the city council.

 Transfer of credits or partial use of credits shall in no event extend the expiration date of those credits.

(Ord. 2310 § 1, 2002; Prior code § 13.30.040)

(Ord. No. 2617, § I, 4-4-2011; Ord. No. 18-029, §§ I, II, 12-17-2018)

13.72.050 Application.

- A. Any property owner seeking to connect his property to the sewer system of the city shall file with the engineer an application to be on a form provided by the city. The application shall contain the name and address of the property owner, the location of the property to be connected to the sewer system, the nature of the structure to be constructed on the subject property, the proposed use of the subject property, and any other relevant information deemed necessary by the engineer to process the application.
- B. Upon receipt of the completed application, the engineer shall designate the use classification of the property as single-family, multi-family, Commercial I, Commercial II, or industrial and unusual customer requirement. The applicant shall then be informed in writing by the engineer of the amount of the sewer system development charge, which shall be based upon the use classification of the property and shall be in accordance with the rates set forth in Section 13.72.060.

(Prior code § 13.30.050)

13.72.060 Rates.

(a) The sewer system development charge for properties classified as single family, multi-family, city and commercial + shall be as follows:

CITY OF CAMAS SEWER SYSTEM DEVELOPMENT CHARGE RATES

Effective from September 1, 2013 January 1, 2023

Meter Size	Non-NUGACity-Wide Charge
Residential	\$2,493.00 \$7,120

Commercial 4	
3/4"	\$3,740.00 <u>\$7,120</u>
1"	\$6,234.00 <u>\$11,866</u>
1.5"	\$12,467.00 - <u>\$23,732</u>
2"	\$19,948.00 \$37,971
3"	\$39,896.00 \$71,195
4"	\$62,337.00 \$118,659
6"	\$124,674.00
<u>8"</u>	\$199,478.00

- (b) The sewer system development charge for properties classified as commercial II, including industrial or Non-Typical and unusual customer requirements, shall be determined by the public works director based on a separate engineering study to be completed by the applicant and approved by the City. The factors used to determine the commercial IIIndustrial or Non-Typical system development charges shall include such things as the average daily flow, peak flow, BOD pounds per day, and Ssuspended solids pounds per day discharged to the City's system, and other such factors deemed necessary by the City.
- (c) The sewer system development charge may be indexed annually, beginning January 1, 2024, to address inflation based on the Engineering News Record Construction Cost Index for the City of Seattle.

COMMERCIAL II WORKSHEET

Effective from September 1, 2013

Reimbursement	Non-NUGA charge	NUGA charge	Units	Charge
Fee				
Average Day Flow	\$12.61	\$22.84	*	= \$
gallons				
BOD (Lbs/Day)	\$2,386.00	\$3,948.00	×	=\$
SS (Lbs/Day)	\$904.00	\$ 1,495.00	×	=\$
TOTAL				

(Ord. 1872 § 1, 1992: prior code § 13.30.070)

(Ord. No. 2593, § II, 7-19-2010; Ord. No. 2624, § II, 5-16-2011; Ord. No. 2638, § I, 3-5-2012; Ord. No. 18-029, § III, 12-17-2018)

13.72.070 Payment of sewer system development charge.

- (A) The sewer system development charge owing under the provisions of this chapter shall be paid by the applicant at the time of issuance of the plumbing permit or building permit, whichever shall first occur, or as scheduled by a separate agreement with the city.
- (B) No sewer service shall be furnished to the property of any person seeking to connect to the sewer system of the city until the sewer system development charge imposed by this chapter has been paid to the city treasurer or until such time as the city and the applicant have entered into a separate agreement providing for the payment of such sewer system development charge.

(Ord. No. 2617, § II, 4-4-2011)

13.72.080 Revenue disposition.

All revenues collected pursuant to this chapter shall be paid into the water and sewer capital reserve fund, and shall be used for the purpose of financing system improvements. Such revenues shall not be used to offset current operation or maintenance costs.

(Prior code § 13.30.080)

13.72.090 Appeal.

- A. Any applicant aggrieved by the amount of the sewer system development charge found by the engineer to be required under the provisions of this chapter, may appeal to the board of adjustment from such finding by filing a written notice of appeal with the city clerk within twenty days from the time such property owner is given notice of such amount. The chairman of the board of adjustment shall cause a notice of the time and place of hearing to be mailed to the applicant. At such hearing, the applicant shall be entitled to be heard and to introduce evidence on his own behalf. The board of adjustment shall thereupon ascertain the correct amount of the sewer system development charge, and the city clerk shall immediately notify the appellant thereof, by mail, which amount, together with the costs of appeal, if appellant is unsuccessful therein, must be paid within ten days after such notice is given.
- B. The chairman of the board of adjustment may, by subpoena, require the attendance at any appeal of any person, and may also require him to produce any pertinent books and records. Any person served with such subpoena shall appear at the time and place therein stated, and shall produce the books and records required, if any, and shall testify truthfully under oath administered by the chairman in charge of the hearing on appeal, as to any matter required of him pertinent to the appeal, and it is unlawful for him to fail or refuse to do so.

(Prior code § 13.30.090)

13.72.100 Notice recordation.

Pursuant to RCW 65.08.170, the engineer shall cause to be recorded in the office of the auditor of Clark County a notice in the form and containing the information prescribed by said statute.

(Prior code § 13.30.100)

ORDINANCE NO. 22-026

AN ORDINANCE amending certain sections of Chapter 13.72 of the Camas Municipal Code relating to Sewer System Development Charges.

WHEREAS, Section 35.92.025 of the Revised Code of Washington provides the statutory authority for cities to charge property owners seeking to connect to the sewer system of the City; and

WHEREAS, the Council of the City of Camas commissioned Corollo Engineers to complete an update to its General Sewer Plan; and

WHEREAS, the 2022 update to the General Sewer Plan has heretofore been completed and adopted by Council subject to any requested revisions by the Washington State Department of Ecology; and

WHEREAS, the General Sewer Plan includes a revised 20-year Capital Improvement Plan consistent with the City's Comprehensive Plan; and

WHEREAS, the City Council has commissioned FCS Group, a professional financial consultant with vast experience in rate, impact fee and system development charge analysis, to prepare an update to the Sewer System Development Charges of the City; and

WHEREAS, FCS Group has completed an updated calculation of the maximum allowable Sewer System Development Charge based on the capital improvement plan provided for in the completed update to the General Sewer Plan; and

WHEREAS, the City Council has held public meetings in which the calculation and basis of the Sewer System Development Charges has been presented and discussed; and

WHEREAS, the City Council has considered the information provided by FCS Group and staff, including but not limited to the number of system development charge zones and

structure to be used in the system development charge calculation, and the equitable financial share proposed developments have in the system; and

WHEREAS, taking all information into consideration, the City Council has elected to adopt a system-wide Sewer System Development Charge that is less than the calculated maximum allowable.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF CAMAS DO ORDAIN AS FOLLOWS:

Section I

Section 13.72.020 of the Camas Municipal Code is hereby amended as follows:

13.72.020 **Definitions**.

Unless otherwise specifically defined, the terms used in this chapter shall have the following meanings:

"Average day flow" means the average volume of waste water flowing from a user over a twenty-four-hour period measured in million gallons per day (MGD).

"Biochemical oxygen demand (BOD)" means the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five days at twenty degrees Centigrade, and shall be measured in pounds per day.

"City" means that use classification for the city and other public or nonprofit customers whose waste flows are typical of those associated with single-family residential structures.

"Commercial" means that use classification of nonresidential properties who contribute flows to the sewer system except those users classified as Industrial or Non-Typical.

"Engineer" means the engineer of the City of Camas, or his duly authorized deputies or representatives.

"Industrial or Non-Typical" customers means that use classification of nonresidential property owners who contribute sewage with a flow and/or strength in excess of the typical Commercial class.

"Multifamily" means that use classification of residential property owners whose structure contains two or more residential dwelling units.

"Sewage" means a combination of water-carried waste from residences, business buildings, institutions and industrial establishments, together with such ground, surface, and storm waters as may be present.

"Sewer system" means all facilities for collecting, transporting, pumping, treating and disposing of sewage.

"Single-family" means that use classification of residential property owners whose structure contains one residential dwelling unit.

"Suspended solids (SS)" means solids that either float on the surface of or are suspended in water, sewage, or other liquids, and which are removable by laboratory filtering, and which shall be measured in pounds per day.

Section II

Section 13.72.040 of the Camas Municipal Code is hereby amended by repealing subsections A and B thereof.

Section III

Section 13.72.060 of the Camas Municipal Code is hereby amended as follows:

13.72.060 Rates.

(a) The sewer system development charge for properties classified as single family, multifamily, city and commercial shall be as follows:

CITY OF CAMAS SEWER SYSTEM DEVELOPMENT CHARGE RATES

Effective from January 1, 2023

Meter Size	City-Wide Charge
Residential	\$7,120
Commercial	
3/4"	\$7,120
1"	\$11,866
1.5"	\$23,732
2"	\$37,971
3"	\$71,195
4"	\$118,659

- (b) The sewer system development charge for properties classified as Industrial or Non-Typical Customer, shall be determined by the public works director based on a separate engineering study to be completed by the applicant and approved by the City. The factors used to determine the Industrial or Non-Typical system development charges shall include such things as the average daily flow, peak flow, BOD pounds per day and suspended solids pounds per day discharged to the City's system, and other such factors deemed necessary by the City.
- (c) The sewer system development charge may be indexed annually, beginning January 1, 2024, to address inflation based on the Engineering News Record Construction Cost Index for the City of Seattle.

Section IV

This Ordinance shall be published according to law and shall take force and be in effect as of January 1, 2023.

PASSED BY the Council and APPROVED by the Mayor this 21 day of November, 2022.

SIGNED: Mayor

ATTEST: Clerk

APPROVED as to form:

City Attorney



Staff Report

November 21, 2022 City Council – Regular Meeting

Ordinance No. 22-025 Adopting Fire Capital Facilities Plan

Presenter: Cliff Free, Fire Chief Time Estimate: 5 minutes

Phone	Email
360-817-1554	cfree@cityofcamas.us

BACKGROUND: As part of the requirements for the Growth Management Act (GMA), the City of Camas is required to update its Capital Facilities Plan (CFP). This project was completed by Mackenzie and presented to Council on April 4, 2022, after a public hearing. It was later determined that GMA requires that the CFP must first receive a recommendation of approval from the Planning Commission and go through the State Environmental Policy Act (SEPA) process. The Planning Commission held a public hearing on October 19, 2022, and forwarded a recommendation of APPROVAL of the proposed Fire Capital Facility Plan updates. Additionally, the Community Development has completed the SEPA process. A public hearing for the Capital Facilities Plan was held on Nov. 7, 2022 and the City Attorney was directed to return with an adoptive ordinance to repeal and replace the existing Fire Capital Facilities Ordinance No. 22-005.

SUMMARY: The Fire Capital Facilities Plan was adopted on April 18, 2022. Omissions of pro forma were discovered and corrected by staff and a new ordinance to repeal and replace the existing ordinance has been created by the City Attorney for adoption.

BUDGET IMPACT: This will provide an updated framework for financing future capital investment into facilities and equipment, and it will provide the basis for an updated Fire Impact Fee program.

RECOMMENDATION: Staff recommends that Council adopt Ordinance No. 22-025 and it be published according to law.

ORDINANCE NO. 22-025

AN ORDINANCE repealing and replacing Ordinance No. 22-005 and approving the City of Camas Comprehensive Fire Capital Plan including the Capital Facilities Plan elements pursuant to RCW 36.70A.070 and incorporating the Plan by reference into the City of Camas Comprehensive Plan.

WHEREAS, the City of Camas Comprehensive Fire Capital Plan is intended to provide a framework to assist in the integration of future fire department projects and programs to serve the citizens of Camas and to meet State Growth Management Act requirements; and

WHEREAS, the update for 2022 has been reviewed in consultation with Mackenzie, a professional consulting group retained by the City to provide an overview of fire department facilities, needs and provide recommendations; and

WHEREAS, in consideration of an updated Fire Capital Plan, Mackenzie retained certain sub-consultants to provide response time analysis and funding framework concepts to be incorporated into their report to the City; and

WHEREAS, the City reviewed the recommendations of Mackenzie as outlined in a report titled 'Capital Facilities Plan' and a staff report prepared by the City Fire Chief which were presented to the City Council at Workshop meetings open for public comment thereon held on October 4, 2021 and April 4, 2022; and

WHEREAS, the City Council, following a public hearing opened on April 4, 2022 and continued through April 18, 2022, duly considered and adopted the Fire Capital Facilities Plan by Ordinance 22-005; and

WHEREAS, certain procedural aspects related to the adoption of Ordinance 22-005 were subsequently raised, including Planning Commission and SEPA review; and

WHEREAS, the Planning Commission held a public hearing on the request for adopting the Fire Capital Plan with the affiliated Capital Facilities Plan elements as set forth in RCW 36.70A.070 on October 19, 2022 and recommended approval; and

WHEREAS, the City Council held a public hearing for the Capital Facilities Plan and the Council directed the City Attorney return with an Ordinance to repeal and replace Ordinance 22-005; and

WHEREAS, the 2022 update to the Fire Capital Plan includes all requirements for a Capital Facilities Plan to be consistent with the Washington State Growth Management Act (GMA) per RCW 36.70A.070, which requires jurisdictions fully planning under GMA to have a Capital Facilities Plan element within their comprehensive plans; and

WHEREAS, concurrent with the consideration of the Capital Facilities elements of the Fire Capital Plan the City is considering adoption of the amendments to the city budget through the Biennial Budget Adoption for 2023-2024 and the Capital Facilities elements of the Fire Capital Plan will be incorporated into the City Capital Facilities Plan and Capital Improvement Plan upon approval.

NOW, WHERETOFORE, THE COUNCIL OF THE CITY OF CAMAS DO ORDAIN AS FOLLOWS:

Section I

Ordinance No. 22-005 as adopted on April 18, 2022 is hereby repealed and replaced by the terms herein.

Section II

The City Council hereby adopts that certain document titled "Capital Improvement Plan", including all Capital Facilities Plan elements associated thereto pursuant to RCW 36.70A.070, as the Comprehensive Fire Capital Plan for the City of Camas.

Section III

The City of Camas Fire Chief is Directed to maintain a copy of the City of Camas Comprehensive Fire Capital Plan available for public inspection.

Section IV

The City Capital Facilities Plan is hereby amended to include the updated elements of the Comprehensive Fire Capital Plan as set forth under RCW 36.70A.070.

Section V

This Ordinance shall take force and be in effect five (5) days from and after its publication according to law.

PASSED BY the Council and APPROVED by the Mayor this 21st day of November, 2022.

	SIGNED:		
		Mayor	
	SIGNED:		
		Clerk	
APPROVED as to form:			
City Attorney			

MACKENZIE.



CITIES OF CAMAS AND WASHOUGAL

Capital Improvement Plan

November 07, 2022

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The information in this document has been obtained from sources believed reliable. Our findings have been based on limited information and on-site observation. Because of the limited scope of our initial review, these preliminary findings should not be used as a principal basis for any decision relating to the site and/or building, and confirmation of the information contained within this document with the applicable government body may be necessary.

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PROJECT TEAM

CAMAS-WASHOUGAL FIRE DEPARTMENT

- Nick Swinhart Fire Chief
- Ron Schumacher Fire Marshal



MACKENZIE

- Jeff Humphreys Project Principal
- Cathy Bowman Project Manager



ECO NORTHWEST

Chris Blakney



CITYGATE ASSOCIATES, LLC - FIRE AND EMERGENCY SERVICES

Stewart Gary



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Item 16.

PROJECT INTRODUCTION

The Camas Washougal Fire Department (CWFD) is seeking to identify the future department needs to serve the two cities. The objective is to assess the response time study of the existing stations and identify improvements to implement that better meet their needs and goals; provide a master plan for more efficient operational model and layout; better align with the current space demand for the Fire Department and allow for future prospective staff and facility growth.

To aid the City of Camas and City of Washougal with these efforts, the City selected Mackenzie to assist with an evaluation of the existing station locations and work with Department staff to determine the operations-based needs.

Mackenzie, established in 1960 and based in Portland, Oregon, provides an integrated design approach to projects, including architecture, structural engineering, landscape architecture, civil engineering, land use planning, transportation planning and interior design services. Mackenzie's Public Project team specializes in municipal and emergency response facility design, space needs evaluations, and bond campaign assistance. In the past decade, Mackenzie has worked on publicly funded projects in Oregon and Washington for more than 50 counties and municipalities, providing

design and engineering services for more than 40 fire facilities, 18 police facilities and 6 municipal office buildings.

At the start of the design process, the goal was to develop a master capital improvement plan to meet the 40 years needs of the Department. The validated response time study report includes an updated understanding of the Response Time Study Report by ESCi (completed in 2019) taking into account the projected urban growth boundaries for both Camas and Washougal. A program for a new headquarters and new satellite station was also completed as part of the study to further identify what the potential cost of new and replacement fire stations will be based on the department needs. The information contained within this report provides a detailed overview of Mackenzie's with the Camas-Washougal Fire Department. All steps involved in this process have been documented and organized based on the associated task and are contained within the pages of this report for the City of Camas and City of Washougal's consideration. Recommendations for next steps have been outlined at the end of the Executive Summary.



EXECUTIVE SUMMARY

Public facility design, specifically fire station projects, are unique in that the building and all its functions are tools required to most effectively and efficiently enhance agency operations and safety. Fire station design focuses on functionality and meeting the stringent requirements associated with protection and security of the building, its staff, and the communities they serve. Jurisdictional, state, and federal criteria for safety, security, and operational procedures drive these requirements and invariably impact design considerations. These criteria ensure that this facility not only is able to improve operational efficiency on a day-to-day basis but is capable of evolving over the life of the building, resisting and responding to emergency events, providing critical services for the citizens of Camas and Washougal, enhancing the built environment of the surrounding area with a strong civic presence, and encouraging investment in the community.

The following report encompasses the primary tasks requested by the Camas Washougal Fire Department to determine the long-term needs of the department including:

- 1) Programming
- 2) Response Time Study
- 3) Project Cost Development
- 4) Financial Funding Forecast

Process and Methodology:

Mackenzie employed programming, communication, consensus-building, and goal setting techniques to ensure that the final report meets the expectations of the stakeholders involved in the process. Using a multi-disciplinary approach, extensive public project experience, and lessons learned on previous fire sire station and public building projects, the team provided, architectural services to meet the project objectives and deliverables.

Mackenzie worked with the Camas Washougal Fire Department (CWFD), City of Camas and City of Washougal staff to confirm the key stakeholders who needed to be involved throughout the study and to support and strengthen dialogue between the Design Team and the City.

Task #1: Programming

Mackenzie understands from discussions with the Fire Department that there are currently operating out of three different stations. The headquarter station (Station 41) and another existing station (Station 42) are in the City of Camas, and one existing station (Station 43) is located in the City of Washougal. The three existing stations do not meet the current standard structural building requirements, let alone the seismic performance required of an essential facility. Chief Swinhart shared with Mackenzie that they have been unable to purchase needed apparatus for the department as the apparatus bays are not sized appropriately to accommodate the new apparatus. The facilities do not meet ADA requirements which require accessible access to all levels, accessible door hardware, and accessible clearances in kitchen in rest room facilities. The facilities do not meet the current energy code, resulting in inefficiencies in their building systems and thermal performance. The facilities do not meet the minimum sleeping area per NFPA 1581 per discussion with CWFD.

Mackenzie worked closely with the Camas Washougal Fire Department staff to better understand the current space needs and projected those needs out based on a 40-year growth forecast. The facility program was created utilizing the space standards and comments from current Department staff. It includes circulation space, and requirements for utilitarian areas, such as mechanical, electrical, and data room spaces; and a projection of growth with the expectation that the buildings will be in use for 40 plus years. It also includes identified site-related requirements (secure parking, visitor parking, staff patio area, recycling and trash enclosure, emergency generator, etc.). Mackenzie guided the Fire Department through the process of space needs identification and their required space allocations. From that, the Design team developed a program matrix that identified the required spaces, their approximate size, and amenities to be provided within them.

Upon development of this document and prior to gaining Department staff approval, Mackenzie reviewed the findings with the Department to clarify any questions or comments brought up over the course of creating the matrix. During the review, as a comparison tool, Mackenzie also shared project

information of similarly sized headquarters and satellite fire stations. A headquarter station will be inclusive of the Fire Department's Administrative staff, while a satellite station will not require the administrative staff offices. The program yielded a total square footage for the headquarters stations to be 19,456 square feet. A satellite station to be 13,151 square feet. As part of these calculations, the building square footage total includes an average 20% increase for general building circulation and interstitial space (i.e., wall thicknesses), which has been found to be a typical escalation for facilities of this type. Projections for the site indicate a demand of 10 paved parking stalls for the public and 30 spaces for staff vehicles. Mackenzie further validated these identified growth projections and space needs through the use of comparable jurisdictions and newly constructed facilities in the region (see page 02-15 for trending spreadsheet).

Task #2 Response Time Study

Citygate reviewed the ESCi study and technical exhibits, interviewed Department staff and reviewed available data on City growth rates. In addition to these data, Citygate also applied the best practices recommendations for fire crew deployment as published by the National Fire Protection Association in Standard 1710 for career fire crew deployment, the Standards of Response Coverage as published by the Commission on Fire Accreditation International and the regulations of the State of Washington. Citygate interviewed both fire and planning staffs from both cities to understand potential growth patterns and how growth, if any, could be past the desired travel time reach of the existing stations. After discussion with both City Community Development Directors, the land use through zoning is where the community has set its potential land use goals.

Overall, Citygate finds the Department has three service areas—the developed, higher density cores; the outer, currently lighter or undeveloped suburban/rural areas; and locations where in fill development could occur in the future. Citygate is of the opinion that, given the differing service areas in both cities, the Department should consider immediately adopting a split travel time goal. The 4:00-minute travel time is appropriate for the most developed areas. However, Citygate suggests the Cities adopt and measure performance in the outer

suburban areas at 8:00 minutes' travel time.

Station 41 – The current location is sufficient. It is near the riverfront and has good crossroad connections. Ideally, it could be moved a little northwest to close some of the gap between it and Station 42. If moved, its service coverage would need to just touch the water and not overlap as much with Station 43. However, relocating Station 41 would not close the entire travel time coverage gap between Stations 41 and 42.

Station 42 – Station 42 is a newer facility and supports training functions. If the Department were to use a split response time measure, Station 42 could cover the more populated areas toward Station 41 with urban travel times while also providing longer suburban edge to rural response time coverage to the north of Station 42.

Station 43 – Ideally, to minimize coverage time loss "over the water," the station should be relocated more north by northeast. However, it is also on the other side of the railroad tracks, a positive fact given the large trains that go to the Port of Vancouver. The station has good access to the main overpass across the train tracks on Washougal River Road.

Washougal, however, is too large from east to west to be covered from one fire station. Depending on response time goals and final growth approvals, Washougal will need at least two fire stations at some point in the 2030s. Assuming Station 43 does not move, a second station needs to be built, more likely up into the northwest section of Washougal where there is more zoning for growth and road network development. If intense growth were also to occur in the northeast to eastern areas, the second fire station site could be more central and inland from the river in the middle of Washougal rather than to the northwest, or the City could site a third fire station in the east.

Likewise, due to growth, to deliver better-than-rural response times, Camas will need two additional fire stations at a minimum. For existing developed areas beyond 4:00 minutes' travel time of a first response unit, the partner cities and Fire Department should adopt a split response time measure better reflecting the very different population and risk densities well inland from the Columbia River.

For current capital improvement fee calibration for the next 10 years, CFWD should, at a minimum, plan for a replacement of Station 41, replacement of Station 43, minor renovation of Station 42 and one additional fire station.

Task #3: Project Cost Development

Based on the response time study and the program requirements for future stations, Mackenzie prepared a probable construction cost for the new headquarters and satellite fire station and associated site development improvements for the project. These cost projections were based upon historical data of most recently bid fire station projects in the Pacific Northwest as well as currently cost forecasted fire stations in the area. It comprised of the range of costs related to the anticipated raw construction costs and anticipated general contractor margins based on a publicly funded project requiring prevailing wage rates for construction.

In conjunction with the development of the construction costs, Mackenzie prepared cost forecasts for consultant costs, including architectural/engineering fees, construction management fees, special inspections, geotechnical inspections, etc. Additionally, Mackenzie worked with the Camas Washougal Fire Department to evaluate and compile potential owner costs, including fixtures, furnishings and equipment, lockers and shelving, fitness equipment, moving costs, and applicable permit fees. A final cost matrix was prepared that provides a comprehensive look at all anticipated costs associated with the project summarized to reflect the construction cost, consultant costs, and owner costs.

Task #4: Financial Funding Forecast

To assess how well existing fire impact fees could cover the capital expenses of constructing new facilities, Mackenzie worked with ECONorthwest to translate adopted forecasts of future household and employment growth into estimates of residential and commercial development in Camas and Washougal over the next 15 years and the resulting fire impact fee revenue. ECONorthwest found that fire impact fees can fund only a portion of eligible costs, and the total funding gap for estimated capital needs is \$32.28 to \$35.59 million.

Next, ECONorthwest researched an array of potential funding alternatives that could help to address the funding shortfall. Mackenzie and ECONorthwest recommend a multi-pronged funding strategy and CWFD consider the following tools for further evaluation:

- 1. Increased Fire Impact Fees
- 2. General Obligation Bond
- Surplus Land Disposition
- 4. Public Safety Sales Tax
- 5. EMS Levy

Summary of Recommendations

Examination of the departments needs found that a replacement headquarters station is needed within the next two or three years. A replacement satellite station is required in the next two to three years. A brand-new satellite station is required in the next five to nine years.

Our recommendation is for the Camas Washougal Fire Department to move forward with a replacement of Station 41 Headquarters Station promptly with a new facility that meets their operational and essential facility requirements.

NEXT STEPS

City to conduct additional studies on specific fire impact fee adjustments.

 Based upon the funding gap identified in this report, each City should determine what the new fire impact fee for each jurisdiction to bridge some of the gap in the funding.

Determine Funding Mechanism

Confirm the funding mechanism(s) the
Department expects to pursue to complete
the project. Once determined, the City and
Department should assess the financial impact,
if any, to the local community in comparison
to previous voter approvals, and the timing for
pursing the selected funding mechanism.

Complete a Needs Assessment and Conceptual Design

- While this report identifies the deficiencies and programmatic needs of the future replacement and new stations, a conceptual design for a specific site for each of the replacement and new station should be identified. Development of floor plans, site plans, and perspective renderings for each new facility will ensure a more precise cost forecast for each facility project and identify costs associated with the purchase and development of new sites.

Establish a desired timeline and budget for the project

- Based on the findings of Mackenzie's analysis, it is determined that the overall projected rough order of magnitude cost of the project as described in this report are:
 - Headquarters Station \$12.6 million to \$13.9 million
 - Satellite Station \$8.5 million to \$9.4 million

It is encouraged that the Department agree on an expectation of project costs and schedule development to provide clear direction to those that represent the project.



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RESPONSE TIME STUDY

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FIRE STATION LOCATION ASSESSMENT

Background

Citygate Associates, LLC (Citygate) was retained by the Camas-Washougal Fire Department) via Mackenzie to assist with the development of a Fire Department Capital Improvement Plan. The Department developed a Fire Department Master Plan with a consultant in 2019. That study by Emergency Services Consulting International (ESCi) was published in November 2019. The ESCi study used the analysis of risks to be protected, emergency incident response statistics, and geographic mapping to offer recommendations on existing fire station coverage and possible added fire stations as the communities continue to evolve within their growth plans.

Given the millions of dollars potentially needed to maintain or increase fire station and crew coverage, the Department tasked Mackenzie with obtaining a peer review of the ESCi study from another fire station deployment planning firm. The Department also expressed the need to more deeply consider locally nuanced station location factors and engage more directly with both cities regarding their long-term needs.

Citygate reviewed the ESCi study and technical exhibits, interviewed Department executive staff, and reviewed available data on City growth rates. To this background of risks to be protected in both cities, Citygate also applied the best practices recommendations for fire crew deployment as published by the National Fire Protection Association in Standard 1710 for career fire crew deployment, the Standards of Response Coverage as published by the Commission on Fire Accreditation International, and the regulations of the State of Washington.

There are no mandatory federal or state regulations directing the level of fire service staffing, response times, or outcomes. Thus, the level of fire protection services provided is a matter of local policy decision. Communities have the level of fire services they choose to purchase and can afford, which may not always be the level desired. However, if services are provided at all, local, state, and federal regulations relating to firefighter and citizen safety must be followed.

Analysis

In general, there are two broad theorems to fire station location: (1) find sites that each cover a 360-degree area of a street network and (2) use sites that cover the most population in the least number of drive-time minutes. In other words, try not to locate stations tightly against bodies of water or canyons, as they cannot be traveled across quickly, and do not use locations where large open space zones must be traversed before entering populated areas.

Often a community is bisected by a river, railroad, or protected open spaces where public streets will not ever be built. It is rarely economically feasible to cover every road segment in a city at the distal ends of the road network. At some point, coverage is always limited to the most people and risks within the community's ability to fund.

Station location goals for response time are impacted by local realities, from zoning to topography and road design. A site must be acquired and meet traffic safety criteria for emergency vehicle egress, among other needs, such as utilities and zoning setbacks. All the above constraints exist for the Cities of Camas and Washougal, thereby limiting optimum fire station locations.

Currently, the Department is served from three staffed fire stations: two in Camas—Station 41 and Station 42—and one in Washougal—Station 43. To the west and north of the two-city Department are other fire agencies that provide mutual aid. No mutual aid stations are close enough to provide a response into the Cities faster than the Cities' three fire stations.

ESCi Report Incident Workload Summary

A best practice travel time for a fire unit in an urban or suburban area is 4:00 minutes in any direction from a station. The land-use patterns and road network make achieving this goal from three, and likely four or more, station locations all but impossible. Historical travel time performance from the existing three fire stations to 90 percent of the fire and ems emergencies ranges from 8:10 to 8:29

minutes across the entire department. Fewer-inquantity incidents outside of the historic town core and riverside areas slows travel times.

The following two maps from the ESCi report show first the population density variance and second the incident location density areas.

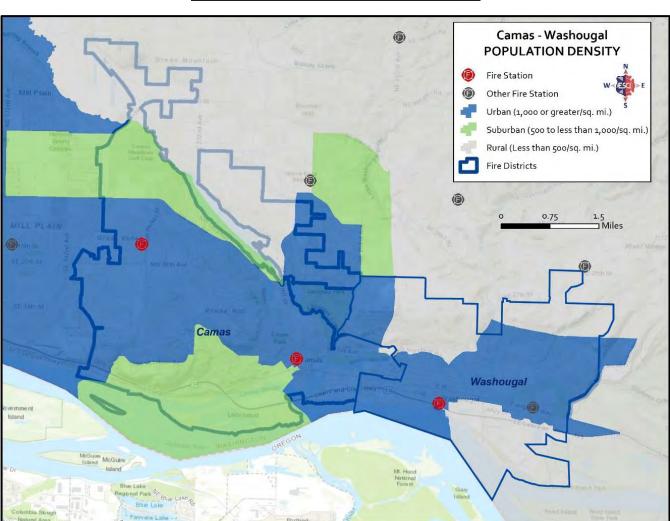


Figure 1—Population Density Variance

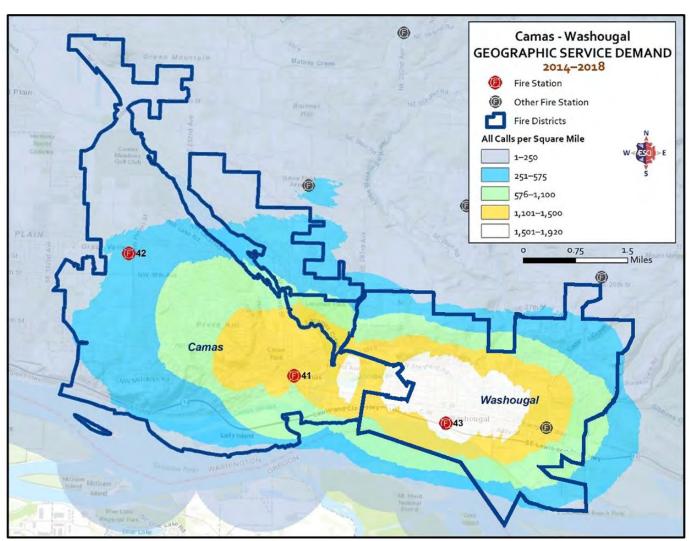
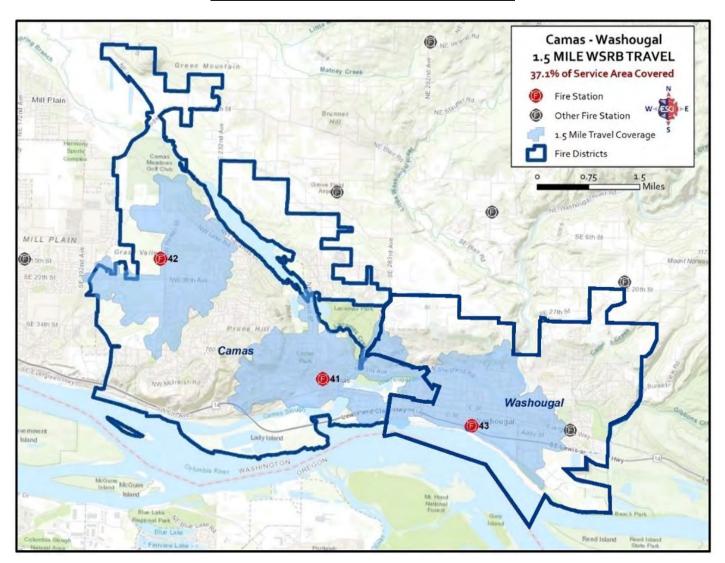


Figure 2—Incident Location Density Areas

Two of the three fire stations, Stations 41 and 43, are well located for travel time to highest density population and incident demand areas. Station 42 serves a large but, at present, far less densely populated area in northwest Camas.

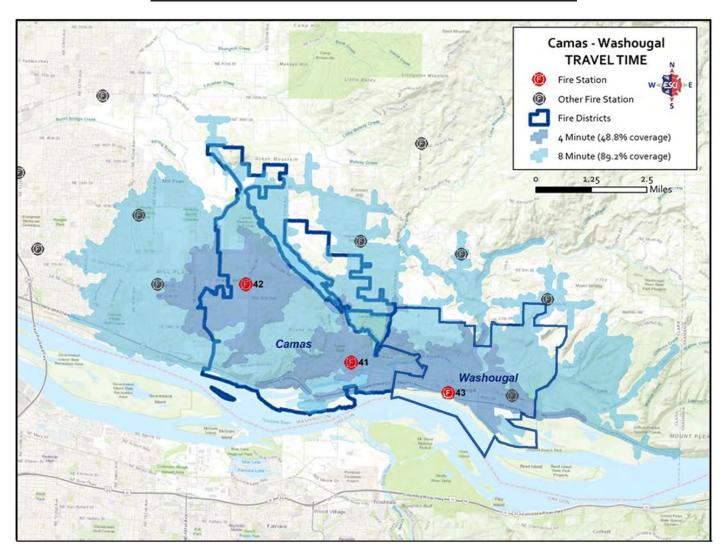
Figure 3—Station Coverage – 1.5 Miles



ESCi Geographic Mapping Coverage Summary

In addition to travel time, the other best practice station spacing measure is the Insurance Service Office (ISO) criteria to locate stations using 1.5-mile distance coverage. The following two maps from the ESCi report show first the ISO coverage and next a computer-modeled 4:00-minute travel time coverage.

<u>Figure 4—Station Coverage – 4:00-Minute Travel Time</u>



Using either coverage measure, the existing stations are located to cover the most populated and highest incident demand areas.

Growth and Possibilities in Both Cities

Citygate interviewed both fire and planning staffs from both cities to understand potential growth patterns and how growth, if any, could be past the desired travel time reach of the existing stations. The best indication of growth is each community's General Plan and approved zoning. While development itself occurs within regional and national economic conditions, land use through zoning is where the community has set its potential land use goals.

Camas

While Camas has approximately 25,000 residents, the Comprehensive Plan envisions the resident population growing to about 34,000. Camas uses a population estimate of 2.91 people per dwelling unit, which, with the addition of 9,000 residents, means adding over 3,000 dwelling units. Appendix 1 is the current Comprehensive Plan map for Camas. Per the map, there is both residential and commercial land use planned in the west side, in the northwest corner, across Lacamas Lake, and in the southeast corner by the Columbia River. In all four areas, land use allows higher density multi-family housing, as well as single family housing, at various units per acre. When compared to the coverage maps in Figures 3 and 4, all these four areas are beyond the reach of desirable urban/suburban first-due fire unit travel times of 4:00 minutes. The areas across Lacamas Lake presently have rural levels of travel time service.

With much of Camas' growth occurring well past the urban/suburban travel time reach of a fire station, Camas has two choices. The first option is to add at least two to three fire stations, and the second option is for the growth areas to adopt more rural levels of fire service delivery and response times. Adding fire stations efficiently will require the completion of the next transportation plan and several sub-area development plans, agreements, or both.

Washougal

While Washougal has approximately 16,000 residents, the Board of County Councilors has adopted a 2035 population projection of 562,207 for all of Clark County and, within that, 22,347 for Washougal. Using a larger population estimate of 2.5 people per dwelling unit, the result could mean the addition of 6,347 residents, resulting in adding over 2,500 dwelling units. Appendices 2-4 are the current zoning maps for Washougal. Both the northwest and northeast areas are zoned for single family residences at four different unit densities. Given the coverage maps in Figures 3 and 4, most of the population additions to Washougal by 2035 will (as in Camas) occur past the desirable urban/ suburban first-due fire unit travel times of 4:00 minutes. Washougal will also need to add at least two fire stations to extend first-unit coverage or adopt rural level of service in the outer City.

Joint Two-City Result

Both cities need to have adopted future transportation (roadway) plans and adopt within their shared fire department either urban/suburban 4:00-minute travel time policies for the first responder unit or a more rural level of service for first responder fire units (of 8:00 to 10:00 minutes' travel). When these planning standards are set, then the addition of efficient fire station locations can be specifically determined. As part of this planning, it can be researched if any areas with other agency fire stations will be annexed to either or both cities.

At this point, Camas should consider moving Fire Station 41 west some to balance coverage with Fire Station 42 and add at least two more stations, one in the northwest corner and another midway down the north side of Lacamas Lake.

Washougal should consider at least adding one fire station in the northwest area and possibly an additional station in the east if the east-by-northeast areas significantly develop past rural levels of human land use density.

Opinions and Recommendations

Overall, Citygate finds the Department has three service areas—the developed, higher density cores; the outer, currently lighter or undeveloped suburban/rural areas; and locations where in fill development could still occur. Citygate is of the opinion that, given the differing service areas in both cities, the Department should consider immediately adopting a split travel time goal. The 4:00-minute travel time is appropriate for the most developed areas. However, Citygate suggests the Cities adopt and measure performance in the outer suburban areas at 8:00 minutes' travel time. Beyond that, the areas would be open space or mostly farming land uses. For the long term, the Cities can adopt a trigger point for adding fire stations when population densities develop significantly past rural levels.

Given this opinion, Citygate offers the following recommendations:

Station 41 – The current location is sufficient. It is off the riverfront and has good crossroad connections. Ideally, it could be moved a little northwest to close some of the gap between it and Station 42. If moved, its service coverage would need to just touch the water and not overlap as much with Station 43. However, in addition to the cost of relocation, relocating Station 41 would not close the entire travel time coverage gap between Stations 41 and 42.

Station 42 - Station 42 is a newer facility and supports training functions. If the Department were to use a split response time measure, Station 42 could cover the more populated areas toward Station 41 with urban travel times while also providing longer suburban edge to rural response time coverage to the north of Station 42.

Station 43 - Ideally, to minimize coverage time loss "over the water," the station should be relocated more north by northeast. However, it is also on the other side of the railroad tracks, a positive fact given the large trains that go to the Port of Vancouver. The station has good access to the main overpass across the train tracks on Washougal River Road. Unless a cost-effective site could be found on the other side of the overpass to bring Station 43 off the water but outside of a large residential area, it can remain where it is and be modernized as needed over its remaining life cycle.

Washougal, however, is too large from east to west to be covered from one fire station. Depending on response time goals and final growth approvals, Washougal will need at least two fire stations at some point in the 2030s. Assuming Station 43 does not move, a second station needs to be built, more likely up into the northwest section of Washougal where there is more zoning for growth and road network development. If intense growth were also to occur in the northeast to eastern areas, the second fire station site could be more central and inland from the river in the middle of Washougal rather than to the northwest, or the City could site a third fire station in the east.

Likewise, due to growth, to deliver better-than-rural response times, Camas will need two additional fire stations at a minimum.

For existing developed areas beyond 4:00 minutes' travel time of a first response unit, the partner cities and Fire Department should adopt a split response time measure better reflecting the very different population and risk densities well inland from the Columbia River.

For current capital improvement fee calibration, Camas should, at a minimum, plan for two added fire stations and Washougal should plan for one added fire station.



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PROGRAMMING SUMMARY - HEADQUARTERS

Mackenzie began the programming effort by working closely with Camas-Washougal Fire Department staff to identify the appropriate square footage for all future facilities - one for a headquarters stations and one for a satellite station. Using this document and past experiences with fire facilities, all while incorporating current staff feedback, Mackenzie determined current space needs and forecast future needs that will accommodate Department function for the next 20 years, and beyond.

The program totalled 33,916 square feet for a brand new headquarter station and a program total of 21,131 square feet for a brand new satellite station that would meet the department's need for the next 40 years. This total square footage includes a 25% increase for general building circulation and interstitial space (i.e. wall thickness), which has been found to be an average escalation for facilities of this type.

Program needs were developed for a satellite station type and a headquarter station type by means of project meetings with Camas-Washougal Fire Department staff. A Facilities Comparison to comparable districts has been provided for you on page 02-16 through page 02-17 to validate the square footage of the headquarters and satellite facilities for Camas Washougal.

Camas Washougal Fire Department

Prepared by Mackenzie 1/20/2022

	5	Staffin	g	Sp	ace		Spa	ce	Room	Tota	al Requ	iired	
Space / Room Use		uirem			rements		Siz		Type		are Foo		Comments
	Exist	2021	2061	Exist 20	2061	W	Г	Area		Exist	2021	2061	
Department: Camas Washougal I	Fire H	eadqu	arters	Station									
	1					1						1	
Apparatus Bay and Support Rooms	0	0	0							0	7658	7658	
Apparatus Day and Support Rooms		U	U							U	7000	7000	
Living Quarters and Administration	14	14	14							0	6642	6642	
_													
Community / Training Rooms	0	0	0							0	1913	1913	
													Acres
SUBTOTAL	14	14	14							0		16213	
GENERAL CIRCULATION (20%)										0	3243		
TOTAL BUILDING SQUARE FOOTAGE	14	14	14							0	19456	19456	0.45
TOTAL EXTERIOR REQUIREMENTS											14460	14460	0.33
TOTAL SITE REQUIREMENTS										0	33916	33916	0.78

PREVIOUS SQUAREFOOTAGE ASSUMPTIONS

Existing Building Not Applicable

Mackenzie 19456

Prepared by Mackenzie 1/20/2022

Space / Room Use	Req	Staffin uirem 2021		Req	Space uirem 2021	ents		Spa Siz L		Room Type	Squa	I Requ re Foo 2021	tage	Comments
Department: Apparatus Bay and	Suppo	ort Ro	oms											
Apparatus Bay														
Apparatus Bay					5	5	15	70	1050		0	5250		5 Bay, Drive-through bays Front Apparatus Bay doors to be four-fold doors Back Apparatus Bay doors to be Overhead
Group Total	0	0	0								0	5250	5250	
Apparatus Support Rooms														
Turnouts					1	1	48	17	816		0	816	816	Turnout Gear located in a dedicated room (36) Turnout Lockers min; Ready Rack type system, Light should not penetrate into room
Decontamination / Equipment Supply Rm					1	1	12	12	144		0	144	144	Floor sink, Decon Shower, Eyewash, Stainless steel counter and sink, Extractor, Commercial grade dryer, Hooks for drying w/ extra ventilation,
Decon Toilet/Shower					1	1	9	12	108		0	108		Detergent Dispenser
Decon Vestibules					0	0	0	0	0		0	0		Part of the Decon Room Part of the Hallway - between transition zones of App
EMS Storage					1	1	8	10	80		0	80	80	Bay and Living Quarters/Admin Prefer to have island
Report Writing					5	5	10	6	60		0	300	300	(5) Workstations Table, chair and Computer
Work Room/Shop					1	1	6	16	96		0	96	96	Tool Room Bench, computer work area Bottle Rack Storage - SCBA - 6'-0" Grinder and Vice off the Apparatus Bay Table, chair and Computer
SCBA Room					1	1	6	16	96		0	96	96	Tool Room Bench, computer work area
Hose Storage					1	1	8	16	128		0	128	128	typical length of rack 10 to 12 feet
Supply Storage					1	1	12	20	240		0	240	240	Cleaning Supplies, shop towels,
Mezzanine					1	1	10	40	400		0	400	400	Above the Apparatus Bay Support Rooms
Group Total	0	0	0								0	2408	2408	

TOTAL SQUARE FOOTAGE (Apparatus Bay and Related Rooms)

Prepared by Mackenzie 1/20/2022 Camas Washougal Fire Department

Space / Room Use		itamin uirem	_	Requirem			Spa		Room Type		are Foo		Comments
орисо / 1100 000	Exist	2021	2061	Exist 2021	2061	W		Area	. , , ,		2021		
Department: Living Quarters and	Admi	nistra	tion										
Living Quarters													
Bunk Rooms	7	7	7	8	8	10	10	100		0	800	800	(6) Bunk Rooms: Bed and night stand, no lockers or desk
Toilet/Shower Room				5	5	10	12	120		0	600	600	Single occupancy
Lockers				36	36	2	2	4		0	144	144	Lockers located in the hallway -36 lockers
Kitchen/Dining				1	1	16		640		0	640		(4) Refrigerator, (1) under counter fridge; (5) Pantry
, we will be a second of the s						.0		0.0			0.0	0.0	6 burner range, double oven, (1) Dishwasher Dining table for 12
Day Room				1	1	24	34	816		0	816	816	(9) people - great room concpet
Physical Training				1	1	20	30	600		0	600	600	
Laundry				1	1	8	10	80		0	80	80	(1) washer and (1 Dryer); linen cabinets Open Shelf
Group Total	7	7	7							0	3680	3680	Open Shell
Administration													
Battalion Chief Office	1	1	1	1	1	12	14	168	OFFICE	0	168	168	Suite - adjoined with Bunk Room
Battalion Chief Bunk Room				1	1	10	12	120		0	120	120	BC's suite - adjacent to office
Captain's Office	1	1	1	1	1	10	14	140	OFFICE	0	140	140	Suite - adjoined with Bunk Room
Captain's Bunk Room				1	1	10	12	120		0	120	120	Captain's suite - adjacent to office
Fire Chief's Office	1	1	1	1	1	14	22	308	OFFICE	0	308	308	Table top seating for 4
Fire Marshal Office	2	2	2	2	2	10	18	180	OFFICE	0	360	360	
Shared Workspace Fire Marshal Office				1	1	10	18	180	OFFICE	0	180	180	Common area between Fire Marshal Offices to layout large
Admin Assistant	2	2	2	2	2	10	14	140		0	280	280	format drawings One for Fire Chief Admin and One for Fire Marshal Office
Small Conference Room				1	1	10	15	150		0	150	150	Seating for 6
Records Storage				1	1	10	12	120		0	120	120	Administration Staff
Copy/Work Room				1	1	8	10	80		0	80	80	
Radio Charging Station				1	1	4	8	32		0	32	32	
Group Total	7	7	7							0	2058	2058	
Building Support	l							1					
Stairs per floor				4	4	8	10	80		0	320	320	
Fire Pole per floor				2	2	5	10	50		0	100	100	
Elevator per floor				2	2	8	10	80		0	160	160	
Electrical / Data				1	1	12	23	276		0	276	276	Tap out system in electrical room
Janitor Closet per floor				2	2	4	6	24		0	48	48	Toilet paper, paper towels, mops, sink, etc.
Group Total	0	0	0							0	904	904	
TOTAL SQUARE FOOTAGE (Living Quart	ers an	d Adm	ninistra	tion)						0	6642	6642	

Prepared by Mackenzie 1/20/2022

Space / Room Use		Staffin quirem	•		Space uirem			Spa Siz		Room Type		il Requ are Foo		Comments
•				Exist			W	L	Area			2021		
Department: Community / T	vojnina Do													
Department: Community / T	raining Ro	oms												
T														
Training Rooms		T												
Community/Training Room					1	1	32	36	1152		0	1152	1152	Classroom style for 36 - 40 ppl
1st Aid Station					0	0	0	0	0		0	0	0	Counter and blood pressure to be completed in the lobby
Public Restrooms					2	2	8	8	64		0	128	128	One to be dual public/fire use
Lobby					1	1	5	15	75		0	75	75	
Antique Rig Showcase					1	1	15	30	450		0	450	450	To be located in the lobby
Storage Closet					1	1	3	4	12		0	12	12	
Training Storage					1	1	8	12	96		0	96	96	
Group Total	С	0 0	0								0	1913	1913	
•														

Space

Staffing

Prepared by Mackenzie 1/20/2022

Space / Room Use	Requirements		iireme			Size		Type		are Foo		Comments
	Exist 2021 206	1 Exist 2	2021	2061	W	L	Area		Exist	2021	2061	
Department: Exterior Rec	uirements											
Parking												
Public Parking - Training			10	10	9	18	162		0	1620	1620	(1) ADA (9) Public
Staff Parking			30	30	9	18	162		0	4860	4860	Included in Public Parking
Group Total				40					0	6480	6480	
Site Elements												
Generator		1	1	1	10	15	150		0			Screened; Includes 4'-0" clearances, Concrete pad req'd
Trash / Recycling		0	1	1	10	20	200		0	200	200	Verify trash requirements w/ provider
Patio		0	1	1	20	20	400		0	400	400	BBQ Balcony if LQ on the 2nd Floor
Group Total									0	750	750	
SUBTOTAL										7230	7230	
GENERAL CIRCULATION (100%)										7230		
TOTAL SQUARE FOOTAGE (Exte	erior Requirements)									14460	14460	

Space

Room

Total Required

PROGRAMMING SUMMARY - SATELLITE STATION

Camas Washougal Fire Department

Prepared by Mackenzie 1/20/2022

	5	Staffin	g	Sp	ace		Spa	се	Room	Tot	al Requ	ired	
Space / Room Use		uirem			rements		Siz	e	Type	Squ	are Foo	tage	Comments
	Exist	2021	2061	Exist 20	2061	W	٦	Area		Exist	2021	2061	
Department: Camas Washougal F	Fire Sa	atellite	Stati	on(s)									
Apparatus Bay and Support Rooms	0	0	0							0	5526	5526	
Living Quarters and Administration	8	8	8							0	4402	4402	
Community / Training Rooms	0	0	0							0	1031	1031	
													Acres
SUBTOTAL	8	8	8							0	10959	10959	
GENERAL CIRCULATION (20%)										0	2192	2192	
TOTAL BUILDING SQUARE FOOTAGE	8	8	8							0	13151	13151	0.30
	ĺ		ĺ	•						•			
TOTAL EXTERIOR REQUIREMENTS											7980	7980	0.18
TOTAL SITE REQUIREMENTS										0	21131	21131	0.49

PREVIOUS SQUAREFOOTAGE ASSUMPTIONS	
Existing Building	Not Applicable
Mackenzie	13151

Mezzanine

Group Total

Prepared by Mackenzie 1/20/2022

		Staffir			Space			Spa		Room		al Requ		
Space / Room Use			ents		uireme			Siz		Type		are Foo		Comments
	Exist	2021	2061	Exist	2021	2061	W	L	Area		Exist	2021	2061	
Department: Apparetus Roy and	Cumma	wt Do												
Department: Apparatus Bay and		ort Ro												
Apparatus Bay														
Apparatus Bay					3	3	15	70	1050		0	3150		3 Bay, Drive-through bays
														Front Apparatus Bay doors to be four-fold doors
														Back Apparatus Bay doors to be Overhead
Group Total	0	C	0								0	3150	3150	
Croup rotal												0100	0100	
Apparatus Support Rooms														
Turnouts					1	1	48	17	816		0	816	816	Turnout Gear located in a dedicated room
														(36) Turnout Lockers min; Ready Rack type system,
														Light should not penetrate into room
Decontamination / Equipment Supply Rm					1	1	12	12	144		0	144	1//	Floor sink, Decon Shower, Eyewash, Stainless
Decontainination / Equipment Supply Kill							12	12	177		J	177		steel counter and sink, Extractor, Commercial grade
														dryer, Hooks for drying w/ extra ventilation,
														Detergent Dispenser
Decon Toilet/Shower					1	1	9	12	108		0	108	108	,
														Part of the Decon Room
Decon Vestibules					0	0	0	0	0		0	0	0	Part of the Hallway - between transition zones of App
														Bay and Living Quarters
EMS Storage					1	1	12	12	144		0	144	144	Prefer to have island in center
Poport Writing					F	5	10	6	60		0	300	200	(E) Waskstations
Report Writing					э	5	10	Ö	60		U	300	300	(5) Workstations Table, chair and Computer
Work Room/Shop					1	1	6	16	96		0	96	96	Tool Room Bench, computer work area
									00			00		Bottle Rack Storage - SCBA - 6'-0"
				l										Grinder and Vice off the Apparatus Bay
				l										Table, chair and Computer
Hose Storage					1	1	8	16	128		0	128	128	typical length of rack 10 to 12 feet
Supply Storage					1	1	12	20	240		0	240	240	Cleaning Supplies, shop towels,

400

400 Above the Apparatus Bay Support Rooms

Prepared by Mackenzie 1/20/2022

Space / Room Use		Staffin quirem			Space uireme	ents		Spac		Room Type		al Requi are Foo		Comments
·	Exist	2021	2061	Exist	2021	2061	W	L	Area		Exist	2021	2061	
Department: Living Quarter	s and Adm	inistra	ition											
Living Quarters														
Bunk Rooms	7	7	7		7	7	10	10	100		0	700	700	(6) Bunk Rooms: Bed and night stand, no lockers or desk
Toilet/Shower Room					5	5	10	12	120		0	600	600	Single occupancy
Lockers					36	36	2	2	4		0	144	144	Lockers located in the hallway -36 lockers
Kitchen/Dining					1	1	16	40	640		0	640	640	(4) Refrigerator, (1) under counter fridge; (5) Pantry 6 burner range, double oven, (1) Dishwasher Dining table for 12
Day Room					1	1	24	34	816		0	816	816	(9) people - great room concpet
Physical Training					1	1	20	30	600		0	600	600	
Laundry					1	1	8	10	80		0	80	80	(1) washer and (1 Dryer); linen cabinets Open Shelf
Group Total	7	7	7								0	3580	3580	Gpen Gnen
Administration														
Captain's Office	1	1	1		1	1	10	14	140	OFFICE	0	140	140	Suite - adjoined with Bunk Room
Captain's Bunk Room					1	1	10	12	120		0	120	120	Captain's suite - adjacent to office
Small Conference Room					1	1	10	15	150		0	150	150	Seating for 6
Copy/Work Room					1	1	8	10	80		0	80	80	
Radio Charging Station					1	1	4	8	32		0	32	32	
Group Total	1	1	1								0	522	522	
Building Support														
Stairs per floor					0	0	8	10	80		0	0	0	
Fire Pole per floor					0	0	5	10	50		0	0	0	
Elevator per floor					0	0	8	10	80		0	0	0	
Electrical / Data					1	1	12	23	276		0	276	276	Tap out system in electrical room
Janitor Closet per floor					1	1	4	6	24		0	24	24	Toilet paper, paper towels, mops, sink, etc.
Group Total	0	0	0								0	300	300	
TOTAL SQUARE FOOTAGE (Living	Quarters ar	nd Adn	ninistra	ition)							0	4402	4402	

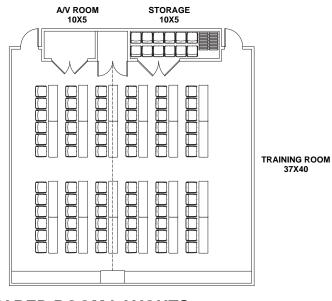
Prepared by Mackenzie 1/20/2022

	Staffing	Space	Space	Room	Total Required	
Space / Room Use	Requirements	Requirements	Size	Type	Square Footage	Comments
	Exist 2021 2061	Exist 2021 2061	W L Area		Exist 2021 2061	

Department: Community /	Training Roo	oms										
Training Rooms												
Community/Training Room				1	1	24	30	720	0	720	720	Classroom style for 20 ppl
1st Aid Station				0	0	0	0	0	0	0	0	Counter and blood pressure to be completed in the lobby
Public Restrooms				2	2	8	8	64	0	128	128	One to be dual public/fire use
Lobby				1	1	5	15	75	0	75	75	
Storage Closet				1	1	3	4	12	0	12	12	
Training Storage				1	1	8	12	96	0	96	96	
Group Total	0	0	0						0	1031	1031	
TOTAL SQUARE FOOTAGE (Train	ing Rooms)								0	1031	1031	

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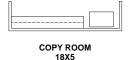
SPACE STANDARDS

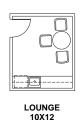


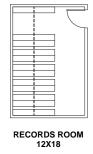
- Based on existing emergency response facilities, past experience, and general architectural standards, space standards have been developed and depicted to aid in efficiently comparing space sizes for offices, support spaces, and primary functions unique to this particular type of facility.
- These space standards have been utilized in the development and validation of identified program elements.

SHARED ROOM LAYOUTS







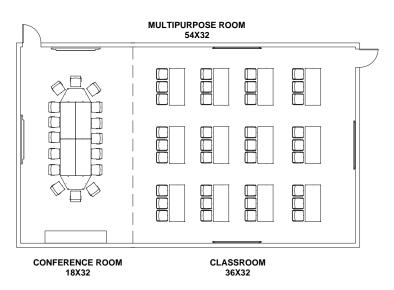


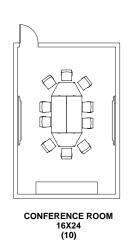


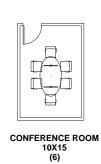
TYPICAL OFFICE SUPPORT ROOM LAYOUTS

SCALE 1/16" = 1'-0"

02-14

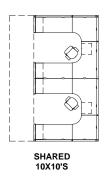






TYPICAL CONFERENCE LAYOUTS





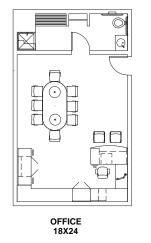


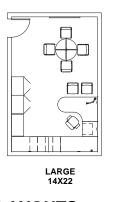


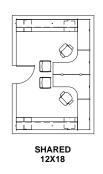


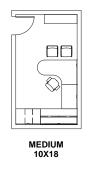


TYPICAL CUBICLE LAYOUTS







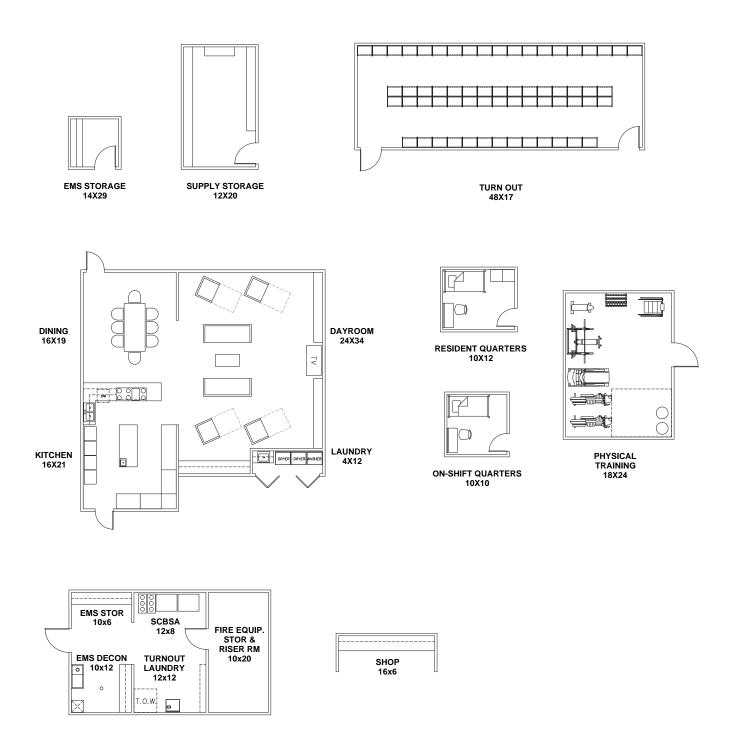






TYPICAL OFFICE LAYOUTS

SCALE 1/16" = 1'-0"



TYPICAL APPARATUS BAY SUPPORT ROOM LAYOUTS

SCALE 1/16" = 1'-0"





<u>PROJECT</u>	<u>ALBANY FIRE</u>	<u>DUNDEE FIRE & RESCUE</u>	
LOCATION	Albany, OR	Dundee, OR	
YEAR COMPLETE	2017	2014	
SITE SIZE	1.63 acres	1.5 acres	
APPARATUS BAY	8,359 sf	8,184 sf	
LIVING QUARTERS	7,221 sf	2,850 sf	
ADMINISTRATION	7,643 sf	2,797 sf	
PUBLIC	1,042 sf	1,574 sf	
TOTAL SQ. FT.	11,900 sf	17,623 sf	
TOTAL SQ. FT.	11,900 sf	17,623 sf	
TOTAL SQ. FT. RESIDENT PROGRAM	11,900 sf YES	17,623 sf YES	
RESIDENT PROGRAM	YES	YES	
RESIDENT PROGRAM BUNK ROOMS	YES 9	YES 4	
RESIDENT PROGRAM BUNK ROOMS RESPONSE AREA	YES 9 81 sq mi	YES 4 13 sq mi	
RESIDENT PROGRAM BUNK ROOMS RESPONSE AREA POPULATION SERVED QUANTITY OF STATIONS	YES 9 81 sq mi 58,073	YES 4 13 sq mi 5,500	

FACILITY COMPARISON







CLARK COUNTY FIRE DISTRICT 6 STATION 61	CLARK COUNTY FIRE DISTRICT 6 STATION 63	<u>VANCOUVER FIRE</u> <u>STATION 11</u>
Vancouver, WA	Vancouver, WA	Vancouver, WA
2022	2019	2022
4.10 acres	3.32 acres	3.65 acres
6,885 sf	7,252 sf	5,180 sf
5,799 sf	3,449 sf	4,250 sf
8,450 sf	5,277sf	3,250 sf
1,706 sf	1,000 sf	1,447 sf
20,750 sf	17,693 sf	14,789 sf
NO	NO	NO
8	8	10
37 sq mi	37 sq mi	90 sq mi
75,000	75,000	250,000
3	3	11
Career/Volunteer	Career/Volunteer	Career/Volunteer
Headquarters	Satellite	Satellite

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PROJECT COST DEVELOPMENT

COST SUMMARY

Following completion of the programs for the headquarter station and the satellite station, Mackenzie developed cost forecasts for the stations that would be developed to meet the Department's needs for the next 20 years. This effort is reflected in the Statement of Probable Costs found in Appendix B.

Development costs of a project are not limited to construction costs alone and require consideration of other variables. These variables differ between new construction and renovation or expansion, and invariably change from one project to the next depending on site conditions, existing building conditions, building codes, seismic zones and the environment of the construction industry. Differences between estimates arise depending on the design approach, construction costs, and design and engineering costs. Owner costs for furniture, fixtures and equipment are often constant, based on a predetermined budget set by the Department. New construction can often differ substantially due to the single variable of land acquisition. This cost, coupled with higher construction costs, often leads to this being a more expensive option. In the case of Station 1, there will not be land acquisition costs lowering the overall costs for a new station.

Construction costs reflect the raw costs incurred by a general contractor for overhead and profit, bonding and insurance, securing of materials, and general construction of the site and building. In addition to the identified construction costs, an owner's contingency is recommended to ensure

dollars are carried through construction for owner changes, design omissions, unforeseen conditions or jurisdictional requirements, among others.

Total project costs are calculated on the following page for the year 2021 as shown on the Camas-Washougal Capital Improvement Plan - Project Cost Summary.

Consultant costs reflect the costs incurred for project management and design of the project from conceptual design through construction administration. Though design fee can vary, costs included in this report reflect standard A/E fee guidelines based on a percentage of construction cost as outlined by the Washington State Department of Enterprise Services. In addition to architectural and engineering services, costs include marketing materials and required services, such as geotechnical inspections and special inspections. A contingency is provided for this category for any unforeseen or additionally requested design services throughout the project.

Owner costs reflect the costs generally incurred directly by the owner throughout the project. This includes all items the owner may wish to contract separately from the general construction of the project. Some additional owner-related costs include relocation into the new facility, jurisdictional fees and furniture and equipment. A contingency is provided in this category for any unforeseen or undefined costs not currently represented.

PROJECT COST ESTIMATE - HEADQUARTER STATION

The following project development cost estimate projects the construction values of the programmed sizes of a headquarter station and satellite station. The major categories for the project include construction cost (classified as a hard

cost),consultant costs and owner costs (classified as soft costs) as described on the previous page. The costs are arranged in the following table by station and grouped by hard or soft cost to denote the forecasted total project costs.

Camas-Washougal Capital Improvement Plan - Project Cost Summary

Rev. 09/22/2021				
	Headquarters Station	Satellite Station		
Construction Cost:	19,456 SF x \$500-\$550 / SF = \$9,728,000 - \$10,700,800	13,151 SF x \$500 - 550 / SF = \$6,575,500 - \$7,233,050		
Consultant Costs (Geotechnical Engineer; Surveyor; Architect and Engineering Fee etc.) Owner Costs (Permit and SDC Fees, Furniture and Fixtures etc.)	30% of Construction Cost: = \$2,918,400 - \$3,210,240	30% of Construction Cost: = \$1,972,650 - \$2,169,915		
Total Project Cost:	\$12,646,400 - \$13,911,040	\$8,548,150 - \$9,402,965		

The matrix on the following pages is a comparison of similar recently completed facilities to illustrate average cost per square foot and establish a current or expected construction costs per square foot for the new facilities.

FACILITY COST COMPARISON





<u>PROJECT</u>	VANCOUVER FIRE STATION 2	CLARK COUNTY FIRE DISTRICT STATION 63
LOCATION	Vancouver, WA	Vancouver, WA
YEAR COMPLETE	2018	2019
CONSTRUCTION TYPE	Wood Framing and Structural Masonry w/ Brick Veneer	Wood Framing w/ Fiber Cementous Boards And Structural Masonry
BUILDING SIZE	13,350 SF*	17,963 SF*
SITE SIZE	93,860 SF	144,744 SF+
STORIES	SINGLE	TWO
BUILDING COST PER SF	\$253.64 PER SF	\$322.22 PER SF
SITE COST PER SF OF SITE	\$40.49 PER SF OF SITE	\$16.78 PER SF OF SITE
OFF-SITE COST PER SF OF SITE	N/A	N/A
TOTAL CONSTRUCTION (BID) COST PER SF OF BUILDING	\$376.86** PER SF OF BUILDING	\$485.23 PER SF OF BUILDING
FINAL CONSTRUCTION COST ESTIMATE PER SF OF BUILDING	\$421.48** PER SF OF BUILDING	\$560.60 PER SF OF BUILDING
LOW BID (AVERAGE BID) PER SF OF BUILDING	\$199.58 (\$234.08) PER SF OF BUILDING	\$485.23 PER SF OF BUILDING

^{* -} Mezzanine not included

^{** -} Includes FF&E and tapout equipment (provided by contractor)

^{+ -} includes Training Tower / Training Grounds / Aggregate Piers / Wetland Mitigation







VANCOUVER FIRE STATION 11	CLARK COUNTY FIRE DISTRICT STATION 61, REMODEL AND ADDITION	AVERAGE BUILT COST	CAMAS-WASHOUGAL HEADQUARTER STATION, NEW CONSTRUCTION
Vancouver, WA	Vancouver, WA		Washougal, WA
2022	TBD		2024
Wood Framing and Structural Masonry w/ Brick Veneer	Wood Framing w/ Fiber Cementous Boards And Structural Masonry		Wood Framing and Structural Masonry w/ Brick Veneer
14,789 SF*	20,750 SF		19,456 SF
221,537 SF	178,763 SF		87,120 SF
SINGLE	TWO		SINGLE
\$354.26 PER SF	\$388.04 PER SF	\$329.54 PER SF	\$540.00 PER SF
\$10.67 PER SF OF SITE	\$3.79 PER SF OF SITE	\$17.93 PER SF OF SITE	\$10.00 PER SF
N/A	N/A	N/A	N/A
\$481.46 PER SF OF BUILDING	N/A Construction To Start in Q3 of 2022	\$447.85 PER SF OF BUILDING	N/A
\$556.67** PER SF OF BUILDING	\$421.48** PER SF OF BUILDING	\$490.06 PER SF OF BUILDING	N/A
\$443.89 (\$481.46) PER SF OF BUILDING	N/A Construction To Start in Q3 of 2022		N/A

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FINANCIAL FUNDING FORECAST

FIRE IMPACT FEE AND FUNDING ALTERNATIVES ASSESSMENT

The Camas-Washougal Fire Department is working with Mackenzie to develop an assessment of future service and capital needs. The analysis has identified the need for one new headquarter fire station and two satellite fire stations to replace aging existing facilities that cannot physically accommodate new larger apparatus needs. To assess how well existing fire impact fees could cover the capital expenses of constructing new facilities, Mackenzie asked ECONorthwest to translate adopted forecasts of future household and employment growth into estimates of residential and commercial development in Camas and Washougal over the next 15 years and the resulting fire impact fee revenue. ECONorthwest found that fire impact fees can fund only a portion of eligible costs, and the total funding gap for estimated capital needs is \$32.28 to \$35.59 million. Next. ECONorthwest researched an array of potential funding alternatives that could help to address the funding shortfall.

The purpose of this memorandum is to outline the funding gap that the Fire Department faces in trying to fund its three new and replacement facilities as well as identify potential alternative funding mechanisms.

This memorandum is organized into two parts. In Part I, we dive into the results of the growth forecast, showing the assumptions that we made and the resulting funding gap. In Part II, we outline a set of potential funding tools that the Fire Department could explore in more depth.

PART I: FIRE IMPACT FEE REVENUE GROWTH FORECAST

This section describes the methodology and assumptions we used to generate our estimates for the fire impact fee funding gap

Cost Assumptions

The Camas-Washougal Fire Department plans to build a replacement headquarters, a replacement satellite station, and construct a new satellite fire station. The first replacement will be a new headquarters fire station and is tentatively planned to begin construction sometime in 2024. It has not been determined if this facility will be on the

same site as the existing headquarters. Based on the construction cost analysis from Mackenzie, they estimate the new station to cost between \$12.65 million (low scenario) and \$13.91 million (high scenario). One replacement satellite station is planned to begin construction in 2026 and the other is planned to begin in 2029. The first satellite station is estimated to cost between \$9.62 million and \$10.58 million, and the second is estimated to cost \$10.82 million to \$11.90 million. In total, the cost for all three stations is estimated to be between \$33.08 million and \$36.39 million. New and replacement equipment costs are estimated to account for an extra \$4.74 million in addition to the facilities costs.

Revenues

We assumed constant 2021 fire impact fee rates for Camas and Washougal over the analysis period (see Exhibit 1 for rates). The dollar amounts were increased by 1.7 percent per year as an inflationary adjustment. Over the 2021 to 2040 period, we calculated that the current fire impact fee would bring in a total of about \$5.54 million. The methodology we used to arrive at the total estimated fire impact fee dollars is detailed below.

Building Type	Cam as
Single-Family Detached	\$0.20 psf
Apartment/Duplex/Townhome	\$0.20 psf
ADU (Interior)	\$0.00 psf
ADU (Exterior)	\$0.20 psf
Commercial	\$0.40 psf

Building Type	Washougal
Single-Family Home (w/ fire suppression)	\$401.60 per unit
Single-Family Home (w/o fire suppression)	\$502.00 per unit
Multifamily unit (3+) and Cottage Homes	\$0.31 psf
ADU (w/ fire suppression)	\$140.56 per unit
ADU (w/o fire suppression)	\$175.70 per unit
Commercial	\$0.31 psf

Exhibit 1. Fire Impact Fee Rates in Camas and Washougal, 2021

Source: City of Camas and City of Washougal.

1. Cost estimates for the two satellite stations reflect a 4% year-over-year annual cost escalation as reported by Mackenzie.

Funding Gap

This leaves the Camas-Washougal Fire Department with a funding gap ranging between \$32.28 million and \$35.59 million (see Exhibit 2).

Costs	Replacement HQ Station (2024)	Replacement Satellite Station (2026)	New Satellite Station (2029)	Total Costs
Low Cost Scenario (Nominal)	\$12,646,400	\$8,548,150	\$8,548,150	-
3-Year Construction Cost Increase	-	\$9,615,506		-
6-Year Construction Cost Increase	-	_	\$10,816,137	-
Low Cost Scenario Total	\$12,646,400	\$9,615,506	\$10,816,137	\$33,078,043
High Cost Scenario (Nominal)	\$13,911,040	\$9,402,965	\$9,402,965	-
3-Year Construction Cost Increase	-	\$10,577,057		-
6-Year Construction Cost Increase	-	_	\$11,897,750	-
High Cost Scenario Total	\$13,911,040	\$10,577,057	\$11,897,750	\$36,385,847

Equipment Costs	Replacement HQ Station (2024) ¹	Replacement Satellite Station (2026) ²	New Satellite Station (2029) ³	Total Equipment Costs
Cost (Nominal)	\$2,633,000	\$1,050,000	\$735,000	-
3-Year Cost Increase	_	\$1,181,107		-
6-Year Cost Increase	_	_	\$930,009	_
Equipment Cost Total	\$2,633,000	\$1,181,107	\$930,009	\$4,744,117

FIF Revenue by Source	Camas	Washougal	Total Revenue by Source
Single-Family	\$2,325,808	\$841,431	\$3,167,240
ADUs	\$10,646	\$5,002	\$15,648
Multifamily	\$142,420	\$139,177	\$281,597
Commercial	\$1,448,326	\$570,931	\$2,019,256
Medical	\$33,314	\$21,070	\$54,384
Total	\$3,960,514	\$1,577,611	\$5,538,125

	Low Estimate	High Estimate
Funding Gap, 2021 - 2040	\$32,284,034	\$35,591,839

Equipment Cost Notes:

- Equipment costs include 3 replacement engines, 4 rescues, and 2 brushes.
- Equipment costs include 1 ladder truck.
- 3. Equipment costs include 1 engine for the satellite expansion.

Exhibit 2. Summary of Fire Impact Fee Funding Gap, 2021 - 2040

Source: Mackenzie and ECONorthwest.

Note: This funding gap analysis does not account for land acquisition costs.

2. Only the share of capital costs attributable to growth can be paid through fire impact fee revenue.

Exhibit 3 in below breaks out the same data in Exhibit 2, allocating cost and revenue data to each jurisdiction respectively. This analysis assumes a 60 percent allocation of equipment cost for the first two stations to Camas and a 40 percent spilt to Washougal. Costs for each station are allocated 100 percent to the jurisdictions they are located in. We

find that the total funding gap in Camas amounts to \$22.7 to \$25.0 million dollars and \$9.5 to \$10.5 million in Washougal. Despite having a measurably higher revenue outlook from fire impact fee revenue, Camas' gap is higher because it must accommodate two new stations to provide targeted service levels.

Exhibit 3. Summary of Total Fire Impact Fee Funding Gap by Jurisdiction, 2021 – 2040

Source.	Macke	nzia	and	FCON	orthwest
Source.	iviache	HZIE	anu	ECOIN	JILIIWESL

	LOW COST SCI	ENRARIO				
Station	Replacement Replacement					
Year	2024	2026	2029			
Development Cost	\$12,646,400	\$9,615,506	\$10,816,137			
City Allocation	Camas	Washougal	Camas			
Equipment Costs	\$2,633,000	\$1,181,107	\$930,009			
City Allocation	60-40 Split	60-40 Split	Camas			
Funding Summary	Costs	Revenues	Gap			
Camas	\$26,681,010	\$3,960,514	\$22,720,496			
Washougal	\$11,141,149	\$1,577,611	\$9,563,538			
Total	\$37,822,159	\$5,538,125	\$32,284,034			
	HIGH COST SO	CENARIO				
Chatian	Replacement	Replacement	New Satellite			
Station	HQ Station	Satellite Station	Station			
Year	2024	2026	2029			
Development Cost	\$13,911,040	\$10,577,057	\$11,897,750			
City Allocation	Camas	Washougal	Camas			
Equipment Costs	\$2,633,000	\$1,181,107	\$930,009			
City Allocation	60-40 Split	60-40 Split	Camas			
Funding Summary	Costs	Revenues	Gap			
Camas	\$29,027,263	\$3,960,514	\$25,066,749			
Washougal	\$12,102,700	\$1,577,611	\$10,525,089			
Total	\$41,129,963	\$5,538,125	\$35,591,838			

RESIDENTIAL IMPACT FEE ESTIMATE METHODOLOGY

• Household Growth: Household growth in Camas and Washougal are based on Transportation Analysis Zone (TAZ) forecasts produced by the Southwest Washington Regional Transportation Council (RTC). Per their most recent forecast, 4,165 households are anticipated to be built in Camas at an average annual growth rate of 2.05% over the 2020 to 2040 period. In Washougal, 2,108 households are anticipated to be built at an average annual growth rate of 1.44%.

Housing Type:

- To estimate the growth in single-family detached housing and multifamily housing, we used data from the U.S. Census Bureau's American Community Survey (ACS) to estimate the percentage share of housing stock that is single-family detached and multifamily. About 85% of Camas's housing stock is single-family detached housing and about 82% of Washougal's housing stock is single-family detached housing. We applied these percent shares to the annual household growth in each city to estimate the approximate quantity of new housing type added per year.
- Additionally, we accounted for ADU developments in both Camas and Washougal. Using ADU permit data provided by City of Camas staff, we calculated that approximately 3 ADU permits per year were issued over the 2016 to 2020 period. Dividing this average annual permit count by the number of new single-family households added to Camas per year (about 177 units), we received a percent of approximately 1.7%. Applying this percent to the annual growth in single-family households in both Camas and Washougal, we estimate 3 ADUs will be added to Camas each year and 1 ADU will be added to Washougal each year.

• Calculation: We multiplied the 2021 fire impact fee rates to the new housing added each year in Camas and Washougal. This resulted in \$2.33 million of fire impact funds for single-family households in Camas and about \$142,400 for multifamily households. In Washougal, \$840,400 of fire impact funds are estimated to come from single-family households and an additional \$138,200 from multifamily households.

COMMERCIAL IMPACT FEE ESTIMATE METHODOLOGY

• Existing Commercial Mix: For commercial development, we relied on CoStar's database to estimate the existing square footage of industrial, office, retail, and flex space in Camas and Washougal. As of 2020, CoStar estimated that about 2.97 million square feet of commercial space exists in Camas and about 1.71 million square feet exists in Washougal.

Employment Growth:

- Using RTC's TAZ employment forecasts over the 2015 to 2040 period, we interpolated an approximate employment count for commercial and industrial jobs in 2020. Then we used that estimate to approximate the average annual growth rate in commercial and industrial jobs out to 2040. Camas's growth rate is about 4.06% per year and Washougal's is 3.72% per year.
- Lastly, we accounted for medical space.
 According to CoStar, Camas approximately
 has 63,360 square feet of medical space and
 Washougal has about 63,100 square feet.
 Using the same methodology for commercial
 space, we estimate Camas will bring in about
 \$33,300 and Washougal will bring in about
 \$21,000.
- Calculation: We used the employment growth rates to assume a linear growth pattern in commercial square footage over the 2021 to 2040 analysis period. Applying the fire impact fees, we estimate Camas will bring in approximately \$1.45 million and Washougal will bring in about \$570,900.

3. U.S. Census Bureau, American Community Survey 5-Year Estimates, 2006-2010 and 2015-2019. Table B25024: Units in Structure.



Part II: Capital Improvement Funding Alternatives

Based on our analysis, the fire impact fee revenue over the next 20 years is insufficient to cover eligible capital investments required to accommodate growth in addition to replacement capital needs. This section provides an evaluation of alternative funding tools that the Fire Department could consider in funding the three new facilities.

For our analysis, we have used seven criteria based on experience with similar projects in other jurisdictions, and the specific needs of the Fire Department: (1) capacity, (2) timing, (3) administrative ease, (4) stability/predictability, (5) flexibility, (6) legality, and (7) political acceptability. Note that the first five criteria included in this list can be grouped together under the banner of "efficiency." Criteria are further defined below.

In this analysis, ECONorthwest began by identifying "fatal flaws," or constraints on the tool's revenue generating capacity or political acceptability that make it a very unlikely candidate for the site. After setting aside all the tools with fatal flaws, we are left with a much shorter list of potential sources that can more easily be compared against each other, evaluating their relative merits to identify the top four as the "preferred" tools for further evaluation.

Funding Alternative Findings

This section summarizes the findings from our funding alternative analysis.

Recommended Funding Tool Options for Further Discussion

We recommend a multi-pronged funding strategy that considers who will benefit from facility investments. We recommend that the District consider the following tools for further evaluation:

• Increased Fire Impact Fees. The current impact fees may be too low to account for the facility needs in new growth areas. The cities could consider setting a base impact fee alongside a set of distinct service areas with higher fees where more intensive investments are needed. Increasing these fees alone will not pay for all of the fire district's proposed investments but they could be increased to cover a larger share of eligible costs attributable to growth.

- **General Obligation Bond**. Issuing an unlimited tax general obligation bond would provide the cities a stable revenue stream to repay the debt of building new fire protection capital. It would require the fire district to make the case to property owners that aging facilities are inadequate and that new facilities are required to protect their home investments.
- **Surplus Land Disposition**. At least one of the replacements may be constructed in a new location. Sale of the existing facility could help to generate revenue for either acquisition of the replacement site or for the facility itself.
- Public Safety Sales Tax. Adding a sales tax could be a viable funding option that also requires voter approval. The cities of Washougal and Camas could pursue this on their own (which requires more work but also generate more revenue) or in conjunction with the County (which would decrease revenues available to the cities). There may also be a County wide public safety sales tax being proposed to help pay for police body cameras and other investments. However, based on our projections, a new public safety sales tax and current fire impact fee combined will not yield sufficient funding to fill the funding gap over the 2021 to 2040 period. If this option is pursued, an additional funding tool would need to be used in tandem.

Other Funding Tools Considered (Not Recommended Options)

• Excess Levy. Excess levies (also known as Operations & Maintenance levies) are single-year property tax levies with no restrictions on the levy rate or levy amount. Fire protection districts, however, are allowed multi-year excess levies in accordance with RCW 84.52.130. This statute allows for fire protection districts in Washington to authorize, by public vote on a ballot measure, a two-year through six-year levy "to support the construction, modernization, or remodeling of fire district facilities." In our evaluation, we didn't see any benefit to this approach over a more traditional general obligation bond.

Tools Not Evaluated in Depth

Current city EMS levies are at capacity. Both

Camas and Washougal currently have EMS levies in place. In 2018, Camas renewed its EMS levy rate at \$0.46 per \$1,000 assessed property value to carry forward for six additional years (2019 through 2025). Washougal currently has an EMS levy rate of \$0.50 approved for six years (2018 through 2023).

- The maximum allowable EMS levy rate under Washington law is \$0.50 per \$1,000 assessed value. According to Camas's Emergency Medical Services Agreement, the City of Camas "shall furnish Emergency Medical Services including Advanced Life Support (ALS) and Emergency Medical Transport Services." Given this agreement and the allocation of levy funds toward providing the community medical services, it seems unlikely that there would be any excess EMS levy funds to support the new fire station construction.
- A county wide EMS levy is not a viable option, given that there are current citywide levies.
 Given that Camas, Washougal, and East County Fire and Rescue (\$0.35 per \$1,000 AV) have EMS levies in place, there is insufficient funding capacity given the rate limitations stipulated in Washington law.
- A Service Benefit Charge can fund operations, but not capital facilities. Some fire departments in Washington structure their operations to be funded from a combination of service benefit charges and levies. A service benefit charge allows fire departments to charge users more if their structure is at greater risk of fire, and is not a share of a property's assessed value. Shifting to a benefit charge from a levy structure could free up funding from the levy, but this strategy would require input from a variety of stakeholders.

Efficiency

This category covers everything related to creating and maintaining net revenues (net of collection costs). We break efficiency into five subcategories:

• **Capacity**. Revenue-generating capacity

- considers how much money the tool can generate. The amount any funding tool can raise is directly tied to the rate imposed, and the rate imposed is always at least partially determined by legal authority and political acceptability (both described below). For example, the revenue capacity of a local gas tax depends on whether a community is legally allowed to impose the tax and up to what rate, and what rate its policy makers and constituents are willing to adopt. Nonetheless, we evaluate revenue-generating capacity based on our informed assumptions on the maximum rate that can be legally charged, and the rates that are likely to be in the range of political acceptability.
- **Timing**. For the funding of new fire stations, it will be important for revenues to be available sooner rather than later. Private development and infrastructure investments will likely need to occur concurrently. Revenue sources that don't provide revenue until after development occurs may be ill suited for the fire stations. Additionally, it is likely that the City will want to borrow money to fund infrastructure projects up front and repay the debt over time with revenue a dedicated funding tool. Some tools are better suited than others for borrowing money or issuing bonds.
- Administrative ease. The easier it is to administer a tool, the lower the costs of administration should be, and the more of the gross revenue that will be available as net revenue for infrastructure projects. For example, it is relatively easy and inexpensive to increase the rate of an existing fee or tax. At the other extreme, creating a new fee with a new collection system can be expensive and use a sizable percentage of the gross revenue. Some of the questions to consider when evaluating administrative ease, include: Would new staff have to be hired? Would a new organizational structure or a new budget procedure have to be put in place? Would collection of the funds be an arduous task? Are new technologies required? The answers to these questions depend in part on what administrative mechanisms are already

^{5.} Emergency Medical Services Agreement. Information retrieved from: https://mccmeetingspublic.blob.core.usgovcloudapi.net/camaswa-meet-cf9a46adf504483fb010ccf9ea82cbcd/ITEM-Attachment-001-31e129d1dc7c46faa5e7b85ed56e0d93.pdf



^{4.} Clark County Today. "County seeks volunteer to write for and against statements for sales tax propositions." July 29, 2021. Information retrieved from: https://www.clarkcountytoday.com/news/county-seeks-volunteers-to-write-for-and-against-statements-for-sales-tax-propositions/

in place that could be used at little marginal cost.

- Stability/predictability. Revenue stability considers whether the tool is likely to avoid large fluctuations each year. The more stable a tool, the more it can be assumed to contribute constant revenues over time. Stability is more than a mental comfort: demonstrating stability may be required, for example, for a funding stream that is being pledged to repay a revenue bond.
- Flexibility. A funding tool may be less useful if its use is limited to certain types of projects. In general, flexibility is a positive attribute. If the revenue can be used for any infrastructure project (e.g., transportation, water, sewer, parks, etc.), there is a greater ability to channel funds to the use with the greatest net benefit at any point in time. The flip side is that if a revenue tool is too flexible it can be difficult to "protect" it from being redirected to other uses. However, local jurisdictions can move funding around so that they can do what they want to do. For example, even though systems development charges can only be used for projects required by growth, if such projects are not now being covered 100% by systems development charges (e.g., if gas tax revenues are paying for some of those projects), increasing systems development charges may free up other sources of funding that are more fungible (capable of being used for other things).

LEGALITY

An essential part of an assessment of a funding tool is determining if the Fire Department can legally use the tool for new capital facilities. If this application of the tool is currently prohibited by state statute, then there is a large administrative hurdle to be surmounted up front. Even for tools that are legal, the real issue is whether the tool has detailed and complicated legal requirements that would (1) require a lot of work and cost to implement the tool; (2) raise the likelihood of legal challenge; (3) raise the likelihood that any legal challenge would actually be successful; or (4) reduce political acceptability by adding uncertainty and cost to the implementation process.

POLITICAL ACCEPTABILITY

Our evaluation looks at not only which tools score well on our technical criteria, but also whether or not the tool has proven to be politically acceptable when other jurisdictions in Washington have attempted to use it. One would think that if a tool is efficient, fair, and legal that it would be politically acceptable. While this is true in some situations, it is not always true. Many times, jurisdictions have pursued the adoption of a funding tool that seemingly scores well on those criteria, only to have their efforts fail because the tool was politically unpopular.

Exhibit 4. Funding Tools Evaluation

Funding Tool	Efficiency	Legality	Political Acceptability	Suitability
Increased Fire Impact Fee (City-mandated one- time charge on new development to fund "fire protection facilities: addressed by a capital facilities plan)	 Capacity: FIFs across Washington vary widely. Based on additional analysis, an increase in FIFs could be warranted, especially in areas with insufficient response times. Timing: Instability makes this tool difficult to bond against, best used in tandem with other tools that are more predictable. Administrative ease: Developers are familiar with this tool, and the city administers it. Stability: Development-driven; can be unpredictable. Revenue flexibility: Contingent on development; can be unpredictable. 	Impact fees should be used for system improvements that benefit that new development and relate to the demand from new development. Requires a nexus to new growth.	Combined with other impact fees, raising these fees too high may impede development. Camas and Washougal could consider creating multiple service areas and associated fee schedules to align specific capital improvements with development activities. [RCW 82.02.060(1)]	Increasing impact fees can help to pay for the capital improvements that are required to serve new growth. The cities could consider recalibrating the fee to create a base fee charged citywide with a service area addition specific to the locations for new developments that lack sufficient service.
Voter-Approved Bonds (Also known as Unlimited Tax General Obligation Bonds. May only be used for capital purposes; does not include replacement of equipment)	 Capacity: Will generate the dollars needed to pay for new capital facilities. Timing: Will require more time from city staff to plan and requires 60% supermajority approval. Administrative ease: Ballot measure should be drafted by city's bond counsel. Requirements are peculiar. It must also authorize both the issuance of the bonds and the excess property tax levies. Stability: Stable revenue stream to repay debt. They are automatically sized to pay the principal and interest on the bonds due each year (differs from levy lid lifts or sales taxes). Revenue Flexibility: Must be in accordance with purpose(s) specified in ballot measure. 	Authorized via RCW 84.52.056 and Article VII, Section 2(b) of Washington's Constitution.	Requires voter approval.	Issuing an unlimited tax general obligation bond would provide the cities a stable revenue stream to repay the debt of building new fire protection capital. The Department will need to consider its potential funding ask from voters and how that aligns with other voter-approved bonds or levies currently in place or under consideration.

Funding Tool	Efficiency	Legality	Political Acceptability	Suitability
Surplus Land Disposition	 Capacity: Limited to land where existing facilities if the new facility will be in a new location. Timing: Depends on when the new facility can be occupied. Could be used to repay bonds. Administrative ease: Flexible, depending on regulations for land disposition. Stability: One-time sale or ground lease options. Revenue flexibility: Flexible, revenue can be used to pay for new facilities. 	The Fire District can legally sell land at market value.	Fire district can pursue market rate for land.	The viability of this strategy will depend on whether the District already controls the land on which it wants to locate new facilities.
Public Safety Sales Tax (Sales tax up to 0.1% for cities)	 Capacity: Revenues must be shared between city and county. If city imposes tax, they retain 85% of revenues and must share 15% with county. If county imposes tax, they retain 60% of revenues and the remaining 40% is distributed to cities on a per capita basis Timing: The cities could bond against this revenue to help pay for capital facilities. Administrative ease: Time needed to draft ballot measure. Stability: Subject to fluctuations in taxable retail sales earned each year. Flexibility: 1/3 must be used for criminal justice and/or fire protection. Fire protection purposes are not specifically defined in Washington's Revised Code. The remaining 2/3 are unrestricted, but must be spent in accordance with purpose(s) specified in ballot measure. May be used for debt repayment or operations. 	Authorized via RCW 82.14.450. Fire protection facilities are a legal use of these funds.	Requires voter approval (50%+1). According to MRSC's Local Ballot Measure Database, voters have approved the majority of these measures. A ballot measure may only be submitted at a primary or general election (no special elections).	If Camas imposed a public safety sales tax, the City could potentially receive \$420,800 per year based on its total taxable retail sales estimate from 2020 (\$495.06 million). Accounting for inflation, this tax could result in \$9.96 million over 2021 to 2040. For Washougal, the City could potentially receive \$189,500 per year (based on total retail sales of \$222.94 in 2020). This could result in \$4.48 million over 2021 to 2040. Combined, both cities could potentially receive \$14.44 million over 2021 to 2040.

Funding Tool	Efficiency	Legality	Political Acceptability	Suitability
Excess Levy (Levy of additional taxes by any type of taxing district; amount is over and above the total tax allowed by statute)	 Capacity: Can only be levied for one year. There is no restriction on the levy rate or the levy amount. Fire protection districts have separate statutes that allow for multi-year excess levies. Timing: Funding from an excess levy is available in the year the levy goes into effect. Administrative Ease: Relatively simple; work needed for penning ballot initiative. Stability: Stable, as the levy will only last for one year. Revenue Flexibility: Must be in accordance with purpose(s) specified in ballot measure. 	Excess levies are authorized via RCW 84.52.052 and RCW 84.52.054, in addition to Article VII, Section 2(a) of Washington's Constitution.	According to MRSC's Local Ballot Measure Database, about 80% of excess levies have passed in recent years. The cities will need to sensitive to the amount since it will impact all property owners for that year.	An excess levy, while unconstrained in its levy rate and levy amount, could be difficult to pass with voter approval given the size of the current funding gap. Given that fire protection districts are allowed multiyear excess levies, this could reduce the annual levy amount and allow property owners to spread the costs over multiple years.

November 2022 323

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APPENDIX A: CITY COUNCIL PRESENTATION

Item 16.

MACKENZIE.



CAMAS-WASHOUGAL FIRE DEPARTMENT CITY COUNCIL MEETING

Camas and Washougal City Council Meeting | 11.07.2022

TEAM

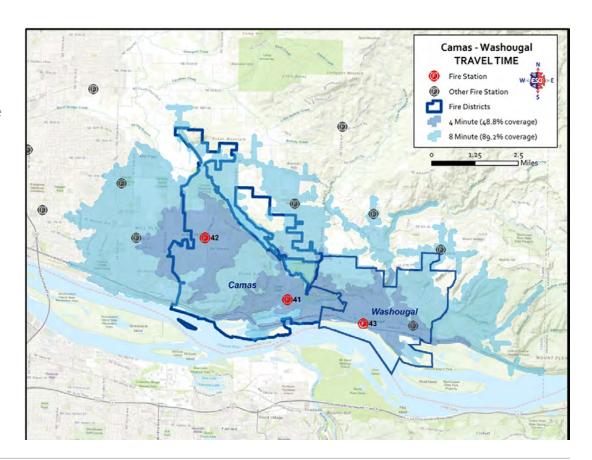






TRAVEL TIME COVERAGE

 Full page view of the 4-minute and 8-minute travel time map



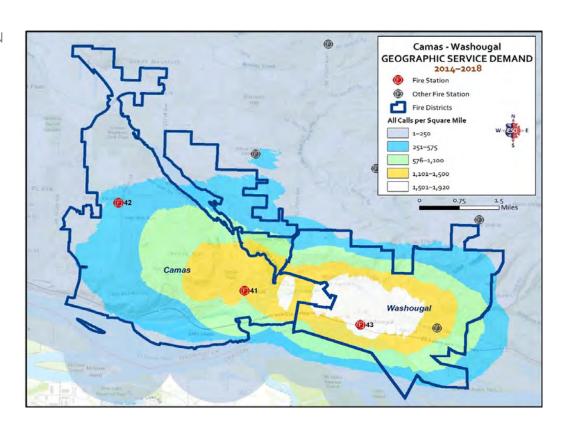
Camas-Washougal Fire Department | Capital Improvement Plan

Travel Time Maps 2022 Mackenzie | 2200523.00



INCIDENT LOCATION DENSITY

 Full page view of Figure 2 - the Incident Location Density



Camas-Washougal Fire Department | Capital Improvement Plan

Service Demand Maps 2022 Mackenzie | 2200523.00

FINDINGS

- Most growth occurs outside the existing fire station urban coverage reach
- The cities and Department should adopt a split coverage measure
 - -Faster response in existing built-up areas
 - -Longer response times in edge suburban and rural areas
- Added stations occur when the other areas substantially develop

Findings
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FINDINGS

- Most growth occurs outside the existing fire station urban coverage reach
- The cities and Department should adopt a split coverage measure
 - -Faster response in existing built-up areas
 - -Longer response times in edge suburban and rural areas
- Added stations occur when the other areas substantially develop

EXISTING STATIONS



Address: 616 NE 4th Avenue Camas, WA 98607

Built in: 1960's; subsequent remodels

Deficiencies:

- No future growth opportunities
- No dedicated training room
- Does not meet seismic code for an essential facility
- Does not meet current ADA code requirements

NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS

NEPA 1	Fire Suppression Sprinklers	Yes
NFPA 1221	Station Alerting Communication System	No
NFPA 1500	Smoke Detectors Carbon Monoxide Detectors	Yes Yes
NFPA 1581	Minimum Sleeping Area PPE Cleaning Area EMS Decontamination Area	No No No
NFPA 1851	Turnout Gear Storage UV Exposure Thermal Exposure	No No
NFPA 1962	Fire Hose Storage and Maintenance	No

WASHINGTON ADMINISTRATIVE CODE

WAC SECTION	DESCRIPTION	COMPLIANCE
296-305-06507	1 hour separation between Apparatus Bay and Living Quarters	No
296-305-06509	Apparatus Bay Configuration and Clearance	No
296-305-06515	Hose Tower Configuration	No
296-305-06511	Indoor Air Quality	No



Address: 4321 NW Parker Street Camas, WA 98607

Built in: 2001

Deficiencies

- No PPE Extractor on site
- No direct exhaust capture system

NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS

 NFPA SECTION		
NFPA 1	Fire Suppression Sprinklers	Yes
NFPA 1221	Station Alerting Communication System	Yes
NFPA 1500	Smoke Detectors Carbon Monoxide Detectors	Yes Yes
NEPA 1581	Minimum Sleeping Area PPE Cleaning Area EMS Decontamination Area	Yes Yes Yes
NEPA 1851	Turnout Gear Storage UV Exposure Thermal Exposure	Yes Yes
NFPA 1962	Fire Hose Storage and Maintenance	Yes

WASHINGTON ADMINISTRATIVE CODE

WAC SECTION	DESCRIPTION	COMPLIANCE
296-305-06507	1 hour separation between Apparatus Bay and Living Quarters	Yes
296-305-06509	Apparatus Bay Configuration and Clearance	Yes
296-305-06515	Hose Tower Configuration	Yes
296-305-06511	Indoor Air Quality	No



Address: 1400 A Street Washougal, WA 98671

Built in: 1974

Deficiencies:

- No future growth opportunities
- Does not meet seismic code for an essential facility
- Does not meet current ADA code requirements

NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS

NFPA SECTION		
NFPA 1	Fire Suppression Sprinklers	No
NFPA 1221	Station Alerting Communication System	No
NFPA 1500	Smoke Detectors Carbon Monoxide Detectors	Yes Yes
NFPA 1581	Minimum Sleeping Area PPE Cleaning Area EMS Decontamination Area	No No No
NFPA 1851	Turnout Gear Storage UV Exposure Thermal Exposure	No No
NEPA 1962	Fire Hose Storage and Maintenance	No

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Findings

Camas-Washougal Fire Department | Capital Improvement Plan

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Camas Washougal Fire Department

Prepared by Mackenzie 1/20/2022

Space / Room Use		Staffing	•		ace rements		Space Size		Room Type		al Requ are Foo		Comments
Space / Room use					021 2061	w		ea	Type		2021		Comments
					•								
Department: Camas Washougal	Fire H	eadqu	arters	Station									
Apparatus Bay and Support Rooms	0	0	0							0	7658	7658	
Living Quarters and Administration	14	14	14							0	6642	6642	
Community / Training Rooms	0	0	0							0	1913	1913	
		_	-							-			Acres
SUBTOTAL	14	14	14							0	16213	16213	
GENERAL CIRCULATION (20%)										0	3243	3243	
TOTAL BUILDING SQUARE FOOTAGE	14	14	14							0	19456	19456	0.45
TOTAL EXTERIOR REQUIREMENTS									14460	14460	0.33		
TOTAL SITE REQUIREMENTS										0	33916	33916	0.78

Program - HQ © 2022 Mackenzie | 2200523.00

Camas Washougal Fire Department

Prepared by Mackenzie 1/20/2022

Space / Room Use		Staffin Juirem			Space uirements	,		oace Size		Room Type		al Requ are Fo		Comments
	Exist	2021	2061	Exist	2021 206	1 V	V L	_ Are	а		Exist	2021	2061	
Department: Camas Washougal		atellite												
	Г			П		Т	Т	1	Т				Г	
Apparatus Bay and Support Rooms	0	0	0								0	5526	5526	
Living Quarters and Administration	8	8	8								0	4402	4402	
Community / Training Rooms	0	0	0								0	1031	1031	
														Acres
SUBTOTAL	8	8	8								0		10959	
GENERAL CIRCULATION (20%)											0	2192	2192	2
TOTAL BUILDING SQUARE FOOTAGE	8	8	8								0	13151	13151	0.30
						_	_							
TOTAL EXTERIOR REQUIREMENTS								7980	7980	0.18				
TOTAL SITE REQUIREMENTS											0	21131	21131	0.49

Camas-Washougal Fire Department | Capital Improvement Plan

Program - Satellite © 2022 Mackenzie | 2200523.00

Fire stations in the next 8-10 years - when the infrastructure is assumed to be developed:

- Replace Washougal Station 43 in the next two to three years.
- Replace HQ Station (Station 41) in the next two to three years.
- Future Brand New Satellite Station in Camas (NE) when the future infrastructure is assumed to be in the 5-9 year period.

Camas-Washougal Fire Department | Capital Improvement Plan

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	Building SF	Lowest Bid (Without Tax)	Cost Per SF
VFD Station 02 (July 2016)	13,367 SF	\$5,052,739.17	\$378.00/SF
VFD Station 11 (March 2021)	14,789 SF	\$7,120,393.59	\$481.46/SF
Station 61	20,750 SF	\$8,051,854	\$388.04 / SF
Station 61 Shop	7,425 SF	\$3,074,759	\$414.08 / SF
Averages	14,083 SF	\$5,824,936.44	\$413.61 / SF

Cost Factors:

- 8.5% Tax (As of April 2021)
 Median Bid \$504/SF
 27% Increase (Normally 30-35%)
- Additional Site Work

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Camas-Washougal Capital Improvement Plan - Project Cost Summary

Rev.	09/22/2021	
	Headquarters Station	Satellite Station
Construction Cost:	19,456 SF x \$500-\$550 / SF = \$9,728,000 - \$10,700,800	13,151 SF x \$500 - 550 / SF = \$6,575,500 - \$7,233,050
Consultant Costs (Geotechnical Engineer; Surveyor; Architect and Engineering Fee etc.) Owner Costs (Permit and SDC Fees, Furniture and Fixtures etc.)	30% of Construction Cost: = \$2,918,400 - \$3,210,240	30% of Construction Cost: = \$1,972,650 - \$2,169,915
Total Project Cost:	\$12,646,400 - \$13,911,040	\$8,548,150 - \$9,402,965

Existing Apparatus Assessment (Based on Master Plan):

- Well maintained, but aging
- Three out of the four front line engines are at the end of their normal lifespan of a fire engine and are typically recommended to be put in a reserve status
- Accumulation of high mileage
- Updated technology with integration with tap out system

Fire Department's Replacement Vehicles In The Next 10 Years:

- New Engines (4) \$3.1 Million
- Ladder Truck (1) \$1.1 Million
- Rescue Tools (4) \$168,000
- Brush Rigs (2) \$315,000

Camas-Washougal Fire Department | Capital Improvement Plan

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Q&A

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Land Use Planning - Transportation Planning - Landscape Architecture
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Back Cover

ORDINANCE NO. 22-025

AN ORDINANCE repealing and replacing Ordinance No. 22-005 and approving the City of Camas Comprehensive Fire Capital Plan including the Capital Facilities Plan elements pursuant to RCW 36.70A.070 and incorporating the Plan by reference into the City of Camas Comprehensive Plan.

WHEREAS, the City of Camas Comprehensive Fire Capital Plan is intended to provide a framework to assist in the integration of future fire department projects and programs to serve the citizens of Camas and to meet State Growth Management Act requirements; and

WHEREAS, the update for 2022 has been reviewed in consultation with Mackenzie, a professional consulting group retained by the City to provide an overview of fire department facilities, needs and provide recommendations; and

WHEREAS, in consideration of an updated Fire Capital Plan, Mackenzie retained certain sub-consultants to provide response time analysis and funding framework concepts to be incorporated into their report to the City; and

WHEREAS, the City reviewed the recommendations of Mackenzie as outlined in a report titled 'Capital Facilities Plan' and a staff report prepared by the City Fire Chief which were presented to the City Council at Workshop meetings open for public comment thereon held on October 4, 2021 and April 4, 2022; and

WHEREAS, the City Council, following a public hearing opened on April 4, 2022 and continued through April 18, 2022, duly considered and adopted the Fire Capital Facilities Plan by Ordinance 22-005; and

WHEREAS, certain procedural aspects related to the adoption of Ordinance 22-005 were subsequently raised, including Planning Commission and SEPA review; and

WHEREAS, the Planning Commission held a public hearing on the request for adopting the Fire Capital Plan with the affiliated Capital Facilities Plan elements as set forth in RCW 36.70A.070 on October 19, 2022 and recommended approval; and

WHEREAS, the City Council held a public hearing for the Capital Facilities Plan and the Council directed the City Attorney return with an Ordinance to repeal and replace Ordinance 22-005; and

WHEREAS, the 2022 update to the Fire Capital Plan includes all requirements for a Capital Facilities Plan to be consistent with the Washington State Growth Management Act (GMA) per RCW 36.70A.070, which requires jurisdictions fully planning under GMA to have a Capital Facilities Plan element within their comprehensive plans; and

WHEREAS, concurrent with the consideration of the Capital Facilities elements of the Fire Capital Plan the City is considering adoption of the amendments to the city budget through the Biennial Budget Adoption for 2023-2024 and the Capital Facilities elements of the Fire Capital Plan will be incorporated into the City Capital Facilities Plan and Capital Improvement Plan upon approval.

NOW, WHERETOFORE, THE COUNCIL OF THE CITY OF CAMAS DO ORDAIN AS FOLLOWS:

Section I

Ordinance No. 22-005 as adopted on April 18, 2022 is hereby repealed and replaced by the terms herein.

Section II

The City Council hereby adopts that certain document titled "Capital Improvement Plan", including all Capital Facilities Plan elements associated thereto pursuant to RCW 36.70A.070, as the Comprehensive Fire Capital Plan for the City of Camas.

Section III

The City of Camas Fire Chief is Directed to maintain a copy of the City of Camas Comprehensive Fire Capital Plan available for public inspection.

Section IV

The City Capital Facilities Plan is hereby amended to include the updated elements of the Comprehensive Fire Capital Plan as set forth under RCW 36.70A.070.

Section V

This Ordinance shall take force and be in effect five (5) days from and after its publication according to law.

PASSED BY the Council and APPROVED by the Mayor this 21st day of November, 2022.

SIGNED

SIGNED:

Clerk

APPROVED as to form:

City Attorney

MACKENZIE.



CITIES OF CAMAS AND WASHOUGAL

Capital Improvement Plan

November 07, 2022

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The information in this document has been obtained from sources believed reliable. Our findings have been based on limited information and on-site observation. Because of the limited scope of our initial review, these preliminary findings should not be used as a principal basis for any decision relating to the site and/or building, and confirmation of the information contained within this document with the applicable government body may be necessary.

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PROJECT TEAM

CAMAS-WASHOUGAL FIRE DEPARTMENT

- Nick Swinhart Fire Chief
- Ron Schumacher Fire Marshal



MACKENZIE

- Jeff Humphreys Project Principal
- Cathy Bowman Project Manager



ECO NORTHWEST

Chris Blakney



CITYGATE ASSOCIATES, LLC - FIRE AND EMERGENCY SERVICES

Stewart Gary



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PROJECT INTRODUCTION

The Camas Washougal Fire Department (CWFD) is seeking to identify the future department needs to serve the two cities. The objective is to assess the response time study of the existing stations and identify improvements to implement that better meet their needs and goals; provide a master plan for more efficient operational model and layout; better align with the current space demand for the Fire Department and allow for future prospective staff and facility growth.

To aid the City of Camas and City of Washougal with these efforts, the City selected Mackenzie to assist with an evaluation of the existing station locations and work with Department staff to determine the operations-based needs.

Mackenzie, established in 1960 and based in Portland, Oregon, provides an integrated design approach to projects, including architecture, structural engineering, landscape architecture, civil engineering, land use planning, transportation planning and interior design services. Mackenzie's Public Project team specializes in municipal and emergency response facility design, space needs evaluations, and bond campaign assistance. In the past decade, Mackenzie has worked on publicly funded projects in Oregon and Washington for more than 50 counties and municipalities, providing

design and engineering services for more than 40 fire facilities, 18 police facilities and 6 municipal office buildings.

At the start of the design process, the goal was to develop a master capital improvement plan to meet the 40 years needs of the Department. The validated response time study report includes an updated understanding of the Response Time Study Report by ESCi (completed in 2019) taking into account the projected urban growth boundaries for both Camas and Washougal. A program for a new headquarters and new satellite station was also completed as part of the study to further identify what the potential cost of new and replacement fire stations will be based on the department needs. The information contained within this report provides a detailed overview of Mackenzie's with the Camas-Washougal Fire Department. All steps involved in this process have been documented and organized based on the associated task and are contained within the pages of this report for the City of Camas and City of Washougal's consideration. Recommendations for next steps have been outlined at the end of the Executive Summary.



EXECUTIVE SUMMARY

Public facility design, specifically fire station projects, are unique in that the building and all its functions are tools required to most effectively and efficiently enhance agency operations and safety. Fire station design focuses on functionality and meeting the stringent requirements associated with protection and security of the building, its staff, and the communities they serve. Jurisdictional, state, and federal criteria for safety, security, and operational procedures drive these requirements and invariably impact design considerations. These criteria ensure that this facility not only is able to improve operational efficiency on a day-to-day basis but is capable of evolving over the life of the building, resisting and responding to emergency events, providing critical services for the citizens of Camas and Washougal, enhancing the built environment of the surrounding area with a strong civic presence, and encouraging investment in the community.

The following report encompasses the primary tasks requested by the Camas Washougal Fire Department to determine the long-term needs of the department including:

- 1) Programming
- 2) Response Time Study
- 3) Project Cost Development
- 4) Financial Funding Forecast

Process and Methodology:

Mackenzie employed programming, communication, consensus-building, and goal setting techniques to ensure that the final report meets the expectations of the stakeholders involved in the process. Using a multi-disciplinary approach, extensive public project experience, and lessons learned on previous fire sire station and public building projects, the team provided, architectural services to meet the project objectives and deliverables.

Mackenzie worked with the Camas Washougal Fire Department (CWFD), City of Camas and City of Washougal staff to confirm the key stakeholders who needed to be involved throughout the study and to support and strengthen dialogue between the Design Team and the City.

Task #1: Programming

Mackenzie understands from discussions with the Fire Department that there are currently operating out of three different stations. The headquarter station (Station 41) and another existing station (Station 42) are in the City of Camas, and one existing station (Station 43) is located in the City of Washougal. The three existing stations do not meet the current standard structural building requirements, let alone the seismic performance required of an essential facility. Chief Swinhart shared with Mackenzie that they have been unable to purchase needed apparatus for the department as the apparatus bays are not sized appropriately to accommodate the new apparatus. The facilities do not meet ADA requirements which require accessible access to all levels, accessible door hardware, and accessible clearances in kitchen in rest room facilities. The facilities do not meet the current energy code, resulting in inefficiencies in their building systems and thermal performance. The facilities do not meet the minimum sleeping area per NFPA 1581 per discussion with CWFD.

Mackenzie worked closely with the Camas Washougal Fire Department staff to better understand the current space needs and projected those needs out based on a 40-year growth forecast. The facility program was created utilizing the space standards and comments from current Department staff. It includes circulation space, and requirements for utilitarian areas, such as mechanical, electrical, and data room spaces; and a projection of growth with the expectation that the buildings will be in use for 40 plus years. It also includes identified site-related requirements (secure parking, visitor parking, staff patio area, recycling and trash enclosure, emergency generator, etc.). Mackenzie guided the Fire Department through the process of space needs identification and their required space allocations. From that, the Design team developed a program matrix that identified the required spaces, their approximate size, and amenities to be provided within them.

Upon development of this document and prior to gaining Department staff approval, Mackenzie reviewed the findings with the Department to clarify any questions or comments brought up over the course of creating the matrix. During the review, as a comparison tool, Mackenzie also shared project

information of similarly sized headquarters and satellite fire stations. A headquarter station will be inclusive of the Fire Department's Administrative staff, while a satellite station will not require the administrative staff offices. The program yielded a total square footage for the headquarters stations to be 19,456 square feet. A satellite station to be 13,151 square feet. As part of these calculations, the building square footage total includes an average 20% increase for general building circulation and interstitial space (i.e., wall thicknesses), which has been found to be a typical escalation for facilities of this type. Projections for the site indicate a demand of 10 paved parking stalls for the public and 30 spaces for staff vehicles. Mackenzie further validated these identified growth projections and space needs through the use of comparable jurisdictions and newly constructed facilities in the region (see page 02-15 for trending spreadsheet).

Task #2 Response Time Study

Citygate reviewed the ESCi study and technical exhibits, interviewed Department staff and reviewed available data on City growth rates. In addition to these data, Citygate also applied the best practices recommendations for fire crew deployment as published by the National Fire Protection Association in Standard 1710 for career fire crew deployment, the Standards of Response Coverage as published by the Commission on Fire Accreditation International and the regulations of the State of Washington. Citygate interviewed both fire and planning staffs from both cities to understand potential growth patterns and how growth, if any, could be past the desired travel time reach of the existing stations. After discussion with both City Community Development Directors, the land use through zoning is where the community has set its potential land use goals.

Overall, Citygate finds the Department has three service areas—the developed, higher density cores; the outer, currently lighter or undeveloped suburban/rural areas; and locations where in fill development could occur in the future. Citygate is of the opinion that, given the differing service areas in both cities, the Department should consider immediately adopting a split travel time goal. The 4:00-minute travel time is appropriate for the most developed areas. However, Citygate suggests the Cities adopt and measure performance in the outer

suburban areas at 8:00 minutes' travel time.

Station 41 – The current location is sufficient. It is near the riverfront and has good crossroad connections. Ideally, it could be moved a little northwest to close some of the gap between it and Station 42. If moved, its service coverage would need to just touch the water and not overlap as much with Station 43. However, relocating Station 41 would not close the entire travel time coverage gap between Stations 41 and 42.

Station 42 – Station 42 is a newer facility and supports training functions. If the Department were to use a split response time measure, Station 42 could cover the more populated areas toward Station 41 with urban travel times while also providing longer suburban edge to rural response time coverage to the north of Station 42.

Station 43 – Ideally, to minimize coverage time loss "over the water," the station should be relocated more north by northeast. However, it is also on the other side of the railroad tracks, a positive fact given the large trains that go to the Port of Vancouver. The station has good access to the main overpass across the train tracks on Washougal River Road.

Washougal, however, is too large from east to west to be covered from one fire station. Depending on response time goals and final growth approvals, Washougal will need at least two fire stations at some point in the 2030s. Assuming Station 43 does not move, a second station needs to be built, more likely up into the northwest section of Washougal where there is more zoning for growth and road network development. If intense growth were also to occur in the northeast to eastern areas, the second fire station site could be more central and inland from the river in the middle of Washougal rather than to the northwest, or the City could site a third fire station in the east.

Likewise, due to growth, to deliver better-than-rural response times, Camas will need two additional fire stations at a minimum. For existing developed areas beyond 4:00 minutes' travel time of a first response unit, the partner cities and Fire Department should adopt a split response time measure better reflecting the very different population and risk densities well inland from the Columbia River.

For current capital improvement fee calibration for the next 10 years, CFWD should, at a minimum, plan for a replacement of Station 41, replacement of Station 43, minor renovation of Station 42 and one additional fire station.

Task #3: Project Cost Development

Based on the response time study and the program requirements for future stations, Mackenzie prepared a probable construction cost for the new headquarters and satellite fire station and associated site development improvements for the project. These cost projections were based upon historical data of most recently bid fire station projects in the Pacific Northwest as well as currently cost forecasted fire stations in the area. It comprised of the range of costs related to the anticipated raw construction costs and anticipated general contractor margins based on a publicly funded project requiring prevailing wage rates for construction.

In conjunction with the development of the construction costs, Mackenzie prepared cost forecasts for consultant costs, including architectural/engineering fees, construction management fees, special inspections, geotechnical inspections, etc. Additionally, Mackenzie worked with the Camas Washougal Fire Department to evaluate and compile potential owner costs, including fixtures, furnishings and equipment, lockers and shelving, fitness equipment, moving costs, and applicable permit fees. A final cost matrix was prepared that provides a comprehensive look at all anticipated costs associated with the project summarized to reflect the construction cost, consultant costs, and owner costs.

Task #4: Financial Funding Forecast

To assess how well existing fire impact fees could cover the capital expenses of constructing new facilities, Mackenzie worked with ECONorthwest to translate adopted forecasts of future household and employment growth into estimates of residential and commercial development in Camas and Washougal over the next 15 years and the resulting fire impact fee revenue. ECONorthwest found that fire impact fees can fund only a portion of eligible costs, and the total funding gap for estimated capital needs is \$32.28 to \$35.59 million.

Next, ECONorthwest researched an array of potential funding alternatives that could help to address the funding shortfall. Mackenzie and ECONorthwest recommend a multi-pronged funding strategy and CWFD consider the following tools for further evaluation:

- 1. Increased Fire Impact Fees
- 2. General Obligation Bond
- Surplus Land Disposition
- 4. Public Safety Sales Tax
- 5. EMS Levy

Summary of Recommendations

Examination of the departments needs found that a replacement headquarters station is needed within the next two or three years. A replacement satellite station is required in the next two to three years. A brand-new satellite station is required in the next five to nine years.

Our recommendation is for the Camas Washougal Fire Department to move forward with a replacement of Station 41 Headquarters Station promptly with a new facility that meets their operational and essential facility requirements.

NEXT STEPS

City to conduct additional studies on specific fire impact fee adjustments.

 Based upon the funding gap identified in this report, each City should determine what the new fire impact fee for each jurisdiction to bridge some of the gap in the funding.

Determine Funding Mechanism

Confirm the funding mechanism(s) the
Department expects to pursue to complete
the project. Once determined, the City and
Department should assess the financial impact,
if any, to the local community in comparison
to previous voter approvals, and the timing for
pursing the selected funding mechanism.

Complete a Needs Assessment and Conceptual Design

- While this report identifies the deficiencies and programmatic needs of the future replacement and new stations, a conceptual design for a specific site for each of the replacement and new station should be identified. Development of floor plans, site plans, and perspective renderings for each new facility will ensure a more precise cost forecast for each facility project and identify costs associated with the purchase and development of new sites.

Establish a desired timeline and budget for the project

- Based on the findings of Mackenzie's analysis, it is determined that the overall projected rough order of magnitude cost of the project as described in this report are:
 - Headquarters Station \$12.6 million to \$13.9 million
 - Satellite Station \$8.5 million to \$9.4 million

It is encouraged that the Department agree on an expectation of project costs and schedule development to provide clear direction to those that represent the project. THIS PAGE INTENTIONALLY LEFT BLANK

RESPONSE TIME STUDY

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FIRE STATION LOCATION ASSESSMENT

Background

Citygate Associates, LLC (Citygate) was retained by the Camas-Washougal Fire Department) via Mackenzie to assist with the development of a Fire Department Capital Improvement Plan. The Department developed a Fire Department Master Plan with a consultant in 2019. That study by Emergency Services Consulting International (ESCi) was published in November 2019. The ESCi study used the analysis of risks to be protected, emergency incident response statistics, and geographic mapping to offer recommendations on existing fire station coverage and possible added fire stations as the communities continue to evolve within their growth plans.

Given the millions of dollars potentially needed to maintain or increase fire station and crew coverage, the Department tasked Mackenzie with obtaining a peer review of the ESCi study from another fire station deployment planning firm. The Department also expressed the need to more deeply consider locally nuanced station location factors and engage more directly with both cities regarding their long-term needs.

Citygate reviewed the ESCi study and technical exhibits, interviewed Department executive staff, and reviewed available data on City growth rates. To this background of risks to be protected in both cities, Citygate also applied the best practices recommendations for fire crew deployment as published by the National Fire Protection Association in Standard 1710 for career fire crew deployment, the Standards of Response Coverage as published by the Commission on Fire Accreditation International, and the regulations of the State of Washington.

There are no mandatory federal or state regulations directing the level of fire service staffing, response times, or outcomes. Thus, the level of fire protection services provided is a matter of local policy decision. Communities have the level of fire services they choose to purchase and can afford, which may not always be the level desired. However, if services are provided at all, local, state, and federal regulations relating to firefighter and citizen safety must be followed.

Analysis

In general, there are two broad theorems to fire station location: (1) find sites that each cover a 360-degree area of a street network and (2) use sites that cover the most population in the least number of drive-time minutes. In other words, try not to locate stations tightly against bodies of water or canyons, as they cannot be traveled across quickly, and do not use locations where large open space zones must be traversed before entering populated areas.

Often a community is bisected by a river, railroad, or protected open spaces where public streets will not ever be built. It is rarely economically feasible to cover every road segment in a city at the distal ends of the road network. At some point, coverage is always limited to the most people and risks within the community's ability to fund.

Station location goals for response time are impacted by local realities, from zoning to topography and road design. A site must be acquired and meet traffic safety criteria for emergency vehicle egress, among other needs, such as utilities and zoning setbacks. All the above constraints exist for the Cities of Camas and Washougal, thereby limiting optimum fire station locations.

Currently, the Department is served from three staffed fire stations: two in Camas—Station 41 and Station 42—and one in Washougal—Station 43. To the west and north of the two-city Department are other fire agencies that provide mutual aid. No mutual aid stations are close enough to provide a response into the Cities faster than the Cities' three fire stations.

ESCi Report Incident Workload Summary

A best practice travel time for a fire unit in an urban or suburban area is 4:00 minutes in any direction from a station. The land-use patterns and road network make achieving this goal from three, and likely four or more, station locations all but impossible. Historical travel time performance from the existing three fire stations to 90 percent of the fire and ems emergencies ranges from 8:10 to 8:29

minutes across the entire department. Fewer-inquantity incidents outside of the historic town core and riverside areas slows travel times.

The following two maps from the ESCi report show first the population density variance and second the incident location density areas.

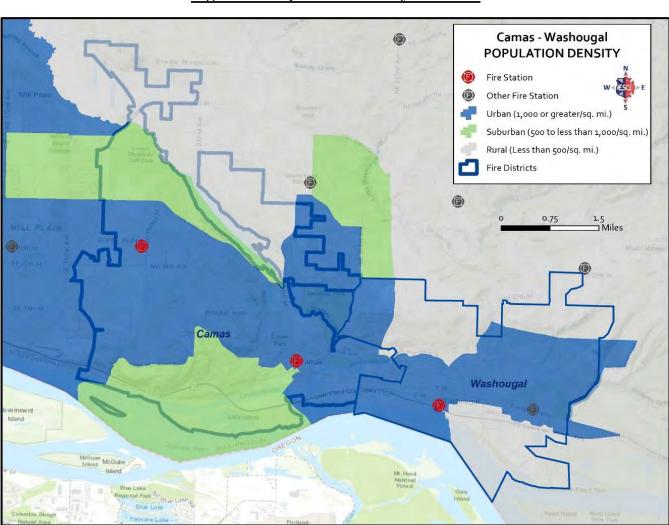


Figure 1—Population Density Variance

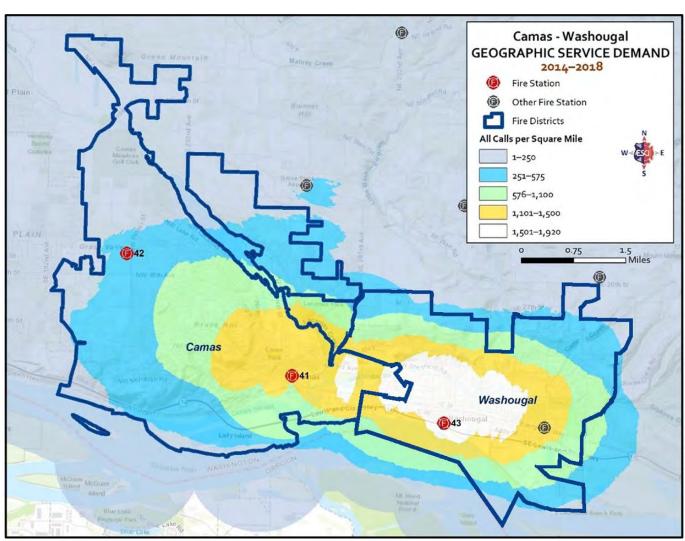
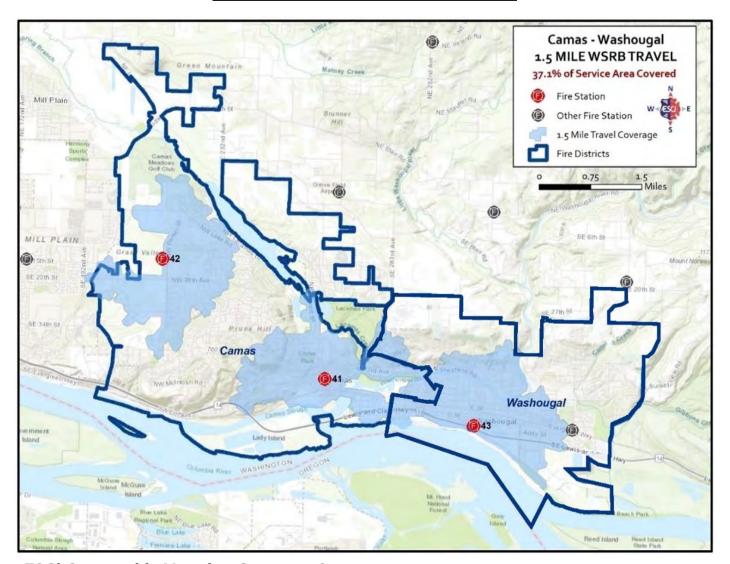


Figure 2—Incident Location Density Areas

Two of the three fire stations, Stations 41 and 43, are well located for travel time to highest density population and incident demand areas. Station 42 serves a large but, at present, far less densely populated area in northwest Camas.

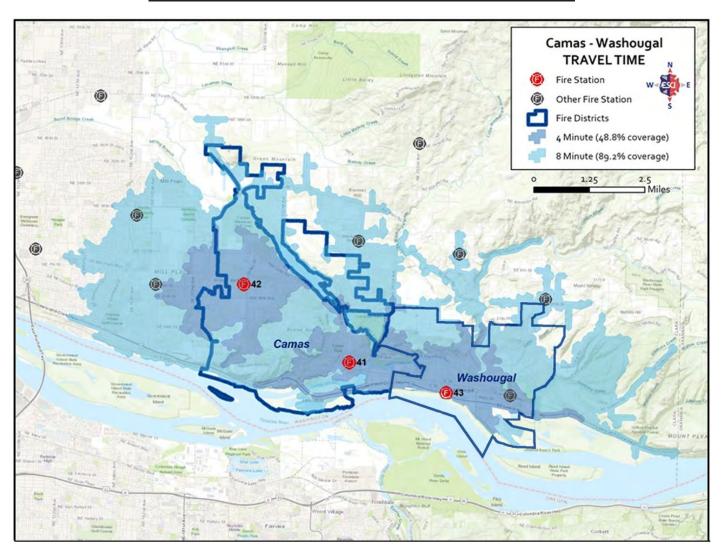
Figure 3—Station Coverage – 1.5 Miles



ESCi Geographic Mapping Coverage Summary

In addition to travel time, the other best practice station spacing measure is the Insurance Service Office (ISO) criteria to locate stations using 1.5-mile distance coverage. The following two maps from the ESCi report show first the ISO coverage and next a computer-modeled 4:00-minute travel time coverage.

<u>Figure 4—Station Coverage – 4:00-Minute Travel Time</u>



Using either coverage measure, the existing stations are located to cover the most populated and highest incident demand areas.

Growth and Possibilities in Both Cities

Citygate interviewed both fire and planning staffs from both cities to understand potential growth patterns and how growth, if any, could be past the desired travel time reach of the existing stations. The best indication of growth is each community's General Plan and approved zoning. While development itself occurs within regional and national economic conditions, land use through zoning is where the community has set its potential land use goals.

Camas

While Camas has approximately 25,000 residents, the Comprehensive Plan envisions the resident population growing to about 34,000. Camas uses a population estimate of 2.91 people per dwelling unit, which, with the addition of 9,000 residents, means adding over 3,000 dwelling units. Appendix 1 is the current Comprehensive Plan map for Camas. Per the map, there is both residential and commercial land use planned in the west side, in the northwest corner, across Lacamas Lake, and in the southeast corner by the Columbia River. In all four areas, land use allows higher density multi-family housing, as well as single family housing, at various units per acre. When compared to the coverage maps in Figures 3 and 4, all these four areas are beyond the reach of desirable urban/suburban first-due fire unit travel times of 4:00 minutes. The areas across Lacamas Lake presently have rural levels of travel time service.

With much of Camas' growth occurring well past the urban/suburban travel time reach of a fire station, Camas has two choices. The first option is to add at least two to three fire stations, and the second option is for the growth areas to adopt more rural levels of fire service delivery and response times. Adding fire stations efficiently will require the completion of the next transportation plan and several sub-area development plans, agreements, or both.

Washougal

While Washougal has approximately 16,000 residents, the Board of County Councilors has adopted a 2035 population projection of 562,207 for all of Clark County and, within that, 22,347 for Washougal. Using a larger population estimate of 2.5 people per dwelling unit, the result could mean the addition of 6,347 residents, resulting in adding over 2,500 dwelling units. Appendices 2-4 are the current zoning maps for Washougal. Both the northwest and northeast areas are zoned for single family residences at four different unit densities. Given the coverage maps in Figures 3 and 4, most of the population additions to Washougal by 2035 will (as in Camas) occur past the desirable urban/ suburban first-due fire unit travel times of 4:00 minutes. Washougal will also need to add at least two fire stations to extend first-unit coverage or adopt rural level of service in the outer City.

Joint Two-City Result

Both cities need to have adopted future transportation (roadway) plans and adopt within their shared fire department either urban/suburban 4:00-minute travel time policies for the first responder unit or a more rural level of service for first responder fire units (of 8:00 to 10:00 minutes' travel). When these planning standards are set, then the addition of efficient fire station locations can be specifically determined. As part of this planning, it can be researched if any areas with other agency fire stations will be annexed to either or both cities.

At this point, Camas should consider moving Fire Station 41 west some to balance coverage with Fire Station 42 and add at least two more stations, one in the northwest corner and another midway down the north side of Lacamas Lake.

Washougal should consider at least adding one fire station in the northwest area and possibly an additional station in the east if the east-by-northeast areas significantly develop past rural levels of human land use density.

Opinions and Recommendations

Overall, Citygate finds the Department has three service areas—the developed, higher density cores; the outer, currently lighter or undeveloped suburban/rural areas; and locations where in fill development could still occur. Citygate is of the opinion that, given the differing service areas in both cities, the Department should consider immediately adopting a split travel time goal. The 4:00-minute travel time is appropriate for the most developed areas. However, Citygate suggests the Cities adopt and measure performance in the outer suburban areas at 8:00 minutes' travel time. Beyond that, the areas would be open space or mostly farming land uses. For the long term, the Cities can adopt a trigger point for adding fire stations when population densities develop significantly past rural levels.

Given this opinion, Citygate offers the following recommendations:

Station 41 – The current location is sufficient. It is off the riverfront and has good crossroad connections. Ideally, it could be moved a little northwest to close some of the gap between it and Station 42. If moved, its service coverage would need to just touch the water and not overlap as much with Station 43. However, in addition to the cost of relocation, relocating Station 41 would not close the entire travel time coverage gap between Stations 41 and 42.

Station 42 - Station 42 is a newer facility and supports training functions. If the Department were to use a split response time measure, Station 42 could cover the more populated areas toward Station 41 with urban travel times while also providing longer suburban edge to rural response time coverage to the north of Station 42.

Station 43 - Ideally, to minimize coverage time loss "over the water," the station should be relocated more north by northeast. However, it is also on the other side of the railroad tracks, a positive fact given the large trains that go to the Port of Vancouver. The station has good access to the main overpass across the train tracks on Washougal River Road. Unless a cost-effective site could be found on the other side of the overpass to bring Station 43 off the water but outside of a large residential area, it can remain where it is and be modernized as needed over its remaining life cycle.

Washougal, however, is too large from east to west to be covered from one fire station. Depending on response time goals and final growth approvals, Washougal will need at least two fire stations at some point in the 2030s. Assuming Station 43 does not move, a second station needs to be built, more likely up into the northwest section of Washougal where there is more zoning for growth and road network development. If intense growth were also to occur in the northeast to eastern areas, the second fire station site could be more central and inland from the river in the middle of Washougal rather than to the northwest, or the City could site a third fire station in the east.

Likewise, due to growth, to deliver better-than-rural response times, Camas will need two additional fire stations at a minimum.

For existing developed areas beyond 4:00 minutes' travel time of a first response unit, the partner cities and Fire Department should adopt a split response time measure better reflecting the very different population and risk densities well inland from the Columbia River.

For current capital improvement fee calibration, Camas should, at a minimum, plan for two added fire stations and Washougal should plan for one added fire station. THIS PAGE INTENTIONALLY LEFT BLANK

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PROGRAMMING SUMMARY - HEADQUARTERS

Mackenzie began the programming effort by working closely with Camas-Washougal Fire Department staff to identify the appropriate square footage for all future facilities - one for a headquarters stations and one for a satellite station. Using this document and past experiences with fire facilities, all while incorporating current staff feedback, Mackenzie determined current space needs and forecast future needs that will accommodate Department function for the next 20 years, and beyond.

The program totalled 33,916 square feet for a brand new headquarter station and a program total of 21,131 square feet for a brand new satellite station that would meet the department's need for the next 40 years. This total square footage includes a 25% increase for general building circulation and interstitial space (i.e. wall thickness), which has been found to be an average escalation for facilities of this type.

Program needs were developed for a satellite station type and a headquarter station type by means of project meetings with Camas-Washougal Fire Department staff. A Facilities Comparison to comparable districts has been provided for you on page 02-16 through page 02-17 to validate the square footage of the headquarters and satellite facilities for Camas Washougal.

Camas Washougal Fire Department

Space / Room Use		Staffin	_	Space Requirem		Space Size	Room Type		al Requ are Foo		Comments
				Exist 2021						2061	
Department: Camas Washougal I	Fire He	eadqu	arters	Station							
Apparatus Bay and Support Rooms	0	0	0					0	7658	7658	
Living Quarters and Administration	14	14	14					0	6642	6642	
Community / Training Rooms	0		0					0			Acres
SUBTOTAL	14	14	14					0		16213	
GENERAL CIRCULATION (20%) TOTAL BUILDING SQUARE FOOTAGE	14	14	14					0	3243 19456	3243 19456	0.45
TOTAL EXTERIOR REQUIREMENTS									14460	14460	0.33
TOTAL SITE REQUIREMENTS								0	33916	33916	0.78

PREVIOUS SQUAREFOOTAGE ASS	UMPTIONS
Existing Building	Not Applicable
Mackenzie	19456

Prepared by Mackenzie 1/20/2022

Space / Room Use			ents	Space Requirements			Space Size		Room Type	Squa	al Requ are Foo	tage	Comments	
	Exist	2021	2061	Exist	2021	2061	W	L	Area		Exist	2021	2061	
Department: Apparatus Bay and	Suppo	ort Ro	oms											
Apparatus Bay														
Apparatus Bay					5	5	15	70	1050		0	5250	5250	5 Bay, Drive-through bays Front Apparatus Bay doors to be four-fold doors Back Apparatus Bay doors to be Overhead
Group Total	0	0	0								0	5250	5250	
Apparatus Support Rooms														
Turnouts					1	1	48	17	816		0	816	816	Turnout Gear located in a dedicated room (36) Turnout Lockers min; Ready Rack type system, Light should not penetrate into room
Decontamination / Equipment Supply Rm					1	1	12	12	144		0	144	144	Floor sink, Decon Shower, Eyewash, Stainless steel counter and sink, Extractor, Commercial grade dryer, Hooks for drying w/ extra ventilation, Detergent Dispenser
Decon Toilet/Shower					1	1	9	12	108		0	108	108	Detergent Dispenser
Decon Vestibules					0	0	0	0	0		0	0	0	Part of the Decon Room Part of the Hallway - between transition zones of App Bay and Living Quarters/Admin
EMS Storage					1	1	8	10	80		0	80	80	Prefer to have island
Report Writing					5	5	10	6	60		0	300	300	(5) Workstations Table, chair and Computer
Work Room/Shop					1	1	6	16	96		0	96	96	Tool Room Bench, computer work area Bottle Rack Storage - SCBA - 6'-0" Grinder and Vice off the Apparatus Bay Table, chair and Computer
SCBA Room					1	1	6	16	96		0	96	96	Tool Room Bench, computer work area
Hose Storage					1	1	8	16	128		0	128	128	typical length of rack 10 to 12 feet
Supply Storage					1	1	12	20	240		0	240	240	Cleaning Supplies, shop towels,
Mezzanine					1	1	10	40	400		0	400	400	Above the Apparatus Bay Support Rooms
Group Total	0	0	0								0	2408	2408	

TOTAL SQUARE FOOTAGE (Apparatus Bay and Related Rooms)

Prepared by Mackenzie 1/20/2022 Camas Washougal Fire Department

Space / Room Use		Staffin Juirem			Space uireme			Spa Siz		Room Type	Total Required Square Footage			Comments
- Opado / Nooiii Ooc				Exist			W		Area	Type		2021		Communic
Department: Living Quarters and	d Admi	inistra	ition											
Living Quarters														
Bunk Rooms	7	7	7		8	8	10	10	100		0	800	800	(6) Bunk Rooms: Bed and night stand, no lockers or desk
Toilet/Shower Room					5	5	10	12	120		0	600	600	Single occupancy
Lockers					36	36	2	2	4		0	144	144	Lockers located in the hallway -36 lockers
Kitchen/Dining					1	1	16	40	640		0	640	640	(4) Refrigerator, (1) under counter fridge; (5) Pantry 6 burner range, double oven, (1) Dishwasher Dining table for 12
Day Room					1	1	24	34	816		0	816	816	(9) people - great room concpet
Physical Training					1	1	20	30	600		0	600	600	
_aundry					1	1	8	10	80		0	80	80	(1) washer and (1 Dryer); linen cabinets
Group Total	7	7	7								0	3680	3680	Open Shelf
Administration	П						Π							
Battalion Chief Office	1	1	1		1	1	12	14	168	OFFICE	0	168	168	Suite - adjoined with Bunk Room
Battalion Chief Bunk Room					1	1	10	12	120		0	120	120	BC's suite - adjacent to office
Captain's Office	1	1	1		1	1	10	14	140	OFFICE	0	140	140	Suite - adjoined with Bunk Room
Captain's Bunk Room					1	1	10	12	120		0	120	120	Captain's suite - adjacent to office
Fire Chief's Office	1	1	1		1	1	14	22	308	OFFICE	0	308	308	Table top seating for 4
Fire Marshal Office	2	2	2		2	2	10	18	180	OFFICE	0	360	360	
Shared Workspace Fire Marshal Office					1	1	10	18	180	OFFICE	0	180	180	Common area between Fire Marshal Offices to layout large
Admin Assistant	2	2	2		2	2	10	14	140		0	280	280	format drawings One for Fire Chief Admin and One for Fire Marshal Office
Small Conference Room					1	1	10	15	150		0	150	150	Seating for 6
Records Storage					1	1	10	12	120		0	120	120	Administration Staff
Copy/Work Room					1	1	8	10	80		0	80	80	
Radio Charging Station					1	1	4	8	32		0	32	32	
Group Total	7	7	7								0	2058	2058	
Building Support	1													
Stairs per floor					4	4	8	10	80		0	320	320	
Fire Pole per floor					2	2	5	10	50		0	100	100	
Elevator per floor					2	2	8	10	80		0	160	160	
Electrical / Data					1	1	12	23	276		0	276	276	Tap out system in electrical room
Janitor Closet per floor					2	2	4	6	24		0	48	48	Toilet paper, paper towels, mops, sink, etc.
Group Total	0	0	0								0	904	904	
TOTAL SQUARE FOOTAGE (Living Quar	ters ar	nd Adm	ninistra	ation)							0	6642	6642	

Space / Room Use		Staffin quirem	•		Space uirem			Spa Siz		Room Type	Total Required Square Footage			Comments
•				Exist			W	L	Area			2021		
Department: Community / T	vojnina Do													
Department: Community / T	raining Ro	oms												
T														
Training Rooms		T												
Community/Training Room					1	1	32	36	1152		0	1152	1152	Classroom style for 36 - 40 ppl
1st Aid Station					0	0	0	0	0		0	0	0	Counter and blood pressure to be completed in the lobby
Public Restrooms					2	2	8	8	64		0	128	128	One to be dual public/fire use
Lobby					1	1	5	15	75		0	75	75	
Antique Rig Showcase					1	1	15	30	450		0	450	450	To be located in the lobby
Storage Closet					1	1	3	4	12		0	12	12	
Training Storage					1	1	8	12	96		0	96	96	
Group Total	С	0 0	0								0	1913	1913	
•														

Space / Room Use	Requirements		ireme	nte		Siz		Type	Square Footage			Comments
Space / Room ose	Exist 2021 2061				w	I	Area	Type		2021		Comments
	ZXIOT ZOZ I ZOO I	LXIOU				_	Alou		LAIGE	2021	2001	
Department: Exterior Requir	ements											
Parking			1			_						
Public Parking - Training			10	10	9	18	162		0	1620	1620	(1) ADA (9) Public
Fublic Farking - Training			10	10	9	10	102		U	1020	1020	(1) ADA (9) Public
Staff Parking			30	30	9	18	162		0	4860	4860	Included in Public Parking
G												· ·
Group Total				40					0	6480	6480	
Site Elements												
Generator		1	1	1	10	15	150		0	150	150	Screened; Includes 4'-0" clearances,
Generator			'	'	10	10	100		U	100		Concrete pad req'd
Trash / Recycling		0	1	1	10	20	200		0	200		Verify trash requirements w/ provider
, 0												·
Patio		0	1	1	20	20	400		0	400	400	BBQ
												Balcony if LQ on the 2nd Floor
									_			
Group Total									0	750	750	
SUBTOTAL										7230	7230	
GENERAL CIRCULATION (100%)				7230								
TOTAL SQUARE FOOTAGE (Exterio	r Requirements)			14460								

PROGRAMMING SUMMARY - SATELLITE STATION

Camas Washougal Fire Department

	5	Staffin	g	Sp	ace		Spa	ce	Room	Tot	al Requ	iired	
Space / Room Use	Req	uirem	ents	Requir	ements		Siz	е	Type	Squ	are Foo	tage	Comments
	Exist	2021	2061	Exist 20	21 2061	W	L	Area		Exist	2021	2061	
				-	-							-	
Department: Camas Washougal F													
		_	_										
Apparatus Bay and Support Rooms	0	0	0							0	5526	5526	
Lindred Consideration	0										4400	4400	
Living Quarters and Administration	8	8	8							0	4402	4402	
Community / Training Rooms	0	0	0							0	1031	1031	
Community / Training Rooms	U	U	U							U	1031	1031	Acres
SUBTOTAL	8	8	8							0	10959	10959	
GENERAL CIRCULATION (20%)	0	0	0							0	2192	2192	
TOTAL BUILDING SQUARE FOOTAGE	8	8	8							0		13151	0.30
		·											0.00
TOTAL EXTERIOR REQUIREMENTS											7980	7980	0.18
TOTAL SITE REQUIREMENTS										0	21131	21131	0.49

PREVIOUS SQUAREFOOTAGE ASSUMPTIONS	
Existing Building	Not Applicable
Mackenzie	13151

0 (5 !!	Staffing Space Space Room Total Require / Room Use Requirements Requirements Size Type Square Footag													
Space / Room Use			ents 2061		uireme 2021		14/	Siz		Type		are Foo 2021		Comments
	EXIST	2021	2061	EXIST	2021	2061	VV	L	Area		EXIST	2021	2061	
Department: Apparatus Bay and	Suppo	ort Ro	oms											
- spanancini														
Apparatus Bay														
												0.450	0.450	
Apparatus Bay					3	3	15	70	1050		0	3150	3150	3 Bay, Drive-through bays
														Front Apparatus Bay doors to be four-fold doors
														Back Apparatus Bay doors to be Overhead
Group Total	0	0	0						1		0	3150	3150	
							$ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{L}}}}$							
Apparatus Support Rooms														
L							40	47	040		0	040	0.10	
Turnouts					1	1	48	17	816		0	816	816	Turnout Gear located in a dedicated room (36) Turnout Lockers min; Ready Rack type system,
														Light should not penetrate into room
														Light should not penetrate into room
Decontamination / Equipment Supply Rm					1	1	12	12	144		0	144	144	Floor sink, Decon Shower, Eyewash, Stainless
														steel counter and sink, Extractor, Commercial grade
														dryer, Hooks for drying w/ extra ventilation,
														Detergent Dispenser
Decon Toilet/Shower					1	1	9	12	108		0	108	108	
Danie Markhadan					0	^	_	_	0		0	0	0	Part of the Decon Room
Decon Vestibules					0	0	0	0	U		U	0		Part of the Hallway - between transition zones of App Bay and Living Quarters
EMS Storage					1	1	12	12	144		0	144		Prefer to have island in center
Report Writing					5	5	10	6	60		0	300	300	(5) Workstations
· ·														Table, chair and Computer
Work Room/Shop					1	1	6	16	96		0	96	96	Tool Room Bench, computer work area
														Bottle Rack Storage - SCBA - 6'-0"
														Grinder and Vice off the Apparatus Bay
Hono Storago					1	4	8	16	128		0	128	120	Table, chair and Computer
Hose Storage						1	8	16	128		U	128	128	typical length of rack 10 to 12 feet
Supply Storage					1	1	12	20	240		0	240	240	Cleaning Supplies, shop towels,
													0	
Mezzanine					1	1	10	40	400		0	400	400	Above the Apparatus Bay Support Rooms
Group Total	0	0	0								0	2376	2376	

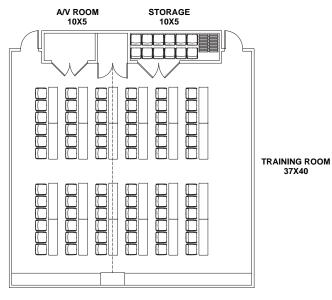
Space / Room Use		Staffin uirem		S Requi	pace iremer	nts		Spac Size		Room Type	Total Required Square Footage			Comments
·	Exist	2021	2061	Exist 2	021 2	061	W	L	Area		Exist	2021	2061	
Department: Living Quarters	and Admi	nistra	tion											
Living Quarters														
Bunk Rooms	7	7	7		7	7	10	10	100		0	700	700	(6) Bunk Rooms: Bed and night stand, no lockers or desk
Toilet/Shower Room					5	5	10	12	120		0	600	600	Single occupancy
Lockers					36	36	2	2	4		0	144	144	Lockers located in the hallway -36 lockers
Kitchen/Dining					1	1	16	40	640		0	640	640	(4) Refrigerator, (1) under counter fridge; (5) Pantry 6 burner range, double oven, (1) Dishwasher Dining table for 12
Day Room					1	1	24	34	816		0	816	816	(9) people - great room concpet
Physical Training					1	1	20	30	600		0	600	600	
Laundry					1	1	8	10	80		0	80	80	(1) washer and (1 Dryer); linen cabinets Open Shelf
Group Total	7	7	7								0	3580	3580	
Administration														
					Т									
Captain's Office	1	1	1		1	1	10	14	140	OFFICE	0	140	140	Suite - adjoined with Bunk Room
Captain's Bunk Room					1	1	10	12	120		0	120	120	Captain's suite - adjacent to office
Small Conference Room					1	1	10	15	150		0	150	150	Seating for 6
Copy/Work Room					1	1	8	10	80		0	80	80	
Radio Charging Station					1	1	4	8	32		0	32	32	
Group Total	1	1	1								0	522	522	
Building Support														
Stairs per floor					0	0	8	10	80		0	0	0	
Fire Pole per floor					0	0	5	10	50		0	0	0	
Elevator per floor					0	0	8	10	80		0	0	0	
Electrical / Data					1	1	12	23	276		0	276		Tap out system in electrical room
Janitor Closet per floor					1	1	4	6	24		0	24		Toilet paper, paper towels, mops, sink, etc.
Group Total	0	0	0								0	300	300	
·														
TOTAL SQUARE FOOTAGE (Living Q	uarters an	d Adm	ıınistra	tion)							0	4402	4402	

	Staffing	Space	Space	Room	Total Required	
Space / Room Use	Requirements	Requirements	Size	Type	Square Footage	Comments
	Exist 2021 2061	Exist 2021 2061	W L Area		Exist 2021 2061	
Department: Community / Traini	na Rooms					

Department: Community /	Training Ro	oms										
Training Rooms												
Community/Training Room				1	1	24	30	720	0	720	720	Classroom style for 20 ppl
1st Aid Station				0	0	0	0	0	0	0	0	Counter and blood pressure to be completed in the lobby
Public Restrooms				2	2	8	8	64	0	128	128	One to be dual public/fire use
Lobby				1	1	5	15	75	0	75	75	
Storage Closet				1	1	3	4	12	0	12	12	
Training Storage				1	1	8	12	96	0	96	96	
Group Total	0	0	0						0	1031	1031	
TOTAL SQUARE FOOTAGE (Train.	ing Rooms)								0	1031	1031	

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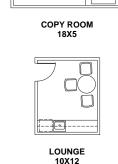
SPACE STANDARDS

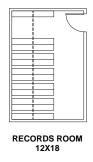


- Based on existing emergency response facilities, past experience, and general architectural standards, space standards have been developed and depicted to aid in efficiently comparing space sizes for offices, support spaces, and primary functions unique to this particular type of facility.
- These space standards have been utilized in the development and validation of identified program elements.

SHARED ROOM LAYOUTS





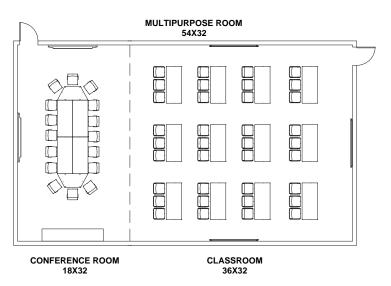


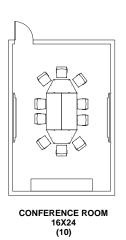


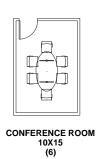
TYPICAL OFFICE SUPPORT ROOM LAYOUTS

SCALE 1/16" = 1'-0"

02-14

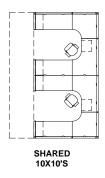






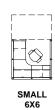
TYPICAL CONFERENCE LAYOUTS







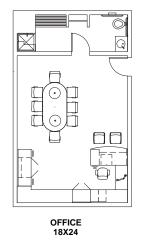


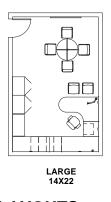


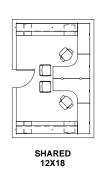


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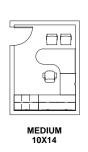
TYPICAL CUBICLE LAYOUTS







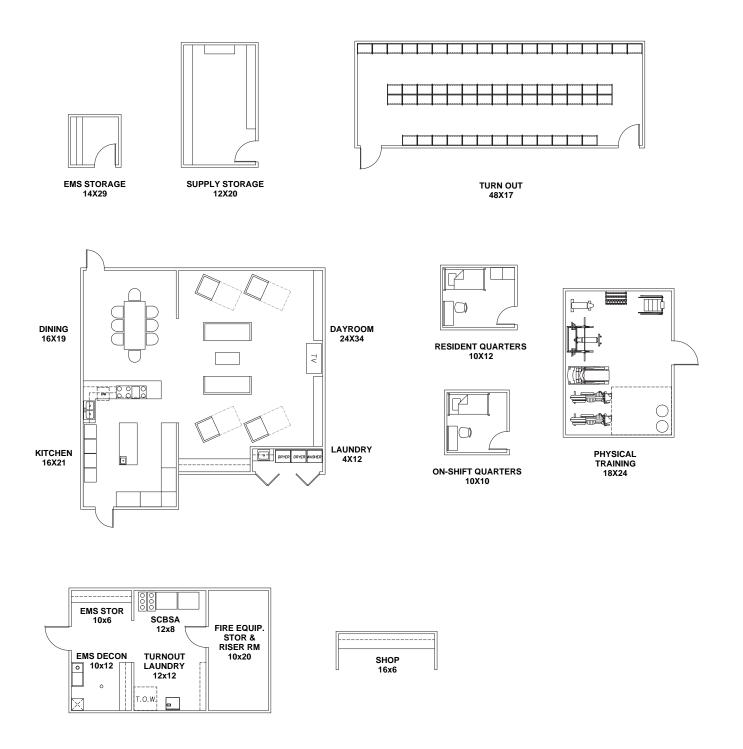






TYPICAL OFFICE LAYOUTS

SCALE 1/16" = 1'-0"



TYPICAL APPARATUS BAY SUPPORT ROOM LAYOUTS

SCALE 1/16" = 1'-0"





<u>PROJECT</u>	<u>ALBANY FIRE</u>	<u>DUNDEE FIRE & RESCUE</u>	
LOCATION	Albany, OR	Dundee, OR	
YEAR COMPLETE	2017	2014	
SITE SIZE	1.63 acres	1.5 acres	
APPARATUS BAY	8,359 sf	8,184 sf	
LIVING QUARTERS	7,221 sf	2,850 sf	
ADMINISTRATION	7,643 sf	2,797 sf	
PUBLIC	1,042 sf	1,574 sf	
TOTAL SQ. FT.	11,900 sf	17,623 sf	
TOTAL SQ. FT.	11,900 sf	17,623 sf	
TOTAL SQ. FT. RESIDENT PROGRAM	11,900 sf YES	17,623 sf YES	
RESIDENT PROGRAM	YES	YES	
RESIDENT PROGRAM BUNK ROOMS	YES 9	YES 4	
RESIDENT PROGRAM BUNK ROOMS RESPONSE AREA	YES 9 81 sq mi	YES 4 13 sq mi	
RESIDENT PROGRAM BUNK ROOMS RESPONSE AREA POPULATION SERVED QUANTITY OF STATIONS	YES 9 81 sq mi 58,073	YES 4 13 sq mi 5,500	

FACILITY COMPARISON







CLARK COUNTY FIRE DISTRICT 6 STATION 61	CLARK COUNTY FIRE DISTRICT 6 STATION 63	<u>VANCOUVER FIRE</u> <u>STATION 11</u>
Vancouver, WA	Vancouver, WA	Vancouver, WA
2022	2019	2022
4.10 acres	3.32 acres	3.65 acres
6,885 sf	7,252 sf	5,180 sf
5,799 sf	3,449 sf	4,250 sf
8,450 sf	5,277sf	3,250 sf
1,706 sf	1,000 sf	1,447 sf
20,750 sf	17,693 sf	14,789 sf
NO	NO	NO
8	8	10
37 sq mi	37 sq mi	90 sq mi
75,000	75,000	250,000
3	3	11
Career/Volunteer	Career/Volunteer	Career/Volunteer
Headquarters	Satellite	Satellite

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PROJECT COST DEVELOPMENT

COST SUMMARY

Following completion of the programs for the headquarter station and the satellite station, Mackenzie developed cost forecasts for the stations that would be developed to meet the Department's needs for the next 20 years. This effort is reflected in the Statement of Probable Costs found in Appendix B

Development costs of a project are not limited to construction costs alone and require consideration of other variables. These variables differ between new construction and renovation or expansion, and invariably change from one project to the next depending on site conditions, existing building conditions, building codes, seismic zones and the environment of the construction industry. Differences between estimates arise depending on the design approach, construction costs, and design and engineering costs. Owner costs for furniture, fixtures and equipment are often constant, based on a predetermined budget set by the Department. New construction can often differ substantially due to the single variable of land acquisition. This cost, coupled with higher construction costs, often leads to this being a more expensive option. In the case of Station 1, there will not be land acquisition costs lowering the overall costs for a new station.

Construction costs reflect the raw costs incurred by a general contractor for overhead and profit, bonding and insurance, securing of materials, and general construction of the site and building. In addition to the identified construction costs, an owner's contingency is recommended to ensure

dollars are carried through construction for owner changes, design omissions, unforeseen conditions or jurisdictional requirements, among others.

Total project costs are calculated on the following page for the year 2021 as shown on the Camas-Washougal Capital Improvement Plan - Project Cost Summary.

Consultant costs reflect the costs incurred for project management and design of the project from conceptual design through construction administration. Though design fee can vary, costs included in this report reflect standard A/E fee guidelines based on a percentage of construction cost as outlined by the Washington State Department of Enterprise Services. In addition to architectural and engineering services, costs include marketing materials and required services, such as geotechnical inspections and special inspections. A contingency is provided for this category for any unforeseen or additionally requested design services throughout the project.

Owner costs reflect the costs generally incurred directly by the owner throughout the project. This includes all items the owner may wish to contract separately from the general construction of the project. Some additional owner-related costs include relocation into the new facility, jurisdictional fees and furniture and equipment. A contingency is provided in this category for any unforeseen or undefined costs not currently represented.

PROJECT COST ESTIMATE -HEADQUARTER STATION

The following project development cost estimate projects the construction values of the programmed sizes of a headquarter station and satellite station. The major categories for the project include construction cost (classified as a hard

cost),consultant costs and owner costs (classified as soft costs) as described on the previous page. The costs are arranged in the following table by station and grouped by hard or soft cost to denote the forecasted total project costs.

Camas-Washougal Capital Improvement Plan - Project Cost Summary

Rev. 09/22/2021			
	Headquarters Station	Satellite Station	
Construction Cost:	19,456 SF x \$500-\$550 / SF = \$9,728,000 - \$10,700,800	13,151 SF x \$500 - 550 / SF = \$6,575,500 - \$7,233,050	
Consultant Costs (Geotechnical Engineer; Surveyor; Architect and Engineering Fee etc.) Owner Costs (Permit and SDC Fees,Furniture and Fixtures etc.)	30% of Construction Cost: = \$2,918,400 - \$3,210,240	30% of Construction Cost: = \$1,972,650 - \$2,169,915	
Tallal Businel Cont	4.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0	40 - 10 4 - 0 40 40 00 -	
Total Project Cost:	\$12,646,400 - \$13,911,040	\$8,548,150 - \$9,402,965	

The matrix on the following pages is a comparison of similar recently completed facilities to illustrate average cost per square foot and establish a current or expected construction costs per square foot for the new facilities.

FACILITY COST COMPARISON





<u>PROJECT</u>	VANCOUVER FIRE STATION 2	CLARK COUNTY FIRE DISTRICT STATION 63
LOCATION	Vancouver, WA	Vancouver, WA
YEAR COMPLETE	2018	2019
CONSTRUCTION TYPE	Wood Framing and Structural Masonry w/ Brick Veneer	Wood Framing w/ Fiber Cementous Boards And Structural Masonry
BUILDING SIZE	13,350 SF*	17,963 SF*
SITE SIZE	93,860 SF	144,744 SF+
STORIES	SINGLE	TWO
BUILDING COST PER SF	\$253.64 PER SF	\$322.22 PER SF
SITE COST PER SF OF SITE	\$40.49 PER SF OF SITE	\$16.78 PER SF OF SITE
OFF-SITE COST PER SF OF SITE	N/A	N/A
TOTAL CONSTRUCTION (BID) COST PER SF OF BUILDING	\$376.86** PER SF OF BUILDING	\$485.23 PER SF OF BUILDING
FINAL CONSTRUCTION COST ESTIMATE PER SF OF BUILDING	\$421.48** PER SF OF BUILDING	\$560.60 PER SF OF BUILDING
LOW BID (AVERAGE BID) PER SF OF BUILDING	\$199.58 (\$234.08) PER SF OF BUILDING	\$485.23 PER SF OF BUILDING

^{* -} Mezzanine not included

^{** -} Includes FF&E and tapout equipment (provided by contractor)

^{+ -} includes Training Tower / Training Grounds / Aggregate Piers / Wetland Mitigation







VANCOUVER FIRE STATION 11	CLARK COUNTY FIRE DISTRICT STATION 61, REMODEL AND ADDITION	AVERAGE BUILT COST	CAMAS-WASHOUGAL HEADQUARTER STATION, NEW CONSTRUCTION
Vancouver, WA	Vancouver, WA		Washougal, WA
2022	TBD		2024
Wood Framing and Structural Masonry w/ Brick Veneer	Wood Framing w/ Fiber Cementous Boards And Structural Masonry		Wood Framing and Structural Masonry w/ Brick Veneer
14,789 SF*	20,750 SF		19,456 SF
221,537 SF	178,763 SF		87,120 SF
SINGLE	TWO		SINGLE
\$354.26 PER SF	\$388.04 PER SF	\$329.54 PER SF	\$540.00 PER SF
\$10.67 PER SF OF SITE	\$3.79 PER SF OF SITE	\$17.93 PER SF OF SITE	\$10.00 PER SF
N/A	N/A	N/A	N/A
\$481.46 PER SF OF BUILDING	N/A Construction To Start in Q3 of 2022	\$447.85 PER SF OF BUILDING	N/A
\$556.67** PER SF OF BUILDING	\$421.48** PER SF OF BUILDING	\$490.06 PER SF OF BUILDING	N/A
\$443.89 (\$481.46) PER SF OF BUILDING	N/A Construction To Start in Q3 of 2022		N/A

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FINANCIAL FUNDING FORECAST

FIRE IMPACT FEE AND FUNDING ALTERNATIVES ASSESSMENT

The Camas-Washougal Fire Department is working with Mackenzie to develop an assessment of future service and capital needs. The analysis has identified the need for one new headquarter fire station and two satellite fire stations to replace aging existing facilities that cannot physically accommodate new larger apparatus needs. To assess how well existing fire impact fees could cover the capital expenses of constructing new facilities, Mackenzie asked ECONorthwest to translate adopted forecasts of future household and employment growth into estimates of residential and commercial development in Camas and Washougal over the next 15 years and the resulting fire impact fee revenue. ECONorthwest found that fire impact fees can fund only a portion of eligible costs, and the total funding gap for estimated capital needs is \$32.28 to \$35.59 million. Next. ECONorthwest researched an array of potential funding alternatives that could help to address the funding shortfall.

The purpose of this memorandum is to outline the funding gap that the Fire Department faces in trying to fund its three new and replacement facilities as well as identify potential alternative funding mechanisms.

This memorandum is organized into two parts. In Part I, we dive into the results of the growth forecast, showing the assumptions that we made and the resulting funding gap. In Part II, we outline a set of potential funding tools that the Fire Department could explore in more depth.

PART I: FIRE IMPACT FEE REVENUE GROWTH FORECAST

This section describes the methodology and assumptions we used to generate our estimates for the fire impact fee funding gap

Cost Assumptions

The Camas-Washougal Fire Department plans to build a replacement headquarters, a replacement satellite station, and construct a new satellite fire station. The first replacement will be a new headquarters fire station and is tentatively planned to begin construction sometime in 2024. It has not been determined if this facility will be on the

same site as the existing headquarters. Based on the construction cost analysis from Mackenzie, they estimate the new station to cost between \$12.65 million (low scenario) and \$13.91 million (high scenario). One replacement satellite station is planned to begin construction in 2026 and the other is planned to begin in 2029. The first satellite station is estimated to cost between \$9.62 million and \$10.58 million, and the second is estimated to cost \$10.82 million to \$11.90 million. In total, the cost for all three stations is estimated to be between \$33.08 million and \$36.39 million. New and replacement equipment costs are estimated to account for an extra \$4.74 million in addition to the facilities costs.

Revenues

We assumed constant 2021 fire impact fee rates for Camas and Washougal over the analysis period (see Exhibit 1 for rates). The dollar amounts were increased by 1.7 percent per year as an inflationary adjustment. Over the 2021 to 2040 period, we calculated that the current fire impact fee would bring in a total of about \$5.54 million. The methodology we used to arrive at the total estimated fire impact fee dollars is detailed below.

Building Type	Cam as
Single-Family Detached	\$0.20 psf
Apartment/Duplex/Townhome	\$0.20 psf
ADU (Interior)	\$0.00 psf
ADU (Exterior)	\$0.20 psf
Commercial	\$0.40 psf

Building Type	Washougal
Single-Family Home (w/ fire suppression)	\$401.60 per unit
Single-Family Home (w/o fire suppression)	\$502.00 per unit
Multifamily unit (3+) and Cottage Homes	\$0.31 psf
ADU (w/ fire suppression)	\$140.56 per unit
ADU (w/o fire suppression)	\$175.70 per unit
Commercial	\$0.31 psf

Exhibit 1. Fire Impact Fee Rates in Camas and Washougal, 2021

Source: City of Camas and City of Washougal.

1. Cost estimates for the two satellite stations reflect a 4% year-over-year annual cost escalation as reported by Mackenzie.

Funding Gap

This leaves the Camas-Washougal Fire Department with a funding gap ranging between \$32.28 million and \$35.59 million (see Exhibit 2).

Costs	Replacement HQ Station (2024)	Replacement Satellite Station (2026)	New Satellite Station (2029)	Total Costs
Low Cost Scenario (Nominal)	\$12,646,400	\$8,548,150	\$8,548,150	-
3-Year Construction Cost Increase	-	\$9,615,506		-
6-Year Construction Cost Increase	-	_	\$10,816,137	-
Low Cost Scenario Total	\$12,646,400	\$9,615,506	\$10,816,137	\$33,078,043
High Cost Scenario (Nominal)	\$13,911,040	\$9,402,965	\$9,402,965	-
3-Year Construction Cost Increase	-	\$10,577,057		-
6-Year Construction Cost Increase	-	_	\$11,897,750	-
High Cost Scenario Total	\$13,911,040	\$10,577,057	\$11,897,750	\$36,385,847

Equipment Costs	Replacement HQ Station (2024) ¹	Replacement Satellite Station (2026) ²	New Satellite Station (2029) ³	Total Equipment Costs
Cost (Nominal)	\$2,633,000	\$1,050,000	\$735,000	-
3-Year Cost Increase	_	\$1,181,107		-
6-Year Cost Increase	_	_	\$930,009	_
Equipment Cost Total	\$2,633,000	\$1,181,107	\$930,009	\$4,744,117

FIF Revenue by Source	Camas	Washougal	Total Revenue by Source
Single-Family	\$2,325,808	\$841,431	\$3,167,240
ADUs	\$10,646	\$5,002	\$15,648
Multifamily	\$142,420	\$139,177	\$281,597
Commercial	\$1,448,326	\$570,931	\$2,019,256
Medical	\$33,314	\$21,070	\$54,384
Total	\$3,960,514	\$1577.611	\$5,538,125

	Low Estimate	High Estimate
Funding Gap, 2021 - 2040	\$32,284,034	\$35,591,839

Equipment Cost Notes:

- 1. Equipment costs include 3 replacement engines, 4 rescues, and 2 brushes.
- Equipment costs include 1 ladder truck.
- 3. Equipment costs include 1 engine for the satellite expansion.

Exhibit 2. Summary of Fire Impact Fee Funding Gap, 2021 - 2040

Source: Mackenzie and ECONorthwest.

Note: This funding gap analysis does not account for land acquisition costs.

2. Only the share of capital costs attributable to growth can be paid through fire impact fee revenue.

Exhibit 3 in below breaks out the same data in Exhibit 2, allocating cost and revenue data to each jurisdiction respectively. This analysis assumes a 60 percent allocation of equipment cost for the first two stations to Camas and a 40 percent spilt to Washougal. Costs for each station are allocated 100 percent to the jurisdictions they are located in. We

find that the total funding gap in Camas amounts to \$22.7 to \$25.0 million dollars and \$9.5 to \$10.5 million in Washougal. Despite having a measurably higher revenue outlook from fire impact fee revenue, Camas' gap is higher because it must accommodate two new stations to provide targeted service levels.

Exhibit 3. Summary of Total Fire Impact Fee Funding Gap by Jurisdiction, 2021 – 2040

Source:	Macken	nzia and	FCONO	rthwaet
Source.	IVIachell	ızıe anu	ECONO	HUIWESL

Source: Mackenzie and ECONorthy			
	LOW COST SCI	ENRARIO	
Station	Replacement	Replacement	New Satellite
	HQ Station	Satellite Station	Station
Year	2024	2026	2029
Development Cost	\$12,646,400	\$9,615,506	\$10,816,137
City Allocation	Camas	Washougal	Camas
Equipment Costs	\$2,633,000	\$1,181,107	\$930,009
City Allocation	60-40 Split	60-40 Split	Camas
Funding Summary	Costs	Revenues	Gap
Camas	\$26,681,010	\$3,960,514	\$22,720,496
Washougal	\$11,141,149	\$1,577,611	\$9,563,538
Total	\$37,822,159	\$5,538,125	\$32,284,034
	HIGH COST SO	CENARIO	
Station	Replacement	Replacement	New Satellite
	HQ Station	Satellite Station	Station
Year	2024	2026	2029
Development Cost	\$13,911,040	\$10,577,057	\$11,897,750
City Allocation	Camas	Washougal	Camas
Equipment Costs	\$2,633,000	\$1,181,107	\$930,009
City Allocation	60-40 Split	60-40 Split	Camas
Funding Summary	Costs	Revenues	Gap
Camas	\$29,027,263	\$3,960,514	\$25,066,749
Washougal	\$12,102,700	\$1,577,611	\$10,525,089
Total	\$41,129,963	\$5,538,125	\$35,591,838

RESIDENTIAL IMPACT FEE ESTIMATE **METHODOLOGY**

Household Growth: Household growth in Camas and Washougal are based on Transportation Analysis Zone (TAZ) forecasts produced by the Southwest Washington Regional Transportation Council (RTC). Per their most recent forecast, 4,165 households are anticipated to be built in Camas at an average annual growth rate of 2.05% over the 2020 to 2040 period. In Washougal, 2,108 households are anticipated to be built at an average annual growth rate of 1.44%.

Housing Type:

- To estimate the growth in single-family detached housing and multifamily housing, we used data from the U.S. Census Bureau's American Community Survey (ACS) to estimate the percentage share of housing stock that is single-family detached and multifamily. About 85% of Camas's housing stock is single-family detached housing and about 82% of Washougal's housing stock is single-family detached housing. We applied these percent shares to the annual household growth in each city to estimate the approximate quantity of new housing type added per year.
- Additionally, we accounted for ADU developments in both Camas and Washougal. Using ADU permit data provided by City of Camas staff, we calculated that approximately 3 ADU permits per year were issued over the 2016 to 2020 period. Dividing this average annual permit count by the number of new single-family households added to Camas per year (about 177 units), we received a percent of approximately 1.7%. Applying this percent to the annual growth in single-family households in both Camas and Washougal, we estimate 3 ADUs will be added to Camas each year and 1 ADU will be added to Washougal each year.

Calculation: We multiplied the 2021 fire impact fee rates to the new housing added each year in Camas and Washougal. This resulted in \$2.33 million of fire impact funds for single-family households in Camas and about \$142,400 for multifamily households. In Washougal, \$840,400 of fire impact funds are estimated to come from single-family households and an additional \$138,200 from multifamily households.

COMMERCIAL IMPACT FEE ESTIMATE **METHODOLOGY**

Existing Commercial Mix: For commercial development, we relied on CoStar's database to estimate the existing square footage of industrial, office, retail, and flex space in Camas and Washougal. As of 2020, CoStar estimated that about 2.97 million square feet of commercial space exists in Camas and about 1.71 million square feet exists in Washougal.

Employment Growth:

- Using RTC's TAZ employment forecasts over the 2015 to 2040 period, we interpolated an approximate employment count for commercial and industrial jobs in 2020. Then we used that estimate to approximate the average annual growth rate in commercial and industrial jobs out to 2040. Camas's growth rate is about 4.06% per year and Washougal's is 3.72% per year.
- Lastly, we accounted for medical space. According to CoStar, Camas approximately has 63,360 square feet of medical space and Washougal has about 63,100 square feet. Using the same methodology for commercial space, we estimate Camas will bring in about \$33,300 and Washougal will bring in about \$21,000.
- **Calculation**: We used the employment growth rates to assume a linear growth pattern in commercial square footage over the 2021 to 2040 analysis period. Applying the fire impact fees, we estimate Camas will bring in approximately \$1.45 million and Washougal will bring in about \$570,900.

3. U.S. Census Bureau, American Community Survey 5-Year Estimates, 2006-2010 and 2015-2019. Table B25024: Units in Structure.



Part II: Capital Improvement Funding Alternatives

Based on our analysis, the fire impact fee revenue over the next 20 years is insufficient to cover eligible capital investments required to accommodate growth in addition to replacement capital needs. This section provides an evaluation of alternative funding tools that the Fire Department could consider in funding the three new facilities.

For our analysis, we have used seven criteria based on experience with similar projects in other jurisdictions, and the specific needs of the Fire Department: (1) capacity, (2) timing, (3) administrative ease, (4) stability/predictability, (5) flexibility, (6) legality, and (7) political acceptability. Note that the first five criteria included in this list can be grouped together under the banner of "efficiency." Criteria are further defined below.

In this analysis, ECONorthwest began by identifying "fatal flaws," or constraints on the tool's revenue generating capacity or political acceptability that make it a very unlikely candidate for the site. After setting aside all the tools with fatal flaws, we are left with a much shorter list of potential sources that can more easily be compared against each other, evaluating their relative merits to identify the top four as the "preferred" tools for further evaluation.

Funding Alternative Findings

This section summarizes the findings from our funding alternative analysis.

Recommended Funding Tool Options for Further Discussion

We recommend a multi-pronged funding strategy that considers who will benefit from facility investments. We recommend that the District consider the following tools for further evaluation:

• Increased Fire Impact Fees. The current impact fees may be too low to account for the facility needs in new growth areas. The cities could consider setting a base impact fee alongside a set of distinct service areas with higher fees where more intensive investments are needed. Increasing these fees alone will not pay for all of the fire district's proposed investments but they could be increased to cover a larger share of eligible costs attributable to growth.

- **General Obligation Bond**. Issuing an unlimited tax general obligation bond would provide the cities a stable revenue stream to repay the debt of building new fire protection capital. It would require the fire district to make the case to property owners that aging facilities are inadequate and that new facilities are required to protect their home investments.
- **Surplus Land Disposition**. At least one of the replacements may be constructed in a new location. Sale of the existing facility could help to generate revenue for either acquisition of the replacement site or for the facility itself.
- Public Safety Sales Tax. Adding a sales tax could be a viable funding option that also requires voter approval. The cities of Washougal and Camas could pursue this on their own (which requires more work but also generate more revenue) or in conjunction with the County (which would decrease revenues available to the cities). There may also be a County wide public safety sales tax being proposed to help pay for police body cameras and other investments. However, based on our projections, a new public safety sales tax and current fire impact fee combined will not yield sufficient funding to fill the funding gap over the 2021 to 2040 period. If this option is pursued, an additional funding tool would need to be used in tandem.

Other Funding Tools Considered (Not Recommended Options)

• Excess Levy. Excess levies (also known as Operations & Maintenance levies) are single-year property tax levies with no restrictions on the levy rate or levy amount. Fire protection districts, however, are allowed multi-year excess levies in accordance with RCW 84.52.130. This statute allows for fire protection districts in Washington to authorize, by public vote on a ballot measure, a two-year through six-year levy "to support the construction, modernization, or remodeling of fire district facilities." In our evaluation, we didn't see any benefit to this approach over a more traditional general obligation bond.

Tools Not Evaluated in Depth

Current city EMS levies are at capacity. Both

Camas and Washougal currently have EMS levies in place. In 2018, Camas renewed its EMS levy rate at \$0.46 per \$1,000 assessed property value to carry forward for six additional years (2019 through 2025). Washougal currently has an EMS levy rate of \$0.50 approved for six years (2018 through 2023).

- The maximum allowable EMS levy rate under Washington law is \$0.50 per \$1,000 assessed value. According to Camas's Emergency Medical Services Agreement, the City of Camas "shall furnish Emergency Medical Services including Advanced Life Support (ALS) and Emergency Medical Transport Services." Given this agreement and the allocation of levy funds toward providing the community medical services, it seems unlikely that there would be any excess EMS levy funds to support the new fire station construction.
- A county wide EMS levy is not a viable option, given that there are current citywide levies.
 Given that Camas, Washougal, and East County Fire and Rescue (\$0.35 per \$1,000 AV) have EMS levies in place, there is insufficient funding capacity given the rate limitations stipulated in Washington law.
- A Service Benefit Charge can fund operations, but not capital facilities. Some fire departments in Washington structure their operations to be funded from a combination of service benefit charges and levies. A service benefit charge allows fire departments to charge users more if their structure is at greater risk of fire, and is not a share of a property's assessed value. Shifting to a benefit charge from a levy structure could free up funding from the levy, but this strategy would require input from a variety of stakeholders.

Efficiency

This category covers everything related to creating and maintaining net revenues (net of collection costs). We break efficiency into five subcategories:

• **Capacity**. Revenue-generating capacity

- considers how much money the tool can generate. The amount any funding tool can raise is directly tied to the rate imposed, and the rate imposed is always at least partially determined by legal authority and political acceptability (both described below). For example, the revenue capacity of a local gas tax depends on whether a community is legally allowed to impose the tax and up to what rate, and what rate its policy makers and constituents are willing to adopt. Nonetheless, we evaluate revenue-generating capacity based on our informed assumptions on the maximum rate that can be legally charged, and the rates that are likely to be in the range of political acceptability.
- **Timing**. For the funding of new fire stations, it will be important for revenues to be available sooner rather than later. Private development and infrastructure investments will likely need to occur concurrently. Revenue sources that don't provide revenue until after development occurs may be ill suited for the fire stations. Additionally, it is likely that the City will want to borrow money to fund infrastructure projects up front and repay the debt over time with revenue a dedicated funding tool. Some tools are better suited than others for borrowing money or issuing bonds.
- Administrative ease. The easier it is to administer a tool, the lower the costs of administration should be, and the more of the gross revenue that will be available as net revenue for infrastructure projects. For example, it is relatively easy and inexpensive to increase the rate of an existing fee or tax. At the other extreme, creating a new fee with a new collection system can be expensive and use a sizable percentage of the gross revenue. Some of the questions to consider when evaluating administrative ease, include: Would new staff have to be hired? Would a new organizational structure or a new budget procedure have to be put in place? Would collection of the funds be an arduous task? Are new technologies required? The answers to these questions depend in part on what administrative mechanisms are already

^{5.} Emergency Medical Services Agreement. Information retrieved from: https://mccmeetingspublic.blob.core.usgovcloudapi.net/camaswa-meet-cf9a46adf504483fb010ccf9ea82cbcd/ITEM-Attachment-001-31e129d1dc7c46faa5e7b85ed56e0d93.pdf



^{4.} Clark County Today. "County seeks volunteer to write for and against statements for sales tax propositions." July 29, 2021. Information retrieved from: https://www.clarkcountytoday.com/news/county-seeks-volunteers-to-write-for-and-against-statements-for-sales-tax-propositions/

in place that could be used at little marginal cost.

- Stability/predictability. Revenue stability considers whether the tool is likely to avoid large fluctuations each year. The more stable a tool, the more it can be assumed to contribute constant revenues over time. Stability is more than a mental comfort: demonstrating stability may be required, for example, for a funding stream that is being pledged to repay a revenue bond.
- Flexibility. A funding tool may be less useful if its use is limited to certain types of projects. In general, flexibility is a positive attribute. If the revenue can be used for any infrastructure project (e.g., transportation, water, sewer, parks, etc.), there is a greater ability to channel funds to the use with the greatest net benefit at any point in time. The flip side is that if a revenue tool is too flexible it can be difficult to "protect" it from being redirected to other uses. However, local jurisdictions can move funding around so that they can do what they want to do. For example, even though systems development charges can only be used for projects required by growth, if such projects are not now being covered 100% by systems development charges (e.g., if gas tax revenues are paying for some of those projects), increasing systems development charges may free up other sources of funding that are more fungible (capable of being used for other things).

LEGALITY

An essential part of an assessment of a funding tool is determining if the Fire Department can legally use the tool for new capital facilities. If this application of the tool is currently prohibited by state statute, then there is a large administrative hurdle to be surmounted up front. Even for tools that are legal, the real issue is whether the tool has detailed and complicated legal requirements that would (1) require a lot of work and cost to implement the tool; (2) raise the likelihood of legal challenge; (3) raise the likelihood that any legal challenge would actually be successful; or (4) reduce political acceptability by adding uncertainty and cost to the implementation process.

POLITICAL ACCEPTABILITY

Our evaluation looks at not only which tools score well on our technical criteria, but also whether or not the tool has proven to be politically acceptable when other jurisdictions in Washington have attempted to use it. One would think that if a tool is efficient, fair, and legal that it would be politically acceptable. While this is true in some situations, it is not always true. Many times, jurisdictions have pursued the adoption of a funding tool that seemingly scores well on those criteria, only to have their efforts fail because the tool was politically unpopular.

Exhibit 4. Funding Tools Evaluation

Funding Tool	Efficiency	Legality	Political Acceptability	Suitability
Increased Fire Impact Fee (City-mandated one- time charge on new development to fund "fire protection facilities: addressed by a capital facilities plan)	Capacity: FIFs across Washington vary widely. Based on additional analysis, an increase in FIFs could be warranted, especially in areas with insufficient response times. Timing: Instability makes this tool difficult to bond against, best used in tandem with other tools that are more predictable. Administrative ease: Developers are familiar with this tool, and the city administers it. Stability: Development-driven; can be unpredictable. Revenue flexibility: Contingent on development; can be unpredictable.	Impact fees should be used for system improvements that benefit that new development and relate to the demand from new development. Requires a nexus to new growth.	Combined with other impact fees, raising these fees too high may impede development. Camas and Washougal could consider creating multiple service areas and associated fee schedules to align specific capital improvements with development activities. [RCW 82.02.060(1)]	Increasing impact fees car help to pay for the capital improvements that are required to serve new growth. The cities could consider recalibrating the fee to create a base fee charged citywide with a service area addition specific to the locations for new developments that lack sufficient service.
Voter-Approved Bonds (Also known as Unlimited Tax General Obligation Bonds. May only be used for capital purposes; does not include replacement of equipment)	 Capacity: Will generate the dollars needed to pay for new capital facilities. Timing: Will require more time from city staff to plan and requires 60% supermajority approval. Administrative ease: Ballot measure should be drafted by city's bond counsel. Requirements are peculiar. It must also authorize both the issuance of the bonds and the excess property tax levies. Stability: Stable revenue stream to repay debt. They are automatically sized to pay the principal and interest on the bonds due each year (differs from levy lid lifts or sales taxes). Revenue Flexibility: Must be in accordance with purpose(s) specified in ballot measure. 	Authorized via RCW 84.52.056 and Article VII, Section 2(b) of Washington's Constitution.	Requires voter approval.	Issuing an unlimited tax general obligation bond would provide the cities a stable revenue stream to repay the debt of building new fire protection capital The Department will need to consider its potential funding ask from voters and how that aligns with other voter-approved bonds or levies currently in place or under consideration.

Funding Tool	Efficiency	Legality	Political Acceptability	Suitability
Surplus Land Disposition	 Capacity: Limited to land where existing facilities if the new facility will be in a new location. Timing: Depends on when the new facility can be occupied. Could be used to repay bonds. Administrative ease: Flexible, depending on regulations for land disposition. Stability: One-time sale or ground lease options. Revenue flexibility: Flexible, revenue can be used to pay for new facilities. 	The Fire District can legally sell land at market value.	Fire district can pursue market rate for land.	The viability of this strategy will depend on whether the District already controls the land on which it wants to locate new facilities.
Public Safety Sales Tax (Sales tax up to 0.1% for cities)	 Capacity: Revenues must be shared between city and county. If city imposes tax, they retain 85% of revenues and must share 15% with county. If county imposes tax, they retain 60% of revenues and the remaining 40% is distributed to cities on a per capita basis Timing: The cities could bond against this revenue to help pay for capital facilities. Administrative ease: Time needed to draft ballot measure. Stability: Subject to fluctuations in taxable retail sales earned each year. Flexibility: 1/3 must be used for criminal justice and/or fire protection. Fire protection purposes are not specifically defined in Washington's Revised Code. The remaining 2/3 are unrestricted, but must be spent in accordance with purpose(s) specified in ballot measure. May be used for debt repayment or operations. 	Authorized via RCW 82.14.450. Fire protection facilities are a legal use of these funds.	Requires voter approval (50%+1). According to MRSC's Local Ballot Measure Database, voters have approved the majority of these measures. A ballot measure may only be submitted at a primary or general election (no special elections).	If Camas imposed a public safety sales tax, the City could potentially receive \$420,800 per year based on its total taxable retail sales estimate from 2020 (\$495.06 million). Accounting for inflation, this tax could result in \$9.96 million over 2021 to 2040. For Washougal, the City could potentially receive \$189,500 per year (based on total retail sales of \$222.94 in 2020). This could result in \$4.48 million over 2021 to 2040. Combined, both cities could potentially receive \$14.44 million over 2021 to 2040.

Funding Tool	Efficiency	Legality	Political Acceptability	Suitability
Excess Levy (Levy of additional taxes by any type of taxing district; amount is over and above the total tax allowed by statute)	 Capacity: Can only be levied for one year. There is no restriction on the levy rate or the levy amount. Fire protection districts have separate statutes that allow for multi-year excess levies. Timing: Funding from an excess levy is available in the year the levy goes into effect. Administrative Ease: Relatively simple; work needed for penning ballot initiative. Stability: Stable, as the levy will only last for one year. Revenue Flexibility: Must be in accordance with purpose(s) specified in ballot measure. 	Excess levies are authorized via RCW 84.52.052 and RCW 84.52.054, in addition to Article VII, Section 2(a) of Washington's Constitution.	According to MRSC's Local Ballot Measure Database, about 80% of excess levies have passed in recent years. The cities will need to sensitive to the amount since it will impact all property owners for that year.	An excess levy, while unconstrained in its levy rate and levy amount, could be difficult to pass with voter approval given the size of the current funding gap. Given that fire protection districts are allowed multiyear excess levies, this could reduce the annual levy amount and allow property owners to spread the costs over multiple years.

November 2022 402

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APPENDIX A: CITY COUNCIL PRESENTATION

Item 16.

MACKENZIE.



CAMAS-WASHOUGAL FIRE DEPARTMENT
CITY COUNCIL MEETING

Camas and Washougal City Council Meeting | 11.07.2022

TEAM

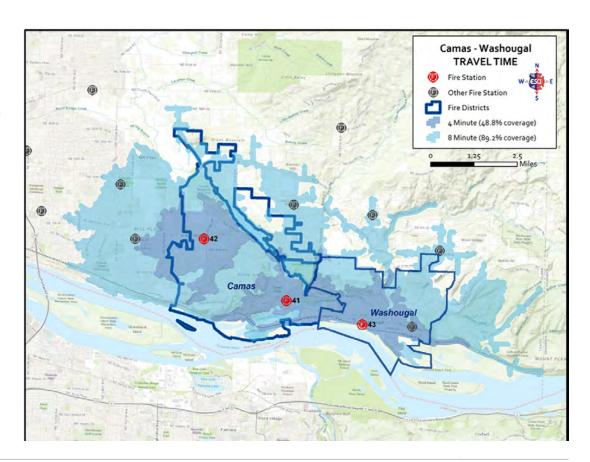






TRAVEL TIME COVERAGE

 Full page view of the 4-minute and 8-minute travel time map

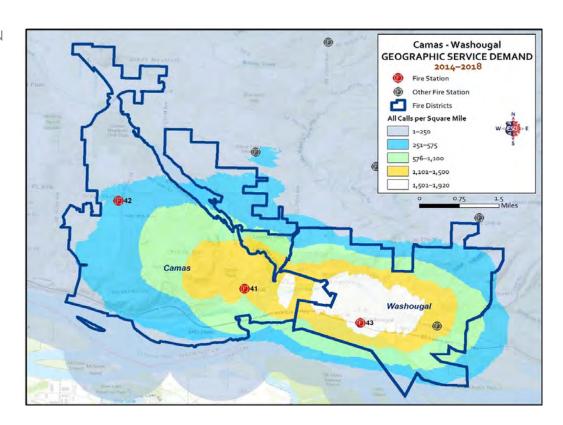


Camas-Washougal Fire Department | Capital Improvement Plan

Travel Time Maps 2022 Mackenzie | 2200523.00

INCIDENT LOCATION DENSITY

 Full page view of Figure 2 - the Incident Location Density



Camas-Washougal Fire Department | Capital Improvement Plan

Service Demand Maps 2022 Mackenzie | 2200523.00

FINDINGS

- Most growth occurs outside the existing fire station urban coverage
- The cities and Department should adopt a split coverage measure
 - -Faster response in existing built-up areas
 - -Longer response times in edge suburban and rural areas
- Added stations occur when the other areas substantially develop

Findings



FINDINGS

- Most growth occurs outside the existing fire station urban coverage reach
- The cities and Department should adopt a split coverage measure
 - -Faster response in existing built-up areas
 - -Longer response times in edge suburban and rural areas
- Added stations occur when the other areas substantially develop

EXISTING STATIONS



Address: 616 NE 4th Avenue Camas, WA 98607

Built in: 1960's; subsequent remodels

Deficiencies:

- No future growth opportunities
- No dedicated training room
- Does not meet seismic code for an essential facility
- Does not meet current ADA code requirements

NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS

NFPA 1	Fire Suppression Sprinklers	Yes
NFPA 1221	Station Alerting Communication System	No
NFPA 1500	Smoke Detectors Carbon Monoxide Detectors	Yes Yes
NFPA 1581	Minimum Sleeping Area PPE Cleaning Area EMS Decontamination Area	No No No
NFPA 1851	Turnout Gear Storage UV Exposure Thermal Exposure	No No
NFPA 1962	Fire Hose Storage and Maintenance	No

WASHINGTON ADMINISTRATIVE CODE

WAC SECTION	DESCRIPTION	COMPLIANCE
296-305-06507	1 hour separation between Apparatus Bay and Living Quarters	No
296-305-06509	Apparatus Bay Configuration and Clearance	No
296-305-06515	Hose Tower Configuration	No
296-305-06511	Indoor Air Quality	No



Address: 4321 NW Parker Street Camas, WA 98607

Built in: 2001

Deficiencies:

- No PPE Extractor on site
- No direct exhaust capture system

NATIONAL FIRE PROTECTION ASSOCIATION STANDARD

_	NFPA SECTION		
	NFPA 1	Fire Suppression Sprinklers	Yes
	NFPA 1221	Station Alerting Communication System	Yes
	NFPA 1500	Smoke Detectors Carbon Monoxide Detectors	Yes Yes
	NFPA 1581	Minimum Sleeping Area PPE Cleaning Area EMS Decontamination Area	Yes Yes Yes
	NFPA 1851	Turnout Gear Storage UV Exposure Thermal Exposure	Yes Yes
	NFPA 1962	Fire Hose Storage and Maintenance	Yes

WASHINGTON ADMINISTRATIVE CODE

WAC SECTION	DESCRIPTION	COMPLIANCE
296-305-06507	1 hour separation between Apparatus Bay and Living Quarters	Yes
296-305-06509	Apparatus Bay Configuration and Clearance	Yes
296-305-06515	Hose Tower Configuration	Yes
296-305-06511	Indoor Air Quality	No



Address: 1400 A Street Washougal, WA 98671

Built in: 1974

Deficiencies:

- No future growth opportunities
- Does not meet seismic code for an essential facility
- Does not meet current ADA code requirements

NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS

NFPA 1	Fire Suppression Sprinklers	No
NFPA 1221	Station Alerting Communication System	No
NFPA 1500	Smoke Detectors Carbon Monoxide Detectors	Yes Yes
NFPA 1581	Minimum Sleeping Area PPE Cleaning Area EMS Decontamination Area	No No No
NFPA 1851	Turnout Gear Storage UV Exposure Thermal Exposure	No No
NFPA 1962	Fire Hose Storage and Maintenance	No

WASHINGTON ADMINISTRATIVE CODE

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296-305-06511	Indoor Air Quality	No

Camas-Washougal Fire Department | Capital Improvement Plan

Findings © 2022 Mackenzie | 2200523.00

Camas Washougal Fire Department

Prepared by Mackenzie 1/20/2022

	Staffing Space		g	Spa	ce		Space Room			Total Required			
Space / Room Use		uirem		Require			Size		Type	Square Footage			Comments
	Exist	2021	2061	Exist 202	21 2061	W	L	Area		Exist	2021	2061	
Department: Camas Washougal	Fire H	eadqu	arters	Station									
Apparatus Bay and Support Rooms	0	0	0							0	7658	7658	
Living Quarters and Administration	14	14	14							0	6642	6642	
Community / Training Rooms	0	0	0							0	1913	1913	
													Acres
SUBTOTAL	14	14	14							0	16213	16213	
GENERAL CIRCULATION (20%)										0	3243	3243	
TOTAL BUILDING SQUARE FOOTAGE	14	14	14							0	19456	19456	0.45
TOTAL EXTERIOR REQUIREMENTS											14460	14460	0.33
TOTAL SITE REQUIREMENTS										0	33916	33916	0.78

Program - HQ © 2022 Mackenzie | 2200523.00

Camas Washougal Fire Department

Prepared by Mackenzie 1/20/2022

Space / Room Use		Staffing uireme		Space ts Requirements		Space Size		Room Type		al Requ are Fo		Comments	
.,				Exist 2021		W	L	Area				2061	
Department: Camas Washougal													
	1				1					1			
Apparatus Bay and Support Rooms	0	0	0							0	5526	5526	
reparated bay and dapport recemb	Ŭ		·								0020	0020	
Living Quarters and Administration	8	8	8							0	4402	4402	
Community / Training Rooms	0	0	0							0	1031	1031	
													Acres
SUBTOTAL	8	8	8							0	10959	10959	
GENERAL CIRCULATION (20%)										0	2192	2192	
TOTAL BUILDING SQUARE FOOTAGE	8	8	8							0	13151	13151	0.30
TOTAL EXTERIOR REQUIREMENTS											7980	7980	0.18
TOTAL SITE REQUIREMENTS										0	21131	21131	0.49

Program - Satellite © 2022 Mackenzie | 2200523.00

Fire stations in the next 8-10 years - when the infrastructure is assumed to be developed:

- Replace Washougal Station 43 in the next two to three years.
- Replace HQ Station (Station 41) in the next two to three years.
- Future Brand New Satellite Station in Camas (NE) when the future infrastructure is assumed to be in the 5-9 year period.

Camas-Washougal Fire Department | Capital Improvement Plan

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	Building SF	Lowest Bid (Without Tax)	Cost Per SF
VFD Station 02 (July 2016)	13,367 SF	\$5,052,739.17	\$378.00/SF
VFD Station 11 (March 2021)	14,789 SF	\$7,120,393.59	\$481.46/SF
Station 61	20,750 SF	\$8,051,854	\$388.04 / SF
Station 61 Shop	7,425 SF	\$3,074,759	\$414.08 / SF
Averages	14,083 SF	\$5,824,936.44	\$413.61 / SF

Cost Factors:

- 8.5% Tax (As of April 2021)
 Median Bid \$504/SF
 27% Increase (Normally 30-35%)
- Additional Site Work

Camas-Washougal Capital Improvement Plan - Project Cost Summary

Rev. 09/22/2021					
	Headquarters Station	Satellite Station			
Construction Cost:	19,456 SF x \$500-\$550 / SF = \$9,728,000 - \$10,700,800	13,151 SF x \$500 - 550 / SF = \$6,575,500 - \$7,233,050			
Consultant Costs (Geotechnical Engineer; Surveyor; Architect and Engineering Fee etc.) Owner Costs (Permit and SDC Fees, Furniture and Fixtures etc.)	30% of Construction Cost: = \$2,918,400 - \$3,210,240	30% of Construction Cost: = \$1,972,650 - \$2,169,915			
Total Project Cost:	\$12,646,400 - \$13,911,040	\$8,548,150 - \$9,402,965			

Existing Apparatus Assessment (Based on Master Plan):

- Well maintained, but aging
- Three out of the four front line engines are at the end of their normal lifespan of a fire engine and are typically recommended to be put in a reserve status
- Accumulation of high mileage
- Updated technology with integration with tap out system

Fire Department's Replacement Vehicles In The Next 10 Years:

- New Engines (4) \$3.1 Million
- Ladder Truck (1) \$1.1 Million
- Rescue Tools (4) \$168,000
- Brush Rigs (2) \$315,000

Camas-Washougal Fire Department | Capital Improvement Plan

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Q&A

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Land Use Planning - Transportation Planning - Landscape Architecture
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Back Cover



Staff Report – Public Hearing

November 21, 2022 City Council – Regular Meeting

Public Hearing – Resolution No. 22-016 Fire Impact Fee Schedule Update

Presenter: Cliff Free, Fire Chief Time Estimate: 5 minutes

Phone	Phone Email	
360.817.1554	cfree@cityofcamas.us	

BACKGROUND: As part of the requirements for the Growth Management Act (GMA), the City of Camas is required to update the Fire Capital Facilities Plan. This was completed by Mackenzie in early 2022. Fire Impact Fees are also required to be revisited and updated. The FCS Group was contracted to evaluate the current fee structure and provide recommendations for updating the Fire Impact Fee schedule to best serve the Fire Capital Facilities Plan. FCS presented the Fire Impact Fee Assessment to Council on April 4, 2022. In Council Workshop on Nov. 7, 2022, FCS presented the Fire Impact Fee Assessment, including staff recommendations, for Fire Impact Fee Update policy decisions. Following robust discussion and decision on the Fire Impact Fee Schedule Update, Council directed the City Attorney to craft an ordinance for adoption following a public hearing on Nov. 21, 2022.

SUMMARY: A public hearing will be held for the Fire Impact Fee Schedule (FIF) Update on Nov. 21, 2022. The public hearing will be followed by Council's consideration of the adoptive Fire Impact Fee schedule update resolution.

BUDGET IMPACT: Fire Impact Fees are an additional revenue source to offset capital replacement and improvement costs of the Fire Department.

RECOMMENDATION: Staff recommends Council hold a public hearing, take public testimony, and adopt Resolution No. 22-016.

RESOLUTION NO. 22-016

A RESOLUTION approving the Fire Impact Fees (FIF) Update dated October 25th, 2022, and adopting from the FIF Update the FIF eligible projects, the calculation of the fire impact fees, and the indexed fire impact fee rates.

WHEREAS, the Council of the City of Camas commissioned FCS Group to prepare an update to the Camas fire impact fees; and

WHEREAS, FCS Group has submitted to the Council a report entitled "City of Camas and City of Washougal Fire Impact Fee Study" as the Fire Impact Fee Update for the City of Camas; and

WHEREAS, the City Council has considered the update and the recommendations set forth therein;

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF CAMAS AS FOLLOWS:

Section I

The Council hereby approves and accepts the Fire Impact Fee Update, as prepared by FCS Group.

Section II

The Council hereby adopts, for the purpose of establishing FIF eligible projects, the Capital Facilities Plan adopted prior on November 21, 2022.

Section III

Pursuant to Chapter 3.88 of the Camas Municipal Code, the formula for calculating fire impact fees as set forth in Camas Municipal Code Section 3.88.090 is hereby set at the sum of \$0.68/sq. ft. per Single Family Residence; \$0.37/sq. ft. per Multi-Family Residence; and \$0.88

sq. ft. per All Other Occupancies.

Section IV

The Council has determined that the fire impact fee should be indexed to address inflation. The Council hereby adopts the Engineering News Record Construction Cost Index for the City of Seattle for the purposes thereof. Effective January 1, 2024, and annually thereafter, the fire impact fee shall be adjusted pursuant to the adopted cost index as set forth therein.

Section V

This Resolution shall have full force and effect as of January 1, 2023.

ADOPTED at a regular meeting of the Council of the City of Camas this 21st day of November, 2022.

	SIGNED:	Mayor	
APPROVED as to form:	ATTEST:	Clerk	
City Attorney			



City of Camas & City of Washougal Fire Impact Fee Study

Item 17.

Presentations to cities of Camas and Washougal October 25, 2022

Todd Chase, Principal Martin Chaw, Project Manager









CURRENT FEE STRUCTURE



RESULTS



What is a Fire Impact Fee?

An Impact Fee:

- Imposed upon development as a condition of development approval
- Pays for fire facilities needed to serve new growth and development, and that are reasonably related to the new development that creates additional demand and need for public facilities
- Represents a proportionate share of the cost of the public facilities

FCS GROUP



RCW 82.02.050(3)

- System improvements must be reasonably related to the new development
- Impact fees cannot exceed a proportionate share of system improvement costs
- System improvements must reasonably benefit the new development

427



Fire Impact Fee =

Numerator represents total fire capital costs of serving the customer growth.

allocable capital cost applicable customer base

Denominator represents total customer base growth that will be served by the capital projects in the numerator.

FCS GROUP SI 4

Current Fee Structure

	Land Use	Camas	Washougal
Adopted	Single-Family Residential	\$0.20 per sqft	\$502.00 per DU
·	Non-SFR	\$0.40 per sqft	\$0.31 per sqft
Indexed to 2022	Single-Family Residential	\$0.32 per sqft	\$760.57 per DU
	Non-SFR	\$0.65 per sqft	\$0.50 per sqft

Fee not standardized between cities of Camas and Washougal

Mostly per square feet of development

Doesn't differentiate between non-SFR land use types

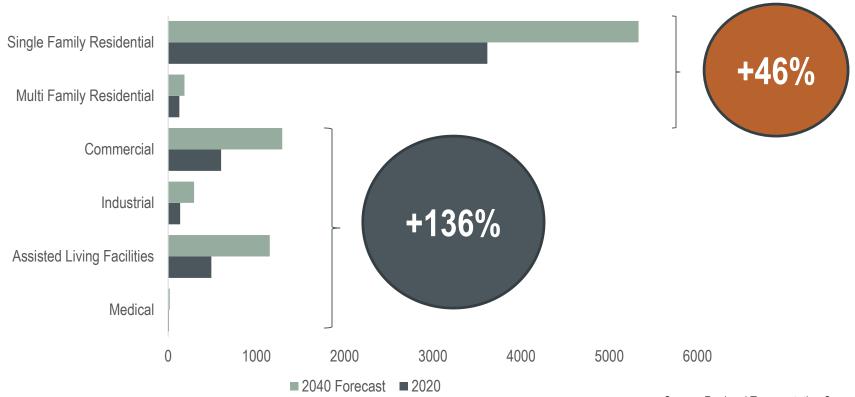
Multifamily classified as non-SFR

FCS GROUP SI 42



Incident Growth Next 20 Years





Source: Regional Transportation Commission.



Allocable Capital Cost

Total Capital Needs \$35.1M



Gross Capital Needs Allocable to Service Future Growth \$22.7M

What is included:

Repl Washougal Satellite Station #43 (2023): \$8.2M

Camas HQ/Fire Station #41 (2025): \$12.9M

New NW Camas Satellite Station: (2029) \$9.2M

New Engines (4): \$3.1M Ladder Truck (1): \$1.1M Rescue Tools (4): \$168,000 Brush Rigs (2): \$315,000

Total: \$35.1M

What is included:

Repl Washougal Satellite Station #43 (2023): \$3.5M*

HQ/Fire Station #41 (2025): \$5.5M*

New Camas Satellite Station: (2029) \$9.2M

New Engines (4): \$3.1M Ladder Truck (1): \$1.1M Rescue Tools (4): \$72,000*

Brush Rigs (2): \$134,000*

Total: \$22.7M

SFR share: \$11.8M**

Non-SFR share: \$10.9M**

*adjusted for increase in incidents attributable to future growth

\$18.2M

\$4.4M

^{**}based on number of incidents



Allocable Capital Cost

Gross Capital Needs \$22.7M

Capital Needs Allocable to Service Sprinkler Factor* **Future Growth** \$20.3M

> SFR Portion \$9.4M*

Non-SFR Portion \$10.9M

*Original allocation of \$11.8M to SFR based on # of incidents; Adjusted by 20% for indoor fire sprinklers

Adjusted Capital Needs allocable to growth: \$20.3M

FCS GROUP



Costs by Customer Type

SFR Portion \$9.4M

Non-SFR Portion \$10.9M

Adjusted Capital Needs allocable to growth: \$20.3M

Costs are proportionately allocated based on forecasted number of incidents and facility growth (sq.ft.)

SFR: \$9.4M

MFR: \$0.4M

Comm: \$4.8M

Indust: \$1.1M

Asst.Living: \$4.6M

Medical: \$0.1M

Impact Fee Scenarios

- 1. Baseline. Assumes impact fee funding for stations and apparatus
 - A. Unified fee approach
 - B. Separate City fee approach
- 2. Apparatus only. Assumes new fire stations funded with municipal bonds;
 Impact fee funding for apparatus only
 - A. Unified fee approach
 - B. Separate City fee approach

Staff Recommendation = 1A: Unified Fee Approach

FCS GROUP Slid 434

Impact Fee Design

Customer Type	Grouping 1	Grouping 2	Grouping 3	Grouping 4
SFR	SFR	SFR	SFR	SFR
MFR	MFR	MFR	MFR	MFR
Comm				
Indust	Indust			Indust
Asst Living			Asst Living	Asst Living
Medical				
	All Other	All Other	All Other	All Other

Fee Design Options: 1 to 4 non-residential customer type alternatives

Grouping #2 is closest to current practice

FCS GROUP Slid 43

Fee Scenarios 1A and 2A (Unified Fee)

Class	Base	eline	Group	oing 1	Grou	ping 2	Grou	ping 3	Grou	ping 4
SFR	\$0.68	\$0.13	\$0.68	\$0.13	\$0.68	\$0.13	\$0.68	\$0.13	\$0.68	\$0.13
MFR	\$0.37	\$0.07	\$0.37	\$0.07	\$0.37	\$0.07	\$0.37	\$0.07	\$0.37	\$0.07
Comm	\$2.19	\$0.43	Incl in al	l other	Incl in a	ll other	Incl in al	lother	Incl in al	lother
Indust	\$0.15	\$0.03	\$0.15	\$0.03	Incl in a	ll other	Incl in a	lother	\$0.15	\$0.03
Asst Living	\$41.74	\$8.10	Incl in al	l other	Incl in a	ll other	\$41.74	\$8.10	\$41.74	\$8.10
Medical	\$0.81	\$0.16	Incl in al	l other	Incl in a	ll other	Incl in a	lother	Incl in al	lother
All Other	n/a	n/a	\$2.00	\$0.39	\$0.88	\$0.17	\$0.50	\$0.10	\$1.05	\$0.20
Overall Average	\$0.76	\$0.15	\$0.76	\$0.15	\$0.76	\$0.15	\$0.76	\$0.15	\$0.76	\$0.15

Rates in blue indicate Apparatus only new stations funded with bonds

Rates presented are charges per square foot MFR – 2+ units per structure

Fee Design Options

Grouping #2 is closest to current practice Staff recommendation

FCS GROUP



- Scenario 1A: Unified Fee Approach
- Grouping 2
 - □ SFR = \$0.68
 - MFR = \$0.37
 - ☐ All Other = \$0.88
- Phase-in Options to Consider
 - Indexed rates immediately
 - 50% toward Grouping 2 rates 2024
 - 100% Grouping 2 rates 2025
 - Inflationary index automatic 2026+

OR

- Indexed rates immediately
- 100% Grouping 2 rates 2024
- Inflationary index automatic 2025+

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Effect of Proposed Increases

Use	Current Camas	Current Washougal	Indexed (ave of Camas +Washougal	50% toward Grouping 2	100% Grouping 2
SFR	\$0.20	\$0.20 (2,530 sqft)	\$0.31	\$0.50	\$0.68
MFR	\$0.40	\$0.31	NA	NA	\$0.37
COM	\$0.40	\$0.31	\$0.58	\$0.73	\$0.88
IND	\$0.40	\$0.31	\$0.58	\$0.73	\$0.88
Asst Liv	\$0.40	\$0.31	\$0.58	\$0.73	\$0.88
Med	\$0.40	\$0.31	\$0.58	\$0.73	\$0.88
All Other	\$0.40	\$0.31	\$0.58	\$0.73	\$0.88

Slic 438



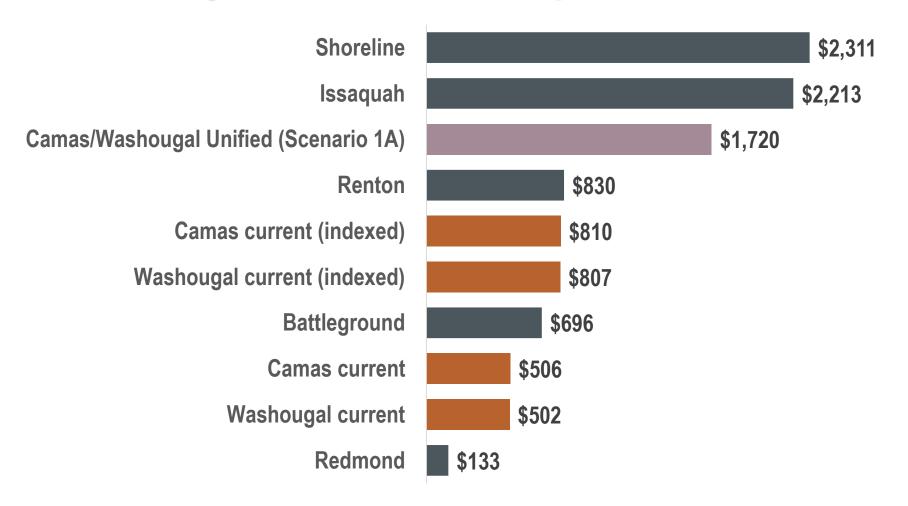
Fee Examples – Staff Recommendation

Sample Building Use	Existing Camas	Existing Washougal	Proposed
2,530 sqft home	\$506	\$502	\$1,720
20,000 sqft office	\$8,000	\$6,200	\$17,600
50,000 sqft industrial	\$20,000	\$15,500	\$44,000
3-story mixed-use 20,000 sqft multi-family 10,000 sqft retail	\$12,000	\$9,300	\$16,200



Interjurisdictional Comparison

Interjurisdictional Comparison SFR



Calculated fee based on ~2,530sft



Next Steps



- Questions?
- Steps to implement (each City) After Planning Commission worksessions and public hearings, resulting in formal Planning Commission recommendations to City Council:
 - Step 1: City Council adopt updated Fire CIP
 - Step 2: City Council adopt supporting impact fee

Should be done in the above sequence

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Thank you!

Todd Chase, Principal (503) 374-0676

Martin Chaw, Project Manager (425) 274-2853

www.fcsgroup.com





Staff Report

November 21, 2022 Council Meeting

Resolution No 22-014 Revising the City of Camas fee schedule for 2023

Presenter: Cathy Huber Nickerson, Finance Director

Time Estimate: 5 minutes

Phone	Email
360.817.1537	chuber@cityofcamas.us

SUMMARY: Resolution No. 22-014 revises the City of Camas fee schedule with indexed fees to CPI, adjustments to fees for costs recovery, and three additional fees as presented to City Council at the September 19, 2022 City Council Workshop. Most of the fees in 2022 did not change with the 5% inflation increase due to impact of the pandemic on the community. Staff is proposing an increase of 8.3% and rounding to the nearest dollar to bring the fee schedule in line with current cost recovery. The resolution has a few fee additions, some changes and several fees discontinued or no longer needed.

EQUITY CONSIDERATIONS:

What are the desired results and outcomes for this agenda item? Council approves Resolution 22-014 updating the City's fee schedule.

What's the data? What does the data tell us? N/A

How have communities been engaged? Are there opportunities to expand engagement? The fee schedule did not change for the most part.

Who will benefit from, or be burdened by this agenda item? Some users of City services may be impacted by this agenda item.

What are the strategies to mitigate any unintended consequences? N/A

Does this agenda item have a differential impact on underserved populations, people living with disabilities, and/or communities of color? Please provide available data to illustrate this impact. N/A.

Will this agenda item improve ADA accessibilities for people with disabilities? N/A

What potential hurdles exists in implementing this proposal (include both operational and political)? N/A

How will you ensure accountabilities, communicate, and evaluate results? N/A

How does this item support a comprehensive plan goal, policy, or other adopted resolution? This item contributes to ensuring sufficient revenue to meet the City's desired level of service.

RECOMMENDATION: Staff recommends County move to approve Resolution 22-014 revising he City of Camas fee schedule for 2023.

RESOLUTION NO. 22-014

A RESOLUTION revising the City of Camas fee schedule for 2023.

WHEREAS, the City of Camas has established a Fee Schedule pursuant to its authority to establish fees and charges for services provided by the City; and

WHEREAS, it is prudent business to review fees and charges imposed by the City; and WHEREAS, it is necessary to establish such fees at rates that reasonably assure recovery of the full direct and indirect costs of the time and materials expended to provide the service for which the fee is charged; and

WHEREAS, it should be understood that these fees and charges are an important part of the resources for the operation of the City and in many cases do not cover the costs involved; and

WHEREAS, the fee schedule and administrative provisions set forth in this resolution are supported by the analysis performed by the City and adjusted by inflation; and

WHEREAS, it is desirable to improve the City's ability to communicate its fees and charges to its citizens and customers through the preparation of a consolidated fee schedule.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF CAMAS AS FOLLOWS:

I

The fees and charges on the attached Exhibit "A" are adopted and made part of the City of Camas Fee Schedule effective January 1, 2023.

Resolution No. 22-014

II

On January 1 of each year, the fees set forth in this Resolution may increase (if allowed by law) by the rate of increase, if any, of the Consumer Price Index for All Urban Consumers (CPI-U) Western Region, All Items, July to July Index, published by the Bureau of Labor Statistics in the year prior. Fees will be rounded to the nearest whole dollar.

Ш

ADOPTED by the Council of the City of Camas and approved by the Mayor this 21st day of November, 2022.

	SIGNED:		
		Mayor	
	ATTEST:		
		Clerk	
APPROVED as to form:			
City Attorney			

Fee Description	Notes		2023 Fee
ADMINISTRATIVE FEES			
Public Records			
Photocopies of Public Records, printed copies of electronic when requested by	per page	\$	0.15
the person requesting records, or for use of agency equipment to photocopy			
records .			
Public Records scanned into an electronic format or for use of agency	per page	\$	0.10
equipment to scan records			
Each four electronic files or attachments uploaded to email, cloud-based data	per 4 electronic files	\$	0.05
storage service or other electronic means			
Transmission of Public Records in an electronic format or for the use of agency	per gigabyte	\$	0.10
equipment to send the records electronically			
Maps Printed		\$	9.00
Non-Sufficient Funds / Returned Payments Processed		\$	34.00
Photos	Actual Cost		
Digital storage media/device, mail container, postage/delivery charge	Actual Cost	ŧ	
Customized technology expertise to prepare data or provide customized	Actual Cost	 	
electronic access			
COMMUNITY DEVELOPMENT, BUILDING, ENGINEERING & PLANNING FEES	的是一种企业的企业,但是一种企业的企业的企业的企业,但是一种企业企业的企业企业。		
System Development Charges			
Water			
Accessory Dwelling Unit	No Additional Charge		
Residential/Commercial 3/4" water meter		\$	8,975.00
Residential/Commercial 1" water meter		\$	14,958.00
Residential/Commercial 1.5" water meter		\$	29,914.00
Residential/Commercial 2" water meter		\$	47,818.00
Residential/Commercial 3" water meter		\$	95,725.00
Residential/Commercial 4" water meter		\$	149,571.00
Residential/Commercial 6" water meter		\$	299,141.00
Residential/Commercial 8" water meter		\$	478,626.00
Industrial/Other	calculated by mandatory engineering study		
Sewer City-Wide Charge			
Residential		\$	7,120.00
Commercial - 3/4" water meter		\$	7,120.00
Commercial - 1" water meter		\$	11,866.00
Commercial - 1.5" water meter		\$	23,732.00
Commercial - 2" water meter		\$	37,971.00
Commercial - 3" water meter		\$	71,195.00
Commercial - 4" water meter		\$	118,659.00
Industrial and Non-Typical	calculated by PW Director		
Impact Fees			THE NAME OF STREET
Park/Open Space			
Single Family (detached)		\$	5,801.00
Apartment/Duplex/Townhome		\$	5,801.00
Accessory dwelling unit (internal)		_	
Accessory dwelling unit (external)			
Commercial	calculated by PW Director		
Transportation - Non-North Urban Growth Boundary		4	
Single Family (detached)		\$	3,800.00
Apartment	per dwelling unit	\$	2,188.00
Duplex/Townhome	per dwelling unit	\$	2,341.00

Fee Description	Notes	2	2023 Fee
Accessory duralling unit (internal)		\$	950.00
Accessory dwelling unit (internal)		Ś	
Accessory dwelling unit (external)		13	130.00
Commercial	calculated by PW Director		
Transportation - North Urban Growth Boundary		TA	0.000.00
Single Family (detached)		\$	9,983.00
Apartment	per dwelling unit	\$	5,748.00
Duplex/Townhome	per dwelling unit	\$	6,151.00
Accessory dwelling unit (internal)		\$	2,496.00
Accessory dwelling unit (external)		\$	3,494.00
Commercial	calculated by PW Director		
Fire			
Single Family (detached)	per square foot	\$	0.68
Multifamily	per square foot	\$	0.37
Accessory dwelling unit (internal)			
Accessory dwelling unit (external)	per square foot	Ś	0.68
All Other	per square foot	Ś	0.88
School - Camas School District	The addition to the control of the c	1 7	0.00
School Impact Fee - Single Family		S	6,650.00
School Impact Fee - Multi-Family		Ś	6,650.00
	25% of single family gate	7	0,030.00
School Impact Fee - Accessory dwelling units (internal)	25% of single family rate	+	VV
School Impact Fee - Accessory dwelling units (external)	35% of single family rate		
School - Evergreen School District		TA	
School Impact Fee - Single Family		\$	6,432.62
School Impact Fee - Multi-Family		\$	3,753.39
School Impact Fee - Accessory dwelling units (internal)	25% of single family rate		
School Impact Fee - Accessory dwelling units (external)	35% of single family rate		
School - Washougal School District			
School Impact Fee - Single Family		\$	5,600.00
School Impact Fee - Multi-Family		\$	5,800.00
School Impact Fee - Accessory dwelling units (internal)	25% of single family rate		
School Impact Fee - Accessory dwelling units (external)	35% of single family rate		
Building Permit Fees Total Valuation			
\$1.00 to \$500.00		Ś	31.00
\$501.00 to \$2,000.00	\$28 for the first \$500.00 plus \$4 for each additional \$100.00, or fraction thereof, to and including	1	52.55
7301.00 to 72,000.00	\$2,000.00.		
\$2,001.00 to \$25,000.00	\$88 for the first \$2,000.00 plus \$17 for each additional \$1,000.00, or fraction thereof, to and	+	
\$2,001.00 to \$23,000.00			
625 004 00 to 650 000 00	including \$25,000.	+	
\$25,001.00 to \$50,000.00	\$479 for the first \$25,000.00 plus \$12 for each additional \$1,000.00, or fraction thereof, to and	1	
A	including \$50,000.00	+	
\$50,001.00 to \$100,000.00	\$779 for the first \$50,000.00 plus \$9 for each additional \$1,000.00, or fraction thereof, to and		
	including \$100,000.00	+	
\$100,001.00 to \$500,000.00	\$1,229 for the first \$100,000.00 plus \$7 for each additional \$1,000.00, or fraction thereof, to and	1	
	including \$500,000.00.		
\$500,001.00 to \$1,000,000.00	\$4,029 for the first \$500,000.00 plus \$6 for each additional \$1,000.00, or fraction thereof, to and		
	including \$1,000,000.00.		
\$1,000,001.00 and up	\$7,029 for the first \$1,000,000.00 plus \$5 for each additional \$1,000.00, or fraction thereof.		
Washington State Surcharge Pass-Through Fee	Per RCW 19.27.85		
Inspections & Fees			
Building Plan Review Fee	65% of the Building Permit Fee		
Inspections During Non-Business Hours (minimum charge 2 hours)	per hour	\$	90.00
Re-inspection Fees	per hour	Ś	90.00

Fee Description	Notes	20	023 Fee
		STATE STATE	
Inspections for which No Fee is Specifically Indicated (minimum charge - one	per hour	\$	90.00
half hour)		- -	00.00
Additional Plan Review for Changes, Additions or Revisions to Plans (minimum	per hour	\$	90.00
charge - one half hour			
Use of Outside Consultants for Plan Checking and Inspections, or both	Actual Costs (include administrative and overhead costs)		44.00
Reissue of Lost Permit		\$	44.00
Reissue of Lost or Damaged Approved Construction Plans & Documents	1	\$	90.00
Impact Fee Deferral	\$521 plus pass through lien filing/release fee per dwelling		
Latecomer Pass-Through Fee		\$	62.00
Building Valuation Table		THE PARK THE	
Building Valuation Table - August prior year	100% of ICC Building Safety Journal Building Valuation Data		
Grading Plan Review Fees			
Additional Plan Review required by Changes, Additions or Revisions to	per hour	\$	90.00
Approved Plans (minimum charge - one half hour)			
Other Grading Plan Fees			
Inspections Outside of Normal Business Hours (minimum charge - 2 hours)	per hour	\$	90.00
Reinspection Fees, per Inspection	per hour	\$	90.00
Inspections for which no fee is specifically indicated (minimum charge -one half	per hour	\$	90.00
hour)			
	e difference between the fee paid for the original permit and the fee shown for the entire project.		
Mechanical Permit Fees			
Mechanical Permit		\$	45.00
Mechanical Plan Review	65% of the Mechanical Permit Fee		
Unit Fee Schedule - Does not include permit issuance fee			
For the installation or relocation of each forced-air or gravity-type furnace or		\$	31.00
burner, including ducts and vents attached to such appliance, up to and		- 1	
including 100.000 Btu/h (29.3kW)			
For the installation or relocation of each forced-air or gravity-type furnace or		\$	37.00
burner, including ducts and vents attached to such appliance, over 100,000		- 1	
Btu/h (29.3kW)			
For the installation or relocation of each floor furnace, including vent		\$	31.00
For the installation or relocation of each suspended heater, recessed wall		\$	31.00
heater or floor-mounted heater			
Appliance Vents			6
For the installation, relocation or replacement of each appliance vent installed		\$	15.00
and not included in an appliance permit			
Repairs or Additions		The Property	
Repair or alteration or addition to heating appliance, refrigeration unit, cooking		\$	26.00
unit, absorption unit or heating, cooling, absorption or evaporative cooling			
system including installation of controls regulated by Mechanical Code			
Boilers, Compressor and Absorption Systems			
For the installation or relocation of each boiler or compressor to and including 3	3	\$	31.00
horsepower (10.6 kW), or each absorption system to and including 100,000			
Btu/h (29.3kW)			
For the installation or relocation of each boiler or compressor over 3		\$	56.00
horsepower (10.6 kW), to and including 15 horsepower (52.7 kW) or each		1	
absorption system over 100,000 Btu/h (29.3 kW) to and including 500,000			
Btu/h (146.6 kW)			

Fee Description	Notes	20	23 Fee
For the installation or relocation of each boiler or compressor over 15		\$	75.00
horsepower (52.7 kW), to or including 30 horsepower (105.5 kW), or each			
absorption system over 500,000 Btu/h (146.6 kW) to and including 1,000,000			
Btu/h (293.1 kW)			
For the installation or relocation of each boiler or compressor over 30		\$	106.00
horsepower (105.5 kW), to or including 50 horsepower (176 kW), or each			
absorption system over 1,000,000 Btu/h (293.1 kW) to and including 1,750,000			
Btu/h (512.9 kW)			
For the installation or relocation of each boiler or compressor over 50		\$	175.00
horsepower (176 kW), or each absorption system over 1,750,000 Btu/h (512.9			
kW)			
Air Handlers		A PORTO	
For each air-handling unit to and including 10,000 cubic feet per minute (cfm)		\$	22.00
(4719 L/s), including ducts attached thereto Note: This fee does not apply to			
an air-handling unit which is a portion of a factory-assembled appliance, cooling		1	
unit, evaporative cooler or absorption unit for which a permit is required		1	
elsewhere in the Mechanical Code		1	
eisewhere in the Mechanical Code			
For each air-handling unit to and including 10,000 cubic feet per minute (cfm)		\$	38.00
(4719L/s)		Ť	30.00
Evaporative Coolers		1000	STATE OF THE PARTY
For each evaporative cooler, other than a portable type		Ś	21.00
Ventilation & Exhaust		X	21.00
For each ventilation fan connected to a single duct		s	15.00
For each ventilation system which is not a portion of any heating or air-		\$	22.00
conditioning system authorized by a permit		1	22.00
For the installation of each hood which is served by a mechanical exhaust,		Ś	22.00
including ducts for such hood		7	22.00
Incinerators		DE RESERVE	(0.00) (0.00)
For the installation or relocation of each domestic-type incinerator		s	38.00
For the installation or relocation of each commercial or industrial-type		\$	27.00
incinerator		٦	27.00
Miscellaneous		Salati Kar	
For each appliance or piece of equipment regulated by the Mechanical Code		\$	20.00
		٦	20.00
but not classed in other appliance categories, or for which no other fee is listed		l	
in the table Gas Piping System		All the State of	
For each gas piping system of one to four outlets		\$	10.00
For each gas piping system of one to four outlets For each gas piping exceeding four, each		\$	3.00
		Ś	
For each hazardous process piping system (HPP) of one to four outlets For each hazardous process piping of five or more outlets, per outlet		\$	10.00
			3.00
For each non-hazardous process piping system (NPP) of one to four outlets		\$	5.00
For each non-hazardous piping system of five or more outlets, per outlet		\$	3.00
Plumbing Permit Fees		6	45.00
For issuance of each permit Plumbing Plan Review	CERC of the Diversing Descrit Fee	\$	45.00
	65% of the Plumbing Permit Fee	STOCKE BEE	Maria Maria
Unit Fee Schedule (in addition to 2 items above)		Ċ.	45.00
For each plumbing fixture on one trap or a set of fixtures on one trap (including		\$	15.00
water, drainage piping and backflow protection thereof)		4	
For each building sewer and each trailer park sewer		\$	31.00
Rainwater systems - per drain (inside building)		\$	15.00
For each water heater and/or vent		\$	15.00

Fee Description	Notes		2023 Fee
			10.00
For each gas-piping system of one to five outlets		\$	10.00
For each additional gas-piping systems outlet, each outlet		\$	3.00
For each industrial waste pretreatment interceptor including its trap and vent,		\$	15.00
except kitchen-type grease interceptors functioning as fixture traps			
For each installation, alteration or repair of water piping and/or water treating		\$	15.00
equipment, each		Ś	15.00
For each repair or alteration of drainage or vent piping, each fixture		\$	15.00
For each lawn sprinkler system on any one meter including backflow protection		3	15.00
devices thereof		+-	
For atmospheric-type vacuum breaker not included in item above:		+	10.00
one to five		\$	10.00
over five, each		\$	3.00
For each backflow protective device other than atmospheric type vacuum			
breakers:		+-	
two inch (51 mm) diameter and smaller		\$	15.00
over two inch (51 mm) diameter		\$	31.00
For each graywater system		\$	75.00
For each annual cross-connection testing of a reclaimed water system	per hour	\$	90.00
(excluding initial test)		+	
For each medical gas piping system serving one to five inlet(s)/outlet(s) for a		\$	93.00
specific gas			
For each additional medical gas inlet(s)/outlet(s)		\$	10.00
Other Inspections & Fees			
Inspections outside of normal business hours (minimum charge - two hours)	per hour	\$	90.00
Reinspection fees, per inspection		\$	90.00
Inspections for which no fee is specifically indicated (minimum charge - one half	per hour	\$	90.00
hour)			
Additional plan review required by changes, additions, or revisions to approved	per hour	\$	90.00
plans (minimum charge - one half hour)			
*Per hour for each hour worked, minimum charge: one hour			
Demolition Permit		\$	30.00
Encroachment Permit	first \$1,500 construction value	S	38.00
Encroachment Permit	over \$1,500 construction value \$30.00 plus 2.5% of construction value		
Encroachment Permit extension		Ś	32.00
Residential Re-Roofing		\$	155.00
Residential Siding		Ś	155.00
Commercial Re-Reroofing		Ś	342.00
Commercial Siding		Ś	342.00
Administrative Fee - Residential Permits		\$	62.00
Addressing - Changes (minimum charge - one hour)	per hour	Ś	90.00
Planning Fees		10000	
Annexation - 10% petition		Ś	944.00
Annexation - 60% petition		\$	4,013.00
Appeal Fee		Ś	436.00
Archaeological Review		Ś	150.00
Binding Site Plan	plus \$24 per unit	Ś	2,055.00
Boundary Line Adjustment	Learning Table 1975	Ś	113.00
Comprehensive Plan Amendment		Ś	6,373.00
Conditional Use Permit - Residential	plus \$105 per unit	Ś	3,738.00
Conditional Use Permit - Non-Residential	Prop Pace Pace anne	Ś	4,734.00

Fee Description	Notes	2	2023 Fee
Continuance of Public Hearing		\$	573.00
Critical or Sensitive Areas	fee per type (wetlands, steep slopes/ potentially unstable soils, streams & watercourses, vegetation removal, wildlife habitat)	\$	848.00
Design Review - Minor	Terrioval, whathe habitaty	Ś	474.00
Design - Review -Committee		Ś	2,598.00
Development Agreement	first hearing	Ś	959.00
Development Agreement Continuance or Additional Hearing		S	590.00
Director's Intrepretation		\$	350.00
Engineering Construction Inspection Overtime	Actual Cost - calculation based on time worked and actual staff overtime rate		
Engineering Grading Plan Review & Construction Fee	3% of estimated construction costs		
Franchise Agreement Administrative Fee		\$	5,696.00
Gates/Barrier on Private Street Review Fee		\$	1,139.00
Home Occupation - Minor	Notification		
Home Occupation - Major		\$	75.00
LI/BP Development	plus \$41 per 1,000 sf of GFA	Ś	4,734.00
Lot Line Adjustment		Ś	112.00
Minor Modifications to Approved Development		Ś	378.00
Modification to Approved Construction Plans		Ś	459.00
Planned Residential Development	Per unit plus subdivision fee	\$	38.00
Plat, Preliminary - Short Plat	4 lots or less: per lot	Ś	2,118.00
Plat, Preliminary - Short Plat	5 lots or more: plus \$250 per lot	Ś	7,848.00
Plat, Preliminary Subdivision	plus \$250 per lot	Ś	7,848.00
Plat, Final - Short Plat	ples \$250 per loc	Ś	219.00
Plat, Final - Subdivision		\$	2,598.00
Plat Modification/Alteration		Ś	1,308.00
Pre-Application Conference for Type III or IV	General	Ś	387.00
Pre-Application Conference for Type III or IV	Subdivision	Ś	996.00
SEPA	Subdivision	Ś	886.00
Shoreline Permit		\$	1,308.00
Sign Permit - General Sign	exempt if building permit is required	Ś	45.00
Sign Permit - Master Sign Permit	exemper a dulum g permit is required	Ś	138.00
Site Plan Review - Residential	plus \$34 per lot	Ś	1,259.00
Site Plan Review - Non-Residential	plus \$68 per 1,000 sf of GFA	Ś	3,146.00
Site Plan Review - Mixed Use	plus \$34 per residential unit plus \$68 per 1,000 sf of GFA	Ś	4,435.00
Storm Water Review Fee - Single Family Residence	plus 754 per residential unit plus 706 per 1,000 si of Gra	è	228.00
Temporary Use Permit		Ś	88.00
Variance - Minor		Ś	760.00
Variance - Major		\$	1,417.00
Zone Change	single tract	Ś	3,659.00
Sexually Oriented Businesses	Single tract	Ş	3,039.00
Live Entertainment Application Fee		Ś	062.00
Live Entertainment Application Fee	Renewal Date 12/31	\$	962.00
Live Entertainment Eicense Fee	Renewal Date 12/51	\$	322.00 322.00
Live Entertainment Renewal Fee - 1/2 Year	After 6/30	Ś	168.00
Other Sexually Oriented Business Application Fee	MILCI U/30	-	
Other Sexually Oriented Business Application Fee Other Sexually Oriented Business License Fee	Renewal Date 12/31	\$	643.00
Other Sexually Oriented Business Eleense Fee Other Sexually Oriented Business Renewal Fee			322.00
	After 6 /20	\$	322.00
Other Sexually Oriented Business Renewal Fee - 1/2 Year	After 6/30	\$	169.00
Manager's License Application Fee	December 12/24	\$	135.00
Manager's License Fee	Renewal Date 12/31	\$	67.00
Manager's License Renewal Fee	After C /20	\$	67.00
Manager's License Renewal Fee - 1/2 Year	After 6/30	\$	38.00

Fee Description	Notes	20	23 Fee
Entertainer's License Application Fee		\$	135.00
Entertainer's License Fee	Renewal Date 12/31	Š	68.00
Entertainer's License Renewal Fee	Heriowal Bate 22/31	Ś	68.00
Entertainer's License Renewal Fee - 1/2 Year	After 6/30	\$	38.00
FINANCE FEES	The crops of the c	THE REAL PROPERTY.	
Ambulance			
ALS In-District		\$	874.00
ALS Out-of-District		Ś	1,395.00
BLS In-District		Ś	874.00
BLS Out-of-District		Ś	1,395.00
Extra Attendant		Ś	194.00
Late Fee		Ś	34.00
Mileage (in district)	per mile	Ś	22.00
Mileage (out of district)	per mile	Ś	24.00
Non-emergency transport		\$	655.00
Patient treated - no transport		Ś	231.00
Ambulance - annual license		Ś	67.00
Cemetery			07.00
Lots - Full Burial			
Adult - Flat Marker		\$	1,191.00
Adult - Upright Marker		Ś	2,491.00
Child under 5 years in Garden of Angels		Ś	325.00
Cremains			
Single Niche Garden of Faith		S	975.00
Single Niche Premium		\$	1,191.00
Single Niche Standard		Ś	975.00
Double Niche Premium		\$	1,836.00
Double Niche Standard		Ś	1,543.00
4 x 4 Foot Ground Lot		Ś	570.00
Liners			
Cremains Liner (Single Urn Vaults)		\$	249.00
Cremains Liner (Double Urn Vaults)		\$	417.00
Niche Wall (Single Bronze Urns)		Ś	179.00
Urn Vault Liner (Wooden Urns)		Š	292.00
Open & Close Fees			
Disinterment Charges	Includes Inspection / Staking fees and Deed Transfer Fees	l \$	542.00
Cremains - Added with a Full Burial Lot		\$	417.00
Cremains - 4 x 4 Lot		Ś	417.00
Cremains - Niche Wall	does not include engraving	Ś	379.00
Saturday Services - (in addition to)		\$	271.00
Sunday/Holiday Services - (in addition to)		\$	487.00
Locating, Marker & Staking Fees			
Staking & Inspection (cremains & grave lots)		\$	135.00
Marker Setting Fee		\$	135.00
Miscellaneous Additional Charges	TO MANIES UNDERSTOOM PROPERTY OF STREET, WHICH SEED TO SEE THE SECOND SE		
Remembrance Wall - Inscription	pass through from vendor and fee	\$	25.00
Engraving of Niche Wall	pass through from vendor and fee	\$	25.00
Deed Transfers/Replacement Deeds		\$	38.00
Maintenance Fund Lot		\$	217.00
Maintenance Fund Niche		\$	271.00
Second Rite of Burial	one full burial & two cremains/three cremains per lot	\$	379.00
Other License & Permits			

Fee Description	Notes Notes	STATE OF THE PARTY	2023 Fee
	建设设施,通过企业的企业的企业企业,企业企业企业企业企业企业企业企业企业企业企业企业企业企业企		
Dog License - life time		\$	38.00
Dog License - replacement		\$	7.00
Guard Dog		\$	67.00
Pawnbroker's/Second Hand Dealer - 2 yr. license		\$	135.00
Solicitor's License application/back ground check		\$	56.00
Solicitor's License New or Renewal		\$	38.00
Special Event Permit		\$	50.00
Taxicab - annual license	issued after 7/1 - half of fee	\$	50.00
Taxicab per vehicle		\$	15.00
Taxi Driver's license		\$	8.00
Taxi Driver's License Renewal		\$	8.00
Vehicle Restoration Permit		\$	30.00
Utilities			
Lien Filing Fee	pass through fees from Clark County and fee	\$	25.00
New Utility Account Set-Up Fee		\$	28.00
Title Check Fee	plus pass through fee from vendor	\$	16.00
Utility Late Fee	5% of past due balance minimum \$15	\$	16.00
Utility Service Call Fee	first call free, additional each	\$	28.00
Water - Sewer		RESTRUCTION CONTRA	
Portable Hydrant Meter Rental - Deposit	Refundable - damage dependent	\$	1,333.00
Portable Hydrant Meter Rental - Placement Fee		\$	113.00
STEP/STEF Inspection		Ś	192.00
STEP/STEF Reinspection	per inspection	Ś	87.00
Temporary Water Service	to be determined based on meter size and use as approved by PW Director		
Water Meter Installation - 3/4" Meter		\$	435.00
Water Meter Installation - 1" Meter		Ś	485.00
Water Meter Installation - 1.5" Meter		Ś	1,074.00
Water Meter Installation - 1.5" Turbine Meter		Ś	1,074.00
Water Meter Installation - 2" Meter		Ś	2,075.00
2" Service with 1.5" Meter	in addition to 1.5" Water Meter Installation fee	Š	550.00
Water Service Connection by City (requires written approval)	time and materials as determined by PW Director		555.55
Water Meter Installation Reinspection		Ś	87.00
Water Disconnection at Owner's Request		Ś	39.00
Water Disconnection for Non-Payment		Ś	50.00
Water Reconnection After Hours		Ś	100.00
Padlocking Water Meter		Š	50.00
Removal of Water Meter		Ś	50.00
Wrongfully or Illegally Reconnection		Ś	275.00
Water Meter Testing	deposit to be returned if meter found not to be operating within range	Š	243.00
Sewer Service Installation by City (requires written approval)	time and materials as determined by PW Director		213.00
Solid Waste	tarre and materials as determined by FW Breeco		A PROPERTY.
Change Can Size		Ś	12.00
Return Trip For Missed Service		Š	7.00
Overfilling Can		Š	4.00
Extra Bag		\$	4.00
Extra Can 35 gallon		\$	8.00
Extra Can 65 gallon		\$	16.00
Extra Can 95 gallon		\$	25.00
Bi-weekly service on off-week		\$	8.00
		Ś	22.00
Unscheduled Pick Un Charge (Day other than normal consico day)			
Unscheduled Pick Up Charge (Day other than normal service day) Extra Yard (not in rented containor)		Ś	38.00

Fee Description	Notes	2023 Fee
OF college con		
35 gallon can		\$ 65.00
65 gallon can		\$ 85.00
Extra Items		T & 25.00
Barbeque		\$ 25.00
Bicycle Car Tire		\$ 13.00
		\$ 9.00
Car Tire w/Rim Chair/Recliner		\$ 13.00 \$ 25.00
Christmas Tree	no taller than five feet	Ψ 25.00
Table	no tailer than rive feet	\$ 13.00 \$ 27.00
Toilet		
Truck Tire		
Truck Tire w/rim		\$ 28.00 \$ 41.00
	Does through from wonder	\$ 41.00
Recycling	Pass through from vendor	
FIRE DEPARTMENT (FMO)		
Development Review		400.00
Commercial Site Plans - Review Fee		\$230.00
Commercial Site Plans - Inspection Fee		\$230.00
Subdivision or PRD - Review Fee		\$192.00
Subdivision or PRD - Inspection Fee		\$192.00
Pre-Application Conference - Review Fee		\$154.00
Other Land Use Applications - Review Fee		\$154.00
Other Land Use Applications - Inspection Fee		\$154.00
Building Construction/Change of Use or Occupancy		
A, B, E, F, M, R Occupancies 0-1,000 sqft Review Fee		\$117.00
A, B, E, F, M, R Occupancies 0-1,000 sq. ft Inspection Fee		\$117.00
A, B, E, F, M, R Occupancies 1,001-5,000 sq. ft Review Fee		\$154.00
A, B, E, F, M, R Occupancies 1,001-5,000 sqft Inspection Fee		\$117.00
A, B, E, F, M, R Occupancies 5,001-10,000 sq. ft Review Fee		\$192.00
A, B, E, F, M, R Occupancies 5,001-10,000 sq. ft Inspection Fee		\$154.00
A, B, E, F, M, R Occupancies 10,001-20,000 sq. ft Review Fee		\$237.00
A, B, E, F, M, R Occupancies 10,001-20,000 sq. ft Inspection Fee		\$192.00
A, B, E, F, M, R Occupancies 20,001-40,000 sq. ft Review Fee		\$283.00
A, B, E, F, M, R Occupancies 20,001-40,000 sq. ft Inspection Fee		\$229.00
Each Additional 20,000 sq. ft Review Fee		\$47.00
Each Additional 20,000 sq. ft Inspection Fee		\$38.00
Portable Classroom - Review Fee		\$173.00
Portable Classroom - Inspection Fee		\$173.00
H1 Occupancy - Review Fee		\$457.00
H1 Occupancy - Inspection Fee		\$457.00
H2 Occupancy - Review Fee		\$457.00
H2 Occupancy - Inspection Fee		\$457.00
H3 Occupancy - Review Fee		\$507.00
H3 Occupancy - Inspection Fee		\$507.00
H4 Occupancy - Review Fee		\$356.00
H4 Occupancy - Inspection Fee		\$345.00
H5 Occupancy - Review Fee		\$629.00
H5 Occupancy - Inspection Fee		\$629.00
I Occupancy - Review Fee		\$345.00
I Occupancy - Inspection Fee		\$230.00
S Occupancy - Review Fee		\$230.00
S Occupancy - Inspection Fee		\$230.00

Fee Description	Notes Plant Control of the Control o		2023 Fee
Fook additional 40 000 on ft. Paviau Foo			Ć447.00
Each additional 10,000 sq. ft Review Fee Each additional 10,000 sq. ft Inspection Fee			\$117.00
			\$117.00
Building or Structure for Special or Temporary Use - Review Fee			\$173.00
Building or Structure for Special or Temporary Use - Inspection Fee			\$173.00
Fire Alarm System			ć447.00
Fire Alarm - Minor Alteration - Review Fee		_	\$117.00
Fire Alarm - Minor Alteration - Inspection Fee		_	\$117.00
Fire Alarm - Zoned System 1 Zone - Review Fee		_	\$173.00
Fire Alarm - Zone System 1 Zone - Inspection Fee			\$173.00
Each Additional Zone - Review Fee			\$79.00
Each Additional Zone - Inspection Fee			\$79.00
Fire Alarm - Addressable System, 1 to 20 Devices - Review Fee			\$173.00
Fire Alarm - Addressable System, 1 to 20 Devices - Inspection Fee			\$173.00
Fire Alarm - Addressable System 21 or more Devices			
\$160 + \$3 per each Additional Device - Review Fee	calculated		
\$160 + \$3 per each Additional Device - Inspection Fee	calculated		
Fire Extinguishing System			
New System NFPA 13 - Single Riser - Review Fee		\$	345.00
New System NFPA 13 - Single Riser - Inspection Fee	includes five inspections	\$	345.00
Each Additional Inspection		\$	117.00
Each Additional Riser - Review Fee		\$	345.00
Each Additional Riser - Inspection Fee	includes five inspections	\$	345.00
Each Additional Inspection		\$	117.00
New System NFPA 13D (Single Family) - Inspection Fee		\$	117.00
Each Additional Inspection		\$	117.00
Alteration to Fire Sprinkler Systems - Review Fee		\$	117.00
Alteration to Fire Sprinkler Systems - Inspection Fee		\$	117.00
New System NFPA 13R (Per Building) - Review Fee		\$	230.00
New System NFPA 13R (Per Building) - Inspection Fee	includes four inspections	\$	230.00
Each Additional Inspection		Ś	117.00
Underground Fire Sprinkler Mains - Review Fee		Ś	173.00
Underground Fire Sprinkler Mains - Inspection Fee	includes five inspection	Ś	173.00
Each Additional Inspection		\$	117.00
Standpipe System/Wet or Dry - Review Fee		\$	117.00
Standpipe System/Wet or Dry - Inspection Fee		Ś	117.00
Commercial Cooking Extinguishing System/Protection - Review Fee		Ś	173.00
Commercial Cooking Extinguishing System/Protection - Inspection Fee		Ś	173.00
Other Extinguishing Systems - Review Fee		Ś	284.00
Other Extinguishing Systems -Inspection Fee		\$	284.00
Fire Pumps and Private or Dedicated Fire Hydrant Systems - Review Fee		Ś	284.00
Fire Pumps and Private or Dedicated Fire Hydrant Systems - Inspection Fee		Ś	284.00
Hazardous Operations		1 7	284.00
Smoke Removal Systems - Review Fee		5	284.00
Smoke Removal Systems - Inspection Fee		Ś	284.00
Application of Flammable Finishes - Review Fee		\$	
Application of Flammable Finishes - Review Fee Application of Flammable Finishes - Inspection Fee		\$	284.00
Commercial Drying Ovens - Review Fee		\$	284.00
			173.00
Commercial Drying Ovens - Inspection Fee		\$	173.00
Organic Coating Systems - Review Fee		\$	173.00
Organic Coating Systems - Inspection Fee		\$	173.00
Dip Tanks, Listed Spray Booths - Review Fee		\$	154.00
Dip Tanks, Listed Spray Booths - Inspection Fee	1	\$	117.00

Fee Description	Notes	2	.023 Fee
Unlisted Spray Booths - Review Fee		\$	230.00
Unlisted Spray Booths - Inspection Fee		\$	154.00
Semiconductor Fabrication HPM Tool Installation - Review Fee		Ś	284.00
Semiconductor Fabrication HPM Tool Installation - Inspection Fee		Ś	284.00
Other Hazardous Material Equipment & Systems - Review Fee		Ś	284.00
Other Hazardous Material Equipment & Systems - Inspection Fee		Ś	284.00
Compressed Gas System (greater than exempt amounts) - Review Fee		Ś	345.00
Compressed Gas System (greater than exempt amounts) - Inspection Fee		\$	345.00
Refrigeration Systems - Review Fee		\$	284.00
Refrigeration Systems - Inspection Fee		\$	154.00
LPG Tank Installation (greater than 125 gal.) - Review Fee		\$	173.00
LPG Tank Installation (greater than 125 gal.) - Inspection Fee		\$	173.00
Dispensing and use of LPG - Review Fee		Ś	192.00
Dispensing and use of LPG - Inspection Fee		Ś	154.00
Dispensing and use of Combustible/Flammable Liquids Above Ground Tanks -		\$	192.00
Review Fee			
Dispensing and use of Combustible/Flammable Liquids Above Ground Tanks -		\$	154.00
Inspection Fee		1	
Dispensing and use of Combustible/Flammable Liquids Underground Tanks -		Ś	457.00
Review Fee		*	
Dispensing and use of Combustible/Flammable Liquids Underground Tanks -		\$	457.00
Inspection Fee		1	
Aerosols - Review Fee		Ś	173.00
Aerosols - Inspection Fee		Ś	173.00
CO2 Monitoring Systems - Review Fee			
CO2 Monitoring Systems - Inspection Fee		Ś	117.00
Hazardous Materials		PH PAPER	THE STATE OF
Storage, Dispensing & Use of Hazardous Materials - Review Fee		\$	457.00
Storage, Dispensing & Use of Hazardous Materials - Inspection Fee		\$	457.00
HMIS - Review Fee		\$	230.00
HMIS - Inspection Fee		Ś	230.00
HMMP - Review Fee		\$	345.00
HMMP - Inspection Fee		Ś	345.00
Decommissioning Underground Storage Tank - Review Fee		Ś	173.00
Decommissioning Underground Storage Tank - Inspection Fee		Ś	117.00
Explosive Materials			and the same of
Explosive Storage & Use/Blast Permit - Review Fee		\$	457.00
Explosive Storage & Use/Blast Permit - Inspection Fee		Ś	230.00
Blast Permit Review Fee - if costs exceed standard fee	pass through from vendor		
Blast Permit Inspection Fee - if costs exceed standard fee	pass through from vendor		
Storage of black or smokeless powder, small arms ammunition, precession caps	The state of the s	\$	117.00
and primers for consumer consumption - Review Fee			
Storage of black or smokeless powder, small arms ammunition, precession caps		Ś	117.00
and primers for consumer consumption - Inspection Fee		,	
Manufacture, assembly, testing of ammunition, fireworks, blasting agents, and		\$	154.00
other explosives or explosive material - Review Fee		,	134.00
Manufacture, assembly, testing of ammunition, fireworks, blasting agents, and		\$	117.00
		~	117.00
other explosives or explosive material - Inspection Fee			
other explosives or explosive material - Inspection Fee Other storage, use, handling, or demolition of explosives or explosive material -		Ś	469.00

Fee Description	Notes	20	023 Fee
Other storage, use, handling, or demolition of explosives or explosive material -		\$	154.00
Inspection Fee		1	20
Magazines (Explosives) - Review Fee		Ś	230.00
Magazines (Explosives) - Inspection Fee		Ś	230.00
Fireworks Stand - Review Fee		Ś	54.00
Fireworks Stand - Inspection Fee		Ś	54.00
Fireworks Display - Review Fee		Ś	230.00
Fireworks Display - Inspection Fee		Ś	230.00
Pyrotechnic special effects - Review Fee		Ś	117.00
Pyrotechnic special effects - Inspection Fee		Ś	117.00
High-Piled Combustible Storage		17	117.00
Designated storage area 501 - 2,500 sq. ft Review Fee		S	154.00
Designated storage area 501 - 2,500 sq. ft Inspection Fee		Ś	117.00
Designated storage area 2,501 - 12,000 sq. ft Inspection Fee		Ś	192.00
Designated storage area 2,501 - 12,000 sq. ft Review Fee		Ś	154.00
Designated storage area 12,001 - 20,000 sq. ft Review Fee		Ś	230.00
Designated storage area 12,001 - 20,000 sq. ft Inspection Fee		\$	192.00
Designated storage area 20,001 - 30,000 sq. ft Review Fee		Ś	284.00
Designated storage area 20,001 - 30,000 sq. ft Inspection Fee		Ś	230.00
Each additional 30,000 sq. ft. or portion thereof - Review Fee		Ś	
Each additional 30,000 sq. ft. or portion thereof - Review Fee		\$	345.00
Cryogenic Systems, process or product - Review Fee			284.00
		\$	173.00
Cryogenic Systems, process or product - Inspection Fee		\$	173.00
Each tank or vessel - Review Fee		\$	62.00
Each tank or vessel - Inspection Fee		\$	50.00
Candles & Open Flames in Places of Assembly - Review Fee		\$	25.00
Other Fire Permits		1	The State of
Revision to plan previously submitted	per hour	\$	117.00
Investigation Fee (work started without a permit) - Review Fee	The fee is double the applicable review fee that would have been charged if a permit was obtained		
	prior to work initiated	₩	
Investigation Fee (work started without a permit) - Inspection Fee	The fee is double the applicable inspection fee that would have been charged if a permit was obtained prior to work initiated		
Re-inspection Fees		\$	117.00
Use of Consultant for Plan Review and Inspections - Review Fee	pass through from vendor		
Use of Consultant for Plan Review and Inspections - Inspection Fee	pass through from vendor		
Emergency Generators - Review Fee		\$	117.00
Emergency Generators - Inspection Fee		Ś	117.00
Privacy/Security Gates - Review Fee		\$	117.00
Privacy/Security Gates - Inspection Fee		\$	117.00
Other plan reviews or permits required by the International Fire Code - Review	per hour	\$	117.00
Fee	per nour	"	117.00
Other plan reviews or permits required by the International Fire Code -	per hour	Ś	117.00
Inspection Fee	per nour	7	117.00
Training Burn	\$.50 per sq. ft. minimum \$1,000, maximum \$2,000	+	
Hot Works - Inspection	12-20 per 34. 1c. minimum 31,000, maximum 32,000	\$	117.00
Mobile Food Preperation Vehicles - Inspection Fee	per half hour	\$	59.00
Hydrants	per nan nour	J.	33.00
Witness Flow Test - Inspection Fee		I è	110.00
		\$	118.00
LIBRARY			
Meeting Rooms			The same of the same
Room A		100000	
Maintenance Charge:	I .		

Fee Description	Notes	2023 Fee
Non-Profit	No Charge	
Private Functions	per hour	\$ 54.00
Cleaning deposit, if serving food (refundable);	cost exceeding deposit will be billed	\$ 65.00
For-Profit	per hour	\$ 54.00
Cleaning deposit, if serving food (refundable);	cost exceeding deposit will be billed	\$ 65.00
Room B		
Maintenance Charge:		
Non-Profit		
Private Functions	per hour	\$ 54.00
Cleaning deposit, if serving food (refundable);	cost exceeding deposit will be billed	\$ 65.00
For-Profit	per hour	\$ 54.00
Cleaning deposit, if serving food (refundable);	cost exceeding deposit will be billed	\$ 65.00
Rooms A & B	cost exceeding deposit will be billed	\$ 63.00
Maintenance Charge:		
Non-Profit	nor hour	\$ 54.00
Private Functions	per hour	
Cleaning deposit, if serving food (refundable);	cost exceeding deposit will be billed	7
For-Profit	per hour	\$ 54.00
Cleaning deposit, if serving food (refundable);	cost exceeding deposit will be billed	\$ 65.00
Kitchen Use		
Non-Profit		\$ 18.00
Private Functions		\$ 36.00
For Profit		\$ 36.00
Closed Hours Staffing Fee		
Non-Profit	per hour in addition to hourly charge	\$ 65.00
Private Functions	per hour in addition to hourly charge	\$ 65.00
For Profit	per hour in addition to hourly charge	\$ 65.00
Non-refundable application fee		
Non-Profit		
Private Functions		\$ 18.00
For Profit		\$ 18.00
Non-Resident Annual Fees		
Household		\$ 148.00
Operational Charges		
Photocopy/Printing	10 black and white per person, per day - no charge	
Black & White Photocopy/Printing	over 10 per person, per day, each	\$ 0.15
Color Photocopy/Printing	each	\$ 0.55
Lost & Damaged Materials: Default prices if not noted in bib recor		
Audiobooks		\$ 45.00
Board book		\$ 11.00
Book discussion kit		\$ 130.00
Devices		\$ 271.00
DVD/Blue Ray		\$ 38.00
Hardcover & Paperback Books		\$ 35.00
Interlibrary loan	pass through - assessed by lending library	φ 35.00
Magazines & Documents	poss circulati - assessed by ferfulling fibrially	\$ 8.00
Music CD		\$ 27.00
		\$ 27.00
Playaway Perference heads	Replacement Cost - pass through from vendor	3 58.00
Reference book	Inchiacement cost - bass milongii nom vendor	
PARKS & RECREATION FEES		
Camas Community Center Rental	and the second of the second o	
Reception Room - Midweek	per day	\$ 90.00

Fee Description	Notes Control of the	2	023 Fee
Reception Room - Weekend	per day	\$	180.00
Reception Room - Long Term Use	per hour	\$	15.00
Conference Room - Midweek	per day	\$	60.00
Conference Room - Weekend	per day	\$	120.00
Conference Room - Long Term Use	per hour	\$	15.00
Ball Room - Midweek	per day	\$	175.00
Ball Room - Weekend	per day	\$	350.00
Ball Room - Long Term Use	per hour	\$	15.00
Kitchen - Midweek	per day	\$	40.00
Kitchen - Weekend	per day	\$	60.00
Kitchen - Long Term Use	per hour	\$	15.00
Sound System - Midweek	per day	Ś	75.00
Sound System - Weekend	per day	\$	75.00
Sound System Projector - Midweek	per day	Ś	100.00
Sound System Projector - Weekend	per day	\$	100.00
Deposit - refundable		Ś	500.00
Alcohol Use Fee		Ś	100.00
Key Call Back Fee		Ś	150.00
Midweek is Monday through Thursday and Friday until 2:00 p.m.		7	130.00
Weekends are Fridays after 2:00 p.m. through Sunday			
No rental fee will be charged to non-profit groups who are community-based		 	
and IRS recognized, City of Camas sponsored events, school sponsored events		1	1
or governmental agencies that reserve the facility Monday through Thursday,			
between the hours of 8:00 a.m. and 5:00 p.m. and Friday before 2:00 p.m. Mid-			- 1
week daily rate will be charged for weekend reservations (Friday after 2:00 p.m.			
through Sunday).			
Camas residents will receive 20% discount			
Long Term Users will be charged per hour	Must pay for 6 months to be long term user	\$	15.00
Fallen Leaf Lake Park Rental			
Monday through Thursday	per day	\$	225.00
Fridays, Saturdays, Sundays and Holidays	per day	\$	375.00
Deposit - refundable		\$	500.00
Alcohol Use Fee		Ś	100.00
Key Call Back Fee		Ś	150.00
Camas residents will receive 20% discount			
Non-profit groups renting on weekends will be charged mid-week rates			
Lacamas Lake Lodge Rental		N. Taran	1013 2000
Main Hall	hourly; Saturday-5 hr. minimum; all other days-2 hrs. minimum	\$	200.00
Main Hall - public agencies	hourly; mid-week excluding Fridays during normal business hours	Ś	75.00
Deposit - refundable	per day	\$	500.00
Room 1A	hourly; Saturday-5 hr. minimum; all other days-2 hrs. minimum	Ś	40.00
Deposit - refundable	per day	Ś	200.00
Room 1B	hourly; Saturday-5 hr. minimum; all other days-2 hrs. minimum	\$	40.00
Deposit - refundable	per day	\$	200.00
AV Equipment		_	
	per day	\$	100.00
Alcohol Use Fee		\$	100.00
Key Call Back Fee		\$	
Non-profit will receive a 50% discount off the hourly rate			

Item 18.

Fee Description	Notes	202.	3 Fee
Cancellation must be received a minimum of 61 days prior to the event to receive a full refund. A 50% refund will be allowed if cancellation notices is received 30-60 days prior to the event. No refunds will be made with less than a 30 day notice.			
Camas residents will receive 20% discount			
POLICE DEPARTMENT			
Background/Clearance Letters		\$	13.00
Fingerprint Cards	per card	\$	19.00
Lost/Unreturned Community Room Key		\$	28.00
Police Case Reports (no charge to victim)	per page	\$	0.15
Record Checks/Non-Criminal Justice Agency inc. Military Services		\$	13.00
State Accident Reports (no charge to involved party)		\$	8.00
Video Delivery Fee	per flash drive or DVD	\$	5.00
Work crew Sign-Up Fee		Ś	27.00

ERR Rates
2023 Budget Information

Row Labels	Sum of Rate % per Alloc	Yearly Rate Amt
001.07.518.900.45	2,664.60	31,975.24
001.08.521.100.45	2,444.87	29,338.42
001.08.521.220.45	31,383.47	376,601.69
001.08.521.700.45	680.56	8,166.74
001.08.521.710.45	731.04	8,772.43
001.10.523.300.45	1,714.95	20,579.38
001.13.518.910.45	3,768.74	45,224.87
001.18.571.200.45	531.42	6,377.07
001.18.576.800.45	22,594.68	271,136.17
001.22.524.200.45	2,325.30	27,903.63
112.00.542.300.45	16,532.19	198,386.34
112.00.542.900.45	1,085.27	13,023.27
112.00.544.200.45	1,731.81	20,781.71
115.00.522.720.45	1,797.72	21,572.64
115.09.522.210.45	5,318.06	63,816.76
115.09.522.300.45	1,124.83	13,497.97
125.00.536.500.45	3,060.58	36,726.92
419.00.531.500.45	16,312.36	195,748.30
422.00.537.900.45	30,260.64	363,127.64
424.00.534.810.45	21,323.06	255,876.68
424.00.535.850.45	7,897.29	94,767.51
424.00.538.100.45	2,207.75	26,492.94
(blank)	0.00	
Grand Total	177,491.19	2,129,894.32



Staff Report – Ordinance

November 21st, 2022 Regular Meeting

Ordinance No. 22-017 Amendment to Comprehensive Plan and Zoning Maps

Presenter: Robert Maul, Planning Manager

Time Estimate: 5 min

Phone	Email
360.817.1568	rmaul@cityofcamas.us

BACKGROUND: The Camas Municipal Code (CMC) allows for annual review requests to modify a comprehensive plan designation for properties outside of the periodic Comp Plan review required by state law. Specifically, CMC 18.51.020 states "The comprehensive Plan shall be reviewed once a year as a Type IV legislative process, and in accordance with RCW35A.63.070-073.

SUMMARY: The applicant is seeking to change the comprehensive plan designation for a five acre parcel, #986026906, address 4711 NW CAMAS MEADOWS DR, CAMAS, WA from Light Industrial/Business Park, to Commercial so the zoning can be changed to Mixed Use. The easterly abutting properties have all had the same change over the last two years. A public hearing was held with the Camas Planning Commission on Wednesday October 19th whereby the Planning Commission forwarded a recommendation of approval to the City Council. The City Council conducted a public hearing on November 7th, 2022 and directed the City Attorney to prepare an adoptive ordinance for the following council meeting, which is November 21st, 2022. Contained in the packet is the adoptive ordinance and associated exhibit.

BUDGET IMPACT: N/A

RECOMMENDATION: Staff recommends that Council approved Ordinance 22-017.

ORDINANCE NO. 22-017

AN ORDINANCE relating to consideration of proposed revisions to the City of Camas Comprehensive Plan and adopting revisions to the Comprehensive Plan Map and Zoning Map of the City of Camas.

WHEREAS, the City of Camas has heretofore adopted a Comprehensive Plan and Comprehensive Land Use Map as required by the provisions of RCW 36.70A, Revised Code of Washington, the Growth Management Act, and

WHEREAS, under Chapter 36.70A, Revised Code of Washington, the City is required annually to consider amendments to the land use element of the Comprehensive Plan and associated rezones, and

WHEREAS, the Planning Commission has conducted a public hearing on a request for revision submitted to the City, and has forwarded its recommendation to the City Council, and WHEREAS, the City Council has conducted a public hearing on the request for revision, NOW, THEREFORE, THE COUNCIL OF THE CITY OF CAMAS DO ORDAIN AS FOLLOWS:

Section I

A request from property owner to change the Comprehensive Plan and zoning designation for parcel number 986026906 located on NW Camas Drive for a total of 5 acres. The request is to amend the Comprehensive Plan designation of Industrial and zoning of Light Industrial/Business Park to a Comprehensive Plan designation of Commercial with a concurrent zone change to Mixed Use. The Planning Commission forwarded a recommendation to City Council consistent with the Camas Municipal Code Section 18.51.050(B)(3) to accept the proposed amendment.

Ordinance No. 22-017 Page - 2

Section II

The City Council hereby accepts the recommendation of the Planning Commission, and directs the Community Development Director to amend the Camas Comprehensive Plan map, and to amend the Camas Zoning map consistent with the table set forth within the attached Exhibit "A".

Section III

Т	his ordinance	shall take force	e and be in eff	ect five (5) days	from and after it	s publication
accordin	g to law.					

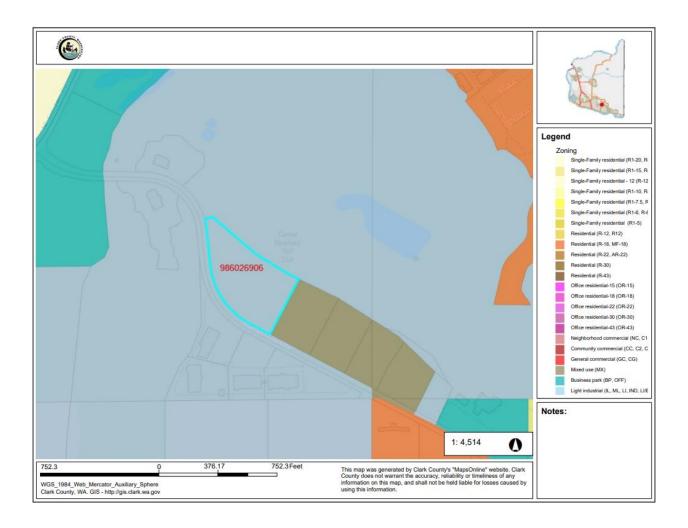
PASSED BY the Council a	and APPROVED by the Mayor this day	of November,
2022.		
	SIGNED:Mayor	
	ATTEST:	
APPROVED as to form:	Clerk	
City Attorney	_	

Exhibit A

Ordinance 22-017

The following table describes the amendments to properties owned by PEDWAR DEVELOPMENT GROUP LLC totaling 5 acres located at 4711 NW Camas Drive.

Parcel Number	Current Comprehensive Plan Designation	Current Zoning	New Comprehensive Plan Designation	New Zoning
986026906	Industrial	Light Industrial / Business Park	Commercial	Mixed Use



ORDINANCE NO. 22-017

AN ORDINANCE relating to consideration of proposed revisions to the City of Camas Comprehensive Plan and adopting revisions to the Comprehensive Plan Map and Zoning Map of the City of Camas.

WHEREAS, the City of Camas has heretofore adopted a Comprehensive Plan and Comprehensive Land Use Map as required by the provisions of RCW 36.70A, Revised Code of Washington, the Growth Management Act, and

WHEREAS, under Chapter 36.70A, Revised Code of Washington, the City is required annually to consider amendments to the land use element of the Comprehensive Plan and associated rezones, and

WHEREAS, the Planning Commission has conducted a public hearing on a request for revision submitted to the City, and has forwarded its recommendation to the City Council, and WHEREAS, the City Council has conducted a public hearing on the request for revision, NOW, THEREFORE, THE COUNCIL OF THE CITY OF CAMAS DO ORDAIN AS FOLLOWS:

Section I

A request from property owner to change the Comprehensive Plan and zoning designation for parcel number 986026906 located on NW Camas Drive for a total of 5 acres. The request is to amend the Comprehensive Plan designation of Industrial and zoning of Light Industrial/Business Park to a Comprehensive Plan designation of Commercial with a concurrent zone change to Mixed Use. The Planning Commission forwarded a recommendation to City Council consistent with the Camas Municipal Code Section 18.51.050(B)(3) to accept the proposed amendment.

Page - 2

Section II

The City Council hereby accepts the recommendation of the Planning Commission, and directs the Community Development Director to amend the Camas Comprehensive Plan map, and to amend the Camas Zoning map consistent with the table set forth within the attached Exhibit "A".

Section III

This ordinance shall take force and be in effect five (5) days from and after its publication according to law.

PASSED BY the Council and APPROVED by the Mayor this 21 day of November, 2022.

SIGNED:

Mayo

ATTEST:

Clerk

APPROVED as to form:

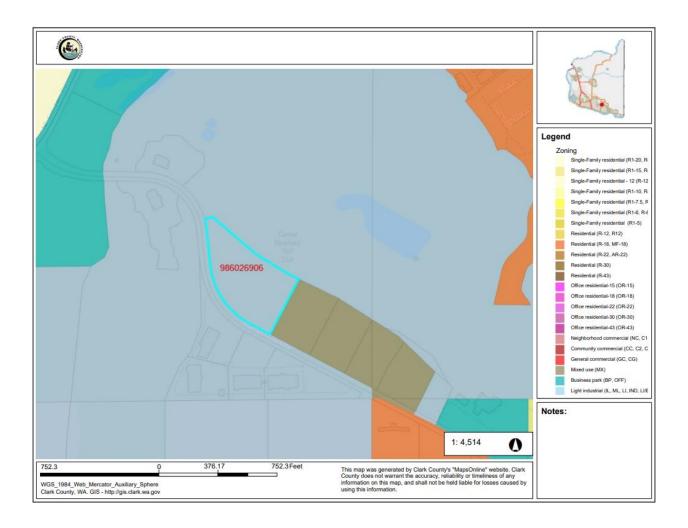
City Attorney

Exhibit A

Ordinance 22-017

The following table describes the amendments to properties owned by PEDWAR DEVELOPMENT GROUP LLC totaling 5 acres located at 4711 NW Camas Drive.

Parcel Number	Current Comprehensive Plan Designation	Current Zoning	New Comprehensive Plan Designation	New Zoning
986026906	Industrial	Light Industrial / Business Park	Commercial	Mixed Use





Staff Report – Ordinance

November 21st, 2022 Regular Meeting

Ordinance No. 22-020 North Shore Subarea Plan

Presenter: Robert Maul, Planning Manager

Time Estimate: 5 min

Phone	Email		
360.817.1568	rmaul@cityofcamas.us		

INTRODUCTION/PURPOSE/SUMMARY: BACKGROUND: City Council directed staff to engage in a subarea planning effort for the North Shore area of Camas, north of Lacamas Lake. Phase 2 is entering into the legislative adoption process and is anticipated to be adopted in November of 2022.

SUMMARY: The City Council will conduct a public hearing for the North Shore Subarea plan on November 7th, 2022. The preferred alternative plan that will be considered was derived from considerable public outreach during both phases of the project, steering and citizen advisory committee coordination, and was informed by market analysis and traffic impacts (see Appendix A of the North Shore Subarea Report). The North Shore Subarea report provides a full summary of the analysis that went into the plan. Supporting documents include all three appendixes for the report, Preferred Alternative map, Leeland Economic Study, Preferred concept capacity analysis, a Frequently Asked Question memo addressing key concerns, and the trip generation summary. Council held a public hearing on this matter on November 7th, 2022 and directed the City Attorney to return with and adoptive ordinance for the next Council meeting, which is November 21st, 2022. Contained in this packet is the ordinance, subarea plan and all appendixes.

A public hearing was recently held with the Planning Commission on Wednesday, October 19th, 2022. One public comment was received and contained in this packet. The Planning Commission voted unanimously to recommend approval of the plan to the Camas City Council.

BUDGET IMPACT: N/A

RECOMMENDATION: Staff recommends that Council adopt Ordinance 22-020 for the North

Shore Subarea Plan.

ORDINANCE NO. 22-020

An Ordinance adopting the City of Camas North Shore Subarea Plan pursuant to RCW 36.70A.130 and incorporating the Plan by reference into the City of Camas Comprehensive Plan.

WHEREAS, the North Shore area of the City of Camas includes rural and agricultural land and single-family residences with large acreages; and

WHEREAS, in 2013 the City established current zoning in this area through a Development Agreement with a coalition of property owners pursuant to Resolution No. 1277; and

WHEREAS, commencing summer 2019 the City began the first phase of a comprehensive review of the community vision for the North Shore area to address current zoning needs, conceptual road alignments, land use designations, and future job and housing projections; and

WHEREAS, continuing into summer 2020 the City conducted a series of vision outreach activities including stakeholder interviews, online surveys, social media outreach, and community forums and workshops, including a workshop before the City Planning Commission held on July 21, 2020 which resulted in the City receiving substantial community input numbering into thousands of individual comments; and

WHEREAS, the City Planning Commission held a Public Hearing, duly advertised according to law, on August 18, 2020 for consideration of a proposed Vision Statement for the North Shore Subarea Plan and unanimously forwarded their recommendation thereof; and

WHEREAS, through the comprehensive review as outlined herein the City developed the North Shore Subarea Plan Vision document which was adopted by the City Council by Resolution 20-101 on September 14, 2020; and

WHEREAS, in Phase 2, guidance and input from the community and stakeholders were sought to inform the development of a preferred land use and transportation concept plan and design guidelines and standards for the North Shore which included the City convening a North Shore Steering Committee and a North Shore Community Advisory Committee (CAC) in addition to

conducting broad outreach to the Camas community as referenced in Appendix A of the North Shore Subarea Plan report; and

WHEREAS, a public hearing was held with the Planning Commission on October 19, 2022 and forwarded a recommendation of approval of the North Shore Subarea Plan to the City Council; and

WHEREAS, RCW 36.70A.130(2)(a) provides for the adopted of a subarea plan to clarify, supplement or implement jurisdiction wide comprehensive plan policies, subject to compliance with the public participation requirements as set forth therein; and

WHEREAS, the City, consistent with the environmental review requirements of RCW Chapter 43.21C completed SEPA review of the North Shore Subarea Plan with a finding of Determination of Non-Significance on October 13,2022; and

WHEREAS, a public hearing was held with the Camas City Council November 7, 2022 and after public testimony and deliberation moved to adopt the North Shore Subarea Plan and directed the City Attorney to prepare an ordinance for adoption;

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF CAMAS AS FOLLOWS:

Ι

The Council incorporates by reference the Recitals as set forth herein as findings of fact.

The Council concludes that the GMA prerequisites for the adoption of the North Shore Sub Area

Plan to be incorporated into the City of Camas Comprehensive Plan have been met in the

following respects: Public Participation per RCW 36.70A.130(2)(a); Goals of GMA per RCW

Chapter 36.70A through consistency with state statutory goals; and Environmental Review per

RCW Chapter 43.21C through completion of SEPA review

Based upon the review of the requirements of GMA, the analysis, the recommended findings on review, the recommendations of the Planning Commission, and the public comments received, the Council finds and declares the review and adoption of the North Shore Subarea Plan, all associated maps and appendices, to have been prepared in conformance with applicable law. The document entitled 'North Shore Subarea Plan', a copy of which is on file with the office of the City Clerk for public inspection, is hereby adopted and shall be incorporated in the City of Camas Comprehensive Plan.

III

This ordinance shall take force and be in effect five (5) days from and after its publication according to law.

PASSED by the Council and APPROVED by the Mayor this 21st day of November, 2022.

	SIGNED:	
		Mayor
	ATTEST:	
ADDROVED		Clerk
APPROVED as to form:		
City Attorney		





North Shore Subarea Plan

ACKNOWLEDGEMENTS

Acknowledgements are provided for Phase 1 (2019-2020) and Phase 2 (2021-2022).

City Council (Phase 1)

Barry McDonnell, Mayor

Greg Anderson Ellen Burton Bonnie Carter

Steve Hogan Shannon Roberts

Don Chaney

Melissa Smith

Planning Commission (Phase 1)

Tim Hein, Chair Mahsa Eshghi Shawn High

Troy Hull

Warren Montgomery

Geoerl Niles Jim Short

North Shore Steering Committee (Phase 2)

Tamara Allison, Camas School District - Transportation Supervisor

Michael Andreotti, AKS Engineering

Jennifer Baker, Columbia River Economic Development

Council

Cory Bittner, Pahlisch Homes

Don Chaney, City Council

Lynda David, Southwest Washington Regional

Transportation Commission

Jason Irving, Camas Parks & Recreation Commissioner

Lynn Johnston, Property Owner

Kimbal Logan, Property Owner

David Ripp, Port of Camas-Washougal

Shannon Roberts, City Council

Andy Swanson, HSR Capital

City Council (Phase 2)

Steve Hogan, Mayor Greg Anderson Marilyn Boerke

Bonnie Carter Don Chaney

Tim Hein

Leslie Lewallen

Planning Commission (Phase 2)

Troy Hull, Chair

Geoerl Niles, Vice-Chair

Mahsa Eshghi Shawn High

Marlo Maroon

Warren Montgomery

Joe Walsh

North Shore Community Advisory Committee (Phase 2)

Dan Foster

Kim Lottig

Marlo Maroon

John Svilarich

Vicky Wessling

Project Team (Phase 1)

City of Camas

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Consultant Team

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Nicole McDermott, Deputy Project Manager, WSP
Emma Johnson, Planner, WSP
Steve Faust, Public Involvement, 3J Consulting
Brian Vanneman, Economist, Leland Consulting Group
Sam Brookham, Economist, Leland Consulting Group

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City of Camas

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Emma Johnson, Planner, WSP
Aliza Whalen, Planner, WSP
Sam Rubin, Planner, WSP
Reah Flisakowski, Transportation Engineer, DKS
Associates
Brian Vanneman, Economist, Leland Consulting Group
Wally Hobson, Economist, Leland Consulting Group
Jennifer Shuch, Economist, Leland Consulting Group

Nicole McDermott, Project Manager, WSP

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- Appendix A. Public Involvement Summaries
- Appendix B. Phase 1 Analyses (Existing Conditions and Market Analysis)
- Appendix C. Phase 2 Analyses (Land Use Capacity Memorandum, Trip Generation and Roadway Connectivity Assessment, Market Assessment)

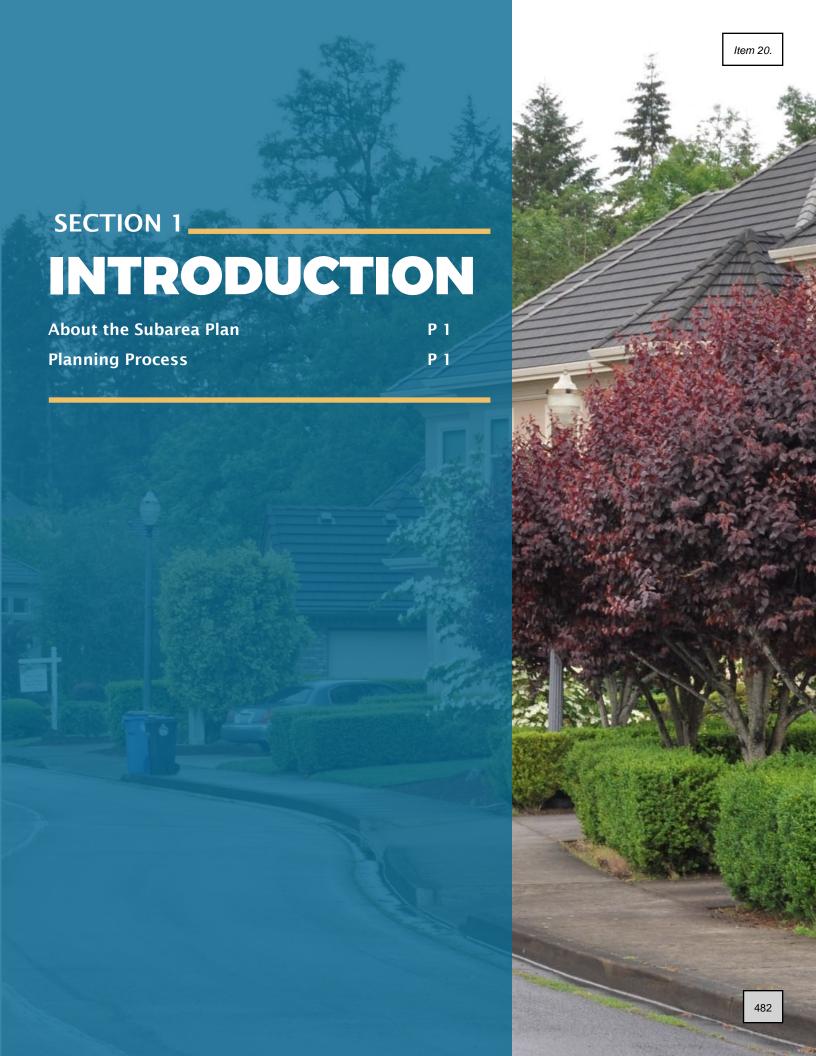




Figure 1. Vicinity Map

Introduction

The North Shore subarea consists of approximately 990 acres of land north of Lacamas Lake in Camas. The subarea is bounded to the south by the north shore of Lacamas Lake and generally extends to the city's urban growth area (UGA) boundaries to the north, east, and west (see Figure 1).

About the Subarea Plan

The city of Camas is growing. Between 2010 and 2020, the city's population grew from 18,355 to 25,140, a 30 percent increase. Looking ahead to 2040, population projections from the Washington Office of Financial Management estimate that the city will grow by another 30 percent, adding 11,500 new residents. The City's Housing Action Plan estimates that Camas will need over 4,500 new housing units by 2040 to accommodate the growing community.

Originally annexed in 2007, much of the North Shore consists of agricultural land and single-family residences. In 2019, the City of Camas began the planning process to create the North Shore subarea plan to establish development guidelines and a land use framework for the subarea. Most of the subarea is in private ownership and the area is anticipated to experience substantial growth over the next 20 years. Although the North Shore is largely undeveloped, the current zoning (established in 2013) allows property owners to develop their land according to the current zoning code and development standards, which would allow

residential, commercial, and light industrial development. Since annexing the area, the City has purchased over 160 acres in the North Shore along Lacamas Lake, referred to as the Legacy Lands, which total approximately 240 acres and will be preserved for open space and recreational use.

Many of the largest property owners in the North Shore have expressed a desire to develop their land. At the same time, other members of the community have expressed concerns that the city is growing too quickly and want to maintain Camas' small-town feel. The purpose of the subarea plan is to empower the City and community to guide future development in a way that is consistent with the community's values, and to strike a balance between preserving open space and making room for new members of the community.

The North Shore subarea plan establishes future land uses and identifies the appropriate intensity of development, as well as required transportation and utility infrastructure improvements.

Planning Process

The subarea plan was completed in two-phases, with Phase 1 focusing on community outreach to create a vision statement that captures how the community wants the area to develop. From August 2019 to September 2020, the City conducted public outreach activities and engaged with stakeholders, community members, and property owners at community events and through online surveys. Phase 1 concluded in September 2020 when City

Introduction Item 20.

Council adopted the vision statement for the North Shore subarea (see Section 2 for the adopted vision statement).

After a hiatus due to COVID-19, Phase 2 kicked off in September 2021 and included discussions of a preferred land use and transportation concept that focused on the arrangement and intensity of land uses within the subarea, as well as the location and alignment of primary arterial roads. New recommended design guidelines were also developed to guide the look and feel of future development.

The subarea plan provides the City with a better understanding of the community vision and opportunities and constraints related to future development.

The project team developed a subarea plan that consisted of the following elements:

Visioning and Outreach

Community surveys
Stakeholder interviews
Tabling events
Visioning workshop
Adoption of the vision statement

Analysis

Existing conditions analysis, including land use, transportation, utility, and environmental conditions Market assessment and analysis

Trip generation and connectivity assessment

Conceptual Planning

Draft conceptual options for land use and transportation, consistent with the vision statement and feedback from the committees

Preferred concept plan, consistent with committee and community feedback on the draft options

Design guideline recommendations

Implementation

Action plan

Recommended updates to the city's comprehensive plan and development code

SECTION 2

VISIONING AND OUTREACH

Phase 1 Community and Stakeholder Outreach

Phase 2 Community and Stakeholder Outreach

P 4

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Figure 2. Visioning Workshop

Visioning and Outreach

In order to develop a subarea plan that balances different perspectives within the community, extensive outreach efforts were made during both phases of the planning process.

Phase 1 Community and Stakeholder Outreach

The City of Camas began public outreach efforts in fall 2019 with community events hosted at local schools, Camas Farmers Market, and the Camas Youth Advisory Council. Attendees were shown a map of existing land uses in the North Shore and were asked to provide what changes they would make and why. Comments were focused on maintaining a small-town feel and prioritizing access to the lake and open space.

Attendees at all events were encouraged to sign up for the project email list and participate in an online survey. Two online surveys were available to the public during Phase 1 of project and were completed by a total of 1,261 community members. Survey results prioritized local-serving businesses, green space preservation, and bike and pedestrian infrastructure.

The City held two visioning workshops where participants could map future land uses. One was a student workshop at Discovery High School, and a second was held with the broader community. Responses to the exercise favored diverse housing options to serve residents of all income levels, as well as more trail connections and pedestrian access to local businesses.

The City conducted 21 interviews with local stakeholders, including representatives from the Camas School District and the Port of Camas-Washougal, and elected officials. Questions

focused on economic development, open space preservation, and future land uses.

A detailed summary of the outreach conducted in Phase 1 and a compilation of all comments received is included in Appendix A.

The vision statement for the North Shore subarea, provided below, was adopted by City Council in September 2020.

Vision Statement

- 1. Preserve the North Shore's natural beauty and environmental health. Policies, regulations and design rules must protect significant trees, tree groves, and surrounding lakes. Identify and preserve views to the treed hillside and the lake.
- 2. Plan a network of green spaces and recreational opportunities. Integrate a variety of parks, playgrounds, trails and open spaces into residential and employment areas throughout the North Shore area. Create a "green corridor" along the lake that completes the Heritage Trail, provides lake access, and buffers the lake from adjacent development.
- 3. Cluster uses for a walkable community. Concentrate homes close to schools and around commercial nodes so residents can meet daily needs without driving. Use sidewalks, pedestrian trails and bike paths to connect residents to neighborhood destinations.
- **4. Provide a variety of housing options.** Plan for diverse housing types appropriate for varying incomes, sizes, and life stages.
- 5. Locate industrial parks and commercial centers to the north. Protect the environmental integrity of the lake and aesthetic quality of the area by siting light industrial and office uses away from the lake and adjacent to the airport.

Encourage commercial activities along high traffic corridors, such as NE Everett Street.

- **6. Favor local-serving businesses.** Encourage small, local businesses such as restaurants, cafes and grocers that serve North Shore residents and businesses, while complementing downtown Camas.
- 7. Plan for needed schools and infrastructure. Ensure adequate roads, schools and utilities are in place before development occurs. Invest in transportation improvements such as a new roadway through the North Shore and NE Everett improvements to minimize traffic impacts and maximize safety.
- **8. Strive to maintain Camas' small town feel.** Sustain the city's quality of life through phased and sustainable growth that contributes to community character.

Phase 2 Community and Stakeholder Outreach

In Phase 2, guidance and input from the community and stakeholders were sought to inform the development of a preferred land use and transportation concept plan and design guidelines and standards for the North Shore. The City convened a North Shore Steering Committee and a North Shore Community Advisory Committee (CAC) in addition to conducting broad outreach to the Camas community.

A detailed summary of the outreach conducted in Phase 2 and a compilation of all comments received during the open houses is included in Appendix A.

Steering Committee

The Steering Committee was established to advise the City and provide technical guidance throughout the subarea planning process. The committee consisted of property owners and their representatives, as well as representatives from the Camas Planning Commission, Camas City Council, Camas Parks & Recreation Commission, the Port of Camas-Washougal, the Camas School District, the Columbia River Economic Development Council. and the Southwest Washington Regional Transportation Council. The Steering Committee met with the City four times during the public outreach phase. During the first meeting, the committee reviewed community input and background from Phase 1. The second meeting was held to review the first draft of the land use and transportation options. Following the open house,

the City held a two-part workshop with the Steering Committee to begin refining the location of land uses, proposed densities, and transportation networks.

Community Advisory Committee (CAC)

After a citywide application process, the North Shore CAC was established in December 2021. The CAC consisted of community representatives with a variety of backgrounds and experiences. The committee advised the City and provided community perspective prior to broader community outreach efforts. The first CAC meeting was held to review community feedback from Phase 1, input from the Steering Committee, and to discuss the revised draft land use and transportation options. The second CAC meeting was held in June 2022 to discuss feedback from the first open house and the Steering Committee, to review a draft preferred concept, and to discuss design guidelines and standards for the North Shore.



Figure 3. Open House Poster

Community Open Houses

The City held two open houses to conduct broad community outreach. The first virtual open house for Phase 2 took place in February and March 2022 to obtain community feedback on draft land use and transportation options for the North Shore. After reviewing the project background and draft options, participants were asked to respond to a survey to give feedback on how well the options meet the goals of the adopted Vision Statement. Overall, the majority of survey participants agreed that the various elements in both options met the intent of the Vision Statement. For Option A, participants felt that the plan best addressed the Vision Statement by identifying sensitive areas to be preserved, creating a series of connected trails throughout the subarea, and the creation of a central plaza for community events. For Option B, participants felt that the option best addressed the Vision Statement by creating a series of trails and pathways to connect residential areas to commercial centers, identifying sensitive areas to be preserved, and allowing for a mix of housing types throughout the North Shore. Open-ended responses generally expressed concerns about the cost of the proposed elements, lack of natural areas or environmental concerns, and any new development occurring. Many public comments expressed a desire to retain as much open space as possible.

A second open house took place in August 2022 to present a draft of the preferred concept where attendees were encouraged to provide further feedback on the revised concept. The second open house involved both in-person and online events to increase opportunities for engagement. Participants in the online open house were prompted to provide feedback on how well the concept met the community's vision for the North Shore, as well as on the design guidelines for the look and feel of future development. Participants expressed concerns about the need to expand public infrastructure and connectivity, address water quality, preserve natural beauty and environmental health, and general concern about any new development. Input received during the open house informed the final preferred concept plan and design guidelines.



Figure 4. Community Open House



Figure 5. Community Open House

PHASE 1 ANALYSIS

Existing Conditions

Market Analysis

P 8

P 9



Phase 1 Analyses

The Phase 1 analysis included an existing conditions analysis of the built and natural environment and a market analysis. These analyses are summarized below and provided as Appendix B.

Existing Conditions

The existing conditions analysis identified existing land uses and zoning; parks, trails, and open spaces; critical areas; utility infrastructure and capacity (water and sewer); and the current transportation network and planned improvements. The subarea is currently characterized primarily by agricultural land, single-family residences with large acreages, smaller lot residential development along State Route 500 (SR 500), and some commercial uses at the southern end of Lacamas Lake. Zoning includes single-family residential (R-7.5, R-10, R-12) and multifamily residential (MF-10, MF-18), business park (BP), community commercial (CC), and open space (OS), as well as a Gateway/Corridor overlay zone and multiple Airport overlay zones. A portion of the subarea falls outside the city limits and is designated as urban holding (UH) by the County (Figure 6).

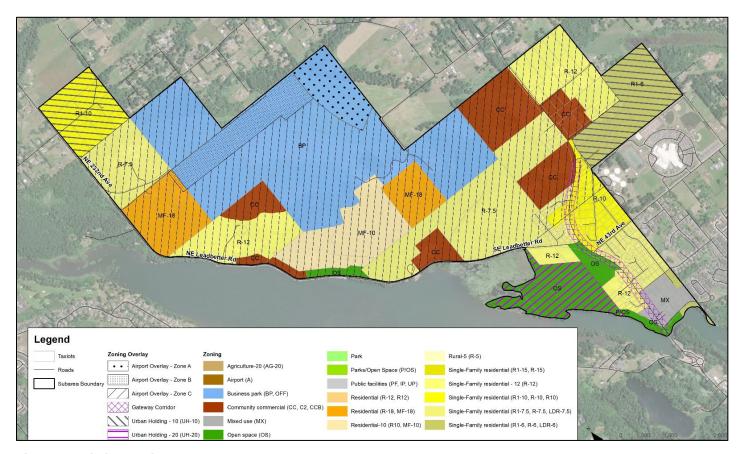


Figure 6. Existing Zoning

Portions of the subarea are within shoreline jurisdiction along Lacamas Lake and Round Lake and, therefore, will be subject to the City's Shoreline Master Program. This jurisdiction includes land extending 200 feet in all directions from the ordinary high water mark, floodways, and contiguous floodplain areas landward 200 feet from such floodways, associated wetlands, critical areas with associated buffer areas, river deltas associated with the streams, and lakes and tidal waters that are subject to the provisions of this program. The shoreline designation in this subarea is mostly Urban Conservancy, with two stretches of shoreline designated as Medium Intensity.

There are several limitations to development in the subarea, including protected critical areas and the Legacy Lands, which will be preserved for open space and recreation (Figure 7). Approximately half of subarea contains critical areas, including wetlands, fish and wildlife habitat conservation areas, geologically hazardous areas, critical aquifer recharge areas, and frequently flooded areas. These areas are protected and regulated by the City's critical areas ordinance, and development may be limited in these areas.

Most of the subarea is currently undeveloped or served by septic tanks. Sanitary sewer service within the subarea can be provided by the City of Camas through extension of the existing primary sewer line in Leadbetter Road in conjunction with future development. The City will need to continue to develop its potable water supply, and treatment and storage capacities in order to accommodate long-term growth. For potable water, local transmission and distribution lines can be extended from the City's existing utility backbone and transmission system within Leadbetter Road.

The existing transportation network in the North Shore is limited, with a lack of east-west roadways and little to no bicycle or pedestrian facilities. Leadbetter Road and Everett Street/SR 500 serve as the major north-south facilities. The Transportation System Plan identifies a proposed two- or three-lane arterial connecting Everett Street/SR 500 to the northwest corner of the subarea, which would provide some additional connectivity.

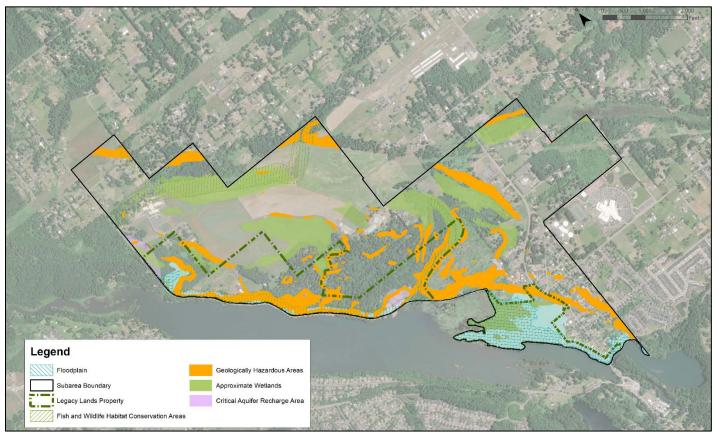


Figure 7. Critical Areas and Legacy Lands

Market Analysis

A preliminary market analysis was prepared during Phase 1 to identify opportunities and constraints in the North Shore area and to ensure that the strategies identified in the subarea plan are grounded in market realities. The analysis identified several opportunities and strengths in the North Shore, including highly educated, high-income, and large-sized households, a strong regional market for housing, a high demand for office space, large developable land tracts, and supportive property owners. Constraints and weaknesses identified included limited transportation access, amenities and infrastructure, physical and regulatory development impediments (including protected critical areas), potential challenges for attracting retailers, and high-construction costs.

A detailed market assessment was later prepared to assess the preferred concept plan, which is described in Section 4.



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CONCEPTUAL PLANNING

Draft Concept Plan - Option A Draft Concept Plan - Option B Preferred Concept Plan

Design Guidelines

P 11

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Conceptual Planning

Working with the Steering Committee, the Project Team developed two concept plan options based on the vision statement, existing conditions analysis, market assessment, and community outreach in Phase 1. The draft plan options were presented to the CAC for their feedback before being brought to the community at the first virtual open house for Phase 2. Each plan identified the location of different land uses within the North Shore, the potential alignment of different roadways, and some potential recreational features. Some features were the same in each option, including placement of parks and open space on the City-owned Legacy Lands; commercial development focused on roundabouts and along major roadways to create commercial corridors; a mixed-use area at Bridge Village to provide a gateway to the North Shore; and business park areas located to the north to take advantage of flatter land and avoid residential land in the airport overlays.

The draft options and their distinguishing features are provided below. A preferred concept (as described in Section 4) was later developed to reflect feedback on these options.

Draft Concept Plan - Option A

- Estimated capacity: 3,680 dwelling units, 9,930 residents, and 2,560 jobs
- Trails located throughout the subarea provide opportunities for recreation and promote walkability.
- Areas for single-family and multifamily housing located near the schools and throughout the subarea provide an opportunity for housing choices, including a variety of sizes and types.
- A mixed-use and commercial core, connected to surrounding residential areas with on-and off-street trails, can increase walkability.
- A central plaza, located near the Legacy Lands, provides a gateway from the recreational areas to the commercial core and could provide a venue for community events.



Figure 8. Draft Concept Plan - Option A

Draft Concept Plan - Option B

- Estimated capacity: 4,735 dwelling units, 12,785 residents, and 2,170 jobs
- Trails located throughout the subarea provide opportunities for recreation and promote walkability.
- A mixed use and commercial core along a new major roadway allows for a commercial center to the subarea with commercial nodes providing "neighborhood-scale" commercial uses.
- Trails and pathways connecting residential and commercial/mixed-use areas can increase walkability to neighborhood commercial centers and throughout the subarea.
- Business park and commercial areas are located to the north to take advantage of flatter land and avoid residential land in the airport overlays.
- A business park area located near the high school could provide opportunities for campus connections and job-training.
- A mix of single-family and multifamily areas centrally located and throughout the subarea provide opportunities to encourage a variety of housing types and sizes.



Figure 9. Draft Concept Plan - Option B

Preferred Concept Plan

The Project Team worked closely with the Steering Committee to develop a preferred plan based on community feedback from the first virtual open house, as well as input from the CAC. Figures 10 through 12 show the preferred concept plan and conceptual renderings.



Figure 10. Preferred Concept Plan



Figure 11. Conceptual Aerial Rendering

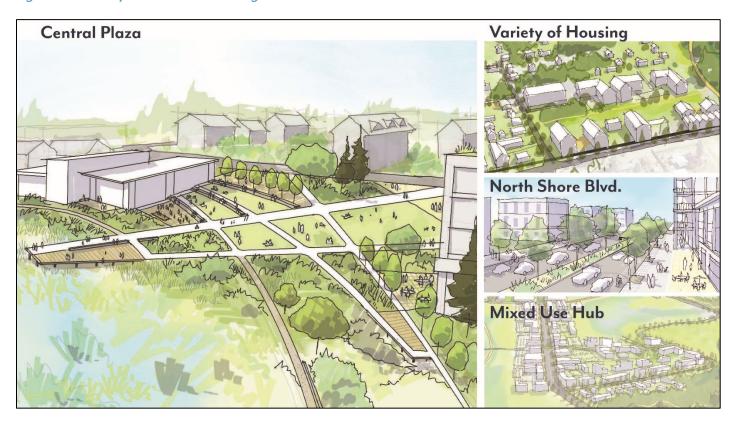


Figure 12. Conceptual Site Renderings

The table below summarizes the key messages heard from the community, Steering Committee and CAC and identifies how this feedback is reflected in the preferred concept plan and design guidelines.

Table 1. Incorporation of Community Feedback

Community Feedback (What we heard)	Key Feature(s) of the Plan (What we did)
Create walkable neighborhoods	Compatible land uses are located next to each other in order to encourage walking (e.g., mixed use and commercial). The street cross sections include pedestrian facilities on all roads. The City also conducted a walkshed analysis to estimate how long it would take for a pedestrian to reach a park/open space. While a half-mile (10-minute walk) is a common standard used in walkshed analyses, the City used a quarter mile (5-minute walk) to increase walkability in the North Shore. Based on this analysis, a potential park was added so that all of the subarea is within a quarter mile of a park/open space.
Create a central plaza for community events	The central plaza from Option A was carried forward to the concept plan. The plaza would be adjacent to the Legacy Lands and mixed use/commercial hub, which will create an active public space.
Identify and preserve sensitive areas	Working with the Steering Committee, the City evaluated spatial data for critical areas (e.g., wetlands) and made refinements to the concept plan and development assumptions to better reflect on-the-ground conditions. The potential road alignment through the Legacy Lands from Options A and B was not carried forward in order to preserve this area for recreation. Many of the design guidelines include measures to protect natural resources, including landscaping with native plants and incorporating sustainable design principles (e.g., green roofs, habitat creation).
Connect commercial centers and natural areas by series of trails	A series of potential primary and secondary trails are identified on the concept plan, which connect commercial areas to the Legacy Lands, as well as residential areas. The City conducted a walkshed analysis to confirm all of the subarea is within a quarter mile (5-minute walk) of a park/open space.
Allow for a mix of housing types	The concept plan incorporates mixed-use and higher and lower density residential designations. Both residential zones would allow a range of housing densities to increase flexibility. The design guidelines and standards will further shape the housing typologies and encourage a variety of sizes and styles.
Consider the traffic impacts of increased density	The City prepared a trip generation and roadway connectivity assessment based on the concept plan (see Appendix C). The assessment concluded that the proposed roadway connections are expected to provide adequate roadway capacity to support the land use designations.
Build flexibility into the requirements for Mixed-Use zones to encourage creativity and to not be overly prescriptive	The design guidelines were drafted to reflect this feedback. The intent is for the standards and code to be prescriptive enough to ensure development meets the intent of the vision statement, but also to have some flexibility in how developers can meet that intent.
Ensure that Business Park areas are right-sized for the	The City conducted a spatial analysis to confirm that the proposed Mixed Employment areas (formerly called Business Park) will provide 10 to 15 contiguous acres of unconstrained land.

types of businesses Camas might attract	
Increase jobs and housing in Camas while also recognizing that the North Shore cannot address all housing and jobs needs for the city	The estimates for jobs and dwelling units have been refined throughout the planning process to reflect feedback from the community and committees. This includes refinements to the mix of land uses, as well as changes to the proposed densities. The estimated capacities for Option A, Option B, and the Draft Preferred Concept can be found in Section 4. These capacities reflect full buildout of the North Shore, which would occur gradually over time.
Consider critical areas and other factors, like market conditions, when estimating development capacity	The assumptions for estimating dwelling units and jobs have been refined over time. The current assumptions reflect the development potential of different critical areas and market conditions. A memorandum detailing the assumptions and estimated capacity is available in Appendix C and on the project website.
Create design guidelines that encourage sustainability and consider stormwater management, landscaping, and dark skies	When drafting the design guidelines, the City reviewed and incorporated community feedback from Phase 1 and Phase 2, as well as specific recommendations from the CAC and Steering Committee. The guidelines incorporate these items and many other sustainability best practices.

Land Use Capacity

The estimated number of jobs, dwelling units and potential population under the existing and proposed zoning designations are outlined in Table 1. A memorandum detailing the proposed land uses in the preferred concept plan, development assumptions, and estimated capacity is included in Appendix C.

Table 2. Land Use Capacity Comparison

Proposed Zoning Designation	Developable Acres	Permitted Density ²	Estimated Jobs	Estimated Dwelling Units	Estimated Residents
Mixed Employment	41	n/a	817	n/a	n/a
Commercial	9	n/a	177	n/a	n/a
North Shore Mixed Use	67	24	405	1,133	3,060
North Shore Higher Density Residential	81	10 - 18	n/a	1,136	3,067
North Shore Lower Density Residential	121	4 - 5.8	n/a	700	1,890
Parks/Open Space 1	77	n/a	n/a	n/a	n/a
School 1	13	n/a	n/a	n/a	n/a
Draft Preferred Concept			1,399	2,969	8,017
Comparison to Existing Zoning					
	2,829	1,820	4,915		
Draft Preferred Concept Compared to Existing Zoning			- 1,430	+ 1,149	+ 3,102

¹ Additional lands designated as parks/open space and school would be added within the other zoning designations as development occurs.

² Dwelling units per acre.

Connectivity Improvements

An assessment of the anticipated trip generation and road connectivity assessment was prepared to evaluate the land uses and transportation alignments shown on the preferred concept (Appendix C). To address connectivity to, from and within the subarea, which was identified as a concern during community outreach, the preferred concept recommends several transportation improvements. The subarea concept plan includes multiple connections to the surrounding public street network. These roadway connections are described below and identified in Figure 13 with a red asterisk. The road alignments and intersection locations are conceptual and will be refined through future design and capital facilities planning efforts.

- No. 1 NE 232nd Avenue extending to the east as North Shore Boulevard was recently constructed along the frontage of Lacamas Lake Elementary School. The existing North Shore Boulevard is planned to extend east to provide a Major Road connection through the subarea.
- No. 2 The extension of NE Third Street (North Shore Boulevard) to the west is planned as a Major Road connection between the central portion of the subarea and SR 500.
- · No. 3 A new Minor Road connection to SR 500 is planned to connect through the subarea.
- No. 4 The extension of SE Eighth Street east of SR 500 as a Minor Road is planned to connect the east side of the subarea.
- No. 5 The existing Leadbetter Road, which connects to SR 500 today, is planned for limited vehicle access to serve the park area and Lacamas Lake boat launch in the subarea.



Figure 13. Proposed Roadway Connections

Trip generation is the method used to estimate the number of vehicles that would be added to the surrounding roadway network if development occurred consistent with the preferred plan. The trip generation and roadway connectivity assessment estimated that the total number of net new trips in and out of the subarea would be 2,937 trips during weekday peak hours. The estimated number of vehicle trips generated per land use is outlined in Table 2. A detailed report of the method used to estimate these trips is included in Appendix C. With buildout of the subarea, the proposed roadway connections are expected to provide adequate roadway capacity to support the land use designations. Future development applications will require site-specific traffic studies to determine the final alignment and construction timing of the proposed transportation improvements.

Table 3. Trip Generation Estimate

Zone	ITE Land Use '	Size ²	PM Peak Hour		
Zone			In	Out	Total
Mixed Employment	Industrial Park	817 EMP	68	275	343
Commercial	Shopping Plaza with Supermarket Passby Trips (40%)	116 KSF	502 -201	545 -218	1,047 -419
North Shore Mixed Use	Shopping Plaza Passby Trips (30%)	264 KSF	671 -201	699 -210	1,370 <i>-411</i>
	Multifamily Housing (Low-Rise)	566 DU	182	107	289
	Multifamily Housing (Mid-Rise)	566 DU	135	86	221
	Single-Family Detached Housing	114 DU	67	40	107
North Shore Residential (Higher	Single-Family Attached Housing	341 DU	110	84	194
Density)	Multifamily Housing (Low-Rise)	341 DU	110	64	174
	Multifamily Housing (Mid-Rise)	341 DU	81	52	133
North Shore Residential (Lower Density)	Single-Family Detached Housing	700 DU	415	243	658
Parks/Open Space	Public Park	77 AC	4	4	8
School	Elementary School	330 STU	24	29	53
INITIAL NEW TRIPS		1,967	1,800	3,767	
PASSBY TRIP REDUCTION		-402	-428	-830	
	NET NEW TRIPS		1,565	1,373	2,937

¹ ITE (Institute of Transportation Engineers) manual, Trip Generation, 11th Edition.

North Shore Cross Sections

To ensure the look and feel of these roadways align with the community's vision for multimodal connections, conceptual cross sections were developed for collectors (connector roads) and arterials (main roads), including North Shore Boulevard (No. 1) and the "ridgeline road" adjacent to the Legacy Lands (No. 3). These cross-sections will be refined during the development and adoption of the North Shore design standards.

North Shore Boulevard would be the primary east-to-west arterial road serving the mixed use and commercial hub in the north, as well as the central plaza. The cross section (Figure 14) is an example of a road that balances the need for vehicle access with a street that is walkable, bike friendly, and includes traffic calming design standards.

² KSF= 1,000 square feet, EMP = employees, DU = dwelling units, AC = acres, STU = students

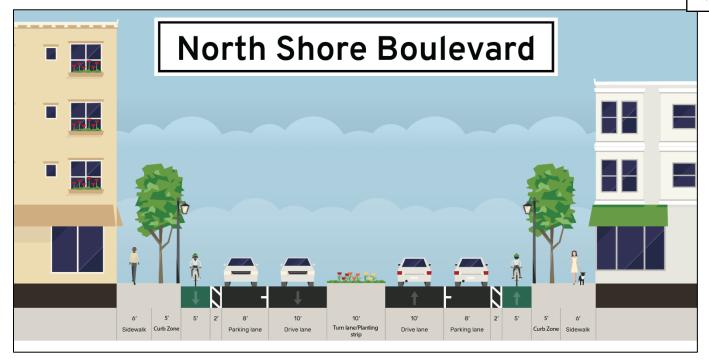


Figure 14. North Shore Boulevard - Conceptual Cross Section

The ridgeline road would be adjacent to the Legacy Lands and run through the central higher density residential area. The conceptual cross section (Figure 15) includes on-street parking to facilitate access to nearby businesses, recreational areas, and residences, as well as a wide shared use path (for pedestrians, bicycles, etc.) adjacent to the Legacy Lands. Like North Shore Boulevard, the design of this cross section will be refined during the development and adoption of the North Shore design standards.



Figure 15. Ridgeline Road - Conceptual Cross Section

Collector roads (Figure 16) would include sidewalks and buffered bike lanes to reflect community feedback for walkable and bike-friendly roads throughout the subarea.



Figure 16. Collector Road - Conceptual Cross Section

Market Assessment

A market assessment was prepared based on the preferred concept plan (Appendix C). The assessment states that the market demand for all types of housing has been exceptional over the last few years, but demand for single-family and other types of lower density housing may have reached a historical high with a severely constrained supply.

The market assessment supports the plan to dedicate the majority of developable residential land to single-family and lower- to middle-density housing types over denser mixed-use development but notes that the market may not support building as much middle-density housing as the current plan allows. The City recognizes the results of the market assessment; however, the preferred concept plan balances several different needs and is not solely responsive to market conditions. The subarea plan must balance market conditions with the need for more housing units of different types and more affordable housing, as called for in the City's Housing Action Plan (2021).

Design Guidelines

A design guideline is a discretionary tool that the City will use to guide decision-making about the look and feel of development so that it is consistent with the vision statement adopted as part of the subarea plan.

The North Shore design guidelines were created to fulfill the vision statement and reflect feedback provided by the public. The CAC played a key role in the identification of design guidelines that could guide development in a way that aligns with the community's vision. The draft guidelines below were presented to the community at the second open house. These guidelines are recommendations; ultimately development and design standards must be adopted and implemented in the Camas Municipal Code (CMC).

The numbers below identify the vision statement element(s) that a guideline supports (see Section 2 for the adopted vision statement).

Development (Commercial, Residential, and Mixed-Use Buildings)

- Co-locate mixed-use and commercial uses near existing roads and new major roads and intersections where possible to create walkable centers. (3, 4)
- Focus the highest density residential uses in areas adjacent to major roads and/or mixed-use areas. (3, 4, 8)
- Locate higher-density residential uses (e.g., multifamily apartments) along arterials and adjacent to existing commercial areas. (3, 4)
- Use a stepped-transition in building height and mass to move from higher-density to lower-density and more intense mix-of-uses to single uses. (8)
- Locate lower density residential uses (e.g., townhouses) adjacent to single-family residential. (3, 4)
- Vary lot sizes for residential uses to avoid a "cookie cutter" and predictable suburban development patterns and better reflect the natural geography. (1, 8)
- Minimize the visibility of off-street surface parking, instead integrating structured and tuck-under parking in buildings or locating surface parking behind buildings. (3, 6)
- Orient the form and layout of buildings to retain or integrate with the existing topography, natural habitat, and respond to climatic or solar conditions. (1)
- Create smaller hardscaped and plaza areas within mixed-use/commercial areas to create spaces for gathering, waiting, discussion, and outdoor commercial activities. (3, 8)
- Organize residential units around common green space(s) that incorporate stormwater drainage, seating areas, play spaces, and internal pathways. (1, 2)
- Public-facing facades and building entries regardless of land use should provide weather protection from wind, rain, and sun and the occasional snow. (3, 6)
- Include multiple entries and windows on ground floor commercial uses facilitate business access, create visual interest, and promote safety. (3, 6)
- Preserve or feature historic architectural details or fenestration (e.g., windows or porch details) where they currently exist or are available for preservation. (8)
- Integrate sustainable design principles, such as passive building design, green roofs, permeable surfaces, stormwater management, and microhabitat creation. (1)
- Encourage an aesthetic that is complementary to the surroundings (such as the Pacific Northwest style) through site design, exterior building materials, landscaping and other features. (1)
- Use dark-sky friendly lighting for outdoor areas, such as full cutoff fixtures or limiting light trespass from buildings into the street. (1)

Public Spaces (Streetscapes, Trails, Plazas, Parks, and Landscaping)

- Encourage the preservation of native soils, existing tree canopy, and topography to the greatest extent possible. (1)
- Design trails and parks to accommodate the needs of all age groups and abilities. (2)

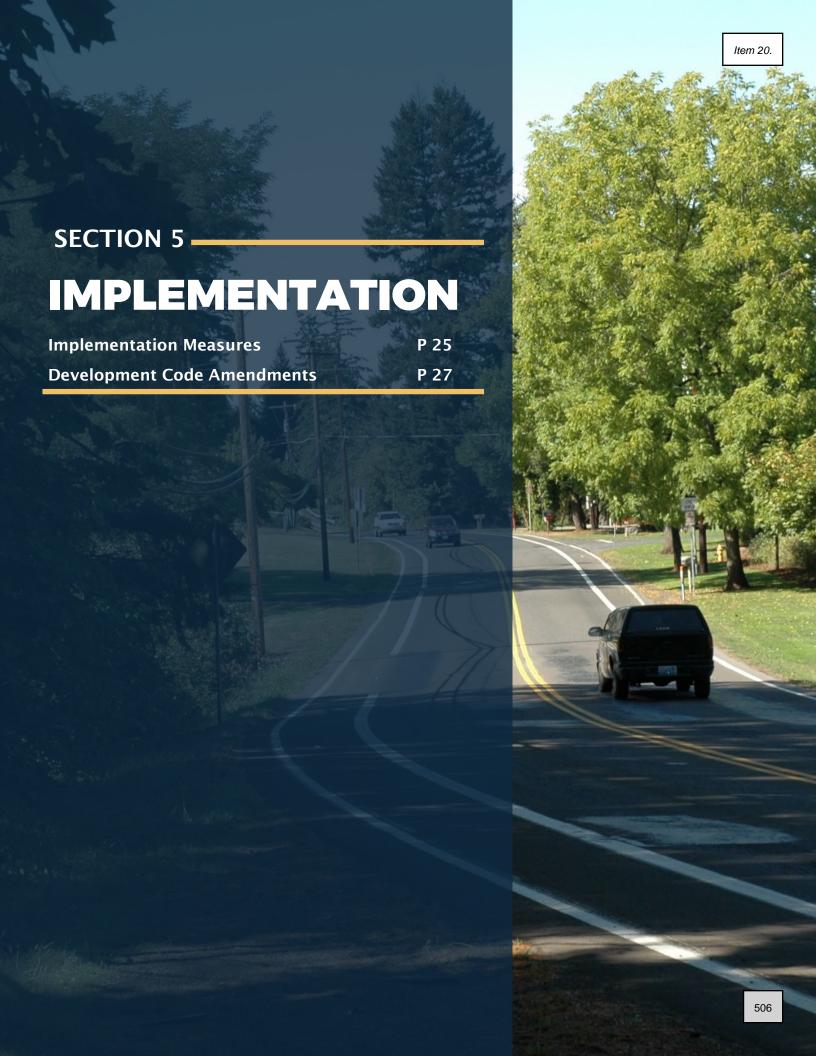
Conceptual Planning

Item 20.

- Design landscaped areas in streetscapes, parks, and plazas to reflect the natural character and ecology
 of the Pacific Northwest and use drought-tolerant native species that increase biodiversity. (1, 8)
- Provide landscaping on streetscapes to mimic rural character and use drought tolerant, native species that utilize stormwater runoff and increase infiltration. (1, 8)
- Provide a consistent theme and identity for streetscapes that reflect a small-town feel through signage, lighting, and pedestrian amenities (e.g., benches). (8)
- Locate trails and natural spaces throughout the area as well as on the edge of the subarea to create buffers for wildlife and provide recreation opportunities. (2, 8)
- Connect new trails to existing or planned regional or local trails where possible. (2)
- Use residential building setbacks for landscaping to mimic nearby, rural residential patterns and provide privacy and safety for ground floor residential units. (1, 8)
- Incorporate seating in public spaces (within mixed-use, commercial, and open spaces) to create passive recreation opportunities to pause or spend time. (2)
- Provide wayfinding and interpretive signage that directs people to historic, cultural, and natural resources throughout the area. (1)

Right-of-Way (Transportation, Mobility, and Streets)

- Provide a multimodal trail network along public rights-of-way to provide daily commute and recreation options and connect to the larger regional trail system. (2, 7)
- Balance the rural character of roadways with the addition of traffic calming features and upgraded pedestrian and bicycle facilities to support multimodal travel. (3, 8)
- Design streetscapes that are pedestrian-scaled, provide an intimate retailing and commercial environment and contribute to the small-town feel. (3, 8)
- Incorporate on-street parking in commercial and mixed-use areas to limit large surface parking areas and enhance walkability. (3, 8)
- Incorporate secure bicycle parking and storage to promote non-motorized travel and encourage modeshift. (7)
- Encourage the preservation and enhancement of wildlife corridors across public rights-of-way through wildlife crossings (under and overpasses designed for wildlife). (1)



Implementation

The following implementation measures establish the regulatory framework that will support development in the North Shore subarea compatible with the vision statement.

Table 4. Implementation Measures

Implementation Item	Action	Priority (short- or long-term)
Planning		
Subarea Plan Adoption	 Adopt the North Shore subarea plan by reference into the Camas Comprehensive Plan. See Figure 17 for proposed comprehensive plan designations. Review existing comprehensive plan goals and policies to reflect the North Shore subarea vision. 	Short
Municipal Code Amendments	 Amend the CMC to codify recommended zoning amendments (see Table 4, Development Code Amendments) and establish recommended overlay zones. See Figure 18 for proposed zoning designations. Implement recommended design standards to ensure future development reflects the North Shore subarea vision. 	Short
Infrastructure (Utilities and Transportation)		
Roadway Improvements	 Ensure future roadway improvements are consistent with the North Shore subarea design standards and provide multimodal transportation options. Coordinate with Clark County and WSDOT on planned improvements, including NE 232nd Avenue and SR 500. 	Short to Long - based on timing of development proposals
Expanded Water and Sewer Service	 Confirm planned infrastructure improvements will support subarea development and are financially viable based on planned densities. Review timing of infrastructure improvements in conjunction with annexation petitions and development applications. Expand franchise utilities in conjunction with development. 	Short to Long
Parks and Trails		
Park and Trail Improvements	 Update the City Parks and Recreation Comprehensive Plan to incorporate park and trail locations proposed in the subarea plan and the Legacy Lands project. Refine park and trail locations in conjunction with future development proposals. 	Short to Long

Implementation Item 20.

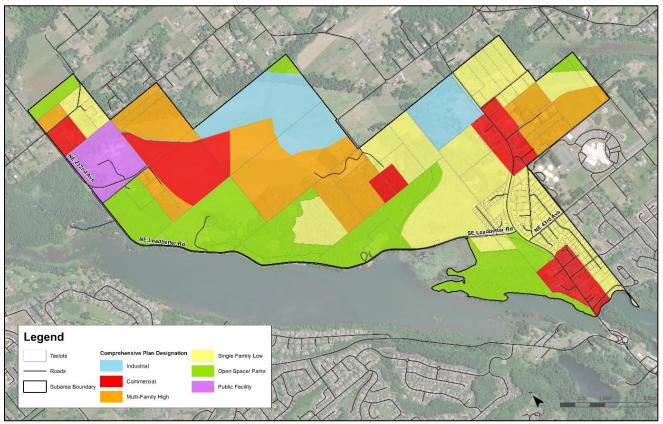


Figure 17. Proposed Comprehensive Plan Map

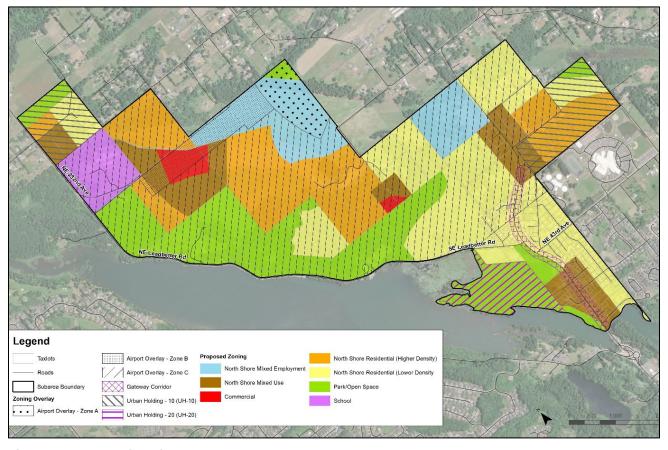


Figure 18. Proposed Zoning Map

Development Code Amendments

The following development code amendments are recommended to implement the North Shore subarea plan.

Table 5. Development Code Amendments

Existing Code	Recommended Amendments
Title 18 - Zoning	 Establish a North Shore overlay zone that specifies standards and uses that apply to the North Shore, such as North Shore specific design standards. The overlay would also allow event facilities to be a permitted use in certain areas within the North Shore.
Chapter 18.05.040 - Residential and multifamily zones	 Amend the City's residential and multifamily zones to add a new North Shore Residential – Lower Density zone. This zone is intended for residential dwellings in the North Shore subarea with a minimum density of 4 dwellings per acre and a maximum density of 5.8 dwellings per acre. This zone will reflect the rural character of a number of existing residences and can support transitions from existing uses to more dense zones. Amend the City's residential and multifamily zones to add a new North Shore Residential – Higher Density zone. This zone is intended for residential dwellings in the North Shore subarea with a minimum density of 10 dwellings per acre and a maximum density of 18 dwelling units per acre. This zone provides for a diversity of dwellings and serves as a transition between commercial areas and residential uses.
Chapter 18.050 – Commercial and industrial zones	 Amend the City's commercial and industrial zones to include a new North Shore Mixed Use zone. This zone provides for a wide range of commercial and residential uses in the North Shore subarea. Compact development is encouraged that is supportive of transit and pedestrian travel. Mixed use areas should create spaces for community gathering, waiting, discussion, and outdoor commercial activities. Amend the City's commercial and industrial zones to include a new North Shore Commercial zone. This zone is designated as a commercial area in the North Shore subarea, providing a range of goods and services.
Chapter 18.13 – Landscaping	 Update landscaping standards as necessary to reflect the design guidelines. The standards of this chapter would apply to any development in the North Shore unless otherwise exempted.
Chapter 18.11.010 - Parking policy designated	 Amend the City's parking policy to incorporate parking standards unique to the North Shore districts.
Chapter 18.15.050 – Signs controlled by zoning district	 Update Table 1 to include signs permitted, prohibited, or only allowed with a Conditional Use Permit for North Shore districts.



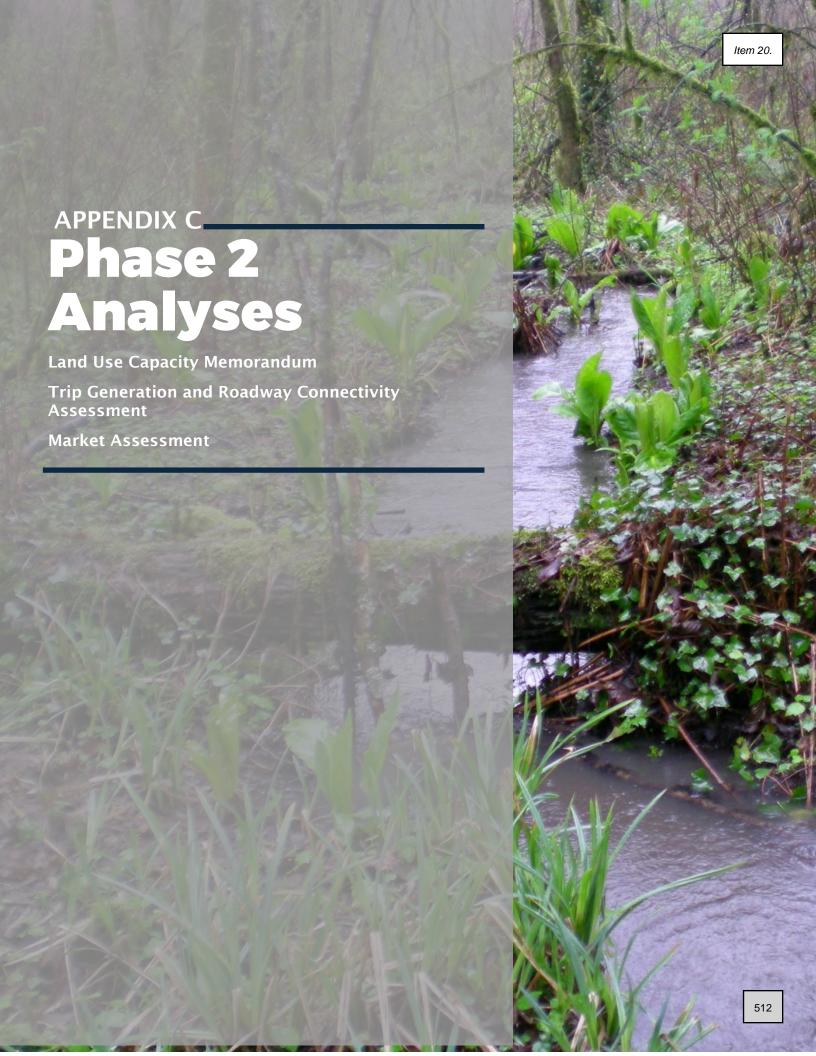
Phase 1 Outreach Compilation

Phase 2 Open House Summaries

Project Advisory Committee Meeting Summaries

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Phase 1 Outreach Compilation

Phase 2 Open House Summaries

Project Advisory Committee Meeting Summaries

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NORTH SHORE SUBAREA PLAN

Vision Outreach Summary

February 4, 2020

Vision Outreach — Round #1

Sept. 10 – Oct. 15, 2019

Community Conversations

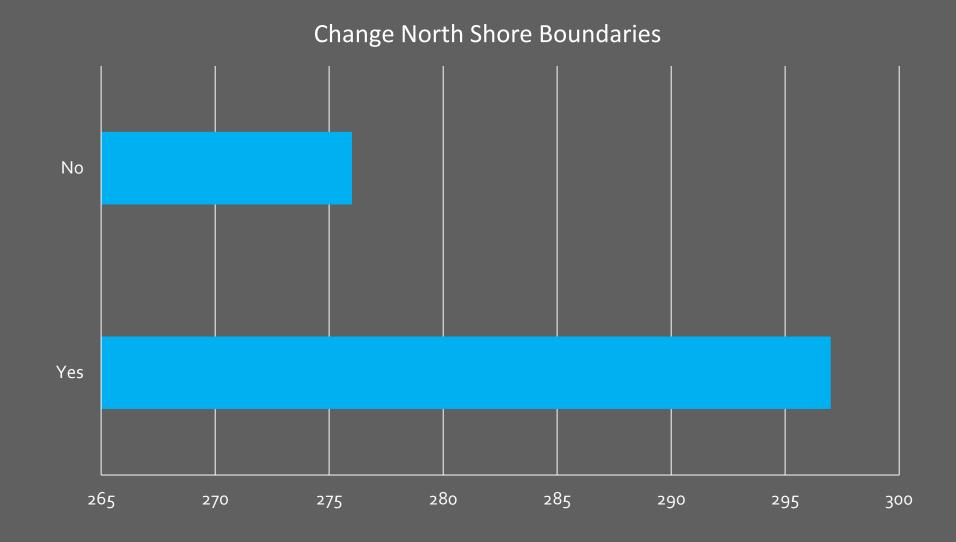
- 21 stakeholder interviews, two school events, farmers markets
- 182 unique comments

Online Survey

• 583 respondents

Survey #1 - Study Area Boundary

583 of 583 respondents



Survey #1 - Study Area Boundary

239 of 583 respondents

Preserve trees; no clear-cutting

More large, singlefamily housing

Schools impact concerns

More housing and housing types

Infrastructure impact concerns

Less/no residential development

Less/no multi-family housing

Less/no commercial

Make the area smaller

Less/no industrial land

Traffic and safety concerns

More parks, trails and green space

No development; maintain small town feel

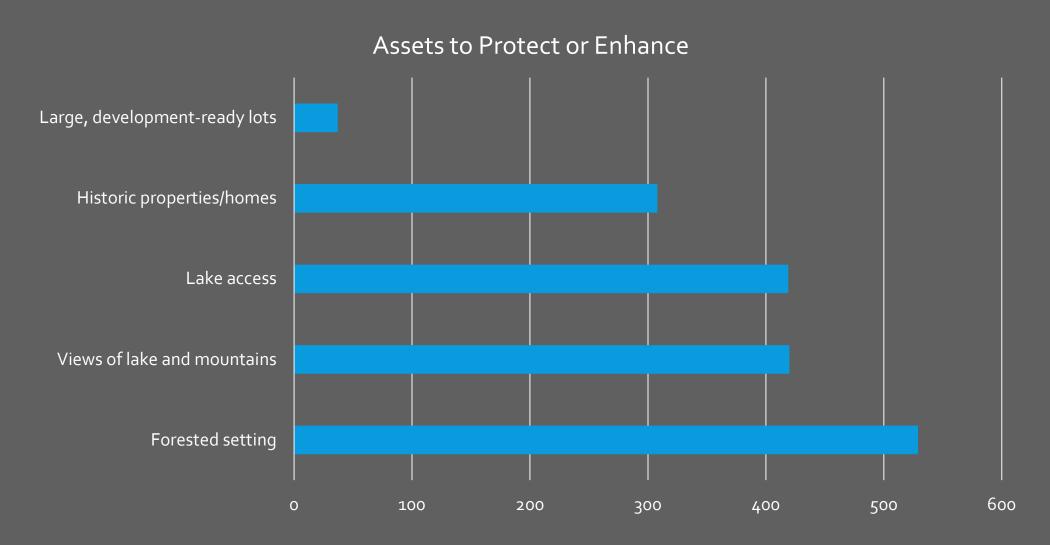
No development near the lake; maintain habitat and access

Less _____Frequent

Most Frequent

Survey #1 - Assets to Protect or Enhance

577 of 583 respondents



Survey #1 - Assets to Protect or Enhance

117 of 583 respondents

Don't develop near the lake
Trails, bike lanes, paths, and sidewalks

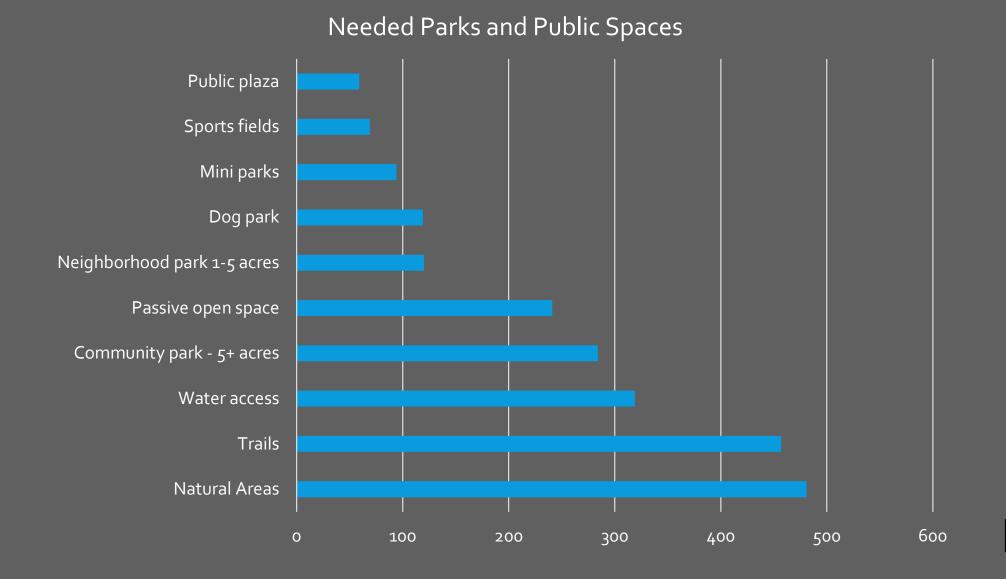
Perserve trees / forest
Trails, bike lanes, paths, and sidewalks

Preserve trees / forest
Trails, bike lanes, paths, areas, habitat, wetlands
Preserve farmland; no development

Less _____ Most Frequent

Survey #1 - Needed Parks and Public Spaces

577 of 583 respondents



Survey #1 - Needed Parks and Public Spaces

74 of 583 respondents

Water park, pool

Large parks (10+ acres)

Community center

Sports fields

Sidewalks, bike paths and trails

Open space and habitat

Natural parks and trails near the lake

Trees / forest

Do not develop; leave as-is

Less _____ Most
Frequent Frequent

Survey #1 - Land Use Designations

429 of 583 respondents

Preserve views to and from North Shore

Infrastructure impact concerns

Affordable, smaller, senior housing

Walking, biking

Yes/more residential

Mixed use

Protect trees / forest

Yes/more single family

Schools impact concerns

No small homes; dense lots

Yes/more commercial

No/less commercial

Do not develop near lake; keep as park

No/less multi-family

Roads/traffic concerns

No/less residential

More parks, open space and habitat

Do not develop; preserve farms and natural areas

No/less industrial

Less **_** Frequent

Most Frequent

Survey #1 - Needed Businesses



Survey #1 - Needed Businesses

238 of 583 respondents

Entertainment, indoor play

Grocery store, market

Schools, continuing education

Library services

Professional services

Department store

Small, boutique retail and small business

Restaurant, coffee shop

Hotel

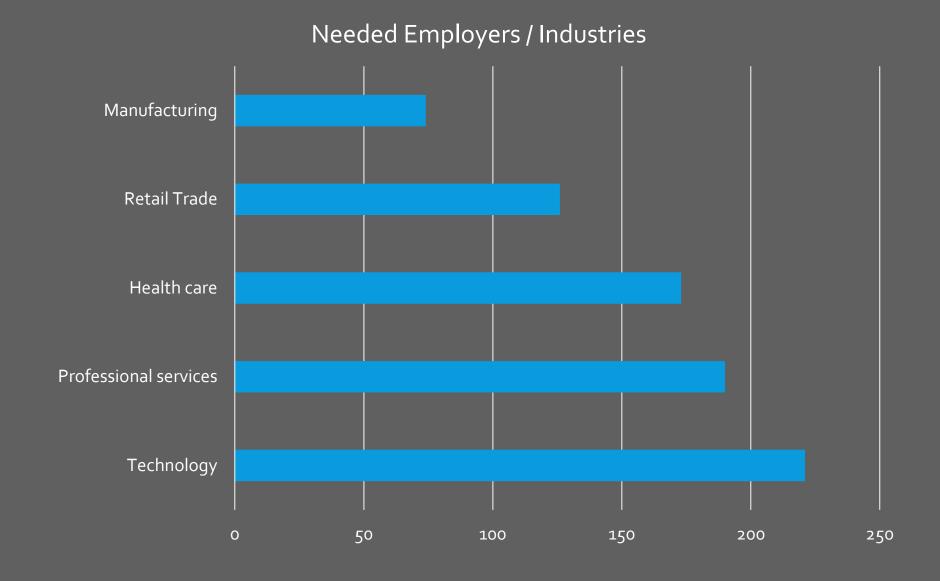
Hospital, medical

Few or no businesses

Less _____ Most Frequent

Survey #1 - Needed Employers / Industries

479 of 583 respondents



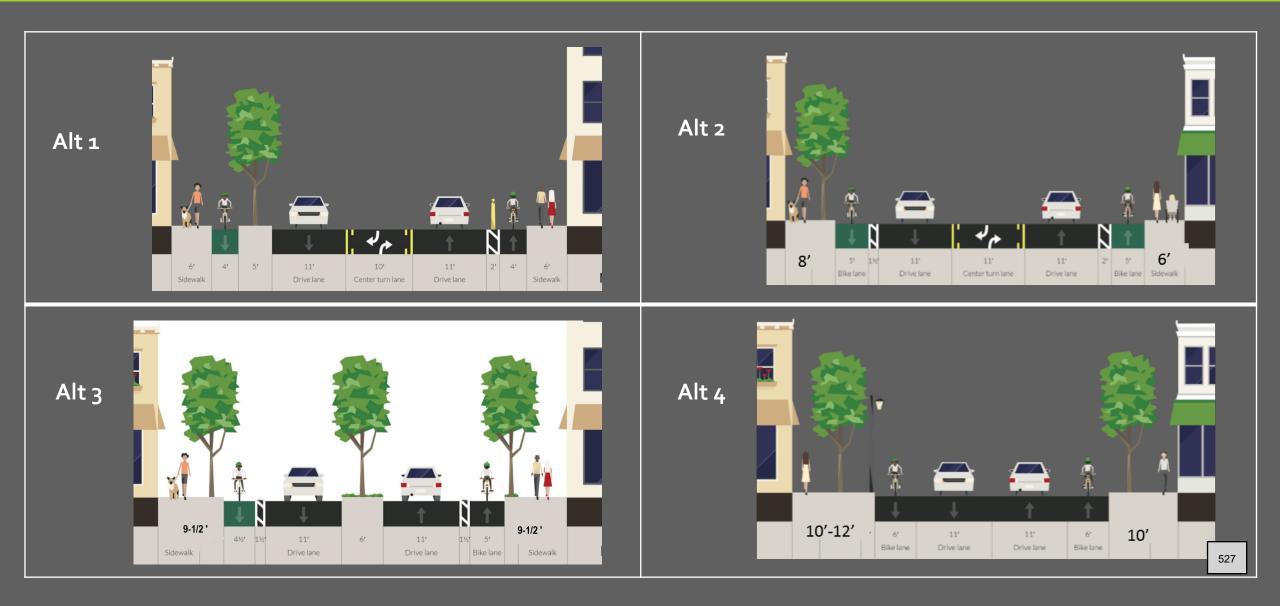
Survey #1 - Needed Employers / Industries

199 of 583 respondents

Local businesses
Education
Health care
Non-polluting
No high-rise buildings
No employers

Less _____ Most
Frequent Frequent

Survey #1 - Roadway Design Alternatives

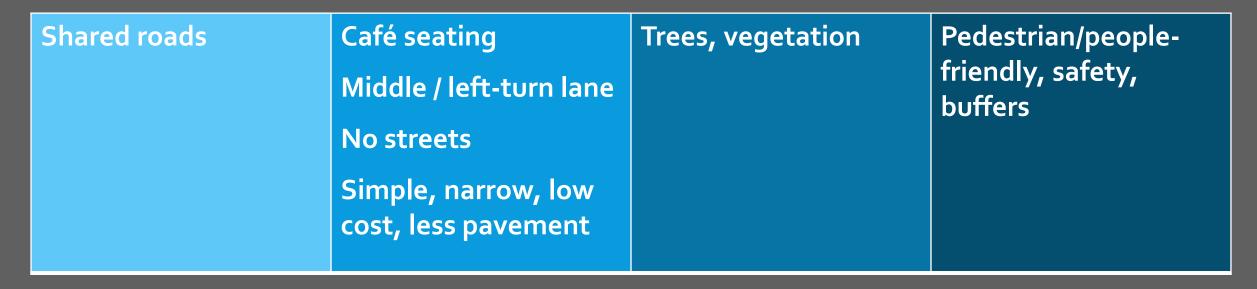


Survey #1 - Roadway Design Alternatives



Survey #1 - Roadway Design Alternatives

281 of 583 respondents



Less _____ Most
Frequent Frequent

Survey #1 - Other Comments

322 of 583 respondents

Yes/more commercial

No/less commercial

Yes/more single family homes, large lots

Quality buildings

Infrastructure impact concerns

No/less industrial

Bike and pedestrianfriendly

Schools impact concerns

No small lots or high density

Maintain views

Less / slower development

Do not develop near the lake

Traffic and safety concerns

More parks and trails

Do not develop; preserve farmland

Preserve natural areas, habitat, trees; no clear-cutting

Less **_** Frequent

Most Frequent

Vision Outreach – Round #2

Nov. 21, 2019 – Jan. 26, 2020

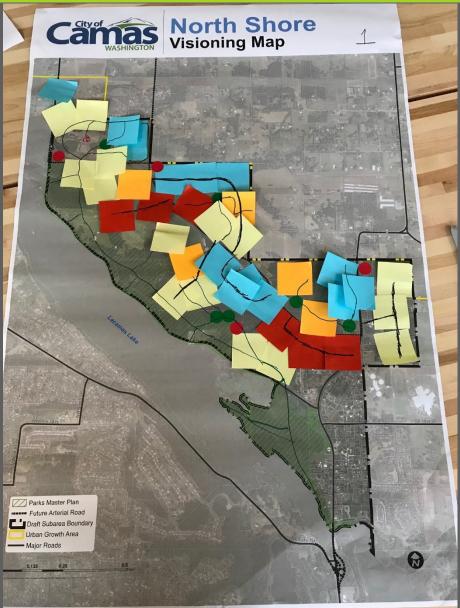
Community Forum (Q&A only)

Student Workshop

Online Survey

678 respondents

STUDENT WORKSHOP

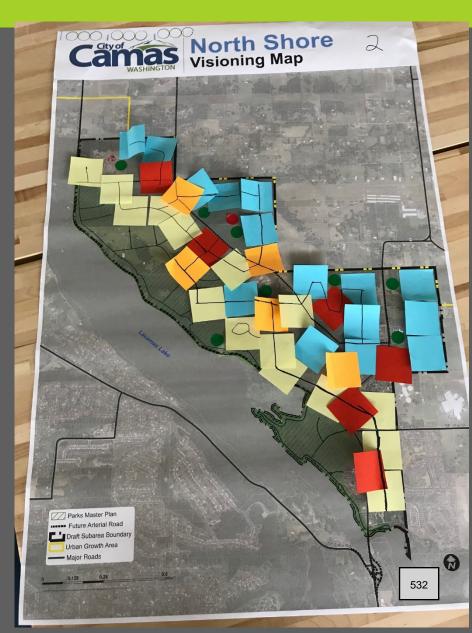


Group 1 Key Features

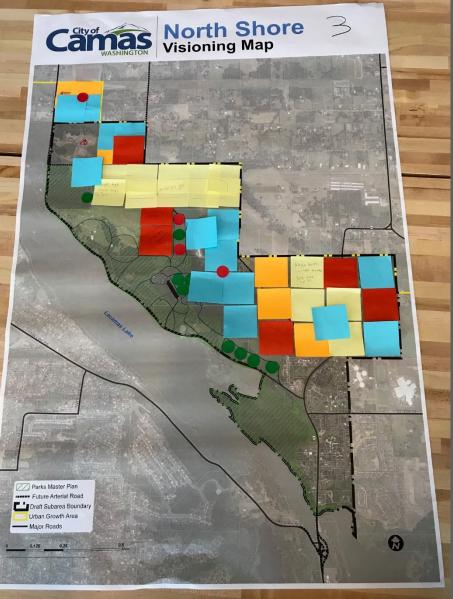
- Provide trail connections between houses, jobs, and shops
- Provide parks throughout the area in neighborhoods and business districts
- Include smaller commercial uses in residential areas
- Include houses near the school
- Provide simple roads with roundabouts

Group 2 Key Features

- Preserve natural areas
- Disperse commercial areas throughout
- Provide housing with views of the lake
- Provide trail connections throughout
- Include a lot of parks and green space



STUDENT WORKSHOP

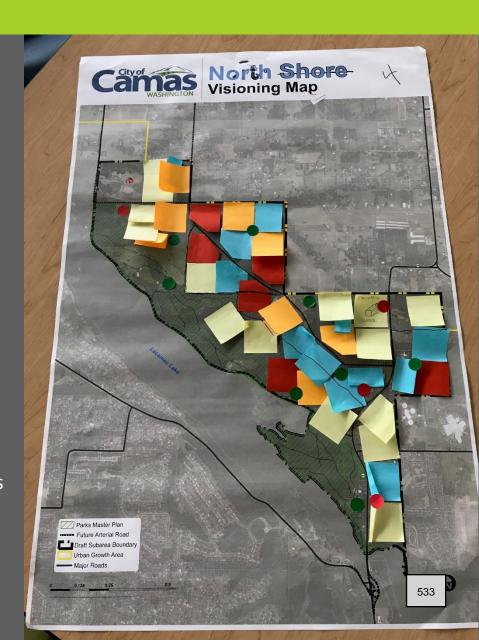


Group 3 Key Features

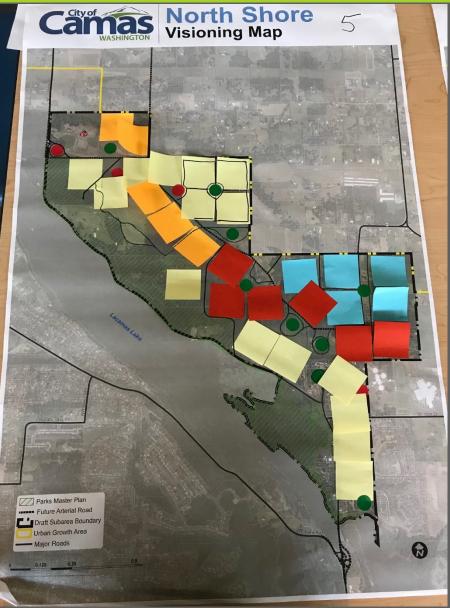
- Include a central commercial and business district
- Provide a mix of housing high income and affordable housing
- Protect large open spaces and natural areas, especially along the lake
- Include a new high school
- Include trails and bike paths to connect different areas

Group 4 Key Features

- Include a new elementary school
- Provide small business districts within walking distance of housing and schools
- Integrate different housing options from affordable to high income to encourage more social interaction
- Provide green space near offices and housing
- Provide parks throughout the area



STUDENT WORKSHOP



Group 5 Key Features

- Include a lot of green space throughout with trail connections and easy access to housing and schools
- Consolidate a business district in one area
- Include most commercial uses in one area with some small commercial areas in neighborhoods and next to the high school
- Mix developed parks in with natural areas

Group 6 Key Features

- Disperse business areas
- Include one primary neighborhood for housing
- Protect the natural areas and include trails
- Include a shopping center and a lot of restaurants



Survey #2 - Land Uses

657 of 678 respondents

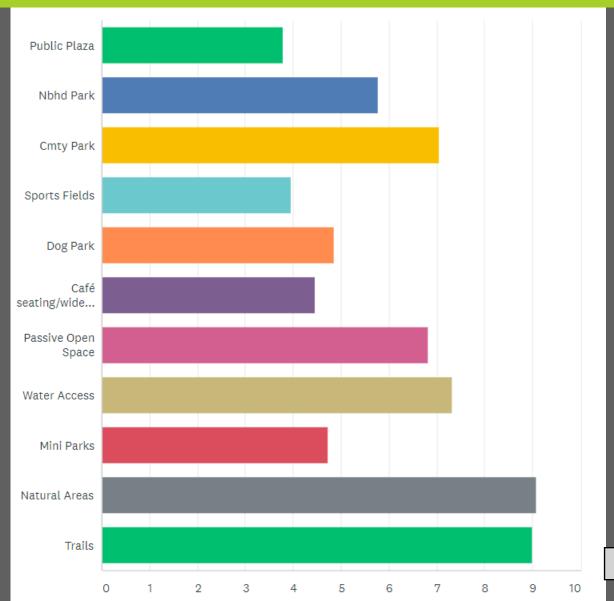
What land uses are most important to provide in the North Shore?



Survey #2 - Parks and Public Spaces

661 of 678 respondents

What types of parks and other public spaces are needed in the North Shore area?

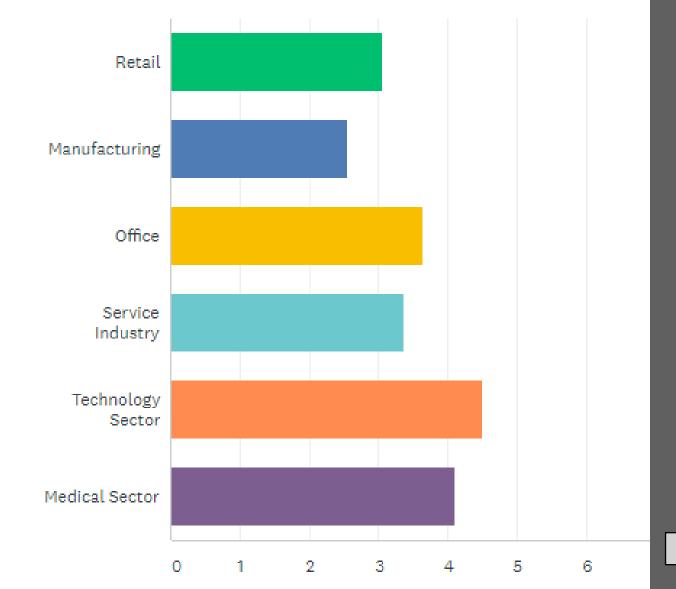


536

Survey #2 - Employment (Jobs)

595 of 678 respondents

What types of jobs would be ideal for this area to keep more jobs in Camas?



Survey #2 - Other Comments

374 of 678 respondents

Build more densely to preserve lands

Infrastructure impact concerns

More local jobs

More large, single family lots

Do not develop near the lake

No small lots; too much density

Quality buildings, design

Bike and pedestrian advocates

Slow or stop development

Mix of jobs, commercial, walkability

Affordable homes

Do not develop; preserve natural areas

Incorporate mature trees, open space

Traffic and safety concerns

More parks, trails

Vision Outreach Themes

- Do not develop; keep it rural, natural
- Incorporate more parks and green space, especially near the lake
- Develop in a way that preserves trees, views, and habitat
- Minimize traffic impacts and maximize safety
- Plan for needed schools and infrastructure

Vision Outreach Themes

- Incorporate bike paths, wider sidewalks and trails
- Favor local-serving businesses, such as restaurants, cafes and grocers
- Pursue employers that do not impact the environmental or aesthetic qualities of the area
- Pace development to maintain Camas' small town feel

Camas North Shore Subarea Plan Vision Outreach Comments Compilation

The City of Camas is beginning work on the North Shore Subarea Plan, a nine-month effort to plan a future for the area north of Lacamas Lake. Today, the North Shore area consists of agricultural land and single-family residences with large, rural acreages. The area is anticipated to experience substantial growth and redevelop with a mix of employment, retail and residential uses. In 2012, City Council approved a plan for how the area would grow over the next 20 or more years.

The North Shore Subarea Plan process provides the community with an opportunity to re-think how the area will develop in the future. The Plan will include a community vision, conceptual road alignment, land use designations, and a projection for future jobs and housing.

The first step in the North Shore Subarea Plan process is to create a vision that captures how community members want the area to develop in the future. To create the vision, the City is conducting a series of vision outreach activities, including stakeholder interviews, conversations at community events, and online surveys. Outreach efforts included the following activities to solicit input from property owners within North Shore and the broader community on what they value most about North Shore and what should be preserved as the area develops:

- Presence at Discovery High School, Camas Farmers Market, Camas High School and Camas Youth
 Advisory Council to encourage community members to sign up for the project email list and participate
 in the online survey. Page 2
- Twenty-one stakeholder interviews with property owners within North Shore, representatives from the Camas School District and the Port of Camas-Washougal, and elected officials. Page 3
- Online survey #1 taken by 583 community members. Page 12
- Student workshop at Discovery High School to map future land uses. Page 80
- Online survey #2 taken by 678 community members. Page 83
- Email and Facebook comments. Page 107
- February 4, 2020 Community Vision Workshop. Page 119

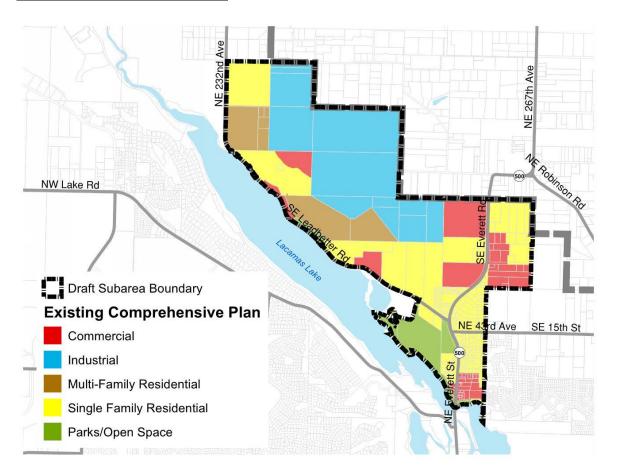
The following is a compilation of all community comments collected through these outreach activities. This compilation serves as an appendix to the Vision Outreach Summary. Additional summaries and compilations will be prepared to communicate the results of future activities.

COMMUNITY EVENTS

The following is a summary of input received through conversations at community events detailed below. The map and description below were provided at the events to spur conversation.

- Discovery High School August 28
- Camas Farmers Market September 11
- Camas High School September 25
- Camas Youth Advisory Council November 4

The 2016 study area map depicts existing land use designations for the North Shore area, including industrial, commercial services, residential (single-family and multi-family), and parks and open spaces. What, if any, changes would you make and why?



- Don't develop anything; keep Camas a small town
- Maintain green spaces and shore access
- Locate businesses along transportation routes
- Want homes with yards on large lots
- Lake access is a community asset
- Restrictions or homeowner education about lawn treatment and chemicals to protect the lake
- Save more land for parks; do not fully develop
- Traffic is already bad on Everett
- We need to keep our agricultural land
- Need lower cost, entry level homes; better concentrated near transportation and amenities

STAKEHOLDER INTERVIEWS

The following is a summary of comments received through 21 stakeholder interviews conducted on September 9 and 10, 2019.

- 1. Preliminary North Shore Subarea boundaries are generally Lacamas Lake to the south, city limits to the north, Northeast 232nd Avenue to the west, and Everett Street to the east. Community and stakeholder feedback will help determine the final boundary. Do you recommend any changes? If so, why?
 - Collaborate with the Port on development near the air field.
 - Consider including the high school in the boundary
 - Consider the area north of the high school that is in the UGA.
 - Get the planning done and get it done right because we don't get a second chance.
 - How would the subarea relate to impact fees? Would want improvements to be paid for by a larger area, as they would benefit as well.
 - If it would benefit the city, bring it in. Get it right the first time. Look at it and be thoughtful about it. Be ready and know you are getting what you need. We need to plan way ahead. Do the urban planning and do it smart. The City could even buy land to make sure it's developed the right way.
 - Include all the land we will need so we don't have to do it multiple times.
 - It's good that the school was built before the homes come in. The City should recalibrate and rebalance land use needs.
 - Keep in mind the area near the airport and the East County Fire and Rescue Station.
 - Library services also could be extended to this area without a new facility.
 - Nothing has been done to ensure services to the area where the new school was built. The lake is a natural boundary, which will slow response times. May need a new fire station. We need a street network that can handle that traffic and also should look into citing new facilities. Will need to look at redesigning patrol areas and consider co-location opportunities.
 - OK with the boundaries as drawn.
 - Potentially include areas to the east of Everett that impact the traffic in the area.
 - Six-year street priorities will address Ingle Road and 28th Street and Everett Street and Lake Road.
 - The area to the east is fastest growing area in the city and will have the largest elementary school. Families are moving to Camas because of the schools. There is not a lot of affordable housing in that area.
 - The boundary is fine, but the study needs to consider areas outside of the boundary to assess transportation access for the overall area. East side bottlenecks and will continue at Everett Street and Lake Road, and at Goodwin and Ingle Roads. Currently looking at roundabouts. Look at uses that complement the air field to reduce trips.
 - Whether or not it's included, there should be trail connections to Camp Curry. Currently used for youth camping, but may someday be developed as a regional park.
- 2. What are the most important assets in the North Shore area? What developed areas or natural resources should be protected or enhanced?

Large, development-ready parcels Lake access View of the lake and mountains Forested setting

Historic properties/homes

- Access to medical services and healthcare would be good as the area develops.
- Additional lake access is not needed.

- All of the suggested assets are important
- All are important. View of lake and mountains is appealing for new residents and businesses. Lake
 access is important. It would be nice to maintain the forested setting. There also is a need for the large
 parcels to make development viable. It will be difficult to strike a balance to protect assets.
- An interconnected system of trails and parks around the lake with trails leading from the lake in other directions. Lake to Lake trail concept from Lacamas to Vancouver. Lewis and Clark Trail through the County.
- Camp Curry is on county land near the north end of the lake.
- City has a tree ordinance to maintain forest land and the tree canopy.
- Close the north side of the lake for biking, hiking and water access. Put in a trail all the way around.
- Commercial/retail near the high school would be beneficial.
- Concur with preserving the Leadbetter House and lake access. I'd like to see an extension of trails.
 There are large parcels, but many are not usable due to archaeological resources and white oaks.
 There is potential for partnerships that provide public parking for people wanting to enjoy the lake or trail system in the area. The City and school district should work together to look at the land south of the school in terms of infrastructure, parking, etc. Want kids to get to and from school safely.
- Green space. Primitive single track along the lake. Leadbetter Home. Lake views and forested areas.
 Linked pathways from north to south. Need to protect trees. Groves/copses interspersed throughout.
 T5 and T6 connect with paths. Some trails are too steep. Need trail connections throughout and
 around the lake. Specifically, a trail from the northwest to southeast along the ridge and parallel to the
 road with connections down to Leadbetter Road. Primitive trails in southern park areas at 43rd.
- Housing is an important consideration; the area is currently underutilized.
- It will be a regional draw and parking will be needed.
- Jobs are needed to support preservation.
- Let the land tell us what it should be. Learn from the experience of other communities where it didn't work out well and our community where it did. Elected officials and staff need to be disciplined and not compromise or cannibalize areas for economic/industrial development. Will be enormous pressures to develop residential, need to be patient and resolute.
- Make Leadbetter Road a walking and biking pathway, but leave one lane for emergency services response. Protect the shoreline.
- Maintaining employment land is key, especially since it has been lost in other places requires large tracts of land
- Not as concerned as some about preserving trees. We need to develop this area effectively so it will work for the next 30 to 50 years. However, there should be a plan for trees.
- Preservation of natural areas, lake access and trail improvements are key.
- Preserve the shorelines and wetland complexes and habitats of Lacamas Lake.
- Protect and integrate trees into the development as much as possible.
- The current map is missing parks and trails in other land use designation areas. A portion of the slope in critical lands should be set aside as an open space network. Large, contiguous blocks.
- There should be a connected trail system all through the area.
- There is a fortune in the grass valley with huge blocks of land in ownership of one extended family. Also reflecting quality and vision of those people.
- Trails should be extended from the wetlands to the north down to the lake.
- We have an amazing amount of green space and parks already, and trust that will continue. The Leadbetter house has a compelling story and is a big part of our history.
- Would like to see access to the lake and a waterfront park via a trail.

3. What types of parks and other public spaces are needed in the North Shore area?

Public Plaza Passive Open Space

Neighborhood Park (1-5 acres) Water Access

Community Park (5+ acres) Mini Parks (up to 1 acre)

Sports Fields Natural Areas
Dog Park Trails

• 1 or 2 community parks and multiple neighborhood parks throughout development.

- A fun and interactive park with active play areas for kids. Our demographic is young families.
- A loop trail around the lake will be a great addition.
- A pool, depending on outcome of bond.
- A rowing club or boat house would be nice.
- A trail along the lakeside is a natural fit. Update to meet the needs identified in the park open space and trails plan. Like to see neighborhood parks. Consider neighborhood parks that are part of development and quite small, maintained by HOAs. Good work on major neighborhood park in Green Mountain.
- Developed parks are needed, not just natural areas, but the quantity of parks depends on how the other land is developed.
- Maintain natural areas and include a park along the lake.
- Maximize park land with a diversity in park types some developed and some natural areas.
- Natural, primitive parks. Everyone wants fields and sports parks, but we need to incorporate into park
 big open space. Consider county park land to the north for fields. Green space, transition Leadbetter
 from a road to a double track gravel trail (moss gets bad on pavement). Preserve tall trees. Don't clearcut. Sunningdale Gardens along 44th preserved big evergreen trees.
- Open spaces and trails are a community value. Public spaces for community building. Downtown, sporting events, etc. The 1989 vision called for a prosperous community with diverse economy. Livable community with parks and open spaces, police services, good infrastructure. Community with small town feel where people know and care about one another.
- Parks and recreation, fields, trails and green spaces. The Comprehensive Plan clearly expresses those needs and priorities.
- Parks and playgrounds for kids that are accessible by bike or walking.
- Protect some of the existing assets. The area needs parks with picnic areas. Encourage cycling and There is a high demand for sports fields.
- Sports fields could work if there is enough demand.
- Sports fields may not be appropriate for this area.
- Tree canopy cover is important.
- Walking. Employees on lunch hours should be able to enjoy the amenities and they will be popular for nearby residents. Residential area pocket parks. Young families can be close to park amenities. SE Ledbetter Road as a multi-use path with good access to the Lake.

- 4. The study area map depicts existing land use designations for the North Shore area, including industrial, commercial services, residential (single-family and multi-family), and parks and open spaces. What, if any, changes would you make and why?
 - Appropriate buffers between residential and industrial will be needed.
 - Areas around Lacamas Lake Lodge and along Leadbetter Road should be kept natural and woodsy.
 Camas is a city of trees.
 - City needs diversification in land uses.
 - Commercial areas to support tourism and lake activities.
 - Commercial nodes along the arterial would be good.
 - Consider zoning tools that will create neighborhoods within parks rather than parks within neighborhoods.
 - For commercial, mixed use with commercial below and residential above. Keep people in the area so they don't have to drive to services.
 - Good walkable with neighborhood commercial. Allow people to get out of their cars.
 - Maintain a band of open space just below the ridgeline as park and connect to it with trails throughout
 the area. High quality and high aspiration marker. 50 acres of open space per 1,000 people as a goal.
 Likely that transportation will parallel the lake at the top of the ridge, so include green space with trail
 on the lake side.
 - More employment land.
 - More housing and density.
 - OK with industrial land for a business park, though developers are currently chasing multifamily residential. Would like to see a better mix of uses to make the area more viable for developers. Newer business parks include a residential component, so more of an urban village, but residential is not allowed in the business park zone. Like you see in Dupont, Washington. The southeast corner of the industrial zoned areas would be a good location for a public plaza surrounded by mixed use development. Retail should be some percentage of the business park. Need to be flexible on what will be developed there. The challenge of an urban village is the need for other rooftops to make it work, so the commercial will be the last piece developed.
 - Previously, a company was interested in locating in this area, but was scared off by the uncertain timing of infrastructure. What roads and utilities need to be here and how long it will take? They were ok with three years.
 - Pods of neighborhoods with views to the lake. Within neighborhoods, connect with paths. Want offroad paths, not just widened sidewalks. Neighborhood commercial at hubs. Small, lakefront commercial. Limited industrial, furthest away from lake.
 - Schools surrounded by neighborhoods.
 - Seems like there is too much commercial. The commercial should be interspersed with a business park
 to make the business park viable. Need some commercial along arterial corridor so people don't have
 to drive south and cause more congestion.
 - Seems reasonable. Concern about wooded areas north of the park. Consider mixed use development to provide better access to services such as restaurants.
 - The Bridge Village area should be mixed use.
 - There should be a walking trail around industrial park. Keep industrial uses away from the lake.
 - Will need major transportation connections, but how to do it? Parallel paths in nature preferred to bike path along road. Off-road bike paths whenever possible.
 - Would like to see a mix of employment, retail, residential. Where is the mixed use? Want places where people can live and work. Walkable community concept.

- Land use map should reflect current uses (i.e. elementary school) and the land around the lake purchased by the city should be parks
- Land uses need to be integrated with transportation improvements
- 5. What types of businesses are needed in the North Shore area to support the retail and service needs of future residents?

Restaurants Gas Station Grocery Store Library

Coffee Shop Barber Shop / Salon
Child Care Department Store

- A mix.
- Community amenities.
- Consider how the land adjacent to the elementary school transitions to other uses what are appropriate buffers, etc.
- Grocery store.
- Have to have local services like a grocery store, restaurants, child care, coffee shop to avoid creating
 more north-south trips. Downtown is more of a destination. Also depends on what goes into the
 industrial lands. What if it is a hospital? Be flexible to accommodate a variety of potential uses in the
 business park.
- I like the Village concept. There are some conceptual examples at 179th Street. We often still separate jobs from residences, but residential and commercial can be done together.
- It would be good to have a grocery store in the north shore area to reduce the number of trips. Maybe a Trader Joe's, although it would compete with the downtown Safeway.
- Mixed use at Bridge Village.
- More restaurants to make Camas a dining destination and draw people from the east.
- Need transportation connections to the east to Vancouver. Natural resources bring people to Camas. Make those destinations so they can live and play here.
- Need more retail and service choices in the City.
- Neighborhood commercial, keep small town feel. Have to have gas stations for people heading north.
 No big box retail; locate it elsewhere. Some sort of grocery store and something like Target in condensed area to north away from lake front and lake views. Decrease intensity of uses towards the lake
- Put amenities in the area that will keep people from going to Vancouver. Smaller mom and pop retail creates a better quality of life.
- Retail near high school.
- Services for residents and employees: Maybe a supermarket, but maybe not. Local produce and businesses. Need for cafes and restaurants. Maybe located on the lake front.
- Shop, work and live in the same area. Reduces trips and benefits health.
- Smaller, neighborhood-serving commercial development.
- Smaller grocery store such as a New Seasons or Chucks.
- Urgent care/medical services.
- We need signage to bring people to downtown and a recreational trail / history circuit to connect the area down to the Port of Camas-Washougal.
- We want people to come to the south for their shopping, not head west to Vancouver. Vancouver doesn't have the downtown experience of Camas. An historic downtown not built for cars.

6. What types of employers would be ideal for this area to keep more jobs in Camas?

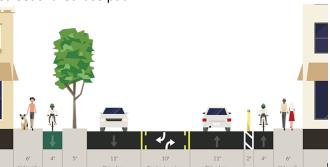
Health care Retail Trade
Manufacturing Technology

Professional services

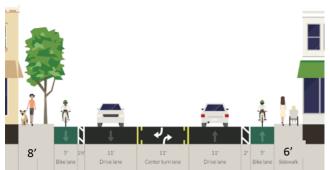
- Camas lacks blue collar jobs.
- Clean businesses.
- Concern about the impact freight traffic might have on the transportation network.
- Diversification. Mill was 75% of assessed value then became 8-9%. No one industry or employer can now cripple this community. Will not need entire town's economy dependent on any one industry. Some of it should be blue collar and some white collar.
- Family-wage jobs manufacturing, light industrial, science/tech, etc. Nothing hazardous to the environment.
- Flexible on industry, but would like to see average salaries above \$65,000. Health care and high tech seem viable. Manufacturing is moving towards automation. The City also need to consider what businesses to attract to the Port.
- Healthcare/medical center.
- High tech and health care for career fields for kids.
- High tech, medical, health care. Avoid shipping centers and warehousing that bring trucking traffic.
- Large employer with well-paying jobs.
- Professional services (office).
- Retail trade.
- Storage facilities? We are saturated with demand for storage facilities.
- The City needs to be thoughtful about the types of employers are recruited for this area- set a jobs/acre goal.
- Transportation might limit the possibility of a college campus on north side of lake.
- Would not encourage manufacturing with a lot of truck movement because transportation access won't be great even if street network is developed. Smaller trucks, light manufacturing. Discourage large manufacturing and large trucks.

7. Review the four road design alternatives below. Which, if any, of the alternatives do you prefer and why?

Alt 1. Two travel lanes, center-turn lane, 10 ft offstreet shared-use path.



Alt 2. Two travel lanes, center-turn lane, buffered on-street bike lanes, 6-8 ft sidewalks.



Alt 3. Two travel lanes, planted median, buffered onstreet bike lanes, 9.5 ft sidewalks.

Alt 4. Two travel lanes, bike lanes, 10-12 ft sidewalks for café seating.



- Also need to connect to Vancouver to draw people to Camas for jobs.
- Boulevard (alt 3) is nice, but seems expensive.
- Camas High School is the main causer or congestion.
- Changes were made to 232nd so that the natural flow is toward the new school. When that road gets pushed through it will connect new houses to the school.
- Close off Leadbetter Road and establish a new road network. Roads should be for transportation and recreation.
- Complete streets (emphasis on bike/ped).
- Concerns with the right-of-way getting too large and taking up developable land.
- Cyclists like being buffered from vehicle lanes. Preference to have protected lanes. Four feet is narrow for a bike lane.
- Depends on what type of roadway you're talking about. North Shore arterial, no street cafes on a major transportation corridor. Café seating is attractive on the right type of facility.
- I like the boulevard concept #3 where it's feasible. Would like to see off-road multiuse pathways, separated by landscaping or bollards.
- I'm really worried about transportation. I don't want to create silos because transportation improvements don't connect throughout the area. The Bridge Village area is a bottle neck, but it is very expensive to redo the bridges. The City needs to decide now. There are plans for a roundabout at Lake and Everett. We need a connected road system, bike paths and pedestrian connections. Need to move safely from the North Shore area to downtown. The City acquired the Mill Ditch property which will be filled in to create a walking/biking path and connection to downtown.

- Left turn lanes could be helpful to not get stuck. Many jurisdictions using roundabouts or small traffic circles.
- Like the boulevard cross-section, but trees in designs like this often are not maintained. Maintenance would need to be included in the cost. It doesn't look good once the trees die.
- Need a strong connection from the west to this area and connect around the north side of the lake.
- Need a significant connection to 192nd.
- Need an east-west arterial and improvement at the choke point. In the future, we will move away from concrete sidewalks. Where necessary due to topography, use modified road standards. Let the land tell you what the street should look like.
- Need connections to the north and west in addition to connecting to the south via Crown Road.
- No matter the size of the roads or use of roundabouts, the Everett Bridge is going to be a bottleneck. Should acquire more ROW than is currently needed so there is adequate capacity in the future.
- Not a fan of roundabouts. If that were the answer highways 99, 212 and Airport Way would be designed with roundabouts. Need 60 seconds of green for traffic throughput.
- Now is the time to think about major (state) transportation corridors through the area.
- One side with multiuse path and other side sidewalk (like alt 1).
- On-street parking is not appropriate for arterial, but would work in an "urban center" type area.
- Option #3 with trees. Use roundabouts. Like wider sidewalks for multifamily pods of townhomes and apartments. Commercial option #4 with roundabouts and a meandering road. The ability to include paths depends on how the area is developed.
- Should be thinking about what transportation network looks like from Camas to Battle Ground.
- Street parking is not shown in any of the diagrams. Will need to have designated parking off road.
- Street trees.
- Take something like alt 3 on both sides. SR 500 to be redirected through this area. Will at least need three lanes. Road layout in people's backyards so road access is very clean. Backyards get smaller and they don't get access. People also coming from west via Goodwin.
- Three lanes are needed on an arterial.
- Trails should be separated from the roadway.
- Utilities coming from school property at northwest end. Main way into this area will come from the
 west. If surrounding two lanes are sufficient, get in from east and north, think that would handle the
 first phase. After 3-5 years, find the money to turn SR 500 into 4 lane road. Camas six-year street plan
 includes Goodwin, 28th, 232nd Avenue access. Buy the right-of-way for 5 lanes and build 3 lanes. Sewer
 is in place along Leadbetter road and pulled up to the school. Pump station will be needed to get over
 the ridge. Development will likely start closer to Leadbetter Road and extend north. Can figure water
 out. It likely will come through an arterial.
- We need bike lanes and roundabouts on Everett. There isn't enough land to create a bigger road. The Port and City have discussed signage to direct people to downtown.
- Wider sidewalks are not as important in North Shore, but are in Bridge Village.
- Would like to see off road multi-use paths near the school for pedestrian safety.

8. Is there anything else you would like to share about your vision for the North Shore area?

- A roundabout at Everett and the new arterial would be nice.
- Connections to downtown are key.
- Connectivity is the biggest issue for future development.
- Consider traffic from the high school and the second entrance to the school.
- Have new construction in expansion areas feel like our town. Drawings of the Community Center do not look like Camas. Need aesthetic, trees, walkability, bike trails.
- Have to have plans in place to attract new residents. I worry about transportation.
- Infrastructure to serve the area will be key.
- Integration of trees is vital to protecting the character of the area.
- It's great that the City is being thoughtful about growth. Good to input on the decisions the city can control. Get a diversity of perspectives. Match need to desire and land use.
- Look at how we develop to make sure assets are public and fenced off from back yards. Need buffers adjacent to forested park boundaries. Trees can be hazards.
- Make sure the needs of Grove Field are addressed.
- Need a vision and discipline in the real political world. Maintain a sense of community. Maintain green space, parks and trails. The infrastructure (water, sewer, storm and interior streets) will not be difficult. Transportation is the real challenge, including the SR 500 crossing of the lake. If the City wanted to slow development, they could look to the GMA rule that adequate public facilities are needed and until the bridge is widened, that does not exist. Building the shining city on the hill. Thank you, City of Camas.
- Need a plan for shovel-ready land quickly.
- People want to keep the small town connectedness of Camas. That's why we didn't create another high school. We don't want that division. Events that bring people from all over. We want a unified community. But where does the next high school go?

COMMUNITY SURVEY #1

The following is a compilation of all comments received through online survey #1 between September 10 and October 13, 2019.

- 1. Preliminary North Shore Subarea boundaries are generally Lacamas Lake to the south, city limits to the north, Northeast 232nd Avenue to the west, and Everett Street to the east. Community and stakeholder feedback will help determine the final boundary. Do you recommend any changes? If so, why?
 - Please do not develop any of it. Camas is losing its green.
 - No development on north shore of Lacamas Lake
 - Too much development. Why are we destroying the beauty we have?
 - I recommend that the city abandon plans to develop the North Shore area. The change/growth in Camas has already been excessive. Stop the growth and keep our small town.
 - No commercial and no industrial
 - Add park access to north of Lacamas Lake
 - Drastically increase natural and public spaces
 - does not need to be so far north. keep it closer to the lake. keep the rest of the land rural.
 - Reduce size of industrial and put open space/parks between residential commercial- industrial.
 Industrial to be restricted to clean non polluting. Keep as many trees for views from lake and old growth areas to keep the feel of LaCamas lake.
 - Stop developing
 - Commercial zoning looks to be where current homes exist
 - Leave it as is
 - Leave it alone.
 - More Park/open spaces; No multi-family residential; Smallest single-Family dwelling must be on 1-3acres
 - Find a way to broaden parks and open area. Additional development cannot be supported with current infrastructure.
 - It needs more open space. Too much land has already been ripped up and built on.
 - Not so much industrial.
 - Too much traffic and development already.
 - limit as much development and construction as possible Lacamas Lake is historic
 - More parks and open space
 - How about no growth? Camas has done a poor job with its growth plans so far. Too many homes and no changes to our roads or infrastructure. It's created traffic nightmares.
 - The proposed area should be reduced to protect the lake front environment and habitat
 - No development
 - Stop the growth rate
 - There is hardly any green space. What will future people think of this part of the Lewis and Clark Trail if we have destroyed its living legacy?
 - Too much high density housing. Is there a wild land urban interface to mitigate fire hazard? What is planned for adding vehicle, bicycle and pedestrian traffic, safety?
 - No new houses
 - More green space and parks, less multi family homes. Traffic is an issue now and will be worse. The environmental impacts of all those homes, people and traffic is unbearable to think about
 - No development, please
 - Leave it alone

- More green space. Also, is there land available for Camas School District to purchase should they ever decide to build another middle school or dedicated large high school?
- More single family residential. We don't want more apartments.
- That's too much development. It doesn't look like land conservation wasn't part of this plan.
- I would appreciate if industrial area is not right next to my property. I would like it to remain natural preserve or recreational area. It would be a great to have trail to elementary school. And paths to lake.
- Significantly more green space.
- Less industrial and more parks/open space and single-family residential since it would keep Camas' small-town feel
- Don't develop the land. Camas loves trees and it's small town feel. Leave the green spaces alone.
- No development on the north shore. We are seriously affecting the livability of our community by this sprawl
- Stop over developing Camas
- Stop building so much. Keep Camases natural beauty in an area that has been mostly left alone.
- Too much industrial acreage. Industry means changing the landscape greatly and mowing down trees.
- Less industrial space. I am sure you remember what Joni Mitchell said.
- No more development
- Too much development vs. parks/open space especially near the lake itself. This will dramatically and irrevocably change the landscape and environment permanently. Not representative of what citizens value about living in Camas. Also, not enough parks/open space in relation to proposed development.
- Stop building new houses and keep Camas a small community with natural beauty.
- Zoning isn't listed for the single family residential. I'd suggest r-10 or preferably higher. Infrastructure at this point is already choked up on 14 & 192nd. Not sure how new residents will be getting around.
- No development
- The provision for parks/open space is minimal. This is just wrong.
- All of the lots bordering Leadbetter should be excluded and left as-is.
- More green space
- Maintain non developed land. There should be much more green space.
- Less development, more natural access and single family homes. Keep camas quaint. It's why it's worth living there.
- the probably shouldn't include the area east of 500. It's already residential isn't it?
- Too much development. We will vote you out.
- Less commercial space
- More public open/park space along most of the lake
- leave the area as it is
- I would like further discussion regarding the plans before answering a simple yes/no regarding these boundaries.
- More green areas. Why? Environmental concerns.
- Leave it alone.
- I'm surprised at the amount of commercial space in this representation. Wouldn't the commercial space be better located near other commercial spaces in the city?
- Less industrial area, more parks.
- Maintaining the North Shore in its current state.
- There are too many developments around the lake already.
- More public access for hiking and bicycle riding
- No more residential buildings
- Don't develop any of it if you care about the future of the planet.

- That much for Industrial? And that little for parks/open space? That needs lots of clarifying. And, Industrial that close to Lake is worrisome as well. With that many homes on the other side too, what will happen to quality of water of Lake?
- Taking away too much green space, only leaving one small area green.
- More Parks/Open Space because we are losing too much green space
- Unsure of what the commercial areas encompass
- More greenspace
- Uh, do you see the lack of green space or nothing spread out in the area? That large blue space is industrial? Is it strategic it isn't butted up right against the lake? Get more green.
- More green space less business.
- Not enough green space or preservation. Too much development.
- Create more open space, reduce housing.
- More park space and preserved wooded areas.
- We need to stop new development in this area.
- Like to see Community Aquatic Facility be placed near or at the Pittock-Leadbetter House with an
 expanded park area around both. Maybe work the house into the center as meeting/administration
 area for the center.
- Need much more park and open space protected
- No industrial.
- Small footprint. The impact and growth is too fast. Lake and land pollution.
- Not enough parks and green space. Concerns about pollution to the lake
- More parks/open space to better preserve the existing natural areas
- way too much development too close to the lake
- The industrial area is inappropriate in its location and proximity to houses and the lake. The city would be better served by locating industrial zoning near WaferTech or the airport. Additionally, there is inadequate road infrastructure for trucks. Finally, any anticipated truck traffic will assuredly congest existing roads and pass through residential areas
- Protect the forests around the lake. This is what makes the lake area a beautiful place. It was sad to see Black Forest cut down in the '80s. It will be devastating to see the trees on the other side cut down as well. We need more park space in Camas. We don't have enough for all of the growth we have now. Lacamas Lake is way overcrowded during the summer months. One can't even find a place to park anymore to enjoy the trails. Preserve our natural areas for future generations.
- No industrial zoning or multi-family buildings in this area. We should keep this area forested with minimal development.
- Maintain parks. Lacamas lake's beauty is remarkable due to the natural surroundings.
- No industrial areas.
- Don't change it.
- Smaller, due to future bottleneck at Lake Rd.
- Way too much industrial use in too nice an area. That's not the camas I want.
- A larger area for Camas residents
- Additional parks/open space closest to lake (less multi-family housing).
- I would like to see more Natural Parks & Trails/Open Space along the lakefront
- Should also plan all for all of the new housing going in along Crown RD it seems like the same region to me
- There is not enough buffer between residential and industrial zoning
- No, no, no. This area does not need to be developed at all.
- Exclude any industrial area. Limit home development. Provide more Park area.

- do not develop this area, our community can not handle this
- should not be industrial or commercial, more parks
- It would be nice to incorporate a bit more park space on the North end
- Much more park and rural areas along the lake.
- Roads. How can the city accommodate the amount of traffic that will be added to an already congested area? A increasingly congested area.
- More land for parks and green space
- I'm concerned about industrial runoff that close to the lake. Also, I'm disappointed to see only that much allotted for parks? Dirt trails connecting these areas are needed throughout.
- more open space / greenbelts with trails through the entire area
- Leave things the way they are. Our small town cannot manage all the destruction you are doing here. Just try to get onto 500 from NE 38th or 39th during school traffic hours. It will be impossible when the roundabout goes in. Now you want to add another major problem to this insanity. We have no sidewalks, is quite dangerous to walk or bike down to the lake/park. We are going to be locked in for hours every day. You cannot keep building/expanding without major changes to the infrastructure. Leave Camas alone, enough already.
- Do not put apartments/condos on the lake. Increase the shore line that remains. This is one of the most beautiful places in Camas and we are going to ruin it and destroy natural beauty for the benefit of politicians and developers.
- Stop destroying what Makes Camas, Camas
- Less industrial
- Limit development on the lakeshore and inland. The access to the area is poor, and a sufficient plan to mitigate traffic has not been articulated.
- Less of everything. Less building, less natural impact and less construction traffic.
- Limit Industrial zone and keep the commercial zone along the waterfront to small water type restaurants, coffee shops or paddle board/kayak type rental areas.
- Need to drastically increase green/park space
- no multi-family residential. Apartments, condos, and townhouses will lower overall property value and add to already crowded roads. It will push people that love Camas or move away to other areas with less congestion.
- Far too little park and green space. This plan eliminates entirely what makes Camas beautiful and a
 desirable place to live. If we had wanted to live in an over-developed, poorly planned community we
 would have saved money and moved to Vancouver.
- More parks open/space.
- The boundary should not allow development along the lake. This is destroying a big part of what we all
 love about Camas. Please maintain the dignity of our community before we get to a point we can't
 turn back from.
- Smaller boundary, narrower area of sprawl?
- More parks and greenspaces, especially along the lake
- Leave the area along the lake undeveloped.
- Should be all parks and open space along lake
- Protect forested areas around the lake
- Do not develop this area.
- Increase the park space. The lake and natural habitat are our greatest asset, developing it will irrevocably damage a natural beauty that is the crown jewel of camas. Take out industrial development. There's plenty of other sites that can accommodate that elsewhere, not by the lake.
- To Goodwin Road bc traffic patterns and access issues

- Less multi family dwellings. Let's just offer houses. Apartments are already going up everywhere. And however you do this keep the trees. Stop clear cutting everything.
- More park green space area along the waterfront. Preserve the beauty of the lake instead of making it all built up. There are not many towns which boast preserved lake front in the center of town.
- don't develop the area
- This is way too dense. You should be ashamed of yourself. The only open space you have proposed is what's already there. This completely rapes the entire Community landscape.
- We're over growing the camas community. If we're setting up more residential areas, I'd like to see a plan for the development companies to pay for more parks, green area and pathways to schools.
- Too much change in the landscape. If the land is open and could be developed with little fuss that's one thing. But please stop destroying all the scenery that makes our city great
- Shrink the overall size of the affected area.
- There is way to much industrial carved out within the boundaries. This looks like another money grab by the city
- Increasing the housing density and adding to the already exploding growth north of Camas near ingles road is setting Camas on the path to uncontrollable growth. Keeping up with that type of growth through public services will totally change the face of the attributes that make Camas attractive to live in and raise a family.
- We need more parks and schools. Are the developers going to build schools? Bike lanes? We need more green space, safe roads for kids to get to school and space at schools.
- More park or at least connecting greenspace with trails
- Area is too large
- Do not develop this area for urban sprawl.
- Carve out more space for parks/open space
- Make it all park/open space
- Curious what is meant by "industrial"?
- Increase parks/open space
- Why so much industrial? We would make more money on more commercial, and then more parks and walking trails down by the water.
- Less new homes. More green space. Possibly more business space. But definitely less new homes.
- Far too much multi family & industrial, not nearly enough parks & open space. Looks too much like a sell out to developers. Multi family residents tend to have much less a stake in the community
- The term industrial carries a broad meaning. I'd put a caveat on the plan on what kind of industrial? Also, would love to see another park on the west side of the proposed area. Possibly a dog park too.
- We don't need more things in this area. The growth you are looking for is unsustainable, and is not within anyone's interests except for those running the city.
- The amount of park space is unsatisfactory. 2. There is no way there should be any industrial zoning in that area. 3. Most of the proposed commercial areas are unsuitable for that use.
- Taking a large chunk and turning it into developed land for housing. Our greenspace is being wiped out by them enough already. Parks and open space is so minimal on this map.
- Industrial should not be located near Lacamas Lake
- Hopefully plan is still going forward to include around the lake walking path
- Yes it's too much the charm of camas is be destroyed with over development
- There should be a natural buffer from the lake shore inward. Possibly half mile or so and kept in a natural state.
- Removal of all single family. Middle tier housing and Multifamily should be provided within a walkable community of retail and businesses.

- Too broad of area...this will destroy the reason Camas has a quality of life
- Before any large commercial developments occur, traffic congestion and mitigation should be priority number one. Leadbetter Road will not be able to accommodate increased traffic, nor would Everett Street and surrounding two lane county roads.
- Industrial to close to lake. Everett rd cannot handle traffic. You are destroying/the sense of community
- Less multi family housing. Larger lots of single family.
- Way more open spaces and natural areas
- Create some type of buffer between the industrial area and the rural land to the north.
- The color coded map above already is sorely lacking in green space & parks. Expecting or hoping developers will "preserve" green scape & walking paths is magical thinking. The entire length of the map, closest to the lake needs to be green to indicate designated park space.
- conserve more forested areas
- I don't understand the purpose of making it bigger or smaller... seems like a strange question.
- More park space along lake. Walking path around lake.
- The southernmost area on the proposed map that spans Everett seems to be designated pure "red" commercial. The eastern section of this "red" section currently has only one commercial business with the remainder being historically residential. This area also contains green space that should be preserved as it is adjacent to the north shore of Round Lake and is a part of the Lacamas park trail experience. I think the only commercial section of this section should be along Everett itself.
- There seems to be multiple commercial areas in with single family homes. I'm not clear on what types this would be and reasoning. Are they walkable neighborhoods?
- more open space.
- That's a lot of industrial. What kind of industrial is planned? I also thought the original plan called for green space near the lake. That is not specified on this map.
- Apartments by the lake? No. this needs to be kept treed and green. then have more larger expensive homes surrounding the lake. you do not give prime property to people who will trash it. ps, I have lived in enough apartments to know. I am not one of the top 1%, but I do appreciate how they take care of their landscapes. I would prefer it kept a large park but since you seem determined to develop it that's my recommendation. why do we need so much industrial space? No. we need more schools and families with yards. please stop allowing builders to squish everything in.
- More Parks/Open Spaces...less everything else. Camas has enough of everything else already and if we don't it's a short drive.
- Leave our beautiful countryside alone. There should be no commercial zones.
- Less overall development. Way more open land and natural areas. The city is only going to become larger, and this would be an amazing opportunity to create our own central park type preserved area.
- Reduce and/or single family residential--there are already too many homes being built in the area.
- Dairy farms should not become industry, perhaps large partial residential and commercial mix
- Shift the boundary on the east to SE Everett. Change some of the industrial to SF residential to compensate.
- Could go further east to lone as these neighborhoods connect to Everett and are connected to Round Lake, could go further south to NE 22nd. I think the Everett corridor from 22nd up to Leadbetter is really important and could probably be its own focus area.
- This area is accessible only from Everett or 232nd. Both of which can't handle increased traffic.
- There is an astonishingly low allocation for parks and open space. I moved here for the beauty- not the industry.
- Stop destroying Camas, we need our farm land not more house & buildings.

- Lacamas, Round and Fallen Leaf Lakes are a unique and incredibly beautiful part of the Camas community. The City of Camas Government does not appear to appreciate this given the recent proposal to site a parking lot and large building on a one of a kind property south of Lacamas Lake.
- More jobs, less housing.
- Too much development without corresponding infrastructure.
- more trails and green space near the lake.
- I really think we have too much residential space as is. There are so many new housing developments and it's disgusting. These houses are built right on one another and look of it is just terrible. Our roads have never been worse and our schools are over crowded.
- Stop building anything. Our schools can't support it.
- If you really want feedback why don't you make the map more detailed so people can actually tell what the area includes. Seems like you don't really want the feedback. We need more Park and open space. Less widescale mowing down of evergreen trees.
- Why not make it all zoned for farming/rural?
- Too much development, not enough preservation of rural community feel and parks.
- More park land and protection for natural areas
- Less construction. More parks, bike lanes and trails.
- This plan should not be fulfilled. Now building all that will make the City a lot of money, and I understand that, but this idea would completely change Camas and what it's thought of. Lacamas lake is a popular attraction for residents of the City, citizens like to go swimming there, or take the boat out for a drive with friends, but a lot of people go for walks on the trails there, now you could assume they go their for exercise, and you would be right, but do you see more people in downtown Camas in the morning? Or do you see more people at the lake in the morning? You see, people exercise at the lake because its a beautiful place with lots of wildlife, plants, and trees. You ca go there in the morning and find Deer, Rabbits, Coyotes, etc. These animals live in the place you want to build things for more money. How would you like it if somebody knocked on your door and said "This property is mine now, I'm turning it into a store so I can make money." You probably wouldn't be happy, but that's what we'd be doing if we built all that. These animals were here before us, it is our responsibility to leave them and their homes be.
- Don't Develop- Camas is going to lose identity and became Cascade Park environment
- Public Access around the lake, it's not shown on the map
- Wow, please stop developing this area. You are going to ruin it. The amount of park and opens space on that map is way too small. Please quit developing, pretty soon it will be like Vancouver. And I will have to move again.
- leave the lake front out of the boundary. Shift southern boundary north.
- Reduce industrial Area and increase residential zoning
- Trash the whole thing. There are plenty of other areas to destroy, why by the lake?
- More green space. That needs to be important to developers.
- Do not develop at all.
- Need less industrial and more parks/green space
- More park of undeveloped land against lake.
- No development along the lakeshore.
- More "Parks/Open Spaces" Residential and Multifamily Housing can be pushed out further north, but
 preserving the wildlife and scenic beauty of the lake and wildlife cannot be changed once development
 occurs.
- Roads to the area are packed during commute times. Where are the transportation plans to move vehicles to different routes?

- Not enough residential and park area
- There needs to be more park space against the shoreline, not homes or businesses.
- Do not want to see this area developed.
- more land North and West of 232nd. More land above 500/Robinson Rd. junction. Both needed for
 infrastructure (roads, utilities, etc.) Access in and out of certain locations will need a priority or we will
 run into these bottleneck traffic problems that we are currently trying to solve. Example is putting pool
 Rec center on lake road will be a nightmare for residents, it should go in more central location like
 above the paper mill land currently available.
- Leave it alone. You have cut down enough trees and ruined camas enough already.
- no residential
- Can you go farther North to 500 so that the plan is congruous.
- Stop the growth. Leave it as is.
- Eliminate 2/3 of it. We don't need to develop it.
- Not nearly enough parks. That tiny piece of green space is laughable, compared to what we have now.
 Less Industrial development. How will these huge industrial areas affect property values for the homes currently facing the forested area? Plus we do not have the infrastructure, ie. roads, schools and facilities to support this kind of growth.
- Move multi family residential further northeast
- Less industrial, less multi-family. Stop over developing.
- Parks, recreation center for Camas residents (club house)
- I don't like the idea of multi-family property on the lake front given this type of housing is typically tall it should be behind single-family residences so both property types gain lake views.
- Open space/Parks almost non-existent in this plan.
- Keep green belt along entire north shore with trails.
- Yes...stop this ridiculous over growth of our town
- More green space, more undeveloped area. The city is developing so fast and getting so big, it is losing
 its "small community" feel. We live all the trees and space, and the small town feel. Not a fan of all the
 big developments going on. The lake will continue getting less healthy with more development leading
 to fertilizer run off, as well, which will lead to the lake being un-usable.
- More open space.
- make a waterfront along the north side of the lake. We still want to enjoy the beauty of the lake and with more people you will need more access and more space to do so.
- Too much industrial and commercial area. We do not want this in our community
- Keep the trees and countryside as is in the North area. This area is one of the rare spots that hasn't been disturbed and razed, and is a beautiful and relaxing area. Increasing the buildings near the lake will also increase traffic, resulting in a much less tranquil lake experience.
- It's so sad to see so little land being preserved as natural space.
- Halt development to the entire area unless it's to create parks and natural spaces in the midst of the trees that already exist there.
- Too much residential.
- No more subdivisions. I moved to Camas for the open spaces, trees, and small town feel. Subdivision are ruining all of those things for me.
- I think you should keep the edge of the lake as free from houses and businesses as possible, maintain as much nature space as is possible, and intermix multifamily housing in with single unit houses.
- There is not infrastructure in place to accommodate all of the cars to go along with the housing. Also, this would be a terrible strain on our school system.
- The Subarea yo way too large. The lake will lose its charm with all of that development.

- The north shore should not have increased traffic and should remain green space as a natural buffer for the lake. I was pretty sure throwing a bunch of multi family and single family houses all around the lake takes away from what the real "mycamas" wants to look like. I live on 232nd and find your plan a travesty.
- Reduce the industrial zone and allow for more green space
- 2. What are the most important assets in the North Shore area? What developed areas or natural resources should be protected or enhanced?

Large, development-ready parcels

View of the lake and mountains

Forested setting

Historic properties/homes

Assets	No. of
	responses
Forested setting	529
Views of lake and mountains	420
Lake access	419
Historic properties/homes	308
Large, development-ready lots	37

- Preserve the natural areas.
- Keeping the area rustic and rural
- Removal of trees from area would destroy the eco system
- All of the glorious green. Don't wreck my Camas
- No cookie cutter homes; All homes must be on parcels no less than 1 acre
- Each item is important and greed should not drive the area to even worse overdevelopment
- Green space
- I think it should stay how it is. Our city doesn't need to develop more. Leave the land alone.
- The view from Lacamas Shores is currently beautiful- development will destroy that. It's important to get artist renderings from street level so citizens can see the effect stripping the area of its natural beauty will do to the value of our homes.
- Rural setting
- Public access, trails, and a beach would be awesome
- Open space
- Mountain biking, recreation
- No new houses
- Animal habitats
- Land conservancy should be prioritized over mass development. I don't like how rapidly developers are ruining the natural beauty that made us move here. We left Los Angeles for a reason, seems the insanity has followed us to Camas.
- Reduction of noise And industrial growth next to homes that have been there for decades.
- Protect all natural land. Limit development.
- Preserving our open spaces
- Stop over developing Camas
- don't cut down the trees and put in commercial areas
- Open, green space much higher priority than more building and development.

- Everything should be just as it is today. No growth or development.
- The natural environment that all citizens value. Let's not lose it.
- Keep it forested.
- Trees and existing nature. Leave it alone. We will vote you out.
- No more homes and development until we have a means to get a true second high school for all the
- Leave all of the natural space, if you want to make it useful, IE financially profitable, invite some farms to the land.
- Parks and Open Spaces.
- No to development of commercial or residential. We've lost too many trees as it is.
- Trees, trees, trees. The natural habitat incorporated.
- Stop adding homes, there's nothing wrong with being a town of 20k
- Shotgun range.
- Multi use trails for cycling, jogging, walking
- Plenty of room for parking, outdoor activity and connecting trails
- Open space
- I think that any development should incorporate the surrounding natural beauty and enhance it of possible.
- More natural space protected
- Camp Currie your map only shows park in the area of the lake that is swampy and full of Lilly pads. Please plan a park in the best area for all to enjoy the lake and views.
- wetlands
- Natural areas for public use
- Do not put more large housing developments in. The lennar housing developments have hurt Camas and make the planning appear disorganized and not thought through.
- Open space
- parks with hiking trails
- no more buildings
- We must preserve the tree line along the lake, or Camas' biggest natural jewel will look urbanized.
- Stop ruining what makes Camas special. Stop over development.
- Green space, the walks and views we all love
- Forested setting. Let's preserve what makes Camas awesome. Lacamas Lake Park (aka Round Lake) is so overcrowded just since that new neighborhood went in north of it.
- biking trails
- No changes.
- Services to support development
- Leave it Natural
- Protected buffer around the lake, with pedestrian path around the lake.
- Other than a new trail along the north side of the lake that connects to the Heritage Trail on the south side, I do not want to see any residential, commercial or industrial development in this part of Camas. Camas needs to preserve its open spaces and forests. The last thing this city needs is a lot more development, particularly in an area that has no good access to Highway 14 or the job centers in Portland, etc. I feel very strongly about this.
- This is one of the last non developed jewels in Camas with the unique aspect of the lake. Keep that in mind when developing the plan and don't ruin that aspect of the area.
- Trail systems
- No development, leave the trees and natural beauty. No one needs anymore medical buildings.

- Bike trails along lake
- Protection of the natural resources
- Large parcels not intended to be turned into subdivisions, but parcels for homes/farms that preserve the country feel.
- Nature preserves
- Please protect our forests. That's what makes Camas so pretty and inviting
- Green space and natural undeveloped areas
- Trails and Trail access
- Low traffic areas for bikers, hikers and runners
- Open green space.
- There is no reason to use every single sq. mile of the city
- The North Shore should not be developed period. The city should be more concerned about working with GP to clean up downtown and getting rid of the unsightly paper mill.
- Agricultural lands
- Quiet roads for cycling
- Protect from urban sprawl.
- Protect the watershed
- Trees and wildlife
- Walking trail around the lake
- This valuable green space needs to be conserved and turned into a park. Did you realize that the trails at Round Lake/Lacamas Park are so overcrowded that Camas High School can no longer use it for home Cross Country meets? That they need to be bussed to Cottonwood Beach in Washougal for their "home" meets? This is a travesty. Take the stupid pool money and invest it for all future generations, as we have officially outgrown the existing trails we have. Think of the jewel that Forest Park is for Portland residents. Be truly visionary and act now to save what few chances we have for close-in trails and recreation area.
- Greenspace. Can't go wrong there.
- Lake protection buffer zone and other open space
- You need more park land and natural space. There should be no development of any kind within a half mile (or more) of the lake shore.
- Walkable and Walkable. Please always think about our climate and the future.
- I would love to see all residential single family homes to be built on 1 acre parcels, minimum, and save
 what left of the green farmland and trees. I am disgusted with the current demolition of what used to
 be beautiful Camas.
- It's unfortunate to see so much of the area categorized as 'industrial'. Really? I'd like to see the categorization redefined within the boundary.
- Trail system cohesive architecture guidelines for commercial/residential.
- Completion of Heritage Trail around Lacamas Lake
- There would be no way for the city themselves to say they are honoring the recently passed "tree ordnance" if any of the forest area is cut down. There is space enough to build homes & business in the open space. Make the forest area an extension to lacamas lake park with trails & unaltered natural habitat for wildlife:
- Preserve the trees and plant more.
- Protection of green spaces
- Protected
- The airport, if you incorporate, needs to remain an FAA small airport, which necessitates some expansion, but most importantly managed with best practices, compliant patterns and neighbor

friendly procedures, the Port is doing the opposite by encouraging low flying aircraft out side of established patterns and by having a lower than standard pattern from the national norm and best practices. This creates noise and increased safety hazards that are unnecessary for airport operations.

- We need to preserve the beauty of the area, too much development takes away from what we all love about the beauty that is the North Shore area
- It's one of the few remaining parts of Camas that have a relatively undeveloped setting, particularly adjacent to Lacamas Lake
- No more developments.
- Sometimes the best use of a property is for the city to buy it and do nothing with it, i.e. preservation.
- Protect trees, wetlands and wildlife. Preserve our quality of life in Camas
- None stop the growth
- Farm land
- Preserve the natural beauty and public access above all else.
- The animals that all the Lake area home.
- Stop building houses, industrial areas. Leave it alone.
- leave the lakefront alone. We need and value natural spaces. It's part of what makes Camas appealing. you are developing it to death.
- Lack of over development
- Extend existing walking trails to go around the north side of the lake. Allow for safer walking and biking around the lake.
- Stop developing, no one is asking for this.
- Sidewalks and and bike lanes/paths routes around Lacamas Lake, between communities, to schools and all public resources, such as parks, trails and open spaces so people have choices in addition to cars to access safely and easily. Reference Bend, OR as best practice.
- Trees and forests. Animals living in the forests are going to be driven away. We need trees for air.
- Parks
- Please do not take away any more trees. All the new development is ruining the natural beauty of this area. We are so lucky to live in such a lush wonderland, stop destroying it.
- Save green space, avoid overcrowding
- We need to preserve trees, habitat, and open spaces.
- The trees and natural need to be protected. Too many beautiful old trees are being removed and replaced with houses.
- Nature areas with access for animals in large connected wetland, grassland, lake, and forest is
 extremely important. Trees are a valuable asset to keeping a community mentally and physically
 healthy as well as keeping house prices higher. Animals need the access to all of these areas even
 more as we continually encroach on their habitat.
- Please don't overdevelop the lake.
- We are wiping out all of our farmland and green spaces. Most of us who live on the north shore do not want this money grab by the city we have lived in for 40 years. Stop the madness.
- Green space.

3. What types of parks and other public spaces are needed in the North Shore area?

Public Plaza Passive Open Space

Neighborhood Park (1-5 acres) Water Access

Community Park (5+ acres) Mini Parks (up to 1 acre)
Sports Fields Natural Areas

Dog Park Trails

Park/Public Space	No. of Responses
Natural areas	481
Trails	457
Water access	319
Community park (5+ acres)	284
Passive open space	241
Neighborhood park (1-5 acres)	120
Dog park	119
Mini parks	94
Sports fields	69
Public plaza	59

- Just leave it as it is.
- Stop already
- Leave as is to protect eco system
- forest, they don't need to be developed.
- All are more important than adding more development that doesn't fit already
- the to keep the lake close to what it is now
- Schools
- None existent parks not maintained
- No development. Why are you dividing the town and residents even more?
- A beach
- Just open space in general
- Mountain biking
- No new houses
- See above regarding land for school district to purchase.
- Leave the area undeveloped.
- Keep it undeveloped.
- Stop over developing Camas
- None
- Mountain biking. So many people come to the area for the trails, capitalize on it and own it already.
- Quit ruining our city by developing every slice you can get your hands on. We will vote you out.
- Add more green space to plan.
- Forested spaces for all our non-human community members. Don't develop this land, don't ruin the
 view, don't destroy habitat that we can never get back. The lake is already polluted, don't add human
 density right next to our waters.
- Maintain Trees.
- Any of the above that can be done in already open spaces and do not require taking down old growth / mature trees.

- Very random question for a 20 year vision. If there are schools and neighborhoods then most of these apply?
- Mini parks aren't near as useful as larger parks.
- Sports fields as part of Pittock-Leadbetter House / Community Aquatic Facility
- A very large park should be a top priority for the north shore since the south shore only had a strip of a trail in terms or a park on the lake. Please don't simply 'encourage' tiny parks but require they build parks that make sense for the community and will encourage use.
- Community Parks a minimum of 25 acres
- The area needs to remain natural along the lake. There is plenty of room to put parks above the lake on higher ground.
- Leave it alone
- walking trails or sidewalks connecting neighborhoods and parks
- Bike paths that connect the North Shore to the downtowns of Camas, Washougal and Vancouver, as well as the Gorge.
- Leave the forest on the North Shore.
- Please let the avid local mtn bikers build and maintain natural trails in this area, just like we do at Lacamas Lake.
- unpaved biking trails
- No building whatsoever, leave it alone.
- No Dog Parks-must be managed
- 5 acre 'Parks'? Please, think a bit bigger.
- Camas needs open spaces and urban growth boundaries. Why does the city need to add so many new
 residents? Why not preserve what we have? The city sold city-owned land to private developers on
 the north side of Lacamas Lake Park where they could have preserved hiking and biking trails for future
 generations. The city does not need more development it needs to do a better job managing what
 we have.
- Connect various areas with wider paths. Not just wide sidewalks. Within those area create more primitive hike/mountain bike type trails interspersed throughout between the lake front path and the ridge area path.
- Leave it be.
- All desirable cities/towns have a bike trail along water that connects to downtowns, shopping.
- If major development is coming, please include plenty of places for me to safely bike around with my kiddos. So, bike trails/paths/lanes.
- I think the Lacamas Regional Park fills most of the above needs.
- Could a Community Center/pool be built there?
- None keep it like it is.
- Pool, skate park
- Nothing. Leave it as it is.
- All of the above.
- We live in a gorgeous place. Stop the pointless development. The place where you intend to keep
 developing Is great how it is, and doesn't need to be altered. Focus on infrastructure, and keep the
 beauty that comes with the large expanses of land that are not developed upon.
- Any development should be done with the natural landscape and current forest in mind
- The entire area next to the lake should be in a state like Lacamas Park with hiking trails and natural
 areas.
- Enlarge parking lot and widen boat ramp. Add kayak launch dock, away from boaters.

- Large 5+ acres of untouched land. Leave the habitat alone, this type of change is a massive disruption to the ecosystem. Where are the studies on that and who did the study?
- Completion of Heritage Trail around Lacamas Lake and the addition of sports fields to support continued population expansion
- Wildlife habitat us often overlooked in development efforts. As us the enormous benefits of our large trees on the good air quality we have. Preserving all of the forest growth will enhance the existing quality of life through parks & preservation of wildlife habitat. Removing this abundant tree filled area will not honor the "uniqueness" and history of the city. Removal of the wildlife habitat will be all to common. Let's not be common.
- Move the community Center over there and build another high school over there.
- Improve roads or add roads to alleviate the increased traffic. Better parking solutions for Round Lake and Lacamas Park.
- No more developments.
- Leave as is and stop destroying the community more people is not better
- Don't develop
- Leave it alone, you are going to ruin this city.
- forests, unspoiled open spaces. don't develop the lake front.
- Do not develop this area.
- I would like it left as is at least near the road
- Large pool facility to be paid by new development only.
- Maintain the existing road so everyone has access not like the south lake mess.
- Sidewalk and bike lanes/paths that connect all the areas and entrances trailheads above so a car is not the only means to access. Reference Bend, OR as best practice.
- Seriously, please stop cutting down trees for developments. Enough is enough.
- Water park
- Leave it alone.
- Keep it natural
- 4. The study area map depicts existing land use designations for the North Shore area, including industrial, commercial services, residential (single-family and multi-family), and parks and open spaces. What, if any, changes would you make and why?
 - Please do not develop this land. Camas is growing too fast and losing all the greenery.
 - Remove industrial because there seems to be other already zoned land available for this purpose along the Parker corridor area.
 - No industrial, commercial of multi-family designations
 - less single and multifamily dwellings and less industrial areas. a A small amount of commercial area near Everett St. could be developed. Worry that any development would contribute to the traffic fiasco that prior development has contributed to. Build the support systems, roads, prior to development. otherwise leave it alone
 - Less development. Less multifamily homes and developments that increase congestion of the area.
 More natural spaces preserved, that is what makes Camas worth living in. Focus on improving access and use of what is already here and protect the character of
 - Don't develop to houses. Keep it forested and green.
 - Too many homes, roads are already clogged
 - See above

- No industrial and no commercial.
- Rezoning all presently undeveloped land alongside SE Leadbetter Road and within 1000ft of it to be parks/open space, protected against deforestation and development beyond trails.
- Industrial areas should be buffered by commercial, open area and parks where possible. Avoid neighboring industrial plots to single and multi-family homes.
- Drastically increase public and natural spaces as dense development in Camas means open spaces, trails, forest are even more important to ensure quality of life. Ensure commercial includes grocery stores and other amenities to reduce traffic
- keep it as open as you can. do not fill up the space with industry and houses. what makes the north shore so special is the "emptiness" of it.
- Reduce size of industrial area. Increase size of residential and parks area with light commercial/office.
 This should be an area of livability and public amenities that keeps the look and feel of a public open
 space as much as possible
- Knock it off.
- More parkland
- As one of family's that has been in the area since the early 1990's I can't help but feel our community is quickly being destroyed.
- Protect it all from development
- There needs to be additional park space
- Keep the open space and parks, there are ample industrial and office spaces already. Leave this area open and green, we need the trees.
- Leave the area alone.
- Maintain as much healthy, natural wildlife habitat as possible. Consult experts on this to accurately assess this.
- Do not develop it. Leave it alone.
- Remove multi-family dwellings altogether; All single-Family dwellings must be on parcels no less than 1acre; No cookie cutter row homes; & Retain forestry in & around all buildings to the extreme extent.
- Less industrial area, less development overall, too much development in Camas
- Why develop it at all with construction? Why not leave it rural?
- No industrial/commercial. Residential, parks, open space only.
- I understand and respect the need for industrial development for high-wage jobs and a healthy tax base. But please don't put in multi family housing everything around it turns to crap. And please keep this rural areas and forested space. I moved to Camas in 2003 because of the small town feel and the forested parks and running trails, especially Lacamas Lake. We love Camas and don't want to turn into Vancouver.
- Less commercial buildings. Less suburbia houses and more houses with more land. Keep the small town charm that makes Camas special.
- Industrial designation rezoned to light industrial.
- Should be more low to middle class (\$50,000-\$75,000) single family homes.... be required.... at least 25% of housing built. It could be sweat equity, as we have seen how successful those are when owners are working on their house. They have pride which shows that they take care of their homes.
- Less of everything. Once it is put in place it will be there to stay regardless of how much it damages the area
- Reduce the amount of multi-family residential.
- preserve the wild life in this area it is the most important

- Please don't clear-cut the land. Keep the natural trees and work around them. And please be
 considerate of the traffic implications. Our town has grown too fast. Too many homes, not enough
 roads, not enough schools.
- Less development. Less multifamily homes and developments that increase congestion of the area. More natural spaces preserved, that is what makes Camas worth living in. Focus on improving access and use of what is already here and protect the character of this city.
- No changes.
- Residential property is as extensive as it should get. No larger buildings and industrialization.
- Keep it rural. No commercial/residential development
- See above: needs to preserve the visual landscape, and protect the natural resources. The City of Camas has a unique opportunity to develop in a way that is minimally impactful on climate change by planning in a way that preserves the canopy provided by our beautiful trees. The irreparable damage done by removing the trees so haphazardly, as is happening daily around here, will adversely effect the health and future of our families.
- No development keep it pristine as it is today
- Do not build directly on the lake. Protect the beautiful setting that exists. Too much concrete on the plan reduce the buildings and enhance the beauty that is a big part of why Camas is so unique and desirable. Don't trash it by overbuilding.
- I'd like to see no changes
- Just leave it and stop developing
- Not enough open space
- Less industrial, more open spaces. Let development go further north.
- Less homes until you put in the infrastructure first and solve the ridiculous over crowding in our schools.
- I would make the entire shoreline a part of the park with a walking trail, mirroring the south side of the lake
- Extend mountain bike trails. Bring in tourism.
- No new houses
- No pool, no houses. Leave it natural and open for the deer and bear that live there.
- I would not make any changes. Why is it not possible to leave it undeveloped and wild?
- Try to preserve the natural setting. need grocery store, gas station, medical. No industry there, or apartments.
- Less residential
- No industrial or commercial or residential. Stop developing please
- Camas is seeing growth beyond its current infrastructure's capabilities. More housing will put a strain on our natural resources.
- Quit developing and industrializing an already bloated busy area It's destroying the town
- None. Stop all of this needless development. There is no need.
- No one wants to see apartments put in Camas. If multi-family means apartments the people of Camas don't want it.
- I would hate to see the forested areas razed just for more storage places and big development that ruin its beauty. This area should be reserved for low-density housing only with emphasis on land conservation for future generations to enjoy.
- This is not the place for industrial parks. There is plenty of other land, but land right next to the lake should be for residents of Camas. And enjoyed.
- No multi-family high density
- Less multifamily area

- Less Industrial and multifamily units
- More green space. Should be the focus of this new area. Trees and green space #1. Everything else after.
- Less industrial and more single-family residential and parks/open spaces. I think this would better maintain Camas' small-town feel
- No changes at all. Leave the land alone. We don't want "more" people, traffic, and businesses. We want natural beauty, and our small town feel.
- Do not develop the north shore
- Stop over developing Camas
- Leave it alone. The city has allowed to much construction already. Keep the natural beauty of Camas.
- remove commercial and limit housing. We need to slow down growth and maintain the small-town, beauty of Camas
- Much, much more undeveloped & untouched green space. Limit development and building. Too, too much of the beauty and livability of Camas has been lost to development in the past 25 years.
- I don't see how you can mix industrial with residential and multi family and keep the essence of nature and beauty.
- No Changes. No development. Let sleeping dogs lay.
- More parks and more open public space in general. Since you are going to destroy a large area of habitat, please leave us some reminders of what we have lost.
- No more development. Camas is lovely how it is. Our schools are over crowded, traffic is becoming more big town then the small town I once's loved. Leave camas alone.
- No development at all.
- Leave as is, there is enough growth happening all over the city right now.
- No industrial on north shore. City should cluster this type of development towards the Vancouver border and not degrade the natural environment near the lake and in this still forested area with industrial development. I am greatly opposed to any subdivisions similar to that of the Hills at Round lake which are an eyesore to the area, too close to Round Lake trail and far too large- 400 homes? Please do not repeat such a high density, large scale subdivision. The Northshore should be uniquely different from the other side of the lake which is overdeveloped and has fallen victim to weak development codes that allowed for clear cutting and tightly packed houses, subdivisions flowing into each other. Not an ideal "small town" feel for a community. Please do not repeat that on the other side of the lake while Camas still has the beauty we all value. Show us you value it too.
- As stated above, keep the land untouched. No houses or apartments.
- Again, the zoning for smaller lots is what has crowded camas. 1/2&1+acre lots were the norm on the south side of lake until city decided to change things to r5/7.5/10.
- It is not balanced. I would like more residential (single family) and park/open space. Less industrial and multi-family (some but less)
- Why is industrial space needed there? Why is multi-family housing needed there? The impact to a
 beautiful, natural area is severe and you cannot go back. Limited development should happen on the
 north shore. Keep it natural, keep it available for generations to come. Don't be so greedy or money
 hungry that you sell it to developers who don't have any long term attachment to the direction of the
 community.
- Leave it the way it is for future generations to enjoy. Once it's gone it's gone. We already have too much growth.
- I would make more areas along the lake protected natural areas.
- No expansion, improve roadways to make them safe for bicyclist and pedestrians.
- I would leave out the parcels adjoining Leadbetter. We don't need this much development.

- Keep it trees, land and rural.
- Trail around the lake.
- More open spaces and parks, less development of any kind. We don't need to keep growing so fast.
- Please maintain natural forest setting.
- Stop squeezing new houses together. The North Shore area needs space and trees. It does not need commercial development. Stop allowing developers to clear cut.
- Less industrial, no added multi-family or high density housing. This area should stay as natural as possible, large residential lots, ag, and parks/preservation only.
- Add more park and green space. Leave green space by the make and move back the multi family housing away from lake a little more
- I would change the mayor and every city Council person. They are misrepresenting the desires of the residence and are ruining our beautiful city.
- Less industrial and commercial space. Keep it more natural please.
- No more residential cookie cutter apartments and SFH. Keep it natural, how about a botanical garden or arboretum?
- Leave the trees. Stop clear cutting and putting houses on top of each other.
- I would include more public spaces that are natural and contribute to the beauty of our lake. I hope it
 doesn't all become private land, commercial or residential, excluding the rest of Camas residents. I
 hope that the city would consider preserving land for public use and not over develop and destroy the
 natural beauty of the north shore.
- Reduce this type of development-there needs to be a better long-range plan for Camas. Too much development is taking place too quickly. Trees are being ripped out in all of these areas.
- No industrial areas need to be there. We need the Lake to stay special.
- more residential and less commercial
- Not a fan of much multi-family. Creates traffic and other issues. Further clogs congested area.
- Less industrial area, more parks, natural areas.
- No further development on the North Shore. Maintain the area as it is at this time.
- We don't need more development there
- No more single-family/multifamily homes. Not too many commercial buildings either: we want to keep a close-knit community, and we've done it over the years, but now we're becoming Vancouver. Keep Camas a small, living community.
- No changes. Looks good.
- Too much development in Camas, leave as is, with all of this new development Camas is losing its small town charm. There is too many people and too much traffic. The cost of living is skyrocketing. Already the majority "voice" of Camas is stifled by the dollar signs. I hear stories from the long time residents and see it with my own eyes. Why do people move to Camas and find it desirable? Small town charm. It will soon become all that the things that people were escaping from.
- Make it all parks and open spaces. Not one more built space specifically for and only for human use.
- No multi-family/high density housing. High density will overwhelm community resources including camas school district. It's bad enough already. Also, no industrial for heavens sakes. Why? Pollution of all sorts and that close to homes? Also, impact on quality of lake, soil, air for all of Camas including those living right there.
- We don't need more housing or commercial. Keep Camas the same quaint town that the people have come here for. It's already developed at a rapid rate, the schools are becoming too crowded as it is and requiring portable classrooms. Stop the overdevelopment and cramming so many buildings / units into small spaces/lots. We don't need more housing with lots so small that one can hop roof to roof.
- Less industrial more natural area/forest settings

- Less commercial and industrial
- More Parks/Open Space because we are losing too much green space. The entire north shore of the lake should be maintained as open space.
- Overall, less homes
- I would make green all throughout and take away that large piece of industrial. I would incorporate through the entire proposed area and do something with thoughtfulness and keeping the true spirit of Camas in it to not become some cookie cutter shop. Look at Bend. They develop and leave trees, environments everywhere. This looks like a toddler took color blocks and bunched things up together. Not impressed in the slightest.
- More greenspace more country feel
- Scale back on the development so that we don't ruin what beauty we have left in camas. Overdevelopment will ruin this city.
- Limit to parks and open spaces with limited commercial or residential structures.
- Get rid of housing, create a natural setting use space. You forced Camas to grow exponentially over the last 20 years. Now you're trying to do it again. We do not need to be a city of 40-50k. There is nothing wrong with being a town of 20k people.
- Less multi-family areas touching the lake. Preserving nature and the views from the lake are very important to most citizens. Multi-Family zoning could be put in the plan, just not right up against the Lake shore. I suggest a "buffer" zone all the way along the lake. Green Space, nature parks, and trails could be in the buffer zone, but no residential or commercial building.
- No more development in this area
- Way less of the first 3 and way more natural spaces. Please don't mow it down and pave it over. Need way more interspersed green spaces.
- Don't try to sell this as anything but what is it, new housing and subdivisions to take away from natural areas.
- My vote for all of it is no, but if you're going to do this, then no industrial or commercial. And which schools are going to absorb the increase in students? Skyridge, Liberty, & CHS are over max now. I will be sad to see our beautiful lake's backdrop be filled with rooflines.
- Less industrial and commercial. Less dense housing.
- Preserving natural landscape will ultimately add the most value to our area. Forest Park and the urban growth boundaries in Portland have been studied and copied by cities all over the country. We use make uses of the perfect model right next door.
- There needs to be a second park on the NE end of the lake. Even if this reduces the size of the proposed park-closer to Round Lake.
- Again Pittock-Leadbetter House / Community Aquatic Facility with Sports Fields / Community Park.
- Eliminate industrial; strictly limit commercial with residents having input on all commercial development
- Too much industrial. Need more parks and open space.
- Less designated industrial Space. I do not think the residents of that area would be pleased to have an industrial park surrounding them. It would not add to our community in a positive way.
- Plan on future UGA/UGB expansions, especially toward Grove Field, incorporate an ability to blend toward those areas and their existing use and terrain/infrastructures without conflicts.
- Much more natural space protected for water quality and view
- Too much clear cutting. Save the look of the lake.
- small imprint, smaller impact.
- Expand the parks and open spaces

- Parks and open space is limited to the end of the lake that seems not only the most undesirable place
 for human use, but also a wetland area. Please prioritize a large amount of space on the north shore,
 directly on the lake, with the best views and open space, for parks that all residents can enjoy. Think
 Lewisville park size and style. Please plan in a way that doesn't allow people with more money to be
 able to privatize the lakefront and the views. Let all residents have a chance to continue accessing our
 resources.
- It seems there is 50% industrial on the plan, that seems quite heavy for Camas. There is what appears to be one small park and also quite a bit of multi-family homes. There also appears not to be a central retail-type of area, just seems like a few businesses scattered here and there. Why can't we make a retail/food/drink cute area where people want to go and sit and enjoy the area while spending some money and quality time? Instead it seems overburdened by industrial complexes. Aren't we a small town?
- I would reduce or eliminate the planned industrial area. The North Shore will best serve current and future Camas residents in a more natural state. The potential heavy truck traffic and lack of mature trees in an industrial area would have a broad, negative impact on the greater Camas area's quality of life.
- This is the opportunity to ensure there's a comprehensive plan in place. Keep some large, open spaces for parks and trees. Don't chop it all up and then wonder why Camas lost it's small town appeal.
- Camas is already overcrowded and overdeveloped. I am disappointed that more natural beauty and will be destroyed with this project.
- Too much commercial and Industrial. This should be moved to the West end of town where freeway access is easier.
- An increase in the preserved natural spaces on the North Shore, reduction of industrial and commercial land use.
- None. Leave the area, and the rest of Camas, alone. The beauty and appeal of Camas/Washougal is the amount of untouched nature. Portland and Downtown Vancouver as well as other surrounding areas have plenty of shopping and food to search the entirety of Southwest Washington.
- housing should be affordable for not just families but retirees. Make sure traffic can support the planning.
- way less development in all categories
- See comments above. While commercial and businesses area needed in our region, the plan adds these elements inappropriately.
- I would like to see much more "green" on this map.
- I would like to see as little development as possible. Preserving the few remaining natural areas close to the lake benefit everyone by maintaining water quality, wildlife habitat, and the areas natural aesthetic.
- This area is a natural jewel in the camas area and would be blighted by industrial and multifamily development.
- More parks and open spaces. Those are a big draw to our community.
- Do not put more large and cheap residential areas in this plan. The industrial areas need to be vetted in terms of businesses. For example, do not put storage units in this area like what was done in Grass Valley. It is a disservice to our community and its stakeholders. Storage units need to be on the very outer edge of limits. Many camas residents are upset at how developments have been approved. Please pay attention and think through future developments in Camas.
- Replace industrial with business/professional, commercial, and residential
- A trail that circumnavigates the lake.
- The influx of families relocating here necessitates open parks and natural areas for families to explore. The ability to enjoy the nature and explore the community is what brings families together.

- No industrial area.
- Keep it the way it is.
- Less residential and commercial. If you want less impact then it is simple; less development. It isn't worth a 100+ jobs.
- Much less industrial, more open park spaces. We don't need or want the trucks, traffic, pollution associated with it that close to the community's greatest asset: the lake. Look how heavy the trail on the south side of the lake is. All areas around the lake are jammed when the weather is nice. Expand the recreation areas, and encourage more family friendly small/medium business. Expand the trail network to the north as well. People live here and are attracted for its beauty and livability. You want industrial space, put in near 14 and the paper mill. It won't be around much longer. There is also the open spaces to the south of the lake. Please don't ruin this community with the plan that is shown here. That would be a travesty.
- Keep commercial and industrial at a minimum the city is getting ruined.
- I would like to see more Natural Parks & Trails/Open Space along the lakefront. It is our grandest feature. Let's preserve its tranquility.
- None.
- More open space. There is a paltry amount in the existing plan. Camas is rapidly losing its sylvan feel as
 developers are allowed to mow down anything in their paths. Once the trees are gone, they are goneyou can't get back in an instant what took years to grow. Then we all lose. Things get hotter, uglier,
 and for those who need a \$ attributed to everything, less valuable. Particularly within the viewshed of
 the lake, the trees and open space should remain.
- there should be more parks distributed throughout the housing areas, park land is clustered in one area where most people would need to drive to it to get to it safely
- Remove industrial from the plan. It is too close to the lake and risks polluting a heavily used recreational area.
- Exclude any industrial and multi family residential. Leave our natural spaces.
- No industrial or commercial or residential buildings, preserve our environment
- less industrial
- Designate more shoreline as park space, make more areas mixed use do not follow the old Clark County model of houses next to houses next to houses. We need walkability.
- As a camas resident from Ages 10-24 and again starting at 31 to currently, I don't like the idea of having commercial land use in an area that is so natural and beautiful, if this proposed develop is going to be over the next 20 years, why could we not wait us use the land that the closing of the mill will eventually provide for commercial use? And expand the already alluring downtown area? And preserve the "country like" feel the outskirts of camas provides. I like the idea of having a Nike campus or something similar but don't want to feel like we are walking into the Nike campus of Portland, packed in tight with housing and industry. I am frustrated that these new neighborhoods will be participating in camas little league, and the families in the woodburn school district are forced to be a part of east county. How will the current residents of camas not be more separated as the city grows?
- remove the industrial and commercial, more parks
- Designated bikes lanes on HWY 500 are needed for safety.
- Make sure build-up doesn't remove tree cover
- Leave it more rural. Why grow so fast?
- All of this brings many more people into the area. How does the city plan to accommodate via roads and other services? This is a huge scale development. I would pare it back significantly.
- Retain the natural areas and forest. Do not destroy the forest or natural areas for industrial or residential plots. As stated above, Camas is being ruined by over development.

- Fewer homes, it's too much.
- Let's not concentrate the parks and open spaces in one area, but connect all the different areas so people can bike or even walk to work or simply enjoy the natural areas.
- Stop the sprawl
- Overall, I think it looks good. I wonder how big the park is and what amenity it would provide (shelters, bbgs, tables, etc.)
- Parks and open spaces, no structures.
- I would limit multi family housing. I would limit any type of development that degrades the view from the south shore.
- Less residential, no industrial/commercial.
- Significantly reduce the amount of residence and commercial development along the shoreline. Preserve the natural beauty of the area. The lake will become polluted will all the additional development. It is too small with not enough flow to absorb all the run off that would occur.
- Sounds good
- More park/open space, less industrial
- Leave it alone. You destroyed the Lily fields.
- Less industrial, commercial and residential.
- Part of why we moved to Camas was because of all of the green spaces, trails, lakes and nature in general. I hope to see what we are so lucky to have in our community, preserved and expanded upon.
 With more homes and businesses being added, we need more parks, trails and green spaces as well.
- Traffic on Everett is already heavy. This development makes this much worse. The balance between
 conservation and development is skewed heavily toward development here. It's rather depressing,
 considering that the city only gets one shot at this.
- As stated above, eliminate the residential, industrial and commercial development and preserve open green space and forest. This area north of the lake has no good natural access to Highway 14. Why create more traffic nightmares for existing residents?
- The area north of the lake is home to many large acreage homesites including Clark County mandated 5 acre minimum residential land lots. Those of us living on these properties chose this area to preserve nature, enjoy a quiet lifestyle and have a place to peacefully raise our families. My biggest hope and wish is that the nature is preserved, growth happens slowly, and that construction and traffic from development is doled out in the least invasive manner possible. My suggestion for change is that less really does mean more.
- I personally do not see how the access in and out of this area will be managed. Do we expect the roads
 in and out of downtown Camas to be able to take this increased load of cars and trucks? Maintaining
 the peacefulness of the area around the lake should be top priority and if we continue down the path
 of over development we will lose the charm of Camas and the surrounding areas around the lake.
- You have the opportunity to create a tourist drawing community for Camas. Keep as much of the forested, green space as possible. Camas is notorious for massive clear-cuts. Please stop. That area could be an area where people want to live and recreate. Definitely the gem of East Clark County. If done correctly, it could also draw people from outside Camas even if they can't live there. Build on that. Don't allow a bunch of big box type stores. Focus on small restaurant, bar, coffee type store fronts. These could be the ground level of the multi-family buildings. Make it an area that people from other areas want to come and visit, eat and recreate. Completing Heritage path all the way around the lake is a huge plus.
- No industrial or commercial areas please. That would destroy the beauty of the area and the quaintness of our town. Parks, trails and residential only please. Affordable housing on larger parcels of land instead of monster size homes that no one can afford with no yard.

- Maintain more forested areas
- No multi-family residential or crowded single residents of the lots are less than 7k. Apartments, condos, and townhouses will lower overall property value and add to already crowded roads. It will push people that love Camas or move away to other areas with less congestion.
- Don't change anything
- We don't have the infrastructure (schools, firefighters, etc.) to support the homes that currently exist and the massive amounts that are already being built.
- More parks and open spaces.
- I would put a halt to this completely. Our city is already overburdened with traffic and crowding. We don't want to be Vancouver but this overdevelopment of our community is forcing it on us. I have lived here my whole life. I know some growth is inevitable but this recent push in development is greedy and will change our community forever into something none of us want.
- Less industrial and commercial. Less manicured parks, more natural areas. More farms. This looks like sprawl.
- I would utilize the North Shore area as a park and open space (preserving the beauty that is already there) and keep it free from over built homes, apartments and commerce.
- I think significant deference should be given to the zoning preferences of the current property owners first, to the invisible hand of the free market second, and to the passions of the public last.
- None. We are over developing too much already. Camas needs a building moratorium in place now.
 At a minimum EVERY new home being built should have to pay a \$50,000 permit to fund the cost of future Fire Fighters, Police, and schools.
- I would exchange the Multi-Family Residential areas to Park Spaces. I'd rather see single family homes in that area. Multi family buildings give me a big city vibe. I wish Camas could keep itself unique a bit longer.
- Change multi-family housing to single family housing. Our schools & resources are tapped. We have plenty of multi-family housing by Woodburn Elementary. The investments around the lake need to be upper end with land.
- Larger park area, maybe more than in one spot, so it's accessible for more people just by walking. Lakefront area would be a great addition. Sidewalk. The more sidewalks the better. People like to walk these days. Bike lanes wherever possible, please.
- More parks and preserved land. The reason we love the lake area so much is for the nature and
 forested views. Too many wooded areas have already been cut down and the parks and wooded trails
 are already overcrowded.
- More trails and natural areas would add to the value of Camas, especially along the Lake. Natural
 areas set Camas apart from the surrounding areas. We do not want overcrowding, more traffic, and
 strip malls. Also worried about large area of industrial on this map we want to have a clean lake with
 great water quality.
- I like the mixed use development but it appears parks/green areas are only in one section. It would be better if the areas were spread out more. I assume residential areas will likely have small play areas but green areas will be also be needed outside of the areas shown. Maybe additional green spaces (not water quality ponds) will be required during development of the properties but it is hard to see with the given zoning map.
- Less single and multi-family homes. Our schools are bursting as it is. We will not be able to maintain what makes Camas special with unrestrained growth like this. More forest protection.
- I would like to see more public parks and trails along the waterfront.
- All homes and multi residential properties need larger lot to building ratio. Setbacks and having
 properties up against each other is ugly. No single family home lot should be under 10K lot. Multi
 should have 10K set back all around. Minimum

- Include more protected natural land along the lake
- Protect the area along Leadbetter Rd. Protect forests and the natural beauty of the area. add trails for public use along the north shore. Maintain historic Leadbetter home. Keep urban farms (minimum 5 acre lots) within 5 miles of lake (similar to Hockinson) restrict large high density developments.
- None keep it like it is.... No building.
- Should be light development for homes and parks. Shouldn't be used for commercial and industrial purposes. You will permanently ruin natural habitat that is vital to our community and everyone's enjoyment of our beautiful natural setting.
- I would increase public spaces (The trails along the water on the other side of the lake are wonderful and used all the time.) I would also keep public lake access. Keep the trees. Camas developers destroy all of our natural beauty and that needs to stop. No apartments or multi-family dwellings at this site. Instead... only single homes.
- Preserve the natural forest along the lake. Keep trails and outdoor area. Too many homes along the lake would be annoyed by the water skiing and boating. Let's keep the lake our recreation area. Not a built up downtown.
- Don't' develop this. Camas' charm is that it is still a small city. I do not want us to become another Vancouver as Vancouver is becoming another Portland.
- Create a community park with breathable foliage and pollen attracting plants. Include sidewalks that connect the existing neighborhoods with the new areas.
- I would look critically at how growth in this area is going to congest currently busy road ways, parks and schools.
- Keep camas, Camas. If you must develop more land here there needs to be a better road system and developers must leave trees and pay for roads and parks.
- More open space, less housing, commercial and industrial
- I would like to see a bigger swath of land left untouched between the lake and any development as a way to protect the lake and the natural setting that we know as the north side of the lake.
- Too much is zoned industrial, one small corner of this map is a park. That doesn't balance correctly
- I would eliminate multi-family and residential because of erratic move ins/outs.
- Industrial and commercial services need to be removed. There is plenty of places in Camas for these that aren't on or around the lake. We currently have several defunct commercial buildings just sitting around all over camas. We don't need more.
- Where is the agricultural land?
- I would like to see the plans for where the new schools will be as well as how we are going to make the roads safe for walkers, bikers, runners.
- I would like to see a trail system around the entire north side of the lake that connected with the existing south side and round lake trail system. This would allow continued use of the lake and expand our current use of the trails. Retaining as much open space and views of the mountains would keep these trails as beautiful as they are now. It's why we bought our house. Also limiting industrial development in this area would help with the feel and peacefulness of the lake area. I would not want to see any development that height wise would change the current view from the lake.
- I'd like to see green spaces running throughout. Trails connecting those greenspaces (non paved and paved).
- Reduce residential or commercial. Will increase traffic and destroy natural habitat. Clear cutting for construction should be avoided.
- Do not develop this area.

- Eliminate all industrial, and most commercial service areas to keep the focus on Bridge Village and Downtown. Keep most of the areas natural parks and open spaces to protect the watershed. Begin asking developers to pay to build and update our roads /infrastructure.
- Why industrial?
- keep the area pristine. No industrial, commercial or residential.
- Will the proposed development 1) limit public access to the lake front? 2) create traffic flow that cannot be supported by the roadways (especially Everett). Currently, the trail on the south side can be quite crowded due to the out and back requirement. Extending the trail around the northside (rather than restrict with residential, etc. development) would greatly increase the usability and decrease the overcrowding on one side.
- Climate change means we need to be thoughtful about growth. We need to increase access to active transportation (walking, biking, mass transit) and maintain or increase our tree canopy. Traditional suburban planning with no place to walk to discourage active transportation and physical activity. Let's keep developed areas closer together to achieve these goals.
- Reduce residential/commercial and increase parks/open space
- Stop building. There is plenty of houses already being built.
- No single family or multi-family residential and no industrial.
- By industrial, I hope you mean light industrial. Restrictions on building height should be a priority. Limiting noise, light and manufacturing pollution elements should be a priority. Mitigating traffic & congestion is also a concern. Any develop should blend in with the existing North Shore ambiance. I just returned from a business trip to Caldwell, ID. Greater Boise is booming and bedroom communities like Caldwell are being negatively impacted with traffic congestion as home builders and commercial developers enter the area. One of the major complaints focused on a 9 story manufacturing facility that destroyed the panoramic views of Treasure Valley. Let's keep Development below the tree line and not make a similar mistake here.
- Less industrial, more commercial, more parks/open areas/dog parks/trails
- The most important part of maintaining property value and livability is maintaining the natural beauty and quiet rural setting that draws people to this area. Most people come here for the small town feel and rural escape from the metropolis of Portland Vancouver. Continued commercial development and housing developments along the lake will destroy this feature and make it another urban sprawl.
- Same comment as I made in #1. Please note that my family lives on Everett Rd. These changes impact my home, family, Children's schools, and country neighborhoods. Subdivision growth continues to take away the beautiful town I've lived in my entire life.
- Too much residential for current road system. Not enough capacity. There is no buffer of forest/watershed/land between the industrial and residential zones to the lake. The lake will need a natural buffer to filter run off which will contain pollutants from the proposed use (fertilizer, oil/gas from roads, etc). The lack of a buffer will destroy the fish and wildlife that remain at the lake.
- Much more parks & open spaces, much less industrial & little to no multi family.
- The large swath of industrial paired down and deemed light industrial.
- Add more parks/open space by the lake.
- More designated Park Spaces And Water Access
- Just stop.
- Again, the acreage along the north shore, at least up to the Leadbetter house, needs to be parks and trails. The properties south of 3rd/14th Sts should be residential only. There is too little infrastructure in place to support any commercial or industrial uses.

- Less industrial and more parks/open spaces. This area used to be the outskirts which makes sense for industrial but as neighborhoods continue to be developed, we need more places to engage with nature.
- Increase the natural area and parks. Keep our town focused on the balance of living here and breathing healthy here. More housing means more congestion needing wider roads etc. Causes more harm then good.
- None at this time.
- I would distribute parks and open space more such that development is not as contiguous. This subarea needs to be approached from the perspective of environmental and sustainable planning.
- More open space/buffer areas between residential and commercial/industrial. Save access for
 roadways for heavy/delivery trucks or future rail access. Trucks will have to connect through
 downtown Camas or East Vancouver surface streets. Maybe consider long term bypass out to 14. No
 one wants to live next to or across from a busy loading yard or active industrial site. Traffic, noise and
 light pollution.
- There should not be industrial building placed on this land. Why would you remove trees/forested area that is beautiful and natural to put up industrial areas?
- Place industrial far away from a top dollar residential and commercial area by a lake, maximize tax dollars residentially vs. industrial polluters - GP zone too as it has reached its useful life and needs to be redeveloped
- Parks and walking trails bring ambiance of health community
- More natural areas. Sub divisions not needed nor commercial. No more ugly McMansions.
- Businesses are leaving the Camas City limits due to high taxation. The industrial area is much larger than the demand. The Port has ample industrial area with better transportation options.
- It's way too much, it being over developed and not enough park and natural area
- More open space and parks.
- If you're planning for interconnected trails and open space, there needs to be added more "green" identifiers on the map.
- Already state above.
- More green space. Should be the focus of this new area. Trees and green space #1. Everything else
 after
- Would like to see "low-income" housing be required as part of the mix
- I am ok with a local family run small business, but against industrial. We finally have cleaner air since the decrease in Mill production, why would you want to go backwards in environmental concerns?
- No commercial services
- Yes. Please see above notes. Of particular importance is the massive 'industrial' space. We need a change there, more protection of habitat.
- More park/open space on the other end near the lake.
- Please do nothing to this land. It is perfect just the way it is.
- Eliminate industrial.
- Please keep nature.
- More park space and natural space, less industrial/commercial
- This is too dense. Please protect our open spaces. Traffic is already horrendous.
- Low density, Single family residential would be acceptable but definitely no large commercial or high density housing. Land preservation and conservancy in its natural state would be ideal.
- You show only one small green area concerning park. It is already over crowded. More trash, drug
 parties, destruction of greenery etc. Has increased dramatically. We are already less than 7 minutes
 from industry. Why so much more?

- Easy access for all people not just hikers and bikes.
- Less multi family. Bigger lots with options for ranch style mid century housing options. Have a vision
 that all works together and has a master plan instead of cookie cutter immediate payoff. Long term
 strategy will have better appreciation and better tax base long term. Get exclusive and demand more
 from developers for our city.
- More natural open spaces
- I would allow for more parks and open spaces
- More parks and open space because this is the reason I love the lake area.
- I am curious about why so much industrial space to the north. What type of buffer will exist between the industrial areas and the rural property / homes that are adjacent. I don't think this degree of industrial growth is appropriate here.
- Open areas.
- No additional residential uses besides what is already planned for.
- Keep it as natural as possible. Less buildings (residential and industrial)
- Again, your color coded map is shamelessly low on park & preservation of wildlife habitat. WAY to high
 on industrial. This seem off. Baffling really. Yes creating jobs is a plus. Stores & services on that side of
 the lake would be an asset to the developing neighborhoods. But industrial? I can't say it enough. To
 honor Camas's own Mission statement... you must preserve the forested area & wildlife habitat on the
 north shore. Destruction of this immensely rich natural resource will not honor the city's heritage for
 beautiful trees & wildlife habitat.
- It doesn't look like there's much protection of the watershed around the lake and river. Please include environmental consultants to help protect our watersheds and ecosystem.
- I would not put multi family spaces or industrial in the north shore. I want open land with trees and no development. Put these buildings completely outside of the north shore.
- Keep lake access public
- The southernmost area on the proposed map that spans Everett seems to be designated pure "red" commercial. The eastern section of this "red" section currently has only one commercial business with the remainder being historically residential. This area also contains green space that should be preserved as it is adjacent to the north shore of Round Lake and is a part of the Lacamas park trail experience. I think the only commercial section of this section should be along Everett itself.
- There is a small area at the southern boundary, bordered by Everett and 35th Avenue which is designated as commercial. This area includes a lot of green space and trees which would be terrible to lose, as it works as an adjunct to Lacamas Park visually and as a wildlife corridor for deer and other animals. It might be suitable as extra parking for Lacamas Park, like the existing lot closer to Everett but should not be developed commercially, since too much green space would be lost and store or restaurant owners would not be happy about park goers parking in their spaces.
- With climate change we need to move away from neighborhoods that are car dependent to get to services, i.e. grocery stores, shops...
- no commercial. few residential. Should be parks and green space
- See response from question #1.
- Please see above comments. No more industrial or apartments. We want Camas to become a 'Veil' or 'Aspen' not a Vancouver. Focus on tourism (historical, food, vineyards, resort town) and there should be enough tax dollars to help the city maintain its homeless free family friendly community feel. Look at Neuschwanstein. It's a very cute German town. Please make builders keep yards for families, with greenspace and walking trails. We want everyone to be proud to live in Camas. Not move here because they can't afford Portland anymore.

- This turns my stomach to think that commercial and industrial areas are even being considered. What back door deals is the city making with developers?
- Less development and more open and wild space. Keep the North shore mostly undeveloped.
- I would put the community center and build a new high school over there.
- Avoid over developing that area. The natural beauty is a big draw and should be preserved.
- No more development of single family residential homes or multi-family (apartments) residences.
- No more development.
- More parks & open spaces, more single family homes, less industrial. There is a lot of blue on that map.
- Reduce the size of the industrial designation, move the eastern boundary to Everett and replace some of the industrial with the SF.
- Only make things more safe.
- I would prefer to see more dense development along Everett, including multifamily and mixed use.
- Elimination of the industrial land use designation
- No commercial, residential, or industrial uses. There is way too much emphasis on development.
- Protect large amounts of trees- I love that trees are mostly what you see around here and am afraid
 we'll grow without a plan to preserve what brought us here in the first place. It would be amazing to
 be known as an ecological sanctuary city, dedicating our growth around native trees and preserving
 our wildlife populations. I haven't seen our eagles lately.
- Lacamas Lake is the gem of Camas. One of the best things about the north shore is the undeveloped, forested setting that gives Lacamas Lake and Camas its identity. The south shore looks like it could be Lake Oswego or Beaverton or any other wealthy Portland suburb that happens to have water nearby. The north shore highlights the beauty of Lacamas Lake, and because of that it still looks and feels like Camas. So many people choose to spend their time at Lacamas Lake for this very reason, to feel like they are in Camas and to get away from the monotonous suburban development. Housing is necessary, but the south shore has become a gated community for rich people. The north shore still feels like it's for everyone. Let's please keep it that way. I would suggest limiting deforestation and limiting housing development and density to preserve the viewshed that makes the north shore of Lacamas Lake a gem. Development is inevitable, but we should preserve the forested setting along the north shore and plan for residential and commercial development to the north and east away from the lake.
- None. Stop developing our town
- No industrial, commercial or multi family
- I would make sure that any development is not seen from south shore of lake. Keep the beautiful views
- Less development. Less multifamily homes and developments that increase congestion of the area.
 More natural spaces preserved, that is what makes Camas worth living in. Focus on improving access and use of what is already here and protect the character of
- I would increase the number of parks and open spaces along the lake as the limited access on the north shore is a hindrance to a great community asset. I would also like to see the natural areas preserved and enhanced so that we ensure that Camas has plentiful open spaces for all to enjoy within its city limits.
- No more development. Stop destroying our Camas.
- Industrial and multifamily housing is not appropriate for this important resource area. Cleanup the lake first. Big job, yes, I'm a biologist who has worked on these kinds of things for 40 years. Improve Lake Rd around the lake first, bike paths, walking paths. People have died on Lake Road above the lake because it is dangerous for bicycles let alone pedestrians.

- Less residential, transportation impacts hard to mitigate if residential
- A lot less industrial, multi-family residential and commercial
- Keep the lake front natural. Without development like the other side of the lake.
- Preserving green space and room for trails, as well as preserving original trees wherever possible. Also room for agricultural uses--farms feed towns and need to be integrated into our living spaces.
- I would have a minimum of 1 acre parcels if housing needs to go in. It's the country so keep it open and not houses 6 feet from one another. Keep that country integrity and feel.
- No more houses. Stop building. our schools can't support it and you are killing trees.
- There are people in this community who value the trees. More park space. Leave it wild with trails like Lacamas Park. Make sure there are some multifamily homes such as duplexes or areas of row homes. We need options for older adults who want to downsize and young families buying their first home. Not everyone wants an apartment or a 500,000 home.
- Please don't remove the land is home to so many animals and birds. We need these places to make our community peaceful. You all keep saying Camas is growing too much. Well stop developing the land. You are changing our community and not for the better more people, leads to past capacity schools, teachers have to teach to over loaded classrooms (not able to give the kids the time or help they need) more traffic, more emergencies where we don't have enough fireman/ems workers and higher taxes. Just stop.
- Just zone it rural/farm land and leave it alone.
- No further residential, commercial or industrial development. It's fine just the way it is.
- Don't build at all
- As many natural spaces as possible should be left undeveloped and all buildings should be LEED certified. Camas should be a leader in green building and sustainability.
- Stop building new houses. Camas is getting very crowded. Let the wild animals have some forested areas for them to live and stop destroying their habitat.
- Reduce industrial space in half. Double the amount of park/open space. Increase number of single family homes. Better integrate more commercial with residential zoning.
- Stop building. We don't need to add more homes.
- Turn all the red, blue, brown, and yellow into green, just like how it was before we were here.
- minimize industrial land use
- I would leave as is.
- Access around entire lake with scattered small parts and some commercial areas for small restaurants and shops. Is like to go there for over cream and a stool near the lake.
- More parks and open spaces. Stop building, you are going to ruin this city.
- Lacamas Lake is a special space for the city. It's already overused and development on the south shore
 is enough. Don't develop the northshore of the lake. Keep development out of sight of the lake on the
 north side of the ridge.
- I would not develop this area at all, leaving it as a natural setting to enjoy.
- None.
- Keep natural green space.
- Keep it as it is.
- No changes this is a rural area without the infrastructure to support a major proposed development.
 East Clark county has seen record growth that lacks the sustainability that the county cannot support, more infrastructure is needed before a major development can take place.
- What does industrial mean? That sounds concerning.
- Move industrial further east.

- It would be nice to keep some green space in this town and not have homes and buildings taking up every piece of land. I would like the growth set back and not on top of the road.
- There is too much industrial and not enough parks/green space
- Less housing, especially multi-family. Keep a large portion undeveloped again border of lake.
- I'd make it more single family along the lake, then multifamily behind that, then industrial and commercial next to multifamily. Not industrial next to single family.
- No multi family. Require large lots of 1+ acres. There are already too many large houses on tiny lots in Camas. Camas is not urban and there is not infrastructure to build densely in this area. Roads, water, sewage, schools, fire, police, hospitals, public parks, and public transportation are all required to support dense housing. If the new developments are going to need lots of infrastructure, then the developments need to pay to build it (not the city or current residents that don't want dense urban building on the north shore).
- reduce or remove Multi- Family zoning. This part of Clark County should not be overcrowded with people and needs to be preserved with as little development as possible.
- I would like to see agricultural properties preserved. Small farms shoot be pushed further out, but could be integrated into the plan.
- Why aren't roads and infrastructure noted? These need to be put in before any building takes place.
- As stated earlier, there clearly needs to be more park spaces around the shoreline and less residential and commercial. Do we really need to much more industrial space in Camas?
- I am upset to think that such a beautiful, natural setting will be taken over by developers. While the need for new housing and infrastructure is needed due to growth, to take the lakeshore away from the broader community is the wrong approach. Why not leave trail and park access along the length of the lake and begin development further away from the shoreline?
- Do not want to see this area developed. It will add to traffic & congestion.
- Most importantly do not allow the hillside to be turned into a sea of homes and ruin the views and
 rural feel of our lake community. People are attracted to this area because of schools, small town feel.
 and every plot of land does not need to be developed and turned into use other than natural green
 space.
- Some things are better left alone. The city doesn't have a responsible approach on spending our tax money.
- For the industrial and commercial spaces is there any way to limit these to free standing buildings so
 Northshore doesn't end up an eye sore like East Vancouver, filled with design absent strip malls? Also,
 I think for the City it would be better to force those service in one area, ie, downtown Camas, instead
 of spreading commercial sites throughout. It will end up being two separate communities instead of
 one.
- I'd make no changes and leave the area as is.
- Mandated preservation of as many trees as possible in any residential or commercial development.
 Mandated connecting, paved trails between communities and safe walking and bike routes to all schools and community resources
- Eliminate all industrial, commercial and multi-family. Keep most of it in its natural state with a few single family homes.
- No industrial. Industries definitely destroy the lake no matter what type of laws or regulations are announced. Every Camas resident loves this place because it's still natural and clean.
- Less commercial, more parks. Camas can't support this kind of development. Roads and schools are over crowded.
- Keep the nature. Stop building so many homes. I live off crown road. I used to be able to turn onto crown road straight away. Now I have to wait longer than ever.

- Limit commercial development. Increase/protect green space.
- Heavily weigh toward parks/open spaces.
- Convert Ledbetter to a trail around the lake and set any housing/commercial development back like what has been done on the south side of the lake.
- less industrial, less multi. Please keep it low density, large acre lots. We don't want a city.
- Not sure.
- More commercial property and parks to support the growing needs of the existing and future
 residents. Not sure how traffic will be managed but if the North Shore residents don't need to travel
 far for basic needs and a few eateries than that will help minimize some of the traffic around the lake.
- Minimize the industrial sized area on map.
- Close the road and surround the lake with trails and lake access. Large green belt barrier before residential and commercial development.
- more parks, trails or open space at lake side. lake should be preserved for community, not single owners
- Keep parcels natural and undeveloped to protect the wildlife, water quality, and small town feel of our community.
- take out Industrial
- Parks and open space seem to be too clustered. It would be nice to see more smaller park areas scattered throughout the north shore area.
- More parks and open space.
- Less multi family housing. We have so much already.
- No industrial or commercial spaces. Please keep Camas the reason why we live here. This is way too
 much development and pretending that preserving land and forest is a priority is a total joke. Do not
 be greedy and turn this community into something no resident really wants
- Less industrial and commercial. Less residential. More open space and nature. Camas is quickly being swallowed up by development
- I believe there is too much industrial, too much multi-family and not enough parks/open space relative to the area. Having said that, knowing the specifics around strategy versus a "map" would support one over the other.
- Leave this area as is. It's one of the main things that attracted us to camas over Portland or Vancouver and this proposal would take that all away.
- Some good businesses are necessary in this area. We need sidewalks on Everett St.
- No commercial services.
- No more homes...especially multi-family, small lot size homes. Camas has already destroyed enough of its natural beauty and charm...we don't need to keep packing people in.
- No industrial use, infrastructure to and from cannot support it. Way more natural green space. Just leave the farmlands and large average plots alone. Camas is only gorgeous and a desirable place to live without all the excess industry and commercial property.
- This area needs to be single family residents with lots of parks, trails, and forested areas. With some very well placed commercial areas. I see a large section for industry and feel that would be a mistake so close to the water.
- What types of industrial and commercial are planned? How much area would these take up? I would like to see the farm and forested areas stay as is instead of becoming a sprawling, bare landscape that is just full of buildings.
- There needs to be lots more open space and natural parks (that means Trees developers. No more clear cutting and suing city so we lose all our trees.) You have plans to develop it all. Maybe leaving a

- green boundary with trees all around lake. At least 100 feet wide so that drive and view is still intact. Do not succumb to developers wishes for lakefront. We really need to fight for this.
- Seems like there is a ton of industrial space; I'd like more details on this use as it seems that it might be able to be a smaller portion. Perhaps more commercial spaces and services instead...?
- The current residents of Camas are begging, please, no more developments. We don't need commercial properties- we can go to Vancouver. We don't need more housing (multi or single family) there are hundreds of lots in Hills at Round Lake and along Crown Rd yet to be sold. The schools are overcrowded. We don't need more parks, as we have plenty. Please leave it alone. It's so beautiful and loved by the current residents of Camas. This planet needs all the trees (hello, amazon fire?) it can get. Please stop taking them down. I love our city but all this sudden approved growth (Crown rd, grass valley, HARL, prune hill etc) is making the decision makers look greedy. Just stop already. The small town feel and natural lush surroundings are why so many of us chose to live here, don't take it away.
- More green space, less land use
- Less developed space and less single family / multi family. Camas schools are bursting at the seams and the city is losing its hometown feel. Traffic is becoming terrible by the high school and the lake.
- Commercial—special restaurants to show off how great Camas is
- Stop all of it-leave as is.
- I envision a setting like Forest Park
- There is way too little natural area being preserved. This lake is such a beautiful feature of our town. Building on it takes away the peaceful, tranquil nature of this beautiful place. This is very disappointing.
- Our city is already filled with houses that people can't afford to buy and the wildlife are getting pushed
 into our neighborhoods because their homes have been destroyed by clear cutting. Please stop
 flattening the natural beauty of Camas and replacing it with strip malls and dentist offices.
- Do nothing. Camas traffic is crazy already.
- Camas bike already has too much residential consumption its unsustainable
- There is no need for any new houses. Or multi family houses.
- Leave the trees, and stop paving over Camas' greenspaces. We don't have the roads or schools to support anymore subdivisions.
- Less developing of our green spaces. Invest in what camas already has and improve existing infrastructure. We don't need this growth.
- I already addressed this in the first question please refer to that. Please intermix multifamily and single family homes. I would love to see some smaller single family homes intermixed as well and please take a look at the way Sunriver has achieved an extremely family friendly walking/biking and nature rich housing space. That area has created a beautiful feel I would love to see Camas create something more than just giant subdivisions that are unsightly and lacking character and real community.
- There is already too much development in Camas. Keep the green spaces. Improve existing infrastructure
- See answer for number 1
- More natural space near the lake.
- Leave it alone. No industrial, commercial. Natural buffer. Keep the existing road. Do not keep developing our beautiful "small" town.
- Less industrial
- I would remove multi-family homes. There simply isn't an infrastructure for traffic.
- Replace the multi family zoning with affordable single family homes
- No multifamily units and a green space buffer along the lake
- No more residential areas.

- Change them to green spaces. There is too many houses being built in Camas, lets help preserve what we have.
- No industrial or commercial services. The lake area is sacred and not the appropriate location for these
 types of businesses. As a camas native, this is a special place and should be saved and used for nature
 and outdoor purposes.
- This seems like it would bring a lot of traffic to an already congested area. What are the plans to ease congestion and increase police presence? The entire city is currently covered by only two officers for eight hours of each day.
- Please protect this land. It's a beautiful natural resource, that will be degraded by development of single family homes and commercial buildings. Keeping it undeveloped or protected park land will be a huge asset to Camas homeowners and a treasure for all of Clark County. Stop allowing all the land to be scooped up and paved over. Camas is desirable, in part, because of our natural landscapes.
- Remove commercial/industrial and single family.
- There needs to be more parks and open space. Camas will lose its charm and the entire reason it is special if we continue to stack up more and more housing developments on top of each other.

5. What types of businesses are needed in the North Shore area to support the retail and service needs of future residents?

Restaurants	Gas Station
Grocery Store	Library

Coffee Shop Barber Shop / Salon Child Care Department Store

Business	No. of Responses
Restaurants	234
Grocery store	223
Coffee shop	207
Gas station	138
Child care	85
Library	70
Barber shop/salon	40
Department store	19

- Keep the land and do not develop.
- Nothing. It is fine just as it is. No development.
- Keep it natural, full with trees. No development of stores or restaurants
- No additional businesses. No additional development is needed/required/desired
- None.
- Business where patrons appreciate the views. Such places are meeting halls, continuing education, therapy, and boutiques.
- None they are already available
- None. If the green space is protected there will be no need for services
- None of the above
- None.
- None—we have plenty of wonderful options within a 10min drive

- Why any? It's not as if there aren't retail stores nearby
- None. Make people drive.
- More small business
- Theater or entertainment venue, gym
- none. focus on areas downtown and in current developments.
- Add a couple of restaurants to make up for the development already in place and leave the rest of it alone.
- none of these
- None.
- None.
- None
- A family restaurant close to the high school would be nice. An indoor sporting facility that can offset the current late night schedule of our student athletes of all grades would also be well used.
- None No businesses please. Does City Council listen to the people it serves?
- Should not build new businesses to the detriment of current businesses. Protect our existing community first.
- Recreation such as mountain bike or multi use trails
- Leave it undeveloped
- Urgent care
- Stop building more retail and strip malls. There are so many empty on 192nd currently
- No development please
- None
- There is nothing that this area needs other than another police & Fire station to service the already crowded area.
- None
- None of the above
- None of the above.
- None, no development
- Stop over developing Camas
- Natural beauty.
- None
- None, future residents can access already existing businesses.
- None. That area is fine as is. No development.
- None
- No strip malls, no department stores, no big box stores. Has to be thoughtfully and conscientiously planned to enhance and fit in with the beauty of the north shore not take away from it. maintain the feel of that side of the lake with smaller businesses like that of downtown Camas. A variety, but on a smaller scale.
- Nothing is needed, Camas is small enough for someone to drive or walk to a store from any part of the city.
- None no development,
- Department store? Grocery store? I hate to think that we'd be building enough to warrant either of these
- None. We don't need more development on the North Shore. We need to keep Camas a manageable, tight-knit community.
- None
- The North Shore does not need any of these?

- None of this stuff north of the lake. We have existing business along 500 and downtown. Let's keep downtown busy, and the country.
- None. Our Camas businesses struggle enough as it is why don't you do some work to attract shoppers to downtown Camas.
- commercial outside the area
- None. There is already an overabundance available in Camas or in neighboring East Vancouver. or East
- Parks, forests and open spaces.
- none focus on improving what we already have / need with land that is already developed.
- Small independent retail
- Not so many homes
- Again, if it is going to be a community and part of Camas but for convenience wouldn't you think most
 of these? I don't think a department store. We don't have any chains here in Camas. Let's support
 local.
- None. Stop developing where you shouldn't be
- Nothing, the city has all necessary components as it stands.
- Sports Equipment shop, Local businesses, Engineer Offices, healthcare, tech companies
- 1000 yard shooting range
- None. Downtown Camas & Costco complex is just a short drive
- Department stores have proven to survive in Camas-Sears and others.
- None. Keep it rural
- We don't need additional businesses. We need to preserve our open space.
- no large store, keep it local, keep it small, keep the charm, protect what we love and already have.
- B Corp and businesses committed to investing in our community. No huge box, chain stores. Companies with character that will tread lightly on our town.
- We should be developing existing shop fronts in the downtown area and in existing buildings. Not tearing down our natural resources.
- None, other than housing. It's close enough to downtown Camas for business
- Natural spaces; the businesses listed above are already in existence nearby
- None, there's plenty already
- cultural experiences
- None of the above
- Post Office, Bank
- This needs to be very thoughtful. No more random development.
- Trees.
- Simple
- A eatery for older local citizens, such as a breakfast shop with old time/family foods where ALL classes and ages (not just wealthy and younger) congregate.
- None
- We do not need any more businesses
- None
- Bike shop, food carts, bookstore, indoor sports
- it is ok to have areas that only have homes. We have a downtown that is struggling to attract people. Don't wonder why when you continue to move people away from the town center
- WinCo
- All of these services are needed for a large scale development like this. The question is, who wants it? I am against this development.
- None--no retail. People can drive into downtown Camas

- Bakery (not just dessert), chiropractor, non-chain retail stores.
- None, no building, no businesses needed.
- None--keep as green area.
- leave it alone.
- Indoor play space for kids/families
- How about none?
- None no retail and services in the area, keep it all residential and forested area
- Health Care facility
- None
- Why does Camas need to keep expanding?
- I love the idea of attracting unique retail opportunities to separate camas from surrounding regions. Places only available here
- This looks like sprawl. This has been the first place I have lived that felt like home. It looks like that is going away. But if you're going to do it, good restaurants and coffee shops, please. Hey ... what about farms? More farms would help preserve our small-town, natural feel.
- Please don't develop that area.
- None, there are other opportunities for shopping development outside of the boundary and convenience stores only serve unhealthy life styles.
- None.
- Off-price department store (Marshalls, Home Goods)
- Should keep it minimal. Just the basics (like groceries) and areas that improve community and quality of life (like meeting spaces coffee and restaurants)
- Why would you build a separate library. Camas has an awesome library. Do things that drive traffic to businesses we already have rather than away from it.
- I like the idea of restaurants and coffee shops, but I like locally owned (like downtown) vs. chains or fast-food.
- Adequate Roads must be built first before all else.
- Dry cleaner, computer services, local food and supplies, industry and medical
- All of the above. I think the community center/pool should go over here not where it is currently proposed to be.
- Not sure we need more. With everything going in on 192nd and our core downtown why develop only
 to have it go out of business. Once you destroy the landscape to put in business you can't go back. We
 don't want to see ugly strip malls everywhere that don't age well
- It is 5 minutes to Downtown Camas and less than 15 to 192nd. We have plenty of these services very close by.
- maybe a convenience store for after hours unless the grocery store is 24 hours
- None required if not developed.
- Leave it alone.
- none
- Medical what is their closest access point?
- Nothing. We have stores, gas stations and restaurants already in Camas.
- Inviting retail and professional offices that enhance local service would be welcome. Several restaurants, cafes, coffee shops on the water would be a benefit to the entire community.
- All other services can be sourced in downtown Camas proper where they belong.
- Small market like fern prairie
- Aside from a coffee place and restaurant to replace the one that is being turned into a floral shop, That's all. The North Shore does not need to be developed.

- how it's developed needs to be taken into consideration. No strip malls please.
- Library with community center
- Small Quaint businesses that fit the feel of Camas and the beauty of the lake/area
- boutique hotel, nature/hiking trail system connection, high end neighborhoods
- None
- I am mixed on this
- Child care facility
- Small Local Shops. Please avoid big box and chains. terrible for our environment.
- Local, great retail and coffee shop vibe. Not all strip malls. Incorporate retail under apartments. Have a cut coffee shop that people in a neighborhood can walk to. Solar lighting.
- no commercial services
- I think the North-shore area is inconvenient, personally. I would not travel there for anything.
- No large businesses needed. There are plenty of other options close by without encroaching on and destroying the natural beauty of that area.
- Get a better grocery store. Trader Joe's something less commercial.
- Gun shops
- Ag related
- Small businesses.
- No to all of these
- Post office, medical office (Kaiser?)
- We don't need any of them. Stop building subdivisions and we won't need retail/commercial structures to accommodate future residents.
- None. These things are already accessible.
- No more development
- None. We don't need any more strip malls. Enough.
- No more development.
- None. These are all available in downtown Camas and west toward 192nd
- None stop so much development.
- Stop developing our Camas, we do not need to bring in more people to destroy our natural environment. Stop Now.
- This question doesn't make sense, it assumes new residential.
- None of these. Keep it natural. No infrastructure support.
- farms
- We don't need this, these choices are already close by.
- Nothing leave it
- a library branch would be nice. Things should be small scale and incorporate the existing trees. No department stores
- None, don't change anything.
- Farms for food
- green space
- No storage units.
- Maybe a wildlife refuge.
- None- Don't need business near lake-more congestion etc-Why would the city create another Mill Plain Blvd next to our lake?
- Nothing. Stop building, you are going to ruin this city.
- if out of sight of the lakefront, light industrial, small businesses, buildings low to the ground. Nothing higher than 2 stories high.

- High end stores
- None.
- Against development.
- Urgent care
- I think limiting these to the current downtown area will maintain the small town feel. Otherwise we will just become an extension of East Vancouver.
- None. The people who live in this area enjoy peace and quiet. Live the area as is. No new development.
- Boutiques
- None. We have enough empty facilities in the area that can be used.
- None. Keep the downtown alive. We have lots of retail and restaurants on 192nd and 164th.
- Nursery
- Other retail options would be nice. Department store seems too specific
- Winco, hobby lobby, gym with childcare.
- I don't think we need commercial services. We have plenty we can access easily
- None.
- None needed. All of these services are already within a short drive.
- Schools I suppose if so many houses going in
- Nothing. We can all go downtown or to Vancouver. If we wanted all of that within a minute of us we would have chosen to live in Vancouver in the first place. Stop developing green space in Camas.
- More schools so my kids aren't in a classroom with 26 children and one teacher.
- Nothing, leave it alone.
- None
- None
- None
- A hospital
- Stop developing
- Leave it be
- Nothing
- Little to nothing. I'm surprised to see the library listed here. We already have a library with a huge annual budget. We don't need another.
- Minimal business, only what is necessary.

6. What types of employers would be ideal for this area to keep more jobs in Camas?

Health care Retail Trade Manufacturing Technology

Professional services

Employer	No. of
	Responses
Technology	221
Professional services	190
Health care	173
Retail trade	126
Manufacturing	74

- None. No development.
- Landscaping, tree care
- No more business no more development
- None. See above
- Skilled Manufacturing (Aerospace, space, defense)
- No more
- Environmental proponents
- None of the above
- None.
- Work from home jobs
- Large IT campuses would help preserve our trees and open space. Plus the jobs are usually higher paying. We don't want our beautiful Camas to turn into Hazel Dell.
- Don't want Camas to become Vancouver. Prefer small town feel. Folks can travel to vancouver/Portland for the higher end jobs.
- preserve wildlife first
- None of the above
- None.
- None. Those facilities can be implemented elsewhere
- Yes to grocery store. Absolutely no to auto sales.
- Urgent care
- no development please
- There is already everything necessary
- None needed
- None of the above
- None, no development
- Stop over developing Camas
- None. Leave it alone.
- none
- No development would mean no additional employees.
- Nature preserve.
- None
- I'm opposed to industrial development on northshore and strongly believe responsible planning would keep this type of development closer to the Vancouver end of Camas.
- None are needed.
- Workspaces for telecommuters. No heavy development.
- small business parks. No large shopping centers or the like
- Farmers, park managers, land maintenance.
- None
- None needed.
- None...stop the massive growth
- None. Our local businesses struggle enough as it is. Why doesn't the city stop trying to compete with them.
- Not those
- Wineries
- None this does not need to become a commercial/industrial area
- Maybe if there is less housing, less places of employment would be needed. Keep Camas a destination to escape from the busy city life.

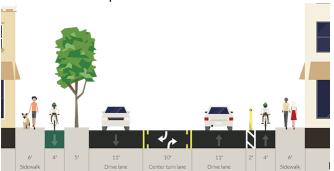
- Environmental, public service, public good, clean air, clean water
- Again, focus on improving what we already have. Camas is already driving businesses out with their high taxes and sees no problem in driving existing businesses to potential failure with the ridiculous prop 2. bond proposal.
- Again, to support growth and a community there will need to be a variety. No manufacturing. We
 have enough in and surrounding Camas that does not help the environment. Plus if you are cutting
 trees down your taking away how the air is cleaned. Have you seen the Lorax?
- None. Stop clearing land and trees.
- Defense manufacturing
- Are you trying to build a 2nd town? This is excessive.
- no large stores, keep it local, keep it small, keep the charm, reduce the environmental impact, protect what we have and love.
- Please no more health care it's everywhere in a Camas already.
- Hospital
- Employers should be in other areas of the city. Only businesses with a low environmental and quality of life impact should be considered
- nothing close to the lake
- Biotech
- Animals of the Forest.
- Shops to support our older aged community so we can keep the multigenerational involvement intact
- None
- Makers bring the Maker mentality to the North Shore, like Hidden River and Soap Chest (and the mill)
- Again, it is ok to have a community that is rooted in homes
- See statement in question #5
- I am not opposed to increased jobs but not at the expense of our natural resources
- Agricultural
- A little of each
- None.
- How about outdoor recreation?
- None in this area. The access in and out of this area will not be conducive for employers or to attract employees to the area.
- Prefer small town type retail shops over large big box brands. Keep the quant-ness of the small town Camas feel.
- No businesses, industrial, commercial, service or otherwise
- None
- Small business owners
- Locally owned and operated small business
- Small family farms. Leave all this to ... elsewhere. Small family farms would preserve our country, natural feel, and give us all local resources to enjoy.
- Please don't develop the North Shore
- None, this is a bedroom community. If we want more commercial space then we should pressure Camas Schools to stop buying it all up.
- Eco friendly businesses
- Clean, green employers only. We want to keep our lake healthy.
- None.
- Service industries for residential areas
- Small at home work available in this area.

- Green space
- Assuming you can get more business to move here that would employ more than 10 people. Camas isn't Silicon Valley not should we try to be
- Keep Camas a professional community. More money.
- The vast majority of people living in Camas are employed outside of Camas.
- Schools
- Any small scale development that does not involve polluting industries or massive units
- Learn it alone. Its fine now
- none
- Unsure some types may be great to have in our community, however, these services/business should not pull down the current businesses, especially in downtown.
- Find a way to support the artists in the community with galleries or small shops so they can market themselves.
- Church
- None
- Farming
- More housing drives up cost of living. Need to keep it to a minimum in order to keep employees within Camas in order to have more jobs that locals can have.
- Can employers afford to locate in Camas? Some are moving out.
- There is already a ton of retail and industry
- Business to diversify and increase our tax base.
- Anything local that provides a benefit to the community and is multi-modal; limiting the use of cars.
- I'm not a fan of developing this area at all, but I think this area could really benefit with a hospital.
- none
- This is an undesirable location. Yes, I realize it's undeveloped. However, even developed I would not drive all the way over there. I'd rather go to Portland where I have more choices and it's tax free.
- Need undeveloped areas, not businesses
- We do not need to build this area
- It's not an ideal location for business development.
- Green New Deal types of businesses. Folks making the new economy while helping save the world.
- Nothing that needs to be monitored by the EPA for healthy air standards. Nothing that needs
 accommodation for unnatural or unhealthy waste product disposal. Nothing that will open up the
 chance for any sort of environmental disaster.
- Not in the north shore. Please protect our environment and give us more trees.
- Let's curb the growth of Camas. It is becoming an undesirable place to live.
- Parks and recreation workers, rangers
- No more development
- None.
- None.
- None. These are all available in downtown Camas and west toward 192d.
- Regional headquarters just brings other people in, not Camas resident jobs.
- None stop so much development.
- None, we have all the things we need now. Stop Developing Camas. Leave it alone.
- Too early to address questions like this.
- None of these. Why do we need to grow so much?
- agricultural
- The town of Camas, needs more of these things not North Shore...

- Stop building.
- None stop the growth
- None. Don't change anything. Why do you think people moved here, because they like they way it is.
- none
- Green technologies
- Maybe a company focused on keeping the City clean of trash.
- Somebody with a brain to stop building in this city.
- low buildings. nothing higher than 2 stories tall.
- Nine
- Against development.
- The roads serving the north area of Camas are already stressed past the capacity they were built for 100 years ago.
- Gas stations only.
- Startup incubator, shared work spaces, larger than existing public meeting facilities.
- No ugly industrial buildings please. Let's keep Camas quaint.
- No high rise buildings
- No employers needed in the area.
- none
- No new businesses there
- None plenty of jobs already
- None needed
- Teachers
- Grocery
- None. Leave it alone.
- A community center that doesn't cost 78 million dollars.
- None
- Forrest rangers and park maintenance
- None
- Stop the madness
- Higher education
- Leave it be
- None

7. Review the four road design alternatives below. Which, if any, of the alternatives do you prefer and why?

Alt 1. Two travel lanes, center-turn lane, 10 ft offstreet shared-use path.

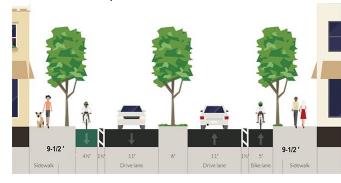


Alt 2. Two travel lanes, center-turn lane, buffered on-street bike lanes, 6-8 ft sidewalks.



Alt 3. Two travel lanes, planted median, buffered onstreet bike lanes, 9.5 ft sidewalks.

Alt 4. Two travel lanes, bike lanes, 10-12 ft sidewalks for café seating.





Alternative	No. of
	Responses
Alternative 1	111
Alternative 2	89
Alternative 3	146
Alternative 4	110

- None of these. No development. What is wrong with nature?
- Just maintain the existing roads. Don't build new ones.
- It allows for more trees, and buffered bike lanes are nice.
- Breaks up traffic yet allows for future lanes.
- Shared bike/ped lanes for the efficiency and buffer to protect. Shared lanes work well in Europe with a little paint
- Not all pavement in roadway, bikes separate from peds
- Turn lane is important
- Separate path for kids to bike safely
- No cars allowed. People on foot and bikes only.
- Better traffic flow with turning lane
- Seems to be effective for traffic flow as well as bike and pedestrian use
- I like the aesthetic and the possibilities it provides businesses

- To preserve walking-running-biking trail access, promote healthy lifestyles and positive opportunities for personal interaction & community building.
- More trees, traffic control, and outdoor patio seating.
- prefer anything that allows for more trees and enough room for bike lanes.
- Center median and turn lane are necessary, as well as bike lane and safe sidewalks for pedestrians.
- Alternative 5 leave it alone before you destroy this city
- whatever uses the less of this amazing natural beauty and preserves the wildlife
- More trees, wider sidewalks
- Sidewalks
- I am not sure why. I need a better visual of where this is going to be.
- I like trees and plants for cleaner air
- Why you don't listen
- Exactly why?
- Bikes and pedestrians separate, keep it as natural as possible. Don't obstruct the lake views.
- The natural and more green setting is much more desirable and appealing. Too much concrete is not appealing and does not have a welcoming feel.
- Plant native trees everywhere.
- Safest and best potential growth when this plan eventually isn't enough.
- I think the off street path makes walking and biking more enjoyable. I'm thinking of the walking path along 192nd through the forested part. It's pleasant and you don't worry so much about being right next to traffic.
- Keep bicycles off the streets unless they want to pay taxes like cars and have license plates.
- Because of the planted median
- Protect the feel, and environment
- Less impact on environment
- The design would be the least destructive to nature.
- Safety and encourage biking and walking.
- A center median would increase the safety and the planted portion would better maintain the feeling of nature with the trees.
- No changes, no development
- Stop over developing Camas
- Leave it alone and nothing will be needed.
- smallest or none
- More in-tune with the natural surroundings.
- It works.
- More plants = more attractive. Planted median might encourage less speeding.
- encourage less driving. more biking and walking and greenery.
- turn lane important for traffic flow, lots of cyclists in area and not safe to share with pedestrians so separate sidewalks bike lanes important.
- I don't bike, but apparently it's the in thing to do on the lake road and these people are half nuts hugging the guardrail as traffic zooms by them. So at least a bike lane separated from road would help
- More trees
- Looks best.
- Safest alternative without creating traffic obstacles later down the road.
- We don't need cafe seating in sidewalks. Bikes and pedestrians shouldn't have to share the same space. Bikers are rude to the pedestrians and think they deserve priority.
- path is better away from traffic. 2 lane with center is good for traffic flow

- It's hard for bikes, people, dogs and strollers to share space and I like center turn lanes.
- Stop ruining our city
- Planted median could also have art installations as well as trees and plants
- center turn lane needed with growth
- The bikes on the roadside in their own designated area seems safer for cyclists and pedestrians. A turn lane to prevent vehicle congestion.
- This is all so sad. I have no words for any of this.
- Fewer visual annoyances and plenty of pedestrian buffer
- Tress on each side, larger sidewalk for outdoor seating. Keeps it the more like Downtown Camas.
- No change
- Safety for pedestrians and cyclists.
- It's all too much
- Bikes and Peds only
- Better for the Trees and Humans. Cafe Seating will allow for community and cool side-walk sales and events etc.
- Safety is priority #1. How about we get some sidewalks for the existing roads that are dangerous for pedestrians?
- Maximizes green space and supports pedestrian and bike travel
- Like the idea of a cafe in other side of lake
- More trees.
- None
- Encourages community and activity. Balances transportation and recreation.
- Minimal impact related to the others
- safety of bikers and pedestrians
- I like the buffered bike lanes/shared path in 1 but really think the cafe seating would be nice. Maybe dump the turn lane from 1 and add to the sidewalk width for cafe seating room.
- There is lots of traffic on this road, for safety having a divided road. But I like Alt 1 with 10 ft shared-use path, no on-street bike lane.
- More trees
- The planted median would add beauty and green space, I like the cafe seating idea also.
- The outdoor seating is a nice and aesthetically pleasing front but it's not very viable in the NW. 3 captures the best options.
- This would be Alt 3-B. Like tress down the middle. More trees (may help vehicles slow down) left turn or roundabouts where needed. Move bike lane next to sidewalk like Alt 1.
- Less impact on natural resources
- Better community feel
- Need a turn lane to not block traffic. And bike lane is away from vehicles
- Bike lane buffer
- More trees and planting area. More attractive, it's functional and it helps our environment by having trees.
- bikes should follow existing laws, and as such need to be on streets
- bike lanes
- We will lose so many trees, please put back in as much greenery as you're able. I love outdoor seating, but planning for cafe tables in a place they can only be used for less than half of the year doesn't seem smart. Also, bikers belong in the street instead of on wide sidewalks.
- Like I said earlier I see us wanting to bring people to enjoy themselves outside.
- Bike lane buffer

- It's the easiest.
- I like the planted median.
- Camas needs more sidewalks. It needs to be more pedestrian and bike friendly to support a more sustainable and healthy environment for its residents. More walking and biking in a safe way will promote healthy lifestyles and provide more foot traffic to new businesses
- lets not get carried away.
- What road are we considering? The alternatives are each fine in the appropriate setting. The one thing we do need is increases sidewalks—let's not be Southern California.
- It includes more trees.
- This option encourages more pedestrian and bicycle use. Traffic would be most improved by infrastructure improvements that benefit the safety of non-motorized options.
- 8 ft sidewalk is plenty big. Let's not turn on town into a concrete jungle.
- It sounds charming to have outdoor seating, though planted medians also have charm, so it's a toss up for me.
- More natural, much better curb appear for businesses and general area.
- Nicer non franchise restaurants, coffee shops, boutiques bring money to Camas so having areas for outdoor seating makes it more inviting and attractive. Furthermore, having accessibility to walk or bike to town also makes it more enjoyable to explore.
- At least someone wanting to turn won't jam everyone up
- We need to keep it green
- Keep pedestrians and bikes safe.
- large sidewalks
- Involves more greenery and wide sidewalks
- Safety for bicyclists and pedestrians. Second best option is #3.
- on street bike lanes do not feel as safe to me as off-street multi use paths
- This seems to be safer for bicyclist but honestly, it depends on where the road is as to the nature of the design. Put this in context please.
- Safety. Bike lanes are isolated from car traffic and treed median will reduce likelihood of head-on collisions, which are the most deadly of traffic accidents
- planted median and buffered bike lanes
- Buffered bike lanes and more trees would be great. Camas must be more bike and pedestrian friendly.
- I like the feel of the tree lined streets. If there was a center turn lane with trees on both sides, I would choose that.
- we need more planted medians, more trees, developers are cutting them all down
- More trees and more room for recreation use on sidewalks
- Would this replace Leadbetter Drive? If so, none. Do not ruin Camas
- more space for walking
- The bike lanes are protected from texting drivers, something I see many times on a daily basis.
- Are you going to put sidewalks from the lake to the high school, if not, I don't care about anything else you want, my answer is no to all of the above.
- A lot of times I'm pushing a stroller with children riding bikes.
- no reason
- promotes pedestrian/bicycle mobility while allowing vehicular access and keeps a park like feel.
- Seems to be the safest
- Less expensive and is functional
- The trees in the center.

- I want to see our cyclists protected. I'd love to feel more confident in my children's safety while biking in the area.
- Actually, theses are all poor. Can we have bike lanes that are not on the streets?
- This is a very popular route for cyclists. It is also currently very dangerous with blind curves. Buffered bike lanes and side walks are critical. Lacamas Lake and Lacamas Lake Park are the crown jewel of Camas and so important for recreational activity access needs to be preserved and made safe. Camas has not taken good care of the trees it has planted in other median areas.
- More trees to stay with what is true about our area of outside space and nature.
- Love the treed median, hate the "coned" street barrier on street for bikes like Portland. Really detracts from the natural beauty of any environment. Is very harsh in appearance, particularly for beautiful, natural camas acreage.
- Looks nice, seems safer, allows for flexibility on sidewalks with enough space
- More trees
- We need to keep the look & feel of Camas, which requires lots of tress and natural areas to off-set development.
- More trees to replace the 100 year old ones you plan to tear down. Hopefully I'll be alive long enough to see them reach maturity
- This option keeps Camas feeling green. Less concrete jungle
- Alternative three with cafe-seating sidewalks and the 10 foot shared-use path, please.
- No one can't make an informed choice without a cost comparison. Why is there an insistence on bikelanes and curbs.
- Safer & more natural looking
- Safety
- Planted medians incorporate more green space
- This option seems to be most similar to downtown camas. It Puts an emphasis on the cafes and social aspect of a community rather than just an ordinary road through town
- Would be so great to have a place that kids/teenagers/adults could safely bike
- like the larger sidewalks but this would not be applicable everywhere. Need multiple sections based on adjacent property development.
- The more green the better
- I like the aesthetics and function of bigger pedestrian space.
- Wide sidewalks and outdoor seating is very nice.
- More appealing
- You have both sides of the sidewalk planted in the illustration. Important
- It seems accessible for all and looks like it creates a nice environment for restaurants
- Green space
- I'm undecided on this one. Can't decide if opting to not have the turn lane would cause a traffic problem
- However you decide it you need a center lane. People trying to turn back traffic up if they don't have a place to wait outside the flow of traffic
- Keep beauty--street lamps; cafe seating --good.
- None of these. Keep it the way it is and just add bike lanes
- It looks more natural with the planted median. Provides good walking areas and biking areas.
- Bikes need a safe area away from traffic. Too many distracted drivers
- Turn lanes help with the flow of traffic. Off street bike paths are more family friendly. Wider paths help more people share the area.

- the center median cuts down on pavement, but is a pain and expensive to maintain. I would be good with just a small concrete divider and more space on the sidewalk area.
- Bike lanes need to be on street to encourage use by children and families. As much planting as
 possible also beneficial
- Leave it alone
- Open with good visibility. Makes it welcoming for the walkers and cyclists. This will make it better for people to come and support any local businesses. People want to enjoy outside activities with great food and drink in a great setting
- keep the area looking natural/green, control/reduce turn points, lots of cyclists in this area-provide a buffer to protect cyclists & motorists, wider sidewalks provide better sharing and more inviting
- It offers the most trees, which are cooling and beautiful. Wide sidewalks encourage walking.
- aesthetics and safety
- A combination of options 1 & 4 would be ideal. A tree lined avenue is a must. Sidewalks with enough room for outdoor seating will invite commerce, enhance the social experience and develop a sense of community
- It is such a nice small town feeling to have cafe seating on the sidewalk. It makes people want to stroll downtown Camas and thus brings in more traffic into stores/shops
- Or a combination of 3 and 4. Planted buffer and plenty of trees to keep the natural setting. However, 10 ft sidewalks for cafe seating and small shops would be nice added touch.
- Tree cover is imperative, especially if you log the remaining forest.
- Encourage bike traffic
- The extra trees and plants are appealing.
- Leave North Shore alone. We don't want to become an extension of East Vancouver. We have our own identity steeped in the wonderful outdoors. People walking and jogging along the Heritage Trail do not want to look out across the lake at a bunch of development. Leave our wooded scenery alone. Please.
- I'm not in favor of big development.
- The lack of bike lanes is one of the things that has bothered me since I moved to the area six years ago. Walking to the lake from my house gets scary along Everett where there is barely enough room for the cars, let alone people walking. I think bike lanes and wide sidewalks would accommodate the growth better than any of the other options.
- 3 provides two key benefits. More trees, equals cleaner more vibrant city and separated bike lanes protect our kids and those riders from chances of getting hit. This idea is perfect for the city that looks after the residence rather then just the economic growth of taxes. In turn that will make our city healthier and safer.
- Alternative 2 makes the best use of the space. Center planters cause too much clutter and difficulty to fully see around.
- Don't mix bicycles with pedestrians (they don't pay enough attention). Center turn lane needed to keep traffic flowing/possible delivery vehicle use.
- larger space is better vs. cramming things into such a lovely area
- Keep area looking park like
- The medians are costly to maintain, waste of space. Planting trees next to the sidewalk pops up the sidewalk over time. Unwise. It's happening all where trees are planted adjacent to the sidewalk. Learn from mistakes, don't repeat them.
- Bicycles need to be kept physically away from traffic. A normal bike lane does not do that.
- turn lane to allow turns without stopping traffic; wide sidewalks to allow plantings along the route helps soften the hard building edges.
- protection of pedestrians is the most important idea here. Think about car-free zones too.

- Cafe seating. Yes. Let's enjoy our outdoors.
- Accommodates the lifestyles of the area
- People like to eat.
- Keep it simple
- Trees must be planted. We hate the idea of development here. This is the only option where are you acknowledge I need to plant trees.
- Why, you are not telling us where these lanes will go. 500 is not city owned.
- Center turn lanes help encourage traffic to businesses on both sides although planted is pretty it prohibits ease of entry really love buffered bike lanes.
- Keep it rural. Less trees cut down.
- Definitely need a center turn lane
- bikes should follow existing laws, and as such need to be on streets
- Center turn lane and bigger bike path
- I like the division of traffic lanes and accommodation of bicycle and pedestrian access
- More tree canopy and comfortable walking space is always a welcome advantage to the community
- None of these options. If the lake is there only a sidewalk and tree on one side of the road
- Safe for bikers. Allows for better traffic flow with folks turning.
- The balance of trees on both sides of the street looks well designed.
- Plaza settings to build community
- trees. we are losing the too many as is.
- Outside seating at restaurants would be upscale.
- there's often not enough buffer for bikers and this seems to be the safest option for pedestrians as well.
- None of the above. Keep Camas quaint.
- If the area just be developed, this allows for more trees to buffer the pollution and noise of traffic as well as providing room for bicycles and pedestrian traffic.
- Because it has more trees.
- Best for traffic flow, if expected to be a high traffic area. Otherwise I like option 3 for aesthetic value or option 4 for the cafe seating. That would give the space a nice community feel.
- This option provides bike lanes; there are many bikers in the area, but doesn't take up as much space as the other options.
- Depends on what class of road we're talking about, but 4 is cheaper and there's plenty of natural green in the area which makes a landscape median less necessary. 3 is nice too though.
- Allows for more trees
- Enhance the pedestrian friendly feel, promote bike commuting.
- Stop developing Camas, leave it alone. We are over crowded as it is.
- Where are these roads going to be, again too early to ask questions like this.
- Best blend
- I don't like any of these. More costs for infrastructure. Schools overcrowded. Loss of pleasant, smalltown feel.
- I like the look of the planted medians
- keeping bikes off the road would be best.
- I like that pedestrians & bikers have a buffer zone away from cars
- We don't need another city of camas in the north shore.
- Stop building
- 3 or 4 seem fine. Trees and safe for pedestrians and bikes
- None

- I prefer a split bike path/walking sidewalk. Safer and used more frequently by bikes in communities I
 have lived in.
- Pedestrian should come first
- Because it will be safer for people who ride their bikes.
- Alt 3 appears to be the best combination of aesthetics (planted median) with functionality (buffered bike lanes, on street which are easier to keep clean).
- None of the above
- neither
- Planted median to buffet the hardscape, wide bike lane and sidewalks
- None of it. This is being planned on the north side of the lake? Wow, you are going to ruin this city. So sad.
- narrowest footprint.
- For which road?
- Safety and beauty.
- Minimalist approach for early development
- No conflict between bikes and pedestrians while still including a turn lane to reduce traffic tie-ups.
- More for people to enjoy and less about cars
- Simpler design and lower maintenance costs
- Seems like the best use of land/space.
- Bikes are not safe in roadways. Bike lanes always need to be buffered.
- Separation between vehicles and people is utmost important with recreational areas and high density of young families. Safer streets for pedestrians
- Center turn lane greatly improves traffic flow.
- It is safer for pedestrians and cyclists, as well as providing outdoor community space and greenery. The city of Camas is too car centric and needs to take European city planning ideas to heart.
- keeps traffic flowing with turn lanes and provides all other access points
- Safety
- Best encourages the least use of cars, keeps Camas as green as possible and provides shared access, including cars
- Trees and landscaping to make it look attractive.
- You don't offer an alternative I truly like. And bicycles do not belong in traffic.
- two lanes with center turn makes for good flow of traffic. Off-street path is safer
- Sidewalk seating for cafes or eateries would drastically increase the property value and bring
 neighborhood locals and others who enjoy sitting outside. Sidewalk seating is just plain nice and you
 instantly feel a sense of community welcome.
- Looks better than other scenarios.
- #3 more pedestrian friendly.
- more flexible for bikes, some but not too much landscaping which can block sight
- Off street path is more kid-friendly
- This gives a good balance of use. However may however become a problem in the future without the center lane option. This does offer the most flexibility in my opinion.
- More greenery and protection for bikers = better
- Seems like the safest and preserves the most beauty. Would be safe enough for families to ride bikes too.
- Bike lanes shared by roads end up with broken glass which leads to flat tires
- Again, it depends on the overall strategy of this area. Having outside areas for cafe seating where appropriate is always great. Just depends on if it's a focus on vehicle traffic or non-vehicle traffic and

- what you want this to end up being. If it's going to stay like "Old Camas" it needs to focus on people not vehicles, which is what I prefer.
- Number one is my first vote for the safety of bike riders, number three looks the nicest with the multiple tree lines.
- A center turn lane will ease the flow of traffic and make business access easier. The bike lane will hopefully keep them safe and off the sidewalks.
- To preserve the beauty and natural boundaries. It is where bikers go and please do not get rid of that. I
 honestly do not want buildings or houses on road directly around lake. Please keep the natural look
 with trees.
- I like cyclists to be safe on the roads with ample space and cafe seating seems quaint. I also like the trees/plants on both sides of the street.
- Because it has the most space for trees. You know, to replace all the trees you'd have to chop down to make room for this development that is unwanted by most residents.
- Turn lane to help prevent clogging the whole lane when someone turns
- A lot of pedestrians, need sidewalks
- Create an engaging, open space with outdoor seating.
- because you're going to plow down all of the trees and replace it with cement so you might as well stick some back in there, plus the bike lane is bigger.
- Tree median seems like a terrible idea. I don't see much room for street parking, which adding all of this stuff will need parking. and not having a middle turn lane seems silly. That would back traffic up otherwise. Alt 2 seems the best option
- This is not necessary.
- Cafe seating?
- Trees help with the heat-island effect of so much asphalt.
- Leave it and don't build
- The buffered bike lanes are important. It's too dangerous for bikers currently on Lake Rd.
- More trees for air quality
- Alt 4 because it feels more like a small town
- Separation of modes of transportation and use of vegetation
- I would have this with center/left turn locations as needed muck like NW Lake Road is after NW Parker/Larkspur
- Make a sidewalk or path that allows for fitness in this area.

8. Is there anything else you would like to share about your vision for the North Shore area?

- Please do not take the green away from the lake views. So much of Camas has been taken by development that the beauty and quaintness of our town is fleeting.
- I am in favor of managed growth and smart development. I believe we have to plan for the city of the future for the growth that we know is happening, and will continue to happen. We have a great resource and an opportunity and I'm pleased to see city officials thinking ahead.
- less development
- Leave it alone. We don't need to develop it and couldn't support the infrastructure, traffic or school crowding.
- Please keep it green as it is, which is the treasure of Camas. Camas is developing too big and too fast. It will soon harm the existing residents. It will not increase the value of our house.
- Too many homes being built schools, roads can't handle the influx. We want to stay a small town.

- My vision of Camas has changed dramatically in the past decade. It is no longer the pleasant little community that was a treasure to its citizens. I am not in favor of rampant growth in residences, businesses, industry, dog parks, hiking trails, etc. etc. Stop the growth and limit the lifestyle change to what has already been done.
- Stop Developing camas. It is losing its charm. Too much traffic and too much horrible housing developments with houses stacked upon each other.
- Maximize on the enjoyment and natural views of the lake.
- Development is inevitable for Camas. Incorporating aspects to make more livable like parks/trails/open areas and grocery stores along with making walkable will not only increase the livability but also attract more families/developers (and tax \$)
- i am worried about the expansion of the city into the rural parts of camas where I live. I love how open it is at my house right now and worry about losing that in the future.
- Your overdevelopment of Camas sucks.
- Traffic around town is a nightmare. This area is the worst and proceeds to get worse the more you jam into the around the lakes.
- Keep the farms and green spaces, we need more space to be outside, parks and playgrounds. Keep trees and water access, the area is beautiful and we should work to keep it that way.
- Please leave this area alone. We don't need to destroy camas in the name of progress.
- Leave It Alone. We are not California. We are the Pacific Northwest. Stop trying to modify what is here. Let it be.
- Please don't turn it into just another busy city. The beauty of Camas is in its quaintness as a small town surrounded by beautiful forests, close by to shopping/dining/etc. We don't need more businesses spreading out & around it. We need to find ways to encourage businesses to use the existing structures in downtown Camas & renovate the existing buildings in need.
- Stop the over development of Camas, keep the trees and green space.
- I understand building this area is good for tax revenue but the city is becoming too crowded for traffic flow
- Very nervous about the traffic on Everett. It's only two lanes and already gets backed up. I'm not convinced the roundabout will fix everything with this expansion of the town population.
- Please don't kill Camas by overdeveloping the land. We love the forests and fields. Please leave them be. I understand the need for industry to support the tax base, but please build big IT-type campuses like Underwriter Labs or Hewlett Packard. Please don't build apartments and retail they are shortsighted developments that lead to traffic problems and crime. We would rather pay more in taxes to preserve our quality of life. Please don't kill Camas by turning it into an extension of Vancouver. We love Camas. Please don't kill our community by getting greedy.
- Keep it small town feel. More nature.
- Please get us a Fred Meyer out here.
- I am very concerned about additional development without infrastructure. Even with proposed changes for roundabouts at Lake and Everett, the area around the lake is a bottleneck due to high school traffic. Adding more development is going to make things worse. I would much prefer adding recreational areas on the north shore.
- Avoid the usually (like last 8 years) high-density housing. It's possible to do this without builders losing any \$, and without gouging people who couldn't afford to live here. The prices are not balanced anymore. We don't want Camas to become like Marin County in California, which now looks like it could happen. People are more important than greed and the almighty dollar. Camas officials, this message is for you.

- I don't have a vision. I am sad that this has to happen. I am not a fan of urban growth. Seen it in Southern California.
- I have a vision of Hazel Dell and 82nd ave in Portland having a child named the North Shore area of Camas
- I hope that the City of Camas just does not look at making money and not at preserving the natural state of Lacamas Lake
- Please be considerate of the natural areas. Leave the trees and work around them. Force the developers to update existing roads and consider the implications of traffic for our existing roads.
- Moved here because of the natural beauty of this area. The charm and beauty of Camas needs to be preserved, not developed on every piece of available land. Otherwise it will just become an expensive and mediocre place to live.
- I do not believe that camas needs more development of any kind. Please leave it all alone.
- Slow down the overdevelopment
- Quit destroying our beautiful community and natural landscapes for tax revenue.
- Camas was once a small community with a lot of rural open space. We are saddened to see so much
 cookie cutter bland and unsustainable building all over the once agricultural and rural areas. People
 who want to continue to live in a rural setting are pushed farther and farther out making it impossible
 to live close enough to jobs and not have a two hour commute. Please stop over building our beautiful
 rural areas.
- Let's keep our natural landscape, keep the trees and vegetation.
- We have this amazing chance to set a standard in development with climate change in mind. We should mandate a minimum amount of trees per acre, focusing on keeping older trees and planting only native plants.
- No development please
- Per the expansive development plan shown, what are plans for schools to accommodate increased population? This consideration should be a priority. Overcrowding of classes will quickly diminish the draw of the Camas School District which has been a major draw for residents (current and incoming). Compromise that and city loses a major contributor to its success.
- Stop developing keep camas small
- We would appreciate slow, thoughtful growth, with a focus on preserving trees and open spaces. We
 think the city should be moving more in the direction of putting land into trust/preservation over
 developing it. We want to see resources protected rather than sold/exploited.
- Leave it as natural as you can.
- Just please improve our over crowded schools and congested traffic. It's exhausting and depressing to live here sometimes. I don't mind the growth, just be intelligent and not greedy about it please.
- Please preserve as much forest as possible
- Keep recreation cycling, mountain biking, running a part of the goal. Include the health and well being
 of the town.
- It's a beautiful natural area. Keep it that way. Camas is a small town. We need to stay small.
- Slow the development. Leave natural space and animal habitat
- Please stop developing
- My hope is that the city maintains public access to the lake, with trails and possibly parks surrounding.
 Individual houses with acreage on the lake, giving residence access to the lake as well as public areas for non motorized boats. An area for businesses on the lake while also maintaining the trees setting.
 Basically, not using all of that land to put up the cheap houses that are taking over camas right now.
- Please quit over developing
- No

- I would like it to be left in its most natural state. It is infuriating that this city council seem bent on overdevelopment of this quant town to make it look like any ugly town USA.
- Develop north side of lake as little as possible and have more park/ trail use.
- I think the North Shore area should prioritize nature and parks (especially in the areas directly surrounding Lacamas lake), single-family residences, and smaller commercial business (as opposed to industrial). The feel should be that of the current west Camas area, but more spread out in order to maintain the forests/tree lines.
- Leave it alone. It's perfect the way it is.
- Please do not develop the north shore, there is very little open spaces left in our community
- I fail to see the benefit of this development growth. Stop over development of Camas.
- We moved to Camas because of its small town feel and natural beauty. Just leave it be, before you destroy the real reason people want to move here.
- concerned if it is developed that Everett and CHS will be even more over congested and the lake ruined. I don't want to look at Lacamas Lake and just see buildings and not nature.
- Please consider the need to maintain large amounts of green space. Once it's gone, it's seldom, if
 ever, returned/replaced. Open space for families, flora and fauna is crucial to the livability and "feel"
 of Camas.
- I don't want to see it over populated. Crammed with housing, business and industry. We have an industrial park already.
- My vision for the North Shore area is for it to be left alone, as it is today. Stop the developing and trying to make Camas into a big city instead of the comfortable town it currently is. Most Camas folks would agree. If not, they can move to Beaverton or Lake Oswego.
- This project makes me sad.
- Keep the area as is.
- Keep Camas a small town.
- As I've stated in many of my responses to the survey, I strongly disapprove of a highly developed North Shore area for Camas. Camas has seen irreparable change due to overwhelming development in the last 15 years and the North Shore is all we have left to maintain how we see our community and what we supposedly value about our community. Minimize the population growth, maintain the natural environment, and thoughtfully bring in companies in the proper places of Camas, i.e. Camas Meadows business park, and our border with Vancouver by 192nd Ave. Citizens are losing patience and want to be heard and the city's actions should reflect the residents visions and desires for the community they live in.
- Please keep Camas a small community. I have lived here for over 50 years and the growth in the last 20 years has brought more crime, graffiti, and even murders. Our natural resources are affected by the growth. Please stop building.
- Ideally I'd leave it as it is, but obviously you can't stop it. The growth in camas the last 20 years is appalling. It's become a little lake Oswego, and now this area dubbed the north shores sounds like we're trying to create Beverly Hills. Taxes alone are going to force a lot of people out, or force them to neglect their homes, and you'll have these shoddy built 20 year old sub divisions with bad roofs and rotten siding, but hey, look at that glamorous north shore
- Slow it down, manage growth, don't grow if it doesn't affect the greater good of the current Camas, get employers first and the infrastructure, build the community resources to support managed growth, then build the homes, protect a larger ratio of open spaces and parks. I don't want a Lake Oswego, or another Portland bedrooom community. I want a small town, with excellent community resources and land for its residents.

- I've always enjoyed driving down that road, driving past the Ledbetter home and enjoying nature. This will drastically change the look of this area, destroying the beauty for our children. I don't want to live in a concrete jungle. If I did I would move.
- Keeping the area as pastoral as possible resist desire to clear cut everywhere, especially along the lake
- Just road improvements.
- Ideally, I'd leave the North Shore as it is. I don't understand how developing it is a positive thing for our town, but I'm open to having someone explain it to me.
- Please do not over develop this area.
- I live on Everett street and would love my kids to be able to walk to friends houses, etc. so we need sidewalks.
- Please maintain the natural habitat.
- Leave it alone. Seriously. Don't develop it. Everyone will be happy except the developers. The growth here is insane. Schools are overcrowded. Washington is a rainforest yet you allow massive clear cutting of old growth trees.
- Please consider embracing the opportunities to bring business to the region this park represents. The lake brings many people to paddle. The trails bring many mountain bikers to explore. They all stay and spend money in the town. Capitalize on it.
- Slow it down. We don't want such rapid growth. The city seems to be catering to developers at the expense of residents. Stop allowing big, dense developments.
- Keep the trees.
- Elegant senior housing.
- We will vote you out
- I am worried about filling that space up with commercial spaces we do not need. All the things you are talking about are less than 15 minutes away. Keep it natural.
- It is nice to be able to look out from Prune Hill beyond the lake and see nature, not more buildings and houses. If you keep building on all the beautiful views, people will move elsewhere to find them again.
- I would like to see it stay the same, undeveloped.
- Don't overreach. Listen to your people.
- With housing developments popping up all over the place, I have become concerned with the potential loss of Camas' natural beauty. I hope our city will fight to preserve it. I am not anti-growth, but I hope it will be done well and allow new residents, as well as older, to enjoy what Camas residents have enjoyed for generations.
- I feel sick about the excessive development that continues to be taking place in Camas.
- Please keep it as rural as possible. We have no place for the kids to go to high school. Camas is packed.
- Please stop clear cutting and taking out all the trees. Build around them. Other cities do this all the time.
- As a long term Camas resident I have watched first hand as growth in this city has irresponsibly and exponentially exploded over the past 20 years in particular. Slow down. Any further development and growth should be well thought out and be of true benefit to the current residents of this city. There is truly no need to decimate the North Shore for the sake of further profitability.
- Keep the area as natural and native as possible, and keep the trees.
- Keep North Shore area green/natural as much as possible. No residential building or major department/grocery stores. Many move to Camas for the small-town vibe, greenery, quaint community, far from major cities. If more businesses and single-family/multi-family homes are built, Camas will just become another Vancouver.

- Keep as is. Too much development now. Camas is becoming unaffordable for the average middle income family. It is becoming overdeveloped and losing what initially made it special and desirable.
- This is a horrible idea. You are horrible people. Growth for economic gain is cancer. Grow up, literally go vertical elsewhere, we humans don't need to gobble up all the land and wooded spaces from all other species. We aren't that important or needy. Stop special interest developers. This is absolutely disgusting.
- It shouldn't become an isolated area but needs to work with downtown Camas, hand in hand with events etc to connect up etc. Not some snooty area within an area etc.
- Just leave it be. Keep the trees that are home to the wild animals, keep the forestry that has taken more than our lifetime to mature. The trees, wildlife and all that lies within are what bring people to the charm of Camas. Once the green is gone, it's gone. And it does not need to be gone. So unless you can develop without tearing down the massive amounts of gorgeous greenspace, we don't need to be an overdeveloped extension of East Vancouver.
- Keep development to a minimum and maximize/maintain open spaces with existing trees
- Less development as a whole. More greenspace
- No north shore.
- Listen to the community. Don't rush. Be more transparent. Get creative. Think outside the box. Look at the bigger picture. People will pay for established tree canopies and a visual of the natural beauty here.
- Keep it natural and green. Highlight natural beauty of area. Refrain from overdevelopment leave that to Vancouver.
- Stop adding more people to the city at the rate you used over the last 20 years.
- I agree we need to plan on some commercial and residential growth, however, keeping the "feel" of small town Camas is part of what will continue to draw people and businesses. I suggest that single family residential lots are bigger than what's been being built in other areas of Camas recently. It would be great if all the roads had at least shoulders, if not sidewalks.
- It needs to have character and embrace the natural resources we are blessed to still have. Something
 that offers gathering spaces and is friendly to outdoor activities, dog parks/dog friendly spaces and
 cycling.
- Leave it alone
- I feel like you are giving me even more reason to leave Camas after my kids graduate.
- Some retirement community feature.
- I believe that Camas Real Estate is already in high demand. I do not see the reasoning behind trying to boost our population further? This is a place people want to be. We should take advantage of ideal supply demand situation and work to generate revenue from popularity. Not exploit a beautiful, precious community simply for the sake of having more.
- Camas is continuing to change and develop. Making sure the changes incorporate outdoor activity and buffers is very important. Take a Lake Oswego for example. Lots of growth but all done with buffers and space. That's how a city keeps home values high.
- No Pool.
- Rural agriculture make this community what it is. Many have voiced that there is too much
 development. Many young families are trying to move to larger more rural/ agricultural based land.
 Developing it limits this opportunity. Additionally, given everything with the pool this is not the best
 time for this.
- Pedestrian and bike friendly. Hopefully the charm of camas doesn't turn into parking lots

- For the single family developments require developers/builders to have larger lots and more parks
 included in their developments. Also parks and open space with the multi family developments. Keep
 as many trees as possible during this growth, make our natural spaces a priority.
- Less development
- Please consider the environmental impact. Keep it small, keep the charm, protect our wildlife and natural areas, the views, no pollution at the water. Think safety and preservation. Think green.
- I want to protect natural areas. A trail system and the lake being accessible is priority. A safe way for bikes and pedestrians to get around is also a priority.
- Please keep it green. A huge park around The Leadbetter House and along the north shore would be
 ideal. Require developers to include parks that are more substantial than their pocket parks. Small
 scale commercial/industrial areas instead of huge box stores and buildings like Wafer Tech that are
 unmarked, fences all around, nothing exciting going on, etc.
- Please have more detailed information about the area, not just a colored map. That doesn't really help to understand the vision of the area other than someone did a color session.
- Please don't ignore the impact this development will have on the arteries in and out of the north shore area. And the impact growth is having on hwy 14.
- The airport is already a significant cause of noise pollution for surrounding areas and pilots don't respect the flight paths. Under no circumstances should air traffic be expanded.
- "Progress" needs to be redefined. I have lived in Camas for 10 years and have been a PNW resident since the 80s. This change is short sighted.
- I love it the way it is now.
- Please try and keep the natural setting along leadbetter. It is my favorite drive every day to and from Lacamas Lake Elementary each day and see the trees and the lake.
- Make the area friendly for people to spend time outside and yet make sure traffic can support it. Keep outdoor space public.
- yes, get rid of Ledbetter Road and put in a trial that goes around the entire lake.
- Please read comments on general approach to development. If we do not plan better, people will not stay in Camas. The storage units in GV are a prime example, and residents are not happy about it.
- With respect to the increase population we have to think what is the demographic that's attracting people to move here. It's the school. Therefore, this means families. We have to think of what do families like to do when the weather is amazing. We like to be outside, have access to water activities, spend money at your local shops to support the community.
- That it does not become industrialized.
- Less is more
- Camas is a great place to live because it's focus on quality family style living. Selling out to developers, would seem to go against so many other good things this community has going. It's quality not quantity here. Keep true to the character and let values rise because more people want to be here. Not just because there is more opportunities to be here. Protect the community.
- I would like to see multi-generational options to keep the community ages blended. It's fun to have all when supporting a family/community feel.
- Why do we have to build more houses. Our schools can't hold any more kids. This building is getting ridiculous. Just because it is open space doesn't mean it needs to be built on.
- You know that nature parks and trail systems are economic drivers, too, right? People come to Camas from other places just to run and walk by our lakes. I was one. Then I moved here.
- Reconsider this plan. The road infrastructure is insufficient to support this kind of traffic. Honestly you really want to put industrial next to lake? Use some common sense. There is land available for

industrial near WaferTech and no one is building there. Also, commercial truck access to North Shore is terrible.

- Please stop developing. Our community is large enough.
- Stop destroying our environment. If people wanted this they wouldn't be here
- I want to see livability and an extension of what makes Camas great that means walking, biking, lake use and preservation of natural resources, including the shoreline. We need to connect the North Shore to the downtowns by bike and not make it just another enclave.
- I like the idea of having shopping close to home but don't want to ruin the feel of camas.
- keep trees, they are not easily replaceable, despite the fairly easy to circumnavigate and toothless tree plan
- This development and everything about the aggressive growth direction the city is going in has me considering moving to Washougal once my teens are out of high school. Maybe even further out.
- I moved here 10 years ago because of the lakes and forest and because it was not an over-developed strip mall town, like Vancouver. The two reasons people loved about living here are the natural areas (forest, lakes, trails) and the schools. Both of which are being ruined because of over-development and out of control growth.
- Camas has always had so much beauty to offer. Let's hang onto it. We don't need to further gentrify or become California or Lake Oswego. It's Camas, it's already beautiful.
- important to keep as much wild nature space as possible.
- Please, please think long term and big picture. Invest in having Camas be a safe and peaceful area to live by thinking about recreational walkers, bikers, hikers, etc. And by making it safe to commute by bike.
- Leave Camas alone, this is not why we moved here in 2001. Ugh.
- The area needs to be developed so the it stays within the Camas style. We are a community of home owners. We do not pay the prices we do to live next to apartments This is not the Vancouver water front. This is our community for our enjoyment.
- A turf field for Lacrosse. Preferably one that could have a dome over it for winter for indoor sport activities.
- We don't want or need another large development--don't try to turn Camas into another Vancouver.
- Just don't ruin the natural beauty and pollute the lake.
- A little something for everybody keeping nice, clean, and simple-yet very inviting
- Less sprawling development and more focused building with bigger wild spaces
- Stop
- Keep it rural.
- I think the city is rushing into this without a sufficient plan. Camas is growing up, and with size it needs to change how it plans development. Or we'll end up with blighted areas 20 years from now, and bad traffic and unhappy people until then.
- Less can be more. Focus on nature and parks while incorporating new construction around and inclusive of nature and the landscape rather than plowing down everything for a concert jungle.
- No more hotels. No more dental offices. No more banks. Camas and Vancouver have enough. It won't
 kill someone to drive a few extra minutes to get to a bank or the dentist. East Vancouver has enough
 hotels running at what appears low capacity. Let's keep it residential with nice wide neighborhood
 streets, please don't allow bare minimum road widths and houses so close together you stand
 between them and touch
- What about a middle school on the North Shore? There are 3 middle schools in CSD, but all are on the south side. There is an elementary and CHS is close by.

- Traffic is already a problem. I have lived in Camas since 2002 and the area has become too congested and crowded. Please stop allowing multi-family residential developments. Apartments, condos, and townhouses will lower overall property value and add to already crowded roads. It will push people that love Camas or move away to other areas with less congestion.
- We moved here 18 years ago, when Camas was 1/2 the size. We loved the small town feel and all of the nature surrounding us. Why do we need to continue expanding?
- I'm not sure who wants to see the extreme development and commercialization of Camas but it is destroying the town we've come to love. I think we need to limit growth and development.
- I hope you will listen to what your community wants and let that direct your decisions.
- I am really starting to think Crown Park Pool was taken out so that we would be more open to all these changes. I don't want to think that, but I'm thinking that. I'm hoping to be convinced I'm wrong. I appreciate the communication, though. Please keep that up.
- The North Shore area is beautiful as is. The only enhancement that should be done is to add trails and other areas that will. Bring people outdoors to enjoy the lake.
- Although it's outside of the plan area, aligning NE Goodwin Rd with NE 18th should be done first to
 provide adequate traffic flow from the West. Also, in regards to trees, a balance needs to be found
 between having a forested view from Lacamas lake and having clear open views of the lake from
 residences.
- Yes, stop trying to build everything up. Let's leave some country, let's leave a place for the animals, let's leave some fresh air from natural plants growing.
- Would like to see its natural beauty reserved as much as possible while giving space for growth and progress. It would be cool if it became a charming extension/compliment of our beautiful Downtown.
- Please, please preserve the nature of Camas. We do not live here to support big business & over crowding. The beauty of our natural, forested spaces are invaluable. And we do not need any more multi-family housing.
- Sidewalks and bike lanes wherever possible.
- Bike lanes are Very Important. Neighborhood paths and trails are very important as they encourage people to get outside.
- I would like to maintain the Pacific Northwest small town feel of camas. We fell in love with the
 combination of historic downtown camas juxtaposed against nature. Too much open space will take
 away that "magical" feeling of living somewhere special
- Increase: Trees, natural space, clean and visible lake, places where people can gather. Decrease: Retail stores, traffic, pollution, industrial areas
- I like the mixed use theme. If we could increase jobs, shopping and residential opportunities at the same time that would be great.
- Please keep in mind the beauty of the lake and how it can be shared with non-residents with parks, long bike/walking paths, and trails. This would be great for exercise. Restaurants with outdoor dining on the lake would be fun.
- Parking area for trail hikers around the lake that is safe, well lighted, and accessible for free to public with restrooms, garbage, recycling and picnic area at launch area for boats/ trails.
- Please protect the natural beauty of Camas. Once it's gone it's lost forever.
- None. Don't change it. Don't build.
- I have lived here in Camas for 25 years. I really haven't been pleased with the growth, because you don't improve traffic flow or infrastructure. The community has really grown but the roads have not changed enough to handle the extra traffic. A traffic circle by the LaCamas lodge will be a nightmare with all the high school traffic. You need an over pass/under pass there. Putting a pool across from

- heritage park an absolute absurdity. The traffic nightmare will be so frustrating. Two traffic circles close together in an already over crowded area. Re think these ideas.
- Don't develop Camas is a nice, small business, safe community. The more people you bring in, the less safe and fewer small businesses will remain. I don't want to live in Vancouver 2.0
- Stop building so many houses. Make it a priority to enhance the community we have before accommodating more people coming in.
- Please leave trees and green space. Require developers to pay towards the schools, roads and parks.
- Green space
- I understand that growth occurs but we are not growing in conjunction with everything else. We have so much going in all over it might be time to slow down and let what's going in get finished and see how things look once the dust settles. 15-20 years from now might be a better time to begin this process. Don't rush it and then regret taking thing out you can't put back
- If you opt for any multi family units--have them senior only maybe. or high end condo type like new downtown Vancouver.
- My vision is to keep it the way it sits now. When you purchased it you stated that you did so to make sure it stayed green space. This is a complete money grab by the city. Clean up your backyard before you start trying to develop the rest of camas. Get new businesses to occupy current vacant commercial and industrial buildings. Get rid of the paper mill and develop that area. I know it's a lot of work but come on.
- Don't cut down all of the trees and please work with the developers to make a plan for schools for all of the new families that will be moving into the area.
- I heard that there was a plan to have a trail circling Lacamas lake. If at all possible include that in the plan and make at much of it a possible non-paved. It would be ok to have it sometimes on the lake shore and other times zig up into greenspaces, but road crossings slow down walkers, hikers, runnners.
- Leave it alone.
- Please stop over developing this area. Let's repurpose the many buildings that exist in downtown and change the zoning codes to allow more businesses within the downtown areas.
- I would like to see it as a place where people can come in and enjoy the lake and enjoy the woods. Look at how popular the hiking trails are around the lake. People want a place to recreate that's close. Don't ruin it by over development
- Please don't destroy the natural beauty of the area with overcrowding of concrete. We love Camas for this unique setting.
- Thanks for the opportunity to give input. Climate change is something leadership needs to take seriously. I'd like to maintain as many old, large trees as possible in the development to maintain our carbon sink. Can we consider the carbon footprint of materials and energy use? Creating healthy transportation and recreation options that connect this part of town to the rest of Camas and neighboring Vancouver would be fantastic.
- I love on 232nd and have seen traffic increase dramatically.
- Downtown Camas is welcoming and beautiful. This is an opportunity to create something as special on the NorthShore.
- I love what Vancouver did with their waterfront. Think about it Camas. People love to just go down there and walk along the waterfront it is so beautiful. So all the restaurants and stores are doing really well. Make it nice like Vancouver did.
- I came to camas for the natural beauty, small town feel, and community. Over development will make Camas just another developed urban sprawl and extension of Vancouver. We must protect our small town feel.
- We live on Everett Rd. This will directly impact the area we live in

- If the north shore is developed the forest and open space will be gone forever. It will never be replaced. The value of Camas is its proximity to natural areas. I do not support the proposed zoning as it would forever destroy the reason so many residents live in the area.
- Protect water front access
- I would love a large grocery store complex on this side.
- Keeping the hometown feel is very important and one of the main reasons people love to call Camas home. Too much big business would hurt us but we should have some.
- Keep it the way it is. I leave for college in two years, and if you guys continue to push this the way you
 are, I won't come back. I come from California, where overdevelopment and crowding has caused
 major problems. You guys are going to turn this place into a hellhole without even intending to. Also,
 stop with the pool garbage.
- I live directly north of the proposed area. We have horses. We hike, bike, and run these trails, and we need more. Camas HS needs a real home course.
- My vision is that it would not be developed. I am not in favor of large development in Camas.
- I see we can use that space for adding and protecting more green space. To have escape from city life, town life etc. To have visitors and vacationers come and enjoy the lake and the wide open spaces. To have locals help groom and have responsibility for the green spaces and to pass that on to our children. We have a huge opportunity as well as a huge decision right now. The proposed plan may look good on paper, but in reality could easily become a landslide where all open spaces become residential and/or retail. Hillsboro used to have a great balance between green space, farm land, retail and fabrication. Now it is such a zoo that more people moved there that navigation is a nightmare. Second to this is we have a lot of chokepoints in our roadways as it is now. Adding more residential will only increase that. As soon as we have a natural disaster roads will be inhabitable due to gridlock, emergency vehicles can't get where they need to go and escaping things like fire will be catastrophic. Please be mindful, please keep us safe and please protect as much land as a gift to the city keeping it a charming town rather then exploiting it to the developers who don't care about how putting in another housing development will effect our security. We have great examples from Portland, Hillsboro and other towns like it that are devastated by over development. Thanks for listening.
- Ensure good access to downtown. This will keep people from travelling to the west for services.
- I would say that commercial development and road design all depend on population density and proximity to existing shopping. If you aren't putting in a Walmart, people will drive to one. Healthcare options? People will continue to drive to where their insurance works. Personally, I would not like to see the North Shore become 192nd. My opinion.
- It would be terrible to see the beauty of the area destroyed for the sake of growth and profit. We need to preserve the forested areas as a majority of plan, and gently work new building into that. To clear-cut everything and then build up from there would be a tragedy.
- large outdoor multi purpose plaza for outdoor concerts, fairs, farmers markets, other gatherings. Utilize solar lighting and other smart design elements
- Stop making Camas ugly
- Not demanding amenities, affordable, modest growth. Camas has huge regional park and trail system already, so mini parks or neighborhood parks with tennis courts, bathrooms, shelters that can be reserved are nice, like Grass Valley Park.
- I wish the city would leave the lake and park area alone. No pool in Lacamas park area. Work on infrastructure for a while and slow development, leave the natural beauty, there's plenty of development going on now. I do not believe the city has a good plan to develop and again, not ruin the natural beauty of camas. Thank you

- I don't think development in this area should be like all the other development in Camas where they go through and bulldoze all the trees in the area, scrape the soil clean and start building. Keep large pockets of native vegetation and trees. Don't just clearcut please.
- Help protect those amenities that cannot be replaced historic structures and farms, age-old woodland, particular views and open space. Make the transitions from one area to the next (i.e. housing to industrial) flow aesthetically.
- Please make this a pedestration focused area. Let's reduce our reliance on cars. Think about future generations.
- Thank you for this survey. I hope you take the community input to heart. Please incorporate the trees and landscape into new commercial and residential spaces. Please plant native and hearty trees when replacing. Encourage builders to create quality craftsman homes and not the cheapest quickest builds. Incorporate energy efficient/green everything. Have lots of garbage/recycling/pubic restrooms/benches/gathering areas and a nod to our city's history everywhere. Fun water features, facts about our city in plaques, mentions of our early founders and us the resources around. If trees have to be cut down use then in the community.
- Clear cutting should not be allowed for the residential areas. Public access to the entire shoreline should be required (whatever happened to the plan to close leadbetter and turn it into bike/ped path)
- The Lacamas Lake Lodge and Heritage parking lot are always full, especially during summer and weekends. It is time to give Camas residents parking passes, and charge everyone else. We pay a ton of taxes, and should be able to use our parks. I cannot support future development, until the City of Camas puts residents first. As far as development goes. I don't understand why the city gives out permits to developers, allowing them to clear-cut, and also change the natural landscape. I would like to see homes being built of wooded lots. If developments continue at the current pace, then every road will need to be widened. I am extremely disappointed with out elected officials, who are not giving residents a voice and vote. Don't even get me started on the roundabouts and 78 million dollar bond request for a pool in location that makes absolutely no sense.
- Yes. My expectation is that our goal as a community it to protect what we have left in terms of habitat and ecosystem. I'm simply disgusted by what our city is turning into. Don't get me wrong, I thoroughly enjoy an urban area; I have an office in NW Portland. Ive chosen to live in Camas for a reason, where my hard earned tax dollars are enjoyed, but I do not agree with the consistent aggressive disregard for what has attracted so many to our city. When is enough, enough?
- Improve roads to reduce traffic.
- I think this is a terrible plan. Our schools are already overcrowded. Our roads are grid-locked. The greed is unfathomable.
- My vision is to keep it undeveloped. I've only lived in the city for 4 years and the overdevelopment is
 overwhelming. The taxes are overwhelming. Selling my home as soon as my children graduate and
 moving on. I don't want to be burdened by ever increasing taxes.
- Please start to think longer term and quit being quick to approve developments that pack in big
 paychecks to the developer at the expense of quality of life to Camas residents. We line the pockets of
 developers when we could be increasing everyone's home values by demanding more long term
 benefit to our area.
- Make requirements for keeping old growth trees. Make it an example of sustainability and conservation. More people friendly than car friendly.
- I think everyone would like to know the truth about what is happening. Smoke & mirrors will only deplete the respect the constituents have for elected officials. Lacamas lake park is a highly valued and coveted natural landscape of Camas. Expanding that potential for entire length of the north shore wouldn't be a mistake. Not just honoring the city's mission statement, tree ordinances, history and parts of Camas that is well loved. But also honoring the air quality, climate & wildlife considerations.

- We can be a leader in this kind of junking & development. Not typical by over developing. Leave the forests & wildlife habitat. Develop only in the open space.
- It's disheartening to see so much growth. Traffic will get even worse and we'll lose the natural beauty that we love.
- I want natural space with trees and trails. Fill it full of trees and allow our resident to flourish in our area. Zone it correctly and it will happen.
- A path that goes around the whole lake. Enough set back from lake for wildlife to thrive. Love the dog park idea.
- Your vision is light on content. I'm afraid you are planning on too much development. We are losing what Camas is all about.
- Sound barriers for neighboring properties
- Keep it natural looking and not overcrowded. More open instead of compact.
- Please look at Daybreak in Utah. yes the homes have smaller yards, but they are still big enough for kids to run around and have a trampoline. Everything here is getting too squishy and you going to lose people to Vancouver and Washougal because of it. What type of people do you want to make up this community? Even if you don't have kids or like them, people with children encourage growth and a future for a town. If industrial space is a must, their buildings really need to be more visually appealing. Chicago is known for its architecture. Camas builders need to think about the PNW as a setting and think about what they would want to look at all day every day. We do not want a town full of vape shops and same day cash loans. We love all of the hard work of the Downtown Camas Association at promoting community. We want Camas to maintain a high class feel. We really need a community center, more focus on education and families.
- Leave it alone
- My vision is to preserve the natural beauties that make Camas a special place to live. We do not need all the development. This will no longer be a unique place to live as we continue to tear down our trees and build ugly developments. Who is working on preserving this little community?
- I think the pace of homes built in the town needs to slow down and be less dense in number of homes and offer more open space to maintain our large wildlife populations and trees that make Camas the charming town it is.
- Please preserve the natural beauty. It'd be nice if the new development was charming and maintained the cozy feel of our town.
- Additional residential homes and other commercial development will be destroying the existing green space. Deer and other animals are already being displaced in their habitat.
- Keep it natural and undeveloped
- It makes me sick to my stomach to even think about it. Camas is becoming Fishers Landing. Little houses made of ticky tacky. Nail salon on every corner.
- Please retain old growth trees and Plant native tree evergreen species.
- Focus on job producing growth rather than too much residential and maintain as much green space as possible
- While maybe outside the scope of the north shore study, the Everett corridor is very important as a gateway to multiple areas (depending on who you are). It can be a gateway to Lacamas Lake, gateway to Camas High, gateway to DT Camas, and a gateway to the north shore area.
- Most people moved to Camas because of its small town charm. Unfortunately, that is rapidly changing
 with the constant development of two- story residential boxes shoulder to shoulder. Camas seems to
 be in dire need of a design review board. Camas City Council also needs to stop "promoting" growth
 and start listening to its citizens
- Please do not alter our quality of ice by continued development.

- Please, please stop with all of the tree clearing.
- Need to work with Clark county and/or Vancouver to Improve streets coming from the west and north to be able to handle the added traffic.
- Leave it alone. Stop developing & destroying our Camas.
- Before the "siting" of the pool parking lot I had great confidence in the City of Camas' ability to grow. I
 am greatly disappointed. North Shore looks to be more poor vision.
- Protect natural settings as much as possible.
- Clean and green. Camas School District is overcrowded, there is no infrastructure to support this, taxes will go up and I am already being taxed out of my home. Why does Camas feel it needs to grow extensively?
- It is important to me to preserve the natural feel of the lake. Very few houses are visible from the lake. Development on the other side of the lake was done really well in my opinion. A trial on the other side would be nice too. I am excited to see what happens.
- I think development should be minimal, including lots of green space and agricultural use, to maintain views and the small town atmosphere people move to Camas to enjoy.
- I would love to see some land set aside for a wildlife preserve like Steigerwald. Please try to leave trees and don't wreck the beauty of this area.
- I don't this excessive growth is ruining the enjoyment of this area.
- Stop building. Our schools can't support it.
- I'm sure this will fall on deaf ears because it's not convenient for the developers but I would like to see more care go in to the preservation of our wild spaces and large trees. We do need to attract more developers to our area. They are already beating the door down to come in. I've lived here my whole life and am heartsick about the way the development in this area has taken place. Slow the development down and place emphasis on keeping large trees healthy and intact on properties. No more flowering pear and ornamental plum trees. We also need more affordable housing in the area. How about a few more duplexes and smaller homes in the mix? People need and want smaller homes under 350,000. We've got enough homes for millionaires in Camas.
- Keep it the same
- If the constant expansion of Camas continues, at the invite of current planners and elected officials, it will no longer be a city that was unique and pleasant, but an sprawling subdivision with no real identity, no real sense of community and no real reason to live here. Change isn't always progress.
- Preserving historical and future farm land is incredibly important. Food is a basic necessity.
- Please think about how you are affecting current residents, this is getting too far out of hand. The little town I grew up in is unrecognizable and there are already too many people
- Like I said, I would really like to see Camas be a leader in sustainability. EV charging stations, green sustainable buildings, large natural spaces.
- Stop building, camas should be a small to medium sized town not a huge city with no wildlife or greenery.
- Thank you for proactively asking for feedback on this land. It's truly stunning and part of Camas' legacy. Please don't turn it into another subdivision- Camas needs to embrace character in its housing, and that means diversity in design, function, and location. Integrate small business into communities. Create shared public spaces that encourage community activities. Limit big box stores and industrial that diminish the appeal of this area. Thoughtfully integrate tech/professional business centers that bring outside assets into the community as these will bring high paying jobs that churn additional dollars into the local area. Commute time is one of the best parts of the Camas area (less commute, more time with family), please consider this in the street design as well.
- I'm not sure the need to deforest and build. We need to slow down.

- This is such a bad idea, please don't do this to my hometown, I would break down if it ever happened. Please.
- Maintain the space we have. Developing one of the best scenic parts of our city is nothing but a money grab. Look around at the other cities (Gresham/Vancouver/Portland) area. Over developed, crowded, and dirty.
- I can't believe anyone in their right mind would develop that area of Camas. Please give us one reason why. It makes me so sad, this area will be ruined.
- This is too much development on the lakefront. Based on the scale of existing homesteads, way too many residences in full view of the lake. You are destroying the prime natural space in Camas. By doing so, you are harming the entire community. We can grow smartly in Camas. Don't destroy the lake.
- Leave it alone.
- Keep camas green while growing.
- Do not develop this area.
- I think people live here because they like the small town ambiance. Why would you want to develop this area into a crowded, traffic mess of a community? It is already a traffic nightmare around Camas High School. Why don't we work on maintaining a homey small town feeling instead of trying to create another Beaverton?
- Retain significant trees between and within developments, reduce clear cuts, use native plants in landscaping, add safety improvements - off street bike lanes, marked sidewalks with flashing lights, bioswales instead of drainage ponds used on Prune Hill
- not at this time
- In a perfect world this area would not be developed. Camas is hardly a perfect world. Current growth has already lowered the livability of the town and I have no confidence that this development can be done in a way that has a positive outcome.
- Camas exists because of the schools. Large expansion of the population without planning to expand schools and keep high quality will destroy the value in Camas. The Woodburn expansion has been a bit of a failure, and the school is considered 2nd tier. Adding lots of lower income high density housing will destroy Camas home values by degrading the schools.
- Be respectful of existing developments. Too often, re-zoning negatively impacts an individual's privacy and personal investment.
- Please don't let developers cram single family residences on to postage-stamp sized lots. Density is better achieved through townhomes or zero lot like attached homes.
- Get good roads built that are safe, not like Lake Road or Prune Hill.
- Don't ruin our Town.
- I'm concerned that Camas will turn into generic unappealing East Vancouver. I think we minimize the effect by having a central core for commercial/industrial and requiring uniquely designed structures.
- Stop over developing Camas.
- We have an opportunity in this part of Camas to redefine what thoughtful development can look like
 that enhances our community rather than creating. development blight such as the neighborhood
 adjacent to Woodbury Elementary where the developers where permitted to fell every tree and stuff
 in as many houses as possible with no open space, parks or or green areas between development
 phases.
- I want to see as many trees maintained as possible. When neighborhoods are built to maintain swaths of existing trees rather than spear cutting
- I've done these surveys before, as have many other citizens of Camas and historically, the city council and associated government agencies have ignored them because they have already made their decision. Thus, I don't believe you will not consider any input from us so this is all pointless.

- Please hold off until the infrastructure is in place to support such growth. No factories and ugly commercial buildings. No clear-felling. Please preserve as much nature as possible.
- Leave it as is.
- we should be concentrating economic development downtown. Turning farm land into commercial is horrible. This kind of development is what ruined countless communities. Please don't allow it.
- It should be something upscale and interesting like Bend Old Town. Having random stores is not enticing for Camas. This space is perfect to enhance commerce.
- I hate to see it change from what it is today.
- Lots of green spaces on the lake. Close the road off the lake and move it up the hill.
- plan for community use areas
- Keep old growth trees and make it beautiful while preserving much of what is there.
- I think focusing on the end-state look and feel is more important than just looking at a map. Has the City looked at other cities with similar end-states of multiple types? i.e. great for walking and socializing, more laid back versus an end-state of over utilized by vehicles and not as welcoming. Have you asked about lessons learned from other cities throughout the U.S. and what they went through and why certain decisions made sense and others didn't? I'm sure the folks of Camas 50 years ago would have made adjustments in the design and implementation of today's downtown and today we have the luxury of instant or quick communication with others across the world let alone the U.S. Why not take the extra time to ask instead of planning an end-state right now. Does this have to be decided relatively quickly?
- Please do this right. City planning is hard but don't take the cheap route or half do the project. Camas residents take pride in their community and as we expand we need to make sure we do this right.
- I am sad that we face losing that beautiful road. It's peaceful and traffic free unlike everywhere else. It's a reprieve from the hustle and bustle.
- Keep as natural as possible that is the beauty of the area.
- I hope this area doesn't become overdeveloped. There is something truly beautiful and special about Camas area that will be changed forever if it becomes the same as everywhere else.
- I would like to see an expansion of parks and trails, but buildings are not needed. The area is already
 close to services and industries and people who moved to this area moved here because they were
 looking for peacefulness and a more rural lifestyle.
- I live off NE Everett between Lake and 43rd and traffic is a disaster. It is backed up every day before school after school and again around 5-6. A traffic circle will not alleviate all of it when still only have 2 lane roads so please develop roads in and out away from Lake and Everett. Please keep trees around the lake. We are already losing them in Lacamas shore neighborhood as people are taking them down despite the boundary.
- I would love to preserve the quiet and calmness we currently have there
- Please, stop developing Camas. Let the dust settle from all the approved and active developments.
 Take a few years, assess the actual needs of Camas. This is unnecessary and greedy. Leave us residents the Camas we know and love- quiet, green, natural, beautiful.
- Natural beauty leave it alone people that move her are moving out now that the natural beauty has been ruined
- Camas is growing too fast, slow the growth
- Leave it as is-please stop all the development and focus on other issues.
- Please be thoughtful in preserving natural areas in this plan. It is so important for the future.
- We live in Camas because it's beautiful, quiet, and we feel connected to nature here. These development plans will further transform this amazing city into another Vancouver. Our school district can't handle the student load. The animals are being pushed out of their homes. Traffic is dismal. It's

just too busy here. Please stop selling the natural beautiful of this city to developers who only care about money.

- It's one of the few areas left in Camas that stent overpopulated. Don't ruin it by building all over it.
- There should be minimal tree and land removal. Especially for houses.
- My vision for the North Shore is to leave it lush and green and full of life. Surrounding the lake in house, cars and business is a great way to pollute the water and scare off wildlife. Stop cutting down trees, and stop making plans to pave over all of what make Camas great.
- Keep it green. Don't over-develop.
- Please plan this as much as possible. Look at other areas that have nature and family/bike/pedestrian friendly living arrangements like Sun River and create a plan that will make it feel planned, cohesive, and like a true community not just a swath of ill planned houses.
- We need a full service hospital in the area with so much housing in the works.
- The less development the better.
- My vision for the north shore is tall evergreen trees, country road, country parcels. We are residents in the north shore area and are tired of the surrounding growth. We do not want to get boxed out by your idea of north shore subarea. Frankly it makes most of us sick to see out beautiful surroundings devastated to line Camas's pockets and the allowed devastation of our local trees loophole that pads the tree "fund". So irritating. Stop promoting our city as a place to move. We are awesome because we are small.
- I would like to see as much of the natural areas preserved as possible with an eye toward protecting wild life.
- Maintaining the historic red home, gazebo and barns are so important. I know the City bought them.
 Please, please, please don't remove the little history that we have in Camas. It's beautiful to see from across the lake and would be wonderful to keep in use.
- No
- I'd like to preserve the farmland area as long as possible.
- Please stop destroying Camas with massive building.
- No houses.
- Parks. Camas does not need any more paved land. This area should be protected. In 20 years, people
 will wish that leadership would have had the foresight to do so.
- Water quality is already a huge problem for Lacamas And Round Lake. We do not need to add more stress to this compromised area.

DISCOVERY HIGH SCHOOL WORKSHOP

On December 3, students at Discovery High School participated in a mapping exercise. The students were placed into six groups. The photos below show how each of the six groups chose to allocated land uses in the North Shore area. The maps use the following color-coding system:

Red sticky note = Commercial/retail

Blue sticky note = Light industrial/business park

Yellow sticky note = Single family residential

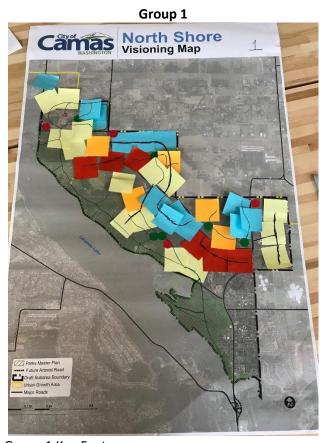
Orange sticky note = Multi-family residential

Red dot = Commercial node

Green dot = Park

Black marker = Roads

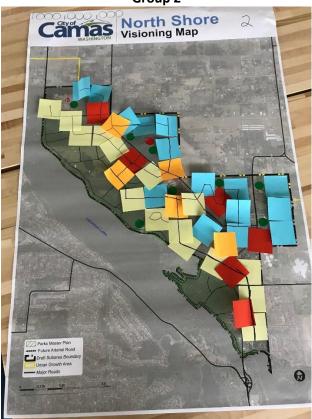
Green marker = Trails



Group 1 Key Features

- Provide trail connections between houses, jobs, and shops
- Provide parks throughout the area in neighborhoods and business districts
- Include smaller commercial uses in residential areas
- Include houses near the school
- Provide simple roads with roundabouts

Group 2



Group 2 Key Features

- Preserve natural areas
- Disperse commercial areas throughout
- Provide housing with views of the lake
- Provide trail connections throughout
- Include a lot of parks and green space





Group 3 Key Features

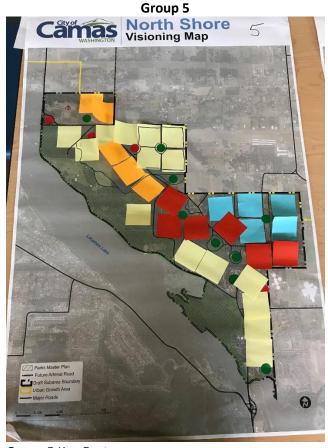
- Include a central commercial and business district
- Provide a mix of housing high income and affordable housing
- Protect large open spaces and natural areas, especially along the lake
- Include a new high school
- Include trails and bike paths to connect different areas

Group 4



Group 4 Key Features

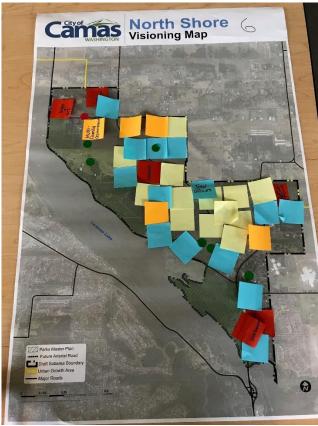
- Include a new elementary school
- Provide small business districts within walking distance of housing and schools
- Integrate different housing options from affordable to high income to encourage more social interaction
- Provide green space near offices and housing
- Provide parks throughout the area



Group 5 Key Features

- Include a lot of green space throughout with trail connections and easy access to housing and schools
- Consolidate a business district in one area
- Include most commercial uses in one area with some small commercial areas in neighborhoods and next to the high school
- Mix developed parks in with natural areas

Group 6



Group 6 Key Features

- Disperse business areas
- Include one primary neighborhood for housing
- Protect the natural areas and include trails
- Include a shopping center and a lot of restaurants

COMMUNITY SURVEY #2

The following is a compilation of all comments received through online survey #2 between December 16, 2019 and January 26, 2020.

1. Rank the importance of each land use described below (listed highest rank to lowest rank).

Land Use	Score
Recreation/tourism	8.20
Small shops/businesses	6.78
Moderate income housing	6.66
Restaurants	6.31
Senior housing	5.57
Lower income housing	5.22
Professional offices	4.86
Business parks	4.34
High income housing	4.13
Shopping centers	3.49

2. Rank the park options below (listed highest rank to lowest rank).

Park Type	Score
Natural areas	9.08
Trails	9.00
Water access	7.32
Community park	7.05
Passive open space	6.83
Neighborhood park	5.77
Dog park	4.85
Mini parks	4.72
Café seating/wide sidewalks	4.45
Sports fields	3.95
Public plaza	3.78

3. Rank the job options below (listed highest rank to lowest rank).

Job Type	Score
Technology sector	4.50
Medical sector	4.11
Office	3.65
Service industry	3.36
Retail	3.05
Manufacturing	2.55

4. Is there anything else you would like to share about your vision for the North Shore area?

- 12 acres of Parks space is not enough. Not acceptable. We have a once-in-a-lifetime opportunity to have a "Central Park" of Camas that could arguably be the "Crown Jewel" of the County, which could NEVER be said for any office complex or retail development. Don't squander this opportunity for the citizens of Camas who love to run, hike, bike, walk their dogs, etc.. After all... once it's developed into Pavement Paradise, there's no returning to what "could have been" had our city leadership simply had MORE vision. Save the large-scale development for NORTH of N.E. 28th where the gawd-awful Green Mtn development already has marred that area.
- 12% of open spaces is not enough. This beautiful area needs to "park like".
- 4 lane roads
- A biotech/pharmaceutical research/manufacturing facility would be fantastic. Generally they develop a
 well-planned campus, bring in scientific jobs ranging from entry level manufacturing support up to
 visionary problem thinkers, and use environmentally sustainable manufacturing practices
- A lot of housing
- A south facing sand beach would be great. A trail extending the Lacamas Heritage Trail would be nice.
- A walking trail on the north side of the lake would be wonderful. Please ensure that affordable housing is part of the mix we don't have nearly enough of it in SW WA.
- A well thought out plan to develop the north shore that holds nature as top priority while incorporating public areas to enjoy view of the lake. Prioritizing traffic in and out of the area for locals and added tourism while keeping residential areas desirable to live in.
- A wider shoreline trail that can accommodate bike riders & strollers safely with walkers & runners. The south shore trail is narrow with blind curves & used by lots of runners who have experienced close call collisions with speedy bike riders, and dog walkers with long leashes or no leashes at all.
- access to the lake is very important
- All planning needs to be coordinated with the Port and county because of the airport being a huge component of north shore development, owned by the Port, but within the county and adjacent to the urban growth boundary. There should always be a buffer between city development and the rural county areas. The entirety of the county has done a poor job with these transition areas at the urban growth boundary.
- All trees need to remain to keep the natural beautify of this city, and to keep the lake healthy. Next, high density anything is not wanted. Keep this town quiet, no loud manufacturing. I don't want any development there.
- Alleviate pressure around existing boat launch/lodge area during summer time... Add a real boat launch/dock to the area that doesn't require shallow water nav.
- An improved boat ramp on the north shore is highly needed. The congestion at the newer boat ramp
 is so dangerous. Motorized boats need a place to put in away from kayakers, swimmers, paddleboarders and swimmers.
- Another High School
- Any development less than 2-5 acre, single family lots will overwhelm our community, clog roads, overpopulate schools and place demands on services that will drive up property taxes and lower the quality of life, making Camas undesirable. This, despite reductions in property values due to overdevelopment. At some point, residents need to consider what they value. If it isn't community and quality of life, why do they reside in Camas in the first place? There should be no development at all. The city should leave the land untouched for the enjoyment of its residents. Similar to the ludicrous pool project, this is a terrible idea that will accelerate the already visibly negative consequences of the perpetual growth myth.

- Any development should be an extension of the community and reflect our values. Scale is so
 important in such a limited area, so please don't allow it to be over-built with large structures or too
 dense with micro-lots. It should be quaint, welcoming, have places to gather and enjoy the outdoors,
 encourage us to leave our cars behind, connect to the water, and the opportunity to enjoy the
 morning sunrise with a cup of coffee and the evening sunset with a hearty meal with friends and
 family.
- As a resident, it has saddened me to see an large increase in the number of dead animals on the road. We need to have safer, walkable streets with less traffic and more natural spaces.
- As much natural space as possible. Lacamas Lake is a major attraction for Camas and everything should be done to keep its natural beauty and natural surroundings.
- Before any development, you should make sure our roads are properly developed to handle the additional traffic and I'm not talking about more roundabouts. I'm talking about more lanes.
- Big Tech and Mfg brings jobs to support other categories.
- bike lanes on roads, sidewalks
- Bike trails and bike lanes
- Buffer the airport activity areas with Industrial/commercial with residential further away. Work with the Port to maximize the productivity of the rare airport resource.
- Build a pool and community center on the north shore with accessibility to water rentals and lake
 access. Ban motors on watercraft of me a than 15 horsepower to make the lake family friendly and for
 human powered craft. Connect trails to create a circuit of the lake ending and beginning at a
 pool/community center. Have it adjacent to but not detracting from the historic summer house and do
 it for about \$78 million. I am serious.
- build roads with natural flanks for expansion 50 yrs from now gives open space now and if need to stretch then future populations can stretch for more lanes on road or parking along the road.
 Properties then grow orderly. Build for aging population of boomers then next aging generation is millenia the two highest numbered generations will age one behind the other
- Building the infrastructure to support the growth of the North Shore developments is a major concern. How are the existing and proposed roads going to effectively move people from this area into downtown and SR 14. Most people that live in Camas are commuters to SR 14, Portland, Vancouver and PDX. SR 500 is a major concern with the narrow lake bridge, and I've read the State doesn't have any immediate plans to help the City widen this corridor (It's not on the targeted high priority projects by the State). I'm worried about all the traffic filtering through the new round about and driving through the Crown Park area and Downtown to get to SR 14. I'm also concerned about all of the traffic on this corridor, and our kids trying to navigate to and from CHS. At the upcoming planning meeting, please address the plans for the logistics and traffic for the area. Is there analytics and studies that have been conducted to model the traffic situation in this area when it's built out.
- Camas already has many suburban neighborhoods and retail areas. Many natural areas and trails with native plants have been sacrificed to make space for such developments. I feel the most important and beneficial use of the North Shore area would be to turn it into a conservation area (like a local park).
- Camas does not need any more developments for the wealthy. that doesn't serve our residents; it only attracts outside population into a stressed infrastructure. Camas residents are primarily generational & are invested in our community. our families have lived & worked & played & shopped here & deserve to continue our heritage by making that easier, not harder; becoming a bedroom to Vancouver which is a bedroom to Portland starves our local economy, taxes our resources, & we've all seen how high-capacity commuting disrupts our infrastructure, quality of life, & the time available for our families. we need more jobs. with our natural resources, Camas could have a very lucrative tourism & recreational economy, & creating the relative supportive businesses & development would benefit us.

- Camas is a place of exceptional beauty. I would like to see housing developments that add to that beauty and charm. Create real neighborhoods. Bend, Oregon has some great examples of developments with smaller houses, central park, retail built as part of the neighborhood. Boise, Idaho is growing rapidly and the areas that they are building are tasteful, unique and add to the beauty of the area instead of detract. Camas is becoming a strip mall, large houses with little character or charm city. The housing developments built around Round Lake are an absolute embarrassement to this city as far as I am concerned. As we expand, let's maintain the charm that begins with our amazing downtown and spread that outward. I realize much of it is about money, but I believe we have the ability to vision something truly unique and worthy of being a part of this beautiful peice of the earth we call home.
- Camas is heading in the wrong direction. Priceing out and forcing out working class families. Or making people that are conservatives feel unwelcomed or even threatened. I made a mistake by moving here. I thought it would be like when i was a kid coming to visit family. But its not enjoyable. Way too many people.
- Connect to existing trails on South side and to trails by round lake.
- Consider a shopping center more like Bridgeport village in Tigard/Tualatin rather than 192nd. Also take a look at the Orenco Station area in Hillsboro.
- County regulation for cellular antennas to be at least 1,500 feet from Schools, Homes, Parks and anywhere minors are likely to spend an extended amount of time.
- Density, density, density. I doubt many of my fellow Camas residents would be very supportive about this, but I would love to see apartment building built here, especially those priced to be more affordable. With rising housing prices, Camas has become an incredibly exclusive place over the years. My family moved here nearly 20 years ago, and I'm very grateful for that because it mean I got to grow up here. However, we would have never been able to afford to move into the Camas of today. Our community is woefully short on affordable housing options. we are fairly homogeneously upper middle class and I think that we suffer as a community for it. Mixed income communities are more culturally vibrant and have much higher rates of opportunity and upward mobility, even for the kids of wealthy parents. Besides, more dense living means we can accommodate more population growth without having to bulldoze over all the green areas and natural spaces we love about Camas. If apartment building are not possible, triplexes or quadruplexes or various townhome arrangements. Single story businesses are pretty ugly, and it seems to me that areas where you have businesses on the bottom floor and apartments up top are more lively and fun and efficient. It's not like we have to turn it into an urban center, just a little bit closer and homier, more like downtown Camas instead of the sprawling, unwalkable, and rather ugly (in my opinion) areas like 192nd. Oh, that's another thing, making the business areas walkable would be nice, and from what I understand, it is also more profitable for the businesses than if they were in locations with lots of accommodation to cars. It's something I really love about Downtown Camas. Just please, please, as little single family detached housing as possible.
- Destroying land and ecosystems for housing sounds like a terrible idea and should leave the nature and wild animals alone
- Developers need to help pay for roads, utilities and schools. The city can't keep subsidizing new
 housing developments, it's wholly unsustainable and promoting suburban sprawl which causes
 increased habitat loss, increased greenhouse gas emissions and car use, and suburban areas lack
 accessibility for youth, the elderly, and those with disabilities. Infill in current city areas and increasing
 mixed-use and car alternatives would be a far better use of city resources than developing green areas.
- Development of this area should not negatively impact those living outside of the boundary. An access road for the project appears to cross land outside the sub area, negatively impacting long term land owners for the benefit of the project. Roads should be confined to the project area. It should be

possible to route them through currently undeveloped land with in the boundary. This might impact the potential home owners and developers, however, current residents should not continue to bear the burden of new development.

- Development should be relatively low density -- no apartments, townhouses or tall buildings. Also, the city should be mindful of not generating too much road traffic.
- Do as minimal as possible.
- Do everything possible to preserve the natural setting. And forget doing anything in or around Camp Currie. As in, no trail through the camp.
- Do not build leave the area alone
- do not tear down our natural resources for more high income exclusivity
- Do not tear down this natural area. Leave it be. Build elsewhere. This is precious a natural ecosystem by the lake, please, the people of Camas & Vancouver beg you to leave it alone.
- don't be idiots
- Don't build anything here. This is a beautiful forest that should not be torn down for corporate greed.
- Don't cram houses together like the development behind Woodburn Elementary. Open land and recreational areas are needed to maintain a healthy Camas community.
- Don't cut down the trees. Leave it be.
- Don't cut down trees.
- Don't destroy camas. Camas is known for its trees and nature and the beauty of the fresh air and outdoors. Tearing down mass acres of trees would be a massive mistake. It's already becoming too commercial and losing the simplicity and beauty of the area because of the buildings and houses and apartments. Keep the trails and keep the trees we don't need anymore shopping centers or ugly office buildings or developments for houses. There's enough of that in that area as it is. None of the things you listed are important. What's important is the eco system and the environment. Stop destroying it for profit and greed.
- Don't develop the North Shore. You're destroying our community and natural resources. Let's research
 the ramifications of pulling out of the urban growth plan and preserve our beautiful community. This
 growth is destroying everything we love about living here.
- Don't develop this area, it'll destroy the trail networks and make travel harder for the residents who are already there and who will be displaced.
- Don't develop. Keep it natural
- Don't mess this up like the whole red center debacle.
- Don't make it look like the Woodburn School area with houses crammed together and no trees this is
 a disservice to our land and eyesore to the community- we are not California let's keep it that way and
 preserve our land responsibly.
- Don't make it. Tearing down the forest area will affect weather patterns. Nobody wants this project to continue, it is distasteful and horrific.
- Don't mess with the natural ecosystem to build businesses or high income housing. The natural area is what makes living in camas appealing
- Don't ruin the environment please
- Don't turn Camas into Lake Oswego. Keep opportunities for young middle class families to move and stay in Camas.
- · don't do it
- Don't do it. Keep the natural forests. Believe it or not, teenagers love them and go all the time
- Don't make it just another cookie cutter suburb, add some life to it with shopping, trails, walk-ability etc.

- Don't make the North Shore like the Felida of Vancouver. There is no need for pushing bigger, better, or luxury. Think clean industry, the most jobs per sq ft, and moderate housing (\$300k houses for young families). Cater to what our growing population wants (median income of 38, I think). Dog park. Sports parks.
- Don't tear down everything. It is important to the community.
- Don't turn it into another 192nd ave drive between the big boxes strip mall havens that could be anywhere in the country. Look to Corvallis and Bellingham as small cities that have managed to grow and maintain being a wonderful place to live. If Camas turns into an extension of East Vancouver then there is no reason to live here once my children graduate.
- Dont weaken the downtown by tring to duplicate services. Keep it housing
- Due to the large parcel of land previously zoned as MF-18 by Camas, the neighboring parcels of MF-18 should be rezoned to higher number of units per acre to balance the loss from the sold parcel.
- Enforcing zoning so the neighborhoods aren't filled with track houses that all look the same on tiny lots. In an area where there is so much "green" space, it is so frustrating to see these neighborhoods popping up with no individuality, as well as lacking parks and play spaces.
- Equestrian access trails, there are currently none that support equestrian usage in the Camas/Vancouver area. Many have to drive a significant distance to ride and experience the beauty of the world around us. There is added concern for the preservation of the ecosystem of north shore. I understand that growth needs to be accommodated for but it shouldn't be at the expense of major natural habitats. Usually, non-native plants are brought in and planted in suburban areas due to their easy upkeep and inevitably it is degrading the soil quality and bringing disease to native plants. "Preserving" the environment around us doesn't mean leaving very few large species of trees in a vast open area and planting non native easy-keep foliage. These rare biomes that are native to this area are heavily reliant on each other. They take decades to grow, and days to destroy forever. Only 12% of dedicated "preserved" land won't be enough to conserve the environment and "preserve" quality of life of homes and businesses being made.
- Go slow and don't be pressured by developers. Do it right, you only have one chance.
- Growth in the North Shore area as well as the rest of Camas should occur in a way that would ensure
 that the urban growth boundary does not need to expand for a very long time. This is a unique
 opportunity and it should not be wasted on conventional development patterns. Large lot homes
 should be limited to area where more commercial or more dense residential development is not
 feasible. It would be nice to see the City follow this project with downtown sub area plan. This is
 where our growth should be focused.
- Growth is inevitable. Now is the time to preserve natural areas and insure we keep the beauty of Camas far into the future. Development should be beautiful as well as utilitarian, with a focus on building UP, not out, and multi-use on the same property.
- Have ADA accessible areas, have restaurants that are affordable for families not just high end like at the Vancouver Waterfront, provide ample parking so that the roadways are lined both sides by parked cars.
- Having recently moved from an area that has done a really good job of developing lake front land, I've
 seen the importance of prioritizing natural areas, trails, and water access. The last thing this area
 needs are high income housing. Please keep this area open and accessible to middle and lower income
 people to enjoy.
- High density, pedestrian-oriented, and climate-conscious. Make this development a development for the future of our children and the earth
- High end residential only
- Housing is not a priority. Jobs are needed to support the booming community allowing residents the
 opportunity to grow, prosper and appreciate the beauty of Camas.

- How can the state mandate how big a city will grow?
- How do we access with out hurting other parts of Camas.
- How will handle the extra traffic that will supposedly head that way?
- I am a resident on 232nd Ave which is deemed a main thruway for this project. I am very concerned about the increase in traffic because of this project. the traffic has already increased greatly because of the new school. The overwhelming traffic expected on this road will greatly impact the lives of residents on this road. This must be a consideration in your project. This is unacceptable to me.
- I am concerned about increasing lake access without addressing better policing of rules of the lake (speed and wake limits) and very concerned about lakeshore erosion and tree loss due to wake boats.
- I am very concerned about the possibility of the north shore being developed. Development in Camas (and the county in general) has been extremely irresponsible over the last 20+ years. This area is one of the last rural spaces in Camas and should preserved. Those of us who live in Camas—and have called it home for many years—enjoy the green spaces, farms, and country homes that are now endangered. Indeed, much of the development around Lacamas and Round Lakes in the last 15 years has caused irreparable damage to wetlands and hillsides. Destruction of habitat for animals, danger of hillside loss to erosion, and failure to preserve wetlands is inexcusable because of the harm it has caused and will cause in the future. Please do not develop the North Shore of Lacamas Lake with shopping, homes, and other eyesores that destroy the natural spaces and charm of our community. Create parks and nature preserves instead. These are truly valuable to a community and to the earth more than mcmansions and shopping.
- I am worried about how the growth will affect this sweet community we live in. I am also worried about how it will affect my property.
- I appreciate, and expect to see planned development and the preservation of natural space. I would avoid expansive housing as that can be addressed with infill.
- I appreciated the FAQs. Most of the answers were "just the facts." The Camas community wants to know they have been respectfully heard, because they care about Camas--which is a good thing. It is clear from the questions that are being asked that this process has taken many of us by surprise. The history of the situation is helpful for putting the current efforts in context. While I would prefer the area not be developed, it is headed that way. The subarea planning is a chance to impact the outcome-which is good. Thank you for continuing to reach out for input.
- I believe developing this area is detrimental to the identity of Camas. Part of the beloved town is the natural beauty behind the lake. Coming home and seeing the construction that is destroying our natural areas is devastating. The last thing we need is to increase the distance between high income and low income areas. Let's keep the enchantment of our small town by keeping this area. Natural. Please, I'm begging you. Delicate ecosystems are at stake. The health of Lacamas lake is at stake. Our earth is at stake. Camas is just becoming sprawl with no organization and no sacredness to the original identity of the town. To be honest, it makes me want to move away. This is not what camas was meant to be.
- I believe it is important maintain the natural environment rather than industrialize the area as there are plenty of shopping areas in the area. Also, it is pertinent to recognize if development like this continues in Washington we will no longer be known as the evergreen state, as we are destroying our natural environment.
- I do not support this new vision of the North Shore area. I don't believe anything should happen to these natural areas and open space. We are currently moving towards global warming and there is terrible pollution in our air and water. Why spend the time to build things that are filling our air with the toxins? Why destroy all of these ecosystems that are upon us in these natural areas? Why? There is no explanation. It is unacceptable.

- I do not want to see manufacturing or any other large industries/industrial parks on the North Shore.
 Keep that over by Pacific Rim, Camas Meadows and 192nd. I was impressed. with Battleground Village
 & something like that would be preferable over more of the typical subdivisions. I'm hoping for more
 interconnected trails, more nature preserved, easy access to the lake with aquatic rentals and
 kayak/canoe launches, and thoughtful structural designs that reflect the natural beauty. No strip malls
 please.
- I do not want to see more developments with 100's of houses cheaply built clustered together. I do not want to see strip malls (like those being built on 192nd. I want to see our city plan for community-we need sidewalks to schools, more parks and trails-more green space.
- I don't like the idea that Camas is morphing into another Beaverton.
- I don't want to see this area built up at all.
- I envision a Camas that still prides itself on clean and natural spaces very infrequently interrupted by commerce, manufacturing, and housing. There are too many options in our area for housing and services, why would we create more? I understand expansion, but with access to areas that you mentioned (Downtown Camas, 192nd) and those you didn't (Downtown Vancouver, and the greater Portland metroplex), all of the needs and services of a Camas citizen can be easily met with a very minimal effort. So, my impassioned plea is for more green spaces. Trails like those around Round Lake and the "Potholes" Lower and Upper Falls Trails, and otherwise untouched green spaces for as many acres as possible. If you want to invest in the community, invest in quality housing for the residents you so seek, and improve public infrastructure - parking downtown, and public transportation. I was around for the days of the West side of the lake improvement, where an entire hillside of old growth trees was ravaged for house that weren't even 30% purchased at the time of project completion. I remember the Vancouver waterfront "improvements" - after which, one could no longer see the water unless they were directly on top of the water on the pathway, that is now closed for events nearly every weekend in the spring and summer. Please do not confuse your need to improve due to state requirements with your greed. The area needs careful improvement, I agree, but expansion not only sounds unnecessary, but creates a dangerous precedent where even our own children will not grow up with the natural beauty we have come to enjoy and claim to respect.
- I envision a nice mix of housing types. Think Irvine, California with neighborhoods of large estates with beautifully designed apartments and single family homes intertwined. Currently there is a lack of interwoven development in the city that could be improved with a mix of retail (a grocery market on the corner next to wide boulevards of homes and affordable housing and a small office). It seems like we should move away from suburb tract housing; industrial park; apartments; school block sort of models.
- I envision a peaceful & beautiful area that can be enjoyed by all in our community, with an emphasis on nature.
- I hated to even rank any of this. I think the land should be dedicated city protected natural areas with some use for trails, etc. Keep the development to a minimum and protect the environment and the sanctity of our small quaint town.
- I have lived in Camas for over 30 years. It is discouraging to see how quickly we are losing our open, undisturbed natural places. Preserving these areas is top priority. Can we do more planning that would limit urban sprawl and develop more walkable, living opportunities and homes in the city? I like the new apartments that are being built in downtown. It seems like more people want that type of livingwe should do more of that in Camas.
- I have no vision. I moved here 20 years ago to live in the "Country", and am opposed to having my way of life threatened by the city's vision. Before expansion, the City should bring emergency services and roads up to acceptable levels.

- I live practically in downtown Camas because it's fun to walk to such a charming area with an assortment of retail and restaurant space. Have another area like that would be delightful but the jobs provided by that sort of area are tough ways to earn an income that supports a family, in my opinion. I think those jobs are medical, tech, and industry but if that is what fills the North shore it will become invisible to me I'll have little to no reason to go and I won't want to stay when I get there. I am envisioning the answer is a blend of both with the cute retail & restaurant spaces with recreation and hiking and housing within walking distance. Facilities for jobs that pay more robust and stable incomes can be further away from the lake. Just my thoughts. I really appreciate the effort and resources the city is exerting to plan collaboratively. Thank you.
- I love the idea of the Northshore. I'm concerned about two things. 1. It'll take business away from downtown. 2. Everyone will enter and exit from the West and avoid coming into downtown.
- I put things in order but anything out there will destroy the beauty of the north shore. Seems like the camas government is more worried about making money than preserving the land and beauty that use to be. Stop building in these beautiful areas.
- I really do not understand the concept that the state would have a law that would require us to grow if we ourselves do not really want to. Why fill in all available land just because it is open land? Why swallow up all the dirt and replace it with more and more concrete? Doesn't seem right to me.
- I think housing lots need to be at least a 1/2 acre. Giant McMansions with 6000 sqft lots are horrible and we have too many in Camas already. Stop with the tan cookie cutters for \$700k. It is ruining the town.
- I think this survey and questions need to be more specific to "sub-subareas" within the north shore. I fear many people will answer this thinking only of the area along the lake and not of the area over the hill where housing and/or office may make a lot of sense.
- I thought there was a vision to walk all of the way around the lake? It's a beautiful view and recreation area. The lake should honor that and have some strict requirements to maintain the integrity of a rec/view environment. It draws people/families in. Happy beautiful Environment.
- I want to quote Joni Mitchell.... "Cause you don't know what you got til it's gone. They paved paradise and put up a parking lot." Don't do this. Keep the pristine and natural areas that have made Camas what it is . You are ruining the livability of the town with the increase in horrific housing developments that are crowded and ugly. 5000sfor less lots are ugly and do nothing to improve the livability of our town.
- I was raised on Gardner Road (now Everett St.), and I appreciate that the city is taking steps to plan for the North Shore area. I am concerned about the potential gentrifying effects of new development in the area and the placement of the arterial road, which appears to create greater linkage to East Vancouver than to other Camas businesses and community resources (Everett St already accomplishes this, but obviously could stand for it's own "205" as development continues and as CHS continues to grow and cause massive traffic backups. Camas is already a very difficult place for low-middle income families to live, and North Shore's older neighborhoods are a critical housing area for low-middle income families. I am also concerned that the North Shore development makes no apparent strides toward increasing access to public transportation in Camas, which is desperately lacking among a young population seeking to move away from personal transport and moreso, an aging population which is already strained for access to community health resources and suitable transportation options. One bus line through downtown and the only marginally-accessible Connector area on Prune Hill & to the schools is not sufficient to meet the needs of a population which is projected to far exceed current senior support resources.
- I would like as much green as possible -- trees, land, trails. I think it should also look beautiful from the south shore and anyone with a view of the North Shore from their home on the south shore or in nearby areas. I would like things not to be built right on the roadways (it feels so crowded) and I

believe we should have signage standards and aesthetic regulations for anyone who builds; the CubeSmart structure with huge glaring lots and bright red coloring (right next to a house, nonetheless) is a good example of what I wouldn't want to see more of.

- I would like see as much of this area be based around nature and preserving as much of that as possible. I have lived here for over 20 years and my husband born and raised here. He is 60. Whatever happens with that land should blend with the beauty of what is all around it, not the eyesore of more houses on top of each other.
- I would like to see a wide paved bike/walk/run path intertwined through the entire North Shore area that would cover several miles. This would be especially nice for bicyclists who are not interested in mountain biking at Round Lake or Heritage Park for example. This would give those people a safe place to ride leisurely and stay off the roads. I am talking about more than just converting Ledbetter Road into a trail. It would involve many more miles of safe, enjoyable riding. Thanks
- I would like to see an FAQ that addresses the following question: What would be the consequences to
 city growth, taxes, land values and maintenance of infrastruture if the city was able to freeze all future
 growth and development as suggested by some citizens?
- I would like to see it remain as unchanged as possible. Protecting our natural resources should be our number one priority. The city of camas is a beautiful place and the idea of deforestation taking place for businesses and high income housing it utterly heartbreaking.
- I would like to see the housing denisty as lite as possible and the road and traffic access to be delt with first.
- I would like to see upscale condos, apartments and other housing that caters to professionals and people without children. This helps with density requirements and subsidizes all the families with children in Camas schools. They should be built adjacent to open areas, trails and services so the residents have access to outdoor areas without the need for a private yard or having to drive as often
- I would love to leave a majority of the recently purchased land as is but there is also a need for more quality jobs and companies to come in. Too many residents need to commute long distances to find work and that is clogging the freeways and keeping families apart.
- I would love to see a larger playground with a splash pad and more stroller friendly trails. Something similar to Lake Sammamish park with zipline, bbqs, camping and beach area with water play area for the little ones. Would be nice to have resteraunts on water that you could walk to along a boardwalk as well.
- I would love to see a loop trail around the lake and possibly the development of a mountain bike trail center linking together trails in the area.
- I'd love to see a Trader Joe's. Unique restaurants enough with the crappy chains. Retail like Old Navy, Nordstrom Rack mixed with boutiques.
- I've only lived here for 5 years but something I love about Camas is that you can feel like you completely escape to nature or agricultural lands while staying in town. Sounds like ya'll want to preserve that, too. Thank you. Also, while the majority of the population is on the south side of the lake, the only access to food/grocery/ restaurant north of the lake is Fern Prairie Market and Camas Pick-Me-Up Deli, still 15+ minutes away for many neighborhoods. I wouldn't want to do anything to hurt their businesses but as the population on that side grows, I know I'd love some more options.
- I'd like to keep more of the natural area than is proposed. Definitely less housing and more community space like small local cafes (not Starbucks), large, untouched, park space, kayak/ water access (not boats). Maybe a bocce court or two, tetherball, large and unique play structures for children, and maybe a community pool, since the closest one is in Vancouver. Definitely not large factories that will destroy the LaCamas Lake.
- Ideally, connect the Heritage trail with a trail on north side and be able to circumnavigate on foot or bike with no motorized vehicles.

- If any development leads to more traffic, Everett St needs to be improved/widened
- If housing is built please have developers follow the Urban Tree Program and have trees be incorporated into the developments. Please stop clear cutting. Thank you.
- Improve Everett, from Lake Rd. to city limits, prior to any development.
- In general, all the building doesn't have to happen to keep people here. This area is sought after because of the way it is now. Doing this will make Camas like Vancouver, polluted lake and all... so sad
- In the comprehensive plan it would be incredible to include a bike lane that encircles the entire lake and connects well with the bike lane that follows Everett towards downtown
- Include a small boat ramp for kayaks, small sailboats on dollies, and the like. The power boats have enough access already at Heritage. Sailboats are not able to maneuver out of the lagoon as readily and need a better launch.
- Incorporate the nearby Grove Field Airport in your considerations for recreation and business use.
- Increase Infrastructure. Camas loves to build housing without increasing roadway to move people in and out
- Infrastructure in place to handle the volume of traffic as well as adequate parking that is FREE to the community. Do not displace people who are living in this area by using immanent domain.
- instead of making new plans, why dont you finish and fix the roads, build a recreational pool area with access to mass transit. improve mass transit to be more accessible to people in camas.
- Interurban trail. For the love of all things Camas. It's great and bad that were growing. But we need to keep the city physically connected as it grows. I should be able to hop on a bike with my kids and explore all of the unique and cool areas safely and scenicly. We have so many great trails in the lacma's lake area. A little but of planning can connect our original downtown with the up and coming north shore.
- It is difficult for me to complete this survey as I still do not understand why we have to create retail space or rush to build housing to accommodate growth. I know there is the GMA, however why can't a small town continue to be a small town? We should grow slowly vs this what I feel is a huge growth plan.
- It is important to emphasize that the Growth Management Act (RCW 36.70A.020) requires cities to plan for growth, which includes provisions for open space recreation, environmental protection, historic preservation, as well as concentrated urban growth and sprawl reduction. It specifically does not mandate that cities engage in wholesale devastation of a way of life that has been enjoyed by long time residents of a local such as those who have lived in and enjoyed what Camas has to offer. What I can state quite emphatically is that no one I know has absolutely any desire to have "vancouveresque" style of growth--congested, run down, unsafe, with undependable schools. It is not even necessary to create magnets to draw in outsiders--any Camas resident who has tried to enjoy Lacamas lake on a sunny weekend only to find the parking lot overfilled with cars, double parking and spilling onto lake road, many with license plates clearly identifying them from out of the area; or Lacamas Park on a Saturday, with the smell of marijuana even stronger that the smell of barbecue, and the thunderous thump thump of boom boxes far overpowering the sound of the falls--anyone who has experienced this will understand. This undoubtedly factored into the stunning defeat of the proposed community center, and the desire to slow down the looming possibility of Vancouver style overcrowding certainly played a large factor in the defeat of the mayor. The plan to develop the North shore as current slated suggests the very sprawl that the GMA endeavors to limit. Growth would be better managed as concentrated urban growth, which would then facilitate the development of regional transportion solutions that didn't involve over crowding already overtaxed local roads. Keep the North Shore green and special, and keep away the congestion, overcrowding, and general deterioration of living standards that is not a part of the GMA mandate.
- It needs to include the airport as a business development area.

- It seems that developing this area is destroying the very thing that makes Camas pleasant lower density suburban area with many natural areas, including lakes. Why the city needs to develop the North Shore? Why can't the City leave it a beautiful, natural space for people and wildlife? Why does the city want to move the wild out and move development in? Visitors who come to the North Shore are in awe of how beautiful Camas is...it seems developing the North Shore will turn Lacamas Lake into another Lake Oswego crowded, busy, commercial, and high traffic. Nobody looks high density development and thinks "wow, how lovely". They're in awe of the natural world...not man's world.
- It should stay the way it is... we don't need any more buildings. We have beautiful tress and nature
- It shouldn't be a commercial development.
- It stay the way it is.
- It would be a shame if it looked anything like off of 192nd and Millplain. Let's keep the beauty of the area and charm of Camas. No strip malls.
- It would be good to get more specific information on road size and transportation goals for this area.
- It's good to see more park land in the plan. Please keep in mind that home sales are slowing, and prices are down already. Don't allow too much new construction or you will kill values and be stuck with abandoned developments. The state growth projections are wrong. Hit the brakes please.
- Jobs jobs jobs
- Just no Aquatic parks
- Keep a variety of many of the choices above, don't let "one or two things" dominate. Also, communicate communicate communicate. Thanks.
- Keep area as rural as possible. Plan to increase density in Downtown Camas rather than urbanize the whole North Shore area.
- Keep as many spaces green/natural so that upkeep is at a minimal expense and preserves the beauty of the lake, nature and wildlife that live in the area. Charge developers to help pay for amenities that are needed in the area due to growth.
- Keep as many trees to buffer around the lake and the various developed areas so the area still looks natural and can support the habitats of the native species.
- Keep as much area next to the lake open/natural. No lakeside housing developments.
- Keep as much natural space as possible
- keep as much open space as possible, and support walkable neighborhoods
- Keep building to a minimum
- Keep forests
- Keep growth to a minimum each year.
- Keep it as natural as possible and provide adequate road systems to encompass the new growth, something that has been lacking with the Camas Planning Committee. Keep our area a place that people can enjoy without all the traffic problems we now have.
- Keep it as natural as possible, and avoid dense housing at all costs.
- Keep it as natural as possible. Don't develop with a bunch of housing developments- make the water
 accessible for all. Keep the area so that everyone can enjoy it mainly recreational but not sports
 fields.
- Keep it as natural as possible. Once development encroaches on the natural beauty of the lake, you will have a very hard time getting it back.
- Keep it exactly how it is
- Keep it natural and forested, with maybe a walking trail along the shore. No businesses or private homes
- Keep it natural as possible. Trails, forests
- Keep it natural.

- Keep it open and natural.
- Keep it open for wildlife. Hiking trails, dog areas and open access to the lake. Lee's pollution in the lake the better.
- Keep it the way it is. If you want to put money into restoring an area, restore the area around downtown Camas. We don't need more in an additional area, we need more downtown. Don't take away ecosystems and land that animals depend on. Put the money towards restoring downtown and improving other parts of camas and not developing new ones.
- Keep its scenic beauty
- Keep Ledbetter road open and sell the Ledbetter house to a private owner..taxpayers don't need to be paying for an old house that will just keep costing money
- Keep natural spaces in tact.
- Keep the area green and explore other options for development.
- Keep the forests.
- keep the small town feel, architecture that fits with the feel of the natural area
- Keep up the good work and don't listen to my crazy neighbors.
- Keep Washington green. Ecosystems will collapse in the areas we allow for constant reconstruction.
- Keeping the natural forest there, I know many many people who love camas for the lake and how it's just a bunch of open land to walk through
- Lacamas Lake is the only body of water of any significance or beauty. Don't destroy the ecosystem and amazing landscape this area has provided for hundreds of years. There are plenty of other open areas to develop on.
- Larger lots. I am Not sure if that undermines my rankings above, but I do not want this area densely populated.
- Leave as much nature as possible. This is Camas, not LA.
- Leave it alone.
- Leave it as is and let nature have it
- Leave it as rural. Don't develop it.
- Leave it the way it is now.
- Leave our nature alone. People like you are killing our earth, resources, and habitats.
- Leave the area alone. You haven't addressed the current sewage, water or infrastructure issues we are already facing. This area use to be gorgeous and rolling hills with trees, now its turned into Califorlandia. Its a horrible combination of California and Portland with increased everything and decreased beauty and small town paradise. All our city officials seem to be interested in is lining their pockets and building building building. Oh and that outrageous priced community center idea of a pool..... how about supporting the privately owned pool that exists and leave the beneficial trees and land.
- Leave this beautiful natural area alone. Many ecosystems live there and will be all ruined.
- Legacy Lands trail for pedestrians and bikes is a priority for many in the community. Thank you for this vision. We are excited to see it become a reality -- as soon as possible, please. :)
- Less development. No more business parks
- Less is more. Dont try to over do it. Please leave Camas a quaint small town.
- Like many others, we have moved to Camas for the beautiful trees and natural spaces. Any development of the north shore area should try to minimize impact on the natural areas. Of importance to us is the 'Bridge Village' area adjacent to Round Lake. Due to heavy traffic at certain times of the day, commercial development should be limited to Everett St, and not extend into the area along NE 35th since it would be very hard to get in and out of the entry point due to the proximity of the narrow bridge area.

- Look at University of Wisconsin Madison's Student Union area. The integration of park, plaza, restaurant, recreation with lake space would serve as a good starting point toward a new community.
- Looking forward to well planned development in the North Shore area
- Lots of nature trails. We lost a lot of wooded green space around round lake with the building of all those new homes. Let's add some back so you can get lost in the woods within the city. People need more undeveloped places in nature.
- Lower number of homes with large lots, keeps population and road traffic down. Goodwin/ 192nd simply cannot handle this sprawl. Let the 1500 homes in Green Mtn accommodate the sprawl. It is already approved. This will be a traffic nightmare with only 2 ways in and out of area which are already crowded. This is not a good location for high density housing.
- Make no changes. Let's focus on wildlife for a change instead of causing them to lose their habitat for gods sake.
- Makes me sad to see our small town become so commercialized
- Minimal development. There are other areas in Camas more suited to development. This area is already very congested for movement of traffic to high school, junior high schools, 192nd.
- More road access away from Everrett.
- More sidewalks so we can get to parks and Highschool safely. More streetlights on more of the side streets. Some wider roads so bikes can have there own lanes
- More trails and natural areas.
- Most of us moved to Camas for the natural beauty. Building up the north shore visible to the lake is a travesty.
- Mostly just concerned about the decreasing green space and increasing traffic congestion in and around Camas.
- My concern is increasing traffic in an already congested area; so I am not in favor of housing in this area, unless the roads can be widened or updated to accommodate traffic.
- My vision for Camas is affordable, close in housing for all the single professionals to move into, the smaller families (I am a Mom of one), the diversity that is coming. A link between Downtown and Northshore to steer locals away from 192nd.
- Natural green areas are most important. Keep the trees. As little development as possible.
- Natural wildlife should take priority over unnecessary land development. No amount of community park area or mini park area can replace the damage of destroying the existing habitat
- Neighborhood parks should still have a few car spots or access for other taxpayers to be able to use them. Walking/biking along the lake is a high priority with me.
- New roads are a must before you build in that area. The increase in population would be a huge negative if infrastructure is not addressed and brought up to the level of support needed first.
- New to the area, but clearly cycling should be a big part of the future plan. I'd love to see a family friendly youth-oriented pump track... Please.
- No development. Keep it Open Space, Natural Area, Trails, Community Parks.
- No developments with cookie-cutter houses crammed in. There aren't enough houses with actual yards like neighborhoods north of crown park
- No high-density housing. Maintain existing trees in new construction. Have builders pay for new fire station.
- No homes.
- No million dollar pool.
- No more mega houses. We need business, community areas, and small houses. This area is becoming a giant sleeping area for Portland. We need things to keep people here. Not having to drive so far for

- anything that can build community. As much green space as possible, the lake needs all the help to filter out all the junk.
- No more mega-mansions hogging the shoreline. Affordable housing if any. The area offers zero jobs unless it's ruined by development, which will only add traffic and ruin the downtown core, which is the center of this unique community. Any development should access from the already ruined fisher's landing area.
- No more strip malls, with fast food restaurants.
- No one wants more house yall are messed up. If you keep tearing everything down that made this place beautiful its going to be a real sad stinky hole. What are yall thinking.
- No swimming pool, no recreational center to bring higher taxes. Camas residents are taxed to the hilt right now.
- No to deforestation. Do not destroy the natural area. No businesses, no subdivisions. Maintain our forests and the beauty of our city by keeping the area as is.
- None of this development is possible with the primary access road being Everett/500. It should be a non-starter.
- Not clear how Everett Rd will handle the additional traffic from more homes/businesses North of lake. Don't want more pollution of lake from run-off of businesses/residential added.
- Not have the houses so close together
- Not interested in putting retail, mfg, etc. Out there. Did not even want to rate them on your 1-10 scale. Keep North Shore green. Parks, trails, open space. Fix our infrastructure first, please. Too much traffic already on our two lanes roads. Make a better plan please.
- Nothing that causes more traffic.
- Nothing was mentioned about the growth (and overgrowth) of our schools or using any of the land to build a new school, daycare or preschools.
- Open space, natural areas, keep it as green as possible
- Open spaces, please. Camas is already getting too crowded.
- Other than this being a biased survey leaning toward tearing down the local infrastructure, the survey doesn't allow for "None of the above". Your postcard we received states "planned" growth. We, as longtime residents, are hoping there will be better planning from the City of Camas than the time a few years ago when your panel was involved in the "planning" of the Camas High School. It was built in a rural farmland setting where no apparent planning was done to accommodate the hundreds of vehicles that would be accessing the school on the same rural two-lane road that is backed up every school day. There was also the recent approval by your panel to approve the development of what we residents refer as "the projects" that were built behind the Woodburn Elementary school on Crown road. It is not only unsightly, but what was forest and adjacent to the Park are now gone. "The Hills at Round Lake" project is 333 lots and with an average of two cars per family that leaves residents contending with 666 more vehicles on our narrow two-lane roads to contend with yet there are no sidewalks and no widening of the Crown road to accommodate the additional traffic. We residents were livid when your panel was also involved in the recently proposed expansion of the Grove Field airport which not only would have evicted many long-time residents from their homes but also was planning to have a lengthened runway within feet and perpendicular to the State Highway. I don't feel the need to remind you how we voters felt about your "plan" to create a \$78M community pool complex in the heart of an area already massively impacted by traffic.
 I bring up the above as reminder that your "planning" hasn't gone well for maintaining the rural community we long-term residents have come to love. I, personally, hope that if your "planning" doesn't include the developers having to pay for the traffic, water, sewer, power and communications, you should start thinking more... and not just about re-election but what your decisions will cost the residents in your desire for more taxable income. My family and I as well as our longtime neighbors are against your proposed

projects on your North Shore "plan". Leave the area rural. In closing, I find it unsatisfactory that your postcard included a web address but not a specific USPS mailing address for comments. Some of us are a bit older and are not able to access computers or the web without a trip to a library or a friend's house.

- Our outdoor activities and the immense character of our downtown area are two of the things that
 make Camas so special. As we grow we need to preserve these elements and not give in to the urge to
 sell out to large scale developers who see our community as nothing more than a paycheck.
 Commercial and residential growth is inevitable but we need to be smart about where and how we
 allow people to build. The beautiful trees and lakes are what makes our town so special. We cannot
 allow these areas to be ruined in the name of progress and development.
- Our roads are not equipped to handle the amount of traffic on them already. Things could get really
 messy with adding the north shore population/business density.
- Our streets especially Everett/lake can't take any more traffic. Even with the proposed round about which is going to be a nightmare with kids going to school.
- outdoor obstacle course
- Pedestrians/cycling trails/roads always appreciated
- People move to Camas because 1) They like the small town feel, and 2) They like the natural feel. Don't destroy this. Lacamas lake is the crown jewel of Camas and should not be exploited. Houses and buildings should not be seen from the lake and trails. Watershed should be maintained. No big developments with tons of concrete. That devalues the city.
- Please address transportation congestion for the area. Add lanes before you build. How will they get to 14? The back up at lake road is already terrible.
- Please be mindful of housing costs. Housing "starting at 500k" is not affordable.
- Please be responsible when zoning and planning. Strike the right balance between long term growth and green space. What makes Camas great is the people love the beauty of the environment please don't harm this.
- Please consider trails that are not paved; there is a large demand for more natural trails for mixed
 uses, just like we have at Lacamas Park (but that has gotten so crowded). Also, I trust you'll do market
 research as to the types of housing is most needed (senior, low income, etc.) to best determine what's
 needed.
- Please create a pedestrian-only walking/biking trail along north shore of Lacamas Lake. Please add a
 low- horsepower limit to Lacamas Lake watercraft similar to Lake Oswego, to prevent accidents
 involving high-speed watercraft and slower-moving craft/paddleboards. Please plan for fixed-route
 public transportation (bus) service to North Shore do not depend on Camas Connector for increased
 population. Plan for protected (not sharing roadway with vehicles) bikeways linking North Shore to
 downtown Camas and schools.
- Please dead end Leadbetter Rd to keep noise to a minimum around Lake
- please do due your homework and figure out the traffic mess that you will make. don't wait 'til there's
 a traffic nightmare to fix it.
- Please do not allow the North Shore area to turn into another 192nd Ave. The 164th and 192nd corridors in Vancouver are easy and convenient for Camas residents to access. Some of the services and businesses along those corridors are necessary, but we do not need more of the same along the North Shore, with tons of traffic whipping through. What differentiates the North Shore from everywhere else in Clark County is the magnificent setting and views of the lake. Is there a way to capitalize on that without compromising it? If it turns into mixed commercial and residential, can growth be regulated so that it still feels like Camas and not east Vancouver, or Lake Oswego, or Anywhere, USA?

- Please do not develop the North Shore area. The ecosystem of Lacamas Lake would face serious
 consequences and the area that is wanting to be developed is a rare gem of beauty with little
 development. Please don't take that away.
- Please do not expand more housing to this area. You are killing the Camas we all know and love
- please do not make it similar to 192nd or Tech center. We need something different. Walkability, Bikability, wide paths and sidewalk cafe seating. Quaintness. This area is too full or sprawling suburbia commercialism. Design something European people will want to come to see.
- Please do not screw it up
- Please don't over build the area with houses, traffic in Vancouver is already terrible and building more
 houses is just going to cause congestion to get worse. Traffic can't get worse if the population doesn't
 grow, and right now our population isn't having babies, which means that in 20-30 years we might be
 setting ourselves up for failure and a massive housing crash.
- Please don't ruin this area. Pull out of the project and leave it how it is.
- Please keep as many natural areas, trees, and parks as possible.
- Please keep as many trees as possible. They are so important to help with global warming and the cooling of temperatures in the area
- Please keep as much as the natural habitat as possible. Please provide the infrastructure on 500.
- Please keep as much natural area as possible. Growth for the sake of growth isn't what this
 community needs or wants. We've moved her or live here for the natural beauty, good schools, and
 quality of life. Packing more people/businesses into a natural area isn't going to keep those desires
 alive.
- Please keep as much old growth as you can. Old growth means just that, old.
- Please keep it as natural as possible. LaCamas Lake is the jewel of our city.
- Please keep it natural. Maintain the trees, forests and PNW feel. Construct homes, offices and buildings in a cohesive manner, using wood from the deforestation. Please don't clear fell until construction is imminent. It looks so ugly when vast tracts of forest are destroyed. No factories or unattractive warehouses facing the lake. No storage facilities visible from the shore. They're so unattractive. All the homes on the south shore, such as Lacamas Shores and upwards towards Dorothy Fox, whose view is the North Shore, will lose in value, once the beautiful natural forests are destroyed. Please be mindful of these Camas residents too, who will be directly impacted by north Shore construction.
- Please keep the actual shore protected for trails and parks. No housing or restaurants on the lake. Keep the lake public.
- Please keep the community feeling of Camas and provide moderate homes for young families. My
 family loves Camas and cannot afford to buy with the current shortage of affordable homes. We do
 not need more high priced homes or corporate shopping centers. The natural beauty and small
 businesses are the heart of Camas.
- Please keep the density low in this beautiful area. Very concerned with the apparent lack of design
 review in what is being built along Goodwin and Ingle Road. Too many 2-story boxes at arms length
 from their neighbor with no variation. Low income housing tracts need not look like this. Many of us
 adjacent to this area bought homes with small acreage that will be affected significantly by the type
 and density of building structures allowed. Please leave the North Shore with as much open space as
 possible.
- Please keep the trees. I'm not a tree hugger but we have lost so many of our tall evergreen trees in the past 2-3 yrs to housing developments.
- Please leave it alone. We need unspoiled natural areas, that is important to those of us who live here to avoid feeling like we live in Portland

- Please leave it alone. There is so much development happening in other areas of Camas and surrounding areas we don't need any more. Leave Camas alone the people of Camas are begging you to stop further developments.
- Please look into cutting down little to no trees. This is beyond important. A community is nothing
 without a sense of home, and in nature that is found. Camas residents love living here because of the
 generations before them that did, and thus a sense of familiarity, tradition, and care for the
 environment. This is especially true for the Lacamas Lake area. I humbly ask you to please consider
 what I'm asking, for Camas just wouldn't be home with such new and elaborate development.
- please no more apartments and high density housing developments, this leads to overcrowding in schools and added load to public services without sufficient property tax revenue.
- Please no more scraping of land for development. No one wants to see this type of development any
 more. It would be lovely to travel all around the lake on foot or bike without having to be on a road. It
 would be lovely to have trees and trails and wildlife. Nothing else is really worth the trouble at this
 point other than a pool. How about making a rec center/pool part of this plan instead of trying to
 cram in to the area south of the lake....
- Please please don't turn it into anything, the natural beauty will be ruined. I've grown up in and around Camas and it would break my heart to see that natural beauty ruined
- Please please keep the area as natural as possible. If there is a requirement to make the space mixed use to increase "job opportunities" Please do not replicate downtown Camas strategies. There are too many tap rooms and hairdressers and it's time Camas become innovative and creative in its growth strategy on the business front. The town has really let its people down by not connecting home subdivisions with sidewalks making it dangerous in the most populated areas to take a "walk". This new area should be a hybrid of nature and innovation please consider a community maker's space and mixed office/studio building space. anchor it with tenants who can pay for taxes and draw traffic (e.g. trader joes), but keep the integrity of the space natural and community focused. Good luck and thank you.
- Please preserve our trees... especially after the gorge
- Please refrain from destroying any natural beauty in this area. If you're hearing complaints along the lines of "we don't need more shopping centers and business parks" hear them out. These areas in their natural state are more beneficial for everyone in the long run. Thanks for hearing me.
- Please stop commercializing our few remaining natural areas. This whole idea is a blight on our city and between this plan and all the development around Lacamas Park, I'm seriously considering moving my family away from Camas. The reasons we moved here are being destroyed and it's sad to watch.
- please try to keep it as close to how it is now. wide open spaces and no carbon footprint.
- Please try too keep as much of the natural landscape and beauty as possible
- Please, please keep trees all along the shore and hide development behind them.
- Please, please make this a livable, walkabale, bike centric (protected bike lanes) and non-car centric area. Make a great bike/pedestration to the lake center and downtown. A connected community is a great community. We have an opportunity to develop a word class community. Full of trails, shops, plazas and pedestration orientated housing, streets, and life.
- Please, put nature first. This planet is dying, natural areas are being gutted to make room for big
 businesses and bleak suburbs. This is already happening in Camas far too much. Have some
 consideration for our home (planet Earth) and encourage ecotourism. This is a profitable way for
 everyone to enjoy nature. This could include kayaking, fishing, horseback riding, etc. Create
 opportunities for the community to enjoy and appreciate nature, rather than tearing it down. People
 come to the Pacific NW for the beautiful nature. It is crucial for that to be protected at all costs.
- Please, save natural areas as much as possibly.

- Preservation of natural open spaces is crucial to the health of the city. Way too much development and destruction of green spaces has already occurred. Please, please leave open, undeveloped areas alone.
- Preserve more than 12% of the nature. Locals are tired of the huge growth of Camas from a small town to a rich undiverse suburb. There are very few options for lower income housing, which is disgusting to me.
- Preserve old growth trees, set aside contiguous wild open space trails for wildlife, connect trails to others in Camas
- Preserving in some form the park feel that Camas has for Lacamas and Round Lake with trails and such.
- Public boat launch no bars, movie theater. Anchor large retail store
- Public spaces along the shoreline, not houses. Grow the senior community use case, it will be the expanding population.
- Recreation and retail would be best to promote.
- Reject the developer's push for "affordable" housing. We want well thought out housing developments that have large lots, natural appeal and longevity.
- Remember that to attract homeowners, Camas must seem like a vacation spot. People want to get away from work, not be reminded of it.
- Require as much as possible by law of developers to benefit Camas, rather than their investors. Keep it
 green, keep it diverse, keep the small town feel. Increase any fees for parks, schools, traffic, open
 space, etc. you're able from developers. Having worked for a company who is building all over Camas,
 they can afford it. Stop pushing out long time residents and low income residents who can no longer
 afford to live in their beloved town.
- Rugby Fields.
- Save the farm lands quit building new houses
- Sell the Ledbetter house ..we don't need another venue that will just cost the taxpayers money.
- Solve access / infastructure issues with developers money
- Some thought to architectural quality please. Those T-111 boxes are soon to become slums in my opinion. I love the Camas community center building. I understand builders must make a profit but there must be a better way to develop for an attractive long term community.
- Stay away from Grove Field. The airport is a vital asset to the community and your leaving no room for expansion.
- Stop building on every natural space, how about we take the unused land from the city and mill that's
 already been destroyed. We need to quit taking away the natural habitat. Camas is full enough no
 more houses
- Stop building.
- Stop building. I moved here 25 years ago to escape LA. The last five years of development has destroyed this area. Stop the development. The infrastructure can't support it. I have stopped shopping in Camas because it is a logistical nightmare.
- Stop the madness of growth in Clark County. We are losing everything that was good about living here.
- Stricter rules about clear cutting New construction is so ugly without mature trees making parks and
 playgrounds usefuL and beautiful. It's no good to have a playground kids can't use because they are so
 hot they burn skin. Construction requirements need to allow more mature green space to be left
 alone inside neighborhoods
- Thanks
- Thanks for the opportunity for public input, please continue these open public discussions.

- Thanks to the city for purchasing parts of the land. Couldn't we work as a community to continue to
 purchase more of it? Seems like there's a lot of land right off 192nd that can still be developed into
 housing developments (even high rise ones) to appease the need for growth, but keep this part of
 Camas quiet.
- The "drive" along the lake should be kept as natural as possible. This peaceful and beautiful drive along the lake is one of Camas' best features. thanks jack price
- The area is a natural buffer zone for all of the pollutants that flow into the water and is incredibly important to maintaining a healthy ecosystem. Creating room for more housing and retail development would take that filtration system away, the water quality would be even worse than it is, and would destroy the ecosystem surviving there- even if you made patches of nature it would greatly manipulate the way it functions for the worse. I believe this plan should be shut down, and camas should work to improve the companies it already has, create a community green space, and focus efforts of conservation of the beautiful north west we live in.
- The aspect of Camas that makes me proud to live here is that when I open a map of a satellite view of our town, we still have green left in our city. The proposed area to be preserved is certainly an honorable partition of the land, but it is not enough. Our town is between areas of extremely-developed land to the southwest, and less-developed land to the northeast; it should be our responsibility to make sure that that line of grey vs. green does not pass us. A significant portion of the north shore has already been deforested, and we can certainly work with using that land that we do have more efficiently so that we can grow while protecting the wild areas that we still have. Our town has this chance to grow and thrive with new development, but we have to keep thw fundamental character of this town in mind. I do not want to look back at this town in twenty years and wonder where our beautiful forested hills have gone. I do not want my children to miss something that they never had the priveledge to know. If we are truly looking into the future, we need to have a serious focus on conservation and expand the zoning protections for parks and wild spaces. It's our responsibility to care.
- The bank on the north side is a slide zone. It needs to be reinforced prior to development to ensure the safety of property owners at at the border.
- The company that came in with kayaks and paddle boards for rent really messed up water access for all of us. They use a significant portion of the parking lot, their clients often crowd around the kayak put in and/ or leave kayaks where boaters should be putting in. We cant believe Camas city is making enough revenue for it to be worthwhile. It's dangerous having all the cars parked on Lake Road. Cant we shift that company to Round Lake only? That wouldn't disrupt the main boat put in.
- The facility for small music concerts or performances ie-Shakespeare plays, would be great. Also, space for arts & craft fairs local farmer markets.
- The Lacamas Lake area, combined with the Lacamas Lake Park, gives an opportunity for incredible hiking and mountain bike in the city. This is extremely rare. The city should try to save all the big trees they can, and all the heavily forested land they can, and then have trails throughout for hikers and bikers.
- The lake front access should belong to the people, not to commercial enterprises or rich, single family home land owners. I'm happy to see that the city has purchased lakefront land for open spaces/parks. This lakefront is a current and future gem of our city. Let's make it into a natural space/park destination, with parks, trails, recreation facilities (dare I suggest a pool?), and a few other well planned amenities (restaurants, come to mind, similar to the new Vancouver waterfront). Any development in this area should preserve trees, be done in a way that is green, and enable access by all users (bikes, strollers, etc.). Love the idea of having green space, parks, and trails all the way around the lake. Any parks should be designated smoke free, as the county currently does with its parks. Any properties neighboring the lake or draining to the lake (which could extend quite a ways from the lake

front) should receive education about reducing use of fertilizers/pollution, otherwise our lake will be lost (Please educate Lacamas Shores HOA and others about this--their use of chemicals to keep lawns green is extremely detrimental to our lake). Any businesses built in the area should need to meet basic design criteria, including attractive non-neon signage so that the darkness of our area is not disturbed/polluted (as is the case with the new cube storage unit on 38th--ugly.). Please do not let the minority vocal "no growth" naysayers take over the process of effective, sensible growth planning in Camas. Growth will happen in Camas and I appreciate the city's efforts to ensure it happens in a sensible way that preserves green space. Not planning for growth is not an option.

- The more beautiful forest kept intact, the better.
- The most important thing to create value for Camas would be to ensure that a bike and pedestrian path goes all the way around the lake.
- The north shore is beautiful natural area and should be maintained. The city could focus on increasing
 density rather than increasing land use and achieve the same goal. Work for better public transport,
 higher density affordable housing, and walkable/ bikeable streets. Camas could be an example for
 southwest Washington of sustainability and good urban planning, without using what little natural
 spaces we have left.
- The North Shore area is a stunning piece of land. It should remain untouched by development. As climate change develops, the need for nature and trees grows even more important. If we continue to hack down trees for human growth, we will get closer to losing our planet and our natural resources that we so easily take for granted. I am terrified at the idea of cutting down more and more trees and losing the glorious nature Camas is blessed with to make room for human development. If we continue to destroy the planet, what will have been the point of this development when we can no longer sustain life on our toxic planet? I strongly oppose any development in the North Shore area.
- The north shore area should be kept as it is. Do not tear down the trees and destroy natural ecosystems.
- The North Shore developments should be designed to protect Lacamas Lake even more so than the south shore. The Lake is what makes this area so special (in addition to the people). View rights should be balanced with trees and nature. Water quality protection should be the focus. For those businesses that can be seen from the lake, maybe encourage businesses like zip-lining and small cafes, requiring them to be painted to blend into the landscape. Good luck.
- The North Shore needs to be keep as much a wilderness area and not become overly commercialized. Shops and retail does not play a strong part in this area as the downtown and 192nd can provide those services. People move to Camas to get away from ig box stores and the boring franchises that exist in almost every US town. Camas doesn't need to be another cookie cutter place but instead should focus on unique and original offerings. Middle income higher density homes play better with the environment and allow for more contiguous natural areas. Promote those visions and ensure that the housing developments are unique and stylish. Just compare Portland versus Vancouver and you can easily see which city is more desirable architecturally and which has a more cohesive neighborhood feel. Vancouver is a boring US suburb with little to no design planning. Value the lake, the trails, the environment and don't sell out to developers who wish to make it another copy of so many other places.
- The number of new houses going up in Camas over the past years seem exponential, while public green spaces have remained about the same. Need better balance.
- The schools are getting worse instead of better. All this increase in housing will only deliver a more rapid decline. Stop destroying the natural beauty of the area. This is one of the main reasons people are here
- The traffic on 18th which becomes 500 is already had. You need to put signal at that intersection. Already many accidents there.

- There are many things I don't know, but one thing I do know is that he neighborhoods that have developed over the past 5 years are the antithesis of why people want to live in Camas. I have yet to meet one single person who dreams of a cookie cutter house slammed in next to another cookie cutter house all set within a clear-cut. I'd love to see more forward thinking community design happening in Camas. More green space and trails linking neighborhood and services. More sidewalks linking service and neighborhoods and especially schools. Our kids can't even walk to their schools because the roads are too dangerous (Crown Rd, Everett N of the Lake, road to new Lac Heights Elem, etc.) I really hope the planners view these recent neighborhoods as a dire mistake and look in another direction all together as this North Shore planning becomes physical reality.
- There are only so many lakes and open space so close to town and there are so many alternative space that are not so precious. We should have the whole shore preserved at least 1000 yards back from the shore
- There is no law that says that Camas needs to develop this to satisfy the Growth requirement. We do not need another subdivision with high end houses, one after the other, with no green space left. That's all that has been developed in Camas with no vision or planning.
- There is no way lake Road can handle another a huge demand for use with large projects on the North Shore. even with the upcoming round-about improvement, this is a choke point that must be considered. Honor the uniqueness of a lake shore environment. Build parks and low density housing. (Restaurants and small shops maybe - but they will fail)
- There should be as little development as possible. keep the area pristine. Encourage the natural
 resources and beauty that exist to remain. There is a major lack of North/south arterial roads to build
 out the area. Keep it as a natural destination. We do not want to decimate the beauty that makes
 Camas the special place it has become known to be.
- This area is vital to our native ecosystems. The south side is already developed door the rich. Please do not take away an important and sentimental area for so many people. This is part of the reason we are having so many issues with global warming and environmental changes in Vancouver too. Please don't add to it. This area was created naturally and beautifully to stay so. Why should man modify it yet again? There is plenty of other areas in camas to develop for the growth. Do not hurt our native ecosystems and happy people who enjoy this natural space.
- This area should be defined as an active, natural community, with many walk/bike trails, lake access and usable parks. It shouldn't be dense enough to warrant pocket parks or expansive enough for large community parks. It should all have a neighborhood/village feel, with small businesses and no big boxes.
- This is a wonderful opportunity for the City to grow and provide jobs. The City needs to invest and
 support this area for the future of Camas. They need to partner with those who are willing to provide
 the land and those that are willing to provide the jobs for this area. It can be a win/win for all if done
 properly.
- This is an opportunity to create a vision and a plan that can help keep Camas as a desirable place to live. It should have nice areas to live and excellent access to recreation.
- This is nonsense. This survey is nonsense. Where's the open space? Where's access for all? Why destroy the last vestige for wildlife so some developer can make more money at our expense. Camas, you started to really suck. Money grubbing town.
- This survey does not include leaving it rural as an option. Change is not always good. Quality of life in our community will go down if infrastructure such as adequate roads are not addressed first.
- This survey was not well publicized and I only am taking it because I saw a sign by the side of the road
 this evening. I can assure you the previous survey results were not representative and should be
 discounted as there were undoubtedly many many residents denied participation in this survey due to
 poor communication. Residents do not want high density housing on the north shore. There are other

places in Camas to place it closer to downtown, if it is needed. Most of us original residents moved here because of the character of the neighborhoods and the character of the town and do not want to see it destroyed as it gets overrun by developers building too many homes with no consideration of the town Camas has been. The roads will get over crowded--Everett especially and also Lake are already over crowded, the air will get more polluted and the already over crowded parks will be further ruined. We do not want to become another Vancouver. We love our schools, and our quiet, safe, healthy way of life. Build high density housing and lousy retail at your own peril--we will vote the current office holders out again just as we did in the most recent election.

- This town has drawn so many due to its uniqueness in the area and the way it makes you feel like you are far Away from the big city. This is largely due in part to the nature and natural areas that abound. Developing the area would completely change a large part of what is so loved about living here.
- To retain as much of the existing landscape, i.e. trees and vegetation as possible. It is crucial for the health and future well being of local residents that we don't further add to the impacts of climate change by cutting down existing trees. Sustainable building practices and fully integrated modes of green/public transport (bike paths, bus network) should be prioritized. No strip malls.
- Traffic on 232nd Ave will be increased exponentially with development. City must plan for more arterial roads that head north and west, which is where most traffic in the area will be moving.
- Trails, open space, dog park, outdoor activities, sports park. No to retail, more houses and especially low income. Boo to overpopulation keep Camas a nice little town. NO to a community center, workout facility or pool. Lacamas Swim and sport covers that for people who want it. It's a shame we didn't appropriate money to bring our last community pool up to standards. In America we just tear it all down as to celebrating our past historical buildings.
- Transportation issues that do not involve cars. Traffic flow. Police/fire coverage.
- Try to keep as many trees intact as possible, and require developers to plant new trees when they remove old ones.
- Try to maintain as much of the current integrity as possible. Do not overbuild and no cookie cutter housing.
- View Corridor protection
- We are turning the PNW, tree by fallen tree, into a desert. I would like to see the trees better incorporated into the area instead of clear cutting everything.
- We definitely need more affordable, compact housing, not high-end mega-lots. People with modest incomes need a nice area in which to live and raise their families.
- We do not want you to build more and knock down more trees over Lacamas Lake. Stop gentrifying Washington.
- We don't have good enough roads to support more housing projects
- We don't need more people (Oregonians) in Camas. We should do every thing we can to keep them out, and keep the North Shore as Natural and untouched as possible.
- We have enough strip malls and fast food restaurants. Try to attract a really good Italian restaurant (not Olive Garden or other mediocre Italian chain restaurant). Mulifamily housing like duplexes and triplexes are needed. Avoid apartment buildings.
- We have got to stop cramming houses together with little yards and green space. we need more of a development plan that incorporates green space and healthy spacing in our residential areas.
- We have too many mega-mansions in Camas because that's what developers make the most money on. It's time to address the needs of Camas residents.
- We live off of 232nd ave. We are very sad that the drive around the lake from town will be taken away from us and that our neighborhood is going to be surrounded with houses and business. I don't it matters what the people who live on the North Shore say one bit.

- We need to keep more green space. Parks, recreational areas with more trails are great. More housing
 is not helping our community.
- We over developed "track homes" in the area.
- We realize growth is inevitable. However, I believe deference should be given to preserve natural areas for wildlife. Don't just scatter parks here and there, tie natural areas together so wildlife has a chance.
- We really need a park district. All residents (infants and elderly) would benefit from the extensive programming. (Mom and Tot swim, ceramics classes, drama classes) There is such a thing as a Parks and Recreation Degree. Search and hire someone experienced to bring this to life. Camas is growing (whether some residents like it or not-it's called urban sprawl) and residents do pay taxes and should have activities available to them for a work/life balance. Why are we forced to spend our money in other communities?
- we would like to see it linked to the South Shore to establish a full trail system
- Well thought out. no urban sprawl
- What about schools? If you add more families, more schools will be needed, taxes will go up.
- What if we think way outside the box? What if we create a small- and specialty-farm community that will preserve our small-town feel, create meaningful work, and provide for both Camas and surrounding communities? What if we move away from huge houses, and recreating the alreadynearby means of acquiring those huge houses, and filling them with stuff? What if that glowing red self-storage place that just went in next to Evergreen Tennis was the last step in the uglification of Camas? These options you list assume we want to choose from them ... that we want to be another cookie-cutter town. What if we don't? At least, that's how it looks to me. I look forward to the Feb. 4 workshop.
- What is the plan for bike lanes? We keep developing new neighborhoods and schools with no walkways or bike paths to encourage people to walk or ride.
- What is the transportation plan? You'll need Leadbetter to become a "major arterial", which I assume would be 2 lanes and able to expand to 4 lanes (with shoulders) to handle growth and incoming, exiting traffic. You'd also need a second "alternate" arterial to the north, to handle east-west traffic.
- Whatever comes to North Shore is likely to take away from downtown Camas. Consider carefully how
 you want to "divide the baby". If not done right it could simply make downtown a "ghost town"
 without recovery..
- Whatever will gets built there, would like it if kept natural looking and worked around existing trees instead of clear cutting.
- Where was light industry/manufacturing as an option for the land uses? It is shown in types of jobs, but not use of the land...
- Why is the city of Camas so pro-growth? Can we just put the brakes on and evaluate our roads and traffic problems before we introduce more and more people?
- wide park trail/walking path that goes around the entire lake.
- With multiple uses the key is maintaining the natural landscape conducive to the PNW and key entry to the Columbia gorge.
- Would like to see a hospital to serve the area.
- Would like to see a lot of nature, not a lot of development
- Would love to see a large dog park and Fred Meyer in the area.
- Yeah leave it alone
- Yes. It doesn't need to be built up with concrete and become a model of cookie cutter mayhem. I would love to see thoughtful design, a unique and thought out plan that caters to our community and is a cohesive continuation without compromising the natural beauty of our city. I think that it should

be an extension of Camas and have things be unique to put us on the map of an example, an area that attracts those visiting and gives them a sense of nature and growth being able to come together and not be one or the other. A way to bridge what we have now and the "north shore" so that we are not impacted by just money making ideas. Business need to come to support our city, but that can be strategic.

- You should not be tearing down the forests for housing or growth. There isn't a lot of wild life and ecosystems anyways.
- You shouldn't develop it into residential but let it be nature, Camas is becoming without nature and people are gonna wanna leave. We need trees to stay trees there are already so many houses we're fine without one more lot and the golf course is already ruined so please just stop.

EMAIL COMMENTS

The following comments were submitted to the City via email and Facebook.

September 12, 2019

I would like to receive project updates

Hello, I am glad you are planning this in advance. I would like to see a planned development. I would like to see something like Issaquah Highlands in issaquah Washington. It has a mix of housing, walking trails, parks in every neighborhood, community gardens, dog parks, high speed internet, retail and restaurant areas, grade school, and a park and ride for transit. a community center would be a great asset too!

September 12, 2019

I would like to receive project updates Please consider updating our existing roads (infrastructure) to support all the new homes that will probably be built on this beautiful farmland. Why hasn't anything been done to update the roads? Why hasn't there been a sidewalk built on the road that leads to Camas High School from Everett Road? Kids are walking on the road or in the ditches. Let's get our priorities straight.

September 12, 2019

I would like to receive project updates. Camas is taxing seniors like us out of their homes.

September 15, 2019

I would like to receive project updates. The beauty of Camas is its nature preservation. North shore is best to keep parks, open recreational area for families. Best to have businesses closer to NE 28th / 500 and leave north shore as parks and rec. also it's just too congested on NE Everett.

November 19, 2019

My question is why does our growth have to be on the "north shore" lands? Have other potential areas been assessed, and if so, where were they and why are they not being considered? I understand we are densely populated south of the lake, but why aren't other areas such as NE of the lake (ie fern prairie market/north of CHS) being proposed. Thanks for the forums & learning opportunities being provided.

The North Shore is within the urban growth boundary. Fern Prairie is outside those boundaries which controls urban sprawl.

Thanks for the explanation. Hoping to learn what other areas within the urban growth boundaries were considered.

Are all of the Legacy Lands that were established still in place for this north shore area or have some of them been "modified"?

Growth is coming for sure, but can't we mandate bigger yards? Less cut down trees? Less industrial areas and more schools?

My questions: What plans, if any, does the city have to annex Grove Field and expand it? Have there been discussions with the Port of Camas Washougal in this regard?

November 24, 2019

I understand that a planning process is required by Washington state. The issue at hand is the current unresolved problems that make any additional development a potential crisis. Camas is already experiencing serious issues with an increase in population without proper solutions for the flow of traffic. The intersection at Brady Road and 192nd including the on-ramp to Hwy 14, will be at a crisis level as the nearby shopping, commercial and residential development begins to be completed. The addition of additional housing on Crown Road will potentially flood downtown Camas/Everett with problematic traffic. The intersection at Everett & Lake Road is a nightmare for anyone forced to travel this section of the city during peak traffic hours. The inclusion of a Kayak rental company at Lacamas Lake during summer months, with a significant increase in out-of-area visitors, has forced boaters and others to park on the shoulder of both Everett and Lake Road. This creates dangerous conditions for bikers, drivers and walkers. NW Sierra and other residential areas of Camas are experiencing dangerous driving, speeding (including school zones) and unchecked aggressive behavior. We do not have the police manpower or transportation dollars to address these traffic law violators despite numerous complaints by citizens. Solutions have been proposed with little response from the city.

In areas of the city where high density housing has been added – or is in process of development – we see minimal changes to nearby roads. If developers are required to cover the cost of increased traffic, why are we seeing significantly more problems? A lightly wider road does not mitigate hundreds of additional cars. Why aren't the developers at Brady & 192nd paying to significantly widen Hwy 14? The addition of 10,000 people or more and this large commercial development will quickly bring this freeway to a standstill. What guarantee do we have that the developers of the North Shore will be held accountable for sufficient roads in all areas where Camas is impacted?

Washington state is requiring adequate planning for urban growth. In my opinion, a significant amount of the emphasis needs to be on addressing the rapid growth that is impacting the city now. Many of those future residents are already here now. It does not appear that the state mandate for planning requires you to use all of your resources to develop the North Shore. Let's ask the Washington state city planning experts to help us fix our current problems before we approve any additional city-led or commercial construction on the North Shore.

November 25, 2019

Hi Sarah. I am a resident in the LaCamas Summit neighborhood and was unable to attend last weeks meeting on the NorthShore Development. My question for you is this. Since Portland State University has an excellent School of Urban Planning has Camas taken advantage of their expertise in regard to our growth plans. Knowing Mayor Turk is a graduate of this school I assume there was some consideration in coordinating Camas's planning for the present/future with this fine school. Thanks.

November 26, 2019

Taking a closer look at the North Shore Development,I truly believe it will benefit the city of Camas in the future and preserve open space as much as possible in the North Shore area. As a land owner and a friend of a land owner of property just east of the tentative North Shore eastern border, I propose to the city of Camas to include the Webberley and Hagensen properties(just north of the Camas High School along with the nine properties just west of the Webberley/Hagensen properties) in the North Shore development project. I believe this arrangement will benefit the community of Camas and also the owners of the previously mentioned properties. Thank you for considering this proposal and we are looking forward to partnering and working with the Camas community and City leaders.

December 6, 2019

I am unfortunately unable to make the meeting on Jan. 7th. I herein offer additional input to what I mentioned at our last meeting.

We are concerned that the sub-area plan may undermine the land use decisions made over the past decade regarding the Mills-Leadbetter property. The Mills family negotiated in good faith for over ten years with the City of Camas resulting in viable zoning for our property. We have fulfilled every request that the city has asked of us, including donating 5 acres of lakefront property at no cost, selling our two historic lakefront homes and adjoining lakefront property at a discount below fair market value, some 33 acres, thereby relinquishing all of our most valuable lakefront property. The fulfilling of our commitments to the city also eliminated the only access to our property from Leadbetter Road, thus requiring temporary access from the proposed Fargo Street until such time as the new road planned to the north is completed. These actions were all done based on the good faith commitments from the City of Camas to continue to support development on our remaining developable land consistent with the adopted comprehensive plan. To say that the planning and zoning is now open to change without recognition of the commitments made with the Mills family would be a breach of trust and good faith. We would not have offered to transfer our lands to the city for public use had we known the city may not honor their commitments to us.

We sincerely hope that the city will honor their commitments made to the Mills Family to insure that the new subarea plan includes the zoning, density and road access agreements the City staff agreed to make in a good faith effort to include in the area planning.

January 11, 2020

Your postcard we received states "Planned" growth. We, as longtime residents, are hoping there will be better planning from the City of Camas than the time a few years ago when your panel was involved in the "planning" of the Camas High School. It was built in a rural farmland setting where no apparent planning was done to accommodate the hundreds of vehicles that would be accessing the school on the same rural two-lane road that is backed up every school day.

There was also the recent approval by your panel to approve the development of what we residents refer as "the projects" that were built behind the Woodburn Elementary school on Crown road. It is not only unsightly, but what was forest and adjacent to the Park are now gone. "The Hills at Round Lake" project is 333 lots and with an average of two cars per family that leaves residents contending with 666 more vehicles on our narrow two-lane roads to contend with yet there are no sidewalks and no widening of the Crown road to accommodate the additional traffic.

We residents were livid when your panel was also involved in the recently proposed expansion of the Grove Field airport which not only would have evicted many long-time residents from their homes but also was planning to have a lengthened runway within feet and perpendicular to the State Highway.

I don't feel the need to remind you how we voters felt about your "plan" to create a \$78M community pool complex in the heart of an area already massively impacted by traffic.

I bring up the above as reminder that your "planning" hasn't gone well for maintaining the rural community we long-term residents have come to love. I, personally, hope that if your "planning" doesn't include the developers having to pay for the traffic, water, sewer, power and communications, you should start thinking more... and not just about re-election but what your decisions will cost the residents in your desire for more taxable income. My family and I as well as our longtime neighbors are against your proposed projects on your North Shore "plan". Leave the area rural.

In closing, I find it unsatisfactory that your postcard included a web address but not a specific USPS mailing address for comments. Some of us are a bit older and are not able to access computers or the web without a trip to a library or a friend's house.

January 15, 2020

<u>To:</u> The Honorable Barry McDonnell, Mayor City of Camas

Summary: The North Shore Planning Process, starting with the survey, incorrectly frames Camas' overall growth issue. The State's GMA requirements, without disagreement, require Camas accept its share of statewide growth. The GMA, however, does not say where that growth must occur. North Shore development based on the Camas 2035 plan may no longer be appropriate given changes and opportunities at the Mill. Camas should not turn its back on the Mill. The North Shore planning process should be paused to give Camas residents a truly transparent process for overall growth issues. This should be a lesson from the 2019 election.

The Honorable Barry McDonnell, Mayor City of Camas

Dear Mayor McDonnell:

Congratulations again on your amazing victory for Camas.

The City needs to figure out how to hear its citizens. The City's Aquatic Center's process was biased. It was not successful. The result is you sitting in the Mayor's Chair.

Now, we as citizens are presented with a survey about developing Camas' North Shore. I won't participate in the survey and here's why.

The framework of the survey is clear from the very first question: "The existing zoning would allow a mix of employment, retail, and residential uses. The City is required by state law to plan for anticipated growth, and development will occur with or without planning."

The basic premise that the North Shore must grow and accept substantial urban growth is flawed. This survey is premature until the City has a conversation as to whether or not this large, Vancouver-styled development is appropriate and necessary.

Washington's Growth Management Act (GMA)

Does Not Require North Shore Development

The State's GMA requirements, without disagreement, require Camas accept its share of statewide growth. The GMA, however, does not say where that growth must occur. Camas' growth could occur downtown. It could occur with higher densities in Grass Valley. It could occur with higher densities in Oak Park. Maybe you should revisit the downzoning I understand happened several years back in the city's core. You get the idea. The GMA is not an "excuse" to justify development of the North Shore. North Shore development of this magnitude should be considered only if less impactful alternatives are not available. Shouldn't the less impactful alternatives prevail?

I went to planning school as an undergraduate and worked early-on as a planner for a large state-wide agency in California. I worked on projects as large as the Pepperdine University Master Plan in Malibu. There is a lofty goal in planning to establish the utopian ideal of a city providing housing and jobs balance so people do not have to leave. I won't dispute this goal. But there is also reality.

The FAQ for North Shore admits that only 25% of workers actually live in Camas1. Is the percentage of people who work and live in Camas likely to decline? Probably. Camas, with its outstanding schools and proximity to the Portland metro area, is very attractive for commuting.

The North Shore

The North Shore is geographically isolated with severe constraints on road expansion. Realistically, the primary entrance from downtown and HWY 14 is Everett (otherwise known as Highway 500.)

The Aquatic Center debacle rightly put a focus on the HWY 500/Lake Road intersection. It is already a bottleneck. Hopefully the roundabout will help but HWY 500 is a misnomer. Unlike in Vancouver, it will never be a freeway let alone a major arterial. Creation of a significant jobs center in the North Shore will dump substantial traffic on roads already busy and never designed to serve as major arteries. Added to this is development already approved in Green Mountain and continued small scale subdivision and building in the largely rural area beyond the North Shore. This rural area will likely see increased densities should the North Shore develop into an urban center.

Traffic has fluid-like qualities. Like water encountering an obstacle, traffic will find the path of least resistance. Will neighborhoods like Crown Park be sacrificed for development that perhaps could be located elsewhere?

Suppose the City was successful and the 2,500 jobs lost from the Mill were replaced in the North Shore. In short:

- 1,875 of those workers would not live in Camas
- Many of those commute trips would be through the HWY 500 corridor
- Traffic would have serious impacts to communities like Crown Park and Downtown

Camas Should Have Other Options

Camas has a lovely Downtown that is our pride and joy. What does it now lack? A major employment center. New development, perhaps on part of the Mill property, could change this picture. The City could approve higher densities downtown, and make those affordable to the workers (and teachers and first responders for that matter). This could all be part of a corridor approach, coordinated with the City of Washougal, Port and of course Georgia-Pacific; to enhance transit opportunities and reduce traffic impacts. Improved transit from Downtown Camas to the region would be a benefit to everyone.

There's one problem with this. The Camas 2035 plan shows almost the entire Mill property as Heavy Industry. Camas 2035 was published June 2016. This is before the pulping operations were shut down and the Mill operation reduced to a skeletal crew down from 2,500 workers in the 1980's 2.

1 http://www.camasnorthshore.com/wp-content/uploads/2019/11/North-Shore-FAQs-11-21-19_v2.pdf 2 As reported by the Camas-Washougal Post Record: https://www.camaspostrecord.com/news/2018/apr/26/end-of-an-era/

There is no indication in the North Shore planning process on how Downtown might meet GMA growth requirements. Likewise, Camas 2035 provides no discussion of how the Mill could and should be the nucleus of a modern riverfront: It could have housing, high technology, and the many other aspects of our Region's new economy including working class jobs.

Getting back to the survey, it contains only one reference to downtown. One of the options for the North Shore is: "Small shops and retail businesses (similar to those found in Downtown Camas.) Camas residents taking this survey have no choice to state a preference for a Downtown option to accommodate mandated future growth. The Camas 2035 Plan essentially makes the Mill a "black hole" and not available for consideration for other uses.

In short, the current North Shore planning process treats urban development as a foregone conclusion, which it is not.

Let's Keep Camas A Downtown City

Perhaps Camas 2035 needs some sort of "overlay" for the Mill that would provide for future alternatives. This would help prevent the potential for decline as unused properties continue to age. An overlay plan would signal the Mill's owners, and potential future owners, what entitlements are possible removing this large uncertainty, and therefore help guide the environmental cleanup.

Perhaps this should happen before decisions are made on the North Shore. Perhaps some transportation modeling should occur to see what happens to the region with both urban North Shore and substantial changes to the Mill. Maybe there isn't road capacity for both without building major roadwork improvements, like widening Everett to a modern 4 lane road. Such widening would impact Downtown and its neighboring communities. Such widening may end up being necessary if the North Shore is developed as an urban extension of Vancouver. Enough saying "perhaps" though. These questions must be answered, and the answers provided to Camas residents so they can participate in a truly transparent North Shore process.

I provide these observations with this background. Most of my adult life was spent as the US Navy's liaison to the State of California. I worked issues all over California. I worked on the cleanup/reuse of large closing Navy

bases in the heart of California metro areas. I saw many mistakes made. I saw what happens when old industrial buildings sit idle for decades while people argue about future development. I saw how this stalls needed environmental cleanups. I've seen the viscous downward spiral that results. I hope this is not repeated in Camas.

A single sentence in the now outdated Camas 2035 Plan is not sufficient justification for development on the North Shore. There must be a conversation about whether Camas remains a "Downtown" City or becomes so spread out it loses the very quality that has made Camas so special. Camas is not Vancouver.

Sometimes a planning process oversimplifies a complex issue. That happened in the Aquatic Center. Mayor Turk kept saying a simple survey said people wanted a pool. The Mayor relied on the sheer numbers. She was wrong. And here you are.

I would hate to see the North Shore follow that script. Before you do a survey based on a faulty basic premise, let's talk about that premise.

Let's Make This A Team Effort.

The City never should have tackled the Aquatic Center alone. Nor should it try to tackle the Mill alone either. I want to share a letter I provided to the Port of Camas-Washougal asking them to consider taking on the Mill as a project. I hope your Administration will be in support.

In closing, I'm not suggesting there be no development of the North Shore. I'm not a NIMBY. I'm suggesting instead the style of scale of that development be coordinated, and symbiotic with, a potential future Downtown Camas that successfully plans for the Mill property. A future that recognizes the need and benefits of keeping Camas centered on a vibrant Downtown. This alternative also fits with the emerging plans of Washougal and the Port. Downtown development as part of the HWY 14 corridor will be the least impactful way to meet GMA requirements.

Camas exists because of the Mill. The Mill was always there for the town and community. I've heard so many stories in my short time here about the nature of the Mill and its relationship to the City. Now it seems the City is turning its back on the Mill by continuing to pretend it will always just be a paper Mill. The writing is on the wall. We just have to admit it. The Mill can evolve if given the chance and continue to take care of this town and its people.

You are sitting in your Chair because the prior Mayor forgot about listening to what everyday people of Camas want for this wonderful City. Also forgotten was the need for this City to have an open, transparent process. I hope you remember this and start the conversation and planning process this city actually needs.

Mayor McDonnell, this is a time for leadership and vision.

January 17, 2020

My family currently owns 270 acres north of Lacamas Lake. 236 of those acres lay inside the Camas city limits. The bulk of the property was originally purchased by my great, great grandfather back in 1890. In 1926 my grandfather began dairy farming here and that operation continued for three generations over 92 years. The dairy herd was sold in March of 2018 after the economy of the dairy industry became untenable.

The prospect of the future development of our property was embraced by my family starting about 35 years ago when it became necessary to put in place some long range succession and financial planning measures. Development of the land at the end of our dairy career was a huge factor in allowing my family to continue the dairy operation for a third generation. Most forms of family agriculture including dairy are not lucrative. Margins are very tight. Financial demands that the dairy could not support at the time of this planning work were deferred until after the expected development occurs.

Preparing land for development is a very lengthy and expensive process. We began working actively with the County and the City in 2005. First, at the county level, we requested inclusion into the Urban Growth Boundary which was accomplished in 2007. Annexation into the city limits occurred in 2008. Finally, current zoning and an approved Development Agreement with the City was adopted in 2013. At every single step in this process numerous formal public hearings were conducted where public testimony was considered. The Board of County Commissioners (at that time), Camas City Council and Camas Planning Commission have all weighed in and approved these steps. We have followed the rules.

In 2011 environmental groups challenged the North Shore annexations and a legal process ensued which worked its way through review boards and was ultimately resolved in our favor by the Washington State Supreme Court in 2013. So over the past 15 years the City of Camas, Clark County and the State of Washington have all declared, in legal fashion with no ambiguity, that the property north of Lacamas Lake is now URBAN.

If it were not for the choices that my family has made over many decades in keeping this land open, this area would have long ago become a hodgepodge of homes on 5 acre parcels making planned development today unlikely. Instead, we are now engaged in a productive conversation about how this area will best fulfill the needs of the entire community. With sensible planning we can ensure the North Shore area will become a tremendous asset to our City's future.

January 20, 2020 withdrawal

January 23, 2020

Lebanon

January 30, 2020 interactive

No Date

Synopsis of Request from

The Mills Family and Lacamas North Shore Properties LLC for Future Planning and Use of the Remainder 57 Acres Owned By The Mills Family adjacent to The 33 acres of Public Property on Lacamas Lake recently sold to the City of Camas.

- 1. The existing 35.61-acre parcel of land depicted as Parcel 5 in the attached Exhibit 1, shall have its Comprehensive Zone Designation confirmed as Medium Density Residential and its current Zoning confirmed as MF-10. In addition, the limit on the number of units that can be built in the property shall be changed to 250 units (7 units per acre).
- 2. The existing 22.01-acre parcel of land depicted as Parcel 6 in the attached Exhibit 1, shall have its Comprehensive Zone Designation confirmed as Medium Density Residential and its current Zoning confirmed

as MF-18. In addition, the limit on the number of units that can be built in the property shall be changed to 295 units (13.5 units per acre).

- 3. The Mills Family or its successor in ownership (possibly Lacamas Northshore Properties LLC) shall have the right either individually or working in partnership with the City of Camas and/or the Dens Family LLC to construct and use for access to the Mills Family properties the proposed NE Fargo Street as depicted on the approved plans for a subdivision to be built on the West side of the adjacent Dens Family Land on Lacamas Lake. The intention is for the newly constructed NE Fargo Street to be used for access to the Mills Family remainder parcels until such time as adequate access roads can be constructed giving access to the Mills Family parcels from areas North of Lacamas Lake.
- 4. The additional Units allowed to be constructed on the Mills Family Parcels shall be used as a partial replacement for units that cannot be built ever because of City of Camas and Camas School District purchases of lands allocated for future residential development including:
- a. The Weakley Property 40 acres gross 20 acres net R 7.5 Zoning Est 100 units.
- b. The Rose Property 43 acres gross 32 acres net (res) R-12 Zoning Est 120 units.
- c. The Bumas Property 29 acres gross 14 acres net MF-18 Zoning 226 units capped.
- d. Total number of units missing from approved Area Comprehensive Plan 446 units

Once the existing Development Agreement between the Mills Family and the City of Camas expires in May of 2020 The number of units the Property will be zoned for will increase to 735 units. 357 units on the MF-10 Property and 378 units on the MF-18 Property. As envisioned and proposed by the Mills Family and LNS, the new units to be allowed will total 495 Units or 240 units less than the zoning will allow. The Mills Family and LNS think this lower density proposal is more suitable for the siting and location of the residential units to be built and will allow a greater portion of the trees to be saved and access trails to the lake to be built.

The additional units to be built above the original number stipulated in the 2013 Development Agreement will provide for significantly more sewer and water systems development charges and late comers fees to be paid to the City of Camas to help pay for the new sewer and water lines and bring the area closer into compliance with Growth Management goals approved.

No Date

Vision for Future Use Of Mills Family Remainder Lands Lacamas North Shore

A proposal from the Mills Family and Lacamas North Shore LLC ("LNS", potential Purchaser) for the use of the Remainder Property owned by the Mills Family at Lacamas North Shore plus a portion of the West Side of the Dens Property adjacent to the Mills Property.

The City of Camas has asked for input from stakeholders and property owners regarding their vision for the North Shore Subarea Plan. This document describes the Mills Family and LNS's joint vision for the Mills Family portion of the Property in the North Shore Subarea plus a portion of the land owned by the CJ Dens Family.

In 2007 The Lacamas North Shore Group of Properties including the Mills Family Properties on Lacamas Lake were annexed into the City of Camas. As part of the annexation process the Mills Family offered and agreed to dedicate a 5.6-acre parcel of land including over 1,250 feet of Lacamas Lake frontage to the City of Camas to be used for Conservation purposes. This dedication was made at no cost to the City of Camas. The land dedicated is described as Parcel 3 in Exhibit 1 to this proposal.

In January of 2019, the Mills Family sold 33.44 acres of land to the City of Camas. The land included the iconic Leadbetter House and property plus the Pomaria House and property. These properties have over 1,450 feet of frontage on Lacamas Lake. The City purchased the property at significantly below market value with full support from the Mills Family. The intention was for the City to plan for and use the property for the benefit of its citizens and its visitors for the rest of time. Combined the lands sold and dedicated to the City of Camas on Lacamas Lake by the Mills Family contain about 39 acres of land including the iconic Leadbetter House and outbuildings and the architecturally significant Pomaria House. The properties are situated in the heart of the North Shore of Lacamas Lake.

At the time of the sale to the City, the Mills Family retained two parcels of land to the North of the lake frontage sold. The two remainder Parcels are under contract to Lacamas North Shore LLC. The two parcels are depicted in Exhibit 1 hereto and are further described as follows:

Parcel 5 contains 36.61 acres of land and is planned to be confirmed as zoned MF-10. A development agreement with the City currently limits the number of units on the property to 150 units. On expiration of the Development Agreement in May of 2020 the existing Comp Plan and Zoning will allow construction of 360 units. At the time of the sale of the 33.44-acre sale of land to the City (including the Leadbetter House) the City manager and staff agreed to make a good faith effort to increase this density to 200 Units. The Mills Family and LNS are proposing to the new North Shore Sub-area planners that the density on Parcel 5 be increased to 250 Units (or 7 units per acre).

Parcel 6 contains 21.02 acres of land and is planned to be confirmed as zoned MF-10. A Development Agreement with the City currently limits the number of units on the property to 207 units. On expiration of the Development Agreement in May of 2020 the existing Comp Plan and Zoning will allow construction of 378 units. At the time of the sale of the 33.44-acre sale of land to the City (including the Leadbetter House) the City manager and staff agreed to make a good faith effort to increase this density to 275 Units. The Mills Family and LNS are proposing to the new North Shore Sub-area planners that the density on Parcel 6 be increased to 295 Units (or 13.5 units per acre).

In addition to the density increases proposed for the MF-10 and MF-18 parcels, the Mills Family and LNS are also proposing that either the City of Camas or LNS in a joint venture with the City of Camas buy the existing West Side of the Dens Family Property. See Exhibit 2. The West side of the Dens Property proposed development on Lacamas Lake adjoins the Gun Club Property the City recently purchased. In the view of many people, the portion of West side of the Dens Family Property with lake frontage adjacent to the Gun Club Property should be owned by the City and added to the buffer of City Property along the lake. The small lot high density design of the Dens Property Development plan is not able to be developed without near clear cutting of the small lots and completely grading the site. The more clustered and site-specific planning the low-density multifamily projects planned for the non-public areas for development by LNS will allow the saving of many more trees and the ability to design the project to the land contours providing more view buffers and a more natural environment for residents. By having LNS participate in the purchase of the Dens West Property the cost to the City for purchasing this needed asset could be drastically reduced leaving more money for Park and Trail development and bringing a very publicly minded long term investment holder into the planning process for the property North of the City owned property on the lake.

In addition to offering to participate in (or lead) the purchase and plan improvement for the West side of the Dens Property, LNS with the instruction and blessing of the Mills Family is requesting that the long planned for NE Fargo Road be included in the planning for the North Shore Subarea so that the purchase of the remaining

Mills Family Properties can go forward without any devaluation of the Property for the Mills Family. The usability and value of the remainder Mills Family Properties are directly affected by the road access and road access timing for the development of the property. The Mills Family believes that part of the understanding they had with the City of Camas at the time of the Leadbetter Property sale was that the City agreed to use good faith efforts to make the creation of Fargo Road from Leadbetter Road to the Mills Family Properties a reality. Fargo Road is envisioned to be necessary for the development of the West side of the Dens Property and for the adjacent Mills Family Property. The Mills Family and LNS are fully cognizant of and agree to abide by the closure or restriction of use of NE Fargo street at the time adequate access roads are developed to their property from the North.

While this proposal for increased density and more immediate access for the remainder Mills Family Properties may seem to be self-serving and a coup for the Mills Family on the face it in reality, it is not. The Mills Family agreed to sell the Leadbetter, Pomaria, and the beautiful parklike acreage on the North side of their property bordering the Rose Property to the City at a significant discount with the hope that the City planners and leaders would make up for some of the long term value of the property given up by helping to secure the offsetting property value increases in the proposed density and access changes to their remainder properties. In the Mills Family minds, there was a great benefit to getting the lake frontage and the Leadbetter and Pomaria properties in the public's ownership and control for the long term good of the community and the long-term benefits to the Mills Family remainder properties. The Mills Family and LNS have been and intend to remain good partners of the City of Camas, the citizens of Camas, and all of the public minded entities that have helped make the long-term Vision for the North Shore of Lacamas Lake an emerging reality.

The benefits to the City of Camas and the citizens of SW Washington to having agreement on the increased densities, land use planning, and road access agreement as proposed by the Mills Family and LNS include the following:

- 1. Pay for New Sewer and Water Lines. Significantly increased ability for the City to pay for the cost of the recently installed Sewer and water lines on the North Side of Camas. More units mean more fees.
 - a. Because the City of Camas and the Camas School District have recently purchased land parcels in the Lacamas North Shore Planning area that were originally planned for housing, at least 400 living units have been erased from what was planned for in the last Comprehensive Plan for Camas. The sewer and water systems development charges that were initially planned for are no longer available.
- 2. Meet Comprehensive Planning Goals: When the Lacamas North Shore area was brought into the urban growth boundary and later annexed to Camas, exhaustive analysis was done to plan for the needed number of housing units, land available for jobs, and projected population growth. Adding some additional density to the number of housing units that were planned for but can no longer be built because of public ownership and use of a significant portion of the lands annexed will help bring the number of housing units to be built in the Lacamas North Shore area better in to compliance with the long term Comprehensive Plan and Growth Management goals.
- 3. Provide a needed Type of Housing: The proposal being made to the City is to allow for low density multifamily housing to be built on both sites. The 35.61-acre MF-10 site is proposed to have 250 units equaling only 7 units per acre. The 21.02-acre MF-18 site is proposed to have 295 units equaling only 14 units per acre. These low-density development proposals will allow a more home-like clustered type of housing unit to be built with lower building heights than is typical of multi-family development in today's world. The developer is a long-term holder of properties and intends to build quality low density units for rent. The low density will allow for more trees to be saved and walking trails to be built that will lead to and benefit from the

tremendous amenity that the parks and public facilities on Lacamas Lake now owned by the City of Camas will become.

This type of quality multi-family housing will also be very important to the development of the planned North Shore Business Park adjoining this property to the North. Having quality rental housing available to businesses moving to the area is an important component in the deliberation of where to locate a business. Having quality rental housing near the jobs and close to all the benefits of living on Lacamas Lake in Camas will be a tremendous asset to the North Shore Business Park and obviously the City of Camas and its citizens. There does not appear to be a lack of more tract like single family housing development at many tiers in the City of Camas for the coming future.

4. The Mills Family and City of Camas Partnership and Commitments. The Mills Family has acted in good faith in the sale of their irreplaceable lake front property to the City of Camas. The Mills Family could not be prouder to have played a significant role in getting these iconic properties into public ownership and planning. At the time the sale of the Lake Front properties to the City of Camas was first envisioned the City of Camas did not have the money to proceed so a sale agreement was negotiated and signed with The Conservation Fund advised by Columbia Land Trust as a placeholder for the City. The sale was conditioned upon The Mills Family and City agreeing to lot line adjustments to allow the existing land parcels to be transformed giving the City the property they wanted and the Mills Family the property they were keeping with the same exact lot size and zoning each had before the lot line adjustment. During the due diligence process for the Conservation Fund, the City of Camas found new sources of money to buy the Mills Property directly and asked to renegotiate the sale and step into the shoes of The Conservation Fund as Buyer. Since the land was always intended to be delivered to the City of Camas all parties agree to the sale. Since the City staff could not commit to providing real assurance that the road access from Fargo and the density increases in number of units would be approved in the future, the Mills and the City of Camas agreed to move forward to close the sale with only the assurance that the City of Camas staff would give a good faith effort to gain approval for the Mills remainder properties as envisioned including the approval of NE Fargo Street and an interim access road plan that would allow the development of the Mills remainder property as soon as permitting, road approval, and other necessary approvals were gained.

What the Mills Family and LNS are asking for now is for the staff at the City of Camas to make a good faith effort to assist the Mills Family and LNS is gaining the approval of the requested density increases and road approvals into the North Shore Subarea Plan and into actual approval for development once proper applications are in place as was envisioned by the parties when the sale to the City was agreed upon.

Notwithstanding the history and understandings between the parties, it is the Mills Family and LNS belief that these requests for density increases and road access should not be approved only because of the past agreements, but rather they should be approved because they make the highest and best use of the property and fit perfectly into the long range planning for the North Shore Subarea and the future of the City of Camas and the people that will live in the high quality low density housing created.

Please note the original request at the time of the sale was for density increases was to 200 units on the MF-10 Property and to 275 Units on the MF-18 Property. The new proposal is for 250 units on the MF-10 Property and 295 units for the MF-18 Property or an additional total of 70 units. The addition of this number of units is being asked for to provide the developer the means and incentive to pay for the majority of the costs of the improvement of NE Fargo Street and help defray some of the additional cost of the systems development charges for the new sewer and the late comer fees for the new water line.

COMMUNITY VISION WORKSHOP

On February 4, 2020, the City of Camas hosted a Community Vision Workshop. Following an overview of the North Shore Subarea Plan project and the results of community outreach efforts to date, groups of 6-8 people used base maps and materials provided to create a future land use map that informs the North Shore Vision and guide development over the next 20 years. Following the mapping exercise, participants were asked to vote for their preferred map using dots.

The photos below show how each of group chose to allocated land uses in the North Shore area. The maps use the following color-coding system:

Red sticky note = Commercial/retail

Blue sticky note = Light industrial/business park

Yellow sticky note = Single family residential

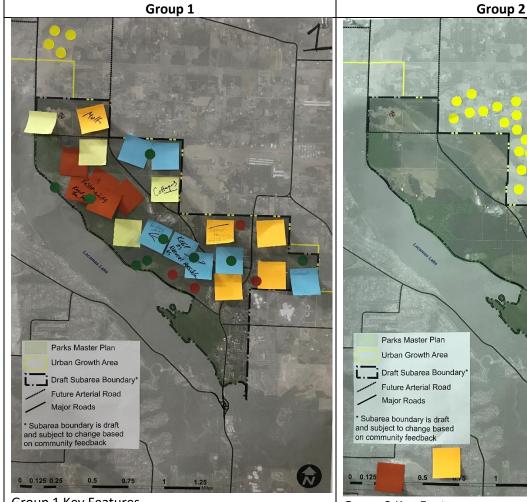
Orange sticky note = Multi-family residential

Red dot = Commercial node

Green dot = Park

Black marker = Roads

Green marker = Trails

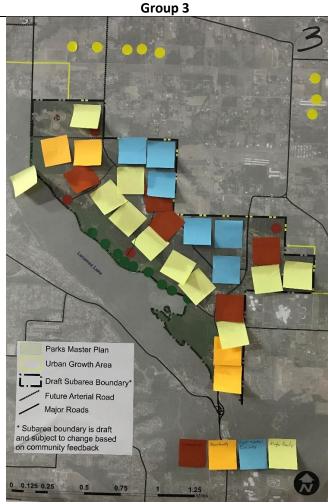


Group 1 Key Features

- Keep Camas like Camas
- Provide green space in industrial areas
- Include restaurants with lake views
- Provide affordable housing
- Provide senior housing

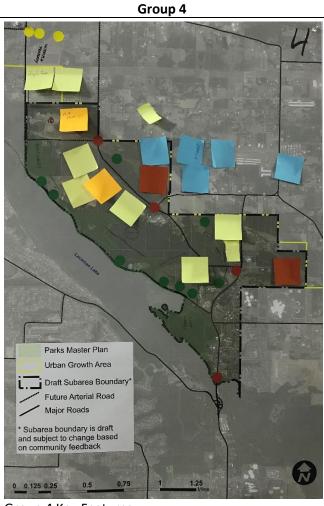
Group 2 Key Features

- Reconsider focus on North Shore
- Focus on the Mill property to add jobs and housing
- Multifamily and light industrial will add too much traffic to Everett



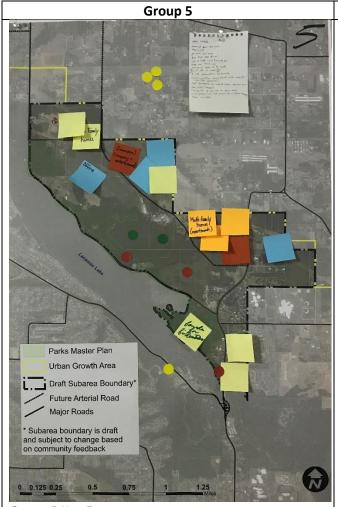
Group 3 Key Features

- Preserve open areas at the lake with a park corridor
- Include apartments closer to downtown and schools
- Develop a business park in the northern portion of the subarea



Group 4 Key Features

- Preserve a natural corridor with parks and trails near streams
- Medium and low density housing near schools
- Concentrate office development near the airport
- Include commercial centers in neighborhoods



Group 5 Key Features

- Provide green space and small commercial uses at the lake
- Create a walkable community
- Consider access for businesses
- Provide town homes
- Plan for traffic impacts
- Include small grocery store



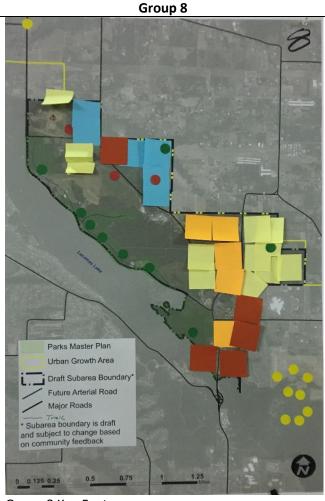
Group 6 Key Features

- Preserve natural areas and create parks for recreation
- Provide housing and shops near schools
- Places jobs away from the lake
- Provide senior housing
- Provide "creative" housing planned community with large park



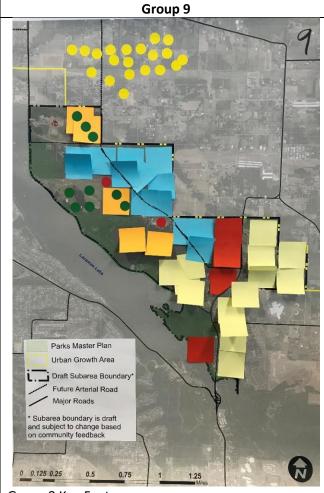
Group 7 Key Features

- Preserve open space and trees
- Develop housing along road
- Provide some family dining options around the lake and school
- Develop a trail network to connect schools
- Concentrate industrial along Everett



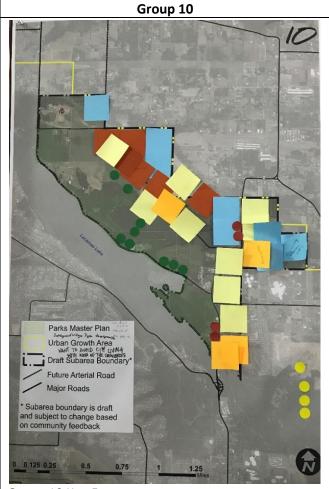
Group 8 Key Features

- Maintain trees and natural areas
- Consider a bird sanctuary
- Cluster housing and commercial for walkability
- Provide affordable housing
- Include industrial in the north
- Develop limited commercial near schools



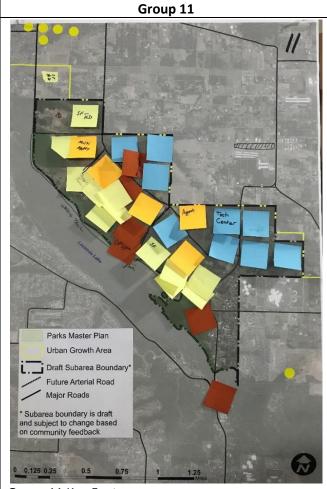
Group 9 Key Features

- Provide multifamily near the school and near jobs
- Include business parks in flat areas in the north of the subarea
- Include single-family along Everett and near the lake
- Cluster commercial along Everett



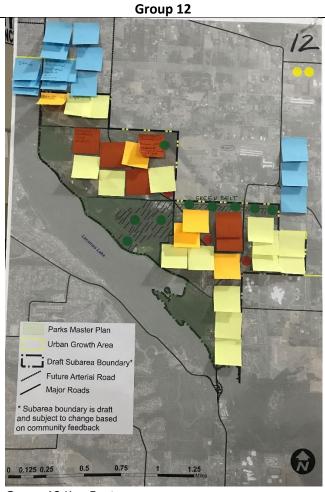
Group 10 Key Features

- Mix single-family and commercial areas for walkability
- Provide trails and bike lanes
- Address limited connectivity
- Make a livable community



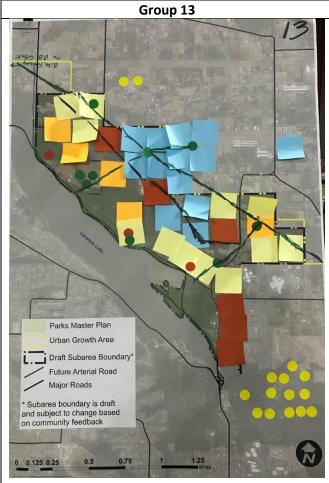
Group 11 Key Features

- Create a resort feel by the lake
- Provide services that will support Camas' natural growth
- Provide trails and protect trees
- Density should increase from south to north
- Preserve natural area by the school
- Provide tech center near Everett



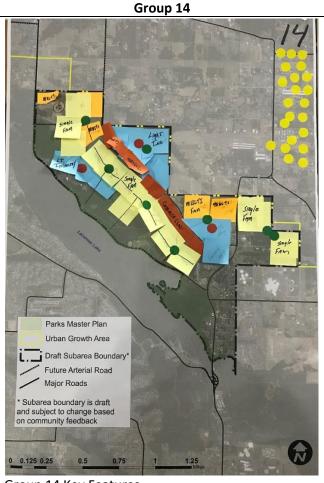
Group 12 Key Features

- Preserve trees along the lake
- Move light industrial north of the subarea
- Provide fewer single-family homes
- Cluster specialty uses (farming, orchards, wineries, etc.)
- Provide green belt from the lake



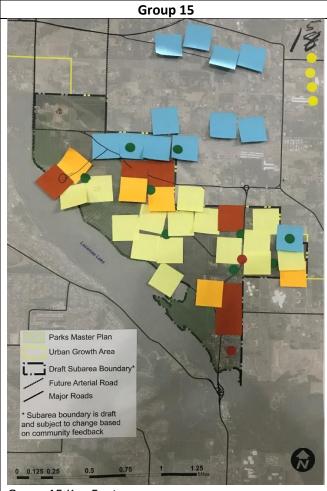
Group 13 Key Features

- Cluster residential around the school
- Build off the new road develop a business center
- Provide multifamily with access to schools and jobs
- Develop trail network along power lines



Group 14 Key Features

- Provide light industrial near the airport
- Cluster single-family and commercial along new road
- Develop a network of parks and trails
- Provide parks in housing areas



Group 15 Key Features

- Develop a master plan for the area with design guidelines
- Create a mix of uses complete community
- Include industrial in airport overlay zone and north of subarea
- Provide commercial hub near the lake
- Provide new high school near elementary school



Open House Summary

Date: February 16 through March 16 2022

Meeting: North Shore Subarea Plan Virtual Open House 1

Location: Engage Camas – North Shore Subarea Plan

Overview and Purpose

The first virtual open house for the second phase of the North Shore Subarea Plan was open for one month with the goal of obtaining community feedback on draft land-use options for the North Shore. The virtual open house was live on the project webpage on Engage Camas (engagecamas.com/north-shore-subarea-plan) and had 1,700 total visitors with 97 visitors completing the survey featured in the open house. The open house was advertised on the City's website and social media channels, through a news release in the Camas-Washougal Post Record, and through posters placed at different locations around the city. A digital copy of the poster is included as Attachment A.

When participants arrived at the virtual open house, they were prompted to <u>watch a welcome</u> <u>video</u> that provided an overview of the purpose of the open house and to review key terms used throughout the open house materials. Participants then had the chance to review background information including a Phase 1 summary that highlighted the adopted Vision Statement and key results from Phase 1. Following the introductory materials, the draft land use options were presented.

Draft Land Use Options

Two draft land-use options were presented at the open house. Both options included areas for residential, commercial, and business park uses, as well as areas preserved for parks and open space and identified sensitive areas (such as steep slopes and/or wetlands). The options also identified potential roads and trails. The table below was included in the open house and identifies the percentage of land included in each use category for each option.

Table 1. Land use breakdown for Option A and Option B

Zone	Option A		Option B	
	Acres	Percent of Total	Acres	Percent of Total
Business Park/Light Industrial	187	19%	153	15%
Commercial	75	8%	49	5%
North Shore Mixed Use	79	8%	125	13%
North Shore Residential (Higher Density)	132	13%	175	18%
North Shore Residential (Lower Density)	230	23%	199	20%
Parks/Open Space	247	25%	249	25%
School	40	4%	40	4%
Total	990	100%	990	100%

Participants were reminded to review the glossary of key terms and were then prompted to review a <u>presentation</u> that highlighted the key features of each option. After participants reviewed the presentation, they were asked to complete a survey about the two options. The survey results are detailed below.

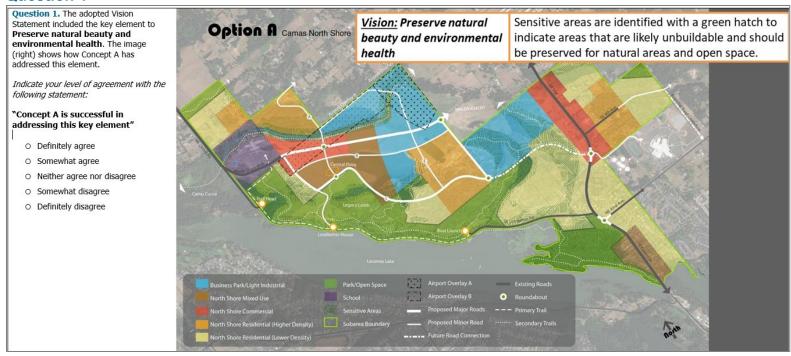
Survey Results

As previously noted, 97 open house participants completed the survey; however, not all survey participants answered every survey question. The survey was made available online through Engage Camas and hard copies were available at the Camas Library. One hard copy survey was completed, which is included in the results below.

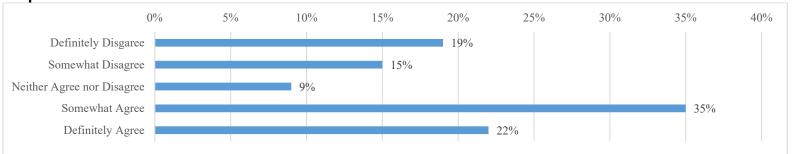
The survey included a series of questions on each option designed to obtain feedback on how well the options meet the adopted Vision Statement. The majority of questions asked respondents to select to what degree they agreed with a statement. They had the options of "definitely agree," "somewhat agree," "neutral," "somewhat disagree," and "strongly disagree."

Overall, the majority of survey participants agreed that the various elements in both options meet the intent of the Vision Statement. For all questions asking whether a plan feature met a certain element of the Vision Statement (e.g., "preserve natural beauty and environmental health"), "agree" was the most common response, followed by "disagree" and "neutral." For Option A, participants felt that the plan best addressed the Vision Statement by identifying sensitive areas to be preserved, creating a series of connected trails throughout the subarea, and the creation of a a central plaza for community events. For Option B, participants felt that the option best addressed the Vision Statement by creating a series of trails and pathways to connect residential areas to commercial centers, identifying sensitive areas to be preserved, and allowing for a mix of housing types throughout the North Shore.

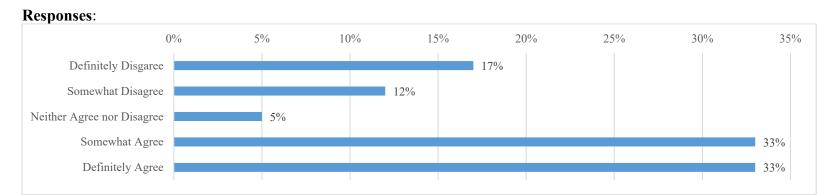
Three survey questions gave respondents the opportunity to provide open-ended responses. These responses generally expressed concerns about the cost of the proposed elements (three responses), lack of natural areas in the proposed plan or environmental concerns (nine responses), and any new development occurring (seven responses). A summary of survey results is presented below. A report from Engage Camas that provides additional details is included as Attachment B.

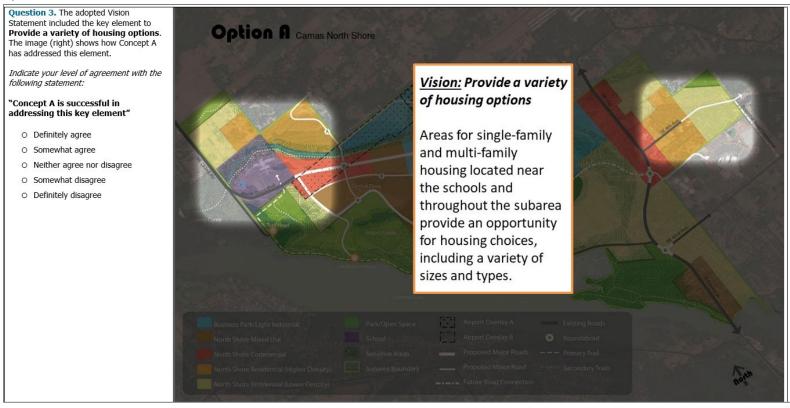




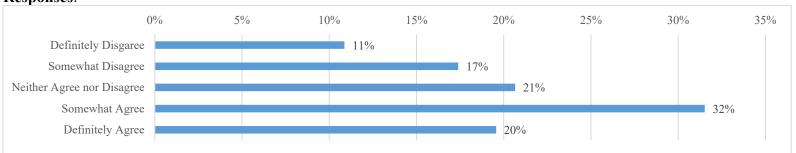




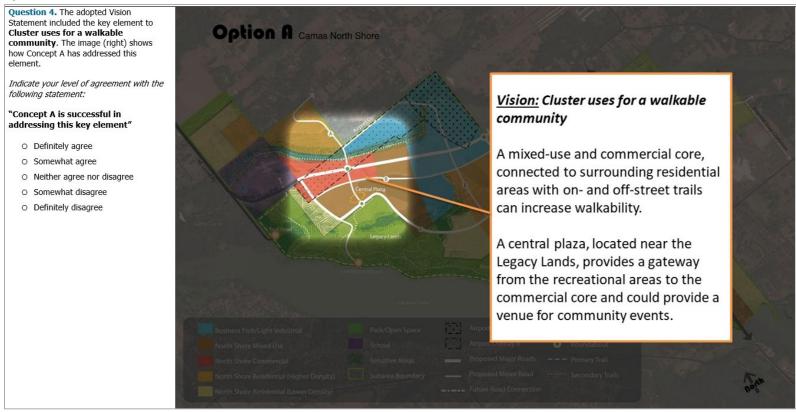


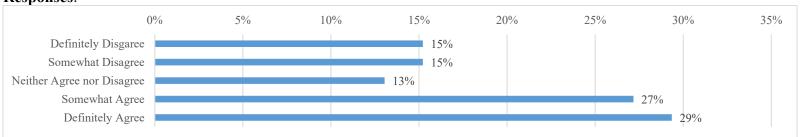






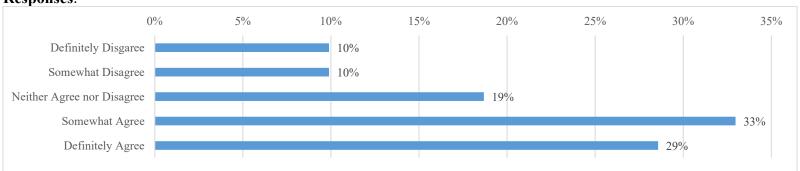
Question 4



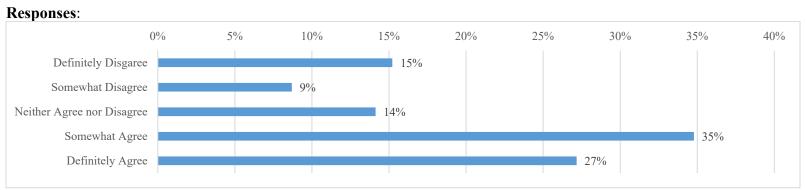


Question 5









Question 7

Question 7. What three (3) plan features for Concept A do you think best meet the vision statement?

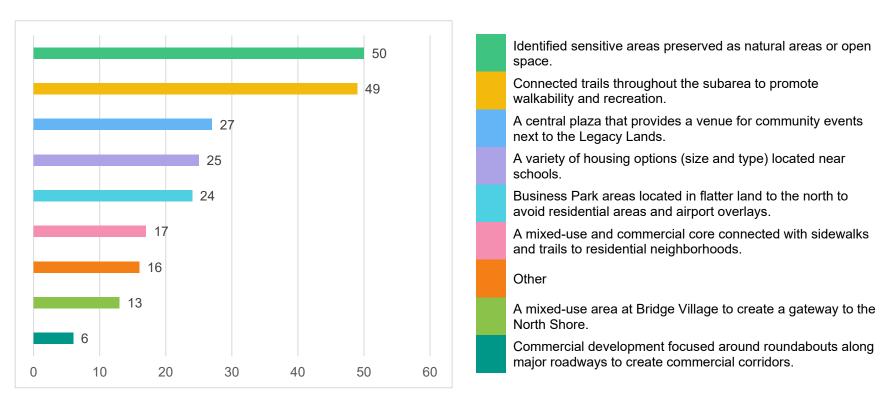
(Select your top 3)

- Identified sensitive areas preserved as natural areas or open space.
- Connected trails throughout the subarea to promote walkability and recreation.
- A variety of housing options (size and type) located near schools.
- A mixed-use and commercial core connected with sidewalks and trails to residential neighborhoods.
- A central plaza that provides a venue for community events next to the Legacy Lands.
- Business Park areas located in flatter land to the north to avoid residential areas and airport overlays.
- Commercial development focused around roundabouts along major roadways to create commercial corridors
- A mixed-use area at Bridge Village to create a gateway to the North Shore.
- O Other (please specify below)

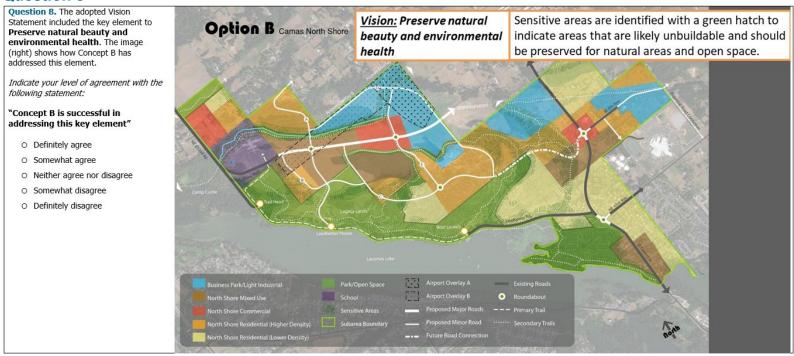


Responses:

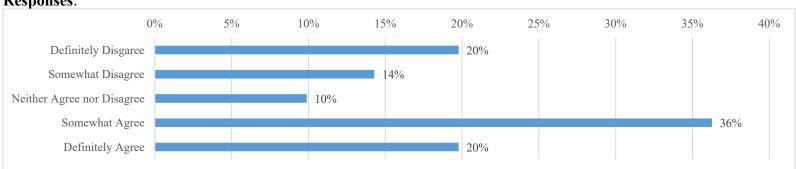
The figure below shows the number of times respondents selected a plan feature. The top three features were "identified sensitive areas preserved as natural areas or open space," "connected trails throughout the subarea to promote walkability and recreation," and "a central plaza that provides a venue for community events next to the Legacy Lands." There were 13 unique responses received under the "Other" response option. Common themes included a desire for no development in the North Shore¹; for the zoning to remain "as is"; and preserving, or increasing, green and other natural spaces. Specific responses are included in Attachment B.

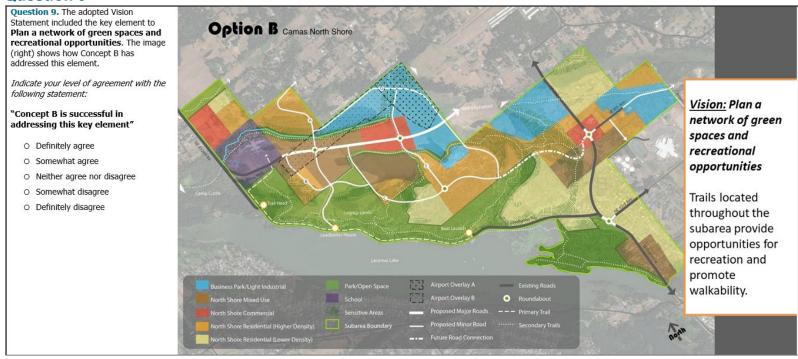


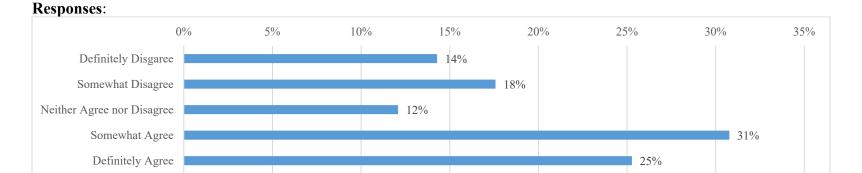
¹ It is important to note that the North Shore includes a substantial amount of private property, which could be developed today according to the current zoning code. The City is not able to restrict development on private property beyond requiring compliance with the City's adopted zoning, development standards, and other applicable regulations.



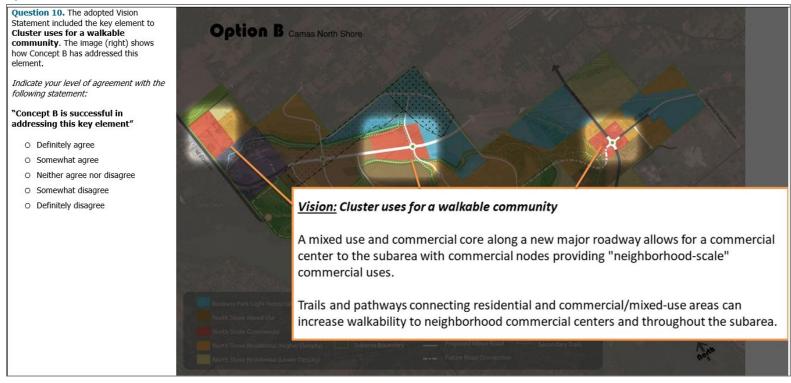


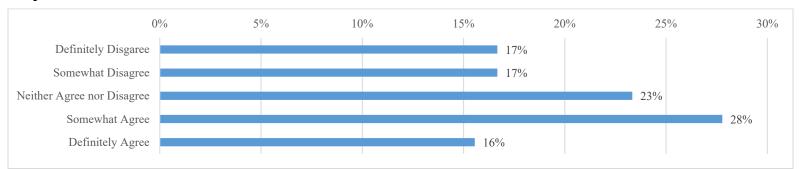




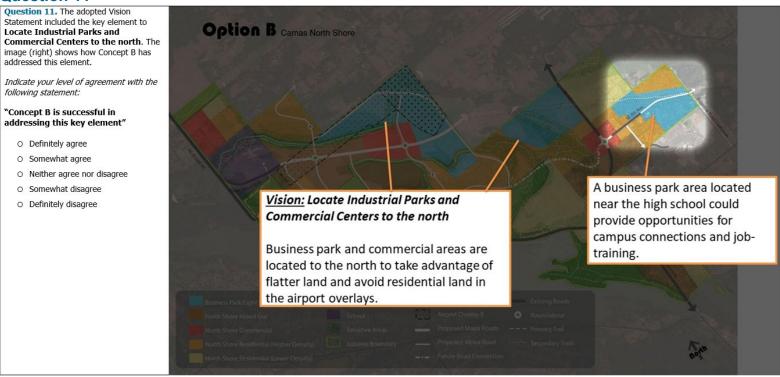


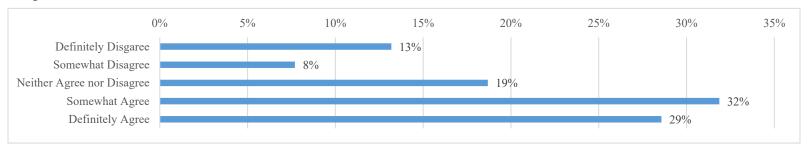
Question 10



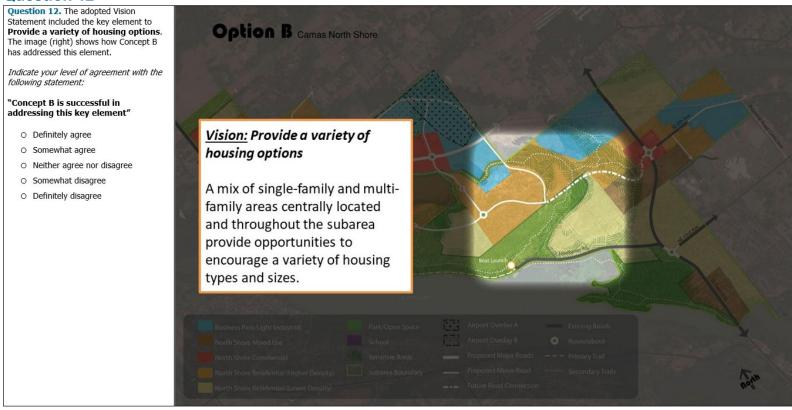


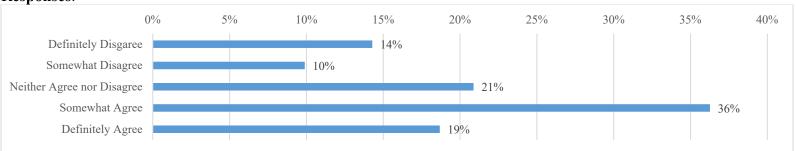
Question 11





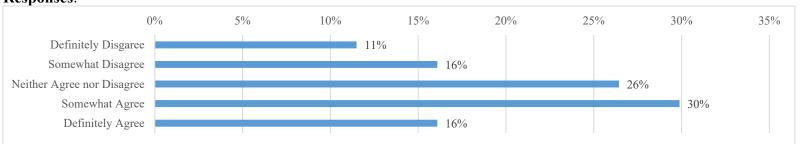
Question 12





Question 13

Question 13. The adopted Vision Statement included the key element to Option B Camas North Shore Vision: Favor local-serving Favor local-serving businesses. The image (right) shows how Concept B has businesses addressed this element. Indicate your level of agreement with the following statement: A new North Shore zoning code will identify the uses "Concept B is successful in addressing this key element" allowed in each zone and O Definitely agree can promote local-serving O Somewhat agree businesses in commercial O Neither agree nor disagree and mixed-use areas. Somewhat disagree O Definitely disagree Commercial development focused around roundabouts and along major roadways can create commercial corridors. A mixed-use area at Bridge Village can provide a gateway to the North Shore.



Question 14

Question 14. What three (3) plan features for Concept B do you think best meet the vision statement?

(Select your top 3)

- Identified sensitive areas preserved as natural areas or open space.
- Trails and pathways connecting residential areas to neighborhood commercial centers and providing recreation opportunities throughout the subarea.
- Commercial nodes located along major roadways to promote neighborhood-serving uses (small shops, restaurants, coffee shops, or professional service offices).
- Business Park areas located in flatter land to the north to avoid residential areas and airport overlays.
- A Business Park located near the high school to promote campus connections and job training.
- A mix of housing types located throughout the North Shore.
- A mixed-use area at Bridge Village to create a gateway to the North Shore
- O Other (please specify below)



Responses:

The figure below shows the number of times respondents selected a plan feature. The three most common features were "trails and pathways connecting residential areas to neighborhood commercial centers and providing recreation opportunities throughout the subarea," "identified sensitive areas preserved as natural areas or open space," "and a mix of housing types located throughout the North Shore." There were 13 unique responses received under the "Other" response option. The common themes among these responses are similar to the previous question with multiple people opting for no change to zoning and advocating for increased green or other natural spaces. Specific responses are included in Attachment B.



Question 15

Question 15. In addition to the Cityowned parkland along the lake (shown to the right), the North Shore subarea will include neighborhood parks, open spaces, trails and public spaces. What recreational facilities/amenities would you like to see throughout the subarea?

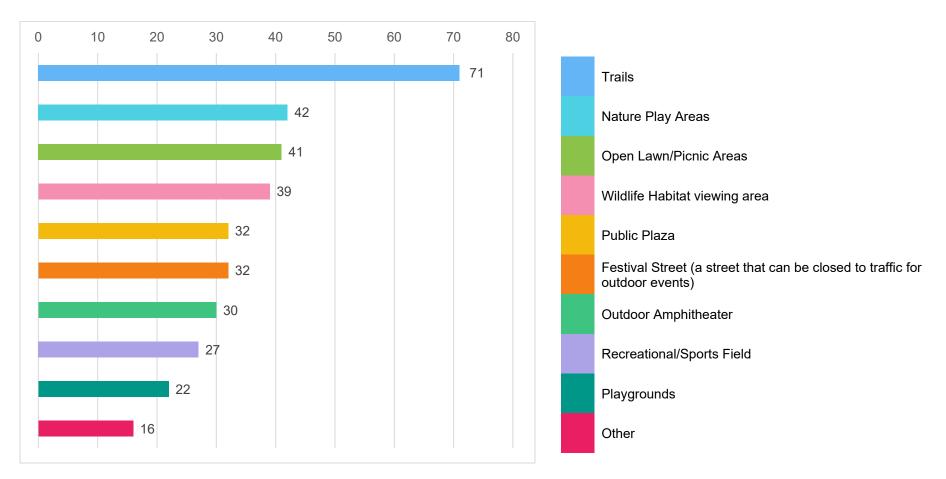
(Select as many as you like)

- O Outdoor amphitheater
- O Public Plaza
- O Recreational/Sports fields
- O Wildlife Habitat viewing area
- O Trails
- O Nature Play areas
- O Playgrounds
- O Open lawn/picnic areas
- Festival street (a street that can be closed to traffic for outdoor events)
- O Other (please specify below)



Responses:

The figure below shows the number of times respondents selected a type of recreational facility that they would like to see throughout the subarea (in addition to the City-owned land along Lacamas Lake). The three most common choices were trails, nature play areas, and open lawn/picnic areas. Sixteen unique "other" responses were received. The majority of other responses were participants advocating for no changes to be made and expressing their dissatisfaction with the project as a whole. Specific responses are included in Attachment B.



Next Steps

The City will work with the Steering Committee and Community Advisory Committee to incorporate the community feedback into a revised land use plan. In addition to preparing a revised plan, the City will also work with the committees to develop design standards that will guide the look and feel of future development in the North Shore. The revised plan and draft design standards will be brought back to the community for more input in the spring and summer 2022, including a second open house.

ATTACHMENT A – OPEN HOUSE POSTER

We want to hear from you!



Join a virtual open house to help plan the future of the North Shore Subarea!

Scan the QR code or **visit** <u>engagecamas.com/north-shore-subarea-plan</u> Paper copies are available at the Camas Library

February 16—March 16, 2022



Promote **Planned** Growth

Provide **Employment** Options

ProtectNatural
Resources

The North Shore Subarea Plan is an opportunity for the Camas community to help shape the future of the area north of Lacamas Lake.

In partnership with the North Shore Steering Committee and Community Advisory Committee, the City has developed draft land use options based on the Phase 1 Vision Statement. We need your help to create a preferred plan for land use and transportation in the North Shore.



North Shore Subarea Plan Imagine the Possibilities

ATTACHMENT B - ENGAGE CAMAS OPEN HOUSE REPORT

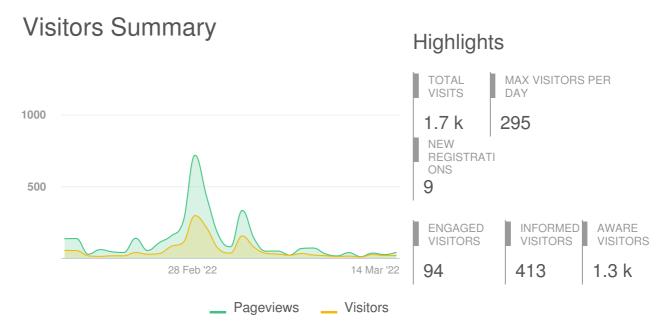
Project Report

16 February 2022 - 16 March 2022

Engage Camas

North Shore Subarea Plan





Aware Participants	1,326	Engaged Participants	94		
Aware Actions Performed	Participants	Engaged Actions Performed	Registered	Unverified	Anonymous
Visited a Project or Tool Page	1,326		riogiotoroa		
Informed Participants	413	Contributed on Forums	0	0	0
Informed Actions Performed	Participants	Participated in Surveys	15	1	78
Viewed a video	0	Contributed to Newsfeeds	0	0	0
Viewed a photo	0	Participated in Quick Polls	0	0	0
Downloaded a document	288	Posted on Guestbooks	0	0	0
Visited the Key Dates page	0	Contributed to Stories	0	0	0
Visited an FAQ list Page	0	Asked Questions	0	0	0
Visited Instagram Page	0	Placed Pins on Places	0	0	0
Visited Multiple Project Pages	319	Contributed to Ideas	0	0	0
Contributed to a tool (engaged)	94				1

ENGAGEMENT TOOLS SUMMARY



Tool Type	Engagement Tool Name	Tool Status	Visitors	Contributors		
				Registered	Unverified	Anonymous
Survey Tool	North Shore Open House Survey 1	Archived	260	15	1	78

INFORMATION WIDGET SUMMARY



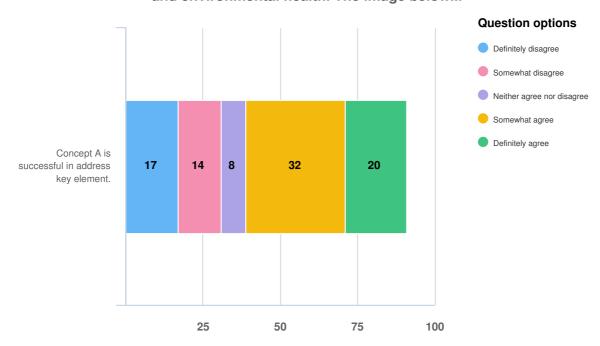
Widget Type	Engagement Tool Name	Visitors	Views/Downloads
Document	Open House Options Presentation	151	178
Document	North Shore Option A .jpg	80	85
Document	North Shore Option B .jpg	55	56
Document	Land Use Summary Memorandum	41	48
Document	Open House Glossary	38	41
Document	Council Workshop North Shore Phase 1 Summary_Sept2020	26	27
Document	CAC Meeting 1 Summary.pdf	11	19
Document	North Shore Phase 1 Frequently Asked Questions.pdf	11	13
Document	North Shore Steering Committee Meeting 2 Summary.pdf	10	11
Document	North Shore Steering Committee Meeting 1 Summary	8	8
Document	North Shore Adopted Vision Statement.pdf	6	6
Document	North Shore Outreach Compilation	4	4
Document	North Shore Phase 1 Vision Outreach Results Summary	4	4
Document	3_16_22_North Shore Open House 1 Archived Text.pdf	0	0

ENGAGEMENT TOOL: SURVEY TOOL

North Shore Open House Survey 1



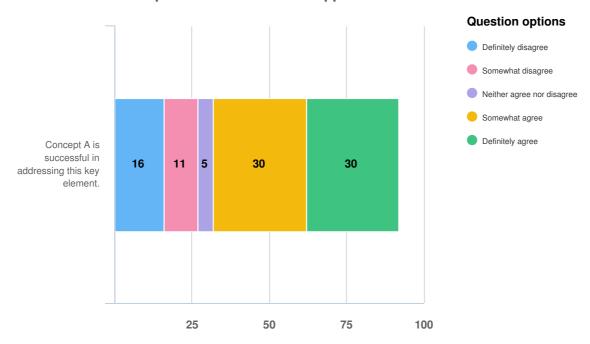
The adopted Vision Statement included the key element to Preserve natural beauty and environmental health. The image below...



Optional question (91 response(s), 6 skipped)

Question type: Likert Question

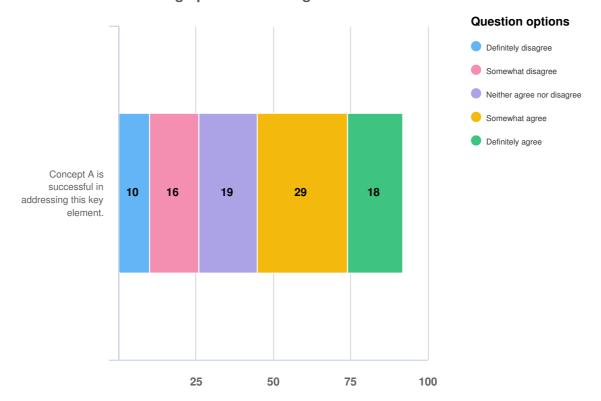
The adopted Vision Statement included the key element to Plan a network of green spaces and recreational opportunities. Th...



Optional question (92 response(s), 5 skipped)

Question type: Likert Question

The adopted Vision Statement included the key element to Provide a variety of housing options. The image below shows how C...

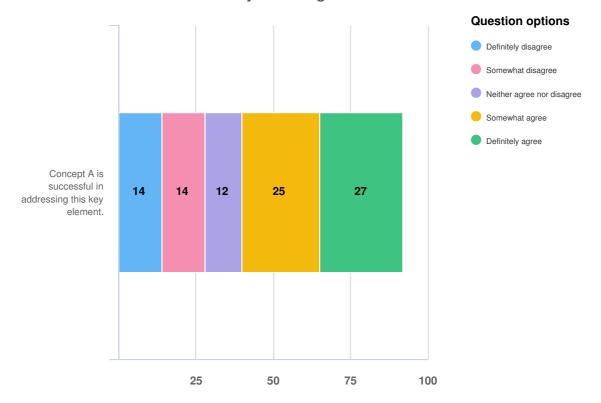


Optional question (92 response(s), 5 skipped)

Question type: Likert Question

697

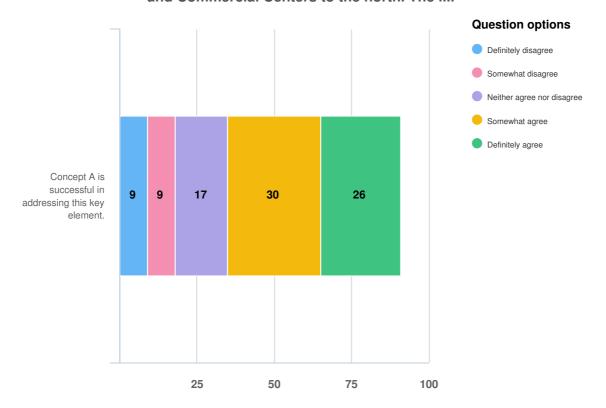
The adopted Vision Statement included the key element to Cluster uses for a walkable community. The image below shows how C...



Optional question (92 response(s), 5 skipped)

Question type: Likert Question

The adopted Vision Statement included the key element to Locate Industrial Parks and Commercial Centers to the north. The i...

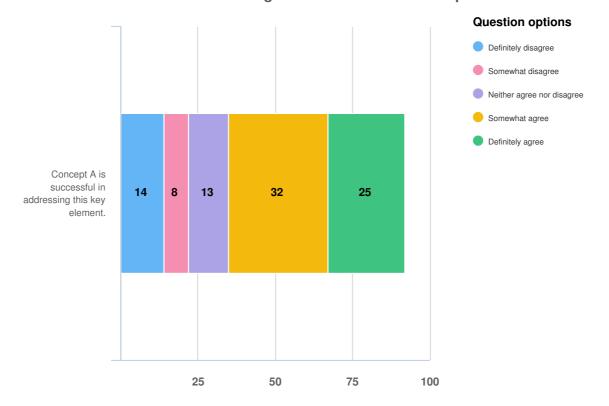


Optional question (91 response(s), 6 skipped)

Question type: Likert Question

Page **8** of **18**

The adopted Vision Statement included the key element to Favor local-serving businesses. The image below shows how Concept...

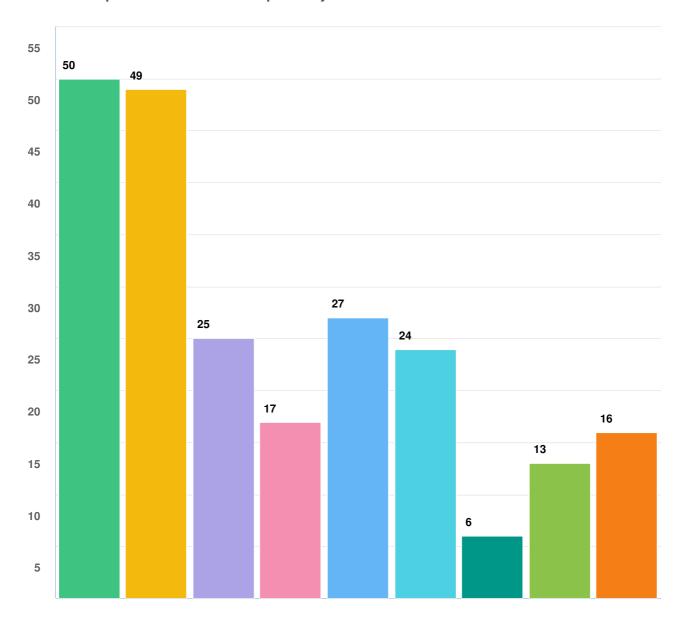


Optional question (92 response(s), 5 skipped)

Question type: Likert Question

Page **9** of **18**

What 3 plan features for Concept A do you think best meet the vision statement?



Question options

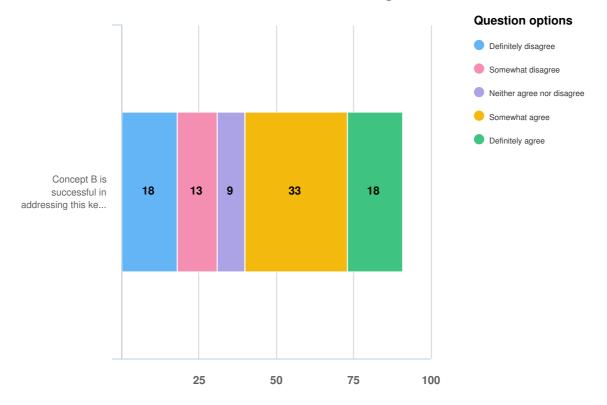
- Other (please specify) A mixed-use area at Bridge Village to create a gateway to the North Shore.
- Commercial development focused around roundabouts along major roadways to create commercial corridors
- Business Park areas located in flatter land to the north to avoid residential areas and airport overlays.
- A central plaza that provides a venue for community events next to the Legacy Lands.
- A mixed-use and commercial core connected with sidewalks and trails to residential neighborhoods.
- A variety of housing options (size and type) located near schools.
- Onnected trails throughout the subarea to promote walkability and recreation.
- Identified sensitive areas preserved as natural areas or open space.

Optional question (93 response(s), 4 skipped)

Question type: Checkbox Question

Page 10 of 18 701

The adopted Vision Statement included the key element to Preserve natural beauty and environmental health. The image below...

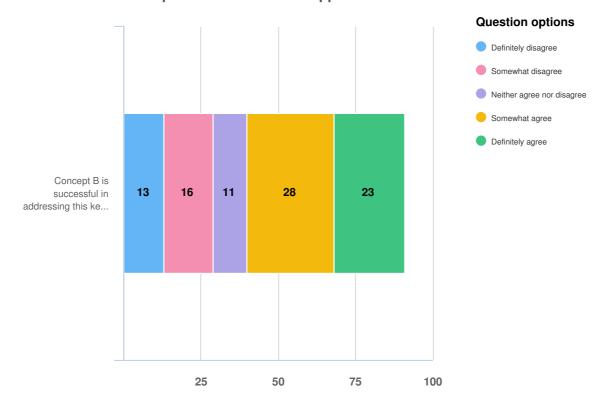


Optional question (91 response(s), 6 skipped)

Question type: Likert Question

Page 11 of 18 702

The adopted Vision Statement included the key element to Plan a network of green spaces and recreation opportunities. The i...

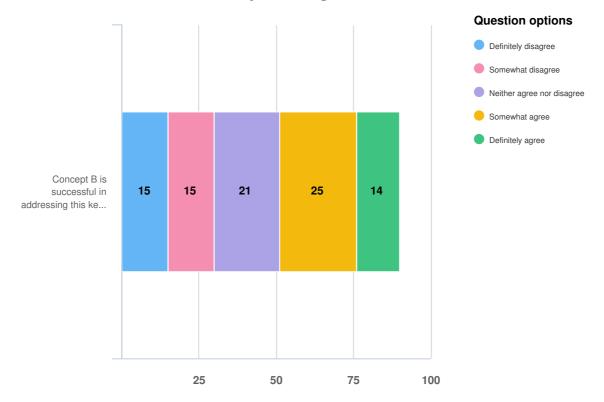


Optional question (91 response(s), 6 skipped)

Question type: Likert Question

Page **12** of **18** 703

The adopted Vision Statement included the key element to Cluster uses for a walkable community. The image below shows how C...

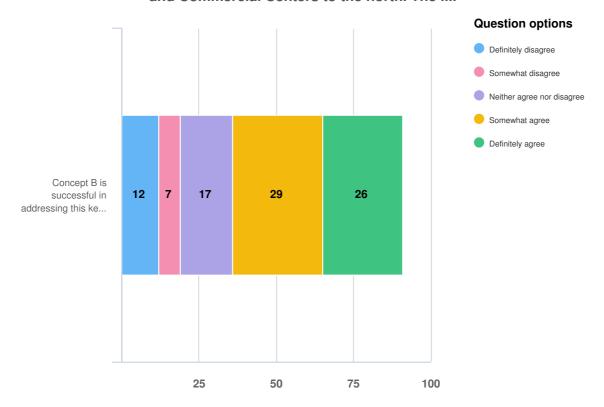


Optional question (90 response(s), 7 skipped)

Question type: Likert Question

Page 13 of 18 704

The adopted Vision Statement included the key element to Locate Industrial Parks and Commercial Centers to the north. The i...

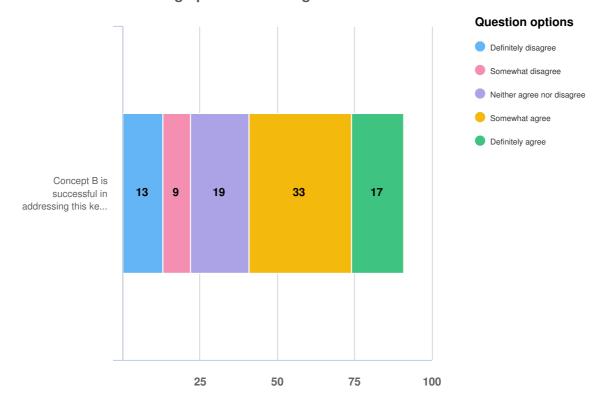


Optional question (91 response(s), 6 skipped)

Question type: Likert Question

Page **14** of **18**

The adopted Vision Statement included the key element to Provide a variety of housing options. The image below shows how Co...

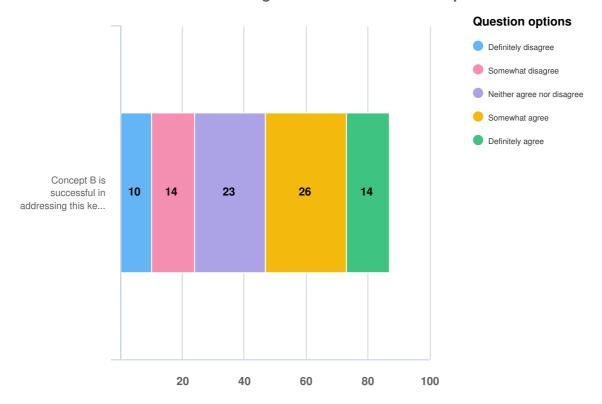


Optional question (91 response(s), 6 skipped)

Question type: Likert Question

Page **15** of **18**

The adopted Vision Statement included the key element to Favor local-serving businesses. The image below shows how Concept ...

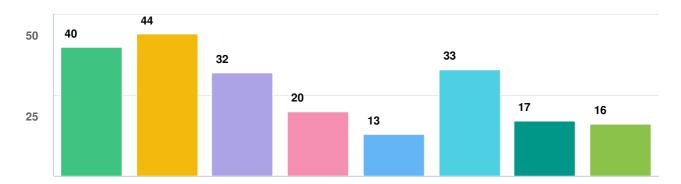


Optional question (87 response(s), 10 skipped)

Question type: Likert Question

Page **16** of **18**

What 3 plan features of Concept B do you think best meet the vision statement?



Question options

- Other (please specify)
 A mixed-use area at Bridge Village to create a gateway to the North Shore
- A mix of housing types located throughout the North Shore.
- A Business Park located near the high school to promote campus connections and job training.
- Business Park areas located in flatter land to the north to avoid residential areas and airport overlays.
- Commercial nodes located along major roadways to promote neighborhood-serving uses (small shops, restaurants, coffee shops, or professional service offices).

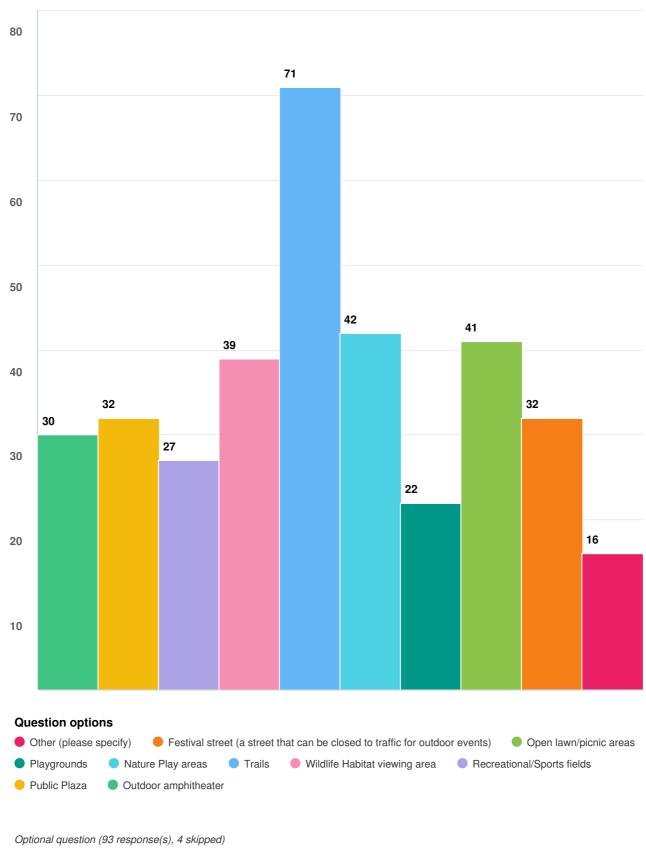


Optional question (88 response(s), 9 skipped)

Question type: Checkbox Question

Page 17 of 18 708

In addition to the City-owned parkland along the lake, the North Shore subarea will include neighborhood parks, open spaces...



Question type: Checkbox Question

Page 18 of 18 709

Open Ended Survey Responses

Question 7 – What three (3) plan features for Concept A do you think best meet the vision statement?

Responses from "Other" category:

- There are no "costs" identified with either Option A or Option B. I don't know whether or not I can support either, because I don't know the cost. Next -- the people said at the Camas High School event they did NOT want any development on the Northshore at this time. Yet the city continues to ignore the will and input of the people, and that disturbs me greatly.
- Leave as is. No further development.
- Preserving the natural beauty would require you to better utilize the space actually in town and leaving the north shore alone. By eliminating the road access along the lake you take away a scenic drive, multiple fishing spots. Put a trail in the woods of the legacy lands. Develop only the giant swath of dairy you already have cleared. Utilize the business park on Parker or old mill property. The people who own property in this area do not want walkable that's why we have lived rurally! You keep allowing crappy builders to do a half asses development not even meeting our infrastructure needs! You take away so many peoples peace and have let greed guide you. Not the GMA. Camas is going the wrong direction.
- You are not listening to the residents of the north shore. Camas is being greedy. Just because camas droppped the ball with the growth management of the 192nd area doesn't mean you should shut down a scenic drive and peaceful access to the lake for fishing and birdwatching.doesn't mean you should put the squeeze on current landowners by surrounding them with your stupid planning. Utilize the giant dairy acreage to do your bullshit community after you've improved the infrastructure and access to that area. As a resident for the last 40 years you have not been listening to your residents. No one wants sprawl or less trees.
- None of the above.

The best way to Preserve natural beauty and environmental health is to not develop the land for more housing, commercial uses, or industrial uses

The best way have a network of green spaces and recreational opportunities is to not develop the land for more housing, commercial uses, or industrial uses

The best way to Favor local-serving businesses is to not develop the land for more housing, commercial uses, or industrial uses. Make this a state park. That will favor local businesses and keep Camas bringing in adventure seekers, which spend money at Camas businesses

The best way to Locate Industrial Parks and Commercial Centers to the north is to locate these MILES to the north and not develop this land for more housing, commercial uses, or industrial uses

The City already ruined half the lake by allowing development on the south shore, and ruined portions of Lacamas lake park by allowing the cookie cutter sub division to the north and east.

Please dont deal a killing blow to the lake

- 10, 000 people in 20 years. Is this a joke This has never been about community engagement. You have put on a good show to convince us otherwise.
- All green spaces by the lake. Any development should not be seen while on the lake.
- By allocation design I prefer Option A. But in both options I have serious concerns because I question buildable lands dedicated to BP/LI are shown located in sensitive areas and airport overlays. I need more clarification on how these notes limit buildable land. Are there additional limiting topographies, overlays or sensitive areas that could impact this plan? Before proceeding please acertain and clarify.
- Nothing. This plan sucks.
- good scaled commercial areas. better for business practice and consumers needs. more over is a good core element for future expansion.
- Leave it alone. Why are we trying to create another "city "out there.? Make sure to have green space for parks and paths and let people develop their own land.
- a walking and bike trail across grove field is a stupid idea.
- Keeping Commercial buffered from residential

Question 14 – What three (3) plan features for Concept B do you think best meet the vision statement?

Responses from "Other" category:

- There are no "costs" identified with either Option A or Option B. I don't know whether or not I can support either, because I don't know the cost. Next -- the people said at the Camas High School event they did NOT want any development on the Northshore at this time. Yet the city continues to ignore the will and input of the people, and that disturbs me greatly.
- Leave as is. No more houses walking paths or round abouts. Stop changing camas culturally or financially. Camas is a working class town.
- Again not listening to the residents of the north shore! Listen to the actual people who live here!
- Neither plan preserves natural beauty. Both contribute to noise and light pollution for current residents. Utilize in town areas and build up so camas can keep its agricultural lands and sensitive areas for habitat! Stop the sprawl no one wants growth in the north shore area.
- None of the above.
 - The best way to Preserve natural beauty and environmental health is to not develop the land for more housing, commercial uses, or industrial uses

The best way have a network of green spaces and recreational opportunities is to not develop the land for more housing, commercial uses, or industrial uses

The best way to Favor local-serving businesses is to not develop the land for more housing, commercial uses, or industrial uses. Make this a state park. That will favor local businesses and keep Camas bringing in adventure seekers, which spend money at Camas businesses

The best way to Locate Industrial Parks and Commercial Centers to the north is to locate these MILES to the north and not develop this land for more housing, commercial uses, or industrial uses

The City already ruined half the lake by allowing development on the south shore, and ruined portions of Lacamas lake park by allowing the cookie cutter sub division to the north and east.

Please dont deal a killing blow to the lake

- Like I said before, is this a joke. This is a terrible nightmare from which I will never wake up.
- Please see comments on Option A. I am lacking confidence in analysis until clarified. If
 adjustments are necessary revisionist a layout may be required so reluctant to state
 preference. Please review and factually reaffirm the areas and amounts of buildable
 lands.
- This plan, and any plan devoting only 25% of the area to natural areas and greenspaces, sucks. Try harder.
- We can't even fill the business park by Camas Meadows. Why do we want more commercial development in a residential area?
- I like the break up of the Commercial into smaller parcels so that the take-away of downtown Original Camas is not as effected. Otherwise you are actually building up a new central core for Camas. Keep them smaller.
- shouldn't multi family housing be located near the Powerlines that cross a lot of this property. Then the families could use the open-spaces under the lines as dog parks or play areas it would be right next door to where they live. I like B because it breaks up the big red zones
- I like B because it breaks up the comerical and industrial areas and distributes into smaller areas to keep the look of a small town and more accessable thru out the whole area. Little spaces where each community area could go to eat or shop.
- the bridge village idea is not great. There is already major congestion there. The 3 evenly spaced small neighborhood commercial zones will provide local services without so much congestion.

Question 15 - In addition to the City-owned parkland along the lake, the North Shore subarea will include neighborhood parks, open spaces, trails and public spaces. What recreational facilities/amenities would you like to see throughout the subarea?

Responses from "Other" category:

- what is the cost of all the above ideas? I can't vote on things that have no cost, when I know that they are never "free".
- family-oriented bike skills park designed to serve locals as well as bring in visitors, with conductivity to other local trails. Ask to have the City of Washougal to donate the bike skills structures left abandoned at the unfinished Bike Park in Washougal at Hamlikk Park
- Don't let low quality tract builders like Lennar, Dr Horton, and Quail Homes monopolize the single family. The majority of the single family should require smaller to medium sized, local and regional builders.
 - Let's build a quality community that is built to last. Drive through some of the tract builder subdivisions after they are 15-20 years old and everything is falling apart on the homes. Putting in some subdivisions with yards would be really great. Some people still value a nice sized yard.

You should also give priority to local contractors and developers. Why don't we let our community members build the city they will be sharing with us. We don't need a bunch of people coming in from out of town only to do shoddy work because they were the low bid.

Camas has the amazing opportunity to try to break the habitual bad decisions that other cities make in the name of growth. This plan is a great start. Let's try to implement in a way that maintains the integrity of the plan.

- No more development. No more roundabouts. This is camas wa. Not France
- Let it be native. Stop the sprawl
- Utilize property closer to major infrastructure. No one wants this but the greedy city of camas.
- I would like to see in your plans a clear connection to the current efforts cleaning the water quality of Lacamas Lake. I do not see how you can build this community and not partner hand-in-hand. Honestly I feel the community of the North Shore needs to hold off into the lake water quality plan is secure and proven that it will succeed
- You are shameless. How dare you present this as a community project.
- Possible supercharger for electric vehicles
- A swimming pool/ and or designated lake swim area; Boat wash area along updated boat launch; additional parking for trails/events; food carts area
- Bike lanes integrated into the sidewalk NOT the roadway to allow for/promote safe family cycling
- I see no other area on this survey to make comments? Why? This is the only survey I have ever taken that leaves no section for additional comments, forcing participants to chose between only two options. I also NEVER received an email about this survey and I submitted my email to North Shore EngageCamas.
- Undeveloped natural areas with only trails through them. We need to preserve what little forest we have left lest we become the new Gresham.
- prefer multi function open spaces spread out in the area, not a large scale facility. low maintenance, easy to reach and use. the society looks more active while residents using it. one suggestion, pls build more covered gazebo due to local weather.
- Wildlife urban interface

• Since living here I have noticed that developers are allowed to scrape the land of all trees and vegetation. Many trees should have been considered "heritage trees" and should not have been removed. Planting wee little twigs after shoveling as many apartments and houses on the land is not the best way to develop. On this property there are likely wildlife corridors that will be eliminated which to me is wrong. To create a neighborhood without considering the existing environment is not taking advantage of it's beauty.



Open House #2 Summary

Date: In-person: August 17, 2022

Online: August 17 through August 24, 2022

Meeting: North Shore Subarea Plan Phase 2, Open House #2

Location: In-person: Lacamas Lake Lodge

Online: North Shore Engage Camas site

Overview and Purpose

The second open house for the second phase of the North Shore Subarea Plan involved both inperson and online events with a goal of obtaining community feedback on the Draft Preferred Concept and Draft Design Guidelines. The in-person event was attended by approximately 50 people. The online open house was live on the project webage on Engage Camas (engagecamas.com/north-shore-subarea-plan) and had 506 total visitors with 115 visitors completing the survey featured for the second open house. The open house was advertised on the City's website, social media channels, and an email to the project listserve through Engage Camas.

As participants arrived at the in-person open house, they were asked to sign in and use a thumbtack to note where they live on a posterboard showing a map of the region and highlighting the North Shore subarea. Multiple informational boards were displayed to give information on the project including: the Draft Preferred Concept, Draft Design Guidelines, illustrative sketches of potential build out, and the prior drafts presented at the first open house. Additionally, a handout was available which identified key messages that the City heard from the community, Steering Committee and Community Advisory Committee, and identified how the City incorporated this feedback into the project. All open house materials are provided as Attachment A.

Draft Preferred Concept

The Draft Preferred Concept was presented at the open house. The draft concept identifies areas for residential, mixed use, commercial, and mixed employment (formerly "business park") uses, as well as areas preserved for parks and open space and identified sensitive areas (such as steep slopes and/or wetlands). The concept also identifies potential arterial/collector roads and trails.

In-Person Comments

Participants at the in-person open house were asked to provide feedback through in-person discussions with project staff members, and the resulting comments were recorded on a flipchart. Additionally, participants were able to provide written comments via a comment card drop box.

North Shore Subarea Plan - Phase 2 Open House #2 Summary Page 2

All comments are included in Attachment B. Common themes from the conversations and comment cards included:

- Expand public infrastructure (i.e., roads, sewer, utilities, and wildlife corridor to access lake) to prepare for increasing population and traffic.
- Increase walkability and bikeability within subarea.
- Increase connectivity between subarea and the rest of Camas.
- Need to address the water quality of Lacamas Lake.
- Prefer Land Use Option A.
- Opposition towards development and concern about the increase in population and traffic.
- Feelings of mistrust and lack of accountability from the City, and concerns about how the subarea plan fits within the larger vision for Camas.
- Smaller mixed-use and commercial areas rather than one commercial area to limit mixed uses and impacts to current downtown businesses.
- Maintain some private ownership for future tax revenue generation.
- Preserve parks/trails/open spaces.

Email Comments

There were an additional nine (9) email responses recieved by the City during the survey comment period. The original emails are included in Attachment B. Common themes included:

- Concern about the impact that the development will have on existing residents, such as increasing population, increased property taxes, additional traffic, loss of "small-town" character, and adequate public utilities.
- Desire to preserve existing parks, open space, existing trees and forest areas.
- Confusion regarding the illustrations and renderings presented.
- Concern about the difficulty of developing sensitive areas (e.g., developing higher density housing on steep slopes).
- Support for increased connectivity between the subarea and the rest of Camas, including bike lanes.
- Concern about the environmental impacts of future development, especially potential impacts from stormwater runoff to Lacamas Lake and Round Lake.

North Shore Subarea Plan - Phase 2 Open House #2 Summary Page 3

Survey Results

As previously noted, 115 responses to the survey were received. In order to make the survey available to households with a single-computer (or other device) and to accommodate people using public computers, such as those at the Camas library, the survey was not restricted by IP address and respondents were not required to register.

The survey was made available online through Engage Camas. The survey included a series of seven questions on the draft preferred concept and design guidelines to obtain feedback on how well the concept meets the community's vision for the North Shore, as well as to collect feedback on design guidelines for the look and feel of future development. The majority of questions asked respondents to select to what degree they agreed with a statement. They had the options of "definitely agree," "somewhat agree," "neither agree nor disagree," "somewhat disagree," and "strongly disagree." The final survey question gave respondents the opportunity to provide an open-ended response to share any additional comments.

The first question asked respondents to rate how well they felt the draft preferred concept met the intent of different elements of the adopted vision statement. For "Preserves natural beauty and environmental health" and "Plans a network of green spaces and recreational opportunities," "definitely disagree" (61 respondents and 37 respondents, respectively) was the most common response, followed by "definitely agree" (27 respondents and 31 respondents, respectively) as the second most common response.

The responses varied somewhat evenly for "Clusters uses for a walkable community". A smaller percentage of respondents (13%, 15 respondents) "definitely agreed" that the concept "Provides a variety of housing options", although 50% (58 respondents) selected "somewhat agree" or "neither agree nor disagree". The majority of participants answered that they "definitely agree" or "somewhat agree" that the concept "Locates Industrial Parks and Commercial Centers to the north".

The second question provided examples of vertical and horizontal mixed use development and asked participants for their preference. The most common response was that participants "would like to see a mix of both horizontal and vertical mixed uses," followed by a preference for "vertical mixed use." The third question provided four examples of different multifamily residential building styles. The results show that a "Pacific Northwest" style was the highest preference among respondents, followed by a "cottage" style and "modern" style.

The next three questions provided images of cross sections for three key roads in the subarea: North Shore Boulevard, a Collector Road, and the road that would run along the ridgeline adjacent to the Legacy Lands. For all questions about the road designs, the majority of survey participants "definitely agree" or "somewhat agree" that the road design reflects what they envision for that road.

A summary of survey results is presented below. A report from Engage Camas that provides additional details is included as Attachment C.

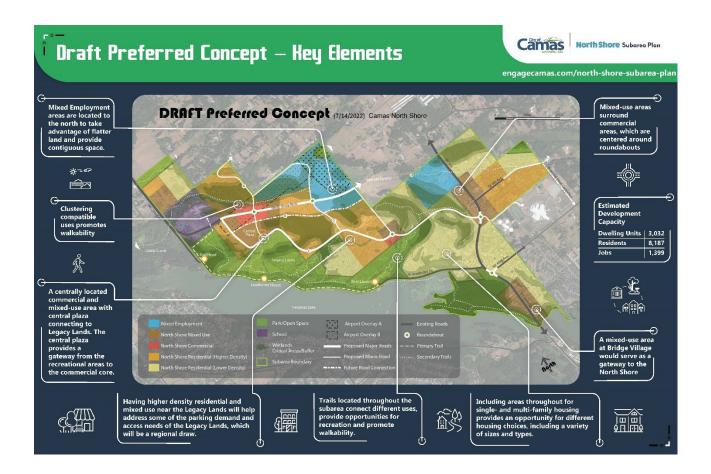
North Shore Subarea Plan - Phase 2 Open House #2 Summary Page 4

Question 1

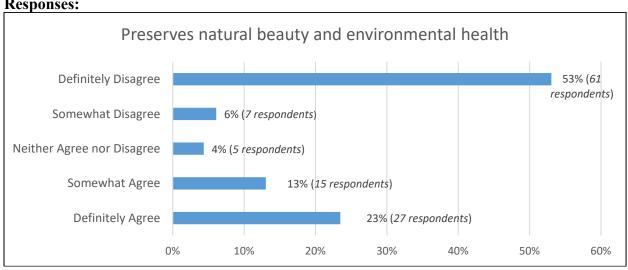
The image below (and linked <u>here</u>) shows the Draft Preferred Concept and identifies some of its key elements.

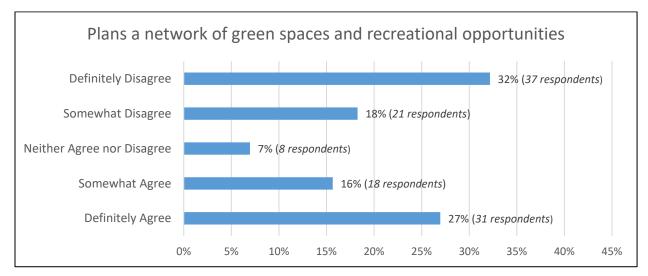
Looking at the map and the callouts, rate how well you think the concept meets the following elements of the Vision Statement. (Note: elements that are not related to the layout of land uses are not listed).

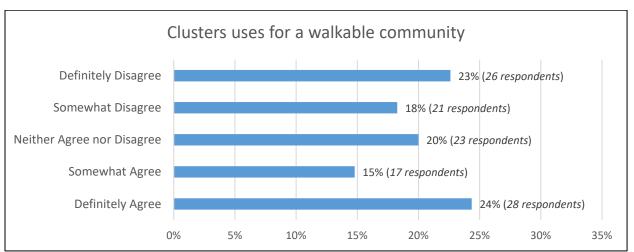
- Preserves natural beauty and environmental health
- Plans a network of green spaces and recreational opportunities
- Clusters uses for a walkable community
- Provides a variety of housing options
- Locates Industrial Parks and Commercial Centers to the north

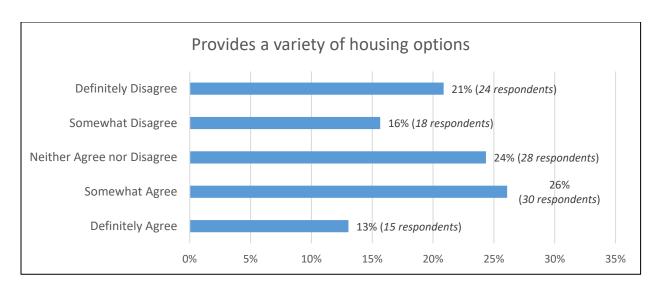


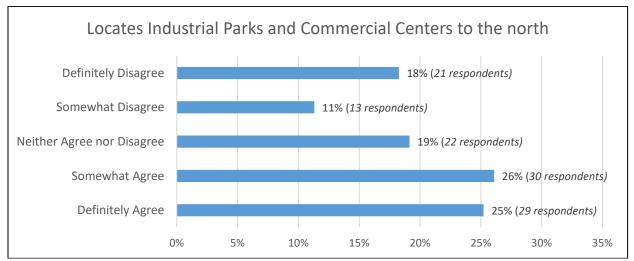
Responses:











Question 2

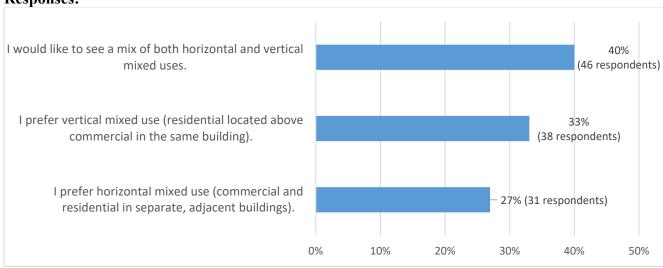
The image below (and linked <u>here</u>) shows two different types of "Mixed Use" development (where residential uses are mixed with commercial uses).

In the areas designated as Mixed Use:

- o I would like to see a mix of both horizontal and vertical mixed uses.
- o I prefer vertical mixed use (residential located above commercial in the same building).
- o I prefer horizontal mixed use (commercial and residential in separate, adjacent buildings).



Responses:



Question 3

The image below (and linked <u>here</u>) shows different building styles for higher density (multifamily) residential development.

Please rank which styles you think would best meet the community's vision for the North Shore. 1 = highest preference, 4 = lowest preference

- o Style A. Cottage
- o Style B. Pacific Northwest
- o Style C. Classic
- o Style D. Modern



Responses:

Note: A lower numerical value indicates that more respondents ranked that style higher in preference.

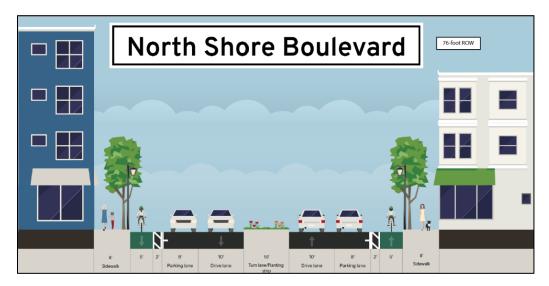
Style	Value	Rank
Style B. Pacific Northwest	1.57	1st
Style A. Cottage	2.72	2nd
Style D. Modern	2.83	3rd
Style C. Classic	2.88	4th

Question 4

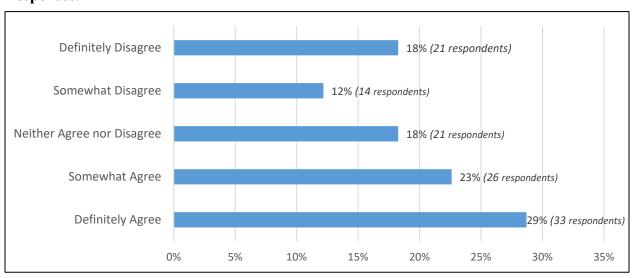
The North Shore Boulevard will serve as the primary east-to-west road serving the mixed use and commercial hub in the north, as well as the central plaza. The cross section below (and linked here) was informed by community feedback calling for a road that balances the need for vehicle access with a street that is walkable, bike friendly, and includes traffic calming design standards.

"This road design reflects what I envision for the North Shore Boulevard."

- Definitely disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- o Definitely agree



Responses:



Question 5

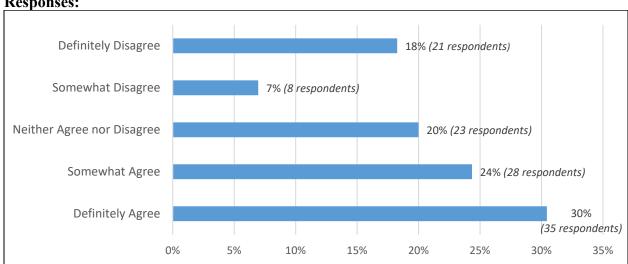
Collector roads would be smaller than North Shore Boulevard and would serve as secondary roads throughout the area. The cross section below (and linked here) includes sidewalks and bike lanes to reflect community feedback for walkable and bike-friendly roads.

"This road design reflects what I envision for collector roads in the North Shore."

- o Definitely disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Definitely agree



Responses:

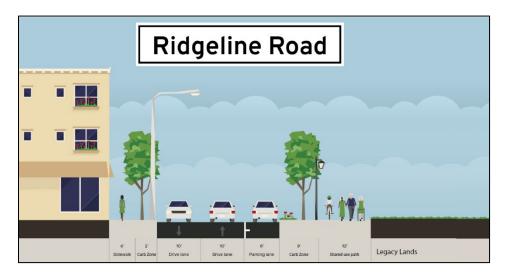


Question 6

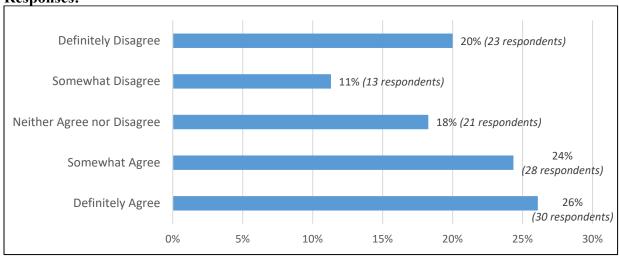
The Ridgeline Road would be adjacent to the Legacy Lands and run through the central higher density residential area. The cross section below (and linked here) includes on-street parking to facilitate access to nearby businesses, recreational areas, and residences, as well as a wide shared use path (for pedestrians, bicycles, etc.) adjacent to the Legacy Lands.

"This design reflects what I envision for the road adjacent to the Legacy Lands."

- o Definitely disagree
- o Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- o Definitely agree







Question 7

Do you have any additional comments?

Responses: Full responses are included in the survey summary (see Attachment C). Common themes included:

- Strong desire to preserve existing forests, parks, and open spaces in the area
- General sentiment in support of the preferred concept plan
- Opposition to any additional development
- Concern that the infrastructure will not support the future development, specifically the road network and transportation access
- Opposition to mixed uses and high density residential

Next Steps

The City will use the survey input and other public comments to revise the Draft Preferred Concept and Draft Design Guidelines. The City will then prepare a Subarea Plan Report documenting the subarea planning process and final recommendations.

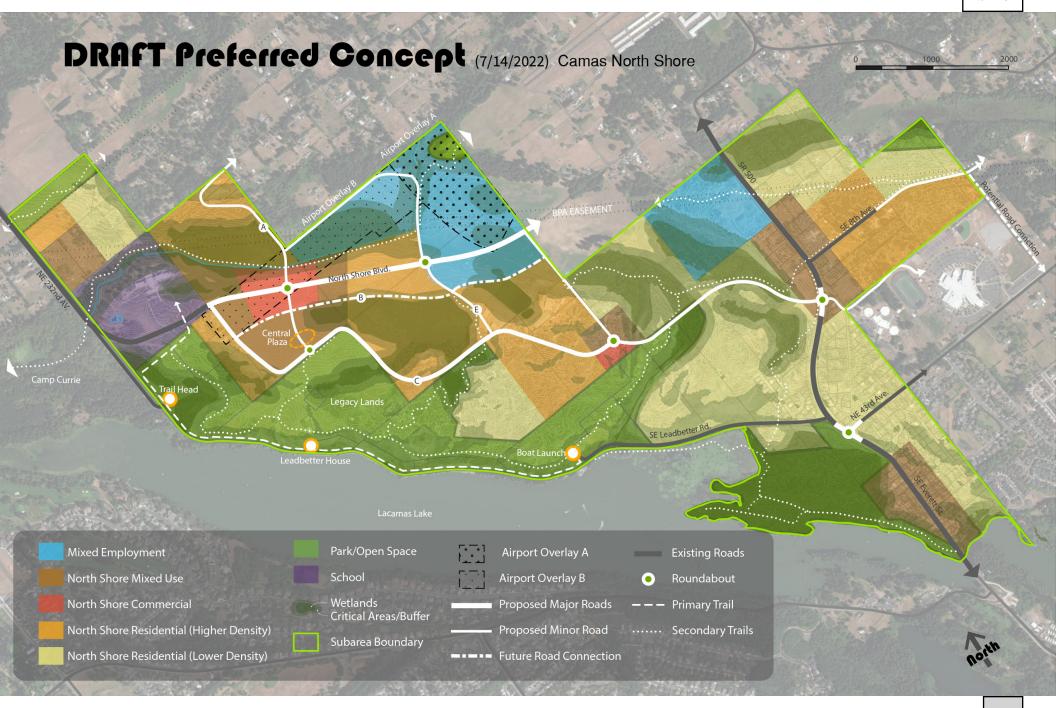
Attachments

A. Open House Materials

- A-1. Boards/Posters
- A-2. Draft Street Cross Sections
- A-3. Draft Design Guidelines
- A-4. Handouts
- **B.** Comments Received (Emails and Comment Cards)
- C. Engage Camas Open House Report

ATTACHMENT A – OPEN HOUSE MATERIALS

A-1. Boards/Posters



Carnas

North Shore Subarea Plan

Draft Preferred Concept — Key Elements

engagecamas.com/north-shore-subarea-plan

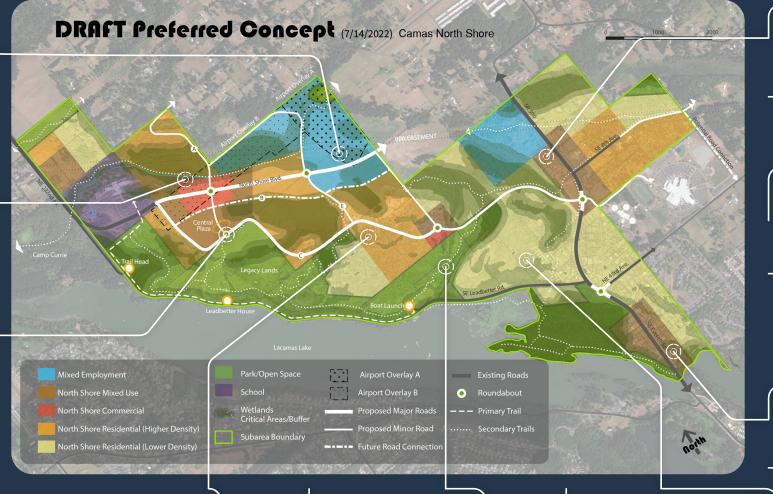
Mixed Employment areas are located to the north to take advantage of flatter land and provide contiguous space.



Clustering compatible uses promotes walkability



A centrally located commercial and mixed-use area with central plaza connecting to Legacy Lands. The central plaza provides a gateway from the recreational areas to the commercial core.



Mixed-use areas surround commercial areas, which are centered around roundabouts



Estimated Development Capacity

Dwelling Units	3,032
Residents	8,187
Jobs	1,399



A mixed-use area at Bridge Village would serve as a gateway to the North Shore



Having higher density residential and mixed use near the Legacy Lands will help address some of the parking demand and access needs of the Legacy Lands, which will be a regional draw.

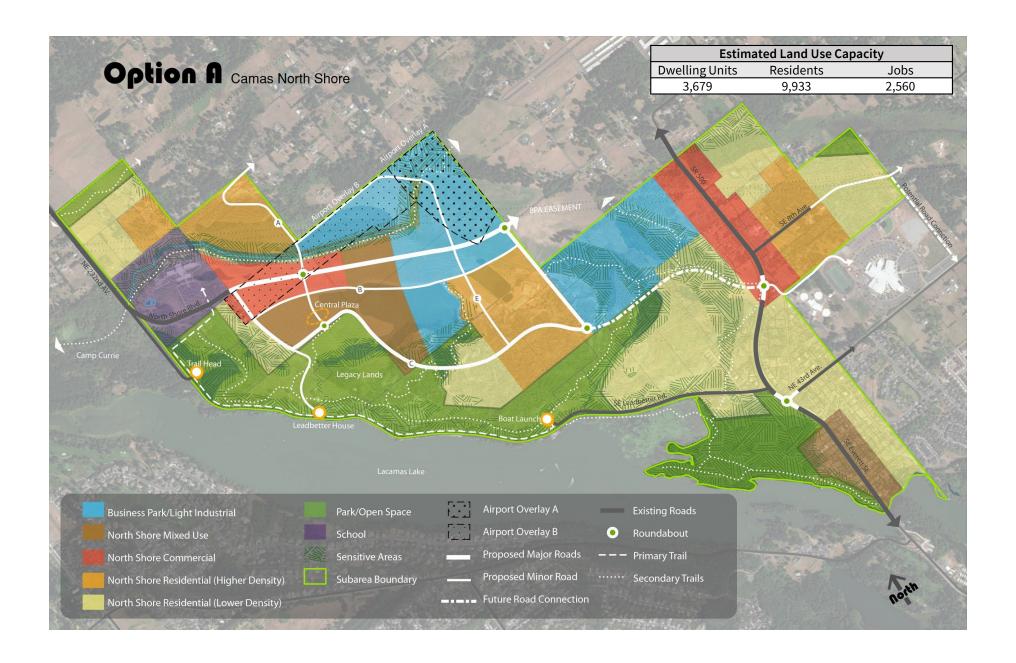


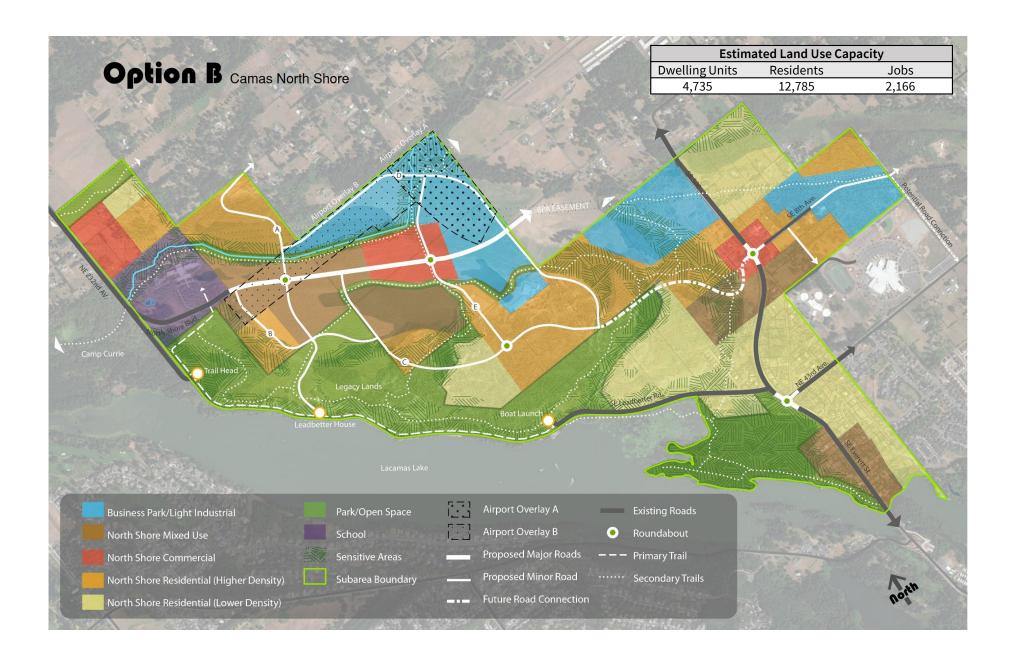
Trails located throughout the subarea connect different uses, provide opportunities for recreation and promote walkability.



Including areas throughout for single- and multi-family housing provides an opportunity for different housing choices, including a variety of sizes and types.







Camas North Shore Subarea Plan Vision



- **Preserve the North Shore's natural beauty and environmental health.** Policies, regulations and design rules must protect significant trees, tree groves, and surrounding lakes. Identify and preserve views to the treed hillside and the lake.
- Plan a network of green spaces and recreational opportunities. Integrate a variety of parks, playgrounds, trails and open spaces into residential and employment areas throughout the North Shore area. Create a "green corridor" along the lake that completes the Heritage Trail, provides lake access and buffers the lake from adjacent development.
- Cluster uses for a walkable community. Concentrate homes close to schools and around commercial nodes so residents can meet daily needs without driving. Use sidewalks, pedestrian trails and bike paths to connect residents to neighborhood destinations.
- **Provide a variety of housing options.** Plan for diverse housing types appropriate for varying incomes, sizes and life stages.
- Locate Industrial Parks and Commercial Centers to the north. Protect the environmental integrity of the lake and aesthetic quality of the area by siting light industrial and office uses away from the lake and adjacent to the airport. Encourage commercial activities along high traffic corridors, such as NE Everett St.
- **Favor local-serving businesses.** Encourage small, local businesses such as restaurants, cafes and grocers that serve North Shore residents and businesses, while complimenting downtown Camas.
- Plan for needed schools and infrastructure. Ensure adequate roads, schools and utilities are in place before development occurs. Invest in transportation improvements such as a new roadway through the North Shore and NE Everett improvements to minimize traffic impacts and maximize safety.
- Strive to maintain Camas' small town feel. Sustain the city's quality of life through phased and sustainable growth that contributes to community character.

Contact us: Robert Maul, Interim Community Development Director | rmaul@cityofcamas.us

North Shore Planning Process





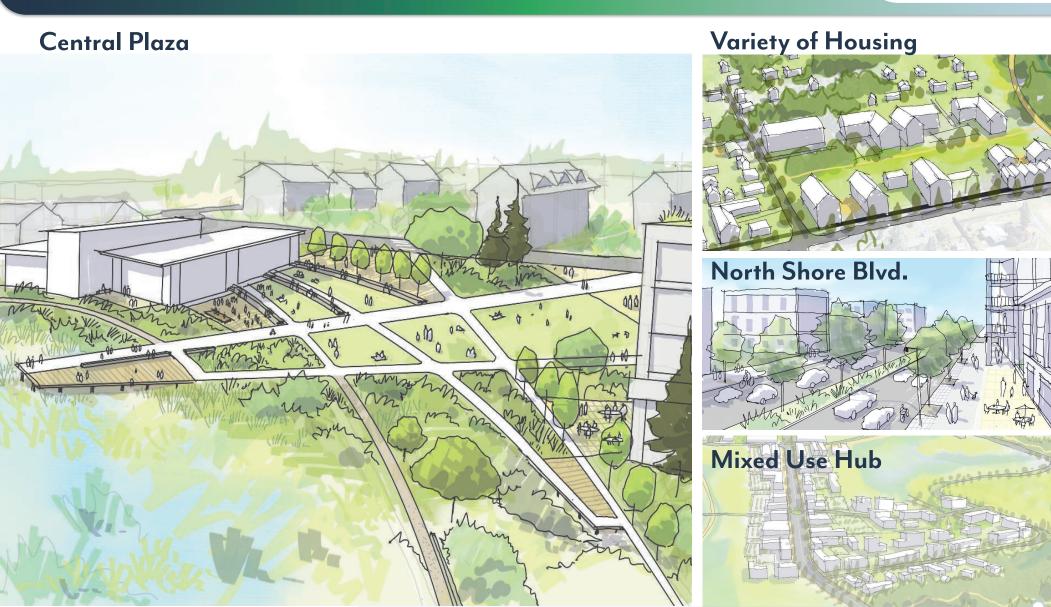
What might the North Shore look like?





What might the North Shore look like?





i Protecting Environmentally Sensitive Areas

engagecamas.com/north-shore-subarea-plan

There are many environmentally sensitive areas where development will be limited and, in some cases, prohibited. All new development will be required to meet state and local requirements, including the North Shore design guidelines and standards.

Critical Areas

Approximately 50% (or 477 acres) of land within the North Shore contains critical areas. These are ecologically sensitive or hazardous areas that the state and City have identified for certain development restrictions. The City's Critical Areas Ordinance includes specific regulations, requirements and protections for each of the five types of critical areas.

⊗ Wetlands

Wetlands are regulated under local, state, and sometimes federal jurisdiction. By law, development must avoid and minimize impacts to the greatest extent possible. For projects that are unable to completely avoid impacts, mitigation must be provided.

Habitat conservation areas

These areas serve a critical role in sustaining habitats and species for the integrity of our ecosystem. Habitat conservation areas in the North Shore support a variety of animal and plant species. Per the CAO, development must avoid and minimize impacts to the greatest extent possible. For projects that are unable to avoid impacts or result in a net loss of function or value to habitat, completely avoid impacts to habitat, mitigation must be provided.



Aquifers

Aquifers are underground areas of groundwater that provide water for drinking and other uses. Camas protects aquifers by regulating development in critical aquifer recharge areas, which are buffer areas around aquifers where surface waters may eventually reach the groundwater.

Frequently flooded areas

These areas are designated by FEMA as having a high risk of flooding. Residential development is prohibited, and any permitted development must be floodproofed and demonstrate that it will not result in an increase in flood hazards.

Legacy Lands

The City acquired 200 acres along Lacamas Lake for future parks and open space. Any development on these lands will be for recreational purposes (e.g., a soccer field, maintenance facilities).

Shorelines

Camas manages and protects our shorelines and waterbodies through our Shoreline Master Program, which regulates development in shoreline areas. This includes limitations on development within 200 feet of the shoreline and requirements for no net loss of ecological functions.

Geologically hazardous areas

These areas are susceptible to erosion hazards, landslide hazards, seismic hazards or other geologic events. Camas regulates development in these areas to protect the health and safety of citizens.

North Shore Draft Design Guidelines



A design guideline is a discretionary tool used to guide decision-making about the look and feel of development. Numbers below identify the vision statement element(s) that a guideline supports. The complete list of draft guidelines is available on the project website.

O DEVELOPMENT: Commercial, Residential, and Mixed-Use Buildings

- > Use a stepped-transition in building height and mass to move from higher-density to lower-density and more intense mix-of-uses to single uses. (8)
- > Orient the form and layout of buildings to retain or integrate with the existing topography, natural habitat, and respond to climatic or solar conditions. (1)
- > Integrate sustainable design principles such as passive building design, green roofs, permeable surfaces, stormwater management, and microhabitat creation. (1)

STREETS: Transportation, Mobility, and Streets

- > Design streetscapes that are pedestrian-scaled, provide an intimate retailing and commercial environment and contribute to the small-town feel. (3, 8)
- > Provide a multimodal trail network along public rights-of-way to provide daily commute and recreation options and connect to the larger regional trail system. (2, 7)
- > Balance the rural character of roadways with the addition of traffic calming features and upgraded pedestrian and bicycle facilities to support multimodal travel. (3, 8)

OPUBLIC SPACES: Streetscapes, Trails, Plazas, Parks, and Landscaping

- > Provide landscaping on streetscapes to mimic rural character and use drought tolerant, native species that utilize stormwater runoff and increase infiltration. (1, 8)
- > Provide a consistent theme and identity for streetscapes that reflect a small-town feel through signage, lighting, and pedestrian amenities (e.g., benches). (8)

The cross sections below illustrate the proposed design for three key roads in the North Shore:

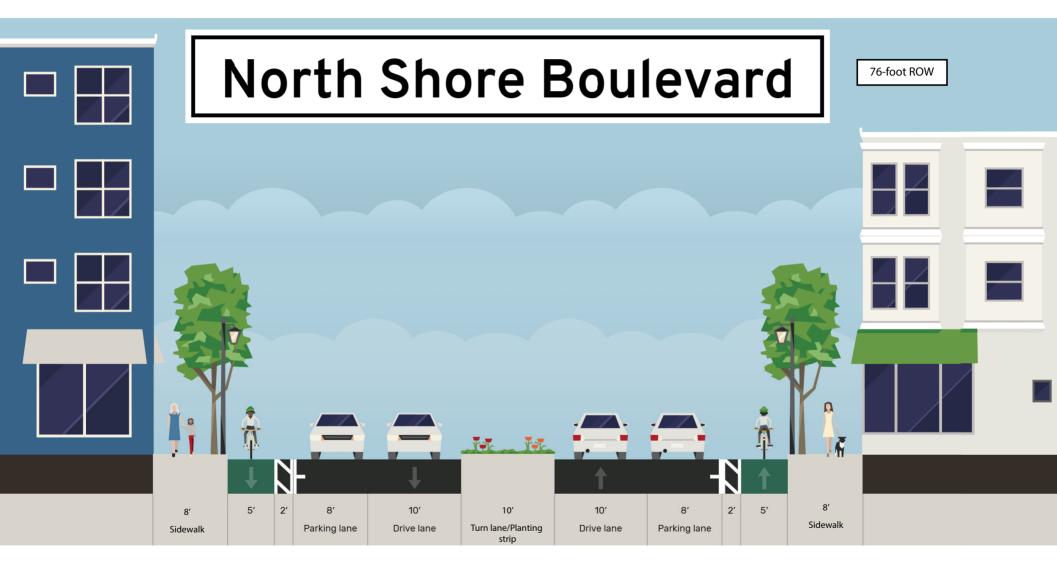






ATTACHMENT A - OPEN HOUSE MATERIALS

A-2. Draft Street Cross Sections





Ridgeline Road 10' 10' 8' 12' **Legacy Lands** Sidewalk Curb Zone Drive lane Drive lane Parking lane Curb Zone Shared use path

ATTACHMENT A - OPEN HOUSE MATERIALS

A-3. Draft Design Guidelines

DRAFT

North Shore Subarea Plan Design Guidelines and Standards

As part of the subarea planning process, the City is developing and preparing to adopt new design guidelines and standards specific to the North Shore, which will guide the look and feel of future development. The draft guidelines and standards below were created to fulfill the vision statement and reflect feedback provided by the Steering Committee, Community Advisory Committee, and the community during the engagement process.

What are design guidelines and standards?

Design Guidelines:

A design guideline is a discretionary tool that the City will use to guide decision making about the look and feel of development so that it is consistent with the vision statement adopted as part of the subarea plan. The following are all examples of design guidelines:

- Streetscapes should be designed for the pedestrian-scale and have a small-town feel.
- Landscaping should use native plants and reflect the ecology of Pacific Northwest.

Design Standards:

A design standard is a specific and measurable requirement for development that is codified into law and required as part of the subarea plan. The following are all examples of design standards:

- Building setbacks. The building facade must be located at least 10' from the property line.
- Street cross sections. The sidewalks must be a minimum of 6' wide.
- Frontage design. The depth of a porch must be a least 6' clear.
- Landscaping requirements. There must be at least 3 new trees in the front setback.

Vision Statement

The <u>North Shore Vision Statement</u> was adopted by the Camas City Council in September 2020. The Vision Statement includes the following key objectives:

- 1. Preserve natural beauty and environmental health.
- 2. Plan a network of green spaces and recreational opportunities.
- 3. Cluster uses for a walkable community.
- 4. Provide a variety of housing options.

- 5. Locate Industrial Parks and Commercial Centers to the north.
- **6.** Favor local-serving businesses.
- 7. Plan for needed schools and infrastructure.
- 8. Strive to maintain Camas' small-town feel.

The numbers (#) next to each design guideline and standard below correspond to the vision statement objective that the guideline or standard supports.

North Shore Design Guidelines

– DEVELOPMENT:

Commercial, Residential, and Mixed-Use Buildings

- > Co-locate mixed-use and commercial uses near existing roads and new major roads and roundabouts where possible to create walkable centers. (3, 4)
- > Focus the highest density residential uses in areas adjacent to major roads and/or mixed-use areas. (3, 4, 8)
- > Locate higher-density residential uses (e.g., multifamily apartments) along arterials and adjacent to existing commercial areas. (3, 4)
- > Use a stepped-transition in building height and mass to move from higher-density to lower-density and more intense mix-of-uses to single uses. (8)
- > Locate lower density residential uses (e.g., townhouses) adjacent to single-family residential. (3, 4)
- > Vary lot sizes for residential uses to avoid a "cookie cutter" and predictable suburban development patterns and better reflect the natural geography. (1, 8)
- > Minimize the visibility of off-street surface parking, instead integrating structured and tuck-under parking in buildings or locating surface parking behind buildings. (3, 6)
- > Orient the form and layout of buildings to retain or integrate with the existing topography, natural habitat, and respond to climatic or solar conditions. (1)
- > Create smaller hardscaped and plaza areas within mixed-use/commercial areas to create spaces for gathering, waiting, discussion, and outdoor commercial activities. (3, 8)
- > Organize residential units around common green space(s) that incorporate stormwater drainage, seating areas, play spaces, and internal pathways. (1, 2)
- > Public-facing facades and building entries regardless of land use should provide weather protection from wind, rain, and sun and the occasional snow.
- > Include multiple entries and windows on ground floor commercial uses facilitate business access, create visual interest, and promote safety. (3, 6)
- > Preserve or feature historic architectural details or fenestration (e.g., windows or porch details) where they currently exist or are available for preservation. (8)
- > Integrate sustainable design principles such as passive building design, green roofs, permeable surfaces, stormwater management, and microhabitat creation. (1)
- Use dark-sky friendly lighting for outdoor areas such as full cutoff fixtures or limiting light trespass from buildings into the street. (1)

– STREETS:

Transportation, Mobility, and Streets

- > Provide a multimodal trail network along public rights-of-way to provide daily commute and recreation options and connect to the larger regional trail system. (2, 7)
- > Balance the rural character of roadways with the addition of traffic calming features and upgraded pedestrian and bicycle facilities to support multimodal travel. (3, 8)
- > Design streetscapes that are pedestrian-scaled, provide an intimate retailing and commercial environment and contribute to the small-town feel. (3, 8)
- > Incorporate secure bicycle parking and storage to promote non-motorized travel and encourage mode-shift. (7)

PUBLIC SPACES:

Streetscapes, Trails, Plazas, Parks, and Landscaping

- Encourage the preservation of native soils, existing tree canopy, and topography to the greatest extent possible. (1)
- > Design trails and parks to accommodate the needs of all age groups and abilities. (2)
- > Design landscaped areas in streetscapes, parks, and plazas to reflect the natural character and ecology of the Pacific Northwest and use drought tolerant native species that increase biodiversity. (1, 8)
- > Provide landscaping on streetscapes to mimic rural character and use drought tolerant, native species that utilize stormwater runoff and increase infiltration. (1, 8)
- > Provide a consistent theme and identity for streetscapes that reflect a small-town feel through signage, lighting, and pedestrian amenities (e.g., benches). (8)
- > Locate trails and natural spaces throughout the area as well as on the edge of the subarea to create buffers and provide recreation opportunities. (2, 8)
- > Connect new trails to existing or planned regional or local trails where possible. (2)
- > Use residential building setbacks for landscaping to mimic nearby, rural residential patterns and provide privacy and safety for ground floor residential units. (1, 8)
- > Incorporate seating in public spaces (within mixed-use, commercial, and open spaces) to create passive recreation opportunities to pause or spend time. (2)
- > Provide wayfinding and interpretive signage that directs people to historic, cultural, and natural resources throughout the area. (1)

ATTACHMENT A - OPEN HOUSE MATERIALS

A-4. Handouts

Draft Preferred Concept – Estimated Land Use Capacity		
Dwelling Units: 3,032	Residents: 8,187	Jobs: 1,399

The estimated land use capacity of the Draft Preferred Concept is based on a set of assumptions on how different land uses would develop. The assumptions have been refined over the course of the project and were informed by the Clark County Buildable Lands Model and Camas Housing Action Plan, as well as feedback from the Steering Committee and City based on their recent experiences with development in the region.

Prior Assumption	Current Assumption	Basis
30% of gross acres would not develop due to the presence of critical areas or would develop as roads and/or utilities	No development would occur on wetlands (but would occur within their buffers)	Wetlands are regulated and protected at the local, state, and sometimes federal level to a greater extent than other types of critical areas. Protections include outright prohibition of development on certain high functioning wetlands, and increased costs for developers for development that affects any type of wetland.
	Development would occur on 25% of wetland buffers and other types of critical areas and their buffers	This assumption is consistent with recent applications for development in the city, as well as recent projects by members of the Steering Committee.
	30% of the remaining gross acres would be used for infrastructure (roads and utilities)	This is a common assumption used in planning and is consistent with City and Steering Committee expectations.
2.7 residents per dwelling unit		No revision. This estimate is consistent with the Camas Housing Action Plan.
20 jobs per acre on lands designated as Commercial or Mixed-Use and 9 jobs per acre on lands zoned for Business Park	20 jobs per acre on lands designated for commercial uses, including Commercial, Mixed Use, and Mixed Employment	Based on conversations with the Steering Committee (including the Port of Camas-Washougal and CREDC) as well a market assessment prepared for the North Shore, the "Business Park" designation is now "Mixed Employment." It is anticipated that development in this designation would be more consistent with commercial/office business parks than light industrial uses. The revised jobs estimate is consistent with Clark County's Final 2022 Buildable Lands Report.
70% of developable Mixed Use residential development. The accommodate commercial use schools), open space/parks, et	remaining 30% would s, public facilities (e.g.,	No revision. This estimate reflects input from the Steering Committee.



Please take the survey! engagecamas.com/north-shore-subarea-plan

To conserve paper, please return this handout to the welcome station before leaving the open house. A copy is available on EngageCamas.

The table below summarizes some of the key messages that we heard from the community, Steering Committee and Community Advisory Committee and identifies how the City has incorporated this feedback into the project.

What we heard	What we did
Create walkable neighborhoods	Compatible land uses are located next to each other on the concept plan in order to encourage walking (e.g., mixed use and commercial). The draft street cross sections include pedestrian facilities on all roads. The City also conducted a walkshed analysis to estimate how long it would take for a pedestrian to reach a park/open space. While a half-mile (10-minute walk) is a common standard used in walkshed analyses, the City used a quarter mile (5-minute walk) to increase walkability in the North Shore. Based on this analysis, a potential park was added so that all of the subarea is within a quarter mile of a park/open space.
Create a central plaza for community events	The central plaza from Option A was carried forward to the concept plan. The plaza would be adjacent to the Legacy Lands and mixed use/commercial hub, which will create an active public space.
Identify and preserve sensitive areas	Working with the Steering Committee, the City evaluated spatial data for critical areas (e.g., wetlands) and made refinements to the concept plan and development assumptions to better reflect on-the-ground conditions. The potential road alignment through the Legacy Lands from Options A and B was not carried forward in order to preserve this area for recreation. Many of the draft design guidelines include measures to protect natural resources, including landscaping with native plants and incorporating sustainable design principles (e.g., green roofs, habitat creation). Other protections are identified on the "Protecting environmentally sensitive areas" board.
Connect commercial centers and natural areas by series of trails	A series of potential primary and secondary trails are identified on the concept plan which connect commercial areas to the Legacy Lands as well as residential areas. The City conducted a walkshed analysis to confirm all of the subarea is within a quarter mile (5-minute walk) of a park/open space.

What we heard	What we did
Allow for a mix of housing types	The draft concept incorporates mixed-use and higher and lower density residential designations. The higher density residential zone was revised to allow a wider range of housing densities to increase flexibility. The design guidelines and standards will further shape the housing typologies and encourage a variety of sizes and styles.
Consider the traffic impacts of increased density	The City prepared a trip generation and roadway connectivity assessment based on the draft preferred concept plan. The assessment concluded that the proposed roadway connections are expected to provide adequate roadway capacity to support the land use designations.
Build flexibility into the requirements for Mixed-Use zones to encourage creativity and to not be overly prescriptive	The design guidelines were drafted to reflect this feedback. The intent is for the standards and code to be prescriptive enough to ensure development meets the intent of the vision statement, but also to have some flexibility in how developers can meet that intent.
Ensure that Business Park areas are right-sized for the types of businesses Camas might attract	The City conducted a spatial analysis to confirm that the proposed Mixed Employment areas (formerly called Business Park) will provide 10-15 contiguous acres of unconstrained land.
Increase jobs and housing in Camas while also recognizing that the North Shore cannot address all housing and jobs needs for the city	The estimates for jobs and dwelling units have been refined throughout the planning process to reflect feedback from the community and committees. This includes refinements to the mix of land uses as well as changes to the proposed densities. The estimated capacities for Option A, Option B, and the Draft Preferred Concept can be found on their respective posters. These capacities reflect full build out of the North Shore, which would occur gradually over time.
Consider critical areas and other factors, like market conditions, when estimating development capacity	The assumptions for estimating dwelling units and jobs have been refined over time. The current assumptions reflect the development potential of different critical areas and market conditions. A memorandum detailing the assumptions and estimated capacity is available on the project website.
Create design guidelines that encourage sustainability and consider stormwater management, landscaping, and dark skies	When drafting the design guidelines, the City reviewed and incorporated community feedback from Phase 1 and the first open house in February/March, as well as recommendations from the Community Advisory Committee and Steering Committee. The guidelines incorporate these items and many other sustainability best practices.

ATTACHMENT B - COMMENTS

Comments from the In-Person Open House

For a summary of key themes and messages from these comments, please see the Open House #2 Summary.

Comment Cards

- I have concerns about 14th Street being an access road into North Shore development. 14th street is vary narrow, and the intersection of 14th + 249th is extremely dangerous. Camas School District no longer sends full size busses down 14th street. We have seen many problems with garbage trucks and emergency vehicles at that corner as well. Major improvements would need to be made to 14th street if you divide to use it as an access road to North Shore Development.
- If NE 3rd street (just west of the new 3-way round-a-bout down from the FP Cemetery) needs to be widened some day, please (City of County) widen only to the north. Widening to south would take out many feet of nice fencing and security gates and truck parking at 3 residences on that side. north side of NE 3rd street has no fancy fences or gates to wipe out. Thanks.
- Keep your focus on this subarea plan; do not get sidetracked with TDR's, "bigger picture look", parallel studies, etc. Emphasize that appropriate development at this area can be done in a balanced way while generating tax revenue to fund city and school district operations and capital construction. Look at incentives to be sure the new main corridor for transportation is built all at once and not piecemealed. Look at "surcharges" in addition to ordinary impact fees this will provide some measure of equity so that costs are equitably borne.
- The major road south of the North Shore Blvd and parallel should be name after Johnston family. They own and operated a dairy for 125 years and that should be remember and honor them.
- Why wouldn't you focus on cleaning the lake and making it less toxic before you add a trail to a lake that is already unusable part of the summer?
- Prefer option A (slightly) because of more jobs but I'd be fine with either option.
- From the plan, the mills property, zoned R-7 will end up being clear cut and will be a source of pollution for the lake. I assume there will be storm water requirements? Why should anyone in Camas believe they will be enforced when you fail and refuse to enforce compliance of the Lacamas Shore bio filter?
- Ensure a long term access to Camp Currie. Perhaps in a new location further from the shoreline.
- How does this (North Shore) relate to downtown planning and future uses for the mill? Shouldn't this be an integrated vision for the entire city?
- Provide for smaller mixed + commercial areas rather than one large commercial district.
 A large commercial area would draw business away from the existing downtown. Small commercial plazas or islands will provide services without severely impacting current downtown.
- Like Alternative A. Minimize mixed use. Keep uses independent to the market can decide which use types go first. Push sewer due south through other properties.
- Alternative A is better. Less mixed use, more jobs and land to lure companies will allow the city to receive more tax revenue.

- As road use increases with the way subdivisions are developed, wildlife access to major water sources. Ex - Lake Road has no under or over pas for wildlife to access the lake.
- Please focus on walkability/bikeability. Restrict drive-thru businesses.
- Graphics need to be improved, it is not clear that this will be a heavily populated area of 10,000+. Please, please try to communicate this information more effectively. Also concerned about the tree protections. With recent cases like the Camas Heights project where developers were able to largely clear-cut are more protections being put in? Or are we going to continue to be "swiss-cheesed" with our zoning by developers? Please let's look into like-type cities with fast growth. It seems that other cities have much more robust zoning protections. I would also echo the call for more through into adding arts enhancements to the plans. Arts draw business, people and value to kids specifically at-risk youth. And transfer of development rights. Have we considered this? Is it more than developers and landowners on the committee for oversight? Citizens with backgrounds in development specifically? Please, please, the city needs to be upfront that this will be upward of 10K people. Citizens do not know this currently. And when they find out they will feel like its a bait & switch. I would strongly suggest having a question and answe3r type of meeting, rather than these meet and greets, where the entire project is laid out.
- Big problem only 2 ways to get to North Shore. 1, Everett, 2 142 Goodwill 28th etc.
 Roads are not ready and will not be done timely. 25% of Camas traffic bottle neck. Also
 boat launch needs loop or road major turnaround. 2nd point, limit to 3000 +/- residents.
 Infrastructure cannot handle more (as in roads)

Flipchart Comments

- Consider size of trees in planting strips
- Maintain wildlife crossing to the lake
- Maintain some private ownership for development and tax revenue
- Honestly represent visual impacts of development mills property
- Consider state law for TDR
- Make 3rd-Main connection
- Fix bio filter on Lacamas Shores
- Stop giveaway of public development rights
- Vision Camas as a whole city (not pieces)
- Fiber
- Proactive trail-building connect to lake
- Regional bike trails / "freeways" (could go in BPA easement)
- Road C named Johnston Blvd / J. Dairy Road

Additional Public Comments

The following eight (8) emails were received during the open house comment period (August 17 to August 24, 2022). Emails are listed in the order in which they were received. Names and email addresses have been redacted.

For a summary of key themes and messages from these emails, please see the open house summary.

Email Response #1

My comments are provided below and I am happy to discuss. I felt it was a good meeting last night and it is good to see continued progress on this.

Comments:

- 1. I think a topographical map that more effectively showed relief/elevations according to the proposed zoning would be very helpful. There was a more artistic version at the meeting but I think it actually added confusion and the orientation was 90 degree off from the current preferred option. The intent here is to minimize surprises.
- 2. Increase the number of jobs by expanding mixed employment. If possible, integrate the v-shaped land along the BPA easement flanked but the current mixed use employment. This would provide contiguous use and integrate the proposed main road running West to East along the north of the sub-area. I believe this may be county land currently?
- 3. Decrease housing density. Especially along the south side just east of the Legacy Lands that is currently zoned Lower Density and Higher Density. Given the steeper slopes and forested land along the Lower Density (which can be to R7.5 I believe) I think we need to be much higher to a minimum of R15 with maximum tree retention. The Higher Density to R7.5 or one higher.
- 4. Diversified housing in a higher density, cottage-type format seemed to be received very well, especially if in the form of an urban village in close proximity with trails and paths.
- 5. Retaining nature/trees (especially if existing and integrating art/interesting paths) that can integrate to commercial and mixed employment was positive. The challenge is balance.
- 6. Concerns with traffic. Adding an estimated 8,000 people puts a significant perceived strain on NE Everett, possibly Crown Road, and NE Goodwin (especially south) as people want to get to 192nd, Camas and Highway 14.

I hope this helps and let me know any additional info I can add.

Email Response #2

I saw you and thought we'd have time to chat but I got carried away with suggestions and then we had a dinner date with our kids. I thought the open house went well and staff and consultants did a great job listening and answering questions. We were there 2 hours and I had fun. A few quick thoughts on North Shore:

1) Renderings. The renderings were great and I think they can really help the public understand the vision for the area. Trails and connectivity look good and I was pleased to see some real walkability and bikeability features. There may be a problem with the overview rendering in that it doesn't really show the BPA transmission line that runs diagonal across the north of the area. I think this would limit what could be built and I think it would really restrict the denser

housing in the NW corner of the project. Maybe the artist just forgot? Pictures are great for the public and I think they really helped the Port with their waterfront development.

- 2) Mills property. I'm having a little trouble understanding what could be done there because the topo is confusing and I don't have access to geotech reports. I'm sure the developers will push for view of the lake and I don't blame them. One thought is that if residential development does occur could we set aside any small viewpoints for the public? I really like the idea of waterfronts and local high spots being in public ownership. And Seattle, LA, and SF are all examples of public viewpoints being compatible with very high end housing.
- 3) Connectivity. I'd like to advocate that we don't do leapfrog development and make sure any new development is adequately connected to the rest of Camas. We've made some great improvements in the Everett/500 corridor but the reality is that subdivisions like Dear Haven and CJ Dens should not have moved forward until we fixed the problem areas between 23rd Ave and the roundabout and the roundabout north. As an example, Lake Road isn't a perfect connector but at least there is someplace to walk and we've done a better job on the west side. I think connectivity shortcomings can hurt a development and this may be the case with Green Mountain. The small mixed use section of that development has never taken off. Crossing Goodwin is a real problem and even then there's no connection to the rest of Camas. I'll also pitch making sure adequate broadband (fiber optic cable) is included in required utilities. Anything we can do to lessen trips in autos will help mitigate the transportation impact of new development on our existing neighborhoods (e.g. Crown Park neighborhood and Everett).

Email Response #3

Thanks for the opportunity to take this NS survey. In the survey I made the comments listed down below. Correction -Rather than saying doubling Camas what I meant to say in the comments is that we are talking about growing Camas by almost 50% (10k).

I am sure you are aware that there is a lot of latent resentment building over the ongoing Camas growth initiatives and the associated traffic and tax and property tax implications. Is this going to be done in phases? I did not see a timeline in the survey.

IMHO, this matter could easily lead to voter blowback similar to the \$78m pool initiative. People are starting to feel like the tax burden and specialness of Camas is at risk due to these "Ridgefield Like" growth initiatives.

When are we going to fix the toxic lakes in Camas? Lacamas Shores is only part of the solution. When are we going to get a Camas public pool? 10 years is ridiculous.

Survey Comments -

We are concerned about the following.

- 1. Is there sufficient accommodation for fire and emergency vehicles.
- 2. Are there wildlife corridors planned for under the roads.
- 3. Camas taxes and property tax valuations continue to grow. How many extra schools and services will be required. More taxpayer bonds coming? Camas has gotten too expensive already. Affordability for existing residents?

- 4. Traffic corridors from Fern Prairie are already filling up fast. Only two main ways in and out to get to Hwy 14 and Hwy 205. SR500 and Everett. Traffic on these corridors (no bike lanes in these roads) will grow exponentially.
- 6. Camas is fast losing its small town appeal. Why build another Camas on a semi-isolated ridge north of town? isn't this just another "North Camas"? Another 10k people in terms of residents and jobs. Almost doubling Camas.
- 7. How about environmental impacts for already toxic Lacamas and Round lakes?

What we like -

- 1. Bike lanes in new development.
- 2. Parkland on the North shore.

Email Response #4

Need you expert help as I separate the rice from chaff of a bunch of misleading stuff being spread on Facebook and Nextdoor by the usual, anti-Northshore Plans folks. First an intro, the 3 questions below.

All of the anti-NS has felt linked to the very pro-Koch Corporation's stances that's also pushed so aggressively:

That the currently heavily contaminated mill lands be used for the planning instead ... NOW ... before GP is selling and before Wa DOE discoveries and before the years of work needed to clean up the heavy contaminations! Why? Sounds like so that GP/Koch can sell more easily! Camas sure doesn't want GP/Koch's interests to be put above Camas'. No way should City of Camas do Planning NOW for severely contaminated lands, a disaster it'll be.

I've heard of other odd pro-Koch/GP stuff like City should pay for clean-up??? or that Wa DOE should pay for clean-up?? Haven't verified these two grape-vine stuff. The mill land planning stuffs been repeated over and over in our local social media.

Question 1: Have you seen	post on Camas Tree
Protectors? https://www.facel	book.com/groups/2101496163399160/posts/3174268359455263
If you haven't you must asap. team member on ND too. And	Its been cross-posted by another Far-Right Politician own public posts page.

<u>NOTE:</u> Best to see the FB one cause it has his usual rendered pictures including a graph illustrating the obsession about that mere 500+ or so who showed up at some weeknight "visioning" meeting years ago. Besides the fact 500 ain't representing 24K/17K Voters, THEY aren't the ones we've voted for and THEY aren't the Professionals hired by our City so that one's just silly but there are 10 other rendered pictures each with captions you must read too.

I do know the main problem with his post of course, its designed to stoke neighbors but problem is: City doesn't own that land, nor can it dictate who property owner sells to nor can it tell the DEVELOPERS who then own the land they can't develop the land. Not to mention, as the Isla Verde lawsuit set precedence, our Municipal Codes can be sued to kingdom come using Property Rights of the Property Owner that happens to be Developers. The "hidden tax" argument also worked and even somehow 14th Amendment. I keep the link to that lawsuit

handy because even stoked neighbors will pause and digest .. facts and realities City has to contend with Not sure how I got this role but

AND I have both now images that highlight the individual parcels of the main area using. AND pictures to show who actually owns each parcel.

What I need from you please:

Question 2: What else do you see in the post that doesn't align with reality/facts?

Question 3: That those houses are being built there has always been in the NS Plans right? I infact remember that but when you go to post, NOTE: a neighbor says it wasn't in original plans. I'm remembering otherwise.

City's gotta know by now the well established patterns of .. narrative setting that's been happening very formulaic! Its the old -- throw it all at the wall, slather it all in misdirection, misinformation, disinformation tactics, incessant stoking neighbors to manufacture outrage at City ... USING populist topics/sentiments to ... bash City to give relevance to their candidates and ... well, so far, that's been a bunch of far-right candidates. That's why Facebook group of neighbors called Camas Progressives helped and will keep helping all MODERATE candidates WITH job related resumes! (Democrats & Republicans)!

Q's is: Are there now from within supplying fodder? Taking part in coordinated grandstanding, political theater stuff, supplying stuff that can be put in their scandal papers of "Fix Camas"? A morphing of "Watch Camas"? Since City now has an actual far-right Politicians team member on Council who even used CCToday blog misinformation to almost derails the hard work behind PROS -- per a recent CWPRecord Editorial! That's for another day, another project. I'll soon be sending another official City Email inquiring about .. Social Media Rules for those in City Govt. Stay tuned.

Exhausting it is doing this social media watch is for little old me. My husband keeps reminding me ... that I'm doing this on my own time and not paid! AND I have this year's elections work!

Know this for sure: 2023 CAMAS Elections have started. Hence a type of drumbeat ND posts have started. Will show you with links which ones are clearly being used with that old formula I just described! Easy to spot, specially knowing more about those posting ...

Email Response #5

Dear Council members:

As a new resident to Camas that purchased a 30 year old home on a tree filled property near Lacamas Lake, it is alarming to learn that our town is falling victim to the same practices that are affecting so many communities in terms of clear cutting natural lands and forests for the sake of development. The area in question is a vitally important area to preserve for the not only this community but for the entire county that comes to the Heritage trails to take a respite from the more dense population of Vancouver and enjoy what they expect to be a serene and peaceful landscape as they stroll along the lake. Many residents treasure keeping this piece of Camas in tact and untouched by urbanization.

What has come to light is that some of the development as part of the North Shore plan will indeed be visible from the trails and park area due to clear cutting of trees and building of

residential units. It goes without saying that this notion flies directly in the face of preserving a coveted view line of trees and trees alone. I do not believe that the survey was drafted in a way that really addressed this issue and the results from those that responded may not be reflecting additional concerns when it comes to degradation of the views off of lacamas lake and surrounding trails and park area, in addition to other concerns regarding the loss of tree cover, strain on infrastructure and resources.

There seems to be an explosion of housing and high density housing in the area which is great if it's properly planned for and essential. But the impacts on infrastructure, traffic and resources will be affected. I hope this has been carefully planned for by the city so as not to cause major problems down the road. I have seen it happen in other cities and the impacts can be severe and irreversible to the community.

Thank you for hearing my concerns and for considering alternatives to preserve this piece of Camas without compromise.

Email Response #6

I am writing to submit my comments on the North Shore Plan in conjunction with the survey that closes on August 24. Overall, I very much support the goals of the project and believe that mixed-use, walkable neighborhoods are a worthy paradigm for future projects.

My primary concern currently is that I have noted that some portions of the property which are heavily treed and with the steepest slopes are slated for clearing and high density housing. These trees provide invaluable erosion control and limit the flow of contaminants into Lacamas lake. The SWMMWW stipulates that "Ground cover is the most important factor in terms of preventing erosion. Saving existing vegetation will prevent erosion better than constructing BMPs" (P260). This housing would be better situated on flatter terrain elsewhere.

has done an extensive analysis and makes this case in an 8/18/2022 post at the Camas Tree Protectors site:

https://www.facebook.com/groups/2101496163399160/ (note: this is a public facing group, no account is necessary to view it). There is a parallel discussion at Next Door: https://nextdoor.com/news_feed/?post=236590856.

I urge the city to give weight to input. Leveraging his analysis and expertise will benefit this and future projects in the city.

Ref: https://apps.ecology.wa.gov/publications/documents/1910021.pdf

Email Response #7

New as of 6/9/22

(b) Rural development. The rural element shall permit rural development, forestry, and agriculture in rural areas. The rural element shall provide for a variety of rural densities, uses, essential public facilities, and rural governmental services needed to serve the permitted densities and uses. To achieve a variety of rural densities and uses, counties may provide for clustering, density transfer, design guidelines, conservation easements, and other innovative techniques that will accommodate appropriate rural economic advancement, densities, and uses that are not characterized by urban growth and that are consistent with rural character.

- (c) Measures governing rural development. The rural element shall include measures that apply to rural development and protect the rural character of the area, as established by the county, by:
- (i) Containing or otherwise controlling rural development;
- (ii) Assuring visual compatibility of rural development with the surrounding rural area;
- (iii) Reducing the inappropriate conversion of undeveloped land into sprawling, low-density development in the rural area;

https://mrsc.org/Home/Explore-Topics/Planning/General-Planning-and-Growth-Management/Growth-Management-Act.aspx

Email Response #8

Im fully against the newest development going in on the mill property out-of-control development is happening in Camas everywhere you look no tree is left standing everything is clear-cut it's ugly there's no pathway for Wildlife to even get from one side of their now segment forest to the other segmented area.

this is taking the quality of life away from all of us who have already lived here; that came here because of the forest and the natural beauty of the area and the once abundant wildlife

and it seems that it's turning into another ugly Vancouver where you pave over everything green for the sake of the almighty dollar.

does a biologist or environmentalist- anyone work for the people and environment of Camas? Or do we just use ones hired by the developer for input on what's best for our area?

And the traffic now is crazy!!Ridiculous.

The Mill area looks to be a watershed for LaCamas Lake. Does that not matter? Thought it did. And you already let developers pave over the wetlands all over the west side of town.

Is Camas over? Sure feels like it with every new clearcut on that slope. Looks like a ski slope at night with all the unnatural light up there. Thanks a lo for taking the stars away

Development is taking away from this town. Stop the uncontrolled development!

Now.

ATTACHMENT C - ENGAGE CAMAS OPEN HOUSE REPORT

North Shore Survey #2

SURVEY RESPONSE REPORT

26 July 2022 - 24 August 2022

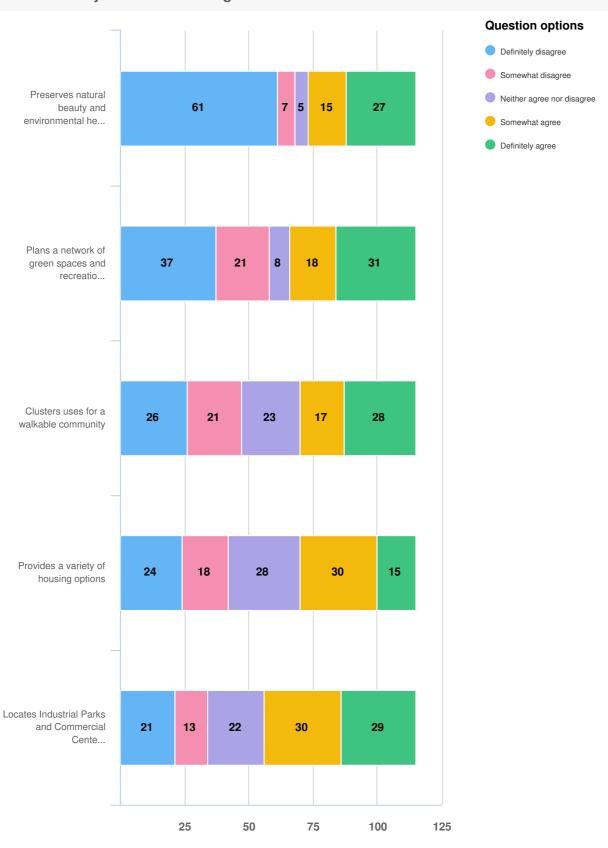
PROJECT NAME:

North Shore Subarea Plan

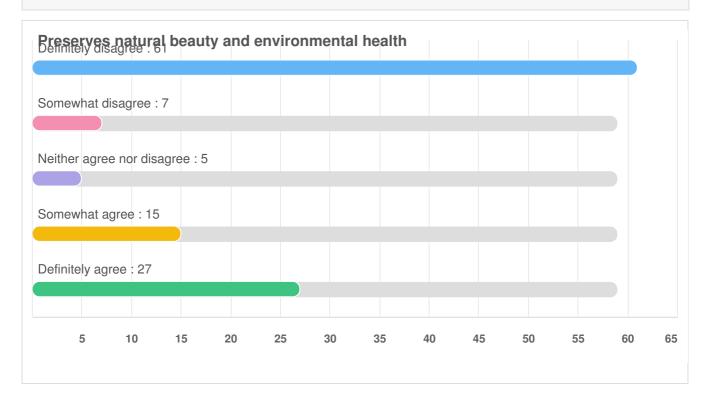


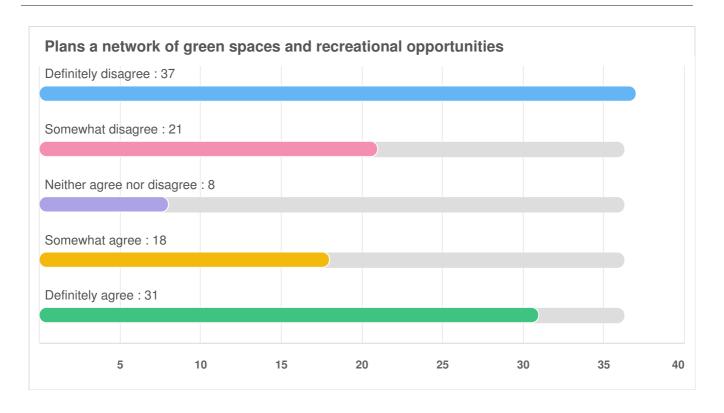
SURVEY QUESTIONS

Q1 The image below (and linked here) shows the Draft Preferred Concept and identifies some of its key elements. Looking at the...

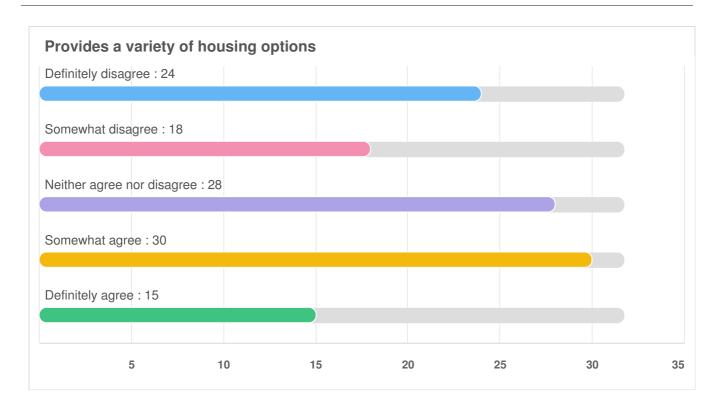


Mandatory Question (115 response(s)) Question type: Likert Question Q1 The image below (and linked here) shows the Draft Preferred Concept and identifies some of its key elements. Looking at the...

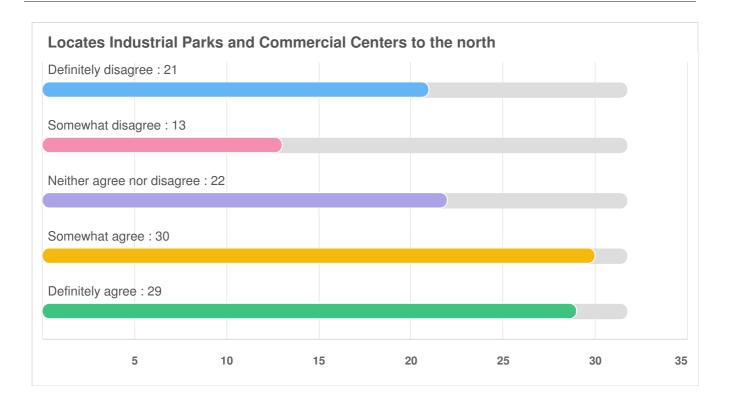




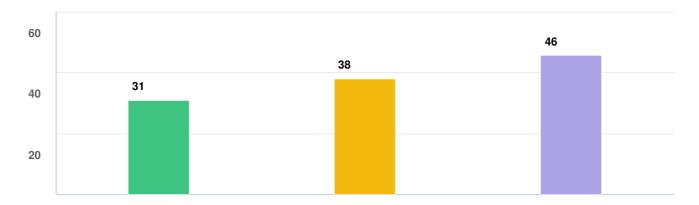




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Q2 The image below (and linked here) shows two different types of "Mixed Use" development (where residential uses are mixed wi...



Question options

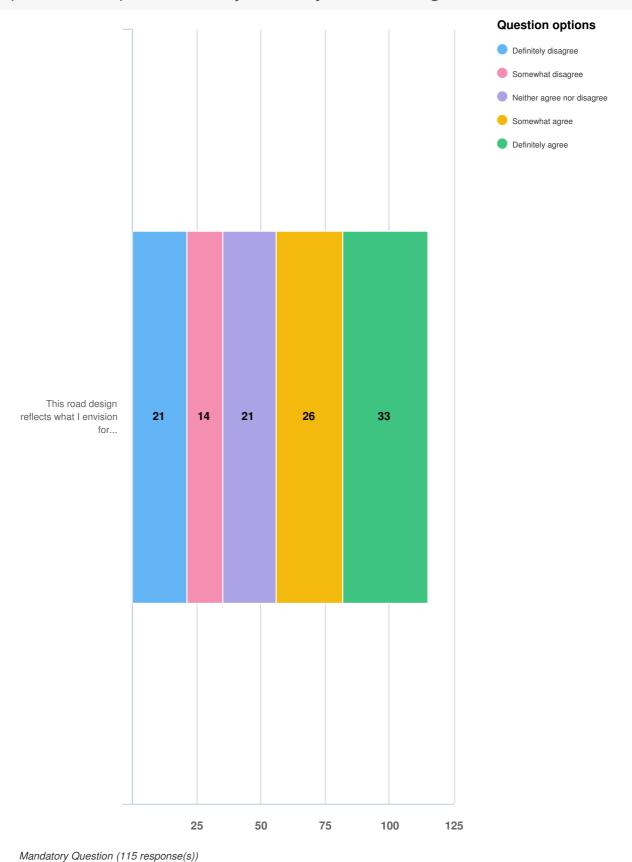
- I would like to see a mix of both horizontal and vertical mixed uses.
- I prefer vertical mixed use (residential located above commercial in the same building).
- I prefer horizontal mixed use (commercial and residential in separate, adjacent buildings).

Mandatory Question (115 response(s))
Question type: Checkbox Question

Q3 The image below (and linked here) shows different building styles for higher density (multifamily) residential development....

OPTIONS	AVG. RANK
Style B. Pacific Northwest	1.57
Style A. Cottage	2.72
Style D. Modern	2.83
Style C. Classic	2.88

Mandatory Question (115 response(s)) Question type: Ranking Question The North Shore Boulevard will serve as the primary east-to-west road serving the mixed use and commercial hub in the north, as well as the central plaza. The cross section below (and linked here) was informed by community feedback calling for a ro...

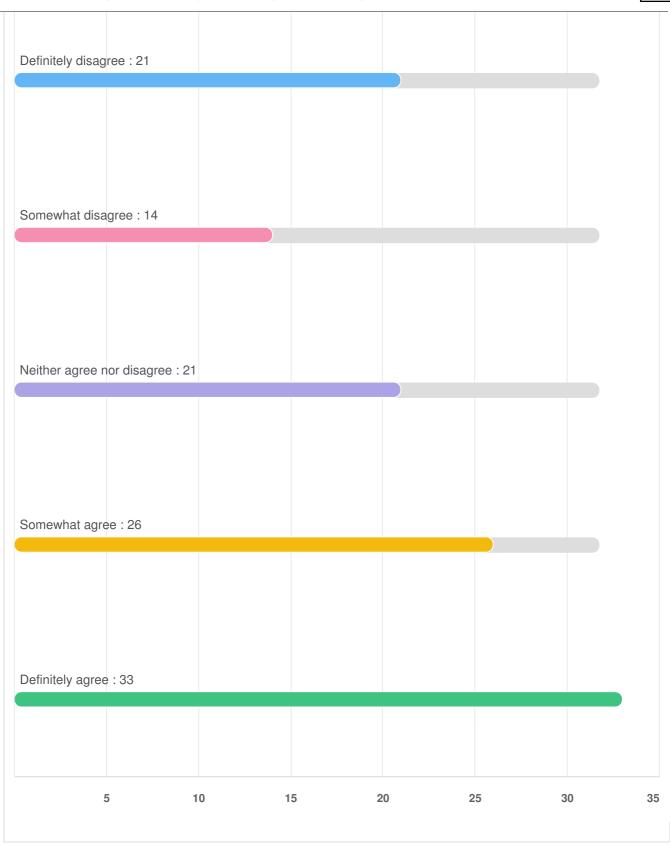


Question type: Likert Question

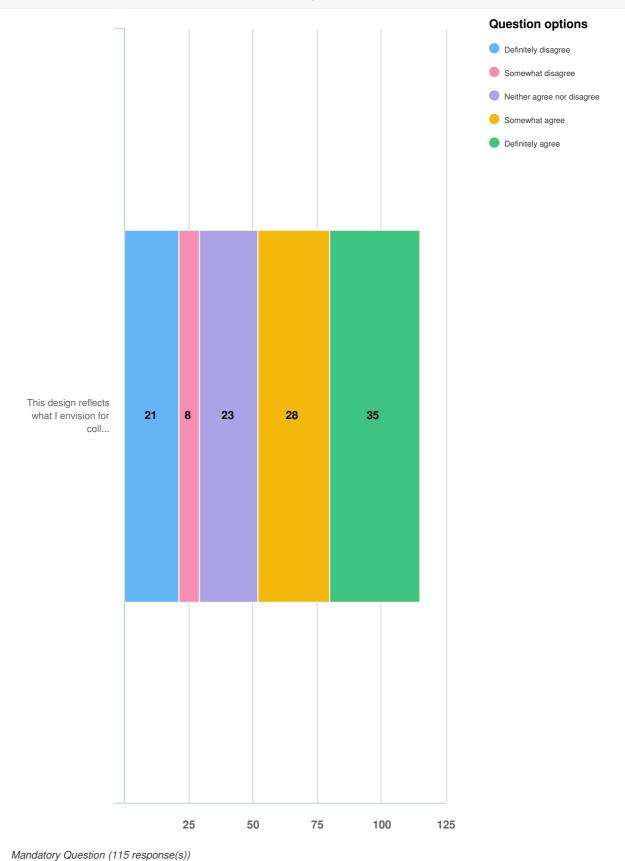
Q4 The North Shore Boulevard will serve as the primary east-to-west road serving the mixed use and commercial hub in the north, as well as the central plaza. The cross section below (and linked here) was informed by community feedback calling for a ro...

This road design reflects what I envision for the North Shore Boulevard.		

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Q5 Collector roads would be smaller than North Shore Boulevard and would serve as secondary roads throughout the area. The cross section below (and linked here) includes sidewalks and bike lanes to reflect community feedback for walkable and bike-frie...



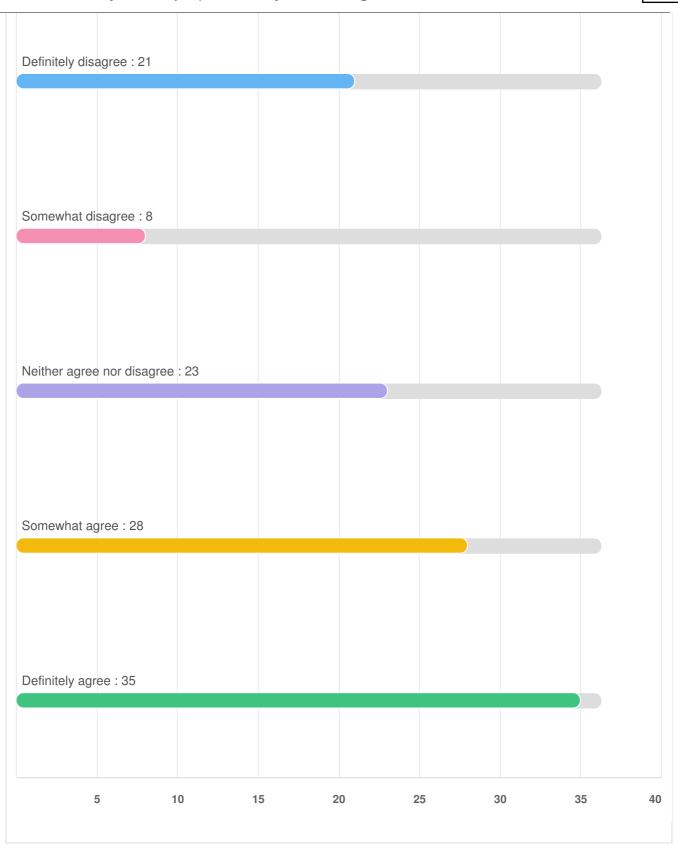
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Question type: Likert Question

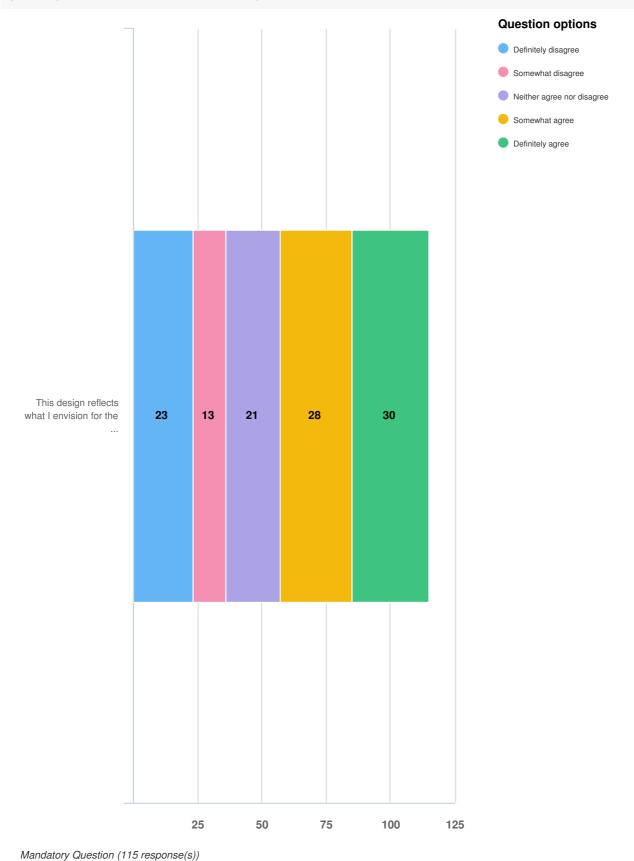
Q5 Collector roads would be smaller than North Shore Boulevard and would serve as secondary roads throughout the area. The cross section below (and linked here) includes sidewalks and bike lanes to reflect community feedback for walkable and bike-frie...

This design reflects what I envision for collector roads in the North Shore.

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The Ridgeline Road would be adjacent to the Legacy Lands and run through the central higher density residential area. The cross section below (and linked here) includes on-street parking to facilitate access to nearby businesses, recreational areas...



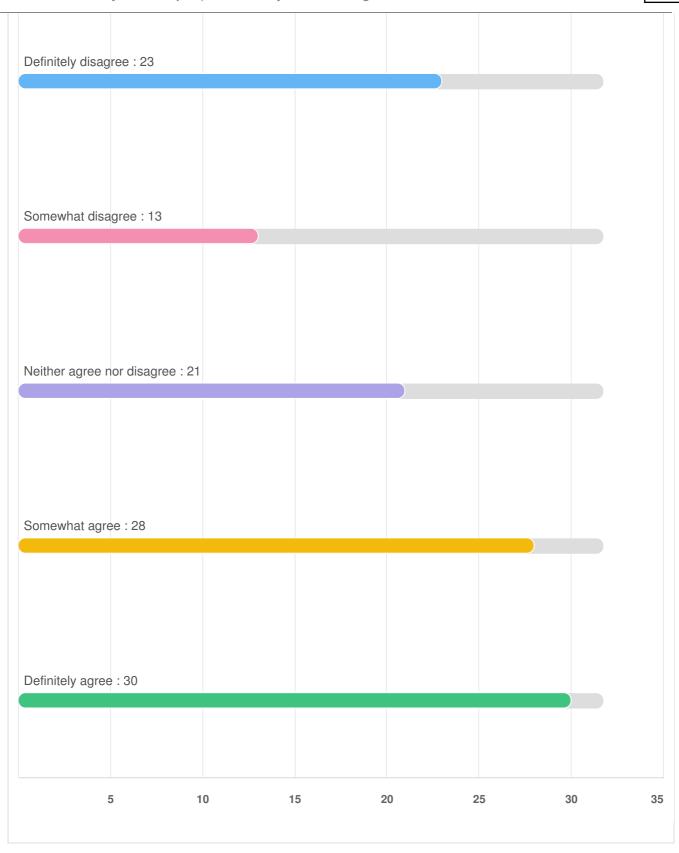
Page 15 of 31

Question type: Likert Question

Q6 The Ridgeline Road would be adjacent to the Legacy Lands and run through the central higher density residential area. The cross section below (and linked here) includes on-street parking to facilitate access to nearby businesses, recreational areas...

This design reflects what I envision for the road adjacent to the Legacy Lands.		

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Q7 Do you have any additional comments?

Anonymous

8/17/2022 04:16 PM

Love the layout, the walkability, and cohesion with the environment. Would like to see more of the plans for the trail and trail heads.

Anonymous

8/17/2022 08:13 PM

Access road onto 14th Street will need major work. It is currently very narrow, and the intersection of 14th Street and 249th Ave is dangerous. Road C should be named Johnson Blvd to honor the Johnson family who have farmed on that property for 125 years.

Anonymous

8/18/2022 10:26 AM

Would Leadbetter road be only used for bikes and walking passed the dock? How would you get to Leadbetter house for events?

Anonymous

8/18/2022 10:26 AM

Intact forest canopies are not protected. Public development rights worth millions of dollars are given to adjoining private property without compensation. View impacts from heavily used recreation areas are not depicted or considered. In general, the development impacts are now graphically depicted in a transparent manner.

Anonymous

8/18/2022 12:47 PM

Bike lanes on a shared path with pedestrians is never a safe option. Especially with emerging use of e-bikes. Separate bike lanes from pedestrians and cars.

Anonymous

8/18/2022 03:18 PM

Thanks for collecting my input!

Anonymous

8/18/2022 04:00 PM

The renderings were very helpful and I'm impressed with the vision for this project! There may be a problem with the rendering as it doesn't seem to incorporate the BPA transmission line running diagonal across the north of the project. The line would impact the ability to build dense in the NW corner? The open house was very informative and well run. I appreciate staff and consultants being willing to listen to citizens concerns. Thanks!

Anonymous

8/18/2022 06:37 PM

It is so unfortunate to see so many original trees clear cut from the North Shore. How do we protect this as a community for future families and residents? Please note that the rock blasting on North Shore needs to be closely monitored as the guidelines laid out are not being followed. Considerations need to be focused more on bike lines and walkable for pedestrians. We love this community!

Anonymous

8/18/2022 06:33 PM

Don't develop it.

Anonymous

8/18/2022 06:51 PM

This land should be kept as forest land. Camas does not need more housing developments.

Anonymous

8/18/2022 09:27 PM

It would be nice to design the north shore area to match architecturally with downtown camas, instead of just slapping up ugly strip malls all over the place that will look dated be fore businesses even start to move in to them.

Anonymous

8/18/2022 09:44 PM

Too much development and reduction of natural spaces.

Anonymous

8/19/2022 12:01 AM

I do not want this development, the city of camas cannot sustain the loss of the forests nor the increase population. Downtown camas and the lakes are a nightmare for parking and this will only make it worse. The increase in new developments is going to destroy what makes camas a good place to live: the natural beauty, the small town feel and community, accessible nature that's not over crowded. People that have lived here for decades are unable to participate in downtown events like the tree lighting due to parking issues and over crowding. Many are having to move out of the town due to expensive new housing developments targeted towards rich California or Portland residents and not towards those who have grown up here and want to stay here. All the houses in the plan are so close together and there's no privacy. People love camas for the old houses and personal space, please don't make clusters of houses for the sake of housing. Keep the camas charm and make some actual houses with privacy.

Anonymous

8/19/2022 06:20 AN

I live in Parklands. The commercial buildings so near to residential has to be moderated. I have daylight in my backyard from parking lot lights. Headlights will soon be passing over too. STOP mixed use. Allow bigger lots. Camas is Cramas.

Anonymous

8/19/2022 06·22 AM

Please allow bigger lots and better separate residential areas from commercial. Better yet, leave it alone.

Anonymous

This sucks, we should be preserving this land. This (the lake,

8/19/2022 07:29 AV

untouched nature and trees) is part of why people move to this town and you're tearing it down.

Anonymous

8/19/2022 08:34 AM

This plan is beautiful! What a special place this will be.

Anonymous

8/19/2022 08:54 AM

Please do not develop this area! I have lived here my entire life and I can't stand for anymore destruction of our trees and forests! Please listen to community, they are at a majority in saying we don't want this project to happen! Find another location and another way to grow this city as required by the state. Which to be honest I wish we didn't have to grow at all but I get that there are rules and regulations. Give us other options of locations and ways to do this that do not destroy the beauty of the place we all love. Please, please, please do not go through with this project!

Anonymous

8/19/2022 09:21 AM

1. No clear-felling of precious forests. What you've already done looks awful. It's an eyesore and not in keeping with Camas or forest preservation. We do not gave the schools or the infrastructure to support this development. All of us on the opposite shore are losing a tree-covered mountain in our sights. We wholeheartedly object to your clear felling. It's irresponsible and ugly. If your contractors are promising to keep the trees, then they need to be fined per tree they destroy unnecessarily. Camas should not look like this. 2. The topography of the Mills property looks too steep and wooded for clear-felling and I object to you clearing it. It'll affect the health of our sick lake to reduce this thick growth. It'll affect our air quality and as citizens of this world together, we need to preserve our trees, not cut them down. 3. This project is premature. Our schools and roads can't cope with this added development. We are 100% anti this project and wish to have our voices heard. 4. If you do go ahead, which I assume you will, and that my opinion may as well not even have been submitted, then go European. Use the edge of the lake for restaurants, boutiques and walkways so everyone in Camas can enjoy the lakeside.

Anonymous

8/19/2022 09:50 AN

We need to preserve green spaces and ensure the health of lacamas lake.

Anonymous

8/19/2022 10:44 AM

Please protect our remaining forests. This region is one of the last remaining forested hillsides, overlooking and draining directly into Lacamas Lake. I understand this property already has R-7.5 zoning. What's needed in this plan is to create an alternative mechanism to transfer these development rights elsewhere in the North Shore

where density is appropriate. There is much area appropriate for development (avoid steep terrains, run off regions).

Anonymous

8/19/2022 12:50 PM

Please consider rezoning and preserving more of our forested lands, once those trees come down there is now coming back, ever. Just more sprawl. Please include more buffer and natural areas. Low density housing over high density. Preserve the natural views from the lake, not the disgusting development we are already seeing. Listen to the community, not your pockets.

Anonymous

8/19/2022 02:01 PM

The road next to green spaces should have designated parking areas for recreational visits rather than on street parking.

Anonymous

8/19/2022 02:19 PM

We are concerned about the following. 1. Is there sufficient accommodation for fire and emergency vehicles. 2. Are there wildlife corridors planned for under the roads. 3. Camas taxes and property tax valuations continue to grow. How many extra schools and services will be required. More taxpayer bonds coming? Camas has gotten too expensive already. Affordability for existing residents? 4. Traffic corridors from Fern Prairie are already filling up fast. Only two main ways in and out to get to Hwy 14 and Hwy 205. SR500 and Everett. Traffic on these corridors (no bike lanes in these roads) will grow exponentially. 6. Camas is fast losing its small town appeal. Why build another Camas on a semi-isolated ridge north of town? isn't this just another "North Camas"? Another 10k people in terms of residents and jobs. Camas population is about 25K. Almost doubling Camas? Why? 7. How about environmental impacts for already toxic Lacamas and Round lakes? What we like - 1. Bike lanes in new development. 2. Parkland on the North shore.

Anonymous

8/19/2022 04:41 PM

Moved to Camas in 2021. I've been involved in large scale. Residential development for many years, and seen how poor planning with a goal of maximizing density can damage communities. I urge that as much as is feasible to save old trees and forest areas, even within Residential developments - at the expense of builder profits and city taxable revenue. Generations to follow will be grateful for the long range view.

Anonymous

8/19/2022 04·58 PM

The city is growing faster than our infrastructure to support that growth. Please be very cautious in your decision making and don't try to run before you calm walk. Many of us moved her for less congestion and we are committed to helping this city grow, but we can't do that if our voices continue to fall on deaf ears.

Anonymous

8/19/2022 05:31 PM

Please keep in mind that natural beauty is a big part of why people love this area. While it's important to balance jobs and housing, developing every square inch of space isn't really in line with what draws people to this area in the first place. Please don't let money ruin the feel of this area. If we wanted to live in a big, crowded, traffic-filled, over-developed city, we wouldn't live here.

Anonymous

8/19/2022 11:39 PM

Save what ever forest is left in Camas. Many more appropriate spaces that can be used that do not require tearing down the homes of wildlife.

Anonymous

8/20/2022 09:25 AM

Don't want any more developments in Camas! We need to preserve our green space for future generations! Please STOP this development.

Anonymous

8/20/2022 09:56 AM

I was not even going to bother with this survey because I have a strong suspicion that you will not listen to anyone and that you are already on the path you want to be on. But if this is a sincere survey then here's my opinion. As an apartment dweller I love having the North Shore and the whole Lacamas area exactly as it is as someplace that I can escape to. To be honest I'm not entirely sure why you need to bring in all of this new development to an environmentally sensitive area. I also did not understand the statement that bringing a new high density development would alleviate the parking issue down by the lake. Let's be 100% real here. People are going to use their cars no matter what. And attracting more people from around the region will increase parking needs not alleviate them. I also know that with these developments trees are an afterthought. So it is highly doubtful that you will get a one to one replacement of the trees developers cut down. The only new trees they will plant are those pathetic landscaping trees. The higher density the development the smaller the trees need to be to not encroach on foundations and utilities. I'd rather see camas focus on redeveloping the Georgia Pacific site and bringing more activity to downtown Camas. You can up se under utilized lots on 3rd through the downtown corridor, as well as 5th Ave and NW 6th ave heading into downtown. That's where density makes sense. Not this god-awful suburban expansion and fake urbanism that you are attempting to do. I appreciate the opportunity to comment. I hope my comments are seriously considered.

Anonymous

8/20/2022 01:59 PM

Please do not go forward with this development and instead preserve the forested land.

Anonymous

8/20/2022 04:19 PM

I noticed there are many Critical Areas that are proposed to be developed. This is okay and I understand it has to happen. My only request is that the developments building on these Critical Areas preserve more existing habitat than is currently required. Can a special rule for the North Shore Development area be implemented that requires developers to protect more of the existing habitat within the lots they are developing? This would help the developed areas blend in with the adjacent legacy lands rather than an abrupt cutoff to the natural areas as soon as the land is zoned residential, etc.

Anonymous

8/20/2022 05:58 PM

The entire plan is terrible. A few large developers will make big money, but the community will suffer in perpetuity. The existing downtown and abandoned / under-utilized existing developed areas should be improved & redeveloped before ANY of the north shore is cleared. This plan sacrifices far too many trees and massively over-develops rural land, while neglecting our current city center. Please reconsider the starting premises. You're headed the wrong way. We want a more active downtown, not suburban spall.

Anonymous

8/20/2022 09:37 PM

This is a horrible plan. Stop cutting all the trees and smooshing people together. Camas is being treated like a dorm and the only jobs that I see growing are low paying service jobs.

Anonymous

8/21/2022 07:28 AM

Stop developing!

Anonymous

8/21/2022 08:14 AM

Camas needs to stop all these big expansions! Save the forest!

Anonymous

8/21/2022 08:34 AM

I am not Randall, but I am happy to use his words to say what I want to say: "New to this group, I thank all of you for recognizing Camas is about its forests. They are forests under threat from development and in need of care. I'd like to let start a conversation about a most pressing issue. First, I love trees. Have my entire life. Since retiring here I've volunteered for the Ivy League. I've done a personal ivy-clearing project on the 10-acre city forest in lower Forest Home. That's not why I'm writing. One of the last remaining forested hillsides, overlooking and draining directly into Lacamas Lake, is the next in line for destruction. It is needless destruction. Without ascribing intent, it is destruction that has been hidden from the public. It is the 57-acre Mills family property. A final decision by Council is only months away. The City started the process several years ago

with a visioning survey. The response from 583 survey respondents was clear and unequivacable: protect the forests. I'll start by talking about the Open House the City held last night for the North Shore Sub Area Plan. The City thinks they listened and the plan protects the forest. Per the graphic, they suggest that 57% of survey respondents agree that the plan preserves "natural beauty and environmental health". I beg to differ. Look at how this property was depicted over the last year. It took detective work on my part to look under the hood. I included a picture so you can judge yourself. I hope you will look at this, and recognize this is our chance to keep this forest from the fate of Camas Heights, and the fate of the Black Forest that became Lacamas Shores. Camas can and must do better at protecting remaining forests. There is a way. First, consider what the Mills property looks like.. Look at the topography. It is steep. Except it was covered by opaqueness. Then, consider the concept plan unveiled yesterday calls for residential throughout starting at R-7.5 and including still higher density. This is higher density than Camas Heights. Now look at how the city depicted this concept last night. It looks like little cabins in the woods. How nice! Now for the reality. We don't have to go far to see what R-7.5 looks like when applied to a steep, forested hillside. Just look at Province off of Crown Road. The pictures say it all. BTW, Province is zoned R-10 so the Mills property can be more dense. Finally, keep in mind that this new development, larger than Lacamas Shores, would be visible from the Heritage Trail and the lake. This is not consistent with what our community said loud and clear. Moreover, through state-encouraged means like development density transfer this property might be spared. I've been a planner. I understand this property already has R-7.5 zoning. What's needed in this plan is creating an alternative mechanism to transfer these development rights elsewhere in the North Shore where density is appropriate. There is much area appropriate for development. What's needed are stringent standards saying no more clearcutting despite the zoning. Otherwise, some future Hearing Examiner will just look at the zoning and...well you just went through that story. All this will be happening in the next 4 months. Right now there is one week to provide comments. Here's where you can do it. Please consider this. I'd be delighted to have a conversation about it. This need not happen. Avoiding this fate will take community action. I hope it starts here. Thanks and whoever started this group a huge thanks to you. Lets all be Camas Tree Protectors." We don't want this development in Camas. Sure, we need to adhere to the GMA's--but alternative suggestions have been given over and over and over again and seemingly ignored. Please listen to the community this time

Anonymous

8/21/2022 08:35 AM

Consider going back to the drawing board and work to better preserve the few forests Camas has left. Not only that - but we are

also definitely losing that "small town feel" that we have been so known for. Would like to see much more focus on that ad well!!

Anonymous

8/21/2022 10:15 AM

PROTECT OUR FORESTS!!! Once again another lovely forested area of Camas is slated to be be clearcut and then packed with a high density of homes and businesses!!! Camas is about the lovely green forests that surround us, this is what has led many of us to move here, now it is becoming urban sprawl. R-7.5 zoning??? Can you seriously say that this will benefit Camas, many people come to use the lake and the Heritage Trail, all that development will be seen from there! Lacamas Lake already has drainage issues and every year it has to be closed for recreation because of that, this development will only add to the problems. There are other areas on the North Shore that could be used for transferring some of those development rights where a higher density is appropriate, instead of clustering it all in one place. Every time we see a white development sign go up in a natural green space, whether forested or not, we are very sad because we know that once again, all the native trees and plants will disappear along with the wildlife that depend on them, just so another area of concrete hard space can be built and the only beneficiaries are the pockets of the developers and possibly City council members, TRAGIC!!!

Anonymous

8/21/2022 11:17 AM

This development is just not necessary. Why can't we leave some areas alone and in a pristine condition? This just seems to another way to collect tax revenues!

Anonymous

8/21/2022 03:50 PM

Who stands to make their fortune raping the hillside and degrading the lake even further than it's current state of semi-suffocation? STEEP HILLSIDES are dangerous and foolish to develop! By the time all the infrastructure is in place no practical "views" will be left, which one can assume is the allure of the area to begin with! I'm NOT a NIMBY but someone who has watched what happened on the South side since the mid 80's. PLEASE keep the palm greasers at bay and the pocket liners in line and listen to Mother Nature! She will come down hard on those who attempt to defy gravity once again and clear cut another beautiful forested hillside. Can you spell OSO?!?! On a more personal note, I am listening DAILY to the roar of earth movers and the explosive Booms of rock/boulders being placed at the current No. Shore project. The incessant "beeping" of the earth movers is indeed a constant source or irritation and affects not only humans but wildlife in abundance in our area. I cannot imagine 10-15 more years of this deafening and irritating NOISE traveling across the Lake. If you pass this project be prepared for a wild-eyed visitors to your offices as I have no doubt it will wear down many a formerly

sane citizen!

Anonymous

8/21/2022 04:11 PM

I would strongly suggest having areas in this development with larger lots and houses spread out. So many of the new developments in camas feel so tight and it's not appealing to some people. My strongest suggestion is larger lots. House spread out. Thank you!! We would buy and build in a heartbeat

Anonymous

8/21/2022 07:58 PM

More emphasis on what it takes to preserve small town feel, rural peacefulness.

Anonymous

8/21/2022 10:12 PM

Please do not develop any more forest lands in Camas.

Anonymous

8/22/2022 09:12 AM

Retail nodes are best if smaller and of higher quality (see Felida Village). Housing is an immediate need and services/access should be accommodated quickly. Do not require retail for housing to come in. The retail will be higher quality if it can wait until proper demand is in place.

Anonymous

8/22/2022 09:52 AM

The draft preferred concept seems to be an appropriate balance between responsibly managing for the inevitable growth of the community while protecting sensitive areas. I'm not sure that I would've included all of the north shore area within the city's urban growth boundary, but this is a decision that was made years ago by Clark County and the city appears to be planning responsibly for this area which is now under our stewardship.

Anonymous

8/22/2022 12:15 PM

This should not be done at all!!! We need to preserve our forests!

Anonymous

8/22/2022 12:51 PM

i think that having all the businesses in one place detracts severely from the current business district downtown. smaller business zones spread throughout the north shore would be better.

Anonymous

8/22/2022 12:53 PM

Please do not clear cut our Camas trees! Please mark every possible tree, and every possible cluster of trees that can be saved. Lower density housing is needed to prevent even more run off and pollution to Lacamas Lake.

Anonymous

8/22/2022 02:44 PM

No new development!!! Camas is for the forests. Stop clear cutting the forests. I do not support any additional development anywhere in Camas.

Anonymous

8/22/2022 04:45 PM

Please look into Transfer of Development Rights. Please strengthen zoning for our natural areas. We are NOT the same town we were even 10 years ago.

Anonymous

8/22/2022 06:22 PM

The access to this area is way too limited. The amount of traffic this development will bring is going to overload the current in roads off of 192nd and HWY 14.

Anonymous

8/22/2022 06:38 PM

The lake will never survive if the trees are cut down on the north side.

Anonymous

8/22/2022 07:31 PM

The existing road infrastructure will NOT support large scale housing development - mixed, single, whatever. Secondly, any low / subsidized housing will bring in 'folks thinking its free money". (Yes I have seen it happen in several states). And thereby services will be diluted. Local businesses will dfntly get impacted. We moved to Camas/Washougal for its charm, since Beaverton, OR became a zoo to live in. Over crowded streets, walkways, crime, traffic nightmares, etc .. All this and more are the ten thousand foot picture.

Anonymous

8/22/2022 09:31 PM

Please, please reserve more of the land for the natural landscape. We have the responsibility to protect our trees and greenspaces for future generations.

Anonymous

8/23/2022 01:34 AM

Please preserve all forested hillside between the boat ramp and the Leadbetter house - there is plenty of already cleared lands for residential north of that area.

Anonymous

8/23/2022 02:01 AM

Our trees are important to our community - why can't they be left alone?

Anonymous

8/23/2022 07:08 AM

I understand the need for more housing but it's too much. Clear cutting the forest and bringing in more commercial spaces too? Increasing congestion, pollution, and eliminating the country charm of a town is utterly depressing. We moved to Camas because it different and now it's going to be like all the rest... too many people and not enough nature!

Anonymous

8/23/2022 08:47 AM

One of the things that makes Camas worth living in is the existing green space. I love our trees and lakes - if you want to look like Los Angeles, then keep cutting and building. Our trees and shade will continue to provide relief from heatwaves, provide habitat for wildlife, and make us the envy of Vancouver :P Cutting and clearing will increase run off into Lacamas Lake (algae blooms, E. coli, etc) and de-beautify the city. Leave the natural spaces as they are - regardless of what zoning might allow or put in walking paths - but PLEASE stop cutting and building. I'm SW Washington born and raised. If I wanted to live in SoCal or NY, I'd move there. Stop turning our living space into cookie cutter cosmopolitan hub.

Brooke

8/23/2022 11·28 AM

Soon to be no forest left in Camas as we try to bring thousands of people into our town. We don't live in vancouver for a reason.

Anonymous

8/23/2022 12:33 PM

Building too dense.

Anonymous

8/23/2022 12:42 PM

The plan does not suit me in that it is heavy on development and very, very light on leaving the natural trees and areas untouched. This plan needs further discussion to take into account the feelings of the citizens of Camas and not the \$alivating developers who see a bonanza in clearcutting and natural areas destruction.

Anonymous

8/23/2022 01:57 PM

This plan feels like it is prioritizing wealthy urban development. I would rather see a plan that focuses more on saving as much usable green space as possible and including smaller chunks of more dense, vertical lower income housing to help diversify our community.

Anonymous

8/23/2022 02:38 PN

I just want it to be beautiful and allow for easy recreation access. Please keep as much of the natural elements , older trees, in tact, if possible.

Anonymous

8/22/2022 02·40 PM

Don't build anything. Most of city council don't understand family planning.

Anonymous

8/23/2022 03:28 PN

I really hope unpaved trails are part of this plan too. If not here, then at Green Mountain and/or elsewhere.

jeg

8/23/2022 03:20 PM

I cannot see the map well enough on the land use map to vote for anything. A larger map is necessary to see what is proposed. Otherwise, nothing should be accepted.

Anonymous

8/23/2022 04:06 PM

I'm really tired of seeing old growth trees cut down by the city of Camas. There seems to be no restrictions and it is making Camas look like any suburban area. We need to protect the forest we have and limit the destruction of these trees. Why can't there be more restrictions for builders? Most of them don't live here and only want to squeeze as much money out of our area as possible and then move on. Meanwhile we are left with barren land and trees that will take a hundred years to regrow. Do better Camas.

Anonymous

8/23/2022 04:08 PM

Just stop!

Anonymous

8/23/2022 04:40 PM

Please prioritize walkability! I'd love to see one lane roads with protected bike lanes and space for walking -- I think it is proven that you don't actually move vehicle traffic faster with two lanes as opposed to one w/turning lanes!

Anonymous

8/23/2022 07·30 PM

Please protect the last of the forested land close to town. All this building and cutting down of trees destroys the feel of our town and displaces all the wildlife. I am so upset by this terrible plan. Most residents do not want this monstrosity of a project here

Anonymous

8/23/2022 10:01 PM

Please ensure adequate bike and pedestrian infrastructure also keep current residents in mind since you are ripping apart our peace and quiet

Anonymous

0/00/0000 10:01 DM

even though the city is getting a lot money about all this they might say is because Camas is "growing" is not about that is about their pockets in how much they get public option does not matter any more matter what bring money all Human look around their shoulder too see how is being and approving this but at the end 1.Power 2.Money 3.controling We are turning in the new area US We the people wont matter any more even what I'm writing because whoever is in charge to make this happened the decision he or she have already made it open your eyes people "our Freedom" humans like control look around this beautiful Country God brought me and my family 16 years ago only hope we have is in our Lord Jesus We can not hope in humans We have talents to bring people to hate each other All of us really need get down on our knees in pray because We will never

going back to normal we are going to see thing we have never seen before even thought or cross our mind which we are seen right now

Anonymous

8/23/2022 10:11 PM

What's needed in this plan is creating an alternative mechanism to transfer the development rights elsewhere in the North Shore where density is appropriate. There is much area appropriate for development."

Anonymous

8/24/2022 06:37 AM

Please make sidewalks wider on collector streets, ensure there is sufficient parking, and don't cram as much high density residential in as you can. Why are you trying to accommodate light industrial uses in this area? From a functional perspective, the access to this area by trucks is going to create numerous traffic issues on Everett, hazards on your roundabouts as trucks struggle to share the turning radius with cars and will create unwanted noise. Also, logistically, light industrial makes little sense due to the distance from nearby highways and limited access points because of the lake.

Anonymous

8/24/2022 07:35 AM

The Camas community needs a new bmx and/or bike park. The skate park that's near a Woushougal is by far the worse park I have ever seen and we can do better.

Anonymous

R/24/2022 09:09 AM

Do the right thing

Anonymous

8/24/2022 09·28 AM

Camas should not be destroying its beautiful natural environment to benifit developers and taxes to the city. Please do not develop more.

Anonymous

8/24/2022 09:54 AM

The city already destroyed prune hill and the south side of the lake. Now they are ramming down there ideas how to make us like Portland and California.

Anonymous

8/24/2022 11:27 AM

Thank you for creating a workable plan for the future of our city!

Anonymous

8/24/2022 12:23 PM

Save the forest, less development. This is going to cram way too many people into this area and make traffic on Everett unbearable

Anonymous

8/24/2022 01:19 PM

It looks like a lot of trees and forest is going to be needlessly chopped down. This city needs tree canopy. Why aren't there better regulations in place? People have been asking for this for years.

Developers do what they want with small fines. Are we going to see the same thing that happened on the other side of the lake? Prioritize saving the forest and existing trees!

Anonymous

8/24/2022 02:59 PM

I am worried about a proposed roundabout at 43rd and Everett. We live off of 43rd and the traffic going to the HS can be horrible and I'm afraid that a roundabout will give no break at all to get onto the road

at certain times!

Anonymous

8/24/2022 11:00 PM

Ripping out a forest of trees for more homes is not what camas is

about

Optional question (84 response(s), 31 skipped)

Question type: Essay Question



Meeting Summary

Date: 29 September 2021

Time: 10:00 AM to 11:30 AM

Meeting: North Shore Subarea Plan – Steering Committee Meeting #1

Location: Zoom

Objectives

• Steering Committee understanding of Phase 1 outcomes and deliverables

 Steering Committee input into land use and transportation options to be reviewed at the second Steering Committee meeting

Meeting Attendees

- Tamara Allison, Transportation Supervisor Camas School District
- Michael Andreotti, AKS Engineering
- Jennifer Baker, Columbia River Economic Development Council
- Cory Bittner, Pahlisch Homes
- Don Chaney, Camas City Council Member
- Lynda David, SW Washington Regional Transportation Commission

- Jason Irving, Camas Parks Commissioner
- Lynn Johnston, Property Owner
- Kimbal Logan, Mills Family Representative
- David Ripp, Port of Camas-Washougal
- Shannon Roberts, Camas City Council Member
- Andy Swanson, HSR Capital

Project Team

- Robert Maul, Planning Manager, City of Camas
- Curleigh (Jim) Carothers, City Engineer, City of Camas
- Trang Lam, Director of Parks and Recreation, City of Camas
- Bryan Rachal, Director of Communications City of Camas

- Madeline Sutherland, Planner, City of Camas
- Nicole McDermott, Project Manager, WSP
- Sam Jones, Landscape Architect, WSP
- Aliza Whalen, Planner, WSP

Welcome and Introductions

Robert Maul, City of Camas Planning Manager, welcomed attendees before inviting Nicole McDermott, WSP Project Manager, to facilitate introductions. Nicole also provided an overview of the agenda.

After a round of self-introductions, Nicole provided a project overview, indicating that the area is over 800 acres. Of those, over 270 acres are publicly owned, with 140 acres along Lacamas Lake. Robert added that there are 40 acres of land within the urban growth boundary north of Lacamas Lake Elementary School for which staff recently received an annexation request, and the land may be included in the subarea boundary.

Nicole introduced the Phase 2 scope and timeline. Phase 2 involves developing a preferred land use and transportation plan to implement the adopted North Shore Vision Statement (further described below). Phase 2 deliverables include:

- Stakeholder and community outreach
- Land use plan
- Utility and roadway plan
- Design standards/guidelines
- Parks and trails plan
- Zoning and comprehensive plan designation recommendations

Phase 2 is planned to wrap up in July 2022 with the adoption of a preferred land use and transportation plan. Robert added that this effort will be integrated with the parks, recreation, and open space (PROS) plan update currently underway.

Questions and Comments Received

Committee Member Question: When you talk about design standards and guidelines, does that refer to architectural and streetscape standards?

Response [Nicole McDermott]: Whether guidelines/standards will be applied to public spaces or residential and commercial construction, is to be determined and is some of what we will want input on from the Steering Committee. The community was clear that they want something unique, and design standards/guidelines are a good way to achieve that.

Response [Robert Maul]: From staff perspective, we hope for higher level design to reflect this special place.

Committee Member Question: Will the committee or public have the opportunity to review the draft zoning code and comprehensive plan designations, or just council and staff?

Response [Nicole McDermott]: Yes, the draft zoning and plan designation recommendations will be presented to the Steering Committee and Citizen Advisory Committee, and then to the public. The subarea plan will only include recommendations for the code and plan amendments. The actual amendment process will be separate and will also include public input.

Nicole reviewed the Steering Committee Charter and invited questions, additions, or edits. Hearing none, the charter was accepted by committee members by writing their names in the Zoom chat.

Phase 1 Review and Discussion

Nicole provided a brief review of Phase 1 and associated deliverables. The focus of Phase 1, or the "visioning phase," was to gather data and conduct community outreach. Phase 1 yielded the following deliverables:

- Preliminary market assessment (draft)
- Existing conditions report (draft)
- Community outreach
- Vision statement

What did we learn?

- North Shore can leverage trends in employment for manufacturing, technology, healthcare, and construction.
- The existing zoning may not reflect the community's vision.
- Outreach themes: preserve natural areas, provide a diversity of jobs and commercial space, and provide a mix of housing types.

Robert added that when land was annexed into the North Shore, it received a zoning designation. However, with the purchase of some of this land by the City, and with the construction of the elementary school, the current zoning of some property may no longer be appropriate.

Questions and Comments Received

Committee Member Question: I see that the market analysis happened pre-COVID. Are there any plans to update the analysis or add an addendum to address changes in office space or residential space needs?

Response [Nicole McDermott]: Updating the market analysis is not currently part of the scope, but we have discussed it. We will look at that more and continue to keep the committee in the loop.

Response [Robert Maul]: I agree, and we have been discussing this internally.

Nicole brought up key points from the vision statement and expressed the importance of drawing a clear line from the vision statement to the preferred land use and transportation plan. Nicole invited questions on the vision statement.

Questions and Comments Received

Committee Member Comment: At the Council planning meeting last Friday, the topic of economic development came up and the need to maintain land for jobs. Council hopes to strike a balance between preservation, residential development, and land for economic development to maintain revenue and level of service.

Committee Member Comment: I am concerned that if there are a plethora of residential homes, all taxes are taken up front and do not provide support long term. We are looking to balance residential with industry and commercial for a long-term tax base.

Response [Nicole McDermott]: We discussed this as a project team a lot through Phase 1. At the time, the community was more focused on the preservation of natural areas, and rightly so, but it is also important to maintain jobs land and economic development potential.

Response [Robert Maul]: I agree. Economic development is always at the forefront of what Camas strives for. We understand that recognizing shifting paradigms is integral to how we grow.

Committee Member Question: Given all that has been said, would we want to insert something into the vision?

Response [Nicole McDermott]: I will defer to Robert, but this is generally included in the vision, and rather than opening the vision statement back up, it might be better to keep this topic in the front of our minds as we move forward.

Response [Robert Maul]: I agree. We had a discussion with the Planning Commission and City Council about the vision statement and determined that it is inclusive of those sentiments regarding economic development.

Committee Member Comment: I remember that there was a clear point to encourage and keep jobs lands in the original vision statement. In looking at the vision statement, I do not see a statement about maintaining the jobs base and the economic base.

Response [Robert Maul]: Looking at the bullet point related to industrial and commercial centers being located away from the lake, it is clear that the vision includes economic development elements. Part of this exercise through Phase 2 will be to ensure we are building in all the important components for the North Shore.

Committee Member Comment: Ultimately, Council will approve the plan next fall, and economic development is a point of emphasis for Council.

Nicole thanked members for the discussion and expressed that members will see industrial and employment lands included in several alternatives from the community vision workshop, which will be discussed shortly.

Land Use and Transportation Alternatives

Nicole introduced the main objective for the meeting: getting input on land use and transportation alternatives that can be refined and work toward the preferred land use and transportation map. The existing comprehensive plan, zoning map, and six-year Transportation Improvements Project (TIP) map all provide a foundation for this work:

- The 2035 Comprehensive Plan includes a goal for North Shore, highlighting the importance of economic development.
- The existing zoning depicts the starting place, but the purpose of today is to discuss how to maintain some variety in a more unique way.
- The six-year TIP shows plans for an east/west arterial and the extension of northeast 9th
 Street and surrounding improvements on Everett Street.

This is the starting place, which the subarea planning process will refine.

Staff Comment: Curleigh Carothers noted that he wanted to clarify that there is a distinction; North Shore Boulevard is intended to be the arterial near Lacamas Lake Elementary.

Alternatives Exercise

Prior to conducting the group exercise to discuss land use alternatives, Nicole provided visual examples of each land use category: commercial, office/light industrial/business parks, multifamily homes, and single-family homes.

Kicking off the activity, Nicole displayed a Jamboard (digital white board) that included four sheets. Each sheet included a different alternative prepared by the community. The first three

alternatives were from the community visioning workshop held in February 2020, and the fourth was from the visioning workshop held with students at Discovery High School. Jamboard discussion points are summarized below, followed by images of the Jamboards and general questions and comments from the activity.

Jamboard 1

The first Jamboard displayed a map that included no land use categories. Nicole noted that some attendees at the community workshop expressed a desire for nothing to happen in the North Shore area. It is important to note that "doing nothing" does not prevent development, but instead allows development based on the current zoning and development standards. Steering Committee members noted the importance of allowing private property owners to develop their land and indicated that, although this alternative received several "votes" at the community vision workshop, it does not necessarily represent the desires of a majority of the community. A committee member asked if the land acquired by the City was considered during the vision workshop. Nicole indicated that a green hatch was included on the base map over the City-owned land to identify it as future parks/open space.

Jamboard 2

The second Jamboard displayed a map that included the following key features:

- Multifamily housing near the school and near jobs
- Business parks in flat areas in the north of the subarea
- Single-family housing along Everett Street and near the lake
- Cluster commercial along Everett Street

Steering Committee members noted that this map is relatively close to what is currently zoned, with business park instead of residential immediately adjacent to city park land. While some members thought it made sense to locate residential next to parkland, one member noted that park adjacency to commercial can be good for access and may facilitate shared parking. Members also highlighted economic development, suggesting the creation of a new zone or overlay for employment and consideration of what uses will provide an ongoing tax base. A member suggested focusing jobs on the east side of Everett Street, which feels like the gateway to the city. Members also noted concern about noise and pollution impacts to residential areas near Everett Street. Adding housing with the requirement to provide circulation was noted as a priority. A member asked what the green dots indicate. Nicole explained that they are intended to be parks but some have been placed in areas of known wetlands. Lastly, members recommended determining buildable property before designating uses, expressing also that an acre-by-acre zoning comparison may not work because of undevelopable land.

Jamboard 3

The third Jamboard displayed a map that included the following key features:

- Light industrial near the airport
- Single-family housing and commercial along the new road
- A network of parks and trails
- Parks in housing areas

Steering Committee members expressed that this, overall, felt more natural for city needs. However, it was also noted that this map does not seem to align with the existing comprehensive plan and past visions for the area. It was also noted that a strength of this plan is that like uses are connected, facilitating wayfinding. Abundant single-family housing raised concerns about both the loss of jobs land and the ability of low-density housing to conform to the housing action plan. Instead, committee members suggested that the southern area has an opportunity to find the middle ground between dense housing and large lots. Additionally, a member indicated that residents of single-family homes may not like the nearby traffic from visitors to the park. A member also recommended commercial nodes mixed throughout the area.

Jamboard 4

The last map included the following key features:

- A new elementary school
- Small business districts within walking distance of housing and schools
- Different housing options, from affordable to high income, to encourage more social interaction
- Green space near offices and housing
- Parks throughout the area

A member noted that this map looked broken up, which would make wayfinding difficult. Another member expressed that this mix of uses looks more urban, like the central east side of Portland. Lastly, the connection between multifamily housing and jobs, industrial, and commercial areas would have benefits for employees in the area.

Jamboard 1



Highlight - about 12 people at the community vision workshop voted for this option

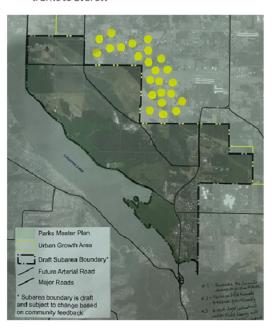
City cannot control private development

Continue to provide information to community about planning requirements

Exercise and parks land acquisition happened in tandem

Community Workshop Group 2, Key Features

- · Reconsider focus on North Shore
- · Focus on the Mill property to add jobs and housing
- Multifamily and light industrial will add too much traffic to Everett



Jamboard 2



Relatively close to what is currently zoned - does not represent residential along waterfront, some multi family, some commercial

Suggestion to figure out buildable property first then back engineer (seconded)

Area currently business park, immediately adjacent to city park land. Makes sense to separate with residential to separate lake from business park. Also focus more jobs through 500 Everett. Make E side residential more commercial or business park. Feels like gateway to city.

Use subarea plan as opportunity to create new zone or overlay of employment. See Ridgefield for example of employment overlay - allows flexibility.

Lakefront park adjacency to commercial can be good for access. Can start to think about shared parking uses, which you may not get with residential. Some of the green dots represent wetlands

New arterial roadway location will be refined. Looking for a more diverse mix of uses on Johnston property, more residential. Keep employment to the N. Residential to SW.

Impacts of noise/air pollution to residential off Everett Generally not enough housing. Currently see lots of industrial use, in experience need more housing. Access issues to

roads to provide

circulation. Agree

with considering developable land.

Buildable

shape, and

location of

critical areas

acreage - also

have to look at

residential,

residential. If adding

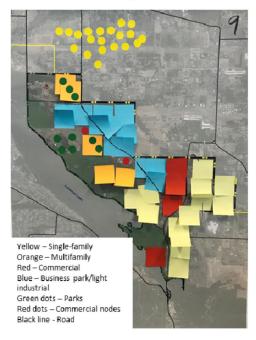
commitment to add

Acre per acre zoning comparison may not work (seconded). Industrial area is sloped and has wetlands. May be more 'blue' but how much is actually developable?

Consider tax basis, could be objective criteria to ensure what comes is sustainable.

Community Workshop Group 9, Key Features

- Provide multifamily near the school and near jobs
- Include business parks in flat areas in the north of the subarea
- Include single-family along Everett and near the lake
- · Cluster commercial along Everett



Jamboard 3



High level, feels more natural - net usage and what city needs (seconded) Seems to ignore existing vision, master plan, comprehensive plan - would lead to problems. Lots of single family, little multifamily. Loss of jobs lands.

(1/2) City-owned park land will be a regional asset many people accessing, what does that mean for abutting uses? Identifies the need for a parks and trails network. Providing additional trails and connecting existing trail gaps was a top priority identified in the PROS plan public survey

How much developable land is there? N is very sloped. Southern area has opportunity to find middle between dense housing and large lots. Look at residential as a whole and mix better. (seconded)

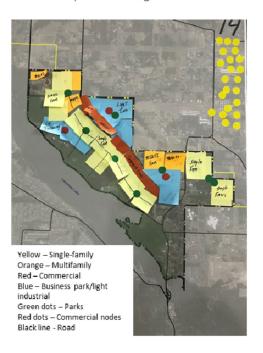
(2/2) Fear bringing lots of transportation/people through single family residential.

Strength: like uses are connected. Wayfinding asset

Single-family won't meet housing action plan Recommend commercial nodes mixed throughout.

Community Workshop Group 14, Key Features

- Provide light industrial near the airport
- Cluster single-family and commercial along new road
- Develop a network of parks and trails
- Provide parks in housing areas



Jamboard 4



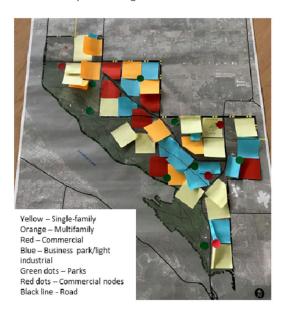
Wayfinding -Difficult to know where you are, how to find things - broken up.

Looks more urban (ex. Central E side of Portland)

Connection between multifamily and jobs/industrial/comme rcial area. Could live in multifamily area and easily get to other areas. Benefits to employees

High School Workshop Group 4, Key Features

- · Include a new elementary school
- Provide small business districts within walking distance of housing and schools
- Integrate different housing options from affordable to high income to encourage more social interaction
- · Provide green space near offices and housing
- Provide parks throughout the area



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General Questions and Comments

Committee Member Comment: A member noted they have LIDAR on some areas that they would be willing to share to help inform decisions.

Response [Nicole McDermott]: Thank you. While the subarea plan is high-level and does not address development at the site scale, it does go into more detail than the comprehensive plan. We will look at topography and constrained lands (wetlands, etc.) as part of the process and would appreciate any information you share with us.

Several committee members agreed that it was important to understand the constraints that exist in the North Shore and to accurately reflect acreages for buildable areas. Nicole noted that a summary of constrained land (steep slopes, wetlands, geologic hazards, etc.) and unconstrained land by land use category will be provided for the two conceptual plans presented at the second Steering Committee meeting. Robert added that additional trails and connections to existing trails were top priorities identified in the PROS plan public survey. These elements will also be included in the concept plans.

Next Steps

Nicole and Robert thanked committee members for their time and input and concluded the meeting, noting that the Steering Committee will convene for a second time in mid-November.

Action Items

Andy Swanson to share available LIDAR/survey data.



Meeting Summary

Date: 1 December 2021

Time: 10:00 AM to 11:30 AM

Meeting: North Shore Subarea Plan – Steering Committee Meeting #2

Location: Zoom

Objectives

- Steering Committee feedback on draft concept plans
- Steering Committee understanding of next steps

Meeting Attendees

- Tamara Allison, Transportation Supervisor Camas School District
- Curleigh (Jim) Carothers, City Engineer for Camas
- Kimbal Logan, Represent the Mills Family and their Property
- Cory Bittner, VP Pahlisch Homes
- Lynn Johnston, Property Owner
- Andy Swanson, HSR Capital
- Shannon Roberts, Camas City Council Member
- Lynda David, Transportation Planner with SW Washing RTC
- Michael Andreotti, AKS Engineering
- Jennifer Baker, Columbia Economic Development

- Trang Lam, Camas Parks & Recreation Director
- Derek Jaeger, Director Port of Camas Washougal
- Troy Hull, Planning Commission Member
- David Dewey, Parks and Rec Commission
- Clint Hendricks, CREDC VP for Business Development
- Mahsa Eshghi, Camas Planning Commissioner
- Cory Kratovil, PBS
- Timothy Hein, Camas City Council Member

Project Team

- Robert Maul, Planning Manager
- Madeline Sutherland, Planner
- Nicole McDermott, WSP

- Sam Jones, WSP
- Emma Johnson, WSP
- Aliza Whalen, WSP

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Welcome and Recap of Last Meeting

Robert Maul, City of Camas Planning Manager, welcomed attendees and provided some background on the draft concept plans to be reviewed at the meeting. Robert reminded attendees that these are conceptual land use plans and are looking at the 20-year planning horizon. The draft plans are a starting point to facilitate feedback and discussion, and will be refined as feedback is obtained from the Steering Committee, Community Advisory Committee, and public. Robert invited Nicole McDermott, WSP Project Manager, to facilitate introductions and provide an overview of the agenda.

After a round of self-introductions, Nicole reviewed the discussion agreements and provided a recap of key feedback from the first Steering Committee meeting:

- Balance preservation, residential development, and land for economic development (commercial and industrial)
- Consider buildable vs. constrained lands when determining uses
- Support for some denser housing to both retain jobs lands and conform to the housing action plan
- Consider strategic adjacencies (such as parks and commercial), which can increase access and facilitate shared parking

Emma Johnson, WSP Deputy Project Manager, introduced and provided an overview of the existing development capacity of the North Shore based on current zoning. She provided a summary of existing zoning and "revised" existing zoning, which reflects the existing zoning less the Lacamas Lake Elementary School property and the Legacy Lands parcels. These properties are not anticipated to be developed according to their current zoning. The Lacamas Lake Elementary School property is currently zoned residential. The Legacy Lands properties are currently zoned for a mix of residential, business park, and commercial uses; however, the City has purchased these properties for the preservation of open space and recreational areas. The existing development capacity presented to the Steering Committee is shown in Table 1.

Table 1. Existing Capacity

	Developable Acres	Dwelling Units	People	Jobs
Existing Zoning	651	2,613	7,316	3,306
Revised Existing Zoning	512	1,687	4,724	2,895
Comparison	-139	-926	-2,593	-411

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Draft Concept Plan Discussion

Nicole transitioned to the concept plan discussion and shared a Jamboard (digital white board) displaying the two draft concept plans (Option A and Option B). Nicole noted that the concept plans were developed based on Steering Committee feedback provided during the first Steering Committee meeting, which included a review of the North Shore Subarea Plan Phase 1 outcomes and public comments. Nicole added that the sensitive area overlay shown on both concepts denote steep slopes or potential wetlands; these areas may not be developable, but could serve as greenways or trail connections.

The Steering Committee members were asked to provide feedback on each draft concept plan. General comments are listed below. An image of the jamboard for each concept with "sticky note" comments is also included.

Draft Concept Plan – Option A

Before opening the discussion, Nicole introduced Option A, and noted the following key features:

- A flow of uses, from low to high intensity (e.g. lower density residential uses are separated from industrial uses by higher density residential or mixed use areas)
- A gradation from low to high density radiating from a central node
- Land uses on one side of a road mirror the land uses across the road, providing symmetry along street networks
- A potential road located along a central ridge could provide access to the Legacy Lands parcels
- Mixed uses concentrated along Everett Street
- Multi-family housing located near the elementary school

Steering Committee comments on Option A

The following general comments were provided on Option A.

- It is a priority to retain commercial and industrial lands for job creation and tax purposes
- There are steep slopes near the airport that make it hard to develop large buildings (i.e. industrial/office park uses)
- Consider land uses within the flight path influence zone (airport overlay zone), which dictates building heights and limits some uses
- Plans should indicate that the trail system goes through Camp Currie (per the PROS plan)
- Incorporate a plaza in the central mixed use area as a central feature
- Plan could worsen congestion at the intersection with Leadbetter Road
- Soft surface trails may be placed in sensitive areas to provide low impact access to beautiful spaces
- There are capacity issues at the intersections, but not on the Everett corridor itself

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- The pending Transportation System Plan update will provide more information on possible capacity increases
- A unique but usable mixed use code should be developed for this area
- Confirmed that Leadbetter will remain a paved trail and that the boat launch will remain accessible to cars

Draft Concept Plan - Option B

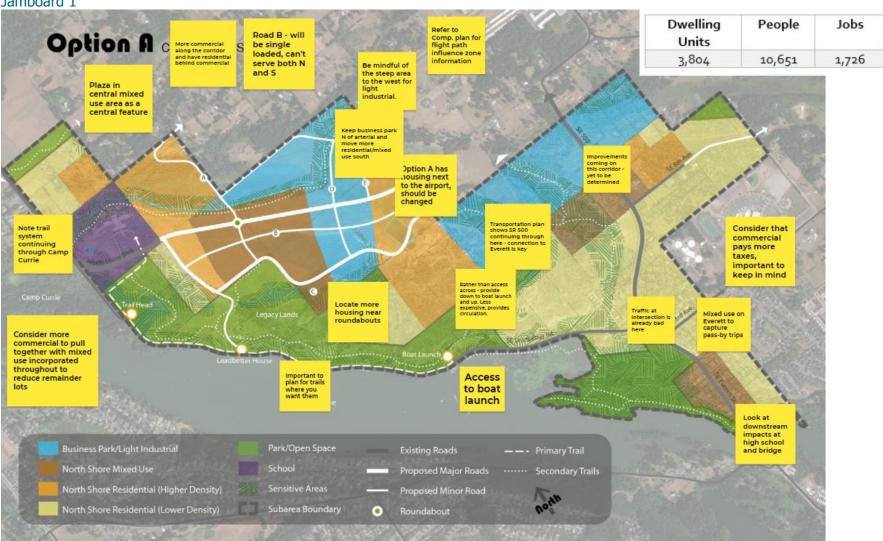
Nicole introduced Option B, noting that the concept plan has more residential units and approximately the same number of jobs as option A. Overall, Option B received more support from attendees than Option A. The Option B concept plan included the following key features:

- Denser development than Option A
- Smaller blocks of Business Park land uses
- A potential greenway through the central corridor
- A proposed roadway "Road B" through a corner of the Legacy Lands properties, providing an access opportunity

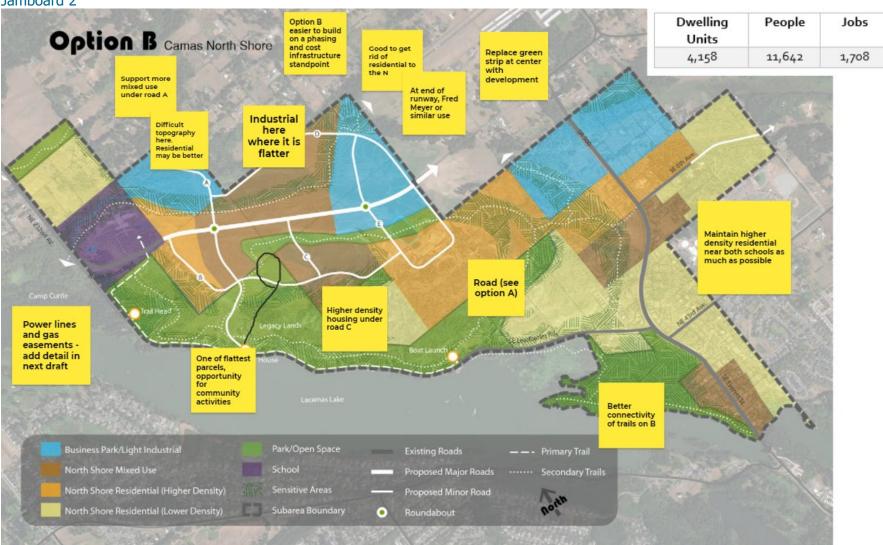
Steering Committee comments on Option B:

- Good to focus on employment lands in the north, where the land is flatter
- The infrastructure for concept B is easier to build (compared to concept A) from a phasing and cost standpoint
- Access at a flat point of the Legacy Lands would be nice if the land is developed to have community activities
- Maintain higher density residential uses near both schools
- Consider land use/development restrictions within the utility corridors (land to the north of the school is BPA-owned; utility corridor on Lynn Johnston's property is an easement)
- Consider replacing the greenway with mixed use and business park lands to retain jobs capacity
- There is better connectivity of trails in option B
- Be aware of topography and locate industrial uses in flatter areas and residential in hillier areas

Jamboard 1



Jamboard 2



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Concept Plan Development Capacity

Nicole shared a summary table of the estimated capacity (jobs, people, dwelling units) for each concept (Table 2). The table included a comparison to the estimated capacity of the existing and revised existing zoning. Nicole noted that both concept plans have the potential for a reduction in jobs and increase in dwelling units/residents.

Table 2. Concept Plan Capacity

	Developable Acres	Dwelling Units	People	Jobs
Existing Zoning	651	2,613	7,316	3,306
Revised Existing Zoning	512	1,687	4,724	2,895
Option A	504	3,804	10,651	1,726
Option B	493	4,158	11,642	1,708

Robert asked that attendees provide any additional comments and feedback to the project team by the following week. Nicole added that the WSP team will make adjustments based on the feedback and will recirculate the draft concept plans and update the capacity estimates. Nicole invited additional questions.

Additional Questions and Comments Received

Comment: The existing zoning and revised existing zoning, as well as the capacity figures, are helpful. As we determine the preferred option, it would be helpful to have context around what the city needs as opposed to what was planned.

Response [Robert]: We are starting efforts to update the Comprehensive Plan, which will look at and update the city's needed land uses to meet growth projections. The recently adopted Housing Action Plan also provides some information on housing needs.

Question: For the economic development portion, jobs numbers may not reflect reality with more people working from home. Will the research be quick enough to match up with this process?

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Response [Robert]: There is still a lot of useful information included in the Phase 1 market analysis, but we are looking into whether or not we need to update this based on COVID.

Question: What materials will be forwarded to the community group?

Response [Nicole]: The plan is to provide the Community Advisory Committee (CAC)with the information from Phase 1, as well as the revised concept plans (based on feedback from the Steering Committee), and a summary of the feedback received from the Steering Committee to date. After the CAC provides feedback, we will make further adjustments and bring the concepts to the broader community through an Engage Camas virtual event. After that event, we will create a preferred alternative that we will bring back to the Steering Committee.

Question: The community will not be given a "no build" option to comment on, is that correct?

Response [Nicole]: Correct. The community will be asked to comment on two draft concept plans (revised Option A and Option B). We are not showing the existing zoning as a "concept plan" for comment, but people can say that they prefer to stay with the existing zoning.

Response [Robert]: The "do nothing" option (existing zoning) is always present, which is different than a "no build" option. A "no build" option does not exist because private property owners could choose to develop their property under the existing zoning, which will remain in effect until a subarea plan and new zoning is adopted.

Next Steps

Committee members indicated that they would follow up with additional comments via email. Nicole and Robert thanked members for their participation and adjourned the meeting.



Meeting Summary

Date: 9 May 2022

Time: 1:30 – 3:00 pm

Meeting: North Shore Subarea Plan – Steering Committee Meeting #3

Location: Camas City Hall

Objectives

Review committee and public feedback received to date

Obtain committee input on potential preferred concept plan

Meeting Attendees

- Michael Andreotti, AKS Engineering
- Timothy Hein, Camas City Council
- Clint Hendricks, CREDC
- Jason Irving, Camas Parks and Recreation Commission
- Lynn Johnston, Property Owner
- Jerry Jones, Pahlisch Homes

- Kimbal Logan, Mills Family Property Representative
- David Ripp, Port of Camas-Washougal
- Shannon Roberts, Camas City Council
- Andy Swanson, HSR Capital

Project Team

- Robert Maul, Camas Community Development Interim Director
- Madeline Sutherland, Camas Planner
- Trang Lam, Camas Parks & Recreation Director

- Nicole McDermott, WSP
- Sam Jones, WSP
- Emma Johnson, WSP
- Aliza Whalen, WSP

Welcome and Recap

Robert Maul, City of Camas Planning Manager, welcomed attendees and invited Nicole McDermott, WSP Project Manager, to facilitate introductions and provide an overview of the agenda.

Draft Meeting Summary: North Shore Steering Committee 9 May 2022 Page 2

After a round of self-introductions, Nicole reviewed the virtual open house survey findings and the updated buildable lands/critical areas numbers and summarized key findings. Key concerns from the virtual open house included increased density and associated traffic impacts, natural area preservation, and opposition to development overall. The virtual open house summary is available on the North Shore website and was distributed to the committee prior to the meeting.

Nicole reviewed revised development assumptions and estimated capacity numbers (i.e., buildable acres, dwelling units, residents and jobs). The Project Team is reconsidering the prior assumptions based on public comments and input from the Steering Committee, which recommended further "ground truthing" how much development is likely to occur. Nicole explained that the previous development assumptions used a 30% reduction for critical areas (e.g., wetlands, habitat areas, steep slopes) and infrastructure (e.g., utilities, roads) when calculating the estimated development capacity. The new numbers presented today reflect a more conservative development capacity estimate that is based off critical areas data from Clark County GIS. While critical areas can be buildable with mitigation, such measures are very expensive and are not always pursued by a developer, as noted by a Steering Committee Member. Nicole noted that the revised assumptions are not final and are being brought to the Steering Committee for discussion and refinement.

The updated buildable lands/estimated capacity numbers subtract the full critical areas (which includes the critical areas and their designated buffers) from the gross acreage, and then an additional 30% for utilities and roads. As a result, the revised estimates for housing and jobs capacities are lower than the prior estimates. Parks, Business Park, and Residential were most impacted by the change (i.e., those areas contained higher percentages of critical areas). The Steering Committee confirmed the need to continue to discuss and refine the development assumptions in order to best estimate future development.

Workshop Comments

The committee then began a workshop to discuss which features on the two draft concepts they do not think work well, and other features that they would like to see carried through to the preferred concept plan. Large scale maps of the two draft concepts were provided, along with tracing paper and markers to begin drafting a preferred concept; however, most of the workshop consisted of a group discussion. The key comments from the workshop session are listed below. It was agreed upon that another committee meeting is needed in order to take the comments and ideas below and begin to draft the preferred plan.

Key comments from the workshop included:

- Mixed Use
 - Concern about the challenge of building mixed use because it requires partnership between commercial and residential developers

Draft Meeting Summary: North Shore Steering Committee 9 May 2022 Page 3

- Creating walkable neighborhoods can help decrease parking issues
- It is important for the space to be flexible for the future (recognizing how much live and work spaces have changed since the pandemic)
- It is difficult to make three stories of mixed-use pencil out; it is more feasible with 4-5 stories

Road placement

- Interest in understanding how zones are impacted when road alignments are refined
- Support for having flexibility with the zones to reflect the final road plan
- The current road alignments reflect both topographic features, ground truthing by the project team, and priorities to maintain access to the Legacy Lands
- Road placement was also designed to ensure 90-degree intersections, to minimize tight downward into upward slopes, and to provide continuity of uses on both sides of the street

General

- Interest in seeking cooperation between property owners to create integrated neighborhoods
- Support for building flexibility into mixed use zones to encourage creativity and to not be overly prescriptive regarding use locations
- Commercial uses often account for 10% of master planned areas
- Ensure that business park areas are right sized for the types of businesses Camas might attract – Committee Members noted 10-15 buildable acres are needed at a minimum for a viable business park/light industrial use
- It is a priority to increase jobs in Camas while also recognizing that the North Shore cannot address all housing and jobs needs for the city

Action Items

- Schedule follow up meeting to refine the preferred plan
- Remove the road access to the Leadbetter House
- Determine the acreage for the largest single business park pocket



Meeting Summary

Date: 25 May 2022

Time: 1:00 – 2:30 pm

Meeting: North Shore Subarea Plan – Steering Committee Meeting #4

Location: Camas Public Library

Objectives

Review and obtain committee input on draft preferred concept plan

Discuss next steps in the planning process

Meeting Attendees

- Kimbal Logan, Represent the Mills Family and their Property
- Lynn Johnston, Property Owner
- Andy Swanson, HSR Capital
- Shannon Roberts, Camas City Council
- Lynda David, SW Washington RTC

- Anna Bovich, Pahlisch Homes
- Michael Andreotti, AKS Engineering
- David Ripp, Port of Camas Washougal
- Timothy Hein, Camas City Council (by phone)

Project Team

- Robert Maul, Camas Interim Community Development Director
- Madeline Sutherland, Camas Planner
- Trang Lam, Camas Parks & Recreation Director
- Steve Wall, Camas Public Works Director

- Nicole McDermott, WSP
- Sam Jones, WSP
- Emma Johnson, WSP
- Aliza Whalen, WSP
- · Greg Jellison, PBS

Welcome and Recap

Robert Maul, City of Camas Planning Manager, welcomed attendees and invited Nicole McDermott, WSP Project Manager, to facilitate introductions and provide an overview of the agenda.

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After a round of introductions, Nicole reviewed the updated development capacity numbers and summarized the following key updates on the plan:

- Reduced the acreages of mixed use areas and focused them around roundabouts.
- Updated business park areas to provide contiguous areas of 10-15 acres of unconstrained/minimally constrained land (minimum). There is less business park acreage on the map compared to prior drafts, but what is there is located in areas with fewer constraints.
- Added parks and open space polygons, located in constrained areas.
- Added more multifamily neighborhood pockets. While acreage has been added, the
 estimated capacity for multifamily units has not increased by a large amount, as much of the
 land is constrained.
- Added a new commercial/mixed use node located in the center of the area.
- Removed the road through the Legacy Lands to the Leadbetter House.
- Updated the road alignments within the plan. The placement of the alignments are intended
 to intersect with the roundabouts, and the roundabouts are located to provide the best
 contiguous acreage for uses.

Workshop Comments

Key comments from the workshop included:

- Mixed Use
 - Continued interest in changing some mixed use acreage to business park to facilitate more jobs
 - Support for locating retail spaces within a half-mile of residential areas to facilitate walkability.
- Housing
 - Support for integrating different types of housing to promote a community feel. This is something that can be addressed in the North Shore-specific code.
 - To be financially feasible, housing development requires about 25 to 27 units per acre with about 10 acres developed. This plan assumed 28 units per acre for mixed use areas.
- Transportation
 - Road C has a nearly 90-degree corner, which might be better as an intersection.
- General
 - In the future, the airport runway may be extended and may add light industrial uses around it.
 - It is important to know the population and uses for the area before further developing the parks plan.

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Workshop Questions

Key questions from the workshop included:

- Q: How will people get to this area if the future connection to Everett does not happen?
 - A: People will access the area through the northern road connection.
- Q: What is the intent of the multifamily housing? Apartments or higher density single family development?
 - A: Higher density residential is proposed as 18 units per acre (maximum), which is consistent with the City's existing MF-18 zone. There is flexibility in the City's current code to build single family residences in areas zoned as multifamily.
- Q: Would the pocket parks constrain development?
 - A: Parks are shown in constrained areas. More detail can be found in the <u>Parks</u>, <u>Recreation and Open Space Comprehensive Plan</u>.
- Q: What will the main road look/feel like? Will it have four lanes?
 - One of the next steps is to prepare trip generation estimates to determine the required roadway cross sections. The team will then prepare cross section unique to the North Shore. We will also consider how the streets relate to building heights as we prepare design standards. Community feedback has emphasized the need for walkable, appropriately scaled roads, as opposed to a large, carcentric strip road.
- Q: The road to the north is a County road and will need to be improved if it will provide a key connection for the North Shore. Has the City spoken with the County about this?
 - A: The City has had preliminary discussions with both the County and WSDOT.
- Q: What is the timeline for bringing this to the public?
 - A: We hope to bring a preferred concept, draft design guidelines, and cross sections to the public in late summer. We will also meet with the Community Advisory Committee when Steering Committee feedback is incorporated into this plan.
- Q: Does the Steering Committee have any proposed revisions to the development assumptions?
 - o No revisions were identified.

Key Information and How to Share with the Public

- Refer to "higher" and "lower" density rather than single and multifamily housing.
- Share engaging visuals, including those that show sightlines from the lake.
- Set expectations for what the area may look like at different points of development.
- Consider how to convey the anticipated level of development, given that the North Shore would never be completely developed (i.e., not every area designated as residential on the map would contain houses some would be left undeveloped, turned into a park, etc.).

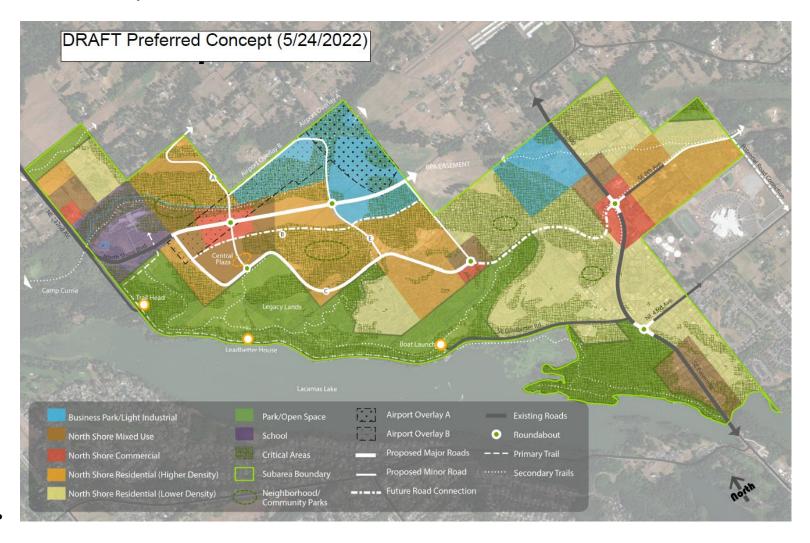
Meeting Summary: North Shore Steering Committee 25 May 2022 Page 4

Next Steps

- Incorporate Steering Committee feedback into the preferred plan
- Prepare trip generation estimates, develop preliminary cross sections, perspective drawings, and draft design guidelines
- Schedule a meeting with the Community Advisory Committee

Carrias North Shore Subarea Plan

Draft Preferred Concept 5-24-2022





Meeting Summary

Date: 14 January 2022

Time: 1:00 PM to 2:30 PM

Meeting: North Shore Subarea Plan – Community Advisory Committee Meeting #1

Location: Zoom

Objectives

• Provide the CAC with background information and materials to inform their input into land use and transportation options.

Obtain CAC input on draft options.

Meeting Attendees

- Kim Lottig
- John Svilarich
- Dan Foster

- Vicky Wessling
- Marlo Maroon

Project Team

- Robert Maul, Planning Manager
- Madeline Sutherland, Planner
- Nicole McDermott, WSP

- Sam Jones, WSP
- Emma Johnson, WSP
- Aliza Whalen, WSP

Welcome and Introductions

Robert Maul, City of Camas Planning Manager, welcomed attendees and invited Nicole McDermott, WSP Project Manager, to facilitate introductions and provide an overview of the agenda.

Members provided the following information about their interest in joining the Community Advisory Committee (CAC):

- Kim Lottig moved to Camas about six years ago and has kids in Camas schools. Kim substitute teaches and her husband works from home. Kim is interested in the Project's impact to schools.
- *John Svilarich* has lived in Camas for 20 years. In that time, he has seen Camas change a lot and had kids go through the schools. John is involved with his neighborhood association and wants to make sure that Camas gets the best improvements possible.

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- *Dan Foster* has lived in Camas for 24 years and had two kids go through the school system. He is a retired business owner and wants smart growth in the community. Dan's background is in finance for land development.
- *Vicky Wessling* has lived in Clark County for 35 years, 16 of which have been in Camas. She is excited to see Camas embracing growth. Vicky brings an environmental focus and has a US Forest Service background. She is familiar with land management issues and open space management. Vicky attended some of the Phase 1 community hearings.
- *Marlo Maroon* moved to Camas about one year ago and has spent the last 15 years in the region. Her background is in tourism, masterplan development, and community outreach.

Nicole thanked the CAC members for joining the committee and sharing their interests in the project. Nicole then reviewed the meeting agenda and introduced the discussion agreements. Nicole explained that the role of the CAC is to provide feedback on the concept plans before they go out to the larger community.

Committee Question: When do you want that feedback?

Response [*Nicole*]: Throughout the meeting today. You can also email Robert and Madeline with additional feedback.

Phase 1 Recap

Nicole provided background on the North Shore. The area is about 800 acres, 270 of which are publicly-owned, including 140 acres along Lacamas Lake. In Phase 1 the City learned that there is public preference for nothing to be developed in the North Shore, but doing nothing actually means that the land will develop according to its current zoning. Some of the outreach themes included support for preserving the natural area, providing a diversity of jobs and commercial space, and providing a mix of housing types.

Committee Question: You mentioned the development goals for Camas. Who sets those? Were those in the materials?

Response [Robert]: The City of Camas, like other cities in Clark County, have to plan with the Growth Management Act (GMA). The GMA requires a comprehensive plan which looks at a 20-year planning horizon and includes growth assumptions provided by Clark County. The zoning map and code are created to align with the comprehensive plan. It is a fluid process, and the plan is periodically reviewed and updated. Next year we will start a comprehensive plan update that will be complete by 2025.

Nicole reviewed the Vision Statement which was the final deliverable of Phase 1 and was included in the meeting packet. Key themes from the Vision Statement include:

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- Preserve natural beauty and environmental health
- Plan a network of green spaces and recreational opportunities
- Cluster uses for a walkable community
- Provide a variety of housing options
- Locate Industrial Parks and Commercial Centers to the north
- Favor local-serving businesses
- Plan for needed schools and infrastructure
- Strive to maintain Camas' small-town feel

Committee Question: Was the Vision Statement developed out of public outreach? Response [Nicole]: Yes. There was extensive outreach during Phase 1, including community events, surveys, and a community visioning exercise that provided the foundation for the concept plans we will share later today.

Committee Question: Can we get an email with the current zoning map? (Action Item) *Response* [Nicole]: Yes. Later in the presentation, we will also provide an overview of current zoning and relate future capacity estimates to current zoning.

Committee Question: What growth rate is used for the growth plan and over what timeframe? Response [Robert]: We use a 20-year horizon, which is based on projections provided by Clark County. Our current comprehensive plan included an anticipated 5-6% growth rate. In reality, we have been growing a little more than that. Response [Nicole]: This project is also a 20-year plan. The numbers you will see for population and employment are projected forward 20 years at full buildout of the area. Response [Robert]: Land protection also takes up space for growth. We have to address that, but not necessarily all in this area. This plan will be built into the next update of the comprehensive plan.

Phase 2 Overview

Nicole explained that Phase 2 is focused on developing the subarea plan, using the Vision Statement as a guide. Through committee feedback and public review, we will narrow down to a preferred option. We will also develop North Shore-specific zoning requirements such as lot sizes, setbacks, and street cross sections. The deliverables for the project include stakeholder and community outreach, a land use plan, a utility and roadway plan, design standards/guidelines, a parks and trails plan, and zoning and comprehensive plan designation recommendations.

We are currently at the concept plan development phase. In February we will have a virtual community event. We will then bring the preferred option back to the CAC for feedback. Nicole invited Emma Johnson to discuss the Phase 2 land use and transportation options.

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Emma provided additional context and considerations for the draft concept plans, including steering committee feedback, the housing action plan, the current comprehensive plan, and the current transportation improvement plan.

Emma noted that the Steering Committee is composed of representatives from City Council, the Parks Commission, technical experts, and property owners. The Steering Committee has had opportunities to provide feedback at two meetings.

Emma also noted the housing action plan, recently adopted by the City, includes housing needs projections that indicate a need for 4,600 additional dwelling units to meet anticipated growth. Current zoning only has a capacity for an additional 3,700 units. This discrepancy indicates a need for strategies to accommodate this anticipated growth.

Emma provided an overview of the existing development capacity, which outlines how North Shore could develop based on existing zoning. She provided a summary of existing zoning and "revised" existing zoning, which reflects the existing zoning less the Lacamas Lake Elementary School property and the Legacy Lands parcels. These properties are not anticipated to be developed according to their current zoning. The Lacamas Lake Elementary School property is currently zoned residential. The Legacy Lands properties are currently zoned for a mix of residential, business park, and commercial uses; however, the City has purchased these properties for the preservation of open space and recreational areas. The existing development capacity presented to the CAC is shown in Table 1.

Table 1. Existing Capacity

	Developable Acres	Dwelling Units	People	Jobs
Existing Zoning	651	2,613	7,316	3,306
Revised Existing Zoning	512	1,687	4,724	2,895
Comparison	-139	-926	-2,593	-411

Committee Question: Is there a schedule for developing the roadways included in the Transportation Improvement Plan?

Response [Robert]: No. We have a citywide list that is updated once a year and is subject to funding and ability to design and construct. A considerable number of improvements are also development driven.

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Committee Question: Looking at Everett (#2 on the Transportation Improvement Plan Map), does that include the bridge at Bridge Village? If not, what is the strategy for getting through that chokepoint?

Response [Robert]: It is part of that planned project. There is money appropriated to do a high-level design. Once that is complete, Public Works can discuss scope, cost, and engineering with Council. The update is complex because the area is already developed, and the bridge has water and sewer lines attached.

Committee Question: Is timing more of a factor, or financing and tax base? This must be addressed for the North Shore development.

Response [Robert]: I agree and that is why it is number 2 on the priority list.

Jamboard Discussion

Option A

Nicole introduced Option A. Compared to the revised existing zoning, this concept has 1,600 more housing units and about 330 less jobs. The hatched areas reflect those that are environmentally sensitive, light yellow is low density residential up to 7,500 SF lots, orange is higher density with 18 units/acre assumed, brown is mixed use (commercial and residential), red is commercial, and blue is business park/light industrial.

Sam Jones, WSP, noted the orientation of the map and highlighted the airport overlay, which prohibits any residential development. Adjacencies to open space were also considered, such as how mixed-use development would facilitate better access than single-family residential. These plans show collector and arterial-level roads but not the internal road network that would be needed to access individual properties. Nicole and Sam invited questions and feedback. Committee member questions and project team responses are included below, followed by an image of the Option A jamboard.

Committee Question: What would mixed use look and feel like?

Response [Nicole]: This is still to be determined and part of what we want CAC and public input on. We are thinking of both vertical and horizontal mixed use that would include a mix of commercial and residential uses with parks and playgrounds incorporated throughout.

Response [*Robert*]: This area will also get its own zoning code that will define the design standards.

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Committee Question: Have you considered doing "smart city" planning that is energy efficient? And incorporating features like breweries in the light industrial areas?

Response [*Robert*]: These are the types of things that could go into the North Shore zoning code. There will be an opportunity for the CAC and the public to provide specific input on the code. Once that code is developed and adopted, that is what will dictate the design standards developers have to abide by. We are also looking at examples, such as the Columbia Tech Center, for ways to integrate light industrial with other uses.

Response [Sam]: One of our goals on both concepts is also to create walkable spaces and have close connections through streets, trails, and greenways.

Committee Question: How will we meet the housing needs? Will we have to re-zone the Legacy Lands?

Response [Robert]: No. We do not anticipate housing on the Legacy Lands. We need to increase the housing supply to meet our growth projections, but we do not have to do it all in this effort. We can look to other parts of the city as well.

Committee Question: How is housing density determined? Are there guidelines?

*Response [Robert]: The North Shore zoning code will set the housing density for this area.

In order to determine the appropriate density for this area, we are considering committee and public feedback, the topography of the area, and the transportation network, including improvements that will be recommended in this effort. Typically, higher density housing has a higher reliance on and utilization of public transportation.

Response [Nicole]: We are also considering adjacencies to other uses. For example, locating multifamily housing near jobs and schools can increase walkability.

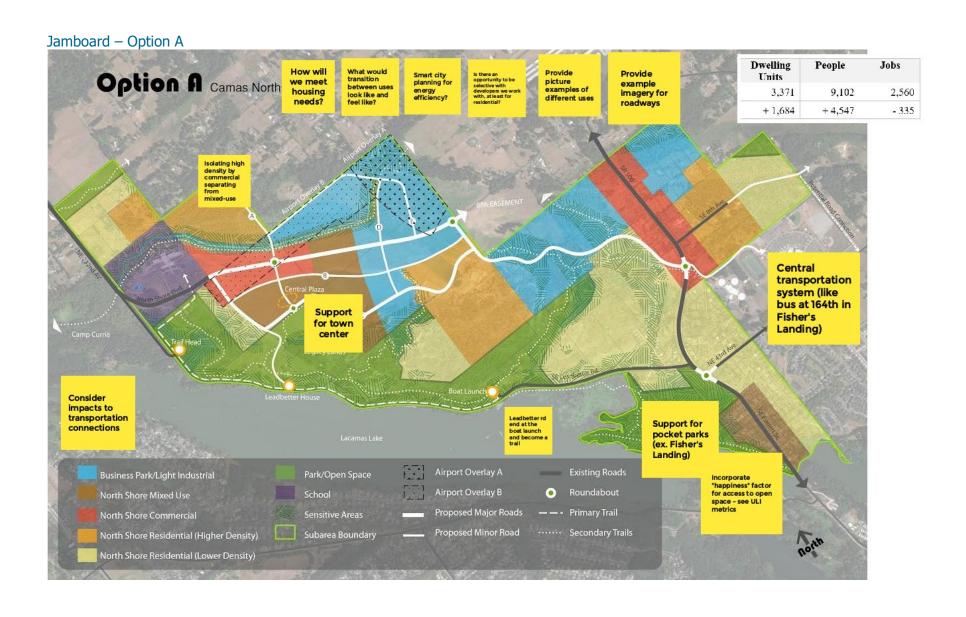
Committee Question: Is there an opportunity to be selective with the developers we work with?

Response [Robert]: We can only determine the development standards in the zoning code. We want to create some new provisions/standards for developers and we already have a design review committee for commercial development. It is incumbent upon us to have standards in place.

Response [Nicole]: As we have also mentioned, we will ask for CAC and public feedback on development standards.

Committee Question: Can we add picture examples to help visualize these spaces? It would also be helpful to have an idea of what the roadways would look like.

Response [Nicole]: Yes, absolutely.



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Option B

Nicole shifted to introduce Option B. This concept includes more dwelling units and less jobs than Option A. Based on Steering Committee feedback, we focused commercial areas around the roundabouts and located some business park land near the high school, which could be an interesting opportunity to share resources and campus amenities. Committee member questions and project team responses are included below, followed by an image of the Option B jamboard.

Committee Question: Is Leadbetter a dead end on the other side?

Response [*Robert*]: There is a future road connection by Lacamas Lake Elementary School which provides access to the trailhead near Camp Currie.

Committee Question: Is there a buffer along Leadbetter? Will any trees be removed? *Response* [Nicole]: The roadway will stay in its current location but it will only be available to bikes and pedestrians.

Response [Robert]: Once the City's Parks, Recreation and Open Space plan (currently underway) is finalized there may be a need for minimal tree removal to accommodate future trails. This removal would be done in accordance with City standards.

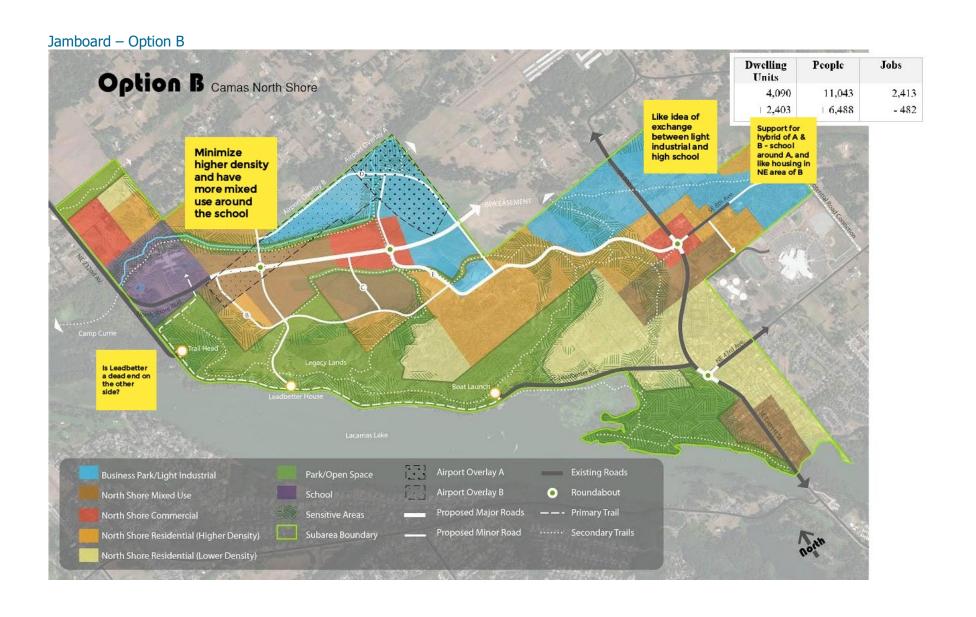
Committee Question: Have there been any traffic considerations? Does one concept place more demand on the 192 connection and the other on the downtown Camas connection?

Response [*Robert*]: That's a great question. That's part of the next step in the planning process is to look more closely at the transportation impacts of the plans.

Committee Question: Many people during Phase 1 said they do not want more houses. Having fewer jobs and more housing will be challenging.

Response [*Robert*]: I agree and we have adjusted the concepts to have more jobs since the first version reviewed by the Steering Committee, but we also need to make up for the housing loss with the Legacy Lands purchase. This is just the beginning of the concept planning process and we will adjust the plans based on public feedback.

Nicole invited CAC members to share additional questions and comments with Robert and Madeline via email.



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Next Steps

The next step in the process is bringing the concept plans to a virtual community event in mid-February, through EngageCamas. We will then come back to the CAC in March or early April for a second meeting to review a preferred concept plan and draft design standards.

Robert thanked members for their help, welcomed additional thoughts via email, adjourned the meeting.



Meeting Summary

Date: 15 June 2022

Time: 1:00 PM to 3:00 PM

Meeting: North Shore Subarea Plan – Community Advisory Committee Meeting #2

Location: Zoom

Objectives

Review feedback from the open house and steering committee

Obtain CAC input on the draft preferred concept

Discuss design guidelines and standards

Meeting Attendees

Marlo Maroon

Vicky Wessling

John Svilarich

- Dan Foster
- Kim Lottig

Project Team

- Robert Maul, Camas Interim Community Development Director
- Nicole McDermott, WSP

- Sam Jones, WSP
- Emma Johnson, WSP

Welcome and Introductions

Robert Maul, City of Camas Interim Community Development Director, welcomed attendees and invited Nicole McDermott, WSP Project Manager, to facilitate introductions and provide an overview of the agenda. After a round of self-introductions, Nicole provided an update on the North Shore planning efforts accomplished since the last CAC meeting, including the open house, Steering Committee workshops, and development of a draft preferred concept, which will be reviewed today. Nicole noted that the draft preferred concept can be revised, if needed, before the next open house.

Open House and Steering Committee Feedback

Emma Johnson, WSP provided a recap of the two draft options that were previously shown to the CAC during their first meeting, and then brought to the public for comment during the virtual open house. Emma summarized feedback on the two options from the community and the Steering Committee, and noted this feedback was incorporated into the draft preferred concept.

Summary of feedback from the open house:

- General agreement that the various elements in both options meet the intent of the Vision Statement.
- Participants felt that the options best addressed the Vision Statement by:
 - Option A: identifying sensitive areas to be preserved, creating a series of connected trails throughout the subarea, and the creation of a central plaza for community events.
 - Option B: creating a series of trails and pathways to connect residential areas to commercial centers, identifying sensitive areas to be preserved, and allowing for a mix of housing types.
- Key concerns included increased density and associated traffic impacts, natural area preservation, and opposition to development overall.

Summary of feedback from the Steering Committee:

- Mixed-Use areas can be challenging because they require partnerships between commercial and residential developers
- It is difficult to make three stories of Mixed-Use pencil out; it is more feasible with 4-5 stories
- Support for building flexibility into Mixed-Use zones to encourage creativity and to not be overly prescriptive
- Ensure that Business Park areas are right-sized for the types of businesses Camas might attract (10-15 buildable acres are needed at a minimum)
- It is a priority to increase jobs in Camas while also recognizing that the North Shore cannot address all housing and jobs needs for the city.

Nicole added that, in addition to the preferred concept, this feedback will be incorporated into the design standards, which will provide a more detailed approach to topics such as streetscape design and natural area preservation.

Committee Question: Were there any requests or comments on the draft concepts that could not be accommodated?

Response [Nicole]: Several open ended comments said that no development should occur. Because the North Shore is already zoned for development, and much of it is under private ownership, that is not feasible. We need to strike a balance between what property owners want, what development will be feasible for the area, and what the community wants. Because the preferred concept is very high level (e.g., which uses go where), the North Shore design standards and zoning code (to be developed) will help

Meeting Summary: North Shore Community Advisory Committee #2 15 June 2022

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get us closer to that balance. We want the standards and code to be prescriptive enough to ensure development meets the intent of the vision statement, but also to have some flexibility in how developers can meet that intent.

Draft Preferred Concept

Nicole shared the draft preferred concept and walked through some of the key features and noted how these relate back to the feedback on the draft options. These include:

- A centrally located commercial and mixed-use area with central plaza connecting to Legacy Lands
- Business Park acreage is focused where there are 10-15 contiguous acres of unconstrained land
- Parks and open space areas located on the edge of the subarea. These areas were identified by conducting a half mile and a quarter mile walkshed analysis (i.e., how far someone would have to walk to reach a park/open space). All areas in the North Shore are within a half mile of a park/open space; the parks/open spaces at the edges of the subarea were added so that all areas are within a quarter mile walkshed.
- Mixed-use areas are surrounding commercial areas around roundabouts
- Higher density residential is focused on neighborhood pockets
- Having higher density residential and Mixed Use near the Legacy Lands will help
 address some of the parking demand and access needs of the Legacy Lands, which will
 be a regional draw. If only single-family residential areas were adjacent to the park, you
 might run into issues with parking in the neighborhoods, high traffic, etc.

Committee Question: Would the trails be paved or dirt?

Response [Sam]: This would likely depend on the area/context. For trails outside of the Legacy Lands there is some flexibility in terms of their scale and how they are built, which is tied to nearby land uses, what features they are connected to, etc. Along roadways the trails might be a paved shared use path, but if the trails are in constrained areas, near wetlands, etc. they might be a soft surface trail (e.g., dirt, gravel). Response [Robert]: The trail extending from Leadbetter Road would be paved, but once the trails get into the elevation in Legacy Lands a good portion would be soft surface. We also avoided having a road running through the Legacy Lands per comments from the City and Steering Committee, and consistent with public input to preserve natural areas.

Committee Comment: Steigerwald Lake Wildlife Refuge reopened and there are only two ways in and limited access. We need to ensure that we have adequate access points to Legacy Lands so people can get in and use it. We should consider how far most people will actually travel from access points/parking areas.

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Committee Question: Will Leadbetter Road dead end at boat launch as shown?

*Response [Robert]: Yes, this decision actually goes back several years before the North Shore planning efforts. There is an opportunity with City owned facilities at/near the boat launch to provide parking areas and access points. CJ Dens (an approved subdivision in the area) also has to provide trails through their development which will integrate with the Legacy Lands trail system.

Committee Question: Will the commercial area without a roundabout be serviced by 222nd? *Response [Robert]:* Yes.

Emma then reviewed the estimated development capacity for the draft preferred concept, which are 3,032 dwelling unites, 8,187 residents, and 1,271 jobs. Emma noted that the development assumptions have been revised since the open house. The prior assumptions assumed that 30% of gross acres would not develop due to critical areas (wetlands, steep slopes, habitat) and roads/utilities. Feedback from the community and Steering Committee led to revised assumptions, given how much of the North Shore contains critical areas, which can restrict development. The current assumptions include that (1) no development would occur on wetlands (due to local, state and federal protections that either restrict or make development very expensive), (2) development would occur on 25% of other constrained areas (wetland buffers and other types of critical areas and their buffers), and (3) 30% of the remaining land would be used for infrastructure (roads and utilities), which would not contribute to the population or jobs estimates.

Nicole added that these assumptions are not final and can still be adjusted based on feedback, but that the project team is fairly confident in the current assumptions. Nicole noted that the development estimates need to strike a balance and provide a realistic expectation for how the North Shore will look. If the estimated capacity is too high it could be unrealistic and jarring to the community, and if it is too low it could underestimate how the area might develop and be inconsistent with community expectations.

In response to a request from the committee, Nicole went back to the slides with Concepts A and B and discussed the progression to the draft preferred concept.

Committee Question: Can you confirm that the development assumption is that 30% of the land would be needed for utilities and roads?

Response [Nicole]: Yes. That's a common industry assumption and is also consistent with the Clark County Buildable Lands Model.

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Committee Question: For understandability by the general public, it would be useful to visually show these assumptions and how they relate to the line items in the table.

Response [Nicole]: That is a good point, and we can draw those connections better. Response [Sam]: It might be useful to have a graphic that focuses on the wetlands and other constrained lands. We will work on that for the next open house.

Committee Question: What type of development would occur on the developable acreages for parks/open space and the school? Recreational?

Response [Robert]: Yes, that would consist of recreational facilities, although what type (e.g., sports field, building) will depend on the site constraints and the Legacy Lands plan, which is a next step for the City.

Response [*Nicole*]: We did not include those developable acreages in the capacity estimates since they would not include residences or commercial/industrial jobs.

Committee Question: Can you review the development assumptions for options A and B? *Response [Emma]:* Yes – I will add the caveat that these are based on the prior development assumptions. For the open house we estimated option A could have 3,679 dwelling units, 9,933 residents, and 2,560 jobs. We estimated option B could have 4,735 dwelling units, 12,785 residents, and 2,166 jobs.

Response [Nicole]: For the next open house we will apply the revised assumptions to the existing zoning so that we have an apples to apples comparison for the draft preferred concept. But it will also be good to show the comparison with the old estimates for options A and B and discuss how we revised the assumptions based on community and Steering Committee feedback.

Committee Comment: The numbers look like fairly low density – I applaud the team on these.

Design Guidelines/Standards

Nicole stated that a next step in the process will include the creation of draft design guidelines and standards for the North Shore. She provided definitions and examples for each:

- **Guidelines:** A discretionary tool to guide the look and feel of development in a way that is consistent with the adopted vision statement. Examples:
 - Streetscapes are designed at a pedestrian-scale and have a small-town feel
 - Landscaping uses native plants and reflects the Pacific Northwest
- **Standards:** Prescriptive requirements that are codified and required. Examples:
 - Building setbacks from the street
 - Street cross sections
 - Frontage requirements
 - Landscaping requirements

Meeting Summary: North Shore Community Advisory Committee #2 15 June 2022 Page 6

Nicole and Sam then walked through some examples of graphics that illustrate design guidelines and standards. Nicole noted that these graphics are examples from other subarea plans in Washington and were not developed for the North Shore. The project team would like to hear the CAC's initial thoughts on both the guidelines/standards and how they should be presented/illustrated for the public at the next open house.

The graphic examples included residential and commercial development, as well as streetscapes, trails, and open spaces. Committee comments included the following:

Committee Comment: I sit on a homeowner's association (HOA) and I will add that our roofing standards in the HOA requirements do not work. It would be good to have standards that consider the anticipated waterflow and the use of downspouts and gutters. We also need to consider setbacks from green spaces/trees to development in response to wildfire hazard.

Committee Comment: There is a lot going on with the draft preferred concept, and these are really helpful and key to making sure everyone is on the same page on what this would look like.

Committee Comment: I would like to see green roofs, rain gardens, and other stormwater amenities. They would not have to be required but could be encouraged. We should deal with runoff in a way that will enhance livability and ambience through the creative use of stormwater facilities and permeable surfaces.

Response [Nicole]: That is a good example of where something could be a guideline and not a standard.

Committee Question: Have dark sky standards come up in community feedback? That would also be something we could encourage without requiring.

Response [*Nicole*]: They have not come up a lot in feedback, so this is a good reminder. There are good examples of dark sky requirements in other codes.

Response [Sam]: There are stringent standards in places like Eugene, and we could pull some inspiration from there.

Committee Comment: Looking at the planting strips – grass is hard to maintain, and the existing strips are often not wide enough for healthy trees. It is also expensive to replace trees if the strips are not wide enough as you have to replace the sidewalk.

Response [Robert]: The City actually has an updated street tree list and width requirements for planter strips. They can be found on the City's engineering page.

Meeting Summary: North Shore Community Advisory Committee #2

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Committee Comment: I like how there is a pedestrian space/open space but it's not an official park. It's good to provide examples of this and show how the map is really a minimum for pedestrian and recreational areas.

Committee Comment: The work and play mix is nice. It might be something to pull through all of the images and places for North Shore.

Sam reiterated that these graphics were developed specifically for the subarea plan they were prepared for. For the North Shore, we would show the densities proposed in the North Shore plan.

Wrap Up/Next Steps

Nicole asked if there were any other questions or comments.

Committee Question: Are there any City efforts around supporting small businesses or BIPOC owned businesses?

Response [Robert]: There are no current citywide efforts. The City recognizes that large business parks are not really happening in this region. The City would like to get startups (e.g., ABSCI at Columbia Tech Center) which can then grow. The trick is considering who is able to own and build the brick and mortar stores that small businesses need. There are investors who create those spaces for rent. While there is no citywide effort, for the North Shore we are trying to find the best economic development tools to make this area successful, and we don't want to just put colors on the map and hope it happens.

There was some group discussion about encouraging these efforts on a city-wide scale. Nicole added that the North Shore subarea plan could include these and serve as a first step for the city.

Committee Question:Is there a way to accommodate solar panels without creating an aesthetic issue?

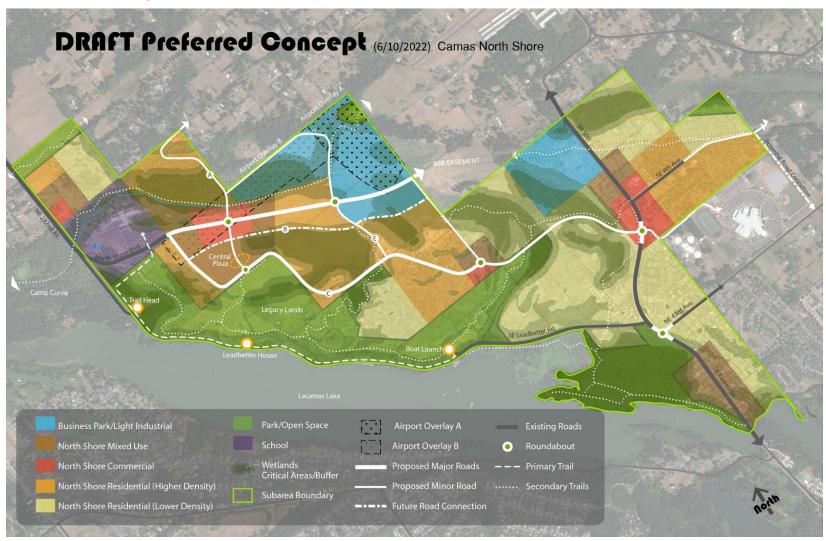
Response [Robert]: That is something we can look into as we develop the design standards and guidelines.

Nicole reviewed the next steps for the North Shore, which include a second survey and open house in late summer, where we will present the draft preferred concept as well as draft design guidelines and standards.

Robert thanked members for their help and taking the time to meet with the project team. He added that any additional thoughts or feedback could be provided via email and adjourned the meeting.

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Draft Preferred Concept – June 10, 2022





Existing Conditions, Opportunities, and Constraints

City of Camas North Shore Subarea Plan

Submitted to

City of Camas Camas, Washington

February 2020 Revised September 2022

Submitted by

WSP USA 210 East 13th Street, Suite 300 Vancouver, Washington 98660-3231

31600072.000

EXISTING CONDITIONS, OPPORTUNITIES, AND CONSTRAINTS

North Shore Subarea Camas, Washington

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EXISTING CONDITIONS, OPPORTUNITIES, AND CONSTRAINTS NORTH SHORE SUBAREA PLAN CAMAS, WASHINGTON

1.0 INTRODUCTION

The City of Camas (City) is beginning work on a subarea plan for the area north of Lacamas Lake, known as the North Shore (see Figure 1). Over the next 20 years, the entire city – including the North Shore – is anticipated to experience substantial growth and development as a result of population growth in the greater Southwest Washington region. The population of Camas itself is growing at a rapid rate, having jumped over 20% from 2010 to 2019, and projected to grow by another 40% by 2035.¹

The North Shore subarea consists of over 900 acres of primarily agricultural land, single-family residences with large, rural acreages in the North Shore area and smaller lot residential development along SR 500 with some commercial uses at the southern end of the lake. Large, sparsely developed parcels have made the North Shore a prime target for developers seeking to locate in the rapidly growing city. For the past decade, development interests have focused on the large parcels available in the north of the subarea, hoping to capitalize on the large-acreage "business park" zoned properties. In addition, multiple single-family subdivisions have been constructed or planned near Lacamas Lake. Some of these are slated for luxury dwellings, and the most recently approved subdivision will consist of over 200 lots². This trend of large subdivisions and homes for high-income families, while one type of housing needed in the city, does not provide the variety of housing or mixed-use development that the community envisioned in their comprehensive plan, Camas 2035 that was adopted in 2016.

As the city faces ongoing population growth and development pressure, many residents have expressed frustration at the loss of open space and a desire to maintain the small town feel that they love. In addition, residents have expressed concerns that the booming population will continue to squeeze the existing housing market, making homes in Camas less affordable for future generations. The long-range North Shore Subarea Plan presents a unique opportunity for the community to establish a vision for over 900 acres in the city, one that balances the need for employment lands to provide living wage jobs; residential lands to provide for a mix of income and residence types; and sufficient parks and trails to maintain access to open spaces and recreation, which is considered a defining feature of Camas life.

¹ The 2019 population estimate is 24,090 and the 2035 population projection is 34,098 (Washington Office of Financial Management [OFM] 2019).

² The subdivision, if constructed, is named "CJ Dens".

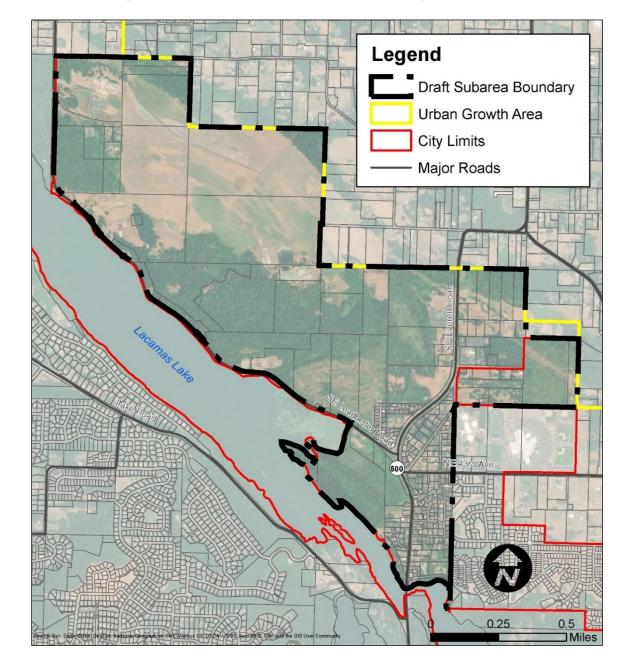


Figure 1. North Shore draft subarea boundary

The purpose of the subarea planning process is to guide future development in the North Shore in a way that respects private property rights and preserves the unique character of the area while anticipating the needs of future residents.

This report includes an assessment of existing conditions within the boundaries of the North Shore subarea and evaluates the adequacy of Camas' regulatory framework to support the types of land uses anticipated for this area based on the community's desire for balanced growth. Key considerations for the development of the subarea plan are summarized in section 4.

2.0 EXISTING CONDITIONS

The following sections describe the existing conditions within the subarea including land use and zoning; parks, trails, and open spaces; critical areas; utility (water and sewer) infrastructure and capacity; and the current transportation network and planned improvements. Consideration is given as to how these existing conditions will contribute to the future of the North Shore, which was envisioned in Camas 2035, as an area to fulfill the employment and retail needs of the growing population and reduce trips outside of the city.

2.1 LAND USE AND ZONING

The North Shore subarea consists of a range of development, from small lot, residential and "main street" commercial development in the southern portion of the area along SR 500, to farmland and large, developable rural parcels in the north. The nearby Port of Camas-Washougal airport (Grove Field), Clark County's Lacamas Park, and Camas High School provide destinations for many passing through the area.

Zoning within the subarea is identified on Figure 2 and includes Camas designations. The portion of the subarea that falls outside of city limits, and within the city's urban growth area has adopted comprehensive plan designations and will receive associated zoning when it is eventually annexed. Camas zoning within the subarea includes a mix of both single-family residential (R-7.5, R-10, R-12) and multifamily residential (MF-10, MF-18), Business Park (BP), Community Commercial (CC), and Open Space (OS). A Gateway/Corridor overlay zone extends along State Route 501 (SR 501) from NE Everett Drive (a primary gateway) to just past NE Lake Road (a secondary gateway). The purpose of this overlay is to create a sense of place in Camas along with building design cohesiveness. A primary gateway is a main entry into Camas and includes a corridor, whereas a secondary gateway is limited to an intersection or a few city blocks. In addition, most of the subarea lies within the Airport Overlay (zones A, B, and C), which restricts the height of proposed structures and land uses to ensure compatibility.

There is a mix of comprehensive plan land use designations within the subarea, which are reflective of the zoning (Figure 3). Designations include industrial, commercial, multifamily residential, single-family residential, and open space/parks. The portion outside of the city limits is designated as Urban Holding (UH) by the County.

City zoning adjacent to the subarea consists primarily of residential zones (R-6, R-7.5, R-10, R-12) and one parcel zoned neighborhood park (NP). The county zoning adjacent to the subarea includes a mix of residential acreage lots (5 to 10-acre parcels), as well as airport (A) and agriculture (AG-20).

It is anticipated that the portion of the subarea outside of city limits (but within the Urban Growth Boundary) will eventually be annexed into the city. As currently designated³, this portion of the subarea would likely be annexed into Camas as single

-

³ The city's comprehensive plan map includes land use designations for areas outside city limits, yet within the urban growth area. Each comprehensive plan designation has associated zoning. Refer to the table of corresponding zones at Camas Municipal Code, Section 18.050.020.

family residential, based on the current residential use of the properties and adjacent zoning.

Development standards for city zoning designations are outlined in Table 1 and Table 2 below.

Table 1. Development Standards

	Zone							
Standard	R-7.5	R-10	R-12	MF-10	MF-18	CC	BP	
Maximum Density (dwelling units/net acre)	5.8	4.3	3.6	10	18	vith a nent ent	al not	
Minimum Density (dwelling units/net acre)	n/a	n/a	n/a	6.0	6.0	n/a allowed with a development agreement	n/a Residential not allowed	
Average Lot Size (sq. ft.)	7,500 ¹	10,000 ¹	12,000 ¹	n/a	n/a	p al		
Min Lot Size (sq. ft.)	6,000	8,000	9,600	3,000	2,100	None	1/2 acre	
Max Lot Size (sq. ft.)	12,000	14,000	18,000	n/a	n/a	None	None	
Minimum Lot Width (ft.)	70	80	90	36	26	None	100	
Minimum Lot Depth (ft.)	90	100	100	70	60	None	100	
Max Building Coverage	40%²	35%²	30%²	55%	65%	None	50%	
Maximum Building Height	35 ³	35 ³	35 ³	35 ³	50 ⁴	None	None	

Average lot area is based on the square footage of all lots within the development or plat. The average lot size may vary from the stated standard by no more than 500 square feet.

Table 2. Building Setbacks

		Single-Fa						
Lot Area	Up to 4,999 sq. ft.	5,000 to 11,999 sq. ft.	12,000 to 14,999 sq. ft.	15,000 or more sq. ft.	MF-10	MF-18	CC⁴	BP ⁴
Minimum front yard (ft.)	20	20	25	30	15 ²	10 ²	Note 5	15
Minimum side yard and corner lot rear yard (ft.)	5	5	10	15	3 ³	3 ³	None	15
Minimum side yard flanking a street (ft.)	10	10	15	15	15	15	None	15
Minimum rear yard (ft.)	20	25	30	35	10	10	None	50
Minimum lot frontage on a cul- de-sac or curve (ft.)	25	30	35	40	Note ⁶	Note ⁶	Note ⁶	Note ⁶

Setbacks may be reduced to be consistent with the lot sizes of the development in which it is located. Notwithstanding the setbacks requirements of the zoning code, setbacks and/or building envelopes clearly established on an approved plat or development shall be applicable.

The maximum building lot coverage for single-story homes may be up to 45% in R-6 and R-7.5 zones, and 40% in R-10 and R-12 zones. To qualify for increased lot coverage, a single-story home cannot include a basement or additional levels.

³ Maximum building height: three stories and a basement, not to exceed height listed.

⁴ Maximum four stories but not to exceed height listed.

^{2 20} feet at garage front.

Maximum four stories but not to exceed height listed.

- Commercial and industrial development setbacks shall be as follows, unless along a flanking street of a corner lot. If along flanking street, then the setback must be treated like a front, and provide safe sight distance.
- ⁵ Residential dwelling units shall satisfy the front setbacks of CMC Section 18.09.040 Table 2, based on comparable lot size.
- ⁶ Code is silent on this standard.

There is more flexibility in the development standards identified above through the City's ordinance dealing with planned residential developments (PRD) and through development agreements in commercial zones. The PRD process is further described in section 3.3.4

Portions of the subarea are located in shoreline jurisdiction associated with Lacamas Lake and Round Lake. Future development within shoreline jurisdiction will be subject to the provisions of the city's shoreline master program (SMP). Shoreline environment designations along Lacamas Lake consist primarily of Urban Conservancy, with two stretches of shoreline designated as Medium Intensity (see Figure 4). Per the SMP, "Medium Intensity shoreline designation is provided in the northeast portion of Lacamas Lake to provide a center for mixed-use development that will include water-dependent and water-oriented uses that increase the public's ability to enjoy public waters and may include residential use in mixed-,use proposal."

Although preliminary shoreline jurisdiction is shown on the SMP's shoreline designations map, the actual extent is determined by site conditions. Jurisdiction includes lands extending 200 feet in all directions, as measured on a horizontal plane from the ordinary high water mark (OHWM), floodways, and contiguous floodplain areas landward 200 feet from such floodways, associated wetlands, critical areas with associated buffer areas, river deltas associated with the streams, and lakes and tidal waters that are subject to the provisions of this program. Therefore, more of the subarea may fall within shoreline jurisdiction than what is shown on the shoreline map.

Development under the existing zoning would be subject to market demands and current zoning. Under the existing zoning there are limited provisions requiring mixed-use developments, walkability, or the preservation of open space beyond areas that are already protected as critical areas (e.g., streams, wetlands, steep slopes). The subarea planning process will identify the zone(s) that best accommodate the land uses anticipated within the subarea, and new zoning designations – specific to North Shore – may be recommended.

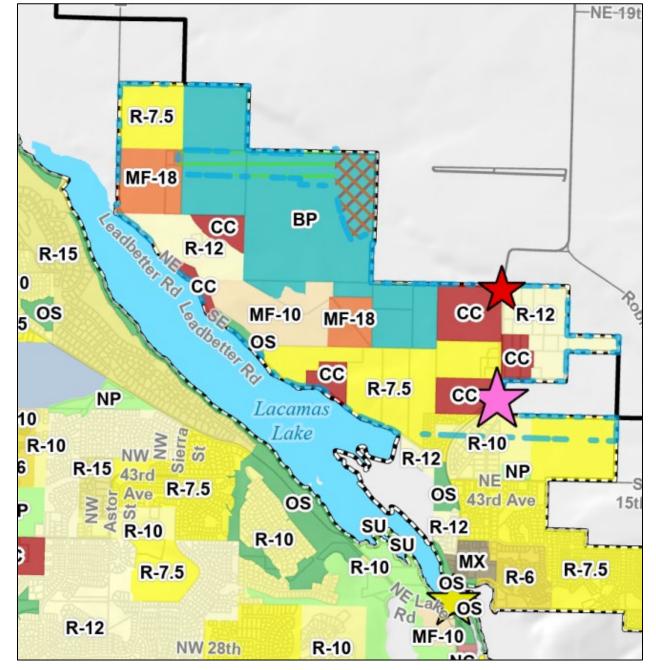


Figure 2. Zoning designations

Key: Single-family residential (R-7.5, R-10, R-12), Multifamily residential (MF-10, MF-18), Business Park (BP), Community Commercial (CC), and Open Space (OS).

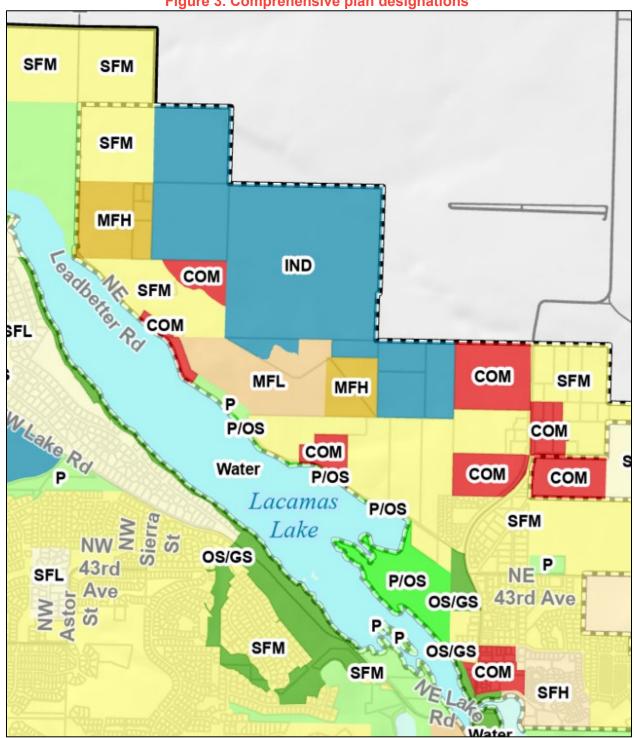
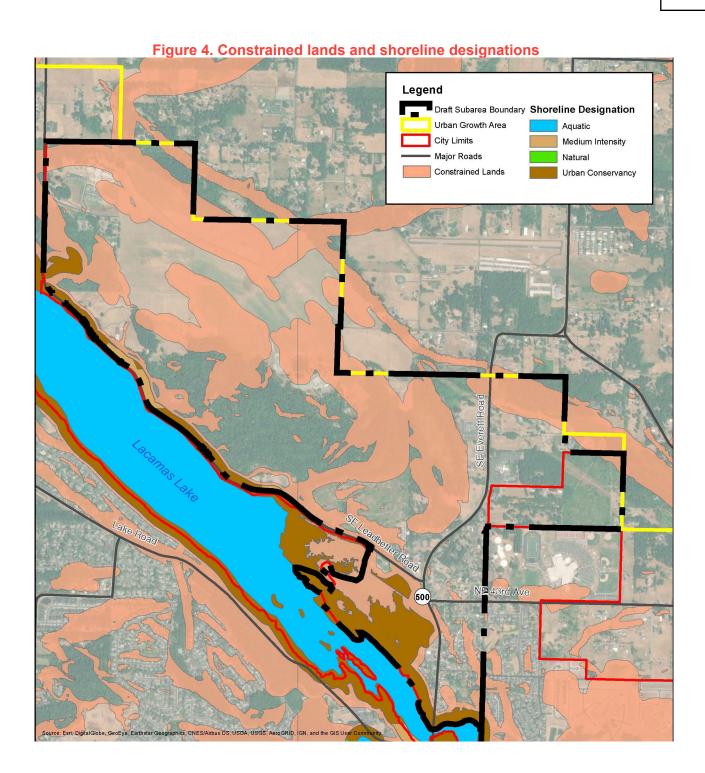


Figure 3. Comprehensive plan designations

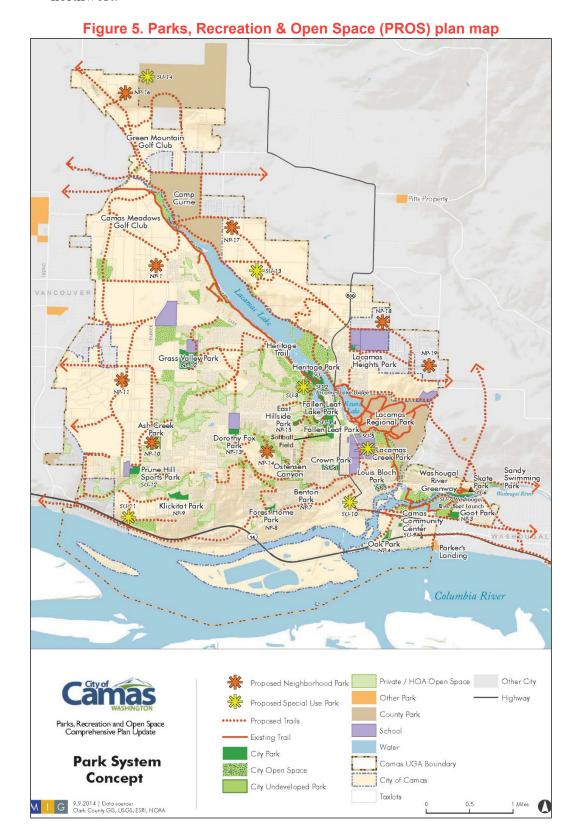
Key: Single-family medium (SFM); Multi-family high (MFH); Multifamily low (MFL); Industrial (IND); Commercial (COM); Parks/Open Space (P/OS).



2.2 PARKS, TRAILS, AND OPEN SPACE

Existing and proposed parks, trails, and open spaces are identified in the city's Parks, Recreation, and Open Space Comprehensive Plan (PROS) Plan (see Figure 5). There are no existing trails or developed park facilities within the subarea, although the county's Lacamas Lake Regional Park is located just southeast of the study area. The regional park provides 312 acres of various recreational uses, including fishing and hiking. In addition, Camp Currie, a Clark County-owned property currently in use as

a youth camp, is located on 140 acres of forested lands bordering the subarea to the northwest.



The City has taken several steps towards planning and developing new recreational areas to serve the growing population. Conceptual opportunities for additional recreational facilities in the North Shore were identified in the PROS Plan as detailed in section 3.4.

The City recently acquired property abutting the north side of the lake as part of a coordinated conservation effort for the North Shore, known as the Legacy Lands project. This project will expand the Lacamas Corridor park and greenway system by approximately 100 acres and will establish a multiuse trail loop around Lacamas Lake (see Figure 6). To accommodate this trail loop, the City is considering closing a portion of Leadbetter Road to vehicular traffic and converting it to a multiuse trail. Additional information is provided in section 2.5, Transportation Network and Capacity. Planning for the Legacy Lands project is currently underway and may include water-related recreational uses near the lake, such as boating facilities and shoreline trails, as well as active recreational uses further from the shoreline, such as sports fields and equestrian facilities. In addition to recreational uses, the plan may include commercial or retail uses, such as restaurants, event facilities, and equipment rental businesses to support recreational activities. The City will need to coordinate the evaluation of parks and open space needs under the subarea planning process with those identified and planned for the Legacy Lands project.

Stakeholders have expressed a strong desire for the existing natural areas within the study area to be maintained, as well as an interest in bike and pedestrian connections through the subarea. City staff have identified trail and park system connectivity as a high priority throughout the city. In order to meet this objective, further identification of land to accommodate proposed parks and trail facilities is anticipated through this subarea planning process.

In addition to defined parks and trails, stakeholders would like to see balanced development that retains natural areas along the lake front, with commercial and light industrial uses further north. Policy recommendations and design standards to address the character and uses of the subarea should be included in the subarea final report.

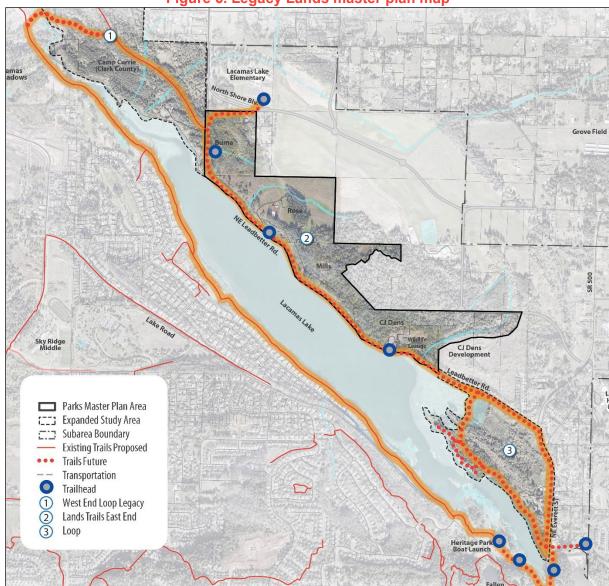


Figure 6. Legacy Lands master plan map

2.3 CRITICAL AREAS AND ARCHAEOLOGICAL RESOURCES

Critical areas are ecologically sensitive and hazardous areas that the state and city have identified for certain development restrictions in order to protect their functions and values, while allowing for reasonable use of property. The Camas Municipal Code (CMC) identifies five types of critical areas: wetlands, fish and wildlife habitat conservation areas, geologically hazardous areas (steep slopes, erosion hazard areas, and seismic hazard areas), critical aquifer recharge areas (CARAs), and frequently flooded areas.

Several digital databases and online mapping tools were reviewed in late 2019 to identify mapped critical areas in the subarea. These resources include the National Wetland Inventory (NWI), Clark County Maps Online, Washington Department of

Natural Resources' (DNR) Forest Practices Application and Review System (FPARS), and Washington Department of Fish and Wildlife's (WDFW) Priority Habitat and Species list (PHS on the Web) and SalmonScape.

Based on a review of these resources, all five types of critical areas are present within the study area (see Figure 5). Approximately 50% (or 477 acres) of land within the study area contains critical areas. The amount of critical areas contained within the study area will affect future development, and the extent of critical areas must be considered as a concept plan for the subarea design. Furthermore, future development on specific properties will require the preparation of a critical areas report and compliance with critical areas regulations found in CMC 16.51 through 16.61, to protect critical areas.

2.3.1 Wetlands

NWI identifies several wetlands dispersed throughout the subarea, including freshwater ponds, freshwater emergent wetland habitat, and freshwater forested/shrub wetlands. The largest mapped wetland is located in the north of the subarea, identified as a forested/shrub wetland.

A site visit in the general area was previously conducted as part of the SR 500 and NW/NE 6th Avenue corridor project. BergerABAM (now WSP USA) scientists visited the project alignment corridors in April 2016 to evaluate the potential existence of wetlands and/or other waterbodies. The field observations were generally consistent with the NWI mapping, although some additional areas of potential wetlands were observed. Future development may require a formal wetland delineation and OHWM determination to determine functions and appropriate wetland and stream buffer widths during future permitting processes. If wetlands or wetland buffers are determined to be present, a critical areas report prepared by a professional ecologist or biologist will likely be required. The report will document how the development would achieve no net loss of wetland or buffer functions.

2.3.2 Frequently Flooded Areas

Frequently flooded areas are present in pockets along the south of the subarea, adjacent to Lacamas Lake and Round Lake, with the largest pocket occurring on vacant forested park land owned by the City. Development within the floodway or 100-year floodplain, which are defined as "special flood hazard areas" by the Federal Emergency Management Agency, will require compliance with CMC 16.57, Frequently Flooded Areas, and will likely require a floodplain permit.

2.3.3 Fish and Wildlife Habitat Conservation Areas

Aquatic and Riparian Habitat

The study area includes aquatic habitats (lakes, wetlands, and streams) and their associated riparian habitat, as well as state priority habitat and areas associated with state priority species (e.g., resident coastal cutthroat [Oncorhynchus clarki] in Lacamas Lake and Round Lake).

There are three unnamed streams mapped in the North Shore. A mapped stream runs across the north border of the subarea, connecting the large wetland to Lacamas Lake. While this stream is identified as a perennial Type F (fish-bearing) stream by DNR, it is not identified as fish habitat by PHS on the Web. In addition, both NWI and SalmonScape identify it as an intermittent stream.

The other two streams in the subarea are consistently identified as Type Ns (intermittent, non-fish-bearing). Per the critical areas ordinance, Type F, non-anadromous fish-bearing streams require a base buffer width of 74 feet, and Type Ns streams require 25 feet. Stream conditions will need to be verified on site during future permitting processes, and critical areas reports may be required to demonstrate no net loss of functions.

Terrestrial Habitat

The entire township and range in which the subarea is located is mapped by PHS on the Web as a "cave-rich area." Per the WDFW, caves are a priority habitat feature, and not necessarily a priority habitat in and of itself. During the 2016 site visits, rock outcropping areas were observed, which included cavities, recesses, voids, and potentially interconnected passages. Whether caves are present on a given parcel would need to be site verified at the time development is proposed, with a professional opinion given as to the presence of priority habitat.

After the April 2016 site visits, scientists determined that given the lack of suitable habitat, no state or federally listed species or habitat for them were expected to occur within the SR 500 and NW/NE 6th Avenue project corridors, which transverse much of the subarea.

A small portion of the subarea, near the crossing of Lacamas Lake, is located within and/or adjacent to the Camas biodiversity corridor. According to the WDFW, the Camas biodiversity corridor supports mature timber and frequent observations of Vaux swifts (*Chaetura vauxi*).

The critical areas ordinance also identifies three habitats of local importance: (1) Oregon white oak (*Quercus garryana*), including snags, individual trees with a 20-inch diameter (or greater), and stands of trees greater than 1 acre; (2) fields of Camas lily (*Camassia quamash*) one quarter acre or more in size; and (3) areas identified as "natural open space" by the City's PROS plan. PHS on the Web identifies several small areas mapped as oak woodland in the North Shore. Camas lily is not included in the PHS database as it is not a WDFW priority habitat. White oak habitat and Camas lily fields are known to exist in Lacamas Lake Park, just southeast of the subarea. The only natural open space in the subarea identified in the PROS plan is the City-owned property west of SR 500 and south of Leadbetter Road (parcel numbers 178099000 and 178253000). This open space is included in the Legacy Lands project.

2.3.4 Geologically Hazardous Areas

Geologically hazardous areas in the subarea include landslide hazard areas, seismic hazard areas, and erosion hazard areas, which are primarily located along the banks of

Lacamas Lake and Round Lake. DNR maps an active seismogenic fault⁴ along the north side of Lacamas Lake; however, the subarea is rated low on the National Earthquake Hazards Reduction Program (NEHRP) scale (site classes B and C), and most of the subarea is rated low for liquefaction susceptibility. The entire region is mapped by DNR as a volcano hazard zone for regional lava flows associated with an eruption event at Mount Adams.

Future development within geologically hazards areas require critical areas reports prepared by a registered geotechnical engineer or registered geologist. The reports would include an evaluation of the impacts of the geologic hazard area(s) on the proposed development, and recommendations for mitigation measures to protect human health and safety.

2.3.5 Critical Aquifer Recharge Areas

The majority of the subarea, as well as the general vicinity, is within a Category II CARA. A small Category I CARA, and associated Category II CARA, are located along Leadbetter Road. It is not anticipated that any land uses that constitute a high risk to aquifers would be proposed (e.g., chemical treatment storage). Future development activities may require hydrogeological assessments and would be required to demonstrate compliance with the city's critical areas ordinance, as well as Washington Administrative Code (WAC) 173-218 and other applicable state and federal regulations.

2.3.6 Archaeological Resources

In addition to the critical areas described above, most of the study area is within an area of high to moderate-high probability of archaeological sites per the county's Archaeological Predictive Model map. Future development will likely require the preparation of archaeological studies and compliance with CMC 16.35, Historic Preservation, to ensure identification, evaluation, and protection of cultural and historic resources in the city. Coordination with an archaeologist early in the development planning process is recommended.

2.4 UTILITY INFRASTRUCTURE AND CAPACITY

The subarea is currently underserved by public and private utilities. The subarea is largely underdeveloped with large parcels and are lack public services. The eastern edge of the subarea around NE Everett St/SR500 is served with utility infrastructure. The City recently extended critical backbone infrastructure for water and sewer systems through the subarea within SE Leadbetter Road through the North Shore Sewer Transmission System (NS-STS).

2.4.1 Sewer

Sanitary sewer service within the subarea will ultimately be provided by the City of Camas. Most of the subarea is currently undeveloped or served by septic tanks. Sewer infrastructure exists around the existing residential and commercial development

⁴ "Active" means that a fault has evidence for movement within the Holocene time period (beginning 12,000 years ago), and typically means that there are documented earthquakes (including small ones) on the fault. https://www.dnr.wa.gov/geology-glossary#.14

around the NE Everett St/SR500 corridor. This area is served by the City's STEP (septic tank effluent pump) system. The City also recently extended conventional gravity sewer and pump station type system along NE Leadbetter Road. The recently extended system is providing conventional service to Lacamas Lake Elementary and Camp Currie both located at the western extent of the subarea near NE 232nd Avenue.

The City completed a number of studies and recent sewer system construction to provide the backbone to serve the subarea. WSP (formerly BergerABAM) completed a planning study which included the subarea limits. The outcome of the sewer planning study identified that the subarea could largely be served by conventional gravity sewer and pump stations. This alternative was selected and ultimately the NS-STS was constructed in 2018.

The NS-STS constructed a backbone of sewer force mains, pump stations, and conventional gravity sewer along NE Leadbetter Road. The backbone was sized to accommodate 20-years of anticipated growth within the subarea assuming that new development within the subarea will extend from this system with gravity sewers.

The STEP system located around NE Everett St/SR500 has some remaining capacity within it for further development and densification. However, the STEP system is more costly to operate due to increased maintenance requirements, septic tank pumping, and maintenance/replacement of individual septic tank pumps. The City decided during development of NS-STS that conventional sewer is preferred to serve the subarea and further extension of the STEP system shall be limited to areas in which conventional systems cannot provide service.

2.4.2 Stormwater

Stormwater is currently managed locally throughout the subarea by each individual parcel/owner. Portions of publicly owned stormwater culverts exist at driveways and are scattered throughout the subarea. It is anticipated that future development will include stormwater detention/retention basins sized appropriately to handle stormwater runoff on a development by development basis.

The subarea is located within the Lacamas lake watershed and will require enhanced stormwater quality treatment. Lacamas Lake is currently listed on EPA and Washington State's impaired waterbody 303(d) list for phosphorous. Stormwater treatment within the basin will need to provide enhanced water quality treatment and may potentially be subject to future total maximum daily loads (TMDLs), which may be forthcoming.

2.4.3 Water

Corollo Engineers Inc. completed an updated Water System Plan for the City of Camas. The updated Water System Plan provides planning to serve the subarea. The subarea is currently served similar to sewer by a backbone of a 12" diameter water transmission main located within NE Leadbetter Road. Water service will be extended throughout the area will require further redundant looping through a proposed future east/west connector likely in the future extension of North Shore Boulevard to NE 3rd Street. The City will need to continue to develop its source

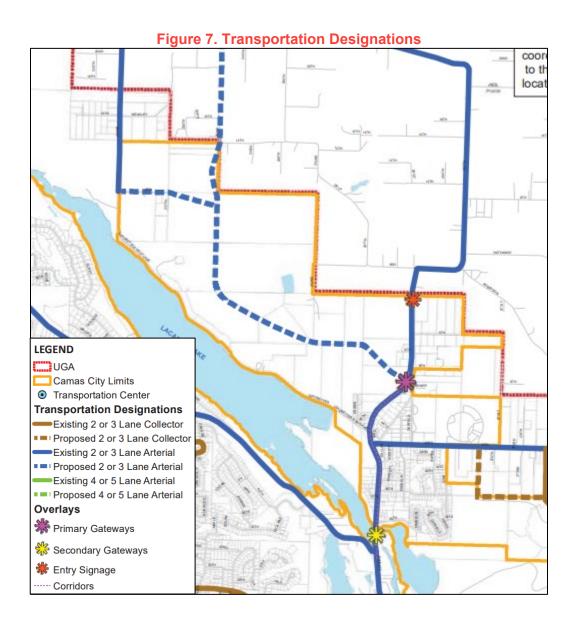
supply, treatment and storage capacities in order to accommodate long term growth. Local transmission and distribution system can be extended from the existing City's backbone and transmission system.

2.5 TRANSPORTATION NETWORK

As part of the existing conditions analysis, the City evaluated the existing transportation network, including pedestrian and bicycle facilities and planned transportation improvements.

2.5.1 Existing Transportation Network

The Transportation System Plan classifies existing and future roadways in the city as shown on Figure 7. These classifications will guide the facility cross sections and access spacing standards applied with future improvements. As illustrated, there is a lack of east-west facilities in the subarea. Leadbetter Road and Everett/SR 500 serve as the major north-south facilities. The Transportation System Plan identifies a proposed two or three arterial connecting Everett/SR 500 to the northwest corner of the subarea.



Pedestrian and bicycle infrastructure within the subarea is extremely limited, with sidewalks only available on some local roads in the south of the subarea and no existing bike lanes. Existing street cross sections require the construction of sidewalks and bicycle facilities in conjunction with future development. Below is a summary of key characteristics for roadways in the city. Through the subarea planning process, revisions to applicable cross sections may be proposed in order to achieve the character desired for streets within the North Shore subarea.

5-Lane Arterial

- 100-foot right-of-way
- 14-foot median
- 6-foot bike lanes
- Planter strip
- Sidewalks

• No on-street parking

3-Lane Collector/Arterial

- 74-foot right-of-way
- 12-foot median
- 5-foot bike lanes
- Planter strip
- Sidewalks
- No on-street parking

2-Lane Collector/Arterial

- 60-foot right-of-way
- 5-foot bike lanes
- Planter strip
- Sidewalks
- No on-street parking

2-Lane Local - Neighborhood

- 36-foot right-of-way
- No bike lanes
- Planter strip
- Sidewalks
- No on-street parking

2.5.2 Planned Improvements

The City's Six Year Transportation Improvement Program is updated each year and includes a map and list identifying the City's priority transportation projects for the next six years. Figure 8 and Table 3 identify the priority projects in the North Shore for the 2023 to 2026 period. The City Council's intent is to use this list as a prioritized framework to guide transportation decisions in coordination with the more detailed and technical Transportation System Plan.

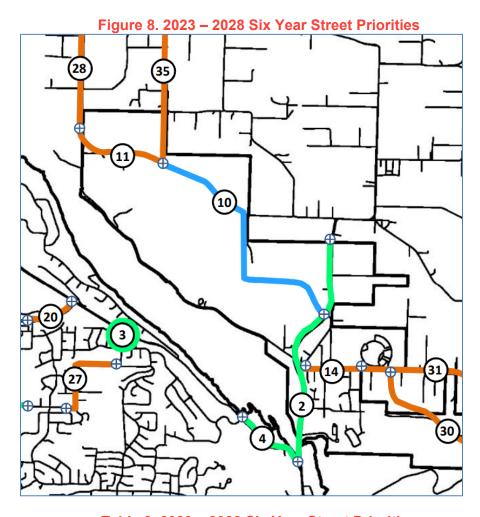


Table 3. 2023 - 2028 Six Year Street Priorities

Priority Number	Name and Description	From	То
2	SR-500 (Everett St./Rd.) Widen with bike lanes, sidewalks, illumination, bridge replacement	NW Lake Rd.	SE 4th St.
10	New North Shore E/W Arterial New construction; Includes Critical Areas and Alignment Investigation	NE North Shore Blvd.	Everett Rd.
11	NE Northshore Blvd New construction; Includes Critical Areas and Alignment Investigation	NE 232nd Ave.	NE 242nd Ave.
14	NE 43rd Avenue Widen to 3 lanes with bike lanes, sidewalk	SR 500	East City Limits
28	NE 232nd Avenue Widen to 3 lanes with bike lanes, sidewalk	NE 28th	NE North Shore Blvd.
35	NE 242nd Avenue Widen to 3 lanes with bike lanes, sidewalk	NE 28th St.	NE North Shore Blvd.

3.0 REGULATORY CONTEXT AND PLANNING FRAMEWORK

The existing policy and regulatory documents that will affect development within the study area include the Camas Comprehensive Plan (2016), the PROS Plan (2014), and the CMC, particularly Title 17 – Land Development and Title 18 – Zoning. Based on the initial stakeholder interviews and discussions with City staff, it is anticipated that development within the study area will include a mix of residential, office, and commercial uses. The sections below evaluate the current land use policies and development standards relevant to addressing this type of development.

3.1 CAMAS COMPREHENSIVE PLAN

The City updated their citywide comprehensive plan, titled "Camas 2035," in 2016. Several comprehensive plan policies support the subarea planning process, along with the development of a mix of uses within the subarea plan boundary. However, comprehensive plan policy amendments will likely be required to ensure consistency with the anticipated development pattern within the subarea. Stakeholders have expressed an interest in maintaining the natural character of the subarea and retaining larger expanses of open space. Policy recommendations to support the subarea concept plan should be included in the final subarea plan report.

Future development within the study area must be consistent with the city's comprehensive plan, which will necessitate that the comprehensive plan be updated to incorporate policy amendments that are developed under the North Shore subarea plan, and the subarea plan should be adopted by reference into the comprehensive plan. Furthermore, as allowed by state law, subarea plans can be implemented through a planned action ordinance. A planned action ordinance typically includes an environmental impact statement that considers the impacts of all projects proposed within the subarea plan.

Relevant comprehensive plan goals and policies include:

Land Use

- LU1.1 Maintain a land use pattern that respects the natural environment and existing uses while accommodating a mix of housing and employment opportunities to meet the City's growth projections. Ensure the appropriate mix of commercial, residential-, and industrial-zoned land to accommodate the City's share of the regional population and employment projections for the 20-year planning horizon.
- LU-2.2: Support village-style employment and retail development in the North Shore area to serve the growing population. Discourage strip developments.
- LU-2.5: Ensure industrial development and other employment lands are compatible with adjacent neighborhoods through development and landscaping regulations and design review.
- LU-2.7: Protect employment land from conversion to residential uses in order to ensure an adequate supply of commercial and industrial land to meet 20-year employment projections.
- LU-3.1: Encourage a variety of housing typologies to support the overall density goal of six dwelling units per acre.

- LU-3.5: Where neighborhoods adjoin natural areas or trails, ensure connections through neighborhoods to enhance access to recreation amenities.
- LU-4.2: Support the purchase by the City, or the dedication and preservation by private owners, of open space and encourage careful consideration and integration of the natural environment in any planning activity to perpetuate the park-like setting of Camas.

The land use policies for the city generally promote walkable neighborhood environments and a balance of residential and employment land uses. The North Shore subarea plan is an opportunity for the City to evaluate these land uses and establish the appropriate mix of uses.

Housing

H-1.4: Require a percentage of newly created lots to include one or more of the following unit types (to be designated on the face of the plat):

- Single-story dwellings
- Barrier-free dwellings (consistent with Americans with Disabilities Act [ADA] guidelines)
- ADUs, to be constructed concurrent with primary dwellings
- H-2.1: Support and encourage a wide variety of housing types throughout the City to provide choice, diversity, and affordability and promote homeownership.
- H-2.3: Any comprehensive plan designation change that increases residential capacity should require a quarter (25 percent) of the new units to be affordable to households earning 50 to 80 percent of Camas' MHI at the time of development.

The North Shore subarea plan should support the policies to provide residential land to meet the city's anticipated population growth while balancing the need for employment lands.

Economic Development

North Shore Economic Development

- ED 4: To encourage master planning that allows a more intense level of development, well-served by transportation options and includes facilities for pedestrian and bicycle travel, a range of housing choices, and a mix of shops, services, and public spaces.
- ED-4.1: Promote the growth of businesses such as grocery stores, medical offices, and restaurants that will meet the retail and service needs of the population.
- ED-4.2: Protect the viability of the airport as a significant economic resource to the community by encouraging compatible land uses⁵ and densities, and reducing hazards that may endanger the lives and property of the public and aviation users consistent with state laws RCW 36.70A.510 and RCW 36.70.547.

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⁵ Refer to "Airport and Compatible Land-Use Program Guidebook," Washington State Department of Transportation; available online at http://www.wsdot.wa.gov/aviation/Planning/ACLUguide.htm.

- ED-4.3: Encourage new developments to include provisions for neighborhood parks that are within walking and biking distance of a person's home or work to encourage greater physical activity, including shared-use paths (or trails) that link homes, work and commercial centers, public transit, and community facilities.
- ED-4.4: Promote economic development opportunities adjacent to the Port of Camas-Washougal's Grove Field that will benefit from additional transportation options.
- ED-4.5: Preserve large tracts of land for large industry and master-planned commercial development.
- ED-4.6: Support public-private partnerships for infrastructure development.
- ED-4.7: Advocate better transit routes and service.

Gateways and Corridors Economic Development

- ED-6.2: Ensure zoning regulations and design standards promote development/redevelopment in gateways that include the gateway and corridor overlay features identified in the Land Use Element and the Camas Design Review Manual.
- ED-6.3: Coordinate gateway and corridor development/redevelopment with Public Works planning to leverage resources and ensure adequate right-of-way is available for gateway/corridor improvements.

As outlined in the Land Use Element of the comprehensive plan, gateways are established as an overlay zone and identified on the Camas zoning map. The North Shore subarea contains a primary gateway at the intersection of SR 500 and NE Everett Drive, and a secondary gateway to the south where SR 500 crosses Lacamas Lake.

Natural Environment

- NE-1.5: Protect, conserve, and manage existing natural resources and valuable historic and cultural areas in order to ensure their long-term preservation.
- NE-1.6: Encourage the preservation of the night sky through dark sky standards in development regulations and design guidelines.
- NE-2.4: Regulate land use and development so as to protect natural topographic, geologic, vegetative, and hydrologic features.
- SMP-3.3: To ensure, at minimum, no net loss of shoreline ecological functions and processes and to plan for restoring shorelines that have been impaired or degraded.

Natural resources in the subarea include shorelines, Lacamas Lake, streams, and fish and wildlife habitat areas. By protecting these resources in this area, the North Shore subarea plan will support these natural environment policies, and in turn support the comprehensive plan.

Transportation

T-1.3: Construct streets that are interconnected and avoid long cul-de-sacs or dead ends. Block lengths should be less than 1,000 feet.

- T-1.6: Minimize access to new development and redevelopment along the City's arterials, and consolidate access points when spacing is insufficient.
- T-2.5: Coordinate with schools and the community to designate safe pedestrian and bicycle routes between residential areas, schools, and public facilities.
- T-3.1: Coordinate with local municipalities, the Washington State Department of Transportation, adjacent counties, and C-TRAN to ensure that minimum roadway and multi-modal design standards are consistent.

Off-street trails for pedestrian and bicycle use should be included in the concept plan for the North Shore subarea. The trails will provide connections within the subarea to Lacamas Lake and connect to the city's existing trail system outside the subarea.

3.2 SHORELINE MASTER PROGRAM

Portions of the subarea are located in shoreline jurisdiction associated with Lacamas Lake and Round Lake. Shoreline environment designations along Lacamas Lake consist primarily of Urban Conservancy, with two stretches of shoreline designated as Medium Intensity (see Figure 5). Development within shorelines will need to demonstrate compliance with SMP policies, including meeting the purpose of the shoreline designations, which are as follows.

The purpose of the "Urban Conservancy" shoreline designation is to protect and restore ecological functions of open space, floodplains, and other sensitive lands, where they exist in urban and developed settings, while allowing a variety of compatible uses.

The purpose of the "Medium Intensity" shoreline designation is to accommodate primarily residential development and appurtenant structures, but to also allow other types of development that are consistent with this chapter. An additional purpose is to provide appropriate public access and recreational uses.

The SMP also states that the Medium Intensity shoreline designation in the northeast portion of Lacamas Lake is intended to "provide a center for mixed-use development that will include water-dependent and water-oriented uses that increase the public's ability to enjoy public waters and may include residential use in mixed use proposal." In addition, the SMP notes that in order to mitigate impacts from development, "Leadbetter Road should be relocated further from the shoreline and a continuous buffer of native vegetation provided, if feasible. Public access should be provided throughout the shoreline area."

Future development in shoreline jurisdiction will be required to demonstrate compliance with the SMP and will likely require a shoreline permit.

3.3 DEVELOPMENT AND ZONING CODES

The following sections address the adequacy of the CMC to support the types of development anticipated within the study areas.

3.3.1 Authorized Uses (CMC Chapter 18.07)

Uses allowed in each zone are outlined below in Table 4. These uses are either permitted outright (P), allowed as a conditional use, through a conditional use permit (C), or are prohibited in that zone (X).

Likely or anticipated uses were identified based on existing development in the city and stakeholder feedback on preferred uses. It is possible that additional uses will be identified as the project progresses and additional stakeholder feedback is collected.

Table 4. Uses by Zone

	Zone				
Use ⁴	R	MF	CC	BP	
Single-Family Residential (detached)	Р	Р	Х	X	
Single-Family Residential (attached)	X/P ¹	Р	Х	Х	
Duplex	С	Р	Х	Х	
Apartments	P ¹	Р	X/P ²	Х	
Accessory dwelling unit	Р	Р	Х	Х	
Home Occupation	Р	Р	Р	Х	
Open Space, Park or Trail	Р	Р	Р	Р	
Sports Fields	С	С	Р	Р	
High Tech Industry	Х	Х	С	Р	
Professional office(s)	Х	Х	Р	Р	
Restaurant	Х	Х	Р	Р	
Grocery, large scale ³	Х	Х	С	С	
Grocery, small scale ³	Х	Х	С	Р	
Banks, savings and loan	Х	Х	Р	Р	
Gas/fuel station	Х	Х	С	Р	

¹ Permitted in the R zones as part of a planned development only.

As a concept plan is developed through this subarea plan process, the limitations and conditions identified above are important to consider.

3.3.2 Airport Overlay Zoning (CMC Chapter 18.34)

The purpose of the airport overlay zone is to regulate the use of property and to regulate and restrict the height of structures and objects of natural growth in the vicinity of the Grove Field Airport. The overlay zone takes into account the need to protect the approaches to the airport from incompatible land uses that would limit or adversely affect the airport's ability to serve its present and future air transportation needs. A majority of the subarea (687 acres) lies within Airport Overlay Zone C, with

On tracts ten acres or more, subject to approval by city council of a master plan and development agreement, a mixed-use development may be approved provided no less than 51% of the net developable acreage is committed to commercial uses

³ If grocery store is less than one hundred thousand square feet then use is outright permitted. If one hundred thousand square feet or over then a conditional use permit is required.

⁴ For a complete list of land uses, see CMC Sections 18.07.030 Table 1 and 18.07.040 Table 2

smaller portions within Zone A (30 acres) and Zone B (40 acres). Within any zone, building heights are restricted to 150 feet in height, and any proposed structure over 100 feet requires an obstruction evaluation letter (Form 7460-1) from the Federal Aviation Administration (FAA). It should be noted that the North Shore lies at a substantially lower elevation than the airport, which will help ameliorate concerns from the FAA. It is not anticipated that proposed buildings would intrude into restricted airspace.

In addition to the limitations on development and uses contained in the underlying zone, additional development standards are required within the three zones. In Zone C, most uses permitted in the underlying zoning are allowed, although it is recommended that the owner be informed of construction or remodeling techniques that would decrease the noise associated with airport operation. Additional, more restrictive prohibited uses for Zones A and B will apply to a smaller area (70 acres) in the north of the subarea.

3.3.3 Business Park (CMC Chapter 18.37)

Approximately 312 acres of the subarea are zoned BP. Per the CMC, the BP district is intended to provide for employment growth in the city by protecting industrial areas for future employment. Design of business park facilities in the BP district are required to be "campus-style," with landscaped buffers and architectural features compatible with, and not offensive to, surrounding uses.

3.3.4 Planned Residential Development (CMC Chapter 18.23)

The purpose of the PRD ordinance is to facilitate the innovative development of land and to provide greater flexibility in the development of residential lots in medium and high density districts. A further purpose is to allow for the modification of certain regulations when it can be demonstrated that such modification would result in a development that would not increase the density and intensity of land use; would preserve or create features or facilities of benefit to the community, such as open space or active recreational facilities; would be compatible with surrounding development; and would conform to the goals and policies of the city's comprehensive plan.

The PRD process is an optional process for developments. The requirements and standards set forth in the PRD ordinance encourage well-designed communities that include a mix of single-family and multifamily residential buildings. Permitted or conditional uses currently listed in the applicable zoning classification are permitted within a PRD.

The existing PRD ordinance may be effective in developing higher density residential areas within the subarea if they do not negatively impact adjacent low density uses, such as agriculture and large-lot residential. Within the framework of the PRD ordinance, density and development rights transfers are tools that could also be considered to encourage property owner coordination and allow for greater protection of critical areas and open space. Per CMC 18.09.060, density transfers are allowed in all residential zones to achieve the density goals of the comprehensive plan while preserving environmentally sensitive lands. The City could consider additional

standards to allow density transfers in other zoning districts within North Shore to further encourage the preservation of critical areas, trees, and open spaces.

3.4 PARKS, RECREATION, AND OPEN SPACE COMPREHENSIVE PLAN

The PROS plan, updated in December 2014, outlines a community vision for Camas that includes a high-quality park and recreation system, with a comprehensive trail system linking all recreational sites to the regional trail network.

As described in the PROS plan, two potential park sites have been identified within the study area. One is a proposed neighborhood park (NP-17) in the northwest corner of the subarea, just east of Camp Currie, and the second is the proposed Camas sports field complex (SU-13) further south. Per the PROS plan, the sports field complex would concentrate on competitive-level play and offset some of the demand for sports field use in other areas of the city. Several proposed trails are planned to traverse the study area, including the East Camas Regional Trail 1 (T-3), a proposed trail running along the north shore of Lacamas Lake and connecting Lacamas Park, Camp Currie, and the County's Green Mountain Trail heading north. Other planned trails include North Camas 1, 2, and 3 (T-27, T-28, and T-32), which are envisioned in the PROS plan as providing trail connections between Lacamas Lake and future land uses in the North Shore.

The PROS plan also identified three planned trailheads in the subarea. Trailheads Y (sports field complex) and V2 (Lacamas Lake Trail 3) are proposed primary trailheads, which would include both dedicated parking and restrooms, and trailhead U (Lacamas Lake Trail 1), which is proposed as a secondary trailhead (trail access but no restrooms).

Parks and recreational opportunities in Camas include neighborhood parks located to serve individual neighborhoods, natural open space areas that preserve resources throughout the community, and special use areas to provide for specific recreation needs. Supplementing these sites are public and private sites and facilities, such as school sites, regional parks, and privately-owned recreation facilities.

In order to meet the policies and standards outlined in the PROS plan, park and trail connection locations should be further identified through this subarea planning process.

4.0 KEY CONSIDERATIONS FOR SUBAREA PLAN

The subarea plan will define a vision and map out a route to its realization—in this case, a vision that celebrates the distinguishing characteristics of the North Shore while reflecting the priorities of the Camas community at-large. A summary of key considerations for the subarea plan, based on the existing conditions analysis, follows below.

Land Use and Zoning

• Adopt the North Shore subarea plan by reference into the Camas comprehensive plan in order to ensure future development within the study area adheres to the goals and objectives established through the subarea planning process.

- Accommodate the Washington State Office of Financial Management (OFM) forecasted population growth by planning for a variety of housing and employment lands that will serve a range of incomes and education levels.
- Establish a sense of place through the development of design standards for streetscapes, lighting, signs, and architecture.
- As the subarea concept plan is developed, analyze planned capital improvements to address the anticipated increase in population and jobs.
- Consider North Shore-specific zoning and development standards (such as density transfers beyond residential zones or other bonuses) to address the unique conditions of the North Shore and encourage greater preservation of natural areas and open space.

Parks, Trails and Open Space

- City staff have identified trail and park system connectivity as a high priority throughout the city. In order to meet this objective, identify land to accommodate proposed neighborhood parks and trail facilities through the subarea plan process.
- Coordinate the evaluation and identification of park needs in the subarea plan with the planned parks and open spaces identified for the Legacy Lands project.
- Supply sufficient parks, open spaces, and trails to balance out the new growth and provide community access to both local and regional recreational opportunities.
- Develop a useable open space network that will support quality of life attributes including walkability and access to the outdoors.
- Maintain open space around Lacamas Lake to the extent practicable and provide connections to the planned trail around the lake.

Critical Areas

- The study area includes approximately 477 acres of critical areas, including wetlands, streams, riparian habitat conservation areas, steep slopes, and a Category II CARA. The extent of critical areas contained within the study area will affect future development and must be considered as a subarea concept plan is developed.
- Consistent with the Critical Areas Ordinance, , development of properties with critical areas will require a critical areas report prior to development, with a priority to avoid impacts.
- Future development will likely require an archaeological study. Coordination with an archaeologist early in the development planning process is recommended.

Shorelines

- Future development in shoreline areas will need to demonstrate compliance with the city's SMP and will likely require shoreline permits.
- The subarea plan should reflect the SMP's vision for the Medium Intensity shoreline on the northeast portion of Lacamas Lake as "a center for mixed-use

development that will include water-dependent and water-oriented uses that increase the public's ability to enjoy public waters and may include residential use in mixed-use proposal."

 Provide opportunities for public access throughout the shoreline area of Lacamas Lake.

Utility Infrastructure and Capacity

• Extension of services will occur in conjunction with development.

Transportation Network and Capacity

- Consider anticipated growth and development when identifying transportation improvements.
- Include active transportation facilities (e.g., bike lanes on roadways, separated trails and pathways) on new roadways to improve safety and provide a variety of transportation options.

5.0 NEXT STEPS

This existing conditions, opportunities, and constraints analysis will be part of the information used to inform the vision for the North Shore (Phase 1) and develop concept plans to be included in the North Shore subarea plan (Phase 2).

6.0 REFERENCES

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Memorandum

Date March 2020

To Don Hardy and Nicole McDermott, WSP

From Brian Vanneman and Sam Brookham, Leland Consulting Group

Subject Market Analysis

Project Camas North Shore Subarea Plan

Introduction

The City of Camas is beginning to work on the North Shore Subarea Plan. The subarea plan will answer two fundamental questions: What will the North Shore area be in 20 years and what is the path to get there?

Today, the North Shore area consists of agricultural land and single-family residences with large, rural acreages. Current zoning supports a range of uses including employment, multifamily and single-family residential, commercial services, and parks and open spaces. The City anticipates significant growth and redevelopment in the North Shore area over the next 20 years. Therefore, it is important to take a comprehensive look at allowed uses and the infrastructure (streets and utilities) required to support future development.

Objectives

- Balance development with the preservation of natural resources,
- Ensure development on the north side of the lake includes a diversity of land uses,
- Provide access to recreation and new parks and trails,
- Encourage smaller-scale commercial,
- Foster employment-generating uses on non-residential lands,
- Promote multifamily over single-family residential, and
- Consider the proximity to the high school from a use and traffic standpoint.

This market analysis aims to establish the opportunities and constraints of the Camas North Shore in order to balance these goals with market realities.

STUDY AREA

The North Shore Subarea is generally bounded by Lacamas Lake to the south, the city limits to the north, Northeast 232nd Avenue to the west, and Everett Street to the east. The plan area includes the North Shore land that was annexed into the city in 2008.

www.lelandconsulting.com 1 873

Camas North Shore Subarea Plan | Market Analysis

olumbia Tech Cntr. ~10min NE 14th St NE Hathaway Rd NE 3rd St SE 15th St NW 38th Ave Downtown Camas ~3min NW 28th Ave CAMAS 0 0.5 1 mi

Figure 1. Camas North Shore Area

Source: Leland Consulting Group

PURPOSE OF THIS MARKET ANALYSIS

Leland Consulting Group (LCG) prepared this market analysis to identify opportunities and constraints in the North Shore area and to ensure that the strategies identified in the subarea plan are grounded in market realities.

LCG's Market Analysis report summarizes the economic and demographic existing conditions and trends impacting the North Shore and includes a demand analysis for employment (office and industrial), housing, and commercial (e.g., retail) uses. This is a "broad brush" analysis that identifies the types of employment, commercial, and residential land uses that are likely to be feasible versus those that probably not feasible.

Camas North Shore Subarea Plan | Market Analysis

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Executive Summary

The City of Camas anticipates substantial growth in the Camas North Shore area over the next 20-years. Planned transportation infrastructure will improve transportation connectivity throughout the City and support the employment and retail uses desired in the North Shore area. A large portion of the land in this area is zoned Business Park and Multi-Family, with some Commercial and lower density residential zoning. The Port of Camas-Washougal manages an airport that is outside City limits, but most of the developable land in the North Shore area is within the airport influence area.

The City's economic development goal of the North Shore area is to encourage master planning that allows a more intense level of development, well-served by transportation options and includes facilities for pedestrian and bicycle travel, a range of housing choices, and a mix of shops, services, and public spaces.

The policies that support this goal include:

- **Promote the growth of businesses** such as grocery stores, medical offices, and restaurants that will meet the retail and service needs of the population.
- **Protect the viability of the airport as a significant economic resource** to the community by encouraging compatible land uses and densities and reducing hazards that may endanger the lives and property of the public and aviation users.
- Encourage new developments to include provisions for neighborhood parks that are within walking and biking distance of a person's home or work to encourage greater physical activity, including shared-use paths (or trails) that link homes, work and commercial centers, public transit, and community facilities.
- **Promote economic development opportunities** adjacent to the Port of Camas-Washougal's Grove Field that will benefit from additional transportation options.
- Preserve large tracts of land for large industry and master-planned commercial development.
- Support public-private partnerships for infrastructure development.
- Advocate for better transit routes and service.

OPPORTUNITIES AND STRENGTHS

- **Supportive demographic characteristics.** Demographic data shows highly educated, high-income, and large-sized households for both the City of Camas and the surrounding region. These characteristics are likely attractive for residential and retail developers.
- Strong residential growth. There is a strong regional market for housing, driven largely by substantial population growth. Continuing with this trend, Clark County is projected to experience population growth at about 1.4 percent annually over the next two decades. Historically, east Clark County has experienced faster growth than the broader region—a trend that can be expected to continue. This growth is likely to manifest in substantial new single-family, townhome, and multifamily development, which will in turn further support additional neighborhood-supporting retail development.
- Strong regional market for employment uses. The Portland market is one of the top growing high-tech job markets in the nation. With more than 78,300 jobs and record low unemployment, Portland not only offers an expanding tech market but continues to be a prime West Coast location for tech expansion and innovation. Office space remains in very high demand across the metro region, and particularly in Clark County. Indeed, there has been positive net absorption in at least three out of four quarters each year from 2010 onward.
- Nearby employment-based projects demonstrate positive trends. The buildout of the Columbia Tech Center, for example, which is approximately double the size of the net developable acres designated for industrial development in the North Shore. Construction began in CTC in 1997 (16 years after HP was built) and total build-out is expected in 2024. Currently, there is about 4.4 million square feet of standing inventory, relatively evenly split between land uses.
- **Supportive property owners.** A key factor that enables plans to become reality is property owners that support the vision for the area. The Camas North Shore, for the most part, has property owners who have expressed interest in developing their property, providing a foundation on which to build a positive, implementable, and enduring plan.
- Large, developable land tracts. There are few areas within the Portland metro region with developable land tracts of this scale, which is likely to be attractive to businesses looking for substantial greenfield sites.
- Aesthetically attractive location and high quality of life. Camas has experienced significant population growth, with families and other residents attracted to a certain lifestyle in an aesthetically pleasing environment.
- **Suburban opportunities are increasing.** Construction and redevelopment have remained key topics for Portland office properties with construction found throughout the region. This new development has made way for expansion in prime submarkets along with bringing new life to historic buildings that are staples in the market.

CONSTRAINTS AND WEAKNESSES

- **Challenging access.** With so few access points to and from the Camas North Shore area, significant development of any land use will require major upgrades to the capacity and connectivity in the area.
- Lack of existing infrastructure. The vast majority of the North Shore area is a greenfield site with very little existing utility or transportation infrastructure. In order for the City to attract a major user to the

- site, the city must be prepared to make substantial upfront investments given the other challenges facing the site and surrounding area.
- Presence of development impediments. Steep slope, existing right-of-way, wetlands, utility
 easements, and tree groves are among the physical and regulatory barriers to development in the
 area. Redevelopment of existing structures is unlikely, other than in a handful of appropriate, highactivity nodes.
- Lack of existing amenities. Many prospective office and industrial businesses place a high value on locations that offer their employees a range of amenities because these are prized by potential employees. Some examples include high capacity roadways and transit, walking and biking trails, parks, and places to dine and shop. These amenities are currently lacking in the area, although these amenities could be planned for and developed through implementation of the subarea plan; in addition, downtown Camas is nearby, where some of these amenities already exist.
- Availability of more centrally-located, development-ready employment land. The Columbia Tech Center, Section 30 (English Pit), Columbia Palisades, and other projects in east Clark County are likely to be more competitive than the North Shore for most development types due to accessibility, location, and development readiness, among other reasons.
- High construction costs. Despite the global collapse of commodity prices, local prices of construction
 materials have not fallen. The size of the construction workforce also remains well below pre-recession
 levels, which has led to labor shortages in several major markets. Growth in multifamily construction
 activity is partially offsetting the steep decline in single-family homebuilding compared with the last
 cycle, driving up construction costs.
- **Retail challenges.** Given the lack of existing rooftops, the surrounding area's lower-density housing inventory, competition from competitive commercial areas to the west and south, it will be potentially challenging to attract new retailers. However, with the Comp Plan vision for the area outlining small-and moderate-scale retail development to simply provide amenities for residents and employees, this is unlikely to be a significant burden.
- **Development Cycles.** Some economists are predicting a recession in the next two years. This could slow development of the subarea in the near term, although it will not impede development of the subarea over the 20-year planning timeframe.

DEVELOPMENT PROGRAM

The table below provides an overview of total market-area demand and the estimated amount that the North Shore could capture, as well as the rationale for this capture rate. It should be noted that these numbers are largely based on demand and the North Shore's regional competitiveness, and certain City actions may elevate this market share above what is proposed below.

Camas North Shore Subarea Plan | **Market Analysis**

Table 1. 20-year Development Program

Land Use	Market Area Demand	North Shore Est. Capture	Capture Rationale
Single-Family Residential	33,260 units	881 units	The Camas North Shore area could conceivably capture significantly more of market area demand for single-family uses given both the strength of the residential market and the fact that single-family detached units are also permitted in multifamily zones. However, as a low-density use, additional development greatly limits the capacity of the area to accommodate other uses. Industrial employment lands become especially difficult due to the incompatibility between industrial and residential uses.
Multifamily Residential	14,430 units	1,028 units	Most of the multifamily growth in the submarket has been further west, and several projects are expected to be built before anything is built in the North Shore area. With that said, the North Shore is likely an attractive location for senior housing, which could increase the overall market capture if very successful.
Employment Office/ Industrial	3.4 million sf	1.4 million sf	Current concepts for the industrial area of the North Shore (provided by an existing property owner) total approximately 2.1 million square feet, shared between industrial, office, and flex. This is expected to be total square footage at full build-out in the land designation for industrial development. Over the next 20 years, 1.4 million square feet is a more reasonable assumption based on construction and absorption trends in east Clark County. In fact, market area demand may increase depending on the state of the economy and actual industry growth.
Retail	764,000 sf	240,000 sf	Due to its location on the urban edge of the metropolitan region, lack of visibility and challenging access, lack of existing households, and the prominent retail services available nearby to the west, the North Shore is not likely to be a major retail center; retail at a neighborhood scale is more likely. There will be demand for small-scale retail along the perimeter arterial to serve new development and the adjoining neighborhood. Retail will primarily be driven by the pace of residential
			development, both in the immediate North Shore vicinity and in the broader east Clark County region. Therefore, most retail development is likely to follow major residential and employment development.
Other	N/A	N/A	Lodging (hotel), parks, sports and recreational facilities, public uses (services, libraries, etc.) and other specialty uses are anticipated as employment and population growth occurs in and around the North Shore.

Source: Leland Consulting Group

Land Use Scenarios

It is important to explore the existing land use designations in the North Shore area to decide whether these designations are appropriate given the market-driven development program on the previous page.

The following chart in Figure 2 shows "gross" and "net developable" acreage for two development scenarios. The gross area is the entire study area; in order to calculate the net developable area, we have deducted the considerable areas dedicated to utility easements, sloped land, wetlands, right-of-way, existing developed properties, and other development impediments from the gross area. The "baseline" scenario reflects the acreage as designated in the existing comprehensive plan, while an alternative "market-based" land use program is based on Leland Consulting Group's assessment of the market and the specific opportunities in the North Shore area.

912 912 ■ City-Owned Schools Commercial Industrial ■ Mixed Employment MFR SFR 486 486 Gross Area Gross Area Net Area Net Area Baseline Market-Based Baseline Market-Based

Figure 2. "Baseline" Development Scenario by Land Use, Gross and Net Developable Acreage

Source: Leland Consulting Group

Note: The City-Owned category includes properties purchased by the City with the intent to preserve the land for parks, recreation, and natural areas. Approximately 25 percent of the land is expected to be developed with community-serving amenities and the rest preserved as natural areas.

Key takeaways from the baseline scenario include:

- The North Shore is approximately 912 gross acres in size, of which there are about 486 net developable acres due to development impediments, existing developments, and other restrictions. Currently, the Comprehensive Plan designates a majority of land for employment-based land use, such as industrial, office, and flex.
- Approximately one-third (298 acres) of gross acreage and one-quarter (130 acres) of net developable acreage is designated low-density single-family residential, and an additional 73 acres (55 net acres) is designated for multifamily, which also allows single-family at a minimum of 6 units per acre.
- Commercial accounts for about eight percent of gross acreage and 11 percent of net.

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Key takeaways from the market-based scenario include:

- A more flexible employment-based scenario that allows a greater diversity of uses, such as retail and multifamily residential, is recommended.
- A strong residential market and near-term development opportunities suggest a need to increase the residential program. Given the feasibility challenges and lack of near-term demand for new industrial and commercial development in the North Shore, an increased residential program may act as an incentive for developers and investors to develop a mix of uses in the area. Simply speaking, being able to sell off land for near-term residential development will help fund alternative uses, such as industrial, office, and retail.
- The desire for smaller-scale neighborhood-oriented retail and a relatively small capture rate of market area retail demand suggests a lesser need for land for retail.

The following chart in Figure 3 shows the potential jobs generated under each of these two development scenarios.

- LCG used industry standard job density data to calculate these job projections. Based on a review of WAESD and LEHD data, it appears that about six office-using jobs (averaging 350 square feet per employee) will be created in the market area for every industrial job (averaging 800 square feet per employee).
- Despite 130 net acres of employment-based land in the market-based scenario versus 212 net acres in the baseline scenario, the market-based scenario is projected to generate approximately 18 percent more jobs. This is largely due to the higher employment density and floor-area ratio of mixed-use employment (415 square feet per employee and 0.30 FAR) versus traditional industrial (800 square feet per employee and 0.25 FAR). Significantly fewer commercial jobs are generated in the market-based scenario because of the reduction of the commercial net acreage from 51 to 22.
- These higher density "mixed employment" jobs are generally trending in this part of the county. The Columbia Tech Center and proposed Section 30 developments serve as good examples of the land use mix, density, size, and development rate that the North Shore could achieve. These are best reflected in the market-based scenario.
- Traditional industrial-focused industries with lower-density jobs, such as transportation and warehousing,
 which are typically at least 1,000 square feet per employee, are much less likely to locate in the North Shore
 area and may not be best suited to collocate with other land uses. Higher-density industrial-focused
 industries such as manufacturing, on the other hand, may collocate with office, retail, and even housing, to
 an extent.

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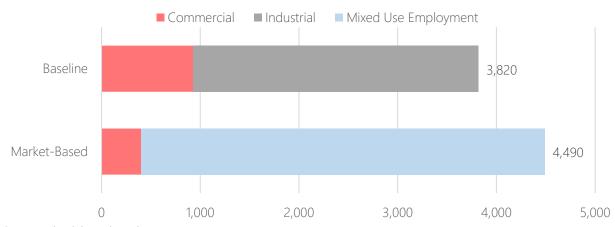


Figure 3. Potential Job Generation by Development Scenario

Source: Leland Consulting Group

NORTH SHORE RECOMMENDATIONS

- Encourage fine grain mixing of land uses throughout the subarea rather than a large-scale block pattern. In general, place multifamily land adjacent to commercial and employment areas, with single family zoned land at the fringe of development.
- Be flexible with zoning designations to allow developers to respond to the market. Specifically, allow a broader set of land uses within the industrial/business park area.
- Assuming employment remains the primary focus, think long-term (i.e. longer than the current 20-year planning horizon) for total build out in the North Shore area.
- In the next phase of planning, determine how transportation connections that are sufficient to serve approximately 1.4 million square feet of employment space can be built. This should include the locations of connections and size of proposed facilities. Transit should be a part of transportation recommendations.
- Focus major retail/commercial uses along primary arterials and key nodes and recognize that a majority of these uses are likely to follow employment and residential development.
- Allow but do not require "vertical mixed-use" (e.g., residential over retail, office over retail). Encourage "horizontal mixed-use"—i.e., commercial and residential uses being built side by side.

Potential Actions

In order to achieve either Option, the City may elect to undertake the following actions. Some of these may be completed during Phase 2 of this study.

- Changes to the City's Comprehensive Plan and Zoning Code regulations
- Work with Property owners to complete more detailed Master Plans for specific parts of the study area;
- Define Infrastructure Funding Plans that may include public and private funding sources, and "district funding" sources such as a local improvement district;
- Establish Development Agreement(s) with individual developers and/or property owners, or groups of developers and property owners. These agreements may include development requirements (e.g., for the amount of employment development or number of jobs to be created by developers) and corresponding public actions that would be triggered only when these requirements are met (e.g., construction of roads or

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infrastructure). Development agreements have been used extensively in Clark County in order to ensure that new developments deliver the public benefits that are expected by residents.

Site Summary

The North Shore Subarea is located in the east of the Portland Metropolitan Region. With Lacamas Lake bordering the entire length of the subarea's western edge, transportation and connectivity are limited to two primary routes to the north and south.

To the south, Highway 14 serves as the primary route to downtown Vancouver and the rest of the metro, primarily via Interstate 205 and Interstate 5. To the north, SR 500 provides access to Interstate 205 and other northern neighborhoods.

The following map shows travel times by car from the Camas North Shore Subarea by 10-minute increments. The average U.S. commute, as of 2018, is 26 minutes one-way, according to the U.S. Census Bureau. For future employees and residents of Camas North Shore, few significant destinations in the Portland Metro Region are within a 30-minute drive.

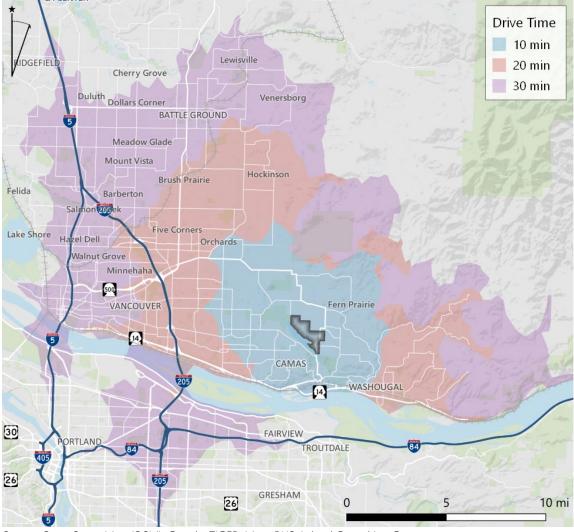


Figure 4. Drive Time Analysis

Source: Open Street Map (OSM), Google, TIGER, MetroRLIS, Leland Consulting Group

With its location on the edge of the metro region, access to and from Camas North Shore is limited to two primary arterials. However, downtown Camas and the Columbia Tech Center—two prominent activity centers that offer both commercial amenities and significant employment opportunities—are within a 10-minute drive from the subarea. The Columbia Tech Center, on Mill Plain Boulevard, is one of the few major employment clusters in Clark County outside of downtown Vancouver.

REGULATORY CONDITIONS

The City of Camas anticipates substantial growth in the Camas North Shore area over the next 20-years. Planned transportation infrastructure will improve transportation connectivity throughout the City and support the employment and retail uses desired in the North Shore area. A large portion of the land in this area is zoned Business Park and Multi-Family, with some Commercial and lower density residential zoning. The Port of Camas-

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Washougal manages an airport that is outside City limits, but most of the developable land in the North Shore area is within the airport influence area.

Most of the North Shore's contiguous developable land is designated industrial in the City's Comprehensive Plan and zoned Business Park, providing for employment uses (e.g., office, retail, service industries, high tech, and light manufacturing). While there are several large tracts of multifamily zoned land, these zones also allow for single-family residential. Planned developments (PRDs) can accommodate other conditional uses, regardless of residential density.

- The design of business park facilities in this district is expected to be campus-style, with landscaped buffers, and architectural features compatible with surrounding areas.
- Community Commercial (CC) provides for the goods and services of longer-term consumption. Typical goods include clothing, hardware, and appliance sales. Some professional services are offered, e.g., real estate office or bank. Eating and drinking establishments may also be provided. Lot sizes within this zone tend to vary in size as there are no minimum or maximum lot size requirements.
- Single-family residential zones in the area range from three to six units per acre, with average lot sizes ranging from 7,500 to 12,000 square feet.
- Multifamily zones in the area range from 6 to 18 units per acre. A "Cottage Overlay" zone would allow
 up to 24 units per acre. If detached, single family dwellings are proposed, then the development would
 need to meet the minimum of six units per acre.
- There are no maximum dwelling unit requirements for Mixed Use zones or in CC zones, where a development agreement would allow for residential mixed use.

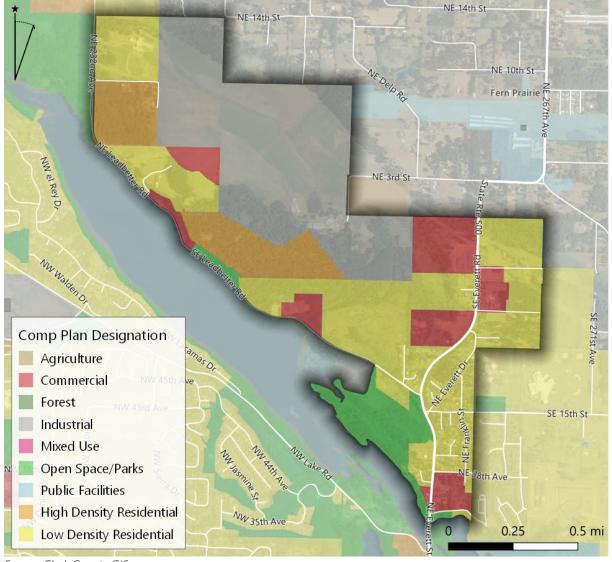


Figure 5. Comprehensive Plan Designations in the North Shore Area

Source: Clark County GIS.

Note: There are no Agriculture, Forest, Mixed Use, or Public Facilities designations in the North Shore area or within the City of Camas. These are County designations.

DEVELOPABLE LAND

The "gross area" of the North Shore Subarea is approximately 912 acres. However, this gross area is much larger than the "net developable area" amount of land that is likely to be available for the development of new businesses, homes, and associated roads and utilities. Figure 6 is LCG's attempt to show land that is undevelopable. What remains is the net developable land, which is color-coded by Comprehensive Plan designation.

Land can be considered undevelopable for a number of reasons. For the purposes of this analysis, LCG has assumed that the following types of land are undevelopable: land that already contains existing residential or

commercial development (specifically, where the assessed value of structures exceeds the assessed value of land, thus indicating a relatively valuable structure); easements (primarily associated with the high-voltage electrical transmission lines and access/road easements); slopes of 15% or more; wetlands; and existing rights-of-way. In addition, LCG assumes that 75 percent of City-owned land will be preserved as parks, recreation, and natural areas, and therefore 25 percent is developable.

NE 14th St NE 14th St NE 10th St NE 9th St NE Hathaway Ro NE 3rd St SE 271st Ave Net Developable Land **Encumbered Land** Comp Plan Description Multi-Family Low SE 15th St Multi-Family High Single-Family Medium Nn Lake Ro Urban Low Density Residential Industrial Commercial NW 35th Ave 0.25 0.5 mi Open space/Green space

Figure 6. Developable Land by Zone

Source: City of Camas, Leland Consulting Group

All of the development limitations summarized above should be seen as reasonable working assumptions that are necessary to inform this market analysis. They do not represent binding policy decisions by the City or other agencies. In addition, some assumptions could prove to be incorrect. For example, developers can build on steeply sloped land, and some existing developed sites could be demolished and then redeveloped.

Nonetheless, our hope is that they inform the subarea planning process and help the community understand what areas are *most likely* to be developable in the future.

Economic Overview

Major industry sectors in Clark County include healthcare and social assistance (24,600 jobs in 2018), professional and business services (20,200), retail trade (19,000 jobs), leisure and hospitality (16,000 jobs) and manufacturing (14,200 jobs). In addition, the government employed 27,100 people, over half of which were in public education.

The primary economic driver for any metropolitan region is job growth. New jobs create more demand for office and industrial space to house employment growth.

- In the last two years, Clark County's rate of job growth (4.6%) has been significantly higher than the three counties in the Portland Region (2.2%).
- Employment, population, and GDP growth will continue to keep the Portland region, including Clark County, among the top five fastest growing metropolitan regions in the nation and the most rapidly growing region on the West Coast over the next year or two.
- High income households are expected to continue to make major gains.
- Growth of the national economy is slowing after decade-high gains in 2018.
- Moderated job growth will continue to tighten the labor market
- Forecasters believe that Washington will continue to outperform the United States
- Employment growth is expected to be moderate to three percent.

Going forward, the Columbia River Economic Development Council (CREDC) has identified manufacturing, technology, healthcare, and construction as high-growth industries. These industries are likely to be relevant for the Camas North Shore and the surrounding region.

- **Manufacturing** CREDC recognizes local manufacturing for employment opportunities, technological advancements, and spurring productivity in both innovation and development.
- Technology technology crosses nearly every sector in our economy. From health care and manufacturing to finance and retail, technology is changing the economic landscape of the region. Tech and tech-enabled industries are expected to grow 20 percent with 10,000 new jobs projected by 2026. An influx of young, skilled, creative talent has fueled the development of new startups and innovative solutions across a broad swath of industries. A diverse array of training providers has emerged to increase the supply of skilled workers.
- **Healthcare** healthcare makes up approximately 12 percent of the region's private sector employment and payroll and is projected to grow by at least 23 percent over the next 10 years. Further, more than half of the jobs in the industry pay \$20 or more an hour. With the aging population projected to substantially increase, the industry is forecast to grow significantly to meet these demands.
- **Construction** demand for construction jobs remains very high throughout the region as real estate development continues.

The following map shows the location of significant job centers in the Portland metropolitan region relative to major transportation routes. The greatest job densities tend to be located in downtown Portland and along

highways, such as US-26, SR-217, I-5, and I-205. The relative isolation—at least in terms of proximity to these major transportation corridors—of the Camas North Shore area is apparent.

COLUMBIA CITY Metro Jobs A CENTER YACOLT ST. HELENS Total Jobs < 100 100 - 1,000 RIDGEFIELD 1,000 - 2,500 2,500 - 5,000 BATTLE GROUND SCAPPOOSE 5,000 + VANCOUVER 14 PLAINS CAMAS 30 14 WASHOUGAL PORTLAND TROUTDALE HILLSBORO GRESHAM 26 BEAVERTON MILWAUKIE HAPPY VALLEY TIGARD AKE OSWEGO 5 10 mi KING CITY

Figure 7. Portland Metro Region Job Density (2017)

Source: LEHD OnTheMap (QCEW), Leland Consulting Group

SUBAREA EMPLOYMENT PROFILE

The following map shows job clusters in the region surrounding the Camas North Shore. There are very few jobs to the east of the North Shore area, and the highest concentration of jobs within the submarket is the Columbia Tech Center along Mill Plain Boulevard in Vancouver. The I-205 corridor is also home to many jobs, as is the industrial area that lines the south side of the Columbia River.

The map also shows the retail primary trade area and submarket boundary.

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- **Retail primary trade area:** The primary trade area represents the area from which most retail spending will be derived. This area is used for the retail demand model presented later in this document, which provides estimated demand by square feet per retail category.
- **Submarket:** The submarket denoted in black represents the residential and employment market areas, reflecting the area from which most competitive development will originate.

2.5 5 mi Total Jobs BATTLE GROUND < 100 100 - 1,000 1,000 - 2,500 2,500 - 5,000 5,000 + Submarket Boundary Retail Primary Trade Area VANCOUVER 14 CAMAS WASHOUGAL 14 **FAIRVIEW** 84 TROUTDALE

Figure 8. Activity Centers & North Shore Submarket (2017)

Source: LEHD OnTheMap (QCEW), Leland Consulting Group

The following table shows wage information for Clark County versus the USA, and employment information for the North Shore Submarket (as identified in the map above).

• Retail is the dominant industry in terms of total jobs in the submarket jobs shown in the above map but has one of the lowest average wages.

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- Office demand-generating jobs in industries such as finance and insurance, management of companies and enterprises, and information all show significantly higher concentrations of jobs in the submarket than on average in the rest of the Portland metro region.
- Industrial demand-generating jobs in industries like manufacturing are about as concentrated in the submarket as the rest of the metro but have a very high number of jobs.

Table 1. Employment and Wage Profile

NAICS	Industry Sector	Clark Co Avg. Wage 2018	USA Avg. Wage 2018	Submarket Jobs 2017	Location Quotient MSA 2017
52	Finance and Insurance	\$88,688	\$109,231	3,075	1.59
61	Educational Services	\$31,462	\$51,250	5,987	1.30
51	Information	\$65,846	\$113,781	1,682	1.30
44-45	Retail Trade	\$33,105	\$32,362	6,712	1.23
55	Mgmt. of Companies & Enterprises	\$106,513	\$122,843	2,203	1.19
72	Accommodation & Food Services	\$20,541	\$21,559	5,086	1.09
42	Wholesale Trade	\$74,919	\$77,870	2,919	1.07
31-33	Manufacturing	\$59,836	\$68,525	5,739	1.05
54	Professional, Scientific & Tech Svcs.	\$78,920	\$97,113	3,592	1.02
53	Real Estate and Rental and Leasing	\$49,556	\$59,129	883	0.96
81	Other Services	\$40,716	\$38,464	1,934	0.91
23	Construction	\$58,867	\$62,727	2,667	0.86
71	Arts, Entertainment, Recreation	\$22,919	\$38,887	5,660	0.81
62	Health Care & Social Assistance	\$53,028	\$50,326	746	0.80
56	Administrative & Support Svcs.	\$39,014	\$40,985	2,529	0.80
48-49	Transportation, Warehousing	\$NA	\$53,197	507	0.28
11	Ag, Forest, Fishing & Hunting	\$NA	\$35,841	149	0.26
21	Mining, Oil & Gas Extraction	\$NA	\$35,841	8	0.24
22	Utilities	\$NA	\$109,957	41	0.24

Source: Bureau of Labor Statistics, QCEW data (note: Some data not available for Clark County for confidentiality reasons)

Tax Structure

Clark County's economy is based around the major industry of healthcare and social assistance, professional and business services, retail trade, leisure and hospitality, and manufacturing.

Employment grew rapidly in all sectors during the 1990s but slowed after the 2001 recession. Construction and homebuilding remained strong until the housing bubble burst in 2006-2007. The county lost a substantial proportion of its employment base in the downturn, about the same as the state and nation, but has since seen significantly better job growth than both the state and nation. The economic forecast for Clark County remains positive.

As part of the Portland-Vancouver market, which spans two states (OR and WA), Clark County is in a unique position tax-wise (profiled in the following table). About one-third of the county's labor force commutes to Portland on a daily basis, while only about 11,000 people commute in the opposite direction. Washington levies

a sales tax on retail purchases, and a business receipt tax but no income tax, while Oregon levies individual and business income tax but no sales tax. There are no local business taxes in Clark County outside standard business licensing fees.

Table 2. Tax Comparison

Тах Туре	WA (Clark County)	OR (Mult. County)	OR (Wash. County)
Corporate Excise Tax	None	6.6% of net Oregon income.	6.6% of net Oregon income.
Personal Income Tax	None	Up to 9% of taxable income.	Up to 9% of taxable income.
Personal Income Tax (Co)	None	1.45% of net Oregon income	None
State Business Tax	Manufacturing/Wholesaling 0.484%; Retailing 0.471%; Service and other activity 1.50%. Based on gross sales.	None	None
Business License Fee (City)	\$10 annual fee (City of Camas) \$100 per employee surcharge (City of Vancouver)	2.2% of net business income \$100 minimum (City of Portland)	0-4 Employees: \$50 per year; each additional employee \$8.50 per year. (City of Beaverton)
Sales Tax	State 6.5%, Clark County 1.7%	None	None
Transit District Tax	None	0.6718% flat rate payroll tax	0.6718% flat rate payroll tax
Real & Personal Property Tax	Average rate \$10.48 per \$1,000 of assessed value.	Average Rate. \$18.6 per \$1,000 of assessed value.	Average Rate. \$16.40 per \$1,000 of assessed value.
Unemployment Insurance Tax	Average 1.7% on the first \$34,000 in wages	0.9%-5.4% of the first \$30,200 of an employee's salary.	0.9%-5.4% of the first \$30,200 of an employee's salary.
Industrial Insurance (WA), Workers Compensation (OR) *See Note	Industrial Insurance sample rates: Misc. Manufacturing: \$0.6639; Transportation & Warehousing: \$1.608; Misc. Professional Services: \$0.1748 (per hour worked)	Workers' Compensation is broken down into 3 separate taxes. 1) Premiums paid to private insurance companies that range from \$1.8-\$7.2 per \$100 of wages paid. 2) 4.6% Premium Assessment fee of the annual total premium. 3) Workers Benefit Fund, paid to the state, 1.4 cents per worker hour worked paid by employees, and 1.4 cents per hour worked paid by employer.	Workers' Compensation is broken down into 3 separate taxes. 1) Premiums paid to private insurance companies that range from \$1.8-\$7.2 per \$100 of wages paid. 2) 4.6% Premium Assessment fee of the annual total premium. 3) Workers Benefit Fund, paid to the state, 1.4 cents per worker hour worked paid by employees, and 1.4 cents per hour worked paid by employer.

Source: Columbia River Economic Development Council, February 2009

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ECONOMIC FORECASTS

The Washington Employment Security Department (WAESD) provides 10-year employment projections (2017 to 2027) for Clark County. These projections demonstrate the regional economic trends that could be applied to the types of development targeted in the [east of I-205] submarket and the Camas North Shore area.

Among the fastest-growing industries for the next decade, according to WAESD, are:

- Education Services (2.8 percent)
- Health Services and Social Assistance (2.2 percent)
- Professional, Scientific, and Technical Services (2.2 percent)
- Accommodation and Food Services (1.8 percent)
- Construction (1.8 percent)

Realistically, however, employment growth in east Clark County is likely to fluctuate based on a number of differentiating factors, such as location, market dynamics, and politics. Employment trends over the past five to 10 years for the submarket give an indication of how these projections might change for this area. The following chart shows 20-year employment projections based on WAESD's 10-year forecasts for Clark County and historical employment trends for the submarket.

Health Care & Social Assistance 4,840 Educational Svcs. 4,228 Accommodation & Food Svcs. 3,412 Retail Trade 1,508 Manufacturing 1,892 Professional, Scientific & Tech Svcs. 3,072 Finance & Insurance 1,555 Construction 1.348 Wholesale Trade 512 = 2019 (est) Mgmt. of Companies & Enterprises 1,114 ■ 20-yr Growth Administrative & Support Svcs. 268 Information Other Svcs., except Public Admin. 205 Real Estate & Rental & Leasing 755 Arts, Entertainment, & Recreation 377 Public Administration 13 Transportation & Warehousing 114 2,000 4,000 6,000 8,000 10,000

Figure 9. Projected 20-year Job Growth, East of I-205 Submarket

Source: WAESD, LEHD, Leland Consulting Group

KEY TAKEAWAYS

- The prominence of healthcare, educational, retail, and accommodation and food service jobs is typical of suburban locations situated on the periphery of more significant employment clusters.
- With almost 4,000 jobs in the Professional, Scientific, and Technical Services industry, the area demonstrates its attraction for suburban office development. Significant growth is expected over the next 20 years, driving demand for additional office space.
- Employment forecasts for the industries of Manufacturing, Technology, Healthcare, and Construction look positive for east Clark County—trends on which future development in the North Shore area can leverage.
- Clark County's tax structure is attractive to prospective large businesses.

Demographic Profile

EXISTING DEMOGRAPHIC CONDITIONS

While the North Shore area is largely undeveloped, it is expected to continue to experience substantial growth over the next two decades. In recent years, many new residents have been attracted to Camas for many different reasons, including its tax structure, housing availability, small-town feel, access to both the Portland metro and Cascade Range, schools, and high quality of life.

These attractive qualities are reflected in the high growth of Camas and Washougal—which shares similar characteristics—over the past two decades. In fact, per the following table, Camas experienced one of the highest rates of population growth (2.53 percent) among cities in the Portland Metropolitan Area (MSA), and the highest rate in Clark County among cities with a population of 10,000 or more.

Camas remains largely residential as opposed to a significant employment destination, reflected in the city's greater proportion of daytime residential population versus worker population.

Table 3. Population Characteristics

Population	North Shore Subarea	Camas	Washougal	Vancouver	Clark County	MSA	United States
2000 Total	187	12,640	9,686	148,886	345,238	1.9m	281.5m
2010 Total	377	19,848	14,102	167,554	425,363	2.2m	308.5m
2019 Total	462	24,845	17,089	188,923	496,461	2.5m	332.5m
00-19 CAGR	4.88%	3.62%	3.03%	1.26%	1.93%	1.42%	0.88%
10-19 CAGR	2.28%	2.53%	2.16%	1.34%	1.73%	1.38%	0.82%
2019 Daytime Pop	335	24,512	13,299	206,568	441,355	2.5m	330.5m
Workers	87	11,424	3,998	106,958	177,348	1.3m	158.5m
Residents	248	13,088	9,301	99,610	264,007	1.2m	172.0m

Source: ESRI. CAGR: Compound Annual Growth Rate.

The following table demonstrates some of the key household characteristics across all comparison areas.

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- Camas has some of the highest earning households across the region, with a median income of \$110,637 in 2019.
- Households in Clark County are generally cheaper than the regional average, yet Camas households are by far the highest value homes among comparison areas.
- These home values are perhaps reflective of owner-occupied single-family homes that are
 accommodating significantly larger households. Indeed, recent growth trends—which are
 summarized in the next section—indicate that single-family residential has been by far the
 predominant land use type, with multifamily and non-residential uses (including recent
 development) more prominent in eastern Vancouver within the submarket.

Table 4. Household Characteristics

	North Shore Subarea	Camas	Washougal	Vancouver	Clark County	MSA	United States
Avg. HH Size	3.05	2.99	2.72	2.45	2.71	2.55	2.60
1- & 2-person HHs	55.9%	48.0%	55.9%	63.4%	57.1%	61.1%	59.5%
Med. HH Income	\$101,496	\$110,637	\$81,721	\$62,590	\$77,499	\$75,170	\$60,548
Med. Home Val.	\$482,143	\$476,770	\$350,482	\$287,516	\$343,496	\$394,258	\$234,154
% Rented HHs	24%	21%	25%	47%	32%	38%	36%

Source: ESRI

Camas appears an attractive city for families with children, per the following table which shows 43 percent of the population aged 35 to 64 and 27 percent aged under 18. These trends are more pronounced than the surrounding cities, Clark County, and the region.

Educational attainment levels are also uncharacteristically high, with more than half of the population (aged 25 and over) with at least a bachelor's degree.

Table 5. Age & Education Characteristics

	North Shore Subarea	Camas	Washougal	Vancouver	Clark County	MSA	United States
Median Age	39.9	38.2	39.1	38.0	38.3	38.3	38.5
% Under 18	22.0%	26.8%	23.6%	22.0%	23.5%	21.2%	21.8%
% 18-34	21.1%	17.7%	20.7%	23.3%	21.6%	23.5%	23.4%
% 35-64	41.1%	43.0%	40.4%	38.2%	39.3%	40.1%	38.4%
% 65+	15.8%	12.5%	15.3%	16.5%	15.6%	15.2%	16.4%
% with bachelor's	41.0%	51.6%	30.2%	28.6%	30.6%	40.2%	32.5%

Source: ESRI

DEMOGRAPHIC FORECASTS

Today, Camas is home to almost 25,000 people, but this is expected to increase to 34,000 in the next
 20 years, an increase of 36 percent. Growth projections (shown in red in the following chart) for Clark

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- County indicate population increasing by about 179,000 people in the next 20 years, a slightly lesser increase of 34 percent.
- Clark County has been the beneficiary of retired households moving to Clark County from Portland, to escape Oregon income taxes.
- The Portland Region has added an average of approximately 30,000 jobs per year in the last five years. This trend has kept the Portland housing market among the strongest in the nation.

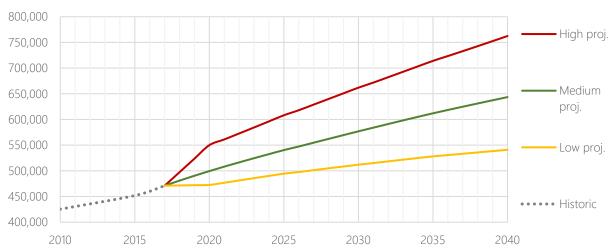


Figure 10. Population Growth Projections, Clark County

Source: Projections of the Total Resident Population for Growth Management, 2017 GMA Projections, WAOFM - Forecasting & Research

Housing Impacts of Shifting Age Demographics

Housing needs change significantly depending on life stage. Given the projected growth in those aged 30 to 44 and 70 and over, the housing "needs" of those age groups are mainly multifamily, starter single-family (typically attached, such as townhomes, stacked flats, or duplexes), and senior housing. It is worth noting that these needs are associated with *current* trends and may shift significantly in the coming years. Indeed, in the past 20-somethings have generally moved away from multifamily and sought single-family homes instead.

These trends are presented in the following figure, which shows projected population growth by 2029 for Clark County. The age structure of Camas' population is currently very similar to that of Clark County, so the housing impacts of shifting age demographics are likely to be similar for Camas.

- Much is made of the housing needs and desires for current generations, with the most common
 argument surrounding the Millennial propensity for inner-city apartment living. While recent trends
 indicate that many Millennials are moving in a more traditional direction to single-family owneroccupied housing as they marry and/or settle down, these trends are not as pronounced as in the past.
- Baby Boomer growth is likely to present unique opportunities and challenges to those of the
 Millennials. It appears to be an open question whether aging Baby Boomers— who are typically less
 encumbered by financial constraints than their younger counterparts—will be attracted to apartment
 rental living by choice.

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- Research such as the "America in 2015" survey done by the Urban Land Institute (ULI) indicates that as
 nests begin to empty, Boomers will turn to smaller, lower-maintenance housing choices, albeit still in
 the suburbs.
- Other recent opinion research, such as a 2013 survey done by The Demand Institute, however, seems to suggest that most Boomers may still be drawn to the idea of homeownership and yards in the suburbs.

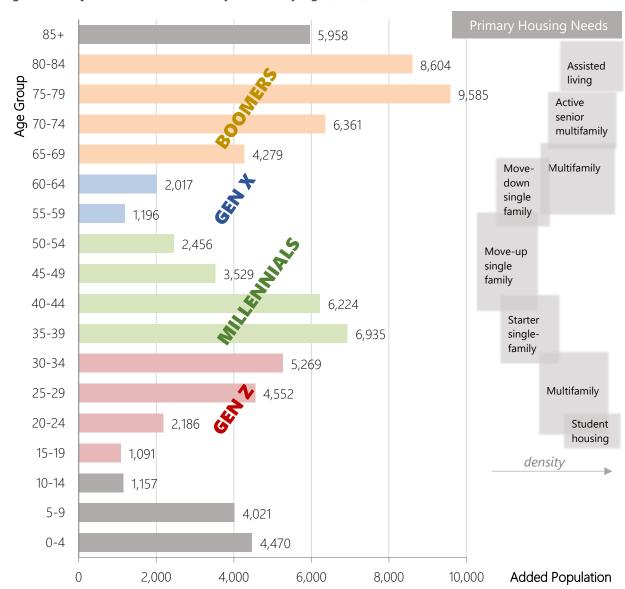


Figure 11. Projected New Clark County Growth by Age (2029)

Source: Office of Financial Management 2017 Population Projections for Clark County

KEY TAKEAWAYS

- Camas experienced one of the highest rates of population growth (2.53 percent) among cities in the Portland Metro Region (MSA), and the highest rate in Clark County among cities with a population of 10,000 or more. Growth is expected to continue at a faster rate than Clark County.
- Camas is home to some of the most educated, highest income residents in the region. On a related note, home values are among the highest in the region. This is potentially because of the growth of larger houses leveraging the family-friendly attraction of the city (demonstrated by the high proportion of children and those aged 35 to 64).
- Projected population growth for the next decades indicates significant growth in those aged 30 to 44 and 70 and over, the housing "needs" of those age groups are mainly multifamily, starter single-family (typically attached, such as townhomes, stacked flats, or duplexes), and senior housing.
- The Portland Region has added an average of approximately 30,000 jobs per year in the last five years. This trend has kept the Portland housing market among the strongest in the nation.

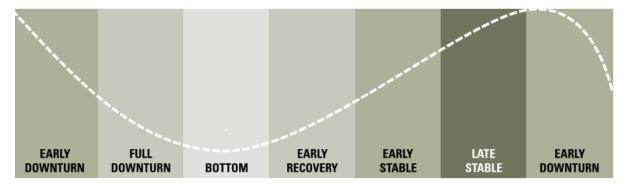
Real Estate Market

NATIONAL CONTEXT

National Market Trends

All real estate land uses are governed by the real estate cycle. These land uses move upwards from the bottom of a cycle after a recession, like in 2009/2010, to the top of the cycle and then transition into a downward trend.

Figure 12. The Real Estate Cycle



Different land uses are usually at different stages in the real estate cycle with leaders and followers. The graph below shows where selected land uses are currently at a national level in the major metropolitan markets across the country. Leland Consulting Group believes this graph is relatively applicable to the Portland Regional market.

Figure 13. Position of Selected Land Uses in the Real Estate Cycle



- Nationally, hotels and multifamily residential are leading other land uses into a downturn. Due to the significant amount of new multifamily housing construction in Clark County since 2012, we believe multifamily housing is also ahead of other land uses in the real estate cycle.
- The national, regional, and local real estate markets are, for the most part, in the mature phase of the real estate cycle. Demand has leveled off, but construction still continues, particularly in multifamily apartments, at a tepid pace. Overbuilding is a strong possibility.
- Markets are likely to begin trending downward starting in 2020. Many economists are predicting a national economic recession, albeit a mild one compared to 2009, in 2020 or 2021.

Development and Land Use Types

This section includes excerpts from the Urban Land Institute's (ULI) Emerging Trends in Real Estate report for 2019, an annual publication that assesses the state of real

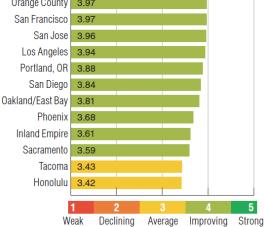
estate markets both nationally and locally based on interviews and surveys with experts in development and finance. Both national and regional trends have an impact on future land uses in the study area: they set the stage for the types of investments that are desirable for real estate developers and investors.

Emerging Trends¹ suggests that access to talent (i.e., welleducated workers) is what drives the economies of many of the Pacific Northwest markets

The Portland metropolitan region² is described by ULI as a "solid 18-hour city" whose strengths include strong economic growth due to increased wealth in the market, high quality of life and attractive outdoor activities, and a diverse workforce that helps to supply trained labor to industries.

Seattle 4.29 Orange County 3.97 San Francisco 3.97 3.96 San Jose

Figure 14. Local Outlook: Pacific Northwest



Source: ULI

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² Since McMinnville is on the periphery of the Portland metropolitan area, Portland directly impacts McMinnville's economy.

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While the regional economy is not considered as strong as other Pacific Coast major metropolitan regions, it has experienced the benefit of being able to offer a more competitive cost structure to its more expensive neighbors along with a high quality of life for residents. This is a prime example of how quality of life can drive an economy and one that Camas can continue to leverage, especially given the affordability challenges facing the Portland metro.

Development Prospects

National development prospects indicate investor behavior. These prospects are summarized in the Urban Land Institute's (ULI) annual report, Emerging Trends, which provides guidance about the types of development that are likely to be most desirable in the coming years from a developer and investor perspective. While this is a national outlook, the guidance is relevant for most local markets, including Camas'.

ULI's development prospects for 2019 are shown at right. These align somewhat with recent development trends in Camas, which are mostly residential.

- Industrial development prospects have recently surged, largely due to e-commerce and the heightened need for facilities linked with logistics and distribution.
- Residential prospects remain strong, both nationally and regionally. The two largest generational cohorts—Baby Boomers and Millennials—are driving the bulk of residential



- demand. As Boomers get close to retirement age, demand for move-down single-family and multifamily housing has surged. For Millennials, the focus on multifamily appears to have slowed somewhat and are at a historical low of 62% homeownership, with more now looking to get on the property ladder as the economy improves, they start families and/or move up the career ladder.
- The "retail apocalypse" has been well-documented in recent years, with traditional brick-and-mortar retailers struggling to compete with the rapid growth of ecommerce and shifting consumer habits. However, this is not to say that retail is a failing development type in general. In fact, total retail spending has continued to climb, and recent spending on experiential and food-based retail, in particular, has seen significant growth. Under the right conditions—where demand exists and development is feasible—certain retailers can thrive, helping foster a live-work-play mixed-use environment and building a sense of place.
- Office prospects are mixed, with trends showing a continued decline in office space use per employee,
 more mobility in the employment market as remote work becomes increasingly feasible and
 employment growth slows. Mixed-employment campuses including flex, office, light industrial, and
 other compatible retail and even residential uses are increasingly popular in locations boasting access
 to natural and physical amenities, high capacity transportation, and skilled workforces. The North Shore
 could be poised to capitalize on this trend, but will require some investments, particularly in
 transportation and infrastructure.
- Hotel prospects are positive in certain markets/specialized locations.

SUBMARKET DEVELOPMENT TRENDS

Historically, currently, and in the foreseeable future, the Cascade Park submarket between I-205 and SE 192nd has been and will remain the primary competitor for the Camas/Washougal subarea for all land uses except single-family housing. Further, as discussed earlier in this report, there is still a large supply of vacant developable commercial and industrial land west of 192nd. Multi-family apartment land is more constrained due to the rapid pace of construction that has taken place throughout Vancouver over the last 10 years.

High development Rapid retail expansion Recession Recovery: hsq., activity across all with 2008 all-time with lasting industrial, land uses peak (prior to 2019) impact lodging 1,600,000 Specialty 1,400,000 Flex 1,200,000 ■ Industrial ■ Hospitality 1,000,000 ■ Healthcare 800,000 Office ■ Retail 600,000 MFR 400,000 200,000 0

Figure 15. Development Trends Analysis, 1990-2019, Camas North Shore Submarket

Source: Costar, Leland Consulting Group

While the above chart excludes single-family residential, the following chart shows all land uses in terms of acres developed over the past decade. Single-family residential is responsible for about 86 percent of development between 2008 and 2018.

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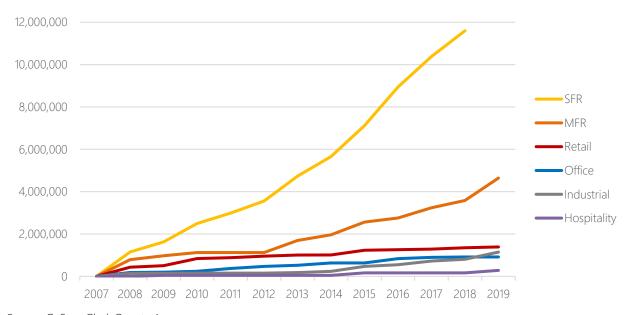
Figure 16. Acres Developed by Land Use, East of I-205, 2008-2018



Source: Costar, Clark County Assessor

Single-family residential accounts for a lesser proportion of net new building area as about 62 percent of the total. Due to the higher density of multifamily residential, apartments are responsible for 19 percent of net new development despite having only two percent of total acres developed during this same period. Office portrays a similar picture, with five percent of total building area and just two percent of land acres developed.

Figure 17. Gross Building Area (Square Feet) of Development by Land Use, East of I-205, 2008-2019



Source: CoStar, Clark County Assessor Note: 2019 SFR Data Unavailable

The development trends shown above are depicted spatially on the following map, which shows historical, current, and proposed commercial and multifamily real estate developments east of I-205 since 1998.

- These projects are color-coded by land use.
- The size of the square is representative of the size of the project.
- Squares/projects with no line around them were constructed from 1998 to 2012.
- Squares/projects with a solid line have been built since 2013 or are under construction.

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• Squares/projects with dotted lines are proposed.

As the map shows, the newest development has been built along Mill Plain Boulevard near 136th Ave and 164th Ave (Columbia Tech Center). In fact, the vast majority of past and pipeline market supply is located west of SE 192nd.

Development Trends Year Built Proposed Built since 2013 Built 1998-2012 Land Use General Retail Multi-Family Office Health Care Hospitality Bldg. Size (Sq Ft) 600,000 300,000 100,000 10,000

Figure 18. Historical and Future Projects East of I-205

Source: CoStar

EMPLOYMENT MARKET

Employment in this section refers to office and industrial uses. Trends are presented for the east of I-205 submarket. This submarket is dominated by the Columbia Tech Corridor rather than the Camas/Washougal area, which has seen only a few new additions to the inventory.

Office Market

The East of I-205 submarket has experienced significant office growth in the past decade. Absorption is expected to increase over the next few years and remain higher than planned and proposed office building deliveries, indicating demand for more construction in the near-term.

- The vacancy rate is currently around 6.4 percent, which is reflective of a somewhat undersupplied market. A 10 percent vacancy rate is generally viewed as an office market that is in balance between supply and demand.
- Rent growth has been moderate in recent years but the market has been tightening, which is expected to push rents up. Average annual rent growth is forecasted to decline over the next five years and overall vacancy is expected to increase slightly.
- The primary competitor for office space in the North Shore area is going to be the Cascade Park subarea to the west, which includes the Columbia Tech Corridor.

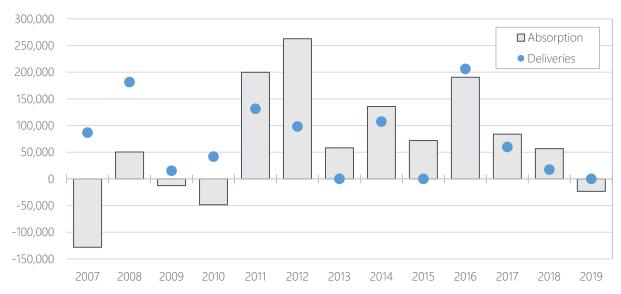
Table 6. Office Submarket Trends

	Historical (2015-2019)	Projected (2020-2022)		
	Total Sq. Ft.	Annual Avg.	Total Sq. Ft.	Annual Avg.	
Current Inventory (2019)	4,124,901				
Projected Inventory (2022)	·		4,338,101		
New Supply	283,132	56,626	213,200	71,067	
Absorption	379,264	75,853	330,876	110,292	
Over/Under Supply	96,132	19,226	117,676	39,225	
Rent Growth		1.7%			
Vacancy (2019)	6.4%				

Source: Costar, Leland Consulting Group

Absorption and construction trends are shown in the following figure. While absorption and deliveries have been in decline in the last few years, both are expected to rebound to 2016/2017 levels. The Cascade Park submarket (between SE 164th and 192nd) has been responsible for approximately half of Clark County office absorption. This is expected to slow but continue as new employment lands are developed in the area.

Figure 19. Office Deliveries and Absorption, East of I-205 Submarket



Source: Costar, Leland Consulting Group

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The following charts show office rent and vacancy trends. The average rent per square foot has not increased since its high in 2006. This is typical of the nations and the Portland region due to the decrease in demands, in large part, as a result the declining ratio of office space per employee and other trends previously discussed. However, high-quality office space has, on average, commanded rents about \$3.70 higher than the market average.

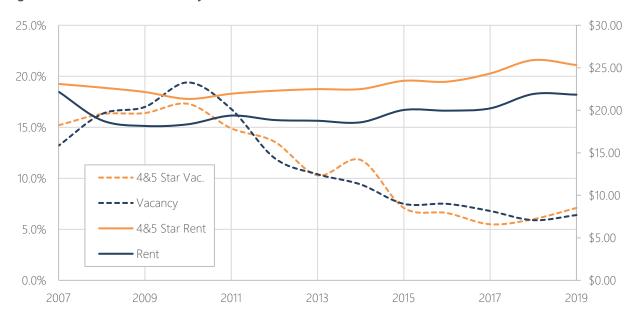


Figure 20. Office Rent & Vacancy, East of I-205 Submarket

Source: Costar, Leland Consulting Group

Additionally, master plan developments, such as Columbia Palisades and Columbia Tech Center, tend to command the highest rents in the region. Rents at the Columbia Palisades (proposed) are being advertised at \$40 to \$45 per square foot triple-net, and since its inception, the Columbia Tech Center has continued to rent at upwards of \$26 per square foot full-service.





Industrial Market

At mid-year 2019, the Portland industrial market slowed to negative absorption for the first time since mid-2009. Although Q2 2019 saw multiple deals completed, the number of move-outs was closely equal concluding the quarter with negative 48,253 sq. ft. of absorption. The East of I-205 submarket, on the other hand, has displayed

improving market conditions for industrial development, with increasing year-on-year absorption and construction starts, as well as a lower vacancy rate than the Portland metro region.

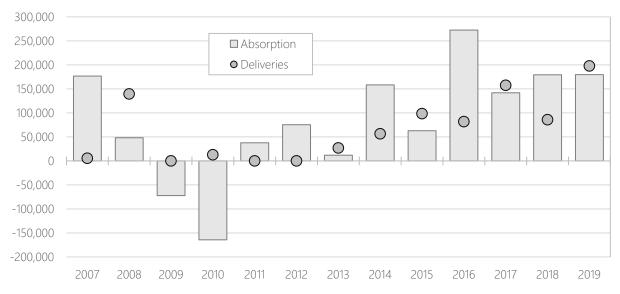
Table 7. Industrial Submarket Trends

	Historical (2015-2019)	Projected (2020-2022)		
	Total Sq. Ft.	Annual Avg.	Total Sq. Ft.	Annual Avg.	
Current Inventory (2019)	5,357,318				
Projected Inventory (2022)			5,382,318		
New Supply	621,034	124,207	25,000	8,333	
Absorption	836,034	167,207	593,508	197,836	
Over/Under Supply	215,000	43,000	568,508	189,503	
Rent Growth		7.2%			
Vacancy (2019)	1.4%				

Source: Costar, Leland Consulting Group

After many years of stagnant development activity, construction and absorption have been steadily increasing since 2013, as the following chart shows. The current pipeline, however, is highly constrained, potentially resulting in pent-up demand for industrial development going forward.

Figure 21. Industrial Deliveries and Absorption, East of I-205 Submarket



Source: Costar, Leland Consulting Group

As the following chart shows, rent growth has been constrained but has recently responded to drastic declines in the vacancy rate, which in 2018 hit a 10-year low. This would appear to indicate reasonable demand for new industrial development.

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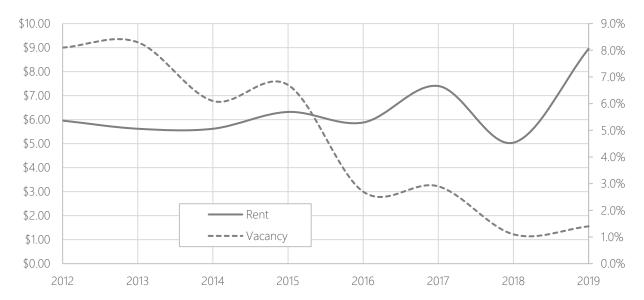


Figure 22. Industrial Rent & Vacancy, East of I-205 Submarket

Source: Costar, Leland Consulting Group

Flex Space

Flex space is a term used for lightly zoned buildings. It is mainly used when referring to industrial or office space.

- There is an additional 1.6 million square feet of flex space in the submarket, much of which is in the Columbia Tech Center.
- Flex space absorption has averaged 33,860 square feet annually and is expected to increase marginally to 43,000 square feet annually over the next few years as around 190,000 square feet of new flex space comes online, despite a vacancy rate of almost 20 percent.
- Flex rents are averaging around \$10 per square foot triple-net, about 50 percent higher than average industrial rents.

EMPLOYMENT AREAS AND LAND SUPPLY

With vacancies for both office and industrial development at or nearing historic lows, demand appears strong for additional industrial and office space. Employment growth is expected to continue in this area, so it is important to understand the availability and timing of the development of existing and planned employment areas.

Several other significant planned project areas in this region will greatly increase employment and commercial employees, amenities, and building square footage, and also provide more competition for the Camas North Shore. These project areas are identified in the map below and profiled in the following text.

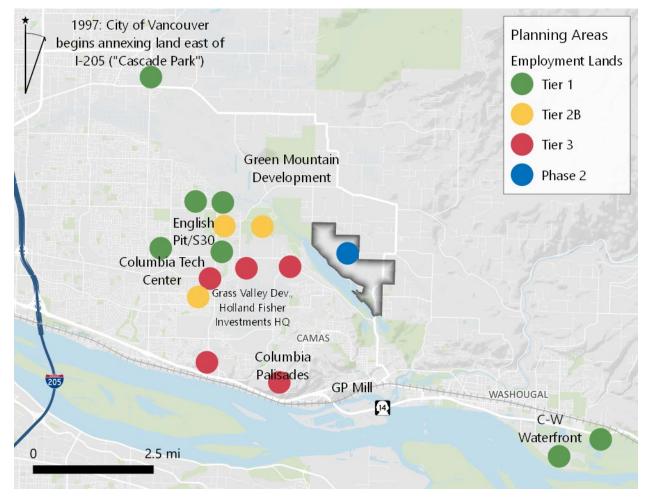


Figure 23. CREDC Employment Lands Sites, East of I-205 Submarket

Columbia Tech Center

The Columbia Tech Center (CTC) is a 450-acre, master-planned employment center offering around four million square feet of retail, office and flex/office space, single-family and multifamily homes and other amenities (shown in the charts below). Given the preliminary vision for the Camas North Shore, CTC appears to be an appropriate case study to profile.

Established in 1996, CTC received approximately \$62 million in public infrastructure investments and now employs around 8,500 people. CTC has largely been the focus of new employment-based development in east Clark County, but the Center is now close to full build-out, with only 69 acres remaining vacant for further development. With land supply now limited, there are additional pressures on potential employment lands elsewhere in the submarket.

The following charts show the land use mix by total building area and lot acreage development for the Columbia Tech Center. Both include HP (office), which was built in 1981.

Figure 24. Land Use by Total Building Area (SqFt)

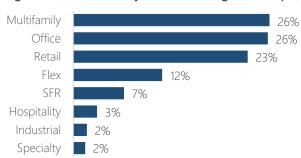
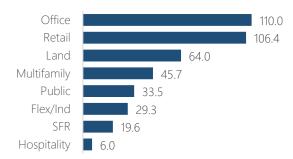


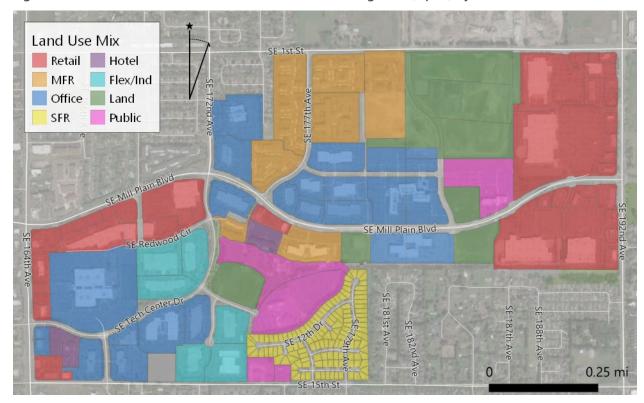
Figure 25. Land Use Mix by Acreage Developed



Source: Costar, Clark County, Leland Consulting Group

The following map shows where these land uses are placed in the Columbia Tech Center. Retail uses bookend the CTC near major nodes and arterials. Multifamily uses (which include senior housing) are clustered in a central location, as are office and flex/industrial land uses (in two locations). The Center includes several public uses, including a school, a college, a park, and a fire station. A screen capture of the CTC's home page follows. This shows that the brand of this master planned area is "Live, Work, Thrive." It is intended to be a complete community—far more than just a suburban employment center.

Figure 26. Columbia Tech Center Land Use Mix and Building Area (sq. ft.) by Location



Source: Costar, Leland Consulting Group

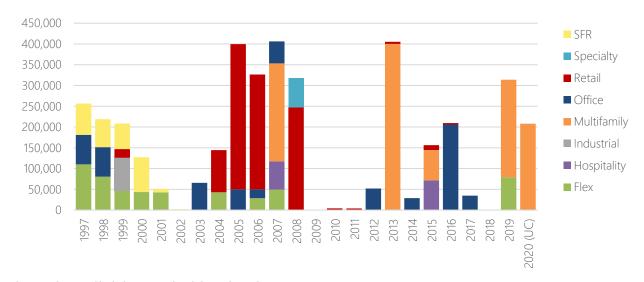
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Figure 27. Columbia Tech Center Home Page



The Center's development occurred during some distinct cycles. Notably, it started with single-family residential and employment uses (office and flex), followed by significant retail development (presumably as the area became more populated) and some multifamily apartments. Development since the Great Recession in 2008/2009 has predominately been multifamily, in keeping with broader national trends.

Figure 28. Columbia Tech Center Land Use Mix and Building Area (sq. ft.) by Year Built



Source: Costar, Clark County, Leland Consulting Group

Other pertinent development trends for CTC include:

- Of the 450 gross acres, approximately 35 acres are right-of-way (7.8 percent), leaving 415 acres as net developable.
- Developed parcels account for 346 acres, with 64 acres or 15.4 percent of the total net still vacant.

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- Only 25 acres were developed before 1997; 332 acres have been developed post-1997. A total of 3.9 million square feet in total building area has been built since 1997. This has averaged 11,875 square feet per acre developed (0.28 average FAR).
- The annual rate of development since 1997 has been 14.8 acres. Based on this rate, there are approximately 4.3 years of land supply remaining in CTC.
- Based on the current average FAR and remaining acreage, CTC can be expected to accommodate an
 additional 774,000 square feet of new development. This projection is expected to be higher if new
 development is multifamily residential.

The Columbia Tech Center serves as an important case study for the Camas North Shore. Approximately 544,000 square feet of "employment" uses (office, industrial, flex) were developed in the first five years of construction (109,000 square feet per year). The highest quality office construction was only built in the latter years, seemingly as the market improves, and multifamily residential has since been responsible for the bulk of new development, demonstrating the strongest market dynamics in the region.

CTC remains better positioned in the region for large-scale industrial and office, although land supply is now dwindling with less than five year's land supply remaining. However, there is a 553-acre redevelopment site located to the immediate north of CTC, called Section 30 or the "English Pit" which appears poised to take up the mantle.

Section 30/English Pit

Section 30 is a former gravel mine turned master-planned community including a similar mix of uses to the Columbia Tech Center. Approximately 9,500 jobs are projected at full build-out.

Table 8. Section 30 Land Use Mix

Land Use	Net Acres	Dwelling Units
Traditional Retail	9 acres	
Mixed-Use Town Centers	20 acres	360 units
Town homes/Apartments	70 acres	1400 units
Office Industrial	100 acres	
Industrial	113 acres	
Subtotal	312 net acres	1760 units
Existing Uses	134 acres	
Total	446 net acres	1760 units

Columbia Palisades

The total developable land area is 51.2 acres. Percentages of developed land area by type of use are shown below. Office is the predominant land use, followed by single-family residential. Other employment uses, such as industrial, are not included in the plan. As such, the Columbia Palisades project is expected to compete directly with the Camas North Shore developments for office and residential prospects.

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Figure 29. Columbia Palisades Conceptual Development Plan

CREDC Employment Lands

Columbia River Economic Development Council (CREDC) conducted an employment land study as an economic development and policy tool for civic leaders and policymakers. The study moves beyond a quantitative inventory of land availability and considers the challenges of developing large and complex sites with considerable development constraints. The tool has been used by leaders in other communities to attract new investment, align land supply with the needs of firms looking to locate or expand, and to develop policies that remove costly barriers to development that threaten economic growth and prosperity.

- The Study identified 56 employment sites that are 20 acres and larger throughout Clark County (see Figure 23 on page 35). The site inventory identifies a tier for each site and considers the market, land use, and physical characteristics to assess site readiness. This Study can be used as a tool to inform policymakers about opportunities and constraints for employment development and provides strategic infrastructure estimates. The Study does not recommend public investment in specific infrastructure projects or result in any regulatory actions on the properties studied. Phase 2 of the Study uses a conceptual depiction of an employment use on select study sites to assess site characteristics but does not propose any development action.
- CREDC identified the North Shore area as a Phase 2 site, selected for further analysis. Immediately to the west of Lacamas Lake in east Vancouver and west Camas, there are several sites identified by CREDC as prime locations for near-term development to support employment growth. These sites are likely to absorb demand for industrial and office construction sooner than the Camas North Shore site (designated a Phase 2 site by CREDC).
 - o Tier 1: six months to development ready.
 - o Tier 2B: 13 to 30 months to development ready.
 - o Tier 3: more than 2.5 years to development ready.
 - o Phase 2: selected for further analysis.

RESIDENTIAL MARKET

A 2019 Housing Market Outlook report from Penrith Home Loans in Vancouver is projecting that two mortgage interest rate hikes will happen during the year, with rates eventually topping 5.5 percent. The rates are still near historic lows, but they're starting to tick upwards.

The report also projects moderate housing inventory growth of less than 7 percent, a shift from luxury- to entry-level construction and a slowdown of appreciation, with median home prices rising 2 to 3 percent.

Nationally and regionally, there's pent up demand around Millennial-aged buyers—which make up the largest sector—looking for affordable homes. Boomers, on the other hand, are downsizing and many of the Gen-X generation is now moving up to larger homes.

Multifamily Residential

The majority of multifamily construction activity has been taking place within the city limits of Vancouver. The remainder of Clark County consists primarily of single-family housing (See Appendix B for graphical depictions of building permit activity from 2009 – 2018 in Clark County, Vancouver, and Camas/Washougal).

- Since 2013 almost three-quarters of all Clark County multifamily building permits have been issued in the City of Vancouver.
- During this period, there were almost no multifamily building permits issued in the City of Camas.
- In the last six years, almost every single building permit in Camas has been for single-family homes.
- Residential building permits in Clark County has averaged 3,225 units per year in the last six years (2013 through 2018)
 - o Annual average 2,171 single-family (67 percent)
 - o Annual average 1,054 multifamily (33 percent)
- 2017 was the banner year for new apartments in the last two decades (1,707 units), exceeding the annual average of the previous five years by 62 percent. In 2018 multi-family building permits dropped back to the historical average of the previous five years (805 units per year).
- Except for the development taking place on the waterfront in downtown Vancouver, new multifamily construction is expected to slow in the future because of rising land and construction costs, which are forcing rents for new apartments above affordable levels.

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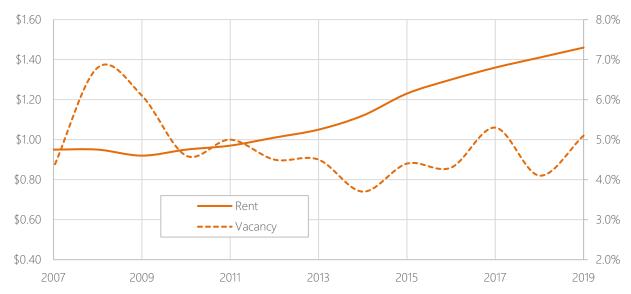
Table 9. Multifamily Submarket Trends

	Historical ((2015-2019)	Projected 2020-2022)		
	Total Units	Annual Avg.	Total Units	Annual Avg.	
Current Inventory (2019)	13,552				
Projected Inventory (2022)			14,197		
New Supply	1,844	369	645	215	
Absorption	1,607	321	733	244	
Over/Under Supply	(237)	(47)	88	29	
Rent Growth		3.5%			
Vacancy (2019)	5.1%				

Source: Costar, Leland Consulting Group

A vacancy rate of five percent or under indicates demand for additional multifamily development. Vacancies have remained at or below that five percent threshold since the Great Recession, despite substantial construction growth. During this same time, average rents have continued to increase.

Figure 30. Multifamily Apartment Rent & Vacancy, East of I-205 Submarket



Source: Costar, Leland Consulting Group

A selection of the highest renting projects in the submarket is profiled below. These projects show that new apartment projects can achieve rents upwards of \$2.00 per square foot, 37 percent above the market average. Common characteristics among all examples include low- and mid-rise building types at no higher than four stories, no ground floor retail, and surface parking.

Considering the relatively recent construction of these projects, we presume that these rents can support a similar type of development in the Camas North Shore, but a more dense or mixed-use development may require higher rents to be financially feasible.

The Landing at Vancouver (100 SE Olympia Dr)

- 250 units built in 2019.
- \$1.97 per square foot asking rent



The Club at the Park (17775 SE Mill Plain Blvd)

- 206 units built in 2019
- \$2.21 per square foot asking rent





Parkside Lofts (17701 SE Mill Plain Blvd)

- 91 units built in 2015
- \$2.37 per square foot asking rent



Trio Pointe (19600 NE 3rd St)

- 240 units built in 2017
- \$1.83 per square foot asking rent

The following chart shows multifamily construction and absorption trends for the submarket. Absorption has largely kept pace with new deliveries, indicating continued demand for apartments.

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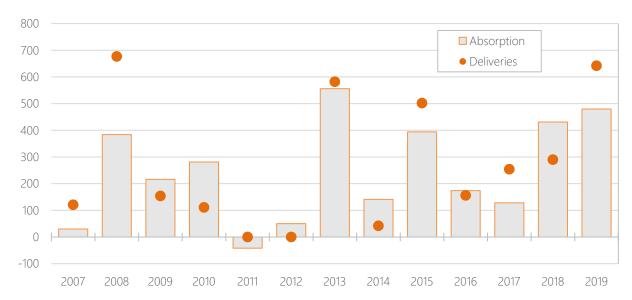


Figure 31. Multifamily Apartment Deliveries and Absorption, East of I-205 Submarket

Source: Costar, Leland Consulting Group

Single-family/Ownership Housing

The market for ownership housing is very active and deep in Clark County generally, and the Camas/Washougal submarket specifically.

Absorption has been very high for all homes less than \$400,000 or \$500,000. There is only 3.1 months of standing inventory across all housing types and prices, and significantly less for more affordable homes. Anything less than six months of standing inventory indicates significant demand for owner-occupied homes.

Currently, developers are not constructing wood frame stacked condominiums because of the long-term legal liability in the State of Washington for construction defects. Because condominiums often have active and aggressive homeowner associations, developers view a wood frame condominium in today's market as risky.

Table 10. 12-month Homeownership Sale Trends & Active Listings

Home Price	Closed Sales	Percent of Total	Absorption (Units Sold per Month)	Active Listings	Months of Inventory
Single-Family					
Under \$200k	29	1%	2.4	1	0.4
\$200k to \$300k	323	13%	26.9	14	0.5
\$300k to \$400k	987	40%	82.3	99	1.2
\$400k to \$500k	572	23%	47.7	199	4.2
\$500k to \$600k	245	10%	20.4	142	7.0
\$600k to \$700k	122	5%	10.2	82	8.1
\$700k to \$800k	85	3%	7.1	35	4.9
\$800k to \$900k	27	1%	2.3	14	6.2
\$900k to \$1m	19	1%	1.6	5	3.2
\$1m to \$1.5m	21	1%	1.8	22	12.6
\$1.5m +	10	0%	0.8	19	22.8
Single Family Total	2,440		203	632	3.1
Townhomes			•		•
Under \$200k	1	1%	0.1	0	0.0
\$200k to \$300k	51	41%	4.3	3	0.7
\$300k to \$400k	61	50%	5.1	29	5.7
\$400k to \$500k	9	7%	0.8	13	17.3
\$500k to \$600k	1	1%	0.1	4	48.0
Townhome Total	123		10	49	4.8
Condos					
Under \$200k	51	32%	4.3	3	0.7
\$200k to \$300k	70	44%	5.8	8	1.4
\$300k to \$400k	12	8%	1.0	4	4.0
\$400k to \$500k	5	3%	0.4	4	9.6
\$500k to \$600k	11	7%	0.9	10	10.9
\$600k to \$700k	2	1%	0.2	0	0.0
\$700k to \$800k	6	4%	0.5	1	2.0
\$800k to \$900k	1	1%	0.1	0	0.0
Condo Total	158		13	30	2.3
All Housing Types	2,721		227	711	3.1

Source: Redfin (September 2019), Leland Consulting Group

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COMMERCIAL MARKET

This section refers to the retail primary trade area (a smaller area than the submarket), defined as the area to the north and east of Lacamas Lake. Lodging uses are also included as a commercial use in this section.

Retail Trends

There is no other land use that changes as often and as dramatically as retail. Retail shopping formats, shopping centers and other types of consumer goods outlets are constantly evolving.

- Currently, the goods-based consumer retail industry is undergoing a seismic shift and transformation. Big-name retailers are declaring bankruptcy and closing hundreds of stores as online purchases grow and American buying habits change.
- Last year saw a record number of store closings. This is having a trickle-down effect on communities, as some see their brick-and-mortar retail bases slowly eroding, with impacts felt in shopping centers and along traditional Main Streets.
- Planners in some cities are taking proactive approaches to the shifting retail landscape. They're commissioning studies of the marketplace and developing new strategies to maintain and foster better retail environments.
- Retailers offering a special experience, or offering services that cannot be procured online, have the potential to thrive.
 - o A prime example is dining. Food and beverage establishments have become a larger part of the retail experience.
 - o Another growing "retail" sector is healthcare. Small, neighborhood-scale providers are moving into retail center locations.

Given the city's vision for the area, as detailed in the comp plan, the dwindling prospects for traditional big-box brick-and-mortar retail is less concerning. Food and beverage establishments, as well as grocery, will remain in demand and will continue to grow as population and jobs increase in the area.

The Rise of Ecommerce

Despite all of the different evolving types of "bricks and mortar retail" the primary type of retail that is having the greatest impact on shopping and retail supply is ecommerce.

- Between 2001 and 2015, online retail sales grew 22 percent annually and accounted for 22 percent of total retail sales growth.
- During the same period, brick and mortar stores grew only 3.7 percent annually. Market share decreased from 98 percent to 89 percent.
- While market share is still relatively small in comparison, estimates indicate up to 20 percent of total U.S. sales will be through ecommerce by the end of 2019.
- The rapid growth of ecommerce has significantly slowed the growth of other types of retail. In many areas of the country. Without rapid population growth, bricks and mortar retail demand will decline.

Local Retail Market

Retail trends are shown in the following table and figures. Absorption has been relatively strong over the past five years, totaling 565,000 square feet while only 364,000 square feet of new space was built, resulting in a decreasing vacancy rate. However, planned, under construction, and proposed projects between 2020 and 2022 total 623,000 square feet, while absorption is forecasted at 270,000 square feet. If all or most of this projected supply gets built, vacancies will increase once more.

Table 11. Retail Submarket Trends

	Historical (2015-2019)	Projected 2020-2022)		
	Total Sq. Ft.	Annual Avg.	Total Sq. Ft.	Annual Avg.	
Current Inventory (2019)	7,563,753				
Projected Inventory (2022)			8,186,723		
New Supply	363,656	72,731	622,970	207,657	
Absorption	565,287	113,057	266,917	88,972	
Over/Under Supply	201,631	40,326	(356,053)	(118,684)	
Rent Growth		0.7%			
Vacancy (2019)	3.2%				

Source: Costar, Leland Consulting Group

The following shows historical retail absorption and deliveries for the submarket. Construction starts have slowed over the past several years, reminiscent of an industry currently in flux (see national retail trends). Absorption has fallen by more than 60 percent since the high of 2015 and has continued to decline into 2019.

Figure 32. Retail Deliveries and Absorption, East of I-205 Submarket



Source: Costar, Leland Consulting Group

Retail and vacancy trends are shown below. Since the recession, the vacancy rate has fallen from a high of 10 percent in 2009 to only 3 percent in 2019, indicating the overall market is undersupplied. However, retail

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demand and vacancy are location specific and can vary considerably by submarket and city. From 2009 to 2018 average rents per square foot have remained relatively static at approximately \$19 per square foot triple net.

\$25.00 12.0% 10.0% \$20.00 8.0% \$15.00 6.0% \$10.00 4.0% Rent \$5.00 --- Vacancy 2.0% \$0.00 0.0% 2007 2009 2011 2013 2015 2017 2019

Figure 33. Retail Rent & Vacancy, East of I-205 Submarket

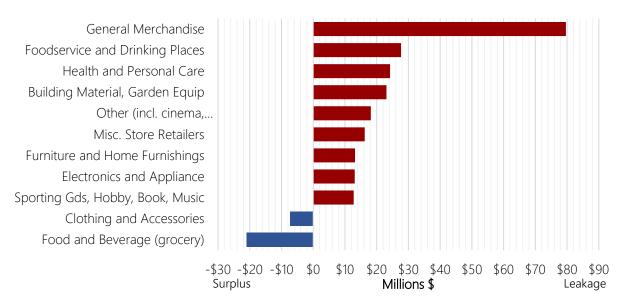
Source: Costar, Leland Consulting Group

Current household spending patterns are presented in the following leakage chart. Retail leakage occurs when household spending is not captured within the defined trade area. When local demand for a specific product is not being met within a trade area, consumers are going elsewhere to shop, creating retail leakage.

- The most substantial leakage is seen in the General Merchandise retail category. The submarket is unlikely to recapture a significant proportion of this spending leakage due to the proximity to Oregon, where there is no sales tax. Oregon's proximity generally has had a dampening effect on retail demand in Clark County, especially for commodity retail products.
- Community-serving retailers, such as restaurants, grocery stores, and health stores are likely to make significant inroads in recapturing existing leakage. As such, the highest percentage of leakage recapture can be expected in food service and drinking establishments, which tends to have a much smaller trade area than other retail categories as people generally like to dine out and drink locally.
- Grocery appears to be outperforming other retail sectors, attracting more spending than current household demand. As one of the most easterly urban locations, the trade area may be drawing people further east and north than the trade area boundaries extend. With this said, future grocery demand is unlikely to be hampered by this current surplus. Retailers tend to consider household growth of 5,000 to be a target number for additional grocery stores.

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Figure 34. Retail Primary Trade Area* Leakage



Source: ESRI, Leland Consulting Group

Demand Forecast

EMPLOYMENT (OFFICE AND INDUSTRIAL) DEMAND

The East of I-205 submarket is projected to see about 3.4 million square feet of new office and industrial development. This is likely a relatively conservative estimate, which is based on an anticipated 2.0 percent annual employment growth in the area. Construction data for the past five years indicate that around 4.3 million square feet of new employment-based development would be in line with historical trends.

Projected growth in the industries of professional, scientific, and technical services, healthcare, and finance and insurance is likely to drive demand for new office construction. Industrial construction is likely to be driven by growth in the industries of manufacturing, construction, and wholesale trade. A relatively even split (1.69 million square feet office, 1.72 million square feet industrial) is expected.

^{*}Defined as a 10-minute drive area west and extends east beyond the Clark County line to the midway point between Camas North Shore and North Bonneville, as shown in the Economic Overview section.

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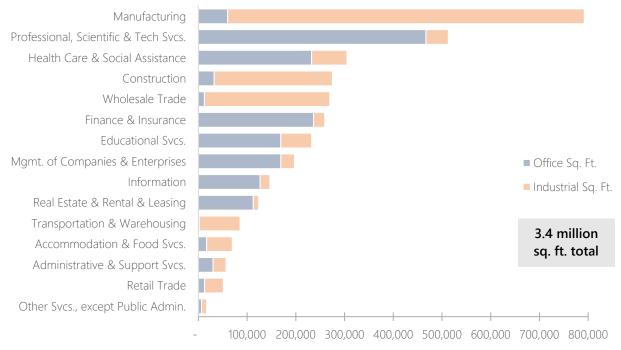


Figure 35. 20-year Projected New Office and Industrial Demand*

Source: Leland Consulting Group

*Industries expected to use 10k sf or more shown

Office. Based on past employment growth in east Clark County, demand for office space should be healthy, and sites in the North Shore will provide opportunities for new mid-rise office buildings. The site also lends itself well to large, institutional uses that have characteristics similar to office complexes. Technical schools and medical facilities are potential uses for the North Shore and could accelerate the time horizons for the development of the site.

Industrial. Industrial uses in the Camas North Shore area will likely take two forms—light industrial buildings and "tech/flex" buildings. Warehouse/distribution is not envisioned as a likely use on the site because this industry typically prefers to be near freeways. In addition, warehouse/distribution generally creates relatively few jobs per acre and is not conducive to developing an urban environment. Demand for light industrial or tech/flex buildings will likely be strong as national demand continues. Shortages of industrially designated lands within the Vancouver/Portland metropolitan area put Camas and the North Shore area in a good position to capture a healthy portion of future growth.

The North Shore also presents the opportunity to support development on larger (50 acres plus) sites. In the Vancouver/Portland metropolitan area, there continues to be a shortage of larger, unfragmented sites that could accommodate large industrial facilities, similar to the large industrial land users already in east Clark County.

North Shore Capture Rate. While significantly more land is available—per the comprehensive plan designation—for "business park" and other employment uses in the Camas North Shore, we anticipate the area to capture as much as 1.4 million square feet of office, industrial, and flex building space, which would equate to approximately 33 to 40 percent of projected submarket demand.

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Given that the Columbia Tech Center—probably one of the most appropriate case study sites for the North Shore—captured between one-quarter and one-third of new submarket construction in recent years, 33 to 40 percent for the Camas North Shore still seems to be an aggressive goal.

Planned and Proposed Employment Projects

Major employment lands in the submarket that are likely to compete for new development with the North Shore include Section 30 (the "English Pit") and the remaining 60 acres at Columbia Tech Center. Section 30 includes approximately 213 acres of land for office and industrial development. Between these two major centers, around two million square feet of new employment-based development could be built in the market over the next two or three decades. These sites are likely in a more competitive, accessible, and prominent location.

The Columbia Palisades development is also expected to feature significant office development, yet the scale and quantity remain unknown (the current plan describes 84.2 acres of luxury residences, offices, parks, a hotel, a modern outdoor shopping mall).

Smaller-scale projects include Stonemill Center near Mill Plain Blvd and 136th Ave, a proposed 100,000 sf, four-story office building.

RESIDENTIAL DEMAND

In keeping with past trends in the area, housing is likely to be an integral component of a new urban center in the North Shore area. Demand for residential is stronger than the demand for employment and retail uses but is not likely to be a dominant use given that the existing regulatory structure supports more of an employment center.

Based on a projected annual growth rate of 1.96 percent, we forecast demand in the East of I-205 submarket for approximately 47,700 additional residential units over the next 20 years. In the first decade, approximately 21,500 units are projected, with 6,500 multifamily and 15,000 single-family units.

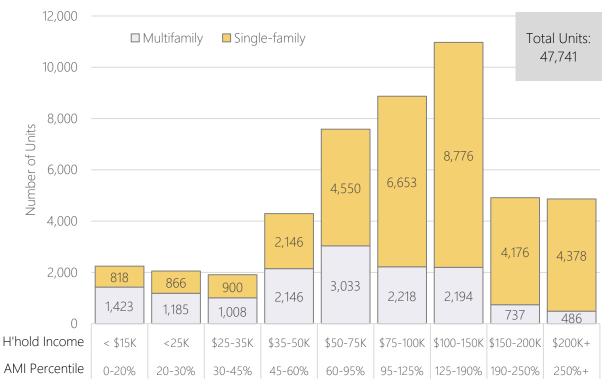


Figure 36. 20-year Projected Residential Demand, Submarket

Source: Leland Consulting Group

The Camas North Shore is expected to capture a small proportion of submarket growth, due to the sheer number of proposed housing projects forecasted for the next decade. In fact, **the North Shore may only capture up to four percent of submarket demand over the next decade (approximately 1,900 units),** incorporated in single-family structures, attached townhomes and multiplexes, and apartments. Some opportunities for vertical mixed-use may be likely at major nodes, although existing rents may not support this type of development in the near-term.

Initial construction is likely to follow the trend seen at the Columbia Tech Center, where development was cyclical and single-family homes were built about 10 years before substantial multifamily development. Existing demand for single-family is strong in Camas, and a glut of multifamily units is expected in the coming years.

As investments are made in the area, such as transportation infrastructure, parks, and added amenities over the next decade, we expect the area to see a greater degree of multifamily construction.

Planned and Proposed Residential Projects

Many large residential developments are underway or in the final stages of planning in east Clark County. These include Section 30 (1,800 units), Green Mountain (1,300 to 1,800 units), a single-family subdivision east of Green Mountain (400 units), and others. Other, smaller-scale planned, and proposed projects include:

- Port of Camas-Washougal development,
- Grass Valley 276 units in 12 apartment buildings, Camas,
- Parkside Lofts Phase 2 208 units near Mill Plain Blvd, Vancouver,

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- Villas on 28th Street 170 units in Vancouver,
- Affinity at Vancouver 170 units due in June 2020, and
- The Landing at Vancouver a proposed retirement community.

COMMERCIAL (E.G., RETAIL) DEMAND

Household and, to a lesser extent, employment growth are the primary drivers of demand for new retail construction.

Based on an estimated household growth rate of 1.96 percent, we project demand for approximately 764,000 square feet of retail over the next 20 years in the primary trade area.

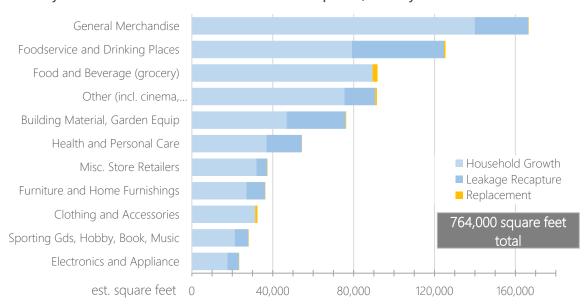


Figure 37. 20-year Demand Forecast for New Retail Development, Primary Retail Trade Area

Source: Leland Consulting Group

Due to its location on the urban edge of the metropolitan region, lack of visibility and challenging access, lack of existing households, and prominent retail services nearby to the west, the North Shore is not likely to be a major retail center, but retail at a more neighborhood scale. There will be demand for small-scale retail along the perimeter arterial to serve new development and the adjoining neighborhood.

Retail will largely be driven by the pace of residential development, both in the immediate North Shore vicinity and in the broader east Clark County region.

The Camas North Shore could conceivably capture about one-third, or 240,000 square feet, of demand for additional retail development in the primary trade area over the next two decades. The primary competition includes downtown Camas, the Port of Camas-Washougal, Green Mountain Urban Village, and other future projects that arise.

Planned and Proposed Retail Projects

The primary retail competition is the planned Green Mountain development. While the project is largely residential, it includes 9.04 acres of well-located land for retail development. This is likely to be mid-box development. Plans also include 16 acres designated for apartments, which could involve some mixed-use structures.



SITE SELECTION CRITERIA

As the City of Camas proceeds in this process of identifying development opportunities for the Camas North Shore area, it is important to acknowledge the primary criteria that various tenants typically look for in a site when making relocation and development decisions. The following table summarizes the key site selection criteria for industrial, office, and retail users. The remainder of this document summarizes the conditions that will either attract or repel development attention from the area.

Table 12. Typical Key Site Selection Criteria for Office, Industrial, and Retail Developers and Tenants

Office	Industrial	Retail
 Availability of "talent"—a large, educated, skilled workforce in close proximity High capacity transportation facilities and service, including auto, transit, bicycle, pedestrian, etc. Infrastructure (sewer, water, stormwater, electricity, interet) Proximity to business cluster: clients, collaborators, suppliers, vendors, and competitors Proximity to executives' residences Access to amenities: open space, trails, views, localserving retail Labor costs/demographics Reasonable access to air travel Rental rates/occupancy costs Cost of doing business including taxes, fees, energy cost, development incentives Low crime Floor plate size 	 High capacity transportation facilities and service, particularly for freight and autos; if possible, for transit, bicycle, and pedestrian. Large parcels, flat, buildable land Direct access to major freeway(s) Proximity to airport(s) Availability of skilled labor/quality workforce Labor costs/demographics Telecommunication infrastructure Cost of doing business including taxes, fees, energy cost, development incentives Proximity to major and/or prominent target markets Minimal potential future conflicts (e.g., with residential) Environmental conditions 	 High population- and employment-growth markets High income markets/high levels of discretionary spending High traffic volumes and flow direction Good visibility and easy accessibility Maximum street frontage Parcel size Parking availability Short time to market Minimal direct competition Real estate and energy costs Demand for product and/or existing leakage Gap in existing market Political acceptance Presence or potential presence of desirable cotenants Regulatory flexibility

Source: Leland Consulting Group

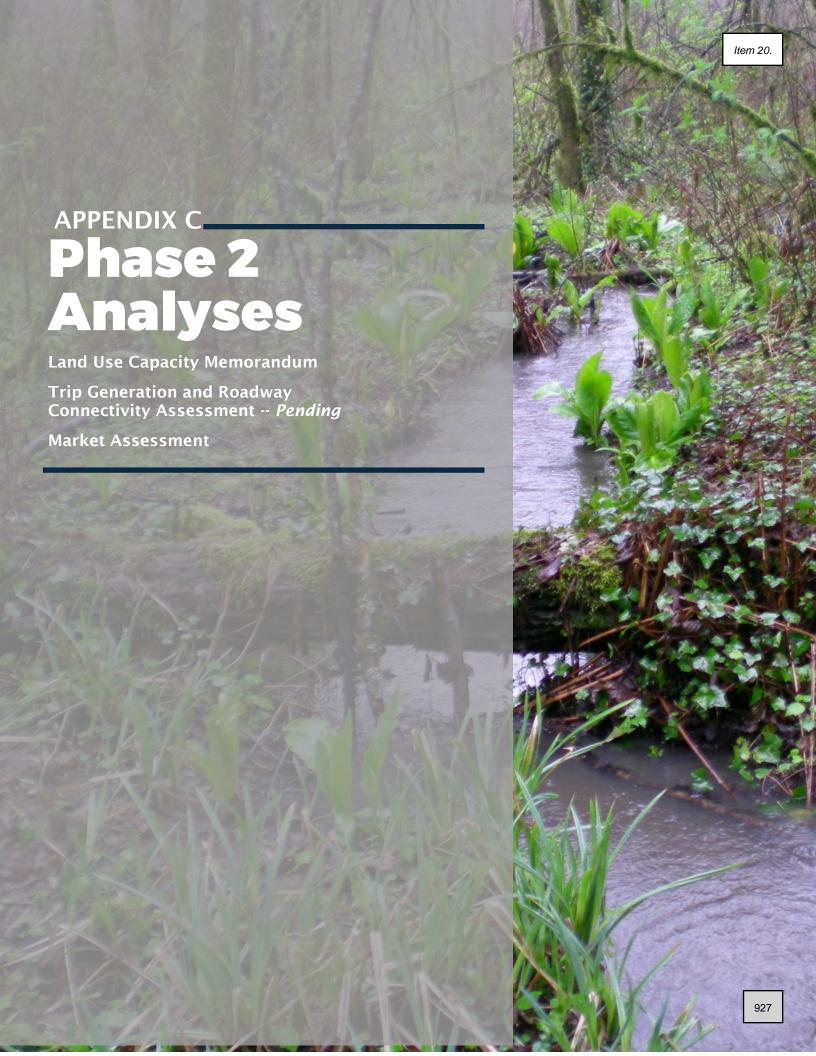
Next Steps

This market analysis is just one part of the North Shore Subarea Plan. The City, Camas residents, and planning consultants will continue to work on the plan during 2020, and to define the vision for the North Shore, and specific action steps to achieve this vision. Part of the work ahead includes reviewing this market analysis and determining how the analysis and findings should be integrated into the planning process. Population and employment growth, and the real estate market, are only some of the inputs that should be taken into account when completing a subarea plan. These inputs must be weighed alongside other considerations, such as the community's vision, topography and physical planning, infrastructure demands and budgets, etc.

During "Phase 2" of the subarea plan, the public outreach and dialogue process will continue, and there will be additional physical and infrastructure planning. The team will evaluate the capacity for infrastructure improvements to attract development to the subarea. The consultant team will also evaluate implementation measures, which may include revisions to the Comprehensive Plan, zoning codes, transportation system plan, and other policy documents such as budgets.

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Memorandum

Date: October 12, 2022

Subject: Estimated Land Use Capacity of the Draft Preferred Concept

North Shore Subarea Plan, Phase 2

From: Nicole McDermott, WSP USA

Emma Johnson, WSP USA

To: Robert Maul, City of Camas

This memorandum summarizes the estimated development capacity of the Draft Preferred Concept prepared for the North Shore subarea plan. The memorandum provides estimates for the residential capacity (dwelling units and residents) and employment capacity (jobs) of the Draft Preferred Concept and existing zoning.

1. BACKGROUND

The Draft Preferred Concept was developed from March 2022 to July 2022 based on feedback on the draft options (Option A and Option B) presented at a virtual open house in February 2022. Feedback came from the community, Steering Committee, and the Community Advisory Committee. Like the draft options, the Draft Preferred Concept was guided by the adopted vision statement for the North Shore subarea:

- 1. Preserve the North Shore's natural beauty and environmental health. Policies, regulations and design rules must protect significant trees, tree groves, and surrounding lakes. Identify and preserve views to the treed hillside and the lake.
- 2. Plan a network of green spaces and recreational opportunities. Integrate a variety of parks, playgrounds, trails and open spaces into residential and employment areas throughout the North Shore area. Create a "green corridor" along the lake that completes the Heritage Trail, provides lake access and buffers the lake from adjacent development.
- 3. **Cluster uses for a walkable community.** Concentrate homes close to schools and around commercial nodes so residents can meet daily needs without driving. Use sidewalks, pedestrian trails and bike paths to connect residents to neighborhood destinations.
- 4. **Provide a variety of housing options.** Plan for diverse housing types appropriate for varying incomes, sizes and life stages.
- 5. Locate Industrial Parks and Commercial Centers to the north. Protect the environmental integrity of the lake and aesthetic quality of the area by siting light industrial and office uses away from the lake and adjacent to the airport. Encourage commercial activities along high traffic corridors, such as NE Everett St.

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- 6. **Favor local-serving businesses.** Encourage small, local businesses such as restaurants, cafes and grocers that serve North Shore residents and businesses, while complementing downtown Camas.
- 7. **Plan for needed schools and infrastructure.** Ensure adequate roads, schools and utilities are in place before development occurs. Invest in transportation improvements such as a new roadway through the North Shore and NE Everett improvements to minimize traffic impacts and maximize safety.
- 8. **Strive to maintain Camas' small town feel.** Sustain the city's quality of life through phased and sustainable growth that contributes to community character.

2. KEY CONSIDERATIONS

Below are some of the key findings from the Camas Housing Action Plan that provide context for employment and housing needs in the city.

- Employment Needs. Existing jobs in the city consist primarily of manufacturing, finance and insurance, educational services, professional, scientific, and technical services (about 73% of all jobs).
 - Manufacturing jobs have been declining (from 46% in 2002 to 26% in 2018) and are predicted to continue declining as a percentage of total jobs. Job growth is predicted to occur primarily in education and health services, leisure and hospitality, government, and professional and business services.
 - There is a high level of commuting into and out of the city by workers and residents to access employment. Data indicates that many residents with higher-paying jobs work outside of the city, while residents with lower-paying jobs work in the city.
 - Camas would benefit from increasing the number of higher-paying jobs in the city, which would allow for reduced commutes (and commuting costs) and provide additional tax revenue.
- **Population Growth.** Camas is projected to increase by approximately 11,800 residents by 2040 (a 47% increase). An estimated 4,589 dwelling units are needed to accommodate new residents.
 - A variety of housing types are needed to provide residents the ability to select housing that best meets the needs of their household (family or non-family) and their budget.
- **Aging Population.** About 85% of the population growth from 2010 to 2018 was in residents aged 40 and over. The percentage of the population ages 40 and under declined.
 - Older residents (ages 60+) need a variety of housing options in order to select appropriate housing that meets their physical abilities and budget. In addition, older residents often benefit from being located near services and transit, as driving may not be an option.
- Affordability. Housing is considered "affordable" when monthly housing costs do not exceed 30% of monthly income. In Camas, over 40% of renters are currently spending more than 30% of their income on housing, compared to 20% of homeowners.

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- About 40% of projected future housing needs will be for units affordable to households with low or moderate incomes, with a mix of rental and for-sale housing.
- **Housing Options.** There is a lack of diverse housing types in the city, particularly units under 2,000 square feet.
 - To accommodate the variety of new households anticipated, and to better serve existing households with difficulty affording their housing costs, Camas will need housing options diverse in type, tenure, and cost.

3. DEVELOPMENT ASSUMPTIONS

The estimated land use capacity is based on a set of assumptions on how different land uses would develop. The assumptions have been refined over the course of the project and were informed by the Clark County Buildable Lands Model and Camas Housing Action Plan, as well as feedback from the Steering Committee and City based on their recent experiences with development in the region. Table 1 identifies the prior and current development assumptions.

Table 1. Development Assumptions

Prior Assumption	Current Assumption	Rationale
30% of gross acres would not develop due to the presence of	No development would occur on wetlands.	Wetlands are regulated and protected at the local, state, and sometimes federal level to a greater extent than other types of critical areas. Protections include outright prohibition of development on certain high functioning wetlands, and increased costs for developers for development that affects any type of wetland.
critical areas or would develop as roads and/or utilities	Development would occur on 25% of wetland buffers and other types of critical areas and their buffers.	This assumption is consistent with recent applications for development in the city, as well as recent projects by members of the Steering Committee.
	30% of the remaining acres would be used for infrastructure (roads and utilities).	This is a common assumption used in planning and is consistent with City and Steering Committee expectations.
2.7 residents per dwelling unit		No revision. This estimate is consistent with the Camas Housing Action Plan.
20 jobs per acre on lands designated as Commercial or Mixed-Use and 9 jobs per acre on lands zoned for Business Park	20 jobs per acre on lands designated for commercial uses, including Commercial, Mixed Use, and Mixed Employment	Based on conversations with the Steering Committee (including the Port of Camas-Washougal and CREDC) as well a market assessment prepared for the North Shore, the "Business Park" designation is now "Mixed Employment." It is anticipated that development in this designation would be more consistent with commercial/office business

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	parks than light industrial uses. The revised jobs estimate is consistent with Clark County's Final 2022 Buildable Lands Report.
70% of developable Mixed Use land would include residential development. The remaining 30% would accommodate commercial uses, public facilities (e.g., schools), open space/parks, etc.	No revision. This estimate is based on input from the Steering Committee.

4. EXISTING ZONING

The existing zoning in the subarea provides a baseline for comparing the Draft Preferred Concept and considerations around the needs for housing and employment lands/jobs. It is also important to consider existing and planned uses that are not reflected in the zoning when estimating land use capacity, as there are two large properties that will not develop per their existing zoning: Lacamas Lake Elementary School and Legacy Lands (the City-owned parcels acquired for parks and open space). The capacity of the subarea based on the existing zoning is summarized below, followed by the capacity of the subarea when the school and recreational properties are taken into account.

Note: Due to rounding, some numbers may not equal the predicted value.

Table 2 shows the estimated developable acres under the existing zoning and the capacity for dwelling units and jobs.

Table 2. Existing Zoning – Residential and Employment Capacity¹

Zone	Gross Acres	%	Developabl e Acres ¹	Max. Density (DU/Acre	Max. Allowed DU	Jobs/Ac re	Jobs
Business Park (BP)	312	32%	101	0	0	20	2,020
Community Commercial (CC)	96	10%	40	0	0	20	808
Mixed use (MX) ²	15	2%	6	10	65	0	0
Multifamily Residential-18 (R-18)	60	6%	26	18	471	0	0
Multifamily Residential-10 (MF-10)	36	4%	18	10	184	0	0
Residential-6,000 (R-6)	3	0%	1	7.2	5	0	0
Residential-7,500 (R-7.5)	180	18%	80	5.8	462	0	0
Residential-10,000 (R-10)	34	3%	24	4.3	101	0	0
Residential-12 (R-12)	101	10%	44	3.6	158	0	0
Single Family Residential (R1-6) ³	53	5%	36	7.3	263	0	0

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Single Family Residential (R1-10) ³	39	4%	25	4.4	112	0	0
Parks/Open Space	59	6%	n/a	0	0	0	0
Total	990	100%	402		1,820		2,829

¹ The estimated capacity reflects the current (revised) development assumptions (detailed in Section 3).

Table 3 summarizes the acreages by zone for Lacamas Lake Elementary and the City-owned Legacy Lands properties. Table 3 also shows the potential dwelling units and jobs that could have been accommodated on those parcels.

Table 3. Lacamas Lake Elementary and Legacy Lands – Residential and Employment Capacity¹

Zone	Developable Acres	Max. Density (DU/Acre)	Max. Allowed DU	Jobs/Acre	Estimated Jobs
Business Park (BP)	1	0	0	20	21
Community Commercial (CC)	11	0	0	20	222
Multifamily Residential-18 (R-18)	8	18	152	0	0
Multifamily Residential-10 (MF-10)	9	10	95	0	0
Residential-7,500 (R-7.5)	33	5.8	194	0	0
Residential-12 (R-12)	19	3.6	68	0	0
Total	83		509		243

¹ The estimated capacity reflects development assumptions (detailed in Section 3).

The elementary school and Legacy Lands account for about 200 acres of the subarea, of which approximately 83 acres are estimated to be developable. Approximately 34 acres of employment lands (Community Commercial and Business Park), with the potential for approximately 243 jobs, will not be developed for employment uses. Additionally, approximately 509 dwelling units will no longer be accommodated, as residential development is not anticipated on these parcels.

² The MX zone does not have a maximum density or a minimum requirement for commercial development. An assumption of residential-only development of 10 dwelling units per acre was made based on prior applications.

³ Clark County zoning

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Table 4 summarizes the estimated capacity for dwelling units and jobs under existing zoning (Table 2), less the capacity from the school and Legacy Lands parcels (Table 3).

Table 4. Revised Existing Zoning - Residential and Employment Capacity

Zone	Developable Acres ¹	Max. Density (DU/Acre)	Max. Allowed DU	Jobs/Acre	Jobs
Business Park (BP)	100	0	0	20	2,000
Community Commercial (CC)	29	0	0	20	586
Mixed Use (MX) ²	6	10	65	0	0
Multifamily Residential-18 (R-18)	18	18	319	0	0
Multifamily Residential-10 (MF-10)	9	10	89	0	0
Residential-6,000 (R-6)	1	7.2	5	0	0
Residential-7,500 (R-7.5)	46	5.8	268	0	0
Residential-10,000 (R-10)	24	4.3	101	0	0
Residential-12 (R-12)	25	3.6	91	0	0
Single Family Residential (R1-6) ³	36	7.3	263	0	0
Single Family Residential (R1-10) ³	25	4.4	112	0	0
Total	319		1,312		2,586

¹ Developable acres from Table 2 with the reductions from Table 3.

² The MX zone does not have a maximum or minimum density requirement for commercial development. An assumption of residential-only development with 10 dwelling units per acre was made based on prior applications in the MX zone.

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5. DRAFT PREFERRED CONCEPT

Feedback on the draft options from the City, Community Advisory Committee, Steering Committee, and the public open house was used to develop the Draft Preferred Concept. Like the options presented at the open house, the Draft Preferred Concept contains a mix of land uses consisting of:

- Higher Density Residential
- Lower Density Residential
- Commercial
- Mixed Use
- Mixed Employment (formerly Business Park)

The residential and job capacity of the Draft Preferred Concept is summarized below.

Land Use Overview

Table 5 provides a breakdown of the land uses shown on the Draft Preferred Concept. Additional parks/open space would be accommodated within the other land use categories (for example, a subdivision would be required to provide open space or recreational areas). Likewise, additional school capacity would be added as the population grows and development occurs. The need and location of new school facilities would be identified by the Camas School District as part of their annual planning process.

Zone	Gross Acres	Percent of Total Area	Developable Acres ¹
North Shore Mixed Employment	113	11%	41
North Shore Commercial	17	2%	9
North Shore Mixed Use	121	12%	67
North Shore Higher Density Residential	192	19%	81
North Shore Lower Density Residential	287	29%	121
Parks/Open Space	231	23%	77
School	39	4%	13
Total	1,000	100%	409

Table 5. Draft Preferred Concept - Land Use Overview

Residential Capacity

Table 6 provides an estimate of the maximum number of dwelling units and estimated population that could be accommodated by the Draft Preferred Concept. The residential density of the Lower Density Residential zone was estimated as 5.8 dwelling units per acre, which is the same density as the city's existing R-7.5 zone. An example of this density is the existing single-family homes to the east of NE Everett and south of 43^{rd} Avenue, in the North Shore subarea.

Based on feedback from the Steering Committee and housing market specialists, the residential densities in both the Higher Density and Lower Density Residential zones were revised to allow

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a range of densities Options A and B has assumed a density requirement of 18 dwelling units per acre in the Higher Density zone and 5.8 dwelling units per acre in the Lower Density zone. The proposed zoning would now allow the ranges identified in the table below.

Table 6. Draft Preferred Concept - Residential Capacity

Zone	Developable Acres	Permitted Density (DU/Acre)	Estimated DU	Estimated Population
North Shore Mixed Use	67	24	1,133	3,060
North Shore Higher Density Residential ¹	81	10 to 18	1,136	3,067
North Shore Lower Density Residential ²	121	4 to 5.8	700	1,890
Total	269		2,969	8,017

¹ An average of 14 dwelling units per acre was used to calculate the estimate dwelling units.

Employment Capacity

Table 7 provides an estimate of the number of jobs that could be accommodated by the Draft Preferred Concept.

Table 7. Draft Preferred Concept – Employment Capacity

Zone	Developable Acres	Estimated Jobs/Acre	Estimated Jobs
North Shore Mixed Employment	41	20	817
North Shore Commercial	9	20	177
North Shore Mixed Use	67	20	405
Total	117		1,399

COMPARING THE DRAFT PREFERRED CONCEPT TO EXISTING ZONING

Table 8 summarizes the estimated land use capacity of the existing zoning (current and revised) and the Draft Preferred Concept. The revised development assumptions were used to estimate the capacity. The purpose of this comparison is to show how the estimated capacity could change compared to existing conditions.

¹ Given the relatively small range, 5.8 dwelling units per acre was used to calculate the estimate dwelling units.

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Table 8. Comparison of Estimated Capacity

	Developable	Capacity			
	Acres	Dwelling Units	People	Jobs	
Existing Zoning	402	1,820	4,915	2,829	
Revised Existing Zoning (less school and Legacy Lands)	319	1,312	3,542	2,586	
Draft Preferred Concept	409	2,969	8,017	1,399	

Table 9 shows the estimated changes in capacity between the Draft Preferred Concept and the existing zoning (current and revised).

Table 9. Estimated Changes in Capacity

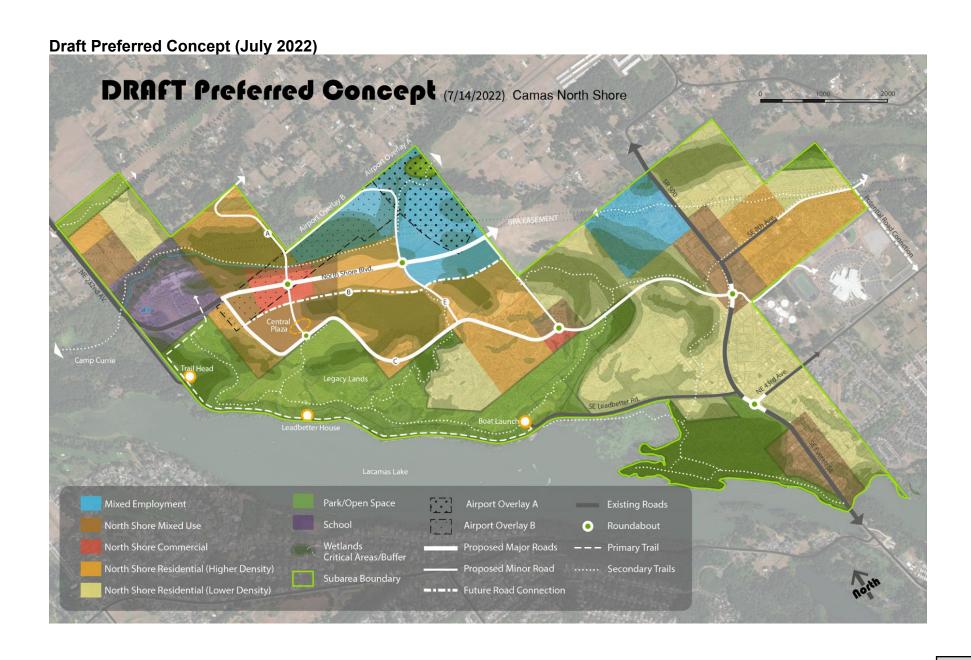
	Compared to Existing Zoning			Compared to Revised Existing Zoning		
	Dwelling Units	People	Jobs	Dwelling Units	People	Jobs
Draft Preferred Concept	+ 1,149	+ 3,102	- 1,430	+ 1,657	+ 4,475	- 1,187

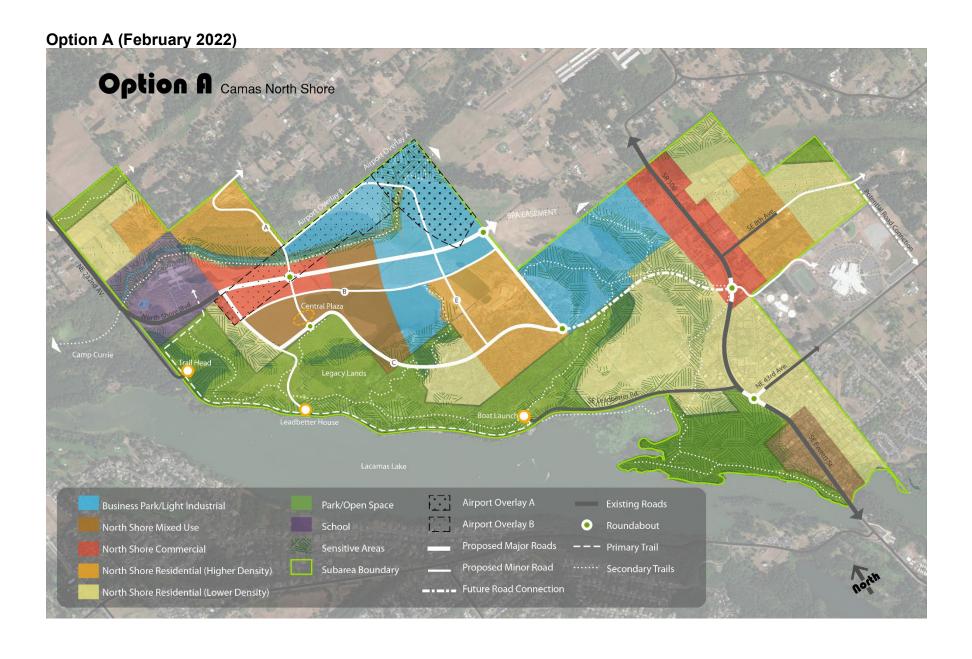
7. COMPARING THE DRAFT PREFERRED CONCEPT TO OPTIONS A AND B

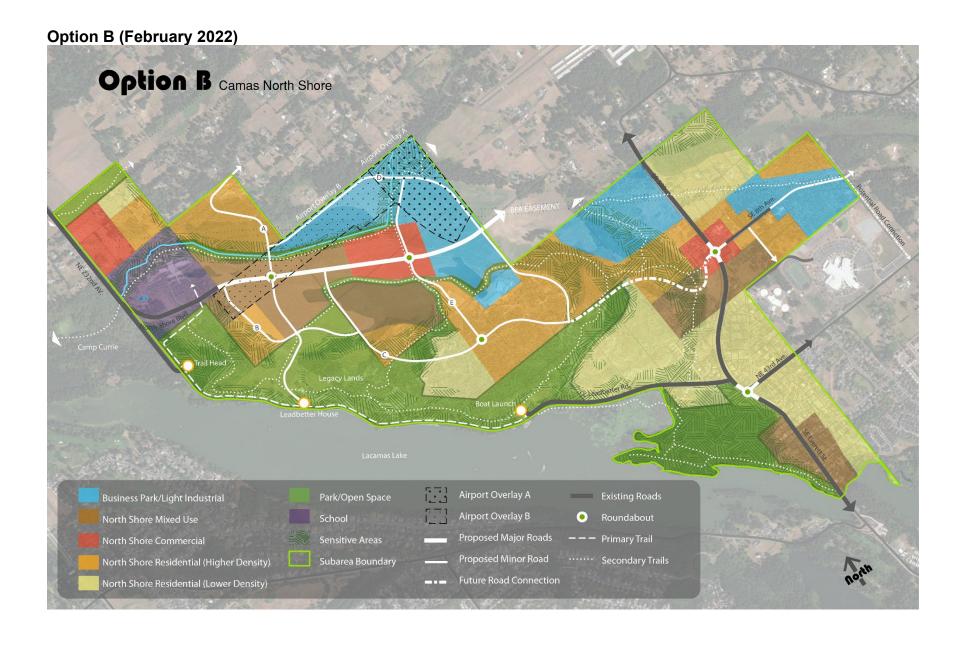
Table 10 summarizes the estimated capacity of the draft options as presented at the open house in February and March 2022. The capacity estimates for Options A and B are based on the prior development assumptions, and the estimates for the Draft Preferred Concept are based on the revised assumptions. The purpose of this comparison is to show how the capacity estimates have changed since the prior open house, due to changes to the concept map as well to the development assumptions and the proposed density requirements.

Table 10. Estimated Capacity – Draft Options and Draft Preferred Concept

	Developable	Capacity			
	Acres	Dwelling Units	People	Jobs	
Draft Option A	492	3,679	9,933	2,560	
Draft Option B	490	4,735	12,785	2,166	
Draft Preferred Concept	409	2,969	8,017	1,399	







Camas North Shore Subarea Plan

Concept Plan Review and Market Assessment

Date August 12, 2022

To Nicole McDermott, WSP

From Brian Vanneman, Wally Hobson, Jennifer Shuch, Leland Consulting Group

Current Concept Plan

On behalf of the City of Camas, WSP is leading the preparation of a Concept Plan for the Camas North Shore area. Leland Consulting Group (LCG) is a subconsultant to WSP, and WSP has directed LCG to provide a review of and comments on the Draft Preferred Concept Plan for the North Shore area which totals approximately 1,100 gross acres.

Figure 1. Land Distribution, Per WSP Preference Concept

North Shore Subarea	Acres	Distribution
Wetlands	206	21%
Constrained Land	280	28%
Subtotal	486	49%
Developable Land		
Parks/School & Open Space	90	9%
Residential & Employment Land	319	32%
Gross Land Area	1,000	100%

Developable = Gross acres, less wetlands, with development on 25% of constrained lands, and less 30% for roads/utilities

Source: WSP.

Nearly half of the land is undevelopable with only 32 percent planned for residential, commercial, and other types of buildings designed to accommodate employment. While the total site is 1,000 acres, there are only 409 acres of developable land. 206 acres of the site is wetlands, and another 210 acres are constrained land without development.

WSP's latest concept plan shows the location of different land uses within the subarea.



Figure 2. Draft Preferred Concept Plan, July 14, 2022



Source: WSP.

The distribution of net developable acres by land uses, excluding City owned land designated for parks, a school, and open space, together with the estimated square footage of employment land and the number of dwelling units on residential land, is shown in Figure 3 below.

Figure 3. Distribution of Developable Land, WSP Preferred Concept Plan

Zone	Acres	Distribution	Density	Units	Distribution
Employment Land			SF per Acre	Square Feet	
Mixed Employment	41	13%	12,000	492,000	82%
Commercial	9	3%	12,000	108,000	18%
Subtotal	50	16%		600,000	100%
Residential Land			DU's per Acre	Residences	
Mixed Use ¹	67	21%	24	1,133	38%
Residential (Higher Density)	81	25%	14	1,136	38%
Residential (Lower Density)	121	38%	5.8	700	24%
Subtotal	269	84%		2,969	100%
Total	319	100%			

¹ Reflects an assumption that 70% of developable mixed use land would include residential and 30% would include commercial uses.

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Source: WSP.

The balance of this memorandum addresses each land use followed by a recommended program for the North Shore subarea. This program is intended to provide a balance between residential and employment land that results in a build out within a reasonable period (10 to 20 years) with significant development activity within five years.

Policy and zoning decisions by the City that emphasize job creation could affect land absorption in the subarea and extend this timeline beyond 20 years. Job creation can only occur to the degree that Camas maintains an inventory of vacant employment land. LCG hypothesizes, however, there may be better locations, closer to the freeway system in more urbanized areas, to establish this inventory with a lower infrastructure cost.

Mixed Employment

Mixed employment has many different meanings, encompassing a variety employment densities. WSP and LCG agree that Mixed Employment zoning is preferable to Business Park/Light Industrial because the former is more descriptive with respect to capturing a wide variety of employment uses that should be allowed in the subarea, including vertical mixed use with housing over retail. The emphasis should not be on land uses that would traditionally connote business parks and light industrial space, a narrower view of employment opportunities.

There are several categories of office space that can occupy land zoned for employment, including but not limited to:

- Professional office space
- Corporate office space
- Medical and healthcare office space
- Institutional and government office space
- Creative office space
- Single user space like a high-tech campus
- Flex industrial, warehouse, and business space with varying degrees of office build out.
- Commercial/retail and housing over retail
- Manufacturing
- Warehousing
- Hospitals

While it is understandable that Camas is seeking to expand its economic base in order to avert over-reliance on a small number of employers, it is important to note that how and where people work is undergoing a major shift. Suburban office parks in particular are seeing high vacancy rates nationwide. At the same time, remote work has increased significantly since the start of the COVID-19 pandemic. The employment and recruitment website Ladders estimates that a quarter of white-collar jobs in North America will be remote by the end of 2022, and this growth in remote work is expected to continue over the next year. Homes are increasingly functioning as office spaces, especially for suburban professionals.

Camas is also directly adjacent to active and proposed employment centers in Vancouver, outlined below. These employment centers are current and future competition job producing tenants at North Shore.

The North Shore and Competitive Employment Areas

For several reasons, the North Shore subarea will struggle to compete with other nearby employment centers, at least in the short and medium terms (next 5 to 10 years). The center of the study area is located about 3 miles from SR-14. A major thoroughfare with multiple lanes would need to be constructed to connect the property to SR-14 for the subarea to support an employment center that could potentially build out with 500,000 square feet.

- There is a significant amount of nearby vacant employment land to the west and south of the subarea that has completed infrastructure, good access to the freeway system, and is under development or ready to be developed in the short or medium term.
 - Columbia Tech Center on SE Mill Plain between SE 164th and S.E. 192nd 410 acres with 3.6 million square feet of space (largely built out although expansion to adjacent land to the north is taking place, including the purchase by PacTrust (developers of the Columbia Tech Center), of the 60-acre English Pit, just east of S.E. 192nd fronting on S.E. 1st. The English Pitt is a former aggregate mining and processing facility.

Section 30 Subarea, City of Vancouver

As shown below, this is a 550-acre planned urban employment center adjacent to and north of the Columbia Tech Center. The subarea includes the English Pit. Plans are to create an urban center with an emphasis on employment as the primary land use with commercial and residential uses secondary.

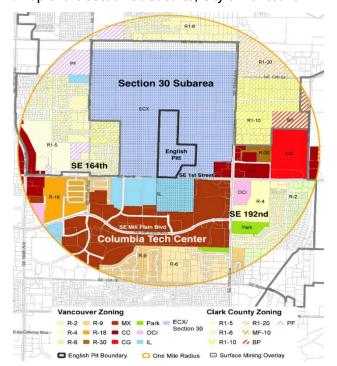


Figure 4. Map of the Section 30 Subarea, City of Vancouver

Source: City of Vancouver

- Columbia Palisades and Fisher West Quarry Located at the intersection of SR-14 and SE 192nd Columbia Palisades, on the east side of 192nd and Fishers West Quarry on the west side of SE 192nd together total 157 acres of buildable land. The two properties were formerly an aggregate mining site and are being developed as mixed use residential, office, and retail communities. Vancouver clinic has purchased 5-acres at Columbia Palisades and has broken ground on a new medical clinic.
- Port of Camas/Washougal includes a 300-acre business/industrial park with 40 businesses in place.
- Georgia Pacific Camas Mill is large (listed at 600+ acres) and well located on SR-14 adjacent to and south of downtown Camas. The mill has largely been shuttered and—while planning for the future of the site is underway and future uses are unknown—LCG believes that the site could eventually be redeveloped into a mixed-use employment area, although the potential timing of future redevelopment is unknown. Significant demolition costs and remedial mitigation may be required.

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The North Shore Subarea is at a competitive disadvantage to the above properties due to its location in a rural area without adequate infrastructure and freeway access. Thus, unless a single user can be found, which is a highly speculative proposition, the North Shore subarea is likely to begin developing after these other properties are nearly built out, which could be many years into the future.

A single user is also vulnerable to economic downturns and recessions. There are several examples in Clark County and Multnomah counties where a larger campus style single user has left the region or gone out of business leaving a large land area and buildings vacant. Changing the zoning from Business Park/Light Industrial to Mixed Employment will signal to developers that the city is open to a variety of office types, catering to a wider array of businesses.

Office Development Trends

The Covid 19 epidemic together with established long-term trends has resulted in declining office demand nationally and an uncertain future. Traditional office development is increasingly considered obsolete in today's shifting market. LCG's 2020 market analysis also describes trends that are having a negative effect on office demand, but Covid 19 has further exacerbated this trend. Covid 19 has had a positive effect on the demand for warehouse/distribution space, but warehousing has low employment ratios per square foot and require immediate adjacency to a freeway system.

- The amount of office square feet per employee is declining. Currently North American offices average 152 square feet per worker, which is down from 176 square feet in 2012 and 225 square feet in 2010.
- Companies are reducing private offices and adopting open floor plans where employees use private cubicles or unassigned desks instead of their own permanent space.
- Collaborative workspaces and a greater emphasis on higher space utilization, innovation, and productivity is reducing square footage needs.
- Virtual offices/telecommuting where employees are allowed to work from home, or some other remote location is becoming common. Workers have more freedom to choose where and how to live.
- COVID-19 has dramatically altered the office market as remote working becomes a permanent option for millions of office workers. Still, there is great uncertainty as to the permanence of remote working on a large scale. There is general agreement that the ultimate result of this experience will be a hybrid work environment, depending on the company and the functions people perform within their companies.
- Suburban office parks have suffered more than downtown office space as a result of employees working remotely and the decline of suburban office parks is likely to be more sweeping and permanent.

Firms are expected to lease less office space in the future. Office has lost its luster and the muted outlook for tenant office demand and general uncertainty about the future of remote work has cast a pall on investor interest in office product. The current plan to limit office development to 13% of developable land better reflects current trends than previous proposals.

Medical Office Space

The bright spot in the market is medical office space and other health care related uses driven, in part, by the aging of the baby boom population, a long-term demand driver. The current and future demand for healthcare facilities far outstrips demand for other types of office space and medical office users are typically able to pay higher rents.

Regional hospitals, however, are the most significant location determinant for medical office space. Many other healthcare services are locating in commercial shopping centers.

As discussed in WSP's February 15, 2021, memorandum, manufacturing jobs have been declining and are predicted to continue declining as a percentage of total jobs. However, Covid 19 has created a resurgence in demand due to a desire by the government, industry, and the public to become less dependent on foreign manufactured goods.

While this potential increase in manufacturing could support some of the new industrial development in Clark County, the Camas North Shore Subarea is unlikely to see significant industrial development in the near term. There is a risk that too much mixed employment zoned land will remain vacant many years into the future. However, we recognize that the City of Camas may have policy reasons for encouraging or requiring employment related development, even if the market demand for such uses is weak in the short and medium terms (5 to 10 years).

Commercial

The latest concept plan (Figure 2) shows commercial development in two locations with a total of 9 acres of developable land. At a relatively conservative density of 12,000 square feet per acre, this acreage could still accommodate 108,000 square feet of retail. The strongest demand will be for a grocery store/drugstore anchored shopping center. A sufficient number of roof tops within a one-to-two-mile radius would most likely need to be in place before additional retail would be able to survive.

Residential

The North Shore Subarea is ideally suited for residential development in the short, medium, and long term with a location within reasonable commuting distances to other employment centers like the Columbia Tech Center.

The preferred draft plan includes 1,133 residential units at the higher density of 24 units per acre, 1,136 units at between 10 and 18 units per acre, and 700 units at the lowest density, 5.8 units per acre. The 10 to 18 unit per acre density indicates a range from very small-lot single family homes to small multi-unit buildings and townhomes. 38 percent of developable land dedicated to housing is higher density mixed-use housing, while 62 percent is single family or middle density housing. At 10 units per acre lot sizes are likely to be under 4,000 square feet, which becomes difficult for detached single family homes, although not impossible.

LCG supports the plan to dedicate the majority of developable residential land to single family and lower- to middle-density housing types over denser mixed-use development, but the City should be aware that the market may not support building as much middle-density housing as the current plan allows. The location of the subarea and its vast amount of open space makes it ideal for families with young children. These families generally prefer single family housing over attached multifamily housing if they can afford the down payment, the debt service on a mortgage, property taxes, and insurance. There is a large migration of out of state households into Clark County, many of whom are coming with substantial home equities. The market demand for all types of housing has been exceptional over the last few years, but demand for single family and other types of lower density housing may have reached a historical high with a severely constrained supply.

However, the percentage of families with children in the US has been declining since 1960. Just 28% of households in the US included children as of 2017.

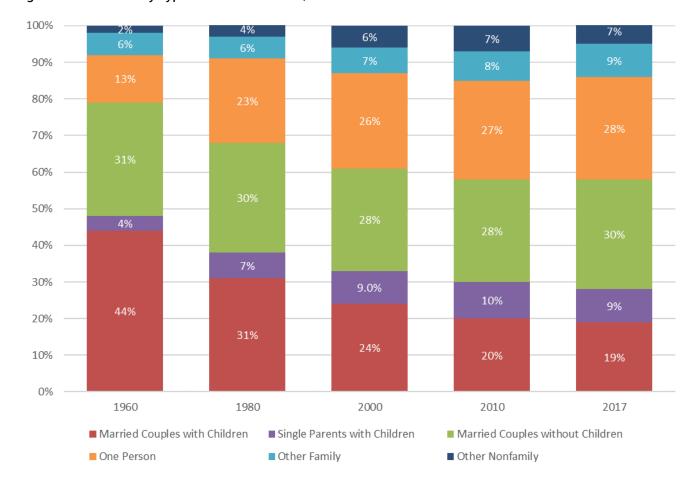


Figure 5. Households by Type in the United States, 1960-2017

Source: PRB Population Bulletin

Traditionally, apartment dwellers prefer locations closer to urbanized areas while suburbs with high quality schools attract families with young children. Camas has a reputation of having the best school district in Clark County but lacks urban infrastructure and amenities. It is therefore more likely to attract families and couples looking to purchase a home than single young professionals. While many families prefer single family detached housing, high housing costs could lead some younger homebuyers to consider duplexes or townhomes. In order to meet the community's goals of creating a mixed-income neighborhood, the city could incentivize middle housing through tools like FAR bonuses, SDC waivers, and the Multifamily Tax Exemption.

If the current draft plan were to be fully built out, 75 percent of units would be in the higher density zones with 25 percent in the lower density zones. However, a distribution of 60 percent multifamily to 40 percent detached single family housing is more in line with other smaller cities in the greater Portland Metropolitan area. Although it may be possible to deliver a limited number of detached single-family homes at 10 units per acre this is not a product that has historically been built on a large scale in suburban areas.

Figure 6 below shows the mix between detached single family and multifamily housing in selected jurisdictions in Clark County and the Portland Metro area, based on building permits issued over the last five years.

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Figure 6. Single Family and Multifamily Housing, 2016-2021

		Multifamily	Multifamily	
Clark County	Single Family	(2-4 Units) (5	or more Units)	Total
Camas	85.2%	0.9%	13.9%	100.0%
Battle Ground	92.9%	4.1%	3.0%	100.0%
Ridgefield	81.1%	0.3%	18.5%	100.0%
Washougal	75.4%	1.4%	23.2%	100.0%
Wtd. Average	84.1%	1.2%	14.7%	100.0%
		Multifamily	Multifamily	
Portland Metro Area	Single Family	(2-4 Units) (5	or more Units)	Total
Beaverton	27.3%	0.0%	72.7%	100.0%
Gresham	37.2%	1.1%	61.8%	100.0%
Hillsboro	57.6%	0.4%	42.0%	100.0%
Troutdale	36.8%	3.2%	60.1%	100.0%
Wilsonville	92.5%	0.0%	7.5%	100.0%
Wtd. Average	47.6%	0.5%	51.9%	100.0%
		Multifamily	Multifamily	
Suburban Region	Single Family	(2-4 Units) (5	or more Units)	Total
Grand Total (Units)	9,132	119	5,385	14,636
Average	62.4%	0.8%	36.8%	100.0%

Source: US Department of Housing and Urban Development

Housing developers have largely focused on building single-family homes in the four smaller jurisdictions in Clark County. There are differences in the Portland Metro area where there is a severe shortage of buildable land for all uses. Much of the housing in this area is developed on smaller infill sites of 5 to 10 acres or less.

Flexible Low-Density Zoning

The community has expressed concerns that the Camas North Shore Subarea could become a neighborhood of mansions unaffordable to many in the surrounding areas. While zoning the Subarea for both single family and multifamily homes allows developers more flexibility regarding housing types, it is not clear that this area, which lacks transit, is an ideal location for dense multifamily housing. While it could support some middle housing like townhomes and duplexes, if developers believe there is less risk and more financial benefit to building large homes, that is what is likely to be built.

However, there are other tools the city can utilize to ensure that the North Shore Subarea does not become an exclusive, high-priced lakeside community. Portland's Residential Infill Project, which went into effect August 2021 and was recently updated, caps the size of single-family homes to discourage the development of so-called "McMansions." It also allows for up to four units on nearly all residential lots, or up to 6 with an affordable housing density bonus. For each additional unit, there is a slight increase in FAR (as shown below in Figure 7). RIP also reduced the minimum lot sizes, allowing for more density. This kind of incentive could help encourage developers to build more small, multi-unit structures and disincentivize the development of large single-family houses. If this is what the city would prefer to build in this area, this could help fulfill that vision. It would also allow the development of single-family homes in these higher density areas if there is more demand for that product type.

Figure 7. Residential Infill Project Floor Area Ratios

Units	RF	R20*	R10*	R7	R5	R2.5
1	No limit	0.4 to 1	0.4 to 1	0.4 to 1	0.5 to 1	0.7 to 1
2	No limit	0.5 to 1	0.5 to 1	0.5 to 1	0.6 to 1	0.8 to 1
3	No limit	0.6 to 1	0.6 to 1	0.6 to 1	0.7 to 1	0.9 to 1
4 or more	No limit	0.7 to 1	0.7 to 1	0.7 to 1	0.8 to 1	1 to 1

^{*}In the R10 and R20 zones the maximum floor area ratio only applies to sites that are less than 10,000 square feet in area.

Source: City of Portland

The Washington Legislature proposed a middle housing bill earlier this year, but it failed to pass in February. A <u>Sightline poll</u> from the same month found that 61% of Washington residents favored expanding the types of housing allowed in low density zones that typically only allowed single family housing. The city could incorporate some of the provisions within <u>Portland's RIP</u> or Oregon's HB2001 into the guidelines for the 10 to 18 unit per acre residential zone.

While the majority of families with younger children prefer single family detached housing if they can afford it, middle housing tends to be less expensive than single family homes, and it presents an opportunity for first-time home buyers to enter the market. Duplexes, triplexes, cottage clusters, and townhomes can be built to ensure that residents have the amenities of a single-family home, including front doors, porches, and backyard space, with a slightly lower price tag than newly built single-family homes. This is likely to be attractive to first time or lower-income home buyers who have found it increasingly difficult to find an affordable home in the metro area. However, as Figure 6 above shows, developers have built very few middle housing units in suburban cities within the four-county Portland Metro Area over the last five years.

Camas could also incentivize accessory dwelling units (ADU's) through loan programs and SDC waivers. Lender Craft3 offers two ADU loan programs for Multnomah, Washington, and Clackamas Counties. Their ADU Loan program offers borrowers up to \$250,000 for design, permitting, and construction of ADU's. Craft3 has also partnered with BackHome ADU to offer loans with a subsidized interest rate for ADU's that will be used as affordable housing for at least 8 years. While these programs are not available in Washington, the city may be able to find one or more local lending partners to establish a similar program. SDC waivers can also help make ADU's more feasible. While ADU's are unlikely to be a solution to the city's need for more housing, they can add rental housing and support multigenerational households.

Multifamily Tax Exemption (MFTE)

If city leaders believe that higher density mixed-use housing is desirable in the North Shore Subarea's commercial districts, it can use the MFTE program to incentivize this type of housing. Currently, the target areas for Camas's MFTE program are Downtown, Northwest 6th Avenue, and Northeast 3rd Avenue. While the 12-year exemption requires that any developments utilizing MFTE must be affordable, the 8-year exemption requires:

- The development must be in a residential target area.
- Tenants are not displaced due to rehabilitation.
- The development must be at least 4 units in either a residential or mixed-use structure.
- The project must be at least 50% multifamily housing.
- The project must comply with local guidelines, standards, and codes.

Establishing the North Shore Subarea as a target area for MFTE could encourage mixed-use development by offsetting some of the risks developers face when building in an unproven area.

Zoning

Jurisdictions across the country are adopting a more flexible approach to zoning that allows multiple mixed uses within a particular zone. In his book, A Better Way to Zone, the author, Donald L. Elliott argues that simplification with fewer zones that are less prescriptive and more flexible is the future.

"I believe that, in the future, zoning will move toward only three types of districts: pure residential districts, mixed-use districts, and special purpose districts.: Source: A Better Way to Zone; Ten Principles to Create More Livable Cities, Donald L. Elliott; Page 147.

"With due respect to those who believe we should all live in mixed-use neighborhoods; a large proportion of America's population doesn't want to do so and is not likely to be persuaded otherwise. The desire for a single-family home on a single plot of land surrounded by other single houses on single lots runs deep in our history (and, incidentally, it runs deep in other countries too). Residential suburbs were not a mistake; they responded to a very real and financially powerful market demand. I think this trend will continue for at least two reasons: perceptions of investment security and the desire for elbow room." Source: Ibid.

Mixed use zones are important – Camas's plan to include employment, commercial, and housing within its North Shore Subarea is aligned with placemaking best practices. However, zoning designations that are too rigid could be a barrier to development. Witch Hazel Village in South Hillsboro and Villebois in Wilsonville have both struggled to attract commercial development despite zoning for it.

The challenges outlined in earlier sections of this memo could impact the ability of the North Shore Subarea to attract large-scale commercial development. It may also be a challenge to build vertical mixed use with apartments over ground floor retail. However, horizontal mixed use that allows for housing (including live-work space), commercial, and employment could be more achievable. Neighborhood coffee shops, retail, health clinics, services (including legal and professional services as well as personal services such as barbers, hair salons, and dog groomers), and food co-ops have the potential to thrive in mixed use neighborhoods alongside housing. The city could incentivize these types of smaller, neighborhood commercial businesses through variable SDCs. The city could use internal trip capture metrics on the assumption that more people will walk than drive to these establishments.

Recommendations

LCG recognizes the city is not inclined to reduce the proposed Mixed Employment acreage below 13 percent of the developable land (41 acres which can accommodate an estimated 400,000 to 500,000 square feet of space). The timing of development is likely to be concurrent with infrastructure improvements to the connection with downtown Camas and SR 14.

LCG is not recommending any changes in the distribution of developable acres to Mixed Employment and Commercial zones. Two of these commercial areas are recommended. Zoning in mixed-use zones should allow vertical integration with housing above retail or horizontal mixed use with small retail space adjacent to townhouses.

Figure 8. Recommended Employment Mix - North Shore Subarea

	Draft Plan	Proposed	So	quare Feet		DU's	Residential
Land Use	Acres	Acres	Distribution	per Acre	Square Feet	Per Acre	Units
Mixed Employment	41	41	12.9%	12,000	492,000		_
Commercial							
Grocery Store Anchored Neighborhood Center	•	15	4.7%	12,000	180,000		
Specialty Town Center		8	2.5%	12,000	96,000		
Mixed Use (Housing & Retail)*		9	2.8%	12,000	32,400	28	176
Subtotal	32	32	10.0%		308,400		
Total Employment Land/Space	73	73	22.9%		800,400		
Residential Land	246	246	77.1%				
Total Developed Land	319	319	100.0%				

^{*}Assumes a 30%/70% ratio between retail and residential acres

LCG's analysis still supports a higher percentage of lower density land for detached single family housing. The zone could be expanded to include a range of densities from 5 to 8 units per acre. The higher density zone averaging 14 units per acre with a range of 10 to 18 units per acre is appropriate for attached for sale single family housing (duplexes, triplexes, townhomes), but even at the lowest range of 10 units per acre lot sizes may be well below 4,000 square feet.

Figure 9. Recommended Residential Mix (Acres) - North Shore Subarea

	Draft Plan		LCG	Recommenda	ation
Residentail Acres	Acres	Distribution	Acres	Distribution	Change
Mixed Use	44	13.8%	44	13.8%	0
Higher Density	81	25.4%	31	9.7%	-50
Lower Density	121	37.9%	171	53.6%	50
Total Residential	246	77.1%	246	77.1%	
Employment Land	73	22.9%	73	22.9%	0
Total Developed Lar	319	100.0%	319	100.0%	

Figure 10. Recommended Residential Mix (Units) - North Shore Subarea

	DU's		Draft Plan		Recommenda	ition
Residentail Units	Per Acre	Units	Distribution	Units	Distribution	Change
Mixed Use	24.0	1,056	36.5%	1,056	42.5%	0
Higher Density	14.0	1,134	39.2%	434	17.5%	-700
Lower Density	5.8	702	24.3%	992	40.0%	290
Total Housing Units	S	2,892	100.0%	2,482	100.0%	

Portland and to a lesser degree Vancouver are different than most areas with ratios of 15/85 percent and 24/76 percent single family product to multifamily homes. However, this ratio is the result of land shortages, which can drive up the value of the land to the point where single-family housing is no longer feasible.

Camas, and particularly, the North Shore is many years away from facing this kind of a problem, if ever. There is abundant land to the north that can be added to the urban growth area if shortages begin to emerge. It is questionable if the Camas community would ever want their city to evolve like Portland or even like Vancouver.

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However, if the City wants to designate middle housing zones in this area, it should ensure that the areas zoned for a density of 10 to 18 units per acre could also accommodate single family housing if that is what the market will bear. As shown in Figure 6 above, this type of housing makes up a very small percentage of housing that has been built in the region over the last five years. If there is more demand for single family structures, those should not be prohibited on this land. In addition, if the City wants to incentivize more middle housing, it could utilize programs like SDC waivers and FAR increases to encourage that development. It is unlikely that much of this type of housing will be built without such incentives.

ORDINANCE NO. 22-020

An Ordinance adopting the City of Camas North Shore Subarea Plan pursuant to RCW 36.70A.130 and incorporating the Plan by reference into the City of Camas Comprehensive Plan.

WHEREAS, the North Shore area of the City of Camas includes rural and agricultural land and single-family residences with large acreages; and

WHEREAS, in 2013 the City established current zoning in this area through a Development Agreement with a coalition of property owners pursuant to Resolution No. 1277; and

WHEREAS, commencing summer 2019 the City began the first phase of a comprehensive review of the community vision for the North Shore area to address current zoning needs, conceptual road alignments, land use designations, and future job and housing projections; and

WHEREAS, continuing into summer 2020 the City conducted a series of vision outreach activities including stakeholder interviews, online surveys, social media outreach, and community forums and workshops, including a workshop before the City Planning Commission held on July 21, 2020 which resulted in the City receiving substantial community input numbering into thousands of individual comments; and

WHEREAS, the City Planning Commission held a Public Hearing, duly advertised according to law, on August 18, 2020 for consideration of a proposed Vision Statement for the North Shore Subarea Plan and unanimously forwarded their recommendation thereof; and

WHEREAS, through the comprehensive review as outlined herein the City developed the North Shore Subarea Plan Vision document which was adopted by the City Council by Resolution 20-101 on September 14, 2020; and

WHEREAS, in Phase 2, guidance and input from the community and stakeholders were sought to inform the development of a preferred land use and transportation concept plan and design guidelines and standards for the North Shore which included the City convening a North Shore Steering Committee and a North Shore Community Advisory Committee (CAC) in addition to

conducting broad outreach to the Camas community as referenced in Appendix A of the North Shore Subarea Plan report; and

WHEREAS, a public hearing was held with the Planning Commission on October 19, 2022 and forwarded a recommendation of approval of the North Shore Subarea Plan to the City Council; and

WHEREAS, RCW 36.70A.130(2)(a) provides for the adopted of a subarea plan to clarify, supplement or implement jurisdiction wide comprehensive plan policies, subject to compliance with the public participation requirements as set forth therein; and

WHEREAS, the City, consistent with the environmental review requirements of RCW Chapter 43.21C completed SEPA review of the North Shore Subarea Plan with a finding of Determination of Non-Significance on October 13,2022; and

WHEREAS, a public hearing was held with the Camas City Council November 7, 2022 and after public testimony and deliberation moved to adopt the North Shore Subarea Plan and directed the City Attorney to prepare an ordinance for adoption;

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF CAMAS AS FOLLOWS:

Ι

The Council incorporates by reference the Recitals as set forth herein as findings of fact.

The Council concludes that the GMA prerequisites for the adoption of the North Shore Sub Area

Plan to be incorporated into the City of Camas Comprehensive Plan have been met in the

following respects: Public Participation per RCW 36.70A.130(2)(a); Goals of GMA per RCW

Chapter 36.70A through consistency with state statutory goals; and Environmental Review per

RCW Chapter 43.21C through completion of SEPA review

Based upon the review of the requirements of GMA, the analysis, the recommended findings on review, the recommendations of the Planning Commission, and the public comments received, the Council finds and declares the review and adoption of the North Shore Subarea Plan, all associated maps and appendices, to have been prepared in conformance with applicable law. The document entitled 'North Shore Subarea Plan', a copy of which is on file with the office of the City Clerk for public inspection, is hereby adopted and shall be incorporated in the City of Camas Comprehensive Plan.

III

This ordinance shall take force and be in effect five (5) days from and after its publication according to law.

PASSED by the Council and APPROVED by the Mayor this 21st day of November, 2022.

SIGNED:

Mayor

ATTEST.

Clerk

APPROVED as to form:

City Attorney



Staff Report – Ordinance

November 21st, 2022 Regular Meeting

Ordinance No. 22-018 Camas School District Capital Facility Plan

Presenter: Robert Maul, Planning Manager

Time Estimate: 5 min

Phone	Email
360.817.1568	rmaul@cityofcamas.us

BACKGROUND: Just like the City of Camas, the Camas and Washougal School districts are required to update their capital facility plans periodically. Cities and Counties in turn need to adopt those changes as per RCW36.70A.106.

SUMMARY: The Camas and Washougal School districts are both required to update their adopted capital facility plans. When doing so they must coordinate with all jurisdictions to modify their respective comprehensive plans to comply with state law. The Camas School district has provided a summary and updated capital facility plan that was adopted by the School Board where there is a suggested change to the impact fee amount for residential development within the City of Camas boundaries. The current impact fee collected for each single family dwelling unit and for each dwelling unit in multi-family type development is \$5,371. The new impact fee is \$6,650. The Washougal School district saw enough decline in enrollment that they will not be collecting impact fees. A public hearing was held on this matter with the Planning Commission on Wednesday, October 19th whereby the PC recommended approval to the Camas City Council. The Camas City Council held a public hearing on this matter on November 7th, 2022 and directed the City Attorney to prepare an adoptive ordinance for the following meeting, November 21st, 2022. The adoptive ordinance and school district capital facility plan are contained in this packet.

BUDGET IMPACT: This is not a direct impact to the City's budget. The City of Camas collects the impact fees and transfers the funds to the school districts respectively.

RECOMMENDATION: Staff recommends that Council adopt Ordinance 22-018.

ORDINANCE NO. 22-018

AN ORDINANCE approving and adopting by reference the text of that certain document entitled Camas School District Capital Facilities Plan 2022-2028.

WHEREAS, the Camas School District has submitted an amended capital facilities plan entitled "Camas School District Capital Facilities Plan 2022-2028" to the City for its review and approval, and

WHEREAS, the Council has considered said capital facilities plan and has conducted a public hearing, and desires to adopt the same as the capital facilities plan for the Camas School District,

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF CAMAS AS FOLLOWS:

Section I

The Council hereby approves and adopts by reference a volume of text entitled "Camas School District Capital Facilities Plan 2022-2028" as the amended capital facilities plan of the school district, which shall provide the basis for the collection of school impact fees by the City on behalf of the school district.

Section II

A copy of the Camas School District Capital Facilities Plan 2022-2028 shall be maintained in the council file on these proceedings, and copies of said Capital Facilities Plan shall be made available for public inspection at the Public Works Department.

Ordinance No. 22-018 Page - 2

Section III

This ordinance shall take force and be in effect five (5) days from and after its publication according to law.

PASSED by the Council and APPROVED by the Mayor this 21st day of November, 2022.

	SIGNED:	Mayor	
APPROVED as to form:	ATTEST:	Clerk	
City Attorney			

CAMAS SCHOOL DISTRICT 117 RESOLUTION 21-02 CAPITAL FACILITIES PLAN 2022-2028

A Resolution of the Board of Directors (the "Board") of the Camas School District No. 117 (the "District") to adopt a Capital Facilities Plan (the "Plan") for school facilities conforming to requirements of the State Growth Management Act and the Clark County General Policy Plan.

WHEREAS, Districts are required to update their Capital Facilities Plan every six years in compliance with RCW 36.70A (the Growth Management Act); and

WHEREAS, this Plan update was developed by the District in accordance with accepted methodologies and requirements of the Growth Management Act; and

WHEREAS, the proposed impact fees utilize calculation methodologies meet the conditions and tests of RCW 82.02; and

WHEREAS, the District finds that the Plan meets the basic requirements of RCW 36.70A and RCW 82.02; and

WHEREAS, the District conducted a review of the Plan in accordance with the State Environmental Policy Act, state regulations implementing the act, and District policies and procedures;

NOW, THEREFORE BE IT RESOLVED as follows:

- 1. The 2012 Capital Facilities Plan for the years 2012-2028 is hereby adopted by the District.
- 2. The Clark County Board of Commissioners is hereby requested to adopt the Plan by reference as part of the capital facilities element of the County's General Policy Plan.
- 3. The Cities of Camas, Washougal, and Vancouver are hereby requested to adopt the Plan by reference as part of the Capital Facilities Plan element of their respective General Policy Plans.

ADOPTED, this 23rd day of May 2022 at the Regular Meeting of the Board of Directors for Camas School District 117.

CAMAS SCHOOL DISTRICT 117 BOARD OF DIRECTORS /

CAMAS SCHOOL DISTRICT CAPITAL FACILITIES PLAN 2022 – 2028



Board of Directors

District I Corey McEnry
District II Erika Cox

District III Connie Hennessey

District IV Doug Quinn
District V Tracey Malone

Interim Superintendent Doug Hood

Adopted by the Camas School District Board of Directors

May 23, 2022

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Appendix A – School Impact Fee Calculations Appendix B – Population and Enrollment Data

I. **EXECUTIVE SUMMARY**

Camas School District #117

The Washington State Growth Management Act (the "GMA") includes schools in the category of public facilities and services. The Camas School District ("District") is required by Clark County ("County") and the Cities of Camas, Washougal, and Vancouver ("Cities") to adopt a capital facilities plan to satisfy the requirements of the GMA and to identify school facilities necessary to meet the educational needs of current and projected enrollment growth for a six-year period. Due to the uncertainty of the impact of COVID-19 pandemic on student enrollment and public education and at the request of several school districts, including the District, Clark County suspended until 2022, their four-year update requirement.

The District has prepared a 2022 Capital Facilities Plan ("CFP") to provide the County and the Cities with a schedule and financing program for capital improvement needs over the next six years (2022-2028) to ensure that adequate facilities are available to serve new growth and development. The 2022 CFP includes the following elements:

- A description of standard of service and space requirements for educational programs (Section II)
- An inventory of existing capital facilities owned by the District (Section III)
- Future enrollment projections for each grade span (Section IV)
- A forecast of proposed capacities of expanded or new capital facilities over the next six years based on the inventory of existing facilities and the standard of service (Section V)
- A six-year plan for financing capital facilities within projected funding capacities, which identifies sources of public funds for such purposes. The financing plan separates projects and portions of projects which add capacity from those which do not, since the latter are generally not appropriate for impact fee funding (Section VI)
- A calculation of impact fees based on the formula in the County and City impact fee ordinances and supporting data substantiating such fees (Section VII)

In developing this CFP, the District used the following guidelines:

- The District will use information from recognized sources, such as professional demographers and planners, County and City adopted land use plans and County GIS data.
- The District will use data it generates from reasonable methodologies.
- The CFP and the methodology to calculate the impact fees will comply with the GMA and County and City codes.
- The six-year facility needs are based on an enrollment forecast that takes local development trends into account.
- The District plans to construct permanent/bricks and mortar facilities for its students and will develop a CFP to accomplish that objective. At the same time, the District expects there will be a time period when some of the students that the District serves will be housed in portables. Housing students in portables, temporarily, is necessary to qualify for state funds that are needed to build new schools.

Camas is a financially and academically sound school district. The 57 square mile Camas School District serves the majority of the Camas Urban Growth Area, a large section of the Washougal Urban Growth

Area, and a smaller portion of the Vancouver Urban Growth Area and rural Clark County. The District serves residents from the Cities of Camas, Washougal, Vancouver and unincorporated rural Clark County. It is bordered by Evergreen School District to the west, Hockinson School District to the north, Washougal School District to the east, and the Columbia River and the state line to the south.

The District served a population of 7,412 students in 2019 (October 1, 2019 enrollment). Due to the statewide closure of schools during the COVID-19 pandemic, and associated loss of public school enrollment, the District served a population of 7,055 students in 2020 (October 1, 2020 enrollment) and 7,045 students in 2021 (October 1, 2021 enrollment). The District expects no further enrollment loss and a recovery over 4-5 years to pre-pandemic enrollment.

For purposes of facility planning, the CFP considers grades K-5 as an elementary school, grades 6-8 as a middle school, and grades 9-12 as a high school. The District has six elementary schools; two standard middle schools and a third, smaller, application-based middle school; and a large comprehensive and two, smaller application-based high schools. In addition, the District serves Camas Connect Academy students in grades K-12 in an online platform, pre-school special needs students at the Heights Learning Center and Camas High School, and students aged 18-21 in the Transition Program.

In February 2016, voters approved a bond measure which included the funding for the projects noted below. Construction of the replacement Lacamas Lake Elementary School, the purchase of a 38.2 acre site and the associated remodel of a commercial building to house the new Odyssey Middle School, and the construction of the new Discovery High School on the same site have increased capacity to serve forecast growth.

School facility and student capacity needs are dictated by a complex matrix of regulatory mandates, educational program components, collective bargaining agreements, and community expectations, more fully described in Section II. The District's existing capital facilities are summarized in Section III. In addition, the District owns 32 portable classrooms located at school facilities – 24 of which currently house approximately 9.6%, or 680 students; and 8 additional portable classrooms that are available to accommodate enrollment growth.

Between 2014 and 2019, enrollment growth within the District grew an average 3.1% per year, compared to the countywide rate of 2.0%. A total of 847 students were added to Camas School District during that time. The District expects to continue to see an increase in enrollment over time, although at a slower rate. Much of the land within the District and urban growth boundaries has yet to be developed, and there continues to be market interest in housing development in Camas and Washougal. Future K-12 enrollment is projected to increase by an average 1.3% per year, or 688 students over the next 7 years (see Section IV). Thanks to the 2016 Bond, which provided an increase in educational facility capacity of 192 students at the elementary level, 360 students in middle school, and 600 students in high school, many of the projected number of students by 2028 can be accommodated in the District's existing educational facilities and portable classrooms, except that there will be a need to increase capacity at the middle school level, and slightly at elementary school level.

The calculated maximum allowable impact fees for the District are \$6,652.48 per single family residence and \$29,713.38 per multi-family residence (**Appendix A**).

II. DISTRICT EDUCATIONAL PROGRAMS AND STANDARDS OF SERVICE

School facility and student capacity needs are dictated by the types and amounts of space required to accommodate the District's adopted educational program. Quality education plays a vital role in growing a strong local economy. To provide quality education, the District must have quality facilities to serve as the supporting space for developing the whole child within a community to prepare them for a competitive world. The educational program components which typically drive facility space needs include grade configuration, optimum facility size, class size, educational program offerings, classroom utilization and scheduling requirements.

Student enrollment is determined by population growth, birth rates, and housing and demographic characteristics of the District. Individual schools within the District may or may not follow the overall District pattern shared in this report. For example, the majority of the new housing in the past decade has been in the central and western portion of the District and the schools in these areas saw the most enrollment growth. As these areas have built out, future housing is proposed more in the outer ring of the District, predominantly to the north and east. This affects the balance of student enrollment and individual school facility capacity in ways that are not reflected in the overall summary.

In addition to student enrollment, other factors such as collective bargaining agreements, government mandates, and community expectations also affect classroom space requirements. Basic education programs are augmented by other programs such as special education, physical education, and art and music. These programs can have a significant impact on the available student capacity of school facilities.

The District's current programs and educational standards are summarized below. The program and educational standards may vary during the six-year CFP planning horizon. Absent significant changes in factors that are beyond the District's control, the District will provide the following programs and standards of service in 2022 through 2028. If significant changes occur that require new facilities or improvements beyond what is identified in this CFP, the District will prepare and submit an updated CFP.

A. Elementary Educational Standards

- Elementary school capacity is calculated utilizing classroom spaces containing a basic education teacher and his/her complement of students. All students are integrated at some time during the day in a basic education classroom and are included in the total enrollment count. All students are pulled out to attend additional programs (which may also be held in classrooms, if there is no designated space available). Building capacity calculations do not include pull-out program areas such as special education learning support centers, resource rooms, technology labs, music instruction spaces, and gymnasiums.
- Class sizes for grades K-5 are targeted not to exceed 24 students per class.
- When feasible K-3 class sizes are reduced to maximize enhanced funding from the State.

B. Middle School Program Standards

- Middle school capacity is calculated utilizing the number of basic education teaching stations. It is not possible to achieve 100% utilization of all teaching stations throughout the day due to schedule conflicts, the need for specialized rooms for certain programs and the need for teachers to have work space during their planning period. A utilization factor of 83% is used to reflect the actual use of the building. Building capacity calculations do not include pull out program areas such as special education learning support centers, resource rooms, and technology labs.
- Class sizes for grades 6-8 are targeted not to exceed 30 students per class.

C. High School Program Standards

- High school capacity is calculated utilizing the number of basic education teaching stations.
 It is not possible to achieve 100% utilization of all teaching stations throughout the day due
 to schedule conflicts, the need for specialized rooms for certain programs and the need for
 teachers to have work space during their planning period. A utilization factor of 83% is used
 to reflect the actual use of the building. Building capacity calculations do not include pull
 out program areas such as special education learning support centers, resource rooms, and
 technology labs.
- Class sizes for grades 9-12 are targeted not to exceed 31 students per class.

III. CAPITAL FACILITIES INVENTORY

The facilities inventory serves to establish a baseline for determining facilities needed to accommodate future demand at acceptable levels of service. This section provides an inventory of capital facilities owned and operated by the District including schools, portables, undeveloped land, and support facilities. School capacity is based on the space requirements for the District's educational programs as outlined in Section II.

A. Elementary Schools

Elementary	Location	Year of	Building SF	Capacity	Teaching
School		Occupancy			Stations
Dorothy Fox	2623 NW Sierra St	1982/2000/	62,237	552	23
(K-5)	Camas WA 98607	2011			
Grass Valley	3000 NW Grass Valley Dr	2009	70,023	624	26
(K-5)	Camas WA 98607				
Helen Baller	1954 NE Garfield St	2009	64,417	576	24
(K-5)	Camas WA 98607				
Lacamas Lake	4825 North Shore Blvd	2018	74,330	600	25
(K-5)	Camas WA 98607				
Prune Hill	1602 NW Tidland St	2001	59,130	504	21
(K-5)	Camas WA 98607				
Woodburn	2400 NE Woodburn Dr	2013	72,857	648	27
(K-5)	Camas WA 98607				
TOTALS:			402,994	3,504	146

B. Middle Schools

Middle	Location	Year of	Building SF	Capacity	Teaching
School		Occupancy			Stations
Liberty	1612 NE Garfield St	1937/1952/1969/	121,047	875	35
(6-8)	Camas WA 98607	1985/1995/2006			
Odyssey	5001 NW Nan Henriksen	2016 (built in	54,140	350	14
(6-8)	Way Camas WA 98607	1996)			
Skyridge	5220 NW Parker St	1996	112,133	825	33
(6-8)	Camas WA 98607				
TOTALS:			287,320	2,050	82

C. High Schools

High School	Location	Year of Occupancy	Building SF	Capacity	Teaching Stations
Camas (9-12)	26900 SE 15th St Camas WA 98607	2003/2011	241,621	1,834	71
Discovery (9-12)	5125 NW Nan Henriksen Way Camas WA 98607	2018	92,000	600	24
Hayes Freedom (9-12)	1919 NE Ione St Camas WA 98607	2010	20,500	207	8
TOTALS:			354,121	2,641	103

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D. Portables Inventory

Facility Type	Available Portable Classrooms	Capacity
Elementary Schools	14	336
Middle Schools	6	150
High Schools	12	310
TOTALS:	32	796

E. Support Facilities

Туре	Location
Grounds Shop, Bus Maintenance and	1707 NE Ione St
Warehouse (1963/2001)	Camas WA 98607
Transportation Center (2001/2012)	1125 NE 22 nd Ave
	Camas WA 98607
JD Zellerbach Administration Center	841 NE 22 nd Ave
(1967/1974/1985/1998/2010)	Camas WA 98607
Doc Harris Stadium (2010)	1125 NE 22 nd Ave
	Camas WA 98607
The Heights Learning Center (1963, 1984, 1998,	4600 NE Garfield Street
2008, 2018)	Camas WA 98607
Jack, Will & Rob Family Resource Center (2002,	2033 NE Ione St
2017)	Camas WA 98607
Transition House (remodeled 2009)	612 NE 2 nd Ave
	Camas WA 98607

F. Land Inventory

The district owns the following under- and undeveloped sites:

- 57.6 acres located at 2815 NW Leadbetter Drive, Camas, WA 98607 site includes a commercial office building
- 79.9 acres located at the northeast corner of NE 28th Street and NE 232nd Ave
- 19.6 acres located northwest of the intersection of NW Pacific Rim Blvd and NW Parker Street

IV. STUDENT ENROLLMENT PROJECTIONS

The District's six-year enrollment projection is based on a forecast prepared by Eric Hovee of E.D. Hovee & Company, LLC in February 6, 2020 and updated in December, 2021.

The approach used in making the updated enrollment forecast included the following:

• Kindergarten (K) enrollment is forecast based on the population of each school area (and expected population growth) together with birth rate data from five years previous using an age-cohort

- methodology. Data required for the K-level forecast includes projections of population growth, women of childbearing age and age-specific fertility rates.
- Actual enrollment patterns from prior years are used as a basis for projecting future enrollment for
 grades 1-12. For example, the number of students in a particular grade as of October 1, 2019 are
 promoted into the next grade level for 2020 (adjusting for expected population growth together
 with gains or losses typically associated with a particular grade-to-grade change for each grade
 level at each individual school). The pattern for the District is for additional students to join as the
 grades increase, especially at the transition from elementary to middle and from middle to high
 school.
- The 2021/2022 school year enrollment is based on the October 1, 2021 enrollment data.
- Economic growth impacts, land use and zoning provisions, buildable lands inventory, and new residential developments are taken into account.
- The student generation rates by grade levels in the District for single family homes for the last six years is 0.237 Elementary School, 0.143 Middle School, and 0.202 High School students/new unit. Since there have been limited multi-family units constructed in the District over the last six years, the County code states that County wide averages should be used but the District is using a composite from larger districts with a significant amount of multi-family units. Accordingly, the District will apply a 6-year generation rate for the other larger school districts in Clark County (Battle Ground, Evergreen, and Vancouver). The composite weighted average for these three districts combined is a multi-family generation rate of 0.554 Elementary School, 0.344 Middle School, and 0.460 High School students/new unit.

A. Projected Enrollment 2022-2028 (Headcount)

	Actual	Actual	Actual							
Grade	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K-5	3,117	2,852	2,866	2,954	2,904	3,071	3,041	3,183	3,231	3,308
6-8	1,863	1,737	1,735	1,721	1,758	1,721	1,790	1,766	1,862	1,877
9-12	2,432	2,389	2,444	2,428	2,484	2,453	2,457	2,515	2,494	2,549
TOTALS:	7,412	6,978	7,045	7,103	7,146	7,245	7,288	7,464	7,587	7,734

V. CAPITAL FACILITIES NEEDS

Facility needs for purposes of the Growth Management Act and impact fees are based on existing capacity and forecast enrollment. The 2028 Facility needs are shown in the table below and the amount of the facility need that is attributed to forecast growth is described under the table.

A. Forecast Facility Capacity Needs

- Elementary Schools: The enrollment forecast shows an increase of 442 students.
- Middle Schools: The enrollment forecast for middle school shows an increase of 142 students.
- High Schools: The enrollment forecast for high school shows an increase of 105 students.

 The projected number of students by 2028 indicate the need for an additional middle school and elementary school capacity. High school enrollment can be accommodated by the additions in our 2016 bond to our existing educational facilities.

Under the District's 2016 Bond Capital Program, the District purchased property that contained a commercial building in 2016, which was remodeled in 2017 to accommodate educational use and can serve 350 middle school students. In 2018, the District completed construction of a new high school that has a capacity to serve 600 students. In addition, the District completed construction of a replacement elementary school in 2018 to increase the capacity at the elementary level by 192 students. The District also added two double portable classrooms to the District inventory at the elementary level in 2019 and 2020 to address overcrowding at individual schools. The cost to purchase this land and build these schools and portables, which are now available to serve forecast growth are listed below as Facility Capacity Needs.

The District added capacity over the last 4-5 years that is available to serve forecast growth. New development, which places demands on schools will use the capacity that has been provided, and will contribute a small portion of the cost through the payment of school impact fees.

B. 6-Year Plan - Facility Capacity Needs

Project Description	Added Capacity	Estimated Cost	Cost for Added Capacity to
			Serve Growth
Woodburn Elementary Portable	48	\$500,000	\$500,000
Odyssey Middle School Addition	100	\$15,000,000	\$10,000,000
Property Acquisition		\$7,000,000	0
Liberty Middle Portable	60	\$500,000	\$500,000
Middle School Construction	850	\$100,000,000	\$100,000,000
Leadbetter Campus	500	\$87,000,000	0
Improvements for Educational			
Purpose			
TOTAL:	2,158	\$210,000,000	\$111,000,000

- Cost attributed to forecast growth is the proportionate share of the total cost to construct the
 improvement that is equal to forecast growth. Forecast growth at the elementary school level is
 442 and the added capacity is 48. Because two middle schools will be at and over capacity
 during the 6-year period of this plan, the entire new middle school, addition, and portable are
 needed for growth. The estimated total cost includes all the costs to construct the
 improvement. Architect, engineer, professional services, furniture/fixtures/equipment, permit
 and owner contingency costs have been excluded from the cost allocated to serve forecast
 growth.
- Costs are estimates.

Camas School District #117

969

- The 2016 bond program also included replacement facilities and capital renewal projects that
 are not listed above. A detailed list of all bond improvements with project specific costs is on
 file with the District.
- To accommodate growth on a short term and immediate basis, the District may purchase and
 utilize portable classrooms, and this plan incorporates those facilities and the equipment and
 furniture necessary to equip these classrooms in the District's facility plan. Impact fee revenue
 can be available to fund portable facilities if these facilities are needed to serve growth.

VI. CAPITAL FACILITIES FINANCE PLAN

A. Six Year Financing Plan

Facility Capacity Need	Total	Estimated Impact Fees	State Construction Funds	Bonds
Secured	\$4,000,000	\$4,000,000	\$0	\$0
Unsecured	\$111,000,000	\$3,000,000	\$13,000,000	\$95,000,000

^{*}Financing plan does not include all potential facility needs identified in table V. B. above.

The total cost for all 2016 bond projects, including facility improvements and property acquisition was \$137.2 million dollars. Funding for planned improvements is typically secured from a number of sources including voter approved bonds, limited general obligation bonds, capital levies, state match funds and impact fees. The following information explains each of the funding sources in greater detail.

Capital Levies

In 2021, District voters approved a \$11.5 million dollar Capital Levy to fund technology and necessary capital renewal projects; including roof replacements, HVAC replacements, fire protection upgrades, and other capital maintenance.

School Construction Assistance Program (SCAP)

The School Construction Assistance Program (SCAP) provides funding assistance to school districts that are undertaking a major new construction or modernization project. Funds primarily come from the Common School Construction Fund (the "Fund"). School districts may qualify for State construction funds for specific capital projects based on eligibility requirements and a state prioritization system. Based on the District's assessed valuation per student and the formula in the State regulations, the District is currently eligible for state construction funds for new schools at the 63.77% match level. The District received \$13,065,000 for construction of the new high school.

Impact Fees

The collection of school impact fees generates partial funding for construction of public facilities needed to accommodate new development. School impact fees are collected by the cities and County on behalf of the District at the time plats are approved or building permits are issued. Impact fees are calculated based on a formula, which includes the portion of District construction resulting in increased capacity in schools.

Anticipated property acquisition and new construction is based on the enrollment forecast, capacity, the District's educational standards and the community's support of finance tools to fund improvements.

VII. SCHOOL IMPACT FEES

The Growth Management Act (GMA) authorizes jurisdictions to collect impact fees to supplement funding of additional public facilities needed to accommodate new development. Impact fees cannot be used for the operation, maintenance, repair, alteration, or replacement of existing capital facilities used to meet existing service demands.

Local jurisdictions in Clark County have adopted impact fee programs require school districts to prepare and adopt Capital Facilities Plans. Impact fees are calculated in accordance with the jurisdiction's formula, which is based on school facility costs to serve new growth. The formula allocates a portion of the cost for new facilities to a single family or multi-family residence that create the demand (or need) based on a student factor, or the average number of students that live in new single family or multi-family homes. The formula also provides a credit for SCAP funds the District receives and the projected future Bond Proceeds (or property taxes) that will be paid by the owner of the home.

The District's impact fees have been calculated utilizing the formula in the Clark County and the Cities of Camas, Washougal, and Vancouver Impact Fee Ordinances. Application of the formula is shown in Appendix A which follows on the next page.

In accordance with the school impact fee calculation in Appendix A, the District's maximum allowable school impact fees are:

\$6,652.48 per single family residence \$29,713.38 per multi-family residence

The District Board of Directors, at its May 23, 2022 meeting, recommends collecting school impact fees in the following amounts:

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\$ 6,650.00 per single family residence \$ 6,650.00 per multi-family residence Camas School District APPENDIX A

Camas School District			APPENDIX A
Single-Family			
Elementary	Middle School		Formula
\$ 500,000.00	\$ 110,500,000.00		Facility Cost
48	1010		Additional Capacity
\$10,416.67	\$ 109,405.94		Cost per Student (CS)
0.237	0.143		Student Factor (SF)
\$2,468.75	\$15,645.05		CS x SF
\$246.83	\$246.83		Boeck Index
90	117		OSPI Sq Ft
63.77%	63.77%		State Match Eligibility %
			,
None available	\$2,633.52		State Match Credit (SM)
\$2,468.75	\$13,011.53		CS x SF – SM
		\$15,480.28	Cost per Single Family Residence
		LESS	Tax Credit
		0.0220	Average Interest Rate
		0.243108277	Tax Credit Numerator
			Tax Credit Denominator
			Tax Credit Multiplier (TCM)
			Average Assessed Value (AAV)
		\$4,833,580.69	
		0.00158347	Tax Levy Rate (TLR)
			TCM x AAV x TLR = (TC)
			Cost per Single Family Residence - Tax Credit
		LESS	15% reduction (A)
		\$6,652.48	Calculated Single Family Fee Amount
		\$6,650.00	Recommended Fee Amount
Multi-Family			
Elementary	Middle School		Formula
500,000.00	\$ 110,500,000.00		Facility Cost
48.00			Additional Capacity
\$10,416.67	\$ 109,405.94		Cost per Student (CS)
0.554			Student Factor (SF)
\$5,770.83	\$37,635.64		CS x SF
\$246.83	\$246.83		Boeck Index
90			OSPI Sq Ft
63.77%			State Match Eligibility %
None available	\$6,335.18		State Match Credit (SM)
	4		
\$5,770.83	\$31,300.47	·	CS x SF – SM
			Cost per Multi-Family Unit
			Tax Credit
		0.0220	Average Interest Rate
		0.243108277	Tax Credit Numerator
		0.027348382	Tax Credit Denominator
		8.889311106	Tax Credit Multiplier (TCM)
t			

\$150,212.00	Average Assessed Value (AAV)
\$1,335,281.20	TCM x AAV
0.00158347	Tax Levy Rate (TLR)
\$2,114.38	TCM x AAV x TLR = (TC)
\$34,956.92	Cost per Multi-Family Unit - Tax Credit
LESS	15% reduction (A)
\$29,713.38	Calculated Multi-Family Unit Fee Amount
\$6,650.00	Recommended Fee Amount

ORDINANCE NO. 22-018

AN ORDINANCE approving and adopting by reference the text of that certain document entitled Camas School District Capital Facilities Plan 2022-2028.

WHEREAS, the Camas School District has submitted an amended capital facilities plan entitled "Camas School District Capital Facilities Plan 2022-2028" to the City for its review and approval, and

WHEREAS, the Council has considered said capital facilities plan and has conducted a public hearing, and desires to adopt the same as the capital facilities plan for the Camas School District,

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF CAMAS AS FOLLOWS:

Section I

The Council hereby approves and adopts by reference a volume of text entitled "Camas School District Capital Facilities Plan 2022-2028" as the amended capital facilities plan of the school district, which shall provide the basis for the collection of school impact fees by the City on behalf of the school district.

Section II

A copy of the Camas School District Capital Facilities Plan 2022-2028 shall be maintained in the council file on these proceedings, and copies of said Capital Facilities Plan shall be made available for public inspection at the Public Works Department.

Ordinance No. 22-018

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Section III

This ordinance shall take force and be in effect five (5) days from and after its publication according to law.

PASSED by the Council and APPROVED by the Mayor this 21st day of November, 2022.

SIGNED:

Clerk

Mayor

APPROVED as to form:

City Attorney



Staff Report – Ordinance

November 21st, 2022 Regular Meeting

Ordinance No. 22-019 Washougal School District Capital Facility Plan

Presenter: Robert Maul, Planning Manager

Time Estimate: 5 min

Phone	Email
360.817.1568	rmaul@cityofcamas.us

BACKGROUND: Just like the City of Camas, the Camas and Washougal School districts are required to update their capital facility plans periodically. Cities and Counties in turn need to adopt those changes as per RCW36.70A.106.

SUMMARY: The Camas and Washougal School districts are both required to update their adopted capital facility plans. When doing so they must coordinate with all jurisdictions to modify their respective comprehensive plans to comply with state law. The Camas School district has provided a summary and updated capital facility plan that was adopted by the School Board where there is a suggested change to the impact fee amount for residential development within the City of Camas boundaries. The current impact fee collected for each single family dwelling unit and for each dwelling unit in multi-family type development is \$5,371. The new impact fee is \$6,650. The Washougal School district saw enough decline in enrollment that they will not be collecting impact fees. A public hearing was held on this matter with the Planning Commission on Wednesday, October 19th whereby the PC recommended approval to the Camas City Council. The City Council held a public hearing on this matter on November 7th, 2022 and directed the City Attorney to prepare an adoptive ordinance which is contained in this packet along with the Washougal School District capital facility plan.

BUDGET IMPACT: This is not a direct impact to the City's budget. The City of Camas collects the impact fees and transfers the funds to the school districts respectively.

RECOMMENDATION: Staff recommends that council adopt Ordinance 22-019.

ORDINANCE NO. 22-019

AN ORDINANCE approving and adopting by reference the text of that certain document entitled Washougal School District Capital Facilities Plan 2022-2027.

WHEREAS, the Washougal School District has submitted an amended capital facilities plan entitled "Washougal School District Capital Facilities Plan 2022-2027" to the City for its review and approval, and

WHEREAS, the Council has considered said capital facilities plan and has conducted a public hearing, and desires to adopt the same as the capital facilities plan for the Washougal School District,

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF CAMAS AS FOLLOWS:

Section I

The Council hereby approves and adopts by reference a volume of text entitled "Washougal School District Capital Facilities Plan 2022-2027" as the amended capital facilities plan of the school district.

Section II

A copy of the Washougal School District Capital Facilities Plan 2022-2027 shall be maintained in the council file on these proceedings, and copies of said Capital Facilities Plan shall be made available for public inspection at the Public Works Department.

Ordinance No. 22-019 Page - 2

Section III

This ordinance shall take force and be in effect five (5) days from and after its publication according to law.

PASSED by the Council and APPROVED by the Mayor this 21st day of November, 2022.

	SIGNED:	Mayor	
APPROVED as to form:	ATTEST:	Clerk	
City Attorney	_		

WASHOUGAL SCHOOL DISTRICT

4855 EVERGREEN WAY WASHOUGAL. WA 98671

PH: 360.954.3000 FAX: 360.835.7776

WASHOUGAL SCHOOL DISTRICT CAPITAL FACILITIES PLAN

2022-2027

BOARD OF DIRECTORS

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SUPERINTENDENT

Dr. Mary Templeton

DIRECTOR OF BUSINESS AND OPERATIONS

Kris Grindy

Adopted by the Washougal School District Board of Directors

May 24, 2022

I. INTRODUCTION

A. Purpose of the Capital Facilities Plan

The Washington State Growth Management Act (the "GMA") includes public school facilities and services that must be provided as cities and counties plan for growth. School districts have adopted capital facilities plans to satisfy the requirements of the GMA and to identify additional school facilities necessary to meet the educational needs of the growing student populations anticipated in their districts.

The Washougal School District (the 'District") has prepared this Capital Facilities Plan (the "CFP") to provide Clark County (the "County") and the cities of Camas and Washougal (the "Cities") with the District's anticipated capital facility needs and the District's schedule and financing plan for those improvements over the next six years (2022-2027).

In accordance with the Growth Management Act and the County and City Impact Fee Ordinances, this CFP contains the following required elements:

- The District's standard of service, which is based on program year, class size by grade span, number of classrooms, types of facilities, and other factors identified by the District, including teacher contracts and funding requirements,
- An inventory of existing capital facilities owned by the District, showing the locations and capacities of the facilities, based on the District's standard of service.
- Future enrollment forecasts for each grade span (elementary, middle, and high schools).
- A forecast of the future needs for capital facilities and school sites based on the District's enrollment projections
- The proposed capacities of expanded or new capital facilities over the next six years based on the inventory of existing facilities and the standard of service.
- A six-year plan for financing capital facilities within projected funding capacities,
 which clearly identifies sources of public money for such purposes. The financing

plan separates projects and portions of projects that add capacity from those that do not, since the latter are generally not appropriate for impact fee funding.

B. Overview of the Washougal School District

The Washougal School District is located in southwest Washington and serves residents of Washougal, Camas and unincorporated Clark County, as well as residents in the Columbia River Gorge who live in the Cape Horn area of Skamania County. The District map reveals a long, narrow band of land that extends from the Columbia River on the south all the way north to the White Pass School District in Lewis County. This geographical configuration gives Washougal the unusual feature of being incorporated into two counties (Clark and Skamania) and bordering two other counties to the north and west (Cowlitz and Lewis). The District is bordered on the west by seven school districts—Camas, Hockinson, Battle Ground, Woodland, Kalama, Kelso, and Toutle Lake School Districts. It is bordered on the east by the Skamania School District. The northern end of the District includes the uninhabited wilderness around Mt. St. Helens in the Gifford Pinchot National Forest. One of the District's schools, Jemtegaard Middle School, is located within the national boundary of the Columbia River Gorge Scenic Area.

As of March 2022, the District serves a population of 2,903 students. Of the 2,903 students, 1,193 students attend classes in 4 elementary schools (grades K-5), 739 students attend classes in two middle schools (grades 6-8), and 971 students attend classes in one high school and one virtual alternative school (grades K-8). For purposes of facility planning this CFP considers grades K-5 as elementary, grades 6-8 as middle school, and grades 9-12 as high school.

In April 2022, the District re-evaluated enrollment forecasts and student generation rates based on recognized methodologies including trends in land development, housing starts, and residential construction and that data is reflected in this plan.

The most significant issues facing the District in terms of providing classroom capacity and maintaining support facilities to accommodate existing and projected demands are:

 The District will complete the OSPI Study and Survey in 2022-2023 and present results and preliminary understandings that can be drawn upon in the future.

- The District owns property known as the Kerr property, which is suitable for a new elementary and a new middle school. The Kerr property was paid off in 2013.
 Purchase of additional land for future school facility sites is currently being studied.
- The District Administrative Services Center has no additional office space available.
- District growth has been experienced moderate residential growth at a significantly lower pace than during the mid-2000s.

In summary, the District recognizes that quality schools are essential to a positive, growing community. People gravitate to communities with great schools, and businesses thrive in communities where there is pride and accomplishment associated with educational opportunity. Washougal School District is engaged in long-range educational, fiscal and operational planning that will benefit the students, families and community members it serves.

II. DISTRICT EDUCATIONAL PROGRAMS AND STANDARDS OF SERVICE

To provide quality education, the District must have quality facilities. Facilities provide the physical structure necessary for achieving educational goals established by the Board of Directors.

School facility needs are dictated not only by student enrollment, but also by the space required to accommodate the District's adopted educational program. Beyond regular education, the District also provides specialized programs with unique facility needs such as special education, dual language programs, and technology education, transitional kindergarten, early learning programs and after school programs.

The District's program and educational standards for 2022 are summarized below. The program and educational standards may vary during the six-year CFP window. Absent significant changes in factors that are beyond the District's control, the District will provide the following programs and standards of service in 2022, 2023, 2024, 2025, 2026, and 2027. If significant changes occur that require new facilities or improvements, beyond what is identified in this CFP, the District will prepare and submit an updated CFP to the County and Cities.

A. District-wide Educational Programs

The District's core services and program offerings include the following:

- Elementary schools provide education in all core subject areas including reading, writing, math, social studies and science. In addition, students participate in P.E., music, art and library programs.
- Middle schools provide instruction in the core disciplines of English, mathematics, social studies, science, P.E., music, and art. Students have elective offerings available including robotics, music and art. An extracurricular sports program is offered after school to students in 7th and 8th grades.
- High schools provide course work including English, history, science, mathematics,
 P.E., music, and art. Additional offerings include career and technical education
 programs, career counseling, access to Running Start at Clark College, and Advanced
 Placement courses. An extracurricular program includes clubs, athletics, arts, etc.
- The District provides science classroom space supporting advanced coursework at
 the secondary level that require water, sinks, gas, hoods, safety equipment, etc.
 Schools are working to meet expanded science standards and this will require spaces
 that cannot typically be met by adding portables.
- The District will need to upgrade elementary, middle school, and high school spaces supporting health, fitness, fine arts and extracurricular activities. This includes replacing the turf and gym floor at the high school.
- Technology access is necessary and expectations are increasing. Technology (either within the classroom or in dedicated labs) takes extra space that is not calculated in current state square footage allowances, but is necessary for student learning.
 Technology support and infrastructure needs are also increasing including the installation of fiber optic cable to Jemtegaard and Canyon Creek Middle School as well as Cape Horn Elementary.
- Beginning in the fall of 2022, the District changed to add Transitional Kindergarten program. This change has required two additional classroom spaces at Hathaway elementary school.

- Library/Media demands are crucial. In an information driven environment, access to knowledge through appropriately sized library/media spaces is essential.
- Extra-curricular activities need space in order to be supported properly with growing student populations.
- Supplementary services in core academic areas and multiple pathways that prepare students for a broader range of post-secondary learning opportunities require additional space and spaces that are modernized to reflect industry standards to replicate the real life working environments for our students to gain quality learning experiences in these post-secondary fields.

In addition to the above core educational programs, the following support services are essential to the District's educational program:

- Given current enrollment, the core facilities are sufficient at all schools except
 Hathaway Elementary School where the addition of three portable modular
 classrooms is beyond the capacity.
- Maintenance and warehouse support facilities are a necessary component in the District operations.

The following special services are also required to meet the needs of special populations:

- Special Education programs are provided at all schools within the District. Special needs program standards change year to year as a result of various state and Federal regulation adjustments. Changes may also be prompted by research-based modifications to programs, class sizes, and the changes in the population of students eligible for services. Modifications in school facilities are sometimes needed to meet the unique needs of individual students or cluster small groups of students with similar needs.
- Federal and state programs, including Title 1 Reading and Math, Highly Capable, and Bilingual are required programs with limited funds that do not cover the expense of adding facilities as needed to support the programs.

The District's early learning program is housed in five classrooms across the District,
 one or two classrooms at each elementary school.

B. Elementary Educational Standards

The following District educational standards of service affect elementary school capacity:

- Class sizes for grades K-3 are targeted not to exceed 24 students per class.
- Class sizes for grades 4 and 5 are targeted not to exceed 26 students per class.
- Music instruction will be provided but in separate (pull-out) classrooms. Physical education is provided in a separate area.
- All elementary schools have a library/media resource center.
- A standard for technology is being developed for elementary classrooms.
- Special education, Title I and LAP (Learning Assistance Program) instruction is
 provided for some students in classrooms that are separate from regular teaching
 stations. Class sizes in these programs tend to be small, usually not more than
 15 students.

C. Middle and High School Program Standards

The following District educational standards of service affect middle and high school capacity:

- Class sizes for grades 6-8 are targeted not to exceed 28 students per class.
- Class sizes for grades 9-12 are targeted not to exceed 29 students per class.
- Music, art, PE, drama, and career and technical education classes are provided in separate instructional space.
- Counseling and career center programs are provided in separate spaces.
- A standard for technology is being developed for secondary classrooms. Technology labs and distance learning labs are provided in separate spaces.
- Each middle and high school has a separate library/media resource center.

III. CAPITAL FACILITIES INVENTORY

The facilities inventory serves to establish a baseline for determining the facilities that will be necessary to accommodate future demand (student enrollment) at acceptable levels of service. This section provides an inventory of capital facilities owned and operated by the District including schools, portables, and support facilities.

A. Schools

The District maintains four (4) elementary schools, two (2) middle schools, one (1) high school, and one (1) alternative school. The elementary schools serve grades K-5, middle schools serve grades 6-8, and the high school serves grades 9-12. Presently the alternative school serves grades K-8 virtually.

Table 1 shows the name, number of teaching stations and student capacity for the elementary schools based on the District's standard of service described above.

Table 1: Elementary School Inventory 2021/22

	Total Bldg.	Teaching	Student	2021/22 Enrollment
Four (4) Elementary Schools	Sq. Ft.	Stations	Capacity	
Gause Elem. 1100 34th Street, Washougal, Washington 98671	56,196	25	625	275
Hathaway Elem. 630 24th Street, Washougal, Washington 98671	48,901	23	575	266
Cape-Horn Skye 9731 Washougal River Road, Washougal, WA 98671	43,838	21	525	286
Columbia River Gorge 35300 SE Evergreen Hwy, Washougal, WA 98671	63,883	28	700	330
Total	212,818	97	2,425	1,157

Table 2 shows the name, number of teaching stations and student capacity of the two (2) middle schools based on the District standard of service described above.

Table 2: Middle School Inventory 2021/22

	Total Bldg.	Teaching	Student	2021/22
Two (2) Middle Schools	Sq. Ft.	Stations	Capacity	Enrollment
Canyon Creek MS 9731 Washougal River Road, Washougal, Washington 98671	46,609	15	420	231
Jemtegaard MS 35300 SE Evergreen Hwy, Washougal, WA 98671	58,483	22	616	464
Total	105,092	37	1,036	695

Table 3 shows the name and number of teaching stations and student capacity of each high school based on the District standard of service described above.

Table 3: High School Inventory 2021/22

	Total Bldg.	Teaching	Student	2021/22
High Schools	Sq. Ft.	Stations	Capacity	Enrollment
Washougal HS 1201 39th Street, Washougal, Washington 98671	150,471	42	1,218	974
Excelsior 1201 39th Street, Washougal, Washington 98671	8,996	4	116	Included in above number
Total	159,467	46	1,334	974

Student capacity was determined based on the number of teaching stations within each building and the space requirements of the District's current educational programs and standards of service. Student capacity as noted in Tables 1, 2, and 3 does not include capacity that is currently provided in portables at each school.

B. Portables

Portable classrooms are used on an interim basis to house students until funding can be secured to construct permanent classrooms. To accommodate future growth on a short term and immediate basis, the Washougal School District may purchase and utilize portable classrooms.

The District currently uses a total of 7 dual classroom portables. Of the 7 dual classroom portables (14 teaching stations), 12 teaching stations are used for basic education and early learning instructional classrooms. Table 4 identifies the total number of portables at elementary school sites distinguishing between the number that are used to provide interim capacity (as teaching stations) and those are used for special programs or to address other educational needs.

Table 4: Portables Inventory

	Number of Portables	Number of	Number of Students
	Number of	Classrooms Used as	Housed in Portable
Facility Type	Classrooms	Teaching Stations	Classrooms
Elementary Schools	7 Portables	12 teaching stations	336
	14 Classrooms		
TOTAL	7/14	12	336

C. Support Facilities

In addition to schools, the District owns and operates additional facilities that provide special programs and operational support functions to the schools. An inventory of these facilities is provided in Table 5.

Table 5: Support Facility Inventory

Facility	Location
Early Learning and Community	630 24th Street, Washougal, WA 98671
Education Center	
Administrative Service Center	4855 Evergreen Way, Washougal, WA 98671
Maintenance Facility/ Warehouse	4855 Evergreen Way, Washougal, WA 98671
Fishback Stadium	1201 391 Street, Washougal, WA 98671
Transportation Facility	995 E Street, Washougal, WA 98671
WLA Alternative Learning Center	9731 Washougal River Rd., Washougal, WA 98671

IV. STUDENT ENROLLMENT PROJECTIONS

A. Existing Enrollment

The District's enrollment by grade level in March 2022 was 2,903 students. Of the 2,903 students, 1,193 were enrolled in elementary schools, 739 were enrolled in middle schools and 971 were enrolled in high schools.

B. Projected Student Enrollment 2022-2027

The District's six-year enrollment projections are based on a report from OSPI Report 1049. The following table shows existing enrollment and the District's six-year enrollment forecast by grade level bands. As reflected in Table 6a, the District is forecasting an decrease of 11 elementary students, 156 middle school students and 172 high school students.

The District's six-year enrollment projections are also based on a report from Johnson Economics Demographer Report as a baseline. The following table shows existing enrollment and the District's six-year enrollment forecast by grade level bands. As reflected in Table 6b, the District is forecasting as a baseline of an increase of 151 elementary students, decrease 77 middle school students and decrease of 139 high school students.

Table 6a: ICOS Enrollment Forecast

Grade	2021	2022	2023	2024	2025	2026	2027
Total K-5	1,200	1,193	1,187	1,188	1,184	1,211	1,189
K 3							
Total	741	690	635	602	597	562	585
6-8							
Total	989	1,001	991	963	928	876	817
9-12							
TOTALS	2,930	2,884	2,813	2,753	2,709	2,649	2,591

Table 6b: Demographer Enrollment Forecast Baseline

Grade	2021	2022	2023	2024	2025	2026	2027
Total	1,198	1,269	1,290	1,308	1,319	1,344	1,349
K-5							
Total	739	701	664	641	649	635	662
6-8							
Total	1,038	1,097	1,095	1,054	993	947	899
9-12							
TOTALS	2,975	3,067	3,049	3,003	2,961	2,926	2,910
	·						

Table 8: Planned Improvement and Facility Costs to Address Needs

Project Description	Cost Estimate	Added Capacity	Cost for Added Capacity
Portables (3)	\$1,200,000	312 [2 & 3]	\$1,200,000
Future School Site (4)	\$1,000,000	TBD [1]	\$1,000,000
Maintenance Facility/Warehouse	\$1,400,000	In response to growth	\$1,400,000
Technology Infrastructure	\$1,000,000	In response to growth	\$1,000,000
TOTAL	\$4,600,000		\$4,600,000

- 1. Cost for future school site represents a portion of the total cost of the project and would include State SCAP and local dollars within the financing package.
- Portables provide a temporary interim capacity and not treated as permanent facilities
 that add capacity. Additional capacity will be determined when the type of school and
 capacity needs for that school are determined.
- 3. To accommodate growth on a short term and immediate basis, the District may purchase and utilize portable classrooms and this plan incorporates those facilities and the equipment and furniture necessary to equip these classrooms in the District's project list. Impact fee revenue can be available to fund portable facilities if these facilities are needed to serve growth.
- 4. District has an option on Tax Parcel 986039-602 (31 acres), which must be included in the Washougal Urban Growth Area to be developed. If not included, the District will explore other sites.

V. CAPITAL FACILITIES FINANCE PLAN

A. Six-Year Finance Plan for Planned Facility Improvements

The total cost for the above planned and needed improvements is \$4,600,000. Funds for the improvements are identified in Table 9A and 9B below.

Table 9A: Secured Finance Plan

Туре	Amount
Impact Fees (as of 8/31/21)	\$3,040,654
Unreserved Capital Projects Funds	\$0
Total Secured	\$3,040,654

Table 9B: Unsecured Finance Plan

Туре	Amount
Impact Fees (1)	\$1,059,346
Capital Projects Funds (bonds and state match)	\$500,000
Total Unsecured	\$1,559,346

(1) From projects in the pipeline.

B. Financing Sources

The cost for all the planned improvements will be paid for with school impact fees that have been collected for these facilities contained in the District's prior plan, and other available public funds.

The Growth Management Act (GMA) authorizes local jurisdictions to collect impact fees to supplement funding of additional public facilities needed to accommodate new development. Local jurisdictions in Clark County have adopted impact fee programs that require school districts to prepare and adopt Capital Facilities Plan. Impact fees reflected within this Capital Facilities Plan do not include expenditures for new permanent facilities needed for growth (facilities needed for growth from the prior plan are carried forward). Therefore, the District will not be collecting additional impact fees once this plan is adopted until the plan is updated and additional facilities are identified to serve growth.

ORDINANCE NO. 22-019

AN ORDINANCE approving and adopting by reference the text of that certain document entitled Washougal School District Capital Facilities Plan 2022-2027.

WHEREAS, the Washougal School District has submitted an amended capital facilities plan entitled "Washougal School District Capital Facilities Plan 2022-2027" to the City for its review and approval, and

WHEREAS, the Council has considered said capital facilities plan and has conducted a public hearing, and desires to adopt the same as the capital facilities plan for the Washougal School District,

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF CAMAS AS FOLLOWS:

Section I

The Council hereby approves and adopts by reference a volume of text entitled "Washougal School District Capital Facilities Plan 2022-2027" as the amended capital facilities plan of the school district.

Section II

A copy of the Washougal School District Capital Facilities Plan 2022-2027 shall be maintained in the council file on these proceedings, and copies of said Capital Facilities Plan shall be made available for public inspection at the Public Works Department.

Ordinance No. 22-019

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Section III

This ordinance shall take force and be in effect five (5) days from and after its publication according to law.

PASSED by the Council and APPROVED by the Mayor this 21st day of November, 2022.

SIGNED:

Mayo

ATTEST

Clerk

APPROVED as to form:

City Attorney

ORDINANCE NO. 22-027

AN ORDINANCE levying the ad valorem taxes for obligations of the General Fund for fiscal year ending December 31, 2023.

WHEREAS, the Council of the City of Camas has met and considered its budget for the calendar year 2023, and

WHEREAS, the Council of the City of Camas after hearing and after duly considering all relevant evidence and testimony presented, determined that the City of Camas requires a regular levy in the amount of \$14,309,655 which is equal to the property tax revenue from the previous year, and excludes amounts resulting from the addition of new construction and improvements to property and any increase in the value of state-assessed property, and amounts authorized by law as a result of any annexations that have occurred and refunds made, in order to discharge the expected expenses and obligations of the City and in its best interest;

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF CAMAS as follows:

SECTION I

The dollar amount of the increase over the actual levy amount from the previous year shall be \$0 which is a percentage increase of 0.0% from the previous year. This is exclusive of additional revenue resulting from the addition of new construction and improvements to property and any increase in the value of state assessed property, and any additional amounts resulting from any annexation that have occurred and refunds made.

SECTION II

A CERTIFIED BUDGET request or estimate shall be filed with the County Assessor's

Ordinance No. 22-027

Office, separate from this ordinance. As required by RCW 84.52.020, that filing certifies the total amount to be levied by the regular property tax levy. The form for this purpose is titled "Levy Certification" and is available through the Assessor's Office. Certification is made in a manner prescribed by the County Assessor's Office.

SECTION III

This Ordinance shall take force and be in effect five days from and after its publication according to law.

PASSED by the council and APPROVED by the Mayor this 21st day of November, 2022.

	SIGNED:		
		Mayor	
	ATTEST:		
		Clerk	
APPROVED as to form:			
	_		
City Attorney			