City Council Workshop Agenda
Monday, November 02, 2020, 4:30 PM
REMOTE MEETING PARTICIPATION

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 to enable the City to make reasonable accommodations to ensure accessibility (28 CFR 35.102-35.104 ADA Title 1.).

Participate in this virtual Council Meeting with the online ZOOM application and/or by phone.

OPTION 1 -- Join the virtual meeting from any device:

1. First-time ZOOM users, go to www.zoom.us
   - To download the free ZOOM Cloud Meetings app for your device
   - Or, click the Join Meeting link in the top right corner and paste - 988 8675 2137
2. From any device click the meeting link https://zoom.us/j/98886752137
3. Enter your email and name, and then join webinar.
4. Wait for host to start the meeting.

OPTION 2 -- Join the virtual meeting from your phone (audio only):

1. Dial 877-853-5257
2. When prompted, enter meeting ID 988 8675 2137 #, and then ##

During Public Comment periods:

1. Attendees may click the ***raise hand icon*** in the app and you will be called upon to comment for up to 3 minutes.
   - If listening by phone, hit *9 to "raise your hand" and you will be called upon to comment for up to 3 minutes.
2. Residents can send public comments to publiccomments@cityofcamas.us (400 word limit). These *will be entered into the meeting record. Emails received by one hour before the start of the meeting will be emailed to the Council prior to the meeting start time. During the meeting, the clerk will read aloud the submitter's name, the subject, and the date/time it was received. Emails will be accepted until 1 hour received after the meeting and will be emailed to the Council no later than the end of the next business day.*

CALL TO ORDER

ROLL CALL

PUBLIC COMMENTS

WORKSHOP TOPICS

1. Downtown Camas Association Presentation

   Presenter: Carrie Schulstad, Executive Director

2. Camas Washougal Fire Department Interlocal Agreement Amendment (ILA) Extension
   Presenter: Nick Swinhart, Fire Chief

3. City Website Update
   Presenter: Sherry Coulter, Information Technology Director

4. Importance of Lacamas Watershed Draft Resolution
   Presenter: Steve Wall, Public Works Director

5. Public Works Miscellaneous and Updates
   This is a placeholder for miscellaneous or emergent items.
   Presenter: Steve Wall, Public Works Director

6. Mayor's Recommended 2021-2022 Capital Budget Presentation
   Presenter: Cathy Huber Nickerson, Finance Director

7. 2021 Fee Schedule Presentation
   Presenter: Cathy Huber Nickerson, Finance Director

8. City of Camas Third Quarter Financial Performance Presentation
   Presenter: Cathy Huber Nickerson, Finance Director

9. Community Development Miscellaneous and Updates
   This is a placeholder for miscellaneous or emergent items.
   Presenter: Phil Bourquin, Community Development Director

10. City Administrator Miscellaneous and Updates
    This is a placeholder for miscellaneous or emergent items.
    Presenter: Jamal Fox, City Administrator

COUNCIL COMMENTS AND REPORTS

PUBLIC COMMENTS

ADJOURNMENT

Downtown Camas Association Report to Council

November 2, 2020

DCA Impacts in 2020

- **Quick response**
- **Safety Guidelines**
- **Funding opportunities**
- **Educational Resources**
- **Advocacy**
- **Thank you for Support Local and Save!**

Resources, Partnerships and Advocacy

Promotion, Branding and Marketing

?
THE SECRET MENU
DOWNTOWN CAMAS
September 15th - 30th

2020 Events

- **Business Retention**
- **New Businesses**
- **Thank you for outdoor dining & curbside pick up coordination**

Business Attraction & Retention

- **Historic Mill Photo Collage**
- **Way finding Signs**
- **Flower Baskets (thank you for watering!!)**
- **Street Emblems**
- **Clean Up Days**
- **Roofline Lighting**

Streetscape and Public Realm Improvements

Requests:

- Suggested downtown infrastructure studies in the Downtown Infrastructure Analysis
- Downtown sub area plan or master plan
- Downtown aggregate sidewalk repair in the interim (#1 priority and safety risk in the DIA)

downtown Camas association

Thank you for your partnership in making Downtown Camas the thriving heart of our community.

Main Street's Impact in Washington State

2011-2019

Prepared by Jon Stover & Associates
June 2020

Washington Main Street Communities

1. Downtown Aberdeen Association
2. Bainbridge Island Downtown Association
3. Downtown Bellingham Partnership
4. Downtown Camas Association
5. Centralia Downtown Association
6. Chehalis Community Renaissance Team
7. Historic Downtown Chelan Association
8. Cle Elum Downtown Association
9. Colfax Downtown Association
10. Colville Together
11. Coupeville Historic Waterfront Association
12. Dayton Development Task Force
13. Ellensburg Downtown Association
14. Gig Harbor Downtown Waterfront Alliance
15. Downtown Issaquah Association
16. Historic Downtown Kennewick Partnership
17. Kent Downtown Partnership
18. Langley Main Street Association
19. Downtown Moses Lake Association
20. Mount Vernon Downtown Association
21. Oak Harbor Main Street Association
22. Olympia Downtown Alliance
23. Downtown Pasco Development Authority
24. Port Townsend Main Street Program
25. Historic Downtown Prosser Association
26. Puyallup Main Street Association
27. Ridgefield Main Street
28. Roslyn Downtown Association
29. Selah Downtown Association
30. Stevenson Downtown Association
31. Vancouver Downtown Association
32. Downtown Walla Walla Foundation
33. Wenatchee Downtown Association
34. Downtown Association of Yakima

The analysis included in this report reflects the cumulative impact of the above Main Street Communities. The analysis includes Main Street Communities that are no longer active programs but were active between 2011 and 2019 during the period of this analysis.

Image: Downtown Association of Yakima

Front Cover Images: Ellensburg Downtown Association and Coupeville Historic Waterfront Association (Otto Gruele), Downto Association of Yakima, Centralia Downtown Association (TZ True), Kent Downtown Partnership (WTHP). Back Cover Imag Downtown Association of Yakima, Port Townsend Main Street Program and Roslyn Downtown Association (Otto Gruele)

Contents

Executive Summary

"We are cheerleaders for local small businesses, defenders of our historic downtown, promoters of local culture, and ringleaders of those who will help us!"

- Linda Haglund, Wenatchee Downtown Association

Washington's Main Street Communities transform their neighborhoods, celebrate historic character, and revitalize local economies. The purpose of this report is to quantify the positive return on investment Main Streets provide their public, private, and nonprofit partners and tell a complete story about the vital role they play in their communities.

This report summarizes the range of programming and responsibilities assigned to these local Main Street organizations, describes their most common activities, and assesses the impacts these functions have on their local economy, residential community, and the State of Washington. The study analyzes the impacts of eight different Main Street initiatives between 2011 and 2019.

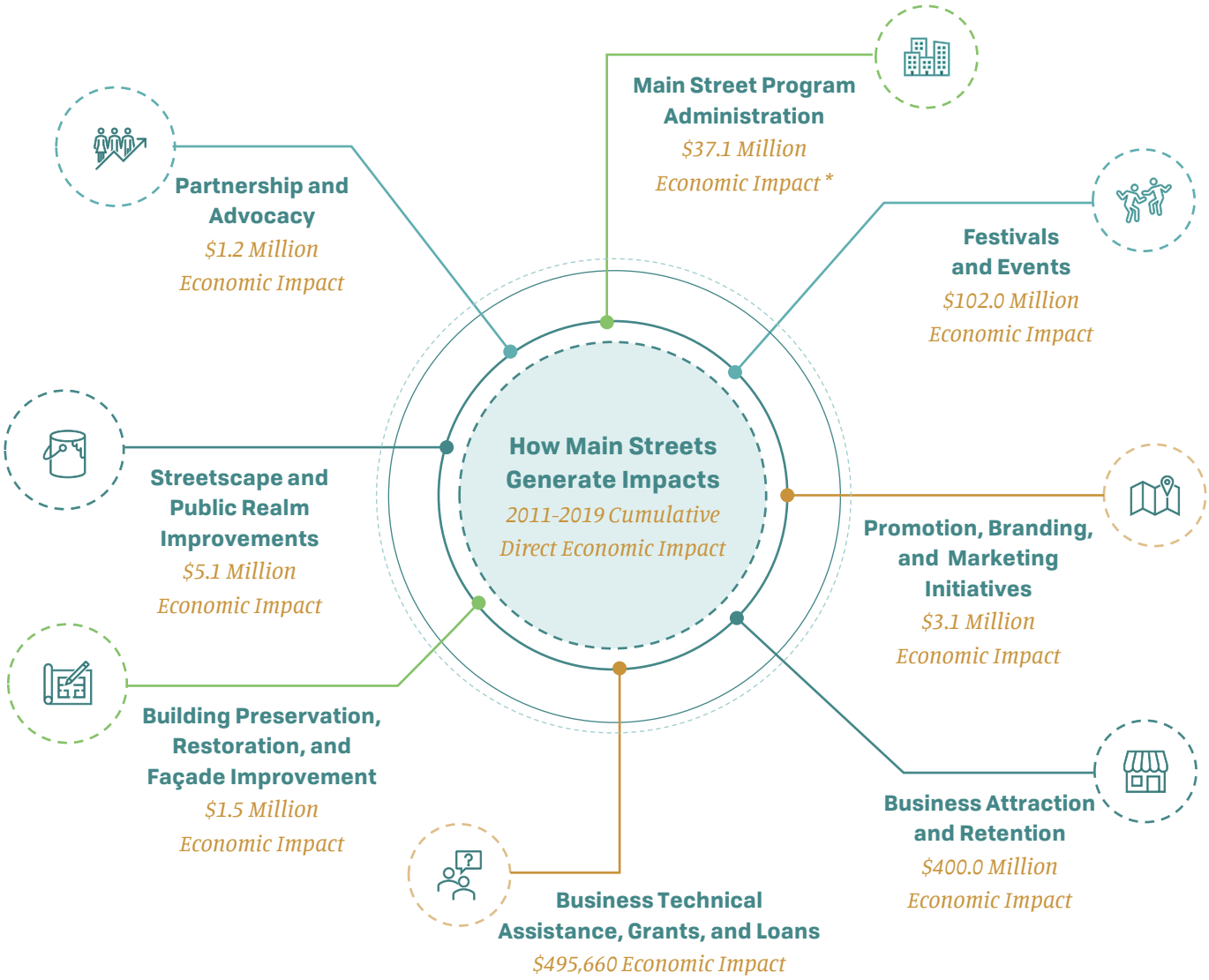
The study finds that Main Street Communities undertake a variety of functions that would be difficult for a city agency, a group of businesses or community representatives to conduct without the presence of a local Main Street program. Main Street programming has a significant positive impact on local communities. The organizations generate more visitors and sales revenue for downtown businesses ("economic impact"), creating more jobs and retaining a healthy economic climate. This business activity generates additional State tax revenue ("fiscal impact"), helping fund programs that serve residents across the State. And importantly, by helping to oversee a vibrant downtown, Main Streets help instill a sense of community and create an environment in which people want to work, visit, and live.

Main Streets foster strong local economies in a variety of essential ways.

Since 2011, the Washington State Main Street Program helped generate $550.3 million in sales for Main Street businesses, supporting 6,405 jobs at such businesses. When accounting for business-to-business transactions and employee spending, **Main Streets bring 8,537 jobs, $397.7 million in salaries, and $821.7 million in sales to the State.**

Beyond the numbers, Main Streets create a sense of community and vibrant, healthy, interconnected neighborhoods.

Image: Downtown Camas Association



Main Street Return on Investment

$10.56 Million

Present Value of WSMSP's Net State Fiscal Impact From 2011 – 2019

58%

Return on Investment for State Expenditure on WSMSP from 2011 – 2019

The Washington State Main Street Program created a positive return on investment for the State of Washington. For every dollar the State allocated to the program, the economic activity generated in Main Street Communities generated $1.58 back to the State in tax revenues. Between 2011 and 2019, Washington State allocated $18.3 million (2019 dollars) to the program and received $28.9 million (2019 dollars) in tax revenues from enhanced Main Street business activity.

** Note: Main Street Program Administration includes staff salaries, administrative expenses, and operating budget excluding figures calculated in other categories. Since this category does not refer to a specific programmatic activity, it does not receive the same detail in this report as Main Street's core programmatic functions. Administrative costs have an economic impact which is accounted for in the economic and fiscal impact assessment. Alternatively while community engagement and volunteering activity, described in detail in this report, are important Main Street outputs, no money is exchanged volunteering and as a result this study does not attribute an economic impact nor fiscal impact to community engagement and volunteering.*

About This Report

Main Street's Impact in Washington State

Purpose of This Report

Washington's Main Streets are charged with the tall order of helping to transform communities, celebrate historic character, and revitalize local economies. This report summarizes the range of responsibilities assigned to these local programs, describes their most common programmatic activities, and assesses the impacts these functions have on their local economy, their residential community, and the State of Washington at large. The purpose of this report is to quantify the positive return on investment Main Streets provide their public, private, and nonprofit partners and tell a complete story about the vital role they play in their communities and the State at-large.

Study Participants

Washington Trust for Historic Preservation (WTHP) is dedicated to saving the places that matter in Washington State and promoting sustainable and economically viable communities through historic preservation. WTHP facilitates state-funded programs, such as WSMSP, in conjunction with the **Department of Archaeology & Historic Preservation (DAHP)**, Washington State's primary agency with knowledge and expertise in historic preservation. DAHP advocates for the preservation of Washington's irreplaceable historic and cultural resources - significant buildings, structures, sites, objects, and districts - as assets for the future.

Washington State Main Street Program (WSMSP) helps communities revitalize the economy, appearance, and image of their historic downtown districts by leveraging each community's unique heritage and attributes. WSMSP currently serves a network of 65 towns, including 34 Main Street Communities and 31 Affiliate programs. This report focuses on the 34 Communities that maintain robust nonprofit operations, report statistics to WSMSP, and participate in the Main Street Tax Credit Incentive Program.

Jon Stover & Associates (JS&A) is an Economic Development Consulting firm that bridges the gap between the different worlds of policy, business, real estate development, and community interest to help make neighborhoods great.

Methodology and Data Sources

Key data sources for this analysis include: Local Main Street Reinvestment Statistics, IMPLAN, ESRI Business Analyst, State budget and spending figures, detailed online Main Street community surveys, and program case study interviews.

Understanding the Findings in This Report

Main Streets administer an extensive range of programmatic activities in partnership with a large group of players, making it difficult to isolate the specific impact of any one initiative or even a Main Street Community overall. Many of Main Street's key objectives — such as 'preservation' or 'placemaking' — are built into Main Street ethic rather than standalone projects with measurable outcomes. Unsurprisingly, approaches towards measuring Main Street's impacts are nearly as varied as the types of impacts themselves.

JS&A designed the analysis methodology to articulate the impact of the Washington State Main Street Program clearly, understandably, and honestly. **This report summarizes what Main Streets actually do by describing the core functions of a Main Street and provides simple illustrations and explanations of how each of the activities (a) supports business activities, (b) generates State tax revenue, and (c) helps create a vibrant and inclusive community for workers, residents, and visitors.**

Image: Historic Downtown Chelan Association (Otto Gruele)

What is a Main Street?

Main Street Communities help commercial districts revitalize the economy, appearance, and perceived image of their downtown districts, leveraging the successfully proven Main Street Approach™. In Washington State, designated Main Street Communities are independent 501(c)3 or 501(c)6 nonprofit organizations dedicated to the revitalization of their downtown communities. These nonprofit organizations rally community support, build public and private partnerships and leverage their local community's unique assets, including heritage, entrepreneurship, and expertise.

"Over the last four decades, the Main Street movement has proven that downtowns are the heart of our communities, and that a community is only as strong as its core."

- Main Street America

The Main Street Four-Point Approach™

The Main Street Approach™ is a national comprehensive framework that allows local communities to take ownership of their futures through incremental changes in focus areas known as the Four Points. *Economic Vitality* emphasizes economic tools to support both new and existing businesses, catalyze property development, and foster an environment that drives local economies. *Design* focuses on community transformation via enhancing visual and physical assets. *Promotion* leverages the downtown core as the 'hub' of economic activity by emphasizing and showcasing each downtown's unique characteristics. The last point, *Organization*, prioritizes partnerships, community involvement, and resources to create a strong foundation that can sustain changes over time.

Main Street Communities structure their organizations around the Four-Point Approach™ allowing Main Street Communities to achieve a full breadth of impacts and programmatic initiatives for their downtown districts. Importantly, the real effects of Main Streets Communities result from the Four-Points combined rather than a siloed approach; as these Four-Points align and come together within a Main Street, transformational change occurs.

Learn more about Washington State Main Street Program at: www.preservewa.org/mainstreet
More information about Main Street America can be found at: www.mainstreet.org

About the Washington State Main Street Program

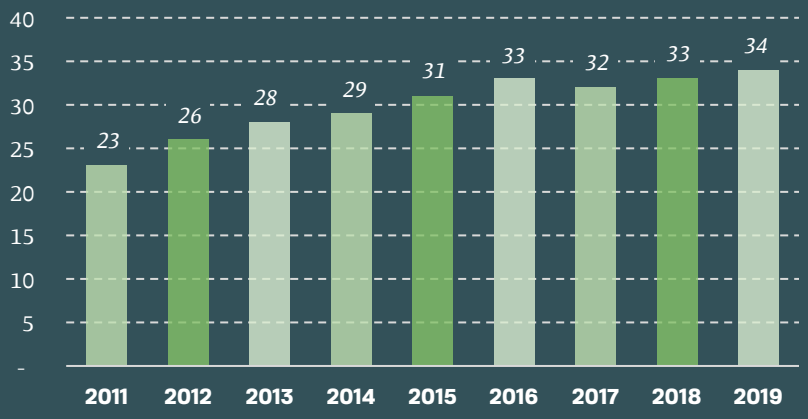
Since 1984, the Washington State Main Street Program has been helping communities revitalize the economy, appearance, and image of their downtown commercial districts. In 2010, the Main Street Program moved from the Department of Commerce to the Department of Archaeology & Historic Preservation. The Washington Trust for Historic Preservation manages the program.

Washington State Main Street Program (WSMSP) is one of 45 Main Street America™ Coordinating Programs, a national network of thousands of Main Streets, that serves as the leading voice for preservation-based economic development and community revitalization.

In Washington, Main Street Communities are nonprofit organizations that maintain adequate staffing and volunteer engagement necessary to implement the Main Street Approach™. They focus their energy on historic downtown commercial districts, bringing partners and resources together to preserve and build upon their community's unique assets. In addition to 34 Main Street Communities, WSMSP also serves over 30 Affiliate programs interested in revitalizing their downtowns and seeking assistance with getting started.

The proceeding analysis in this report features the impact of Washington's 34 Main Street Communities, which report quarterly Reinvestment Statistics to WSMSP and are eligible to participate in Washington State's Main Street Tax Credit Incentive Program.

Washington State Main Street Programs by the Numbers



The Washington State Main Street Program increased from 23 Main Street Communities in 2011 to 34 Communities by 2019. This rise in the total number of Main Streets in the State is largely attributed to the Main Street model's success and the need and desire for place management and placemaking support throughout the State.

Source: Washington State Main Street Program, Budget data by Main Street Programs

$235,574

2019 Average Main Street Community Operating Budget

Over the past ten years, Main Street program operating budgets have increased by 5.7% annually, generating more opportunities to implement initiatives and programs to create increased impacts.

In 2019, Main Street districts collectively represented:

6,850 Businesses

Main Streets on average include 185 businesses in their Main Street district.

65,260 Employees

On average, nearly 1,770 people are employed within a Main Street district.

$9.7 Billion of Revenue

Businesses in Main Street districts generate on average a collective $262 million in revenue.

1 in 4

Washington Residents Live Within 5 Miles of a Main Street

In 2019, over 1.9 million people lived within a five-mile radius of a Washington Main Street community.

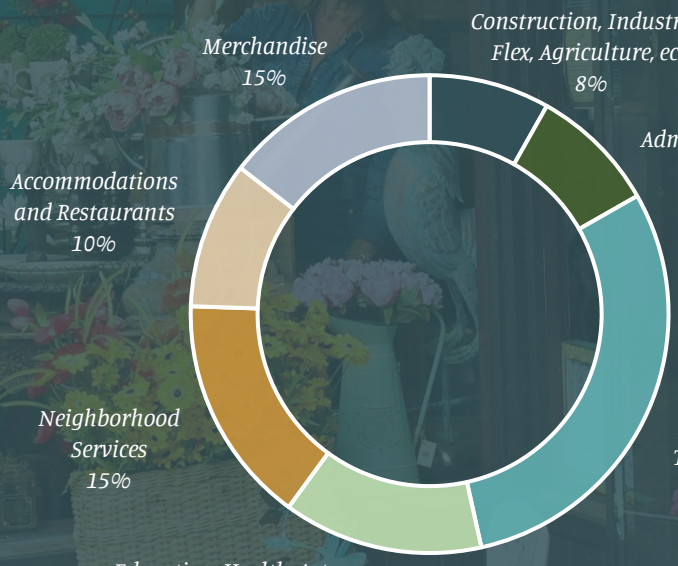
Employment within Main Street districts represent a wide range of industries:

29%	42%	19%	9%
Retail, Hospitality, & Service-Based	*Professional and Technical Services, Public Administration*	*Arts, Education, Health, & Entertainment*	*Construction, Industrial, & Agricultural*

Note: All figures above represent 2019 data. Source: ESRI Community Analyst, InfoGroup (2019)
Image (Below): Centralia Downtown Association (TZ True)

The business constituency of Main Street Communities includes a wide range of different types of businesses.

While Main Streets are often associated with retail, only 40% of businesses in Main Streets occupy traditional retail space. Another 39% of Main Street businesses in Washington occupy traditional office space.



Note: Business mix represented above based on the geographic boundaries of Main Streets' districts.
Source: ESRI Community Analyst, InfoGroup, 2019

Economic Impact of Washington's Main Streets

Main Street activities support local economies in a variety of essential ways. Since 2011, Main Street Communities across the State helped generate $550.3 million in sales for district businesses, supporting 6,405 jobs at those businesses. When accounting for business-to-business transactions and employee spending, the economic impact of Main Streets includes 8,537 jobs, $397.7 million in salaries, and $821.7 million in sales.

Direct Economic Impacts

Eight key programmatic initiatives of Main Street Communities, including overall program administration, generate direct economic impacts as articulated below and throughout this report. In 2019, the organizations helped create approximately $124.4 million in additional sales for local businesses in the downtown districts.

Main Street Initiatives and Programming	2019 Direct Economic Impact	2011-2019 Cumulative Direct Economic Impact
Main Street Program Administration	$6.1 Million	$37.1 Million
Festivals and Events	$13.7 Million	$102.0 Million
Promotion, Branding, and Marketing Initiatives	$514,000	$3.1 Million
Business Attraction and Retention	$102.6 Million	$400.0 Million*
Business Technical Assistance, Grants, and Loans	$85,000	$495,660
Building Preservation and Physical Improvements	$278,000	$1.5 Million
Streetscape and Public Realm Improvements	$842,000	$5.1 Million
Partnership and Advocacy	$190,000	$1.2 Million
Total Direct Economic Impact:	**$124.4 Million**	**$550.3 Million**

Note: Main Street Program Administration is the culmination of Main Street operating budgets after operating budget expenditure on the above initiatives and programming.

Methodology and Data Sources. This analysis leveraged an 'input-output' impact modeling software, IMPLAN, utilizing multipliers specific to the State of Washington to calculate the indirect and induced economic impacts and direct fiscal contribution. Impact estimates for specific programmatic activities are based on data provided by annual Reinvestment Statistics and from local program surveys. Annual impacts were assessed for 2011, 2015, and 2019, with interim years adjusted at proportional rates based on the number of active programs each year.

**Business attraction and retention impact exemplifies how interrelated these categories are. Revenues stemming from the high business growth rates found in Washington's Main Streets are not only attributable to specific business attraction efforts— they are as much a result of other Main Street programs as well. As such, the sales attributed to this line item could just as easily be distributed across the other programmatic activities.*

Cumulative Economic Impact *(2011 - 2019)*

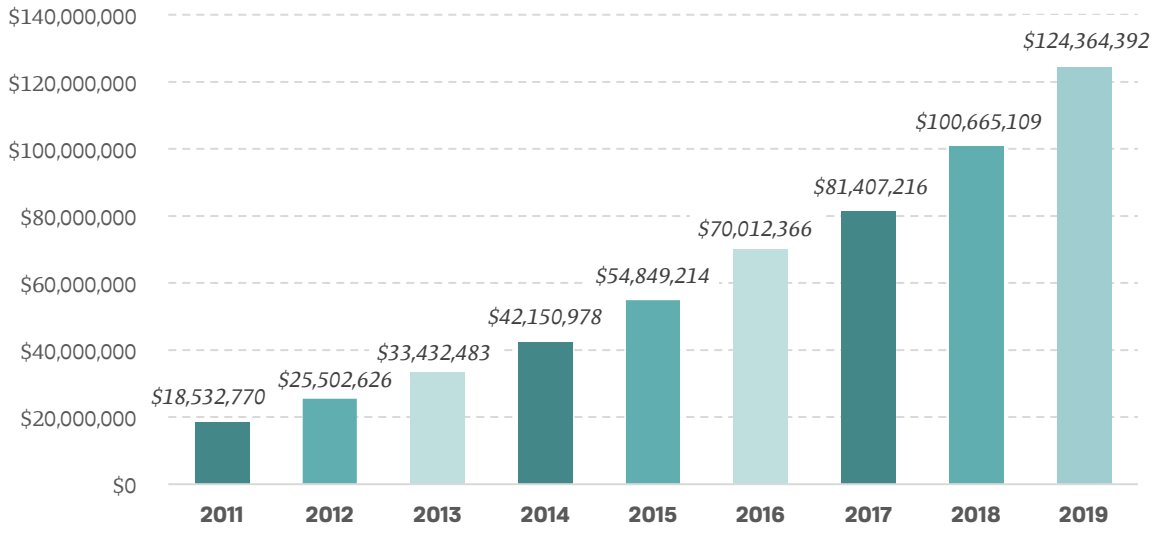
Direct economic impact reflects the impact on business operations of businesses in Main Street districts as a result of the increased customer spending generated by Main Street programming ($384 million in sales and 6,405 jobs). The business supply chain, or business-to-business purchases that led to a given product or service, are indirect economic impacts ($129 million in sales and 764 jobs— most of which likely occur outside of a Main Street district). When a worker whose job is supported by the direct economic impact spends their income, this household spending creates an induced economic impact supporting even more business activity and employment. When added together, Main Street activity helps generate $821.7 million in sales and 8,537 jobs.

Type of Impact	Employment	Labor Income	Total Revenue
Direct Impact *(Business Operations)*	6,405	$264,826,281	$471,265,423
Indirect Impact *(Supply Chain)*	764	$52,233,870	$155,659,594
Induced Impact *(Spending of Wages)*	1,368	$80,651,370	$194,729,608
Total Economic Impact:	**8,537**	**$397,711,521**	**$821,654,625**

Note: 'Direct Impact' in the table above is defined by IMPLAN as the immediate results of the direct spending, or industry change attributable to the economic activities Main Street Communities generate. The Direct Impact is adjusted with a retailer marginal coefficient deflator. All figures in the above chart are expressed in 2020 dollars.
Source: IMPLAN

Annual Direct Economic Impact of Washington State Main Street Program

The economic impact of Washington's Main Street Communities increased significantly since 2011 as the number of programs grew from 23 to 34 and is a result of the compounded impact of a Main Street's ability to retain, attract, and enhance business operations.



Note: Nominal figures, not adjusted for inflation.

Fiscal Impact of Washington's Main Streets

State Fiscal Impact

The direct economic activity Washington's Main Street Communities generate in their communities produced an average of $3.2 million in State tax revenues annually. Between 2011-2019, Main Street activity has contributed towards $28.9 million in cumulative State taxes. **The largest revenue source is sales tax, totaling $22.5 million more in downtown areas since 2011 than would be expected without a local Main Street program.**

State Tax Revenue Generated from Main Street Activity	2011-2019 Average Annual State Tax Revenue	2011-2019 Cumulative State Tax Revenue
Social Insurance Tax — Employee Contribution	$55,000	$494,000
Social Insurance Tax — Employer Contribution	$97,000	$870,000
Sales Tax	$2.5 Million	$22.5 Million
Property Tax	$289,000	$2.6 Million
Motor Vehicle License	$32,000	$284,000
Severance Tax	$7,000	$60,000
Other State Taxes*	$228,000	$2.1 Million
Total Fiscal Impact	**$3.2 Million**	**$28.9 Million**

**Other tax categories per IMPLAN category classification.*
Note: State Tax Impacts directly pulled from IMPLAN model. All figures in the above chart are expressed in 2019 dollars.
Source: IMPLAN

State Expenditure

The largest source of funding for Main Streets in Washington is the Main Street Tax Credit Incentive Program, which provides a 75% credit on State B&O or Public Utility Tax for private contributions made to designated Washington Main Street Communities. The State also provides annual funding for the WSMSP and a yearly State Main Street conference through DAHP's general budget.

Washington State Main Street Program Funding	2011-2019 Average Annual State Expenditure	2011-2019 Cumulative State Expenditure
Main Street Tax Credit Incentive Program	$1.8 Million	$16.5 Million
WSMSP General Funding	$170,000	$1.5 Million
Conference Funding	$32,000	$286,000
Total State Funding	**$2.0 Million**	**$18.3 Million**

Note: All figures in the above chart are expressed in 2019 dollars.
Source: IMPLAN

Return on Investment

The Washington State Main Street Program generated a positive return on investment for the State of Washington. For every dollar the State allocated to the program, the economic activity created in Main Street Communities generated $1.58 back to the State in tax revenues. Between 2011 and 2019, Washington State allocated $18.3 million (2019 dollars) to the program and received $28.9 million (2019 dollars) in tax revenues from enhanced Main Street business activity.

$10.56 Million

Present Value of WSMSP's Net State Fiscal Impact From 2011 – 2019

58%

Return on Investment for State Expenditure on WSMSP from 2011 – 2019

Images (Opposite Page)
MAK Daddy Coffee Roasters in Downtown Yakima (Downtown Association of Yakima) (Left)
Sip and Stroll Event (Downtown Association of Yakima) (Right)

Community Impact of Washington's Main Streets

Through a focus on placemaking, community engagement, safety, equity, and sustainability, Main Streets take the lead in creating places wherein people can thrive.

Many of the programs, initiatives, and grants administered by Main Streets directly impact their local economy. However, not everything a Main Street program does is quantifiable nor has an immediate impact on the bottom line of their local businesses. Quality-of-life programming and partnerships aim towards social cohesion, historic preservation, safety, and design. The outcomes of these programs are more qualitative in nature but are some of WSMSP's most significant and valuable work.

Image: Coupeville Historic Waterfront Association (Rick Law
(Opposite Page): Cle Elum Downtown Association (Pioneer Coffee), Kent Downtown Partnership (Pixel Parlor, WT

Types of Community Impact

Main Streets frequently play an active role in addressing the following types of community benefits.

Vibrancy
Main Streets bring a mix of people and activity to their downtowns that generates excitement and promotes social interaction.

Arts and Culture
Supporting arts and culture is a Main Street priority, including facilitating partnerships that fund, operate, and create awareness of local arts programs and events.

Historic Preservation
Historic preservation is a cornerstone of the Main Street Approach™, as programs help rehabilitate historic buildings, leverage historic tax credits, and work to preserve local cultural legacies.

Accessibility
Main Streets partner with local transportation agencies to maintain safe sidewalks, provide ample parking for their businesses, and enhance access for all visitors.

Amenities
Having nearby places to eat, shop, and reach service providers is vital for area residents and visitors.

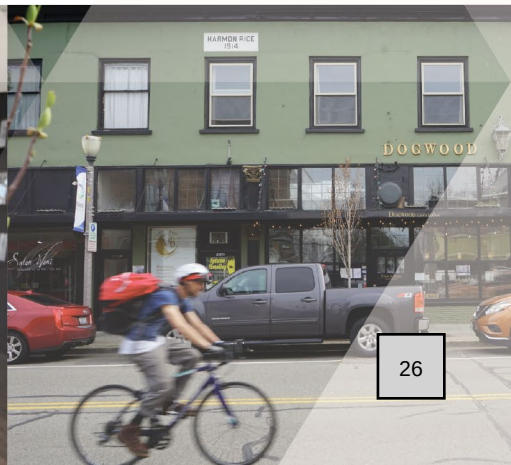
Social Capital
See page 31 for the Social Capital Section this report for the many ways Main Streets strengthen community connections.

Safety
Creating clean conditions, reducing storefront vacancy, and adding eyes on the street increases a neighborhood's real and perceived sense of safety.

Walkability
Bringing a dense range of amenities close to residents creates walkable communities that serve residents of all ages, incomes, and abilities while minimizing their carbon footprint.

Aesthetics and Pride in Place
Playing a role in signage, street plantings, façade improvements, art installations, and neighborhood cleanups, Main Streets create atmospheres that promote pride and investment.

Entertainment
Main Street is where life happens, and memories are created. From festivals, events, and recreational activities, to fostering a mix of shopping, dining, services, and cultural establishments, Main Streets have something for everyone!



Impacts of Core Main Street Programming

Main Street Communities achieve the positive economic, fiscal, and community impacts through a comprehensive approach of initiatives to build strong downtown districts across the State. These initiatives align with the structure of the Four-Point Approach™ demonstrating the breadth of work Main Street Communities undertake.

Main Street Festivals and Events

Festivals and events organized and hosted by Main Streets generate substantial visitor spending for local economies.

Promotion, Branding, and Marketing

Main Street promotion, branding, and marketing initiatives attract customers to the downtowns and local businesses and while creating a strong sense of place.

Business Attraction and Retention

From guiding entrepreneurs through the process of opening a business to helping business owners succeed, Main Streets play an essential role in ensuring downtowns are vibrant and filled with local businesses.

Business Technical Assistance, Grants, and Loans

Main Streets act as a supportive partner to local businesses through technical assistance, connecting businesses with local resources, and providing direct financial support.

Images (Left to Right): Historic Downtown Chelan Association (Otto Gruele), Roslyn Downtown Association, Chehalis Community Renaissance Team

Building Preservation, Restoration, and Façade Improvement

Historic properties and buildings fill Washington's downtown districts; Main Streets work to help preserve, restore, and celebrate the unique assets of the State's historic communities.

Streetscape and Public Realm Improvements

Main Streets support beautification efforts to foster strong curb appeal and ensure customers' visits to downtown businesses are a positive public realm experience to keep attracting new customers and ensuring repeat downtown trips.

Partnership and Advocacy

As local leaders, Main Streets connect public, private, and nonprofits through strategic partnerships to accomplish shared goals and leverage finite resources.

Community Engagement

To achieve substantial impacts on limited budgets, Main Streets rely on local volunteerism, which enhances social connections in their communities and fosters collective "buy-in" and a sense of pride in the historic downtowns.

Main Street Festivals and Events

Few things signify a healthy downtown more than lively, happy crowds of people. By hosting festivals and events throughout the year, Main Streets bring energy and entertainment to downtowns - providing increased spending and introducing new customers to local businesses.

$102.0 Million

Direct economic impact of visitor spending at Main Street events and festivals from 2011 through 2019.

5.8 Million Annual Visitors

Estimated attendees of Main Street events and festivals between 2011 and 2011.

2,860

Estimated Main Street events and festivals that occurred between 2011 and 2019.

100%

All Main Streets in Washington organize at least one event annually with 15% of programs facilitating upwards of 30 events.

Why Festivals and Events Matter. Main Street festivals and events are a fundamental programmatic component of the Promotion element of the Main Street Four-Point Approach™. Festivals and activities range from farmers' markets to shopping events and are often funded and operated by Main Street Communities and in collaboration with other local partners.

Economic Impact. Main Streets Communities in Washington organize and host approximately 14 events annually in each Main Street district. Collectively, this attributed to nearly 500 events and festivals throughout the State in 2019 alone. These events attracted together over one million visitors and attendees. Each Main Street Community attracted nearly 29,500 annual visitors to their downtown districts during these events. A substantial portion, almost 40%, of these visitors come from outside their local municipality to Main Street's downtown.

Based on various spending assessments of events across the country and in Washington, the average event attendee spends approximately $35 during these events. Thus, attendee spending on dining and shopping generated an estimated collective direct economic impact of $102.0 million between 2011 and 2019.

Community Impact. Main Street festivals and events introduce new audiences and customers to downtowns and bring new customers to businesses which might not have occurred without the event. These festivals and events often become points of pride for the community and actively contribute to the identity of the Main Street.

Image: Coupeville Historic Waterfront Association (Rick Law[illegible]t) Downtown Association of Yakima (right)

Spotlight:

First Fridays in Downtown Camas

During the evening hours on the first Friday of each month, Downtown Camas's sidewalks and businesses fill with over 1,000 people socializing, dining, and shopping at the Main Street's local stores and restaurants. Since 2005, the Downtown Camas Association organizes and hosts its well-attended and community-loved event series, First Fridays.

The Main Street's intentional programming provides free entertainment and activities for all ages to attract inclusive participation. The event's well-known Passport Program introduces new customers to businesses as two to three hundred attendees stop into a series of twenty to thirty participating stores. **The lively crowds of the First Friday events bring a substantial increase in spending at local restaurants and shops – retailers see 25% to 50% more sales, and the downtown restaurants frequently double their typical Friday night revenue during these events.**

Images: Downtown Camas Association

Understanding How Festivals and Events Generate Economic Impacts

*Main Street events and festivals attracted over **5.8 million attendees** between 2011 and 2019.*

*These event visitors spend money shopping and dining during their visit. Attendees spend on average **$35 during the events** at shops and restaurants.*

*This visitor spending generates an attributable direct economic impact of **$102.0 million** collectively from 2011 through 2019. This direct economic impact represents revenue generated at businesses during Main Street events and festivals.*

As a result of this direct economic impact, a range of tax revenues are generated at the national, State, county, and municipal level.

Promotion, Branding, and Marketing

Main Streets promote individual businesses and build excitement and pride in their downtown districts. Through a variety of marketing and branding programs, Main Streets help bring more customers through the doors of their local businesses and create a cohesive and appealing brand identity for their downtown.

$3.1 Million

Direct economic impact of Main Street Promotions, Marketing, and Branding Initiatives between 2011 and 2019.

$15,115

Average Main Street operating budget allocated for promotion, branding, and marketing efforts in 2019.

90%

90% of Washington Main Street Communities include programming that promotes their downtowns and draws additional customers to businesses in the commercial districts.

Why Promotion, Branding, and Marketing Matters. From creating comprehensive branding strategies unifying the downtown commercial district to designing websites promoting the collection of businesses within their Main Street district, Main Street Communities actively promote, market, and brand downtowns.

Economic Impact. On average, Main Street Communities in Washington allocated $15,115 of their 2019 operating budget towards marketing, promotions, and branding initiatives for their downtowns and Main Street district. Assuming this operating budget allocation was proportionate to their budgets over the past ten years, these initiatives generated nearly $3.1 million of direct economic impact collectively between 2011 and 2019.

Community Impact. Main Streets create a strong sense of place for their downtown communities through branding and marketing efforts. Main Streets drive customer traffic to the commercial districts through targeted and strategic promotional campaigns and initiatives. This increased customer traffic not only directly supports the local businesses but generates excitement and catalytic impressions that the downtown is vibrant, active, and an exciting place to shop, dine, and play.

Image: Chehalis Chehalis Community Renaissance Tea
Roslyn Downtown Association (Otto Gruele)

Images: Olympia Downtown Alliance

Spotlight:

Bringing People to Downtown Olympia

In Downtown Olympia, the "Why I Go Downtown" movement collects favorite stories and memories from downtown experiences to promote the area as a destination. The movement originated as part of an effort by the Olympia Downtown Alliance to cultivate the image and perception of the downtown area. Today, this initiative inspires both new and returning customers to visit downtown and create their unique memories.

Through the Olympia Downtown Alliance's strategic planning process, the Main Street organization recognized an opportunity to prioritize "imaging-making" strategically. To better brand the downtown area, the Olympia Downtown Alliance began reaching audiences with tailored messages across various platforms — ranging from social media to video content to advertorials and cross-promotional opportunities. The Main Street's "Why I Go Downtown" website has now become a vital platform during the downtown's economic recovery response and communication strategy. In the first six weeks of their COVID-19 response strategy, the site drew over 7,000 visitors.

Leveraging Main Street Communities for Economic Recovery During COVID-19

Main Street America administered a national survey amidst business closures during the COVID-19 pandemic. Nearly 240 businesses in Main Street Communities in Washington responded, providing insight on the impacts of the public health emergency at the local level. Between March and April of 2020, 81% of these surveyed businesses suspended their storefront operations. Approximately 91% of businesses experienced decreased revenue, with over two-thirds of the surveyed companies indicating that their revenue declined by more than 75% during this time.

Main Street Communities across the State immediately mobilized to provide substantial support to struggling businesses, including direct financial assistance and centralized promotional and marketing campaigns to bring customers downtown safely. With Main Streets' Four-Point Approach™ and agile mindset, Main Street Communities are well-positioned to lead economic response and recovery efforts moving forward.

Source: Main Street America, The Impact of COVID-19 on Small Businesses

Business Attraction and Retention

Main Streets serve as on-the-ground experts and advocates for their downtowns — helping fill available storefronts and working side-by-side with business owners to ensure businesses can remain competitive and open. From guiding entrepreneurs through the regulatory process of opening a business downtown to helping property owners recruit tenants that complement the district's business mix, Main Streets play a crucial role in creating vibrant downtowns filled with commercial activity.

$400.0 Million

Direct economic impact of Main Street Business Attraction and Retention Initiatives between 2011 and 2019.

4.6%

Business growth in Main Streets attributable to the presence of the Main Street (2015 — 2016).

Nearly all of Washington's Main Streets actively support existing businesses and work to retain these businesses in their communities.

Over two-thirds of Washington's Main Streets actively work to attract businesses to their downtowns.

Why Business Attraction and Retention Matters. To attract businesses to their downtown district, Main Streets actively market and promote available commercial spaces in their downtowns. These efforts include both formalized initiatives and informal guidance and support as local community leaders. Main Streets also work to keep local businesses sustainable and competitive in their community. By advocating for businesses in negotiations, helping develop successful business models, hand-holding and advising during local regulatory processes, strengthening business networks, and helping commercial brokers identify available spaces and best-suited potential tenants, Main Street Communities work to keep businesses and downtowns economically resilient. Main Streets provide optimal environments for local businesses to grow and succeed.

Economic Impact. Businesses are attracted to downtown districts with Main Streets for various reasons, including the presence of the Main Street organization, real estate market conditions, well-preserved historic communities, and the overall impact, aesthetic, and sense of place Main Streets encourage. With Main Streets' essential role in attracting and retaining businesses downtown, business and employment growth rates in Washington's Main Street districts exceed areas outside of Main Streets. A 2017 study by Main Street America found that areas with Main Street Communities have a 4.6% higher business growth rate in Washington.* In 2019 alone, this accounted for 12 new businesses and $17 million in sales.

Community Impact. Main Street business attraction and retention programs directly help ensure downtowns are filled with local businesses, resulting in fewer vacant storefronts and more vibrant downtown experiences. These efforts create and strengthen entrepreneurship cultures, encouraging nearby residents to open their own small businesses.

**In 2017, in collaboration with Main Street America, Jon Stover & Associates conducted a statewide fiscal impact analysis of the Washington State Main Street Program and four other states assessing the relationship between State funding for Main Street Communities and the incremental State tax revenue attributable to these programs. The methodology relied on key economic indicators provided by leading data providers, ESRI, and InfoGroup. The methodology was limited to only assessing the attributable Main Street impact on business, employment, and revenue growth. Whereas this report provides a comprehensive overview of the many ways Main Streets generate impacts. This current analysis assumes the attributable business growth (4.6%) between 2015 and 2016 is constant for 2011 through 2019 and thus is used to calculate the overall economic impact of Main Street's business attraction and retention initiatives.*

Understanding Business Growth Attributable to Main Streets

Based on Main Street reported Reinvestment Statistics, ***approximately 1,656 net new businesses opened in Main Street Communities*** *between 2011 and 2019.*

With an attributable growth rate of 4.6%, the attributable business attraction efforts of Main Streets resulted in ***73 new businesses*** *across the State.*

The average business in a Main Street Community in Washington produces a ***revenue of approximately $1.4 million annually.***

As a result of Main Street business attraction efforts, these initiatives generated a ***direct economic impact of $400.0 million*** *between 2011 and 2019.*

Spotlight:

Touring Possibilities in Downtown Wenatchee

Twice a year on a Wednesday afternoon in the spring and the fall, the Wenatchee Downtown Association leads over 50 prospective business owners, contractors, local elected officials, Port Authority representatives, and interested stakeholders on a "Possibilities Tour" – a guided walking tour of vacant spaces in the downtown district. The Main Street program organizes the tour and arranges for property owners and leasing agents to showcase their available spaces - from move-in ready ground floor retail bays to above vacancies to buildings in need of substantial renovations.

This energetic tour facilitates dream-filled conversations. Participants imagine and discuss how these vacant spaces can be transformed to preserve the commercial district and celebrate the historic character and charm of Wenatchee. The Main Street program carefully and intentionally crafts the tour to serve the needs of prospective business owners in the community. The event deliberately removes pressure barriers that often come with touring available spaces, limiting intimidation, and encouraging potential businesses to feel at home in Wenatchee immediately. **The Possibilities Tour works: each year, at least one new commercial tenant leases a vacant space in the Main Street district.**

Image: Wenatchee Downtown Association

Business Technical Assistance, Grants, and Loans

Main Streets serve as the local support system for small businesses — providing individualized technical assistance to help improve long-term operations and guidance to support businesses through unexpected challenges. Instead of feeling isolated and adrift, small businesses in Main Street Communities have a local partner who has their back.

$495,660

Direct economic impact of Main Street Technical Assistance between 2011 and 2019.

88% of Main Streets actively provide business technical assistance, including grants and loans, to businesses in their downtown communities.

Nearly one-third of Washington State's Main Street Communities offer direct financial support for businesses through grants and loan programs.

Why Business Technical Assistance, Grants, and Loans Matter. Main Streets support businesses in their commercial districts through technical assistance ranging from marketing assistance to helping companies establish quality point-of-sales and accounting systems to incubator programs fostering entrepreneurship opportunities. These efforts and initiatives (accounting for nearly 10% of Main Street staff time) contribute to Main Street districts' reputation as the best places for small businesses to start-up and thrive.

Economic Impact. The average Main Street Community in 2019 allocated $2,500 of their operating budget towards business technical assistance, including loans and grants. Assuming the allocation was proportionate to their operating budget over the past ten years, these initiatives generated $495,660 direct economic impact in the State of Washington.

While the cumulative direct economic impact of Main Street technical assistance, including grants and loans, is not the highest impact figure compared to the other Main Street initiatives that generate economic impacts, these dollars provide considerable support to local businesses. In many instances, direct financial assistance and nonfinancial support offer substantial opportunities for businesses to expand and increase revenue, contributing to higher economic and fiscal impact generation.

Community Impact. By providing technical assistance and connecting local businesses with resources and support, Main Streets help keep markets, stores, and companies open and thriving within the downtown districts.

Based on a national study conducted by Main Street America on the impact of COVID-19 on small businesses, nearly 63% of business respondents indicated that that their business lacked an e-commerce component in their business model. Through technical assistance and grant programs, Main Streets play a crucial role in supporting local businesses with limited online sales capability and minimal internet presence. Main Street organizations across the State of Washington provide these services through grants and partnerships to help improve the economic resiliency of small businesses in their districts.

Spotlights:

Chehalis's Boost Your Business and the Downtown Business Academy

Chehalis's Downtown Business Academy provides quarterly opportunities for businesses to gather and collaborate on new business development ideas. The Main Street organization brings experts to these events to provide training on topics ranging from website development, storefront design, and social media. Created in 2019, **the Downtown Business Academy offers local businesses an opportunity to network and find support, strengthening the greater commercial district, and foster local leadership.** To complement the Downtown Business Academy, the Chehalis Community Renaissance Team piloted its Boost Your Business Program in 2020 to provide one-on-one support and attention to local businesses. The Main Street organization provides four 90-minute sessions monthly where companies come and receive support and technical assistance from expert staff and volunteers representing the Main Street. From purchasing a domain name for a business website to creating social media content calendars, the Main Street provides direct guidance and assistance to help local businesses thrive.

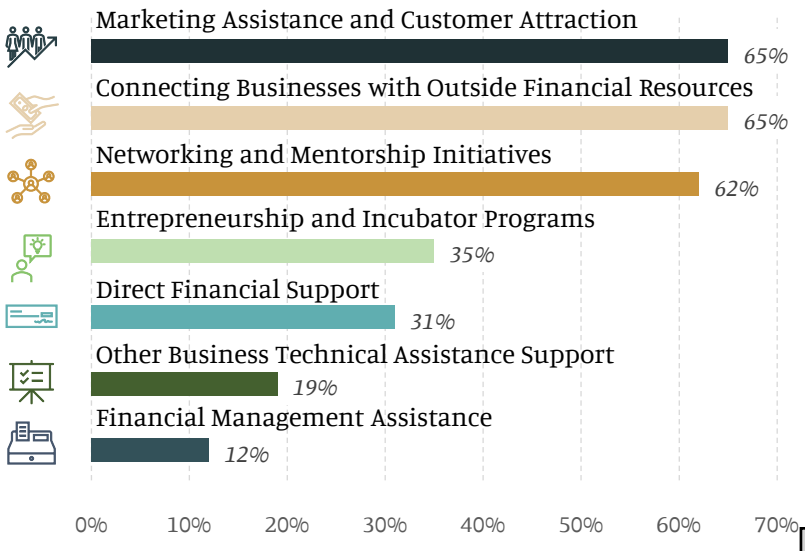
Light at the End of the Tunnel Microloan Through Port Townsend Main Street

Originating in 2012 to mitigate adverse impacts of needed downtown infrastructure construction on local businesses, Port Townsend's Light at the End of the Tunnel Microloan (known as the LENT Microloan) provides direct financial assistance to local businesses experiencing unexpected emergencies and hardships. The initial $12,000 budget for the loan program has increased over the years to an $18,000 fund. Businesses in the Port Townsend Main Street district can apply for funds between $500 and $4,000 to offset financial impacts on businesses during emergencies, such as significant equipment failures, natural disasters, and infrastructure failures. **The LENT Microloans provide support for businesses that would not otherwise qualify for conventional financing, providing a crucial lifeline to these local, and often small, businesses.** Businesses repay the loan directly to the Main Street organization, with no interest if paid with one year and incremental interest rates increasing to 5% for three-year payoffs. The repayment is directly put back into the loan fund, ensuring uninterrupted availability for businesses in Port Townsend.

Breakdown of Main Street Offered Technical Assistance, Grants, and Loans

Over two-thirds of Main Streets in Washington help attract customers to businesses through marketing assistance. Additionally, two-thirds of Main Street Communities connect businesses to grants, loans, and financial assistance through external resources.

Data based on 2019 Washington State Main Street Programs Impact Survey.



Building Preservation, Restoration, and Façade Improvement

Main Street Communities play a vital role in preserving, maintaining, and improving Washington's historic downtown districts' physical assets. In doing so, they help keep the beauty and character that make their communities unique and economically competitive.

$1.5 Million

Direct economic impact of Main Street Building Preservation, Restoration, and Façade Improvement Initiatives between 2011 and 2019.

$8,185

Average Main Street budget allocation towards preservation, restoration, and façade improvement initiatives in 2019.

92% of Main Streets actively help property owners and businesses preserve and restore buildings and improve facades in their communities.

Why Building Preservation, Restoration, and Façade Improvement Matters. Preservation as an economic driver is a vital principle of the Main Street Approach™. As such, the majority of buildings located in Washington's designated Main Street Communities are over 50 years old. While these historic buildings and properties lead to charm and appeal, maintaining and preserving these structures requires strong leadership and dedication of resources.

"The quality and condition of the buildings in your downtown or neighborhood commercial district matter. The built environment not only visually communicates community character, vitality, and culture, but directly impacts the economic viability of your district. While architecture and design can seem like a realm best left to specialists, Main Street leaders have a crucial role to play in guiding decisions that impact the physical appearance of a district."

- Main Street America, Design Resource Guide

Economic Impact. On average, Main Streets Communities dedicated over $8,000 of their 2019 operating budget for preservation, restoration, and façade improvements in their commercial districts. Over the past ten years, assuming the allocation of these budgets was proportionate to the Main Street operating budgets, these efforts generated a direct economic impact of over $1.5 million in downtown commercial districts.

Construction and maintenance of these buildings generate additional economic and fiscal impacts external of the direct effect of the operating budget allocation towards these initiatives, and the direct financial support contributed by Main Streets in Washington. Main Street Communities' efforts to preserve and maintain the aging facades and buildings extend beyond grants and loans, connecting building and business owners with resources and guidance to help initiate and complete preservation projects.

Community Impact. As articulated by many Main Street organizations, historic downtowns serve as the 'front door' to their communities. Main Streets' historic preservation and rehabilitation efforts create lasting impacts from the curbside appeal, enticing customers into local businesses, inviting people to stay, and ensuring that the allure of these places, and already built uses, will continue for the next generation.

Spotlight:

Local Design Expertise in Colville

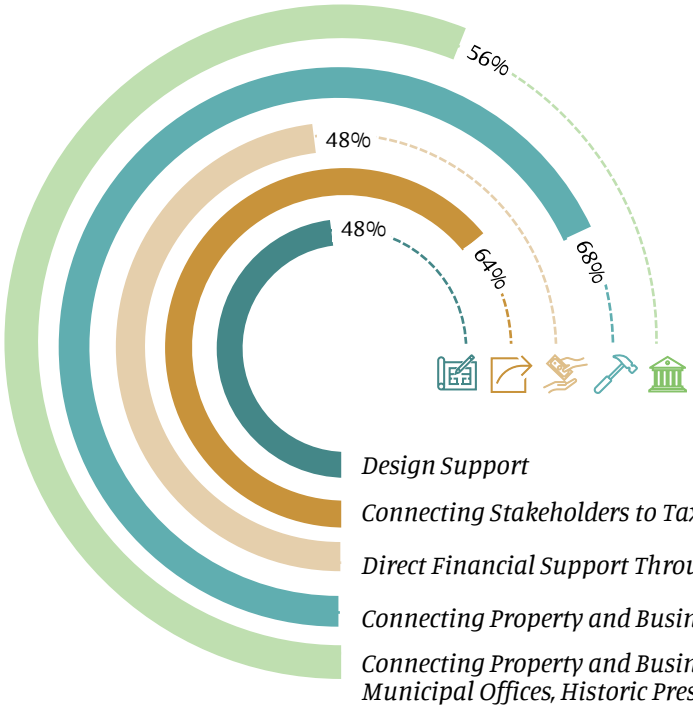
"We know how important it is to have visual appeal and a comfortable space for our customers and visitors to shop, visit, and spend money in our downtown. By making a visual impact, we can remind our community that downtown is an awesome place to go, spend money, and hang out."

- Rosemary Shaw, Colville Together

Colville Together helps preserve Main Street facades, leveraging the Executive Director's architecture and design expertise to provide complimentary design services for local businesses. With more than 90% of the buildings in downtown Colville over five decades old, Colville Together helps beautify facades, storefronts, and signage, signalizing investment in the community.

Façade Grants in Downtown Yakima

Downtown Yakima is transforming its commercial district with the Matching Façade Improvement Grant program, which focuses efforts on improving community businesses' façades. As the gateway to businesses, the Downtown Association of Yakima believes improving storefront facades will attract more shoppers and diners into stores and restaurants, strengthening the local economy and sparking catalytic impacts in the community. With the program's Matching Façade Improvement Grant, businesses and building owners can apply for up to $10,000 of the 50/50 matching grant to renovate, restore, and improve building storefronts and façades. Since the initiative began in 2015, the Downtown Association of Yakima provided grants for eight buildings, helping cultivate a fresher, more enticing commercial district.



Breakdown of Main Street Building Preservation, Rehabilitation, and Façade Improvement Programming Initiatives

Washington's Main Street Communities provide direct financial support to property and business owners to maintain and preserve aging buildings. They also help connect stakeholders with municipal agencies, nonprofit, and private sector businesses to achieve well-preserved commercial districts collaboratively.

Data based on 2019 Washington State Main Street Programs Impact Survey.

Streetscape and Public Realm Improvements

Main Streets work to build safe, beautiful environments that consistently attract residents and visitors. From adding greenery to improving crosswalks and enhancing public spaces, Main Streets help ensure that customers have quality experiences and keep coming back to eat, shop, work, and play.

$5.1 Million

Direct Economic Impact of Visitor Spending at Main Street Streetscape and Public Realm Improvement Initiatives between 2011 and 2019.

$24,750

Average Main Street budget allocation towards streetscape and public realm improvements in 2019.

All Main Street Communities include Streetscaping and Public Realm Improvement Initiatives within their programming.

Why Streetscape and Public Realm Improvements Matter. Washington Main Street Communities dedicate approximately 15% of their time to improving the public realm of their downtowns — from beautification efforts such as landscaping to creating inviting atmospheres for residents and visitors alike to comfortably enjoy downtown areas. Importantly, Main Streets' well-maintained and attractive public realms signify to current and prospective investors that downtown districts are quality places to invest. Main Street organizations' public realm improvement initiatives complement and enhance municipal services.

Economic Impact. On average, Main Streets Communities in Washington spent 11% of their operating budget, approximately $24,750 in 2019, towards public realm improvements and streetscaping initiatives. This budget allocation equates to a direct economic impact of $5.1 million between 2011 and 2019.

Community Impact. The improvements to the public realm that Main Streets facilitate, support, and contribute to enhance Washington's historic downtown communities' aesthetics and appeal. These improvements directly strengthen a sense of place and identity of the downtown. Importantly, the public realm improvements encourage downtown customers and visitors to lengthen their visit downtown, which correlates to increased spending at local businesses.

Breakdown of Streetscape and Public Realm Improvement Initiatives

The following diagrams illustrates the types of initiatives and programming Main Streets utilize to help improve appeal and aesthetics of the public spaces and sidewalk experience in their downtown.

78%

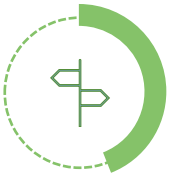
Landscaping

From flower baskets to planters through downtowns, Main Streets beautify downtowns with landscaping efforts.

56%

Street Furniture

Main Streets install and maintain sidewalk benches, trashcans, bike racks, and other street furniture.



44%

Wayfinding

Initiatives include directional signage along sidewalks, historic markers, and gateway signs for downtowns.

Spotlight:
Dayton's Community Park

In 2011, Dayton Main Street established a vision to transform a surface parking lot, adjacent to the town's renowned historic train depot, into a vibrant community park and town center. Through three phases over eight years, the Main Street program, the Dayton Development Task Force, worked to bring this vision to life. The Main Street organization funded the entire creation of the public space through fundraising with private donors and leveraging the B&O Tax Credit program. In addition, the organization facilitated a three-way memorandum between the Main Street, the City of Dayton and the Dayton Historic Depot to ensure the park is well-maintained into the future.

Caboose Park and Town Center celebrated its dedication in September 2019, providing Downtown Dayton with a quality public space. Flowering landscaping, well-used playground equipment, meandering walkways, and plenty of seating for gathering and socializing fill the half-acre park. **For the parents who bring their children to the park for playdates to tourists and visitors of the Historic Caboose Museum, to teenagers hanging out with friends after school, the Caboose Park and Town Center now serves as a valued public space in Downtown Dayton.**

Images: Downtown Dayton Association

78%

Clean-Up

Initiatives range from hosting Community Clean-Up days to employing street ambassadors to maintain clean sidewalks.

33%

Storefront Signage

Signage efforts include storefront, façade signage, and A-frame sidewalk signs for businesses.

63%

Lighting

Between streetlights, helping business install exterior lighting and seasonal lighting displays, Main Streets help ensure downtowns are well lit.

52%

Street Banners

Street banners, often created and maintained by Main Streets, promote the area and strengthen the individual brands of downtowns.

Data based on 2019 Washington State Main Street Programs Impact Survey.

Main Street Partnership Building

Main Streets serve as the liaison between the business community and downtown public, private, and nonprofit stakeholders. By building and leverage these vital partnerships, Main Street Communities pool resources and achieve common interests unobtainable in isolation.

$1.2 Million

Direct economic impact of Main Street Partnership Initiatives between 2011 and 2019.

100%

All Main Street Communities actively work to build and foster partnerships with private, public, and nonprofit sectors.

Why Main Street Partnership Building Matters. Main Streets build partnerships and work together in their communities alongside other key stakeholders to ensure that collectively, downtown districts are thriving, healthy commercial areas filled with businesses and active with patrons and customers.

Economic Impact. The quantifiable direct economic impact of Main Street Communities partnership building efforts is based on the cumulative Main Street budget allocation towards these efforts and initiatives. This budget allocation resulted in a direct economic impact of approximately $1.2 million between 2011 and 2019. Importantly, the true value of partnerships and advocacy initiatives is difficult to quantify. These impacts extend beyond the direct economic impacts as the benefits of these partnerships ripple throughout the community.

Community Impact. Leveraging collaborative partnerships with public, private, and nonprofit organizations allow Main Street organizations to bring together diverse stakeholders to address community needs and shared goals. Main Street Communities serve as coordinating partners to build consensus and create collective visions, a challenging task for a range of stakeholders. Community partnerships assist Main Streets by providing and identifying resources, strengthening community assets, serving an advisory role, opening doors to new community groups, and expanding the Main Street capacity to better serve the community. This expansion of reach and capabilities allows Main Street organizations to have a deeper and broader impact on their community.

"Our Main Street program connects people over shared love of our community and it's history through events, beautification, and a culture of supporting small businesses."

- *Molly Jones-Kershner, Ellensburg Downtown Association*

Image: Ellensburg Downtown Association (Otto Gruele)

Breakdown of Main Street Partnerships

Washington Main Street Communities reported partnering with the following types of stakeholders in their communities.

100%

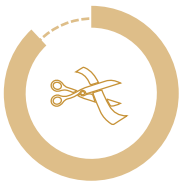
Local Businesses

A key constituency of Main Streets, partnering with local businesses builds trust and creates a stronger support network for businesses to thrive.

96%

Municipal Offices & Local Officials

Between supplementing city services to helping businesses navigate regulatory processes, Main Streets work collaboratively with their municipalities.



88%

Chamber of Commerce

With a similar goal of attracting and supporting local businesses, this partnership often deepens attraction and retention efforts.

72%

Main Street Residents

Main Streets work closely with nearby residents, who often serve as the primary customer base of downtown businesses.

76%

Municipality Residents

Residents located near Main Streets are a vital part of the Main Street customer base.

80%

Economic Development Organizations & Offices

As a vital part of the Four Point™ approach, partnering with local economic development organizations strengthen economies.

28%

CRAs, DDAs, & BIDs

Main Streets and Improvement Districts often have overlapping geographic boundaries and place management goals.

92%

Community & Civic Organizations

Between shared sponsorships of events, volunteer bases, and more, these partnerships are key to successful organizations.

64%

Local Institutions

From educational to religious, partnering with institutions helps connect Main Streets with community members and key resources.

60%

Tourism Bureau

Local, county, and regional Tourism bureaus, who are aligned with similar goals of attracting more visitors to the downtowns, and Main Streets work collaboratively.

Data based on 2019 Washington State Main Street Programs Impact Survey.

Spotlight:

Building Partnerships for Gig Harbor's Waterfront Farmers Market

The Waterfront Farmers Market experience brings together a diverse array of community collaborators, including volunteer groups, vendors, local chefs, local musicians, nonprofit and religious organizations, the City of Gig Harbor and local leadership, health providers, and businesses.

At Gig Harbor's Waterfront Farmers Market, families grab a bite to eat from hot food vendors, friends meet to listen to local musicians, people watch cooking demonstrations by local chefs, and the downtown waterfront becomes a lively place for all to enjoy summertime. The Market is made possible through strong partnerships and support from within the Gig Harbor community. Together, these partners contribute their unique passions and talents to put on this popular community event. Many vendors have become proud participants in other annual Main Street events, creating additional partnerships between merchants and expanding their reach into the community. Continued partnerships will bring together more community members and stakeholders in the future, creating a growing network of Gig Harbor supporters to help the Main Street and its businesses grow and succeed.

Community Engagement

Volunteerism is the backbone of any successful Main Street organization, generating capacity for change despite limited resources. By bringing residents together to spark real, on-the-ground change, Main Streets help harness and cultivate the creativity, hard work, and healthy relationships within their communities.

290,461

Total Collective Main Street Community volunteer hours from 2011 to 2019.

2,575

Average total volunteer hours per Main Street Community in 2019.

$8.7 Million

Total economic value of collective Main Street volunteer hours between 2011 and 2019.

Why Community Engagement Matters. Main Streets cultivate strong levels of volunteerism to achieve the many impacts of Main Streets and accomplish programmatic initiatives. This volunteer base is critical to generating the economic, fiscal, and community impacts discussed throughout this report.

"Main Street directors in particular serve an important role in cultivating, inspiring, and empowering people within their organization and extended volunteer base to see long-lasting results."

- Main Street America

Community Impact. As part of the Reinvestment Statistic data collection process, Main Street Communities in Washington record and report all volunteer hours contributed to their programs. On average, each Main Street Community in Washington State organizes, supports, and generates over 1,000 volunteer hours annually per program resulting in a cumulative total of 290,461 volunteer hours between 2011 and 2019.

The benefits of volunteer engagement extend beyond the Main Street's programmatic goals to the lives of the volunteers themselves and community cohesion. Volunteerism creates robust connections to the downtowns, increases civic engagement and participation in democratic processes, and generates social capital that is crucial to residents' health and well-being.

Value of Main Street Volunteer Hours. Because these hours are volunteer-based and thus not financially compensated, volunteer hours do not translate into direct economic impacts nor quantifiable fiscal impacts. Assigning dollar figures to volunteer time is delicate and, in many ways, intangible. However, Independent Sector, a nationally leading nonprofit for charitable organizations, provides annual hourly rate values of volunteer time for states across the country. In Washington, the annual hourly rate value of volunteering ranged from approximately $23 in 2011 up to $32 in 2019. Based on these values, the cumulative volunteer hours between 2011 and 2019 can be quantified as an overall economic value of $8.7 million for downtown districts.

More information about Independent Sector and its methodology for determining the State values of the average hourly rate of volunteer time can be found at: www.independentsector.org.

Spotlight:

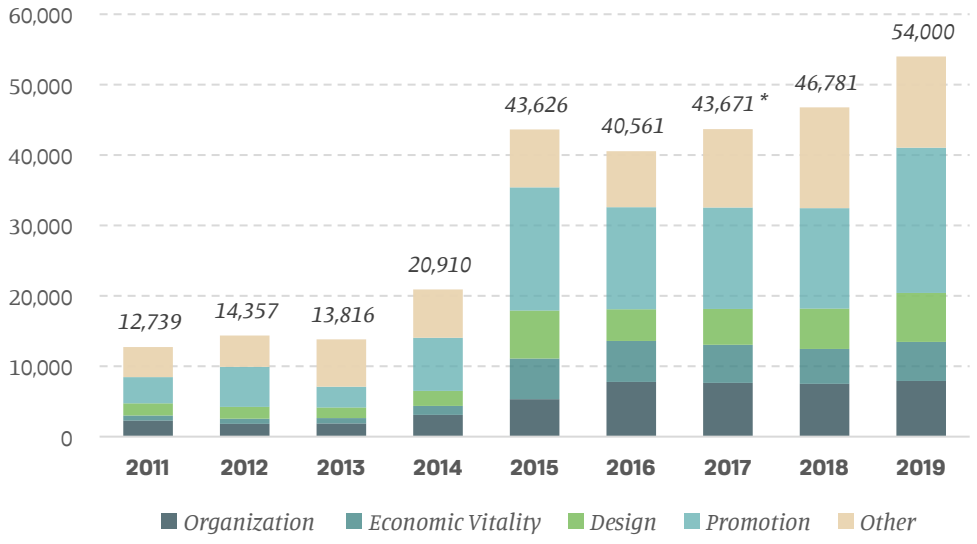
Creating Strong Networks By Celebrating Volunteers

Ellensburg Downtown Association values its volunteers. Through Volunteer Open Houses and Volunteer Bash Socials, Ellensburg Downtown Association facilitates volunteer-focused events for community stakeholders to connect with the Main Street, strengthening the organization's volunteer base. Ellensburg's Volunteer Open Houses started within the Main Street's office to provide residents with more exposure to the organization's operations. Nowadays, local restaurants and coffee shops host these quarterly events for new and prospective volunteers, while the Main Street promotes volunteer opportunities and recruits new participants.

With a small staff, typical of many Main Street Communities, Ellensburg's volunteer events bring fresh ideas and increase capacity so that the Main Street can put on new events without ever needing to seek volunteers in a pinch. The Main Street organization's Economic Vitality Committee used these recruiting methods to form an influential committee that includes business owners, property managers, and community investors. Together, these volunteers leveraged their shared and diverse community experiences to develop a strategy to activate vacant storefronts. Volunteers filled empty store windows on stubborn streets with displays from other community businesses, painted windows with seasonal displays, and advertised the spaces as available to rent. As of 2020, all targeted spaces have been leased — a testament to the direct economic impact of a committed volunteer base.

How Main Street Volunteers Spend Their Time

Volunteer hours are reported by the Main Street's committee structure, following Main Street America's Four-Point Approach™. As illustrated in the chart below, most volunteer hours are focused within the Promotions area of Main Streets — from helping organize events to attracting customers through marketing initiatives, these Main Street volunteer hours are key in helping create vibrant, active downtowns with strong local economies.



Source: Washington State Main Street Program Annual Reinvestment Statistics
** 2017 volunteer figures unavailable; estimates used in this report assume an average of 2016 and 2018 annual data*

Images: Downtown Pasco Development Author

Social Capital

Main Streets foster interpersonal connections and social contact in their communities. This type of "social capital" generates stronger community ties, strengthens networks of connection, and creates lasting social infrastructure in commercial districts and downtowns across the State.

Main Street impacts are felt directly by individual community members and can be influential to entire organizations, the greater region, or the State as a whole. Main Street Communities' social effects are the result of intentional community engagement, programming, and partnerships. Effects are felt immediately and are part of long-lasting community development.

Washington Main Street Communities. . .

. . . Bring All People Together

Communities gather on Main Streets. Facilitating community activities connects residents and businesses. Main Streets bring people together in shops, at markets and festivals, public meetings, and through celebrations. These opportunities connect the local base of residents and businesses with each other, bringing the community together in new ways.

. . . Preserve History and Communities

Main Streets work to better the future of their communities while preserving their history and culture. These efforts exist not only through preservation efforts for the built environment but also by celebrating the stories of people – from residents to visitors to business owners — helping establish an avenue for new community stories to be created and shared into the future.

. . . Provide Effective Leadership

Main Streets develop local leaders by providing training and resources. Main Streets facilitate connections and relationships between local organizations, expand community networks, and advocate for equitable growth by assisting local businesses and organizations. In addition, Washington Main Street Communities provide meaningful community leadership through support to local businesses, facilitating loan programs, providing direct financial assistance to local businesses, hosting development tours to encourage business attraction, and connecting community leaders.

. . . Respond to Pressing Community Needs

Main Streets play a unique role as they have a direct line — and responsibility — to multiple distinct constituencies, including the business community, the residential community, and political leadership. By understanding the needs and concerns of these different stakeholders, a Main Street has its finger on the pulse. **Main Street Communities can respond nimbly to the emerging challenges its stakeholders face and help align resources and partnerships accordingly. This role is more critical than ever given current economic, environmental, and public health challenges.**

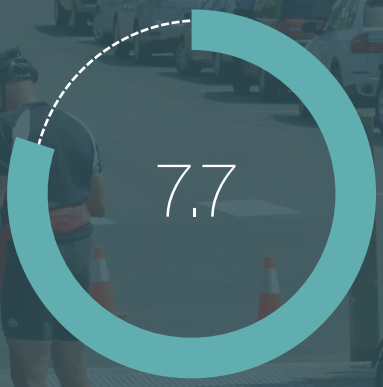
"We improve and celebrate the district as the heart of our community and create opportunities to connect and honor each other and the place where we live, work and play."

- Ellen Gamson, Mount Vernon Downtown Association

Main Street Communities believe that on a scale from one to ten (with ten being the highest) ...

... to what extent do you feel your Main Street program plays a role in helping to create or foster spaces for people to gather or interact?

... to what extent do you feel your Main Street program plays a role in helping to create or foster a sense of community connection, identity, or pride?



....to what extent do you feel your Main Street program plays a role in helping to create or foster a safe, vibrant, inclusive, and attractive downtown?

Data based on 2019 Washington State Main Street Programs Impact Survey.

How Can Main Street Communities Increase Social Impacts?

Social impacts of Main Street Communities provide catalytic opportunities for increased social connections. As Main Street organizations continue to increase their capacity for additional activities, projects, programs, and partnerships, their social impacts will deepen and reach greater audiences.

Images: Coupeville Historic Waterfront Association (Rick Lawler) (Top)
Centralia Downtown Association (PacNW Photography Jason Baker) (Bottom)


HARPER
LUMBER
STIHL
CHAIN SAWS
SALES & SERVICE
MAGGIE'S PANTRY

Staff Report

November 2, 2020 Council Workshop

Fire Interlocal Agreement Amendment (ILA) Extension
Presenter: Nick Swinhart, Fire Chief

Phone	Email
360.817.1532	nswinhart@cityofcamas.us

BACKGROUND: Since 2020, an amendment to the fire department merger ILA has been in place between Camas and Washougal to recognize that Washougal is funding their portion of only two of the five FTE positions that were added in 2019. Washougal is requesting to extend this staffing amendment thru 2021.

SUMMARY: In 2019, CWFD added five (5) additional FTE positions. The City of Washougal requested an amendment to the merger ILA to recognize that they would only be funding their portion of two (2) of the new FTEs as they had not determined the additional staffing was appropriate. This agreement was approved by the Camas and Washougal Councils in 2020 and the City of Washougal has requested a renewal of this agreement thru 2021.

EQUITY CONSIDERATIONS:

What are the desired results and outcomes for this agenda item?

Staff recommends this item be approved.

What's the data? What does the data tell us?

Recent findings from the ESCI Master Plan continue to show that these additional positions are appropriate.

How have communities been engaged? Are there opportunities to expand engagement?

There has been no community outreach on this topic outside of discussions in previous workshops.

Who will benefit from, or be burdened by this agenda item?

The benefit will be the additional $80,000 of revenue this ILA amendment provides to the City of Camas. The burden is that if approved, Washougal is still not providing funding for the remaining 3 positions that were hired in 2019.

What are the strategies to mitigate any unintended consequences?

Discussions continue with JPAC concerning future funding of these positions.

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 approval of this ILA would have no known impact on underserved populations, people with disabilities, or communities of color.

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

This ILA does not address ADA accessibility.

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

There are no operational hurdles. The political challenge is whether the Camas Council will be agreeable to allowing Washougal to extend for another year their decision to fund only 2 FTEs out of the 5 that were hired in 2019.

How will you ensure accountabilities, communicate, and evaluate results?

We will continue to monitor the budgetary impacts of this agreement and provide updates to JPAC and Council as necessary.

How does this item support a comprehensive plan goal, policy or other adopted resolution? N/A

BUDGET IMPACT: If this item is not approved, there will be an approximate $80,000 reduction in fire department revenues in 2021. Approval of this item will continue Camas subsidization of the three positions that Washougal does not fund.

RECOMMENDATION: Staff recommends this item be approved. If this amendment is not approved, we can expect that Washougal will cease funding their portion of the two additional FTEs. This item has also been placed on the November 2, 2020 Regular Meeting Agenda for Council's consideration.

AMENDMENT TO INTERLOCAL AGREEMENT BETWEEN THE CITIES OF CAMAS AND WASHOUGAL FOR THE FORMATION AND OPERATION OF THE CAMAS-WASHOUGAL FIRE DEPARTMENT DATED DECEMBER 4, 2013

This Amendment made pursuant to Section 30.1 of the Interlocal Agreement between the Cities of Camas and Washougal for the Formation and Operation of the Camas-Washougal Fire Department dated December 4, 2013, hereinafter "Agreement", by and between the City of Washougal, a municipal corporation organized and existing under the laws of the State of Washington, hereinafter referred to as "Washougal", and the City of Camas, a municipal corporation organized and existing under the laws of the State of Washington, hereinafter referred to as "Camas":

WITNESSETH

WHEREAS, Camas determined that it is appropriate to increase the staffing profile provided in Section 6 of the Agreement to add two firefighters and one deputy fire marshal, and such staffing increases occurred in 2019 and 2020 and will continue into 2021~~0~~.

WHEREAS, Washougal had not determined that the increased staffing profile is appropriate for 2019 and 2020 and was therefore not prepared to fully participate in the ongoing funding of the additional positions in 2019 and 2020, and whereas Washougal continues to hold this position for 2021~~0~~.

WHEREAS, Washougal has determined that it will continue to participate in funding the salary and benefits costs of two new firefighter positions in 2021~~0~~, at an estimated Washougal cost of $80,000 for 2021~~0~~.

WHEREAS, Washougal has not committed to the ongoing funding of these two new firefighter positions beyond 2021~~0~~.

WHEREAS, Camas has further determined to independently fund one deputy fire marshal position outside of the formulaic cost sharing identified in the Agreement.

WHEREAS, Camas will further incur expenses relating to the acquisition of associated equipment.

———WHEREAS, Camas and Washougal previously agreed to work on program evaluation toward a mutually agreeable determination regarding staffing levels, funding and cost sharing, and received a Master Plan from ESCI in 2019 to inform this process, with the intent of pursing this goal in 2020.

WHEREAS, Camas and Washougal experienced the unprecedented impact of the COVID-19 pandemic beginning in early 2020, causing the program evaluation effort to be delayed and bringing economic uncertainty to funding considerations for both Camas and Washougal.

WHEREAS, due to the economic uncertainty, Washougal has determined to ask voters to renew the expiring Fire/EMS levy lid lift at the current rate of ten cents per $1,000 of assessed value, a funding level that can maintain pre-2019 service levels but cannot support the additional two positions contemplated in this amendment, nor any further program expansion.

WHEREAS, Camas and Washougal intend to re-engage the mutual program evaluation work in late 2020 and into 2021 with the mutual goal of reaching a determination regarding possible service delivery alternatives, staffing, funding, cost sharing and other program parameters.

WHEREAS, Camas and Washougal have stipulated to amend Section 16, by adding a new Subsection 16.17, to clarify the respective responsibilities associated with the funding and cost allocation provision of the Agreement.

WHEREAS, Section 16 of the Agreement shall be amended to include a new subsection 16.17, as follows:

> 16.17 The provisions of this Section relating to the funding and cost allocation shall remain in full force and effect, with the exception that the addition of two firefighters and deputy fire marshal to occur in

2019 and 2020 and be continued into 2021~~0~~ shall be partially funded by Washougal (two firefighters) and the remaining new position (one deputy fire marshal) independently funded by Camas, and Washougal is not bound to participate in the full funding of these additional positions in 2019, 2020 and 2021~~0~~, under the following conditions:

16.17.1 Washougal will fund its share of the salaries and benefits of two new firefighter positions in 202~~0~~1, said share estimated to be $80,000 in 2021~~0~~.

16.17.2 Washougal's funding of its share of two new firefighter positions in 202~~0~~1 is not a commitment to the ongoing funding of these positions beyond 2021~~0~~.

16.17.3 Camas and Washougal will work together with best efforts and good faith to review the staffing profile for the Agreement to seek mutual agreement on staffing levels and staffing needs, alternatives to increased staffing such as the enhanced use of volunteers, alternative service delivery models, funding and ability to pay, and efforts to contain and control program costs. Camas and Washougal further agree that they will mutually review all other provisions of the Agreement as may be appropriate for amendment, including but not limited to capital facilities planning and funding, cost sharing and ECFR payments. This review will include consideration of the Master Plan completed in 2019 by ESCI.

16.17.4 The parties agree that good faith and best efforts will be made to reach mutual agreement regarding the additional staffing and related cost sharing and the other review items described herein in time to implement any adjustments in the 2022~~0~~ budget, but in any event no later than in time for the 2023~~1~~ budget.

16.17.5 Failure to negotiate future funding allocation shall not constitute cause under Section 19. Termination shall require twenty-four months' notice pursuant to section 19.2 unless some other grounds exist under Sections 19.3 or 19.4 permitting a shorter termination period. Any termination shall be expressly subject to Section 19.8 relating to reimbursement of net costs to include the additional funding assumption by Camas as described in this Section. Such termination notice shall not prevent the Parties from reaching mutual agreement during the pendency of the twenty-four months' notice period.

16.17.6 Additional expenses assumed by Camas relating to the acquisition of equipment shall be reimbursed by Washougal concurrently with an agreement on staffing levels as described in

Subsection 16.17.3 herein, but in no event later than December 31, 2020.

16.17.7 The terms of Attachment D shall be amended as necessary to reflect the provisions of this Subsection 16.17.

IN WITNESS WHEREOF the parties have caused this Amendment of Interlocal Agreement to be executed in their respective names by their duly authorized officers and have caused this Amendment of Interlocal Agreement to be dated as of the ~~13th~~ ____ day of ~~January~~ _____, 2020.

CITY OF CAMAS, a municipal corporation

_____
By: Barry McDonnell
Title: Mayor, City of Camas

Attest:

_____
Camas City Clerk

Approved as to form:

_____
Shawn R. MacPherson, City Attorney

CITY OF WASHOUGAL, a municipal corporation

_____
By: David Scott
Title: City Manager, City of Washougal

Attest:

_____
Washougal City Clerk

Approved as to form:

_____
Kenneth Woodrich, City Attorney

Staff Report

November 2, 2020 Council Workshop

Website Update
Presenter: Sherry Coulter, Information Technology Director

Phone	Email
360.817.1550	scoulter@cityofcamas.us

BACKGROUND: I will be providing an update on the new website design elements and data migration plan.

SUMMARY:

The following information will be updated for Mayor and Council:

- Project scope and miscellaneous project information
- Mega Menus and template examples
- Design summary for home page and sub-sites
- End of year design and data migration timeline
- Go-Live planned for January 2021

EQUITY CONSIDERATIONS:

What are the desired results and outcomes for this agenda item?

The website originated in 2002 and was last updated with a re-design to Joomla/Content Management in 2008. It's important to keep up with newer website technologies that seamlessly integrate with other products, provide up-to-date menu navigation tools, are ADA compliant, mobile friendly and most importantly meet the needs and expectations of the citizens. Our new website is intended to address those issues.

What's the data? What does the data tell us?

The age of the site templates has made it difficult to keep it updated with web browsers and server versions. It is necessary to replace it.

How have communities been engaged? Are there opportunities to expand engagement?

The community participated in two community surveys and the results showed that the website was still quite relevant for accessing information. There has also been feedback suggesting is has been difficult for some to find information. They will also be engaged at the testing phase before the final work is done and the site goes live. Sample groups will be selected to participate in useability reviews in December.

Who will benefit from, or be burdened by this agenda item?

This update is primarily for the benefit of our citizens, but the results of moving to the cloud and having an external vendor maintain website versions and browser compatibilities will save programming time of internal staff.

What are the strategies to mitigate any unintended consequences?

Website development is an ongoing, always moving project. It is our intention to continue to design the site to meet the public needs beyond the go-live date. The site has been designed with change in mind (mega menus and key-links can be changed as needs change).

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 website updates were intended to be an improvement to everyone who visits our site. The ADA element was specifically identified as a priority for improvement.

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

Yes. Municode tests all design and content for ADA Section 508 compliance.

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

The redesign, data migration and testing will take the focused efforts of all departments and community engagement in these upcoming months to finalize and move the site live.

How will you ensure accountabilities, communicate, and evaluate results?

We are on an aggressive timeline that has been committed to by administration and directors. Dedicated staff time to these final activities is critical to ensure redundant or extra work will not be required with data migration efforts. The results will be measured by a high quality, much-improved community resource.

How does this item support a comprehensive plan goal, policy or other adopted resolution? Improving communications and engagement with the community continues to be a City strategic plan. The website is a great tool for providing comprehensive, up-to-date information about our City.

BUDGET IMPACT:

The site design, development and implementation costs will be $18,000. Each sub-site costs $3,900 to design. Annual maintenance for the site is $3,900 plus $600 for each subsite. The savings from moving off of Granicus and onto Municode meeting each year (approximately $10,000) will absorb some of the design costs in year one (2020) and cover annual maintenance in year two. An increase of 5% for annual hosting and support will happen in year five of our agreement.

RECOMMENDATION: Staff recommends we continue with design, programming and migration of data with a January go-live timeline.

CITY OF CAMAS
WEBSITE REDESIGN PROJECT

City Council Update – November 2, 2020

Sherry Coulter, Information Technology Director

WEB ADVISORY TEAM'S PROJECT SCOPE

- Mega Menus and Key Links for quick and easy navigation
- Robust search engine functionality
- Subscriptions targeting meeting notices, events, newsletters, etc.
- Reorganization of key City services – focus on viewer's experience
- Fresh new designs – updated clean look
- Consistent branding across site and services
- ADA compliant
- Mobile friendly across all device types – responsive format
- Built in analytics to improve menus and development over time

WHY MUNICODE?

- 65 years experience with local area support and 24x7 customer care
- **Unified searching across three platforms – Municipal Code, meetings and website**
- Cloud-based with continual programming enhancements
- Long list of standard features

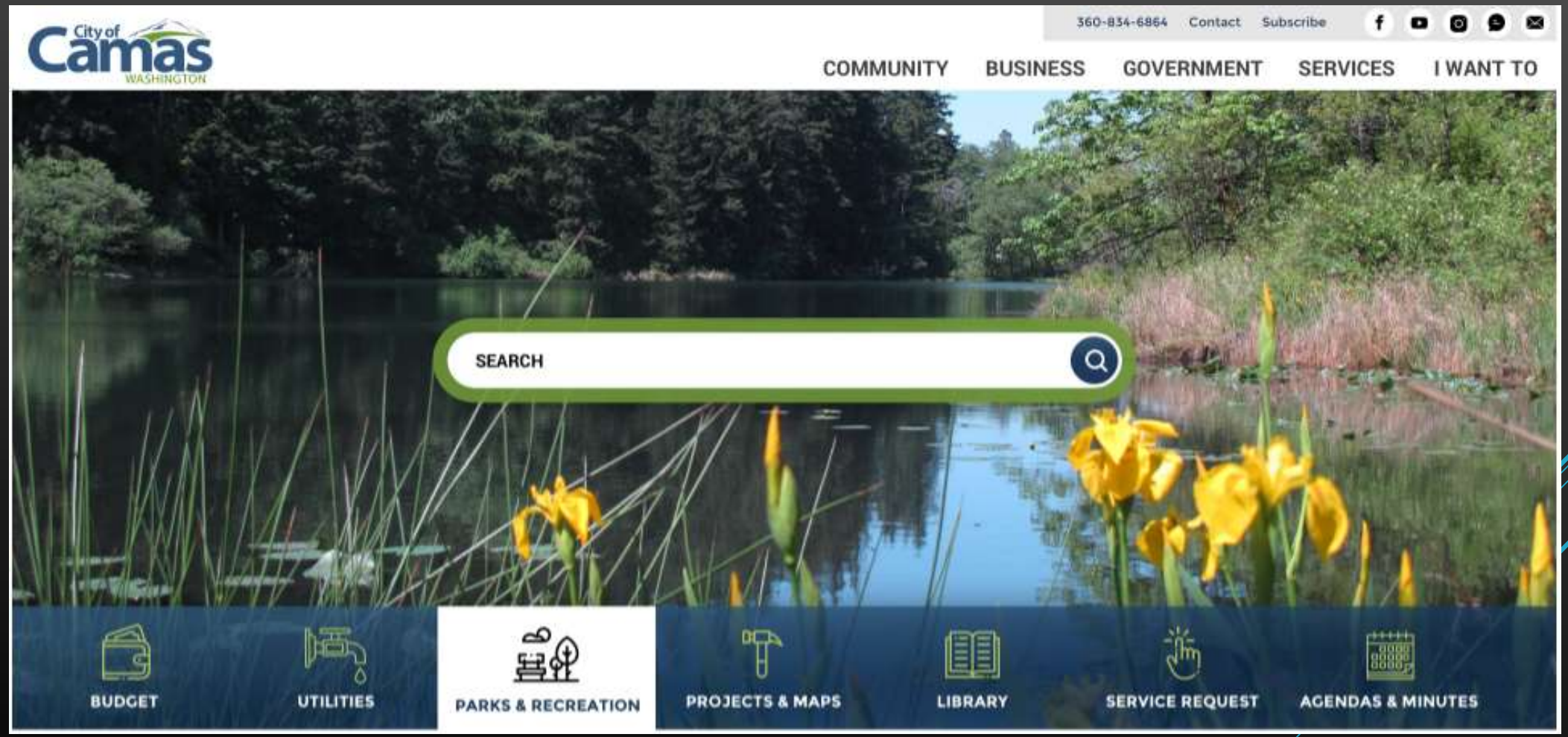
  Mobile-friendly, ADA compliant, anti-spam controls, email harvesting protection, online fillable forms, emergency alerts, simple page editor for content managers, online job postings, directories, maps integrated with google, social media integration…

municode

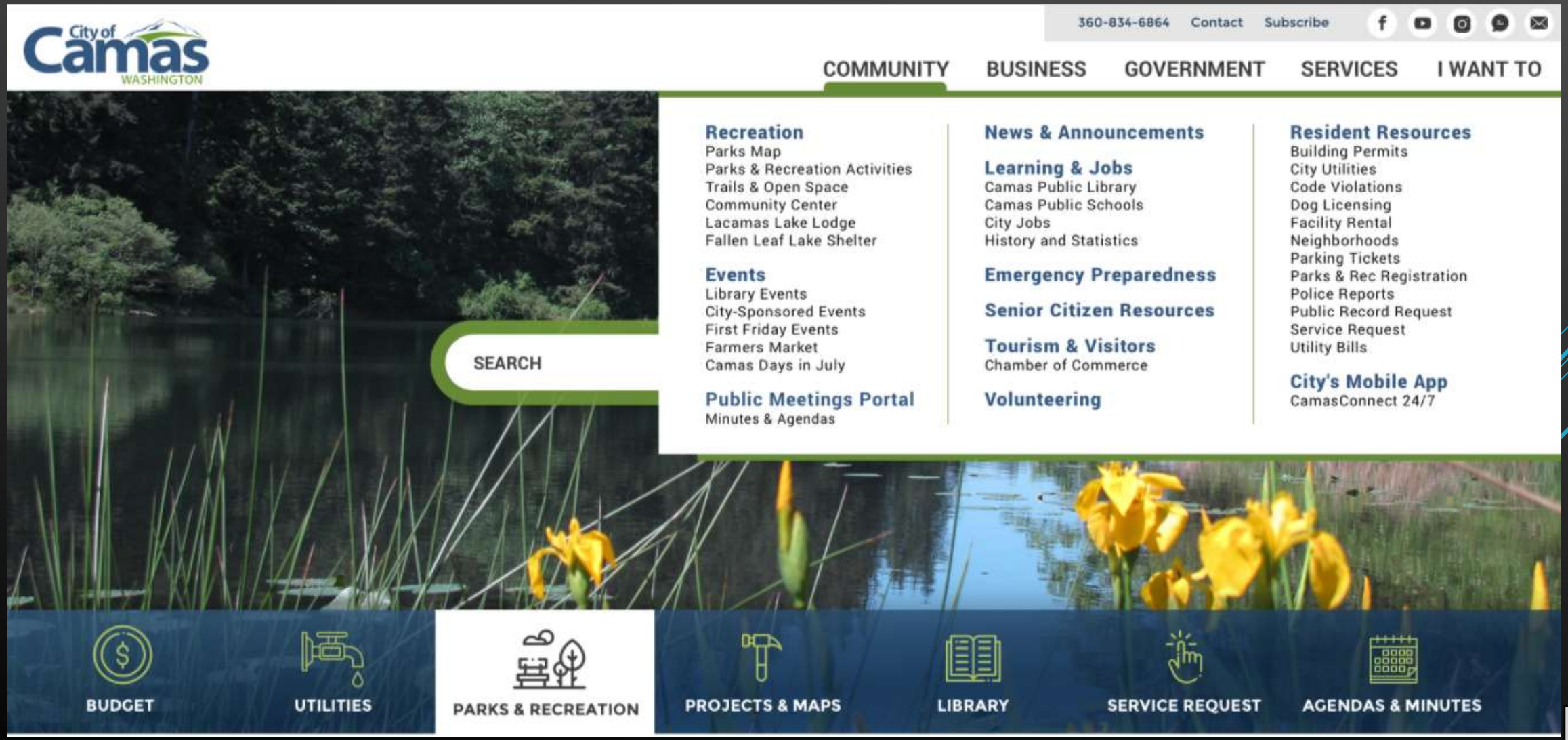
MAIN DESIGN CONCEPTS

- **HOME PAGE** and key features:
  - Mega Menus and consistent top headers
  - 7 Key links – frequently used resources
  - News highlights across the site
  - Calendars to highlight city events including public meetings
  - Limited scrolling and easy navigation
- **SUB-SITES**:
  - Four designed for high-use specialty services – may develop more
- **OTHER RESOURCE PAGES**:
  - Departments and other services still exist, with home page mega menus

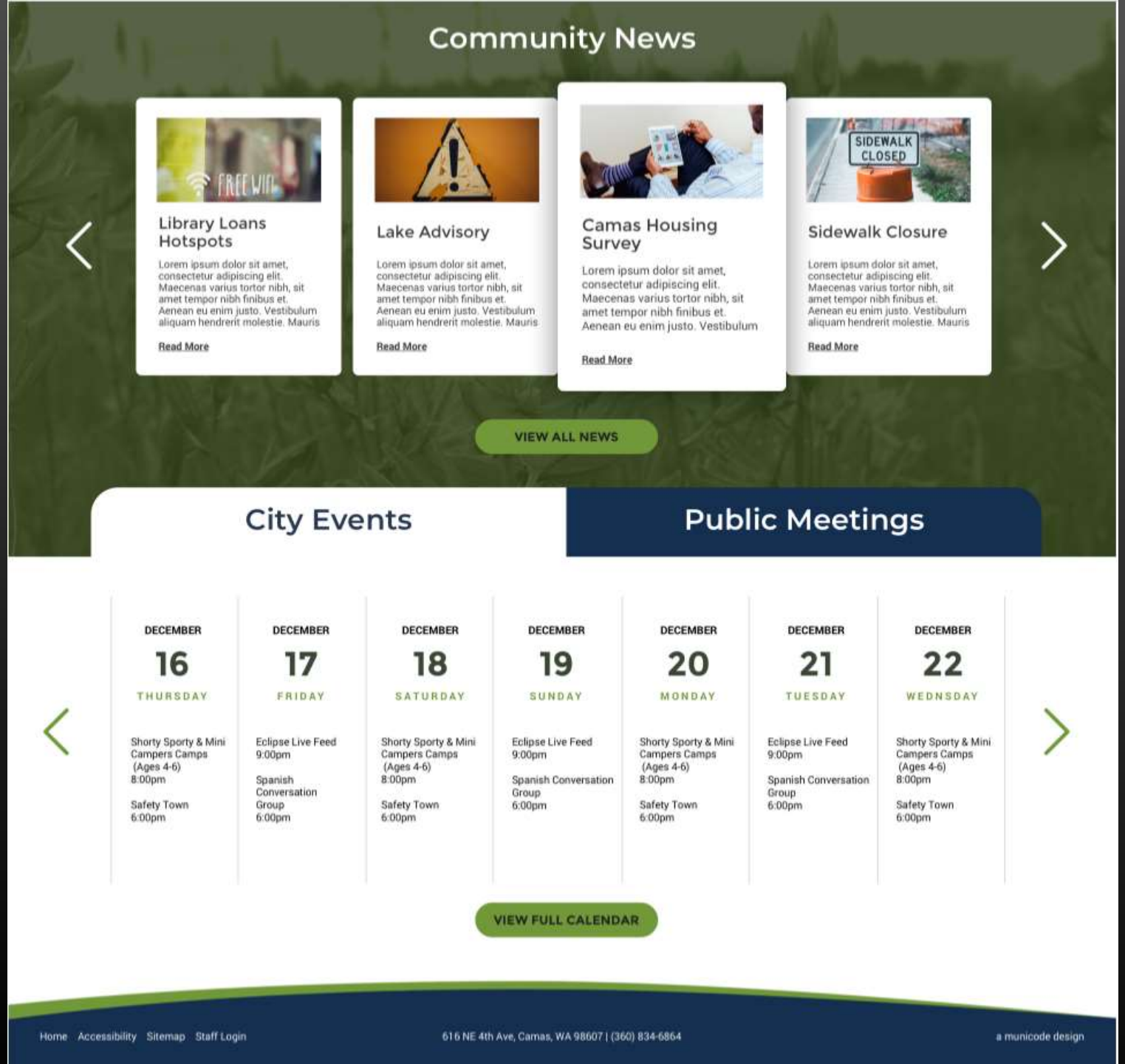
HOME PAGE – DESIGN CONCEPTS



HOME PAGE – MEGA MENU EXAMPLE



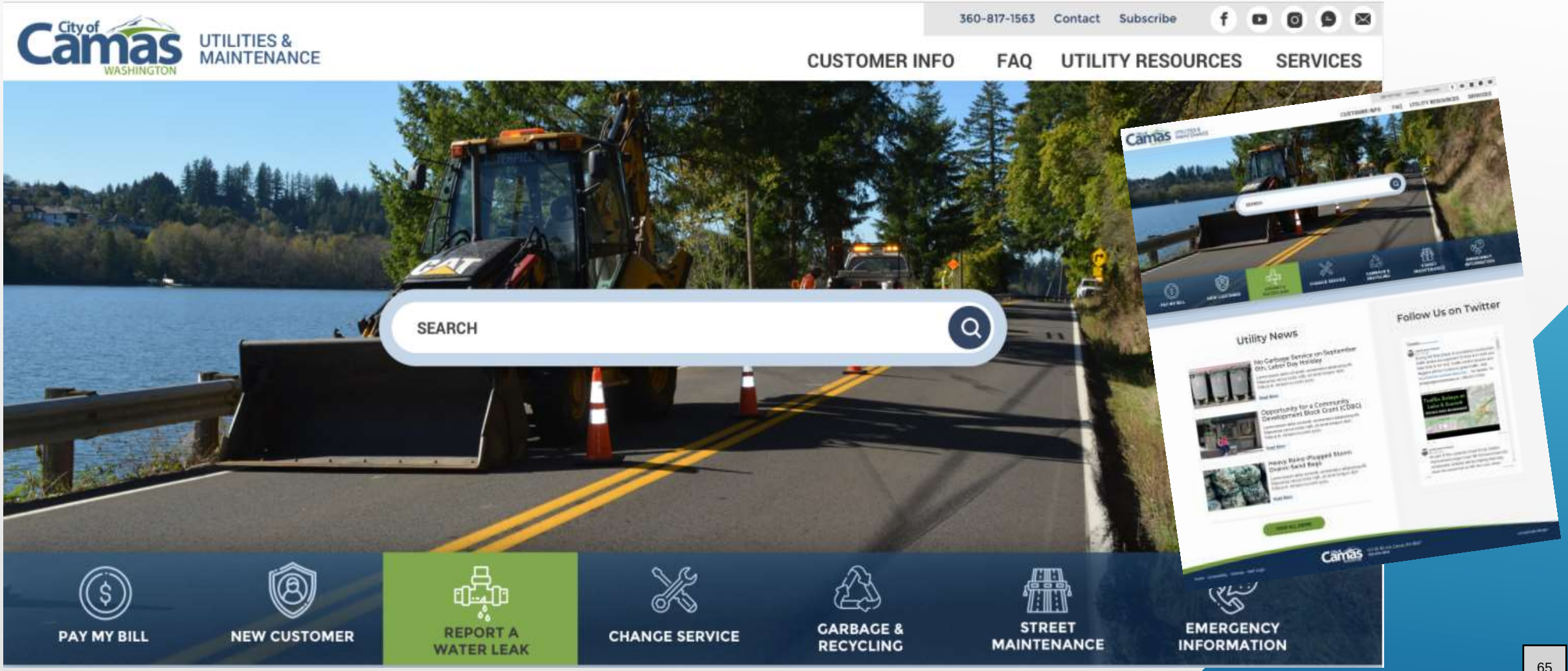
HOME PAGE NEWS CALENDARS



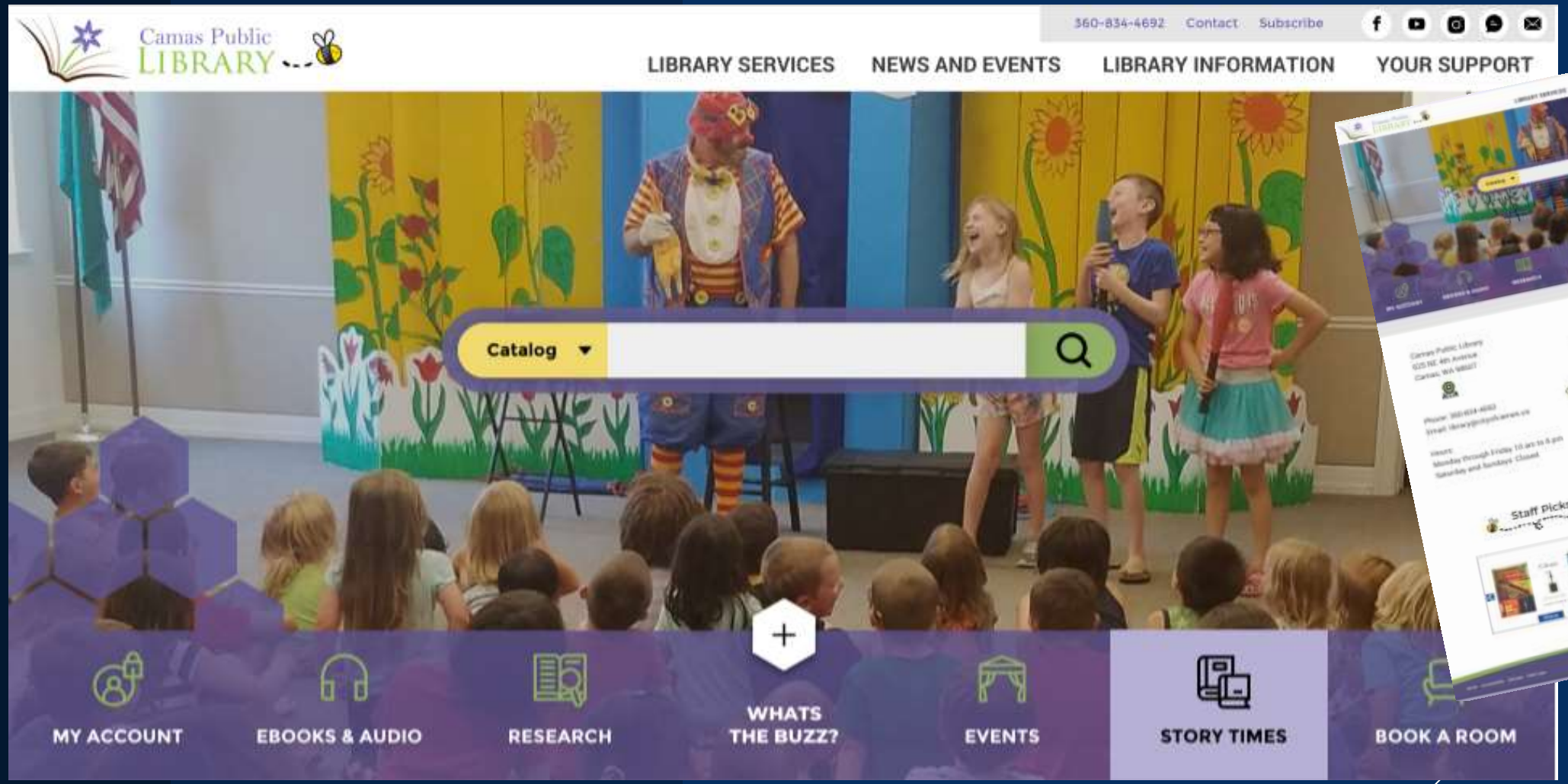
SUB-SITE CONCEPTS

- Design and layout remain consistent with home page
- Mega menus organize specialty service resources
- Highlights sub-site's 7 key links, contact information, news and events

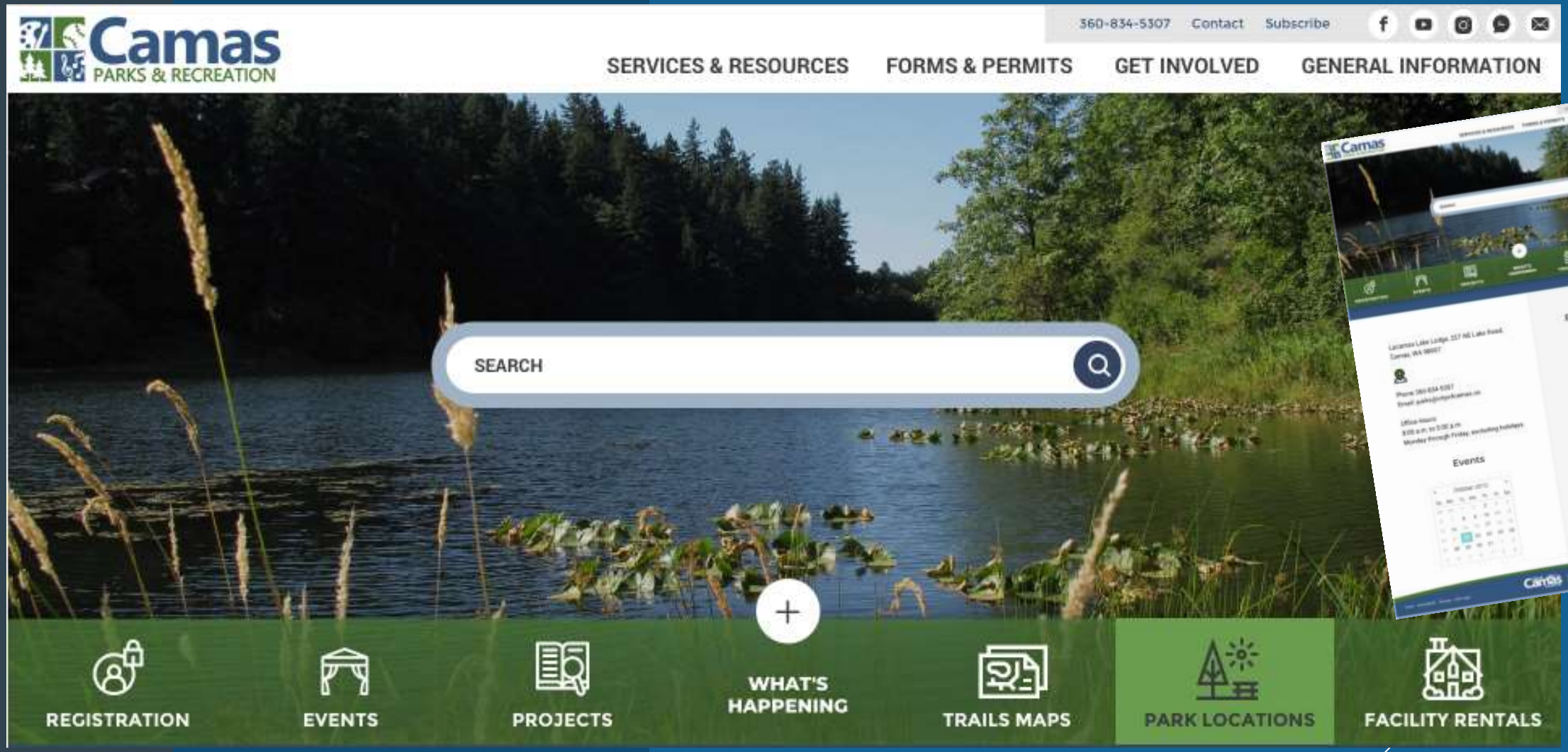
SUB-SITE 1 – UTILITIES



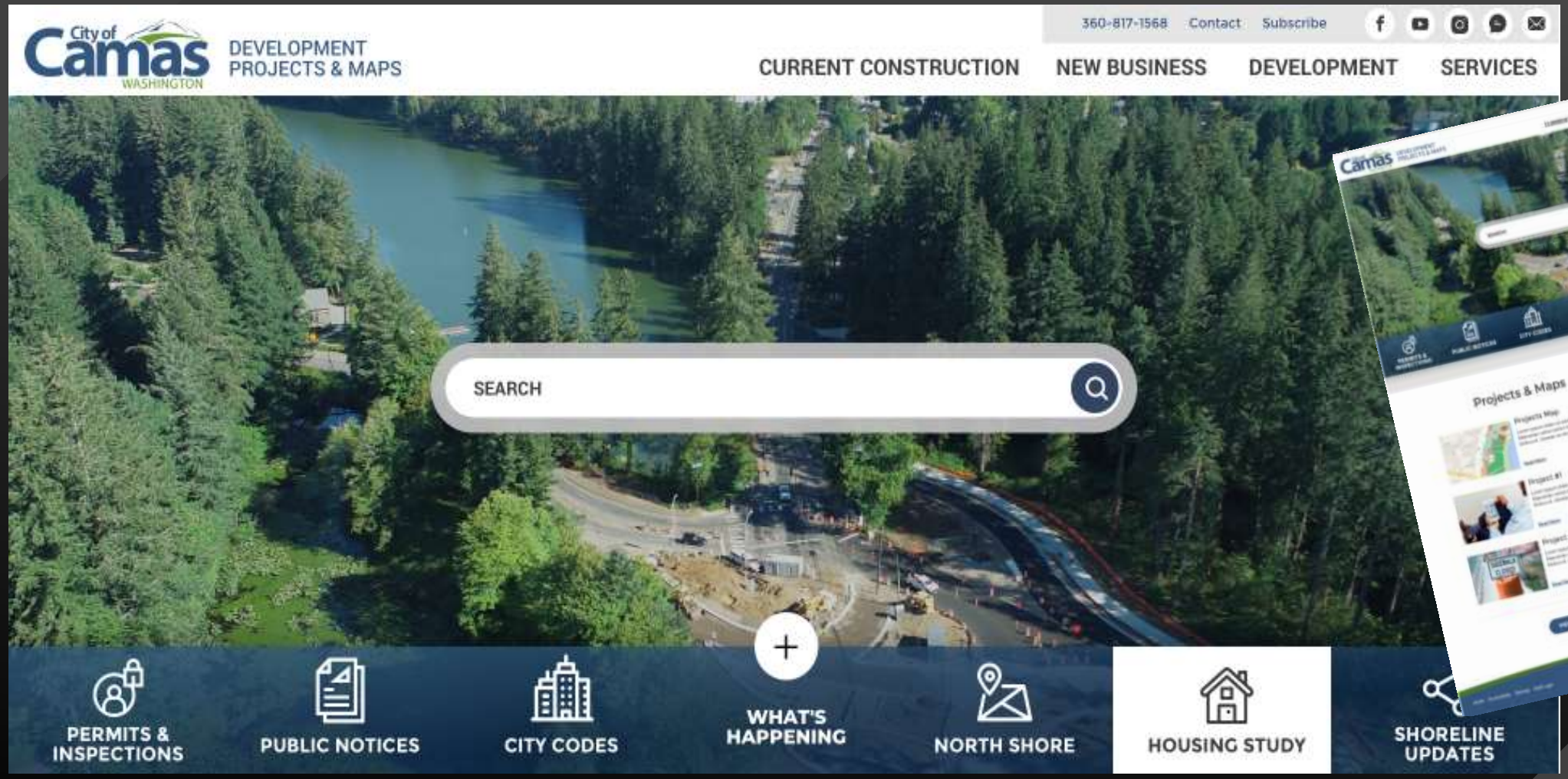
SUB-SITE 2 – LIBRARY

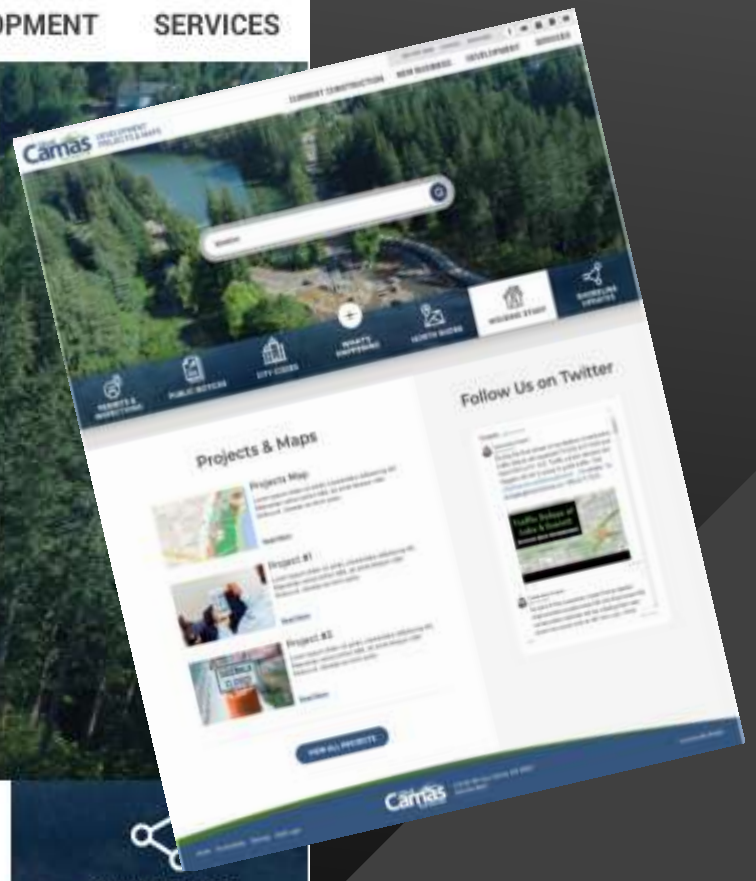


SUB-SITE 3 – PARKS & RECREATION



SUB-SITE 4 – PROJECTS & DEVELOPMENT



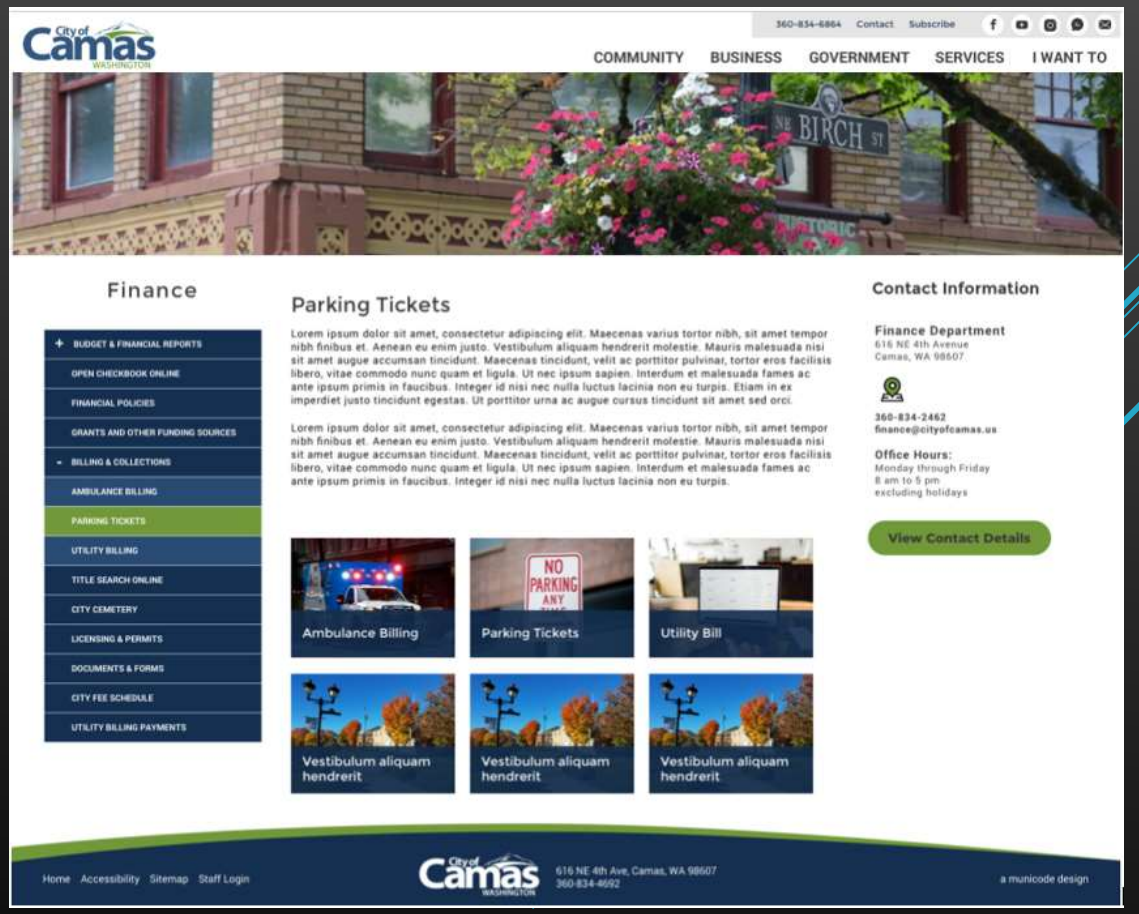


OTHER SERVICES AND RESOURCES

- Department and service pages are designed with the home page main mega menus

  Ex: Mayor and Council, Administration, HR, City Clerk, IT, Finance, Police, Fire, Municipal Court…

- Key boxes designed to highlight resources and services



NEXT STEPS

…through end of year

DESIGN

- Final design review across site
- Building out the Mega menus
- Building department pages
- Building Maps, directories, Job and Bid postings, etc.

DATA

- Site data has been under review by department Content Managers
- Municode data migration underway
- Communications Director's review and input

TRAINING, TESTING & GO-LIVE

TRAINING - November

- Department Content Managers training – editing and managing department content in new system

TESTING - December

- Municode programmers
- IT Department
- City staff
- Citizens

January 2021… GO – LIVE!

QUESTIONS?

Thank You – Web Advisory Design Team

Sherry Coulter, Information Technology Director

Jennifer Gorsuch, Administrative Services Director

Ellen Burton, City Council Member

Danielle Reynolds, Library Technology and Collections Manager

Alicia Brazington, Communications Consultant

Staff Report

November 2, 2020 Council Workshop

Importance of Lacamas Watershed Draft Resolution
Presenter: Steve Wall, Public Works Director

Phone	Email
360.817.7899	swall@cityofcamas.us

BACKGROUND: The water quality within Lacamas Lake, Round Lake and Fallen Leaf Lake ("Lakes") has been declining over time. Based on a series of investigations dating back to the early 1980s, Lacamas and Round Lakes are categorized as "eutrophic" – characterized by an abundant accumulation of nutrients that support a dense growth of algae and other organisms. The last comprehensive report on the condition of Lacamas Lake was completed by the County in 2004 (*Lacamas Lake: Nutrient Loading and In-Lake Conditions, April 2004*) with the last significant update by Clark County occurring in 2007 (*Monitoring Report Lacamas Lake Annual Data Summary for 2007)*. The referenced documents are attached for reference. Fallen Leaf Lake had confirmed algal blooms in late 2019; the first time algal blooms have been documented for that water body.

Grant-funded activities implemented by Clark County and other agencies between 1987 and 2001 reduced agricultural phosphorus sources and increased public awareness of lake issues. Water quality monitoring indicated that phosphorus concentrations in the lake and its major tributary, Lacamas Creek, were substantially reduced during this period. Despite these improvements, however, water quality problems persist in Lacamas Lake. There are no recent studies or other data that would provide specifics of the current condition of the Lakes; however, based on the increasing number, frequency and duration of algal blooms, all indications point towards a further decline of the water quality.

It is noted the City is currently partnering with Clark County Public Works to complete sampling and monitoring efforts on Fallen Leaf Lake as a starting point to try and determine causes of water quality degradation. As an additional item of interest, in 2010-11, the Department of Ecology gathered data in the Lacamas Basin tributaries to support work on developing a Total Maximum Daily Load (TMDL) for the Basin and within Lacamas Creek, up to the point where it discharges into Lacamas Lake. However, Ecology has not finished those efforts, and now believe that work may not begin until possibly the 2023 timeframe.

SUMMARY: The attached 2007 Monitoring Report states that "Public and agency activities to improve Lacamas Lake have diminished since the major grant-funded restoration efforts concluded in 2001. Renewed community interest and support would encourage further measures by state and local agencies to build on earlier successes in improving Lacamas Lake."

As discussed at previous City Council Workshops, there is significant renewed community interest and momentum around the topic of improving the water quality in the Lakes. Staff has prepared the attached DRAFT Resolution for review and discussion by the City Council to assist the Council in confirming the desire to use City resources, likely in partnership with the County and various State agencies, to further investigate and improve water quality in the Watershed.

EQUITY CONSIDERATIONS:

- *What are the desired results and outcomes for this agenda item?*
    - Adoption of this Resolution will confirm the City Council's desire to spend staff time and other resources on what will likely be a very long-term effort to improve and manager water quality within the Lakes.
- *What's the data? What does the data tell us?*
    - Presence of continued algal blooms over the past several years has provided information suggesting the water quality within the Lakes continues to decline. Without significant efforts on the part of the City, County and State agencies, water quality will not likely improve on its own.
- *How have communities been engaged? Are there opportunities to expand engagement?*
    - This Resolution prioritizes engagement through the formation and use of an ad-hoc citizen committee to help develop and guide the City in the short and long-term goals of this effort.
- *Who will benefit from, or be burdened by this agenda item?*
    - The citizens of Camas and the broader community as a whole will benefit from improved water quality in the Lakes.
- *What are the strategies to mitigate any unintended consequences?*
    - Use of a citizen ad-hoc committee and regular updates to the City Council to keep the general public informed of the goals, strategies and efforts to improve water quality within the Lakes.
- *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)?*
    - This will ultimately be a long-term effort to not only improve water quality in the Watershed, and more specifically the Lakes, but then manage it into perpetuity. There will be substantial hurdles along the way to maintain adequate resources, interest from and participation by citizens, City Council and County, State and Federal agencies.

- *How will you ensure accountabilities, communicate, and evaluate results?*
    - Use of a citizen ad-hoc committee and regular updates to the City Council to keep the general public informed of the goals, strategies and efforts to improve water quality within the Lakes.
- *How does this item support a comprehensive plan goal, policy or other adopted resolution?*
    - Adoption of a Resolution supporting the improvement of water quality of the Lakes is consistent with multiple goals in the City's 2035 Comprehensive Plan, including those identified under 3.4.1 (Environmental Stewardship), 3.4.2 (Critical Areas) and 3.4.3 (Shorelines).

BUDGET IMPACT: Staff has currently proposed $75,000 per year ($150,000 total) in the 2021/2022 DRAFT Biennium Budget. These proposed funds would likely be used to support the hiring of a consultant team that can provide the necessary resources to help staff and the ad hoc committee develop a reasonable process for moving the general discussion forward. If possible, some of these funds may be used for such things as technical research and guidance, sampling, monitoring, public outreach, etc. These funds are not anticipated to be adequate to complete an implementation or management plan. Staff anticipates additional funds will likely be needed to support this overall effort moving into the future.

RECOMMENDATION: Staff recommends the Council discuss the Draft Resolution and provide feedback and direction for moving the Resolution forward for adoption.

LACAMAS CREEK WATERSHED WATER QUALITY DRAFT RESOLUTION

CITY COUNCIL WORKSHOP
NOVEMBER 2, 2020

OUTLINE

- DRAFT Resolution
  - Recitals
  - Outcomes
- Related Projects
  - DOE Lacamas Creek Source Assessment
  - Public & Private Stormwater Facilities
  - Fallen Leaf Lake Assessment

RECITALS (WHEREAS…)

- Set the stage
- Background
  - Council Member Hogan presentation
  - Past technical efforts
- More recent efforts

"BE IT RESOLVED THAT…"

- Lakes are Vital Resources
- Budget Proposal
  - Draft Budget includes $150,000 total for 2021/2022
- State and Federal Partnerships
- Ad-Hoc Committee

RELATED PROJECTS

- Dept. of Ecology “Source Assessment” on Lacamas Creek
- NPDES Permit Activities – Public & Private Stormwater Facilities
- Fallen Leaf Lake Assessment

NEXT STEPS

- Revise Resolution as needed
- Solidify Budget Proposal
- Continue working with County on Interlocal Agreement
- Work on development of Ad-Hoc Committee
  - Separate Motion by Council
- RFQ for Consultant Support
- Continue lobbying for support

RESOLUTION NO. _____

A RESOLUTION of the Council of the City of Camas, Washington addressing the importance of improving the water quality within the Lacamas Creek Watershed, including Lacamas, Round and Fallen Leaf Lakes, and establishing an ad hoc committee to be known as the " Lacamas Creek Watershed Committee" to investigate and advise on water quality topics.

WHEREAS, RCW 35A.12.120 provides that the council of the non-charter code city has the authority to determine its own rules and order of business and may establish rules for the conduct of council meetings and the maintenance of order; and

WHEREAS, included within the authority set forth within RCW35A12.120 is the ability to establish and operate internal city council committees; and

WHEREAS, Lacamas Lake, Round Lake and Fallen Leaf have rich histories in the community and the Council wishes to take all reasonable measures to protect them as vital resources, in partnership with other local, state and Federal agencies; and

WHEREAS, lakes are of significant importance to the City and region for recreation, our quality of life, and attracting business and new development; and

WHEREAS, water quality within the lakes of the City of Camas, particularly Lacamas Lake, has been noted of concern for some years, with Clark County and State Department of Ecology led efforts to study and improve water quality commencing in the late 1990's; and

WHEREAS, these initial efforts relating to water quality were successful at the time but have not translated into long-term improvements due to changing conditions and circumstances; and

WHEREAS, in 2019, algae blooms were for the first time reported and confirmed in Fallen Leaf Lake and blooms have continued into 2020; and

WHEREAS, the year 2020 has seen algae blooms being presented for the earliest on record in Lacamas and Round Lakes and blooms have continued throughout the year; and

WHEREAS, the deterioration of water quality in our lakes and the causes of poor water quality is a complex issue not solely related to an individual discharge point or recreational use, and involves reviewing a myriad of uses within the entire Lacamas Creek watershed with involvement of multiple local, state and Federal agencies to accurately and meaningfully attempt to resolve; and

WHEREAS, regional partners to the City of Camas all agree that water quality is of concern and a technical staff committee met in early 2020 to discuss these issues; and

WHEREAS, City and County councilors and staff have been coordinating on a form of Interlocal Agreement by which both the agencies pledge agreement in the importance of improving water quality and the dedication of resources and time towards the effort, in collaboration with other available resources; and

WHEREAS, the State Department of Ecology has a Lacamas Creek Source Assessment budgeted to begin within an anticipated timeframe of 2023 expected to follow their completion of a source assessment on Burnt Bridge Creek, all efforts to furthering the understanding of the quality of water coming into the lakes from Lacamas Creek; and

WHEREAS, City Council desires to address water quality issues within our lakes to allow for a plan to address immediate restoration of recreational uses and development of long-

term implementation and management plan to improve and maintain water quality in perpetuity; and

WHEREAS, the water quality of Lacamas Lake, Round Lake, and Fallen Leaf Lake is of utmost concern to the region and the resources need to be improved and protected for future generations; and

WHEREAS, there are a large number of citizens in the community who value and agree with the importance of improving the water quality within the Lakes and have been independently meeting for several months to explore and discuss ideas to improve water quality; and

WHEREAS, the Council desires to formalize the process outlined in this Resolution, establish goals related to improving the watershed, set expectations of staff and volunteers, and establish a committee to assist the City in these efforts and set forth a termination date for the work of the committee; and

WHEREAS, due to the temporary nature of the ad hoc committee to be established herein the members thereof shall be omitted from the definition of officer as otherwise provided for in Camas Municipal Code Chapter 2.76 and other parameters of their duties shall be as outlined herein,

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

I

A. The City Council hereby designates Lacamas, Round and Fallen Leaf Lakes as vital resources for the community and further indicate that staff time and resources shall be allocated to developing short and long-term plans for improving water quality to support recreational uses and quality of life in the community.

B. Staff is directed to develop a 2021 and 2022 biennium budget proposal for council consideration that will aid in the success of the staff and ad hoc advisory committee in developing and submitting to council recommended strategies to meet the short- and long-term needs of the community.

C. Staff shall continue working with local, state and Federal agencies to obtain guidance and assistance in improving water quality and help find funding for the various strategies and plans to be recommended.

D. There is hereby established an ad hoc citizens advisory committee to be known as "Lacamas Creek Watershed Committee" with the purpose of advising on lake water quality issues and strategies and provide a structure for a partnership with and accountability to the community. The role and expectations for said Advisory Committee are set forth in general as provided herein. The Advisory Committee shall report to the Council and collaborate with the Public Works Director or designee and perform such duties as may be directed thereto. The Public Works

Director or designee, in consultation with the Advisory Committee, shall provide periodic updates to the Council on the activities of the Committee. The Advisory Committee shall consist of _____ members whose names and appointment shall be established by separate motion of the Council. All records of the Advisory Committee shall be maintained as may be needed to comply with applicable public records laws of the State of Washington.

II

Unless otherwise extended by adoption of a motion by the City Council the terms of all members of the committee as herein established shall terminate as of December 31, 2021. Further, members of the committee shall not be deemed officers as defined under Camas Municipal Code Chapter 2.76.

PASSED by the Council and APPROVED by the Mayor this ____ day of _____, 2020.

SIGNED: _____
Mayor

ATTEST: _____
Clerk

APPROVED as to form:

_____
City Attorney

Monitoring Report
Lacamas Lake Annual Data Summary for 2007

Background

Since the original settlement of Clark County, land use changes have dramatically altered Lacamas Lake and resulted in conditions that reduce the lake's suitability for fishing, swimming, and aesthetic enjoyment. High nutrient inputs (primarily phosphorus but also nitrogen) from the watershed have been identified as a major contributing factor.

Ongoing problems include summertime dissolved oxygen depletion, poor water clarity, high levels of algae growth, nuisance blue-green algae blooms, and dense beds of aquatic plants.

Grant-funded activities implemented by Clark County and other agencies between 1987 and 2001 reduced agricultural phosphorus sources and increased public awareness of lake issues. Water quality monitoring indicated that phosphorus concentrations in the lake and its major tributary, Lacamas Creek, were substantially reduced during this period. Despite these improvements, however, water quality problems persist in Lacamas Lake.

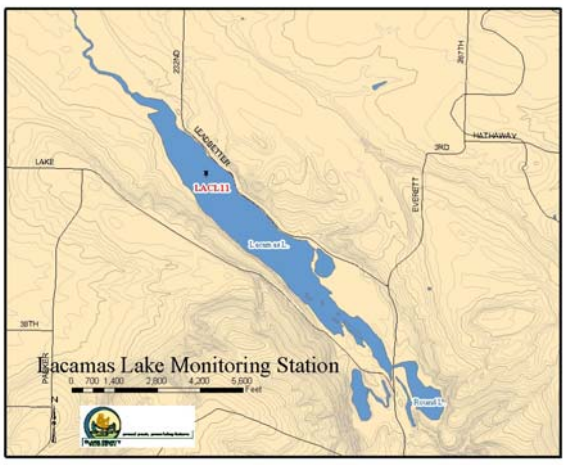
Since the conclusion of grant-funded work in 2001, Clark County's Clean Water Program has continued routine monitoring of this resource to provide information for future lake management decisions.

This report summarizes monitoring activities and data collected from May through October 2007. Historical lake data and nutrient loading were most recently summarized following data collection in 2003. The April 2004 report Lacamas Lake Nutrient Loading and In-Lake Conditions may be viewed at http://www.clark.wa.gov/water-resources/documents.html. Summaries of grant-funded activities from 1987 through 1998 are also available.

Lake Description

Location

Lacamas Lake and Round Lake are located in Clark County, Washington, on the northern boundary of the city of Camas. Though named separately, Round Lake is part of Lacamas Lake connected by a small channel flowing under SE Everett Road. In a county with few lakes, Lacamas Lake is recognized as an important community resource. Fishermen, swimmers, boaters, and hikers utilize the lake and its shores year-round.



Size and morphology

Lacamas Lake is 2.4 miles long and has a maximum width of one quarter mile.

The lake is relatively deep, about 60 feet at its deepest, and covers approximately 330 acres. Water level is controlled by a dam originally constructed in the late 1800s to provide industrial water supply and a means to float logs to the mill in Camas.

Watershed
The Lacamas Creek watershed includes 67 square miles of forest, farm, residential, commercial, and industrial land. The Lacamas watershed extends from Hockinson in the north to Camas in the south. Its western border is approximately 162nd Avenue, and the eastern border is formed by Elkhorn and Livingston mountains (Clark County, 2004).

Lacamas Creek has five major tributaries: Matney Creek, Shanghai Creek, Fifth Plain Creek, China Ditch, and Dwyer Creek. There are also many smaller streams. Lacamas Creek flows about 12.5 miles, from relatively undisturbed forest headwaters through rural, agricultural, and residential areas, into Lacamas and Round Lakes. Below the lakes, Lacamas Creek drops through a series of waterfalls, and finally into the Washougal River (Clark County, 2004).

Monitoring activity summary

Methods
The details of the Lacamas Lake monitoring project are described in the project's quality assurance project plan (QAPP). Staff and volunteer monitors use standardized procedures for performing environmental measurements (Clark County, June 2002).

Monitoring is conducted on a monthly basis from May through October each year. Samples are collected at a single location over the deepest portion of the lake. This station has been utilized for monitoring since the early 1980s and provides a consistent location for long-term data collection.

Field measurements include vertical profiles for water temperature, dissolved oxygen, pH, and conductivity, as well as a single measurement of turbidity and Secchi depth. Water samples collected from the epilimnion (near the surface) and hypolimnion (near the bottom) are analyzed for total phosphorus, total Kjeldahl nitrogen, and nitrate + nitrite nitrogen. Chlorophyll *a* samples are obtained by compositing three grab samples equally spaced through the photic zone. The photic zone is the depth to which light penetrates, and is estimated as 2 times the measured Secchi depth.

The 2007 sampling was performed with the assistance of volunteers, as the project continues a transition to a volunteer project administered under Clark County's Clean Water Program.

Data management and analysis
Field observations and measurements are recorded with electronic field meters and backed up with hard copy forms. Field and analytical data are reviewed to ensure the data are complete and meet the quality control objectives for the project. Data are stored in hard-copy form in three-ring binders until the completion of each sampling season, after which they are entered into the county's water quality database.

The level of data analysis and reporting varies according to a five-year schedule. Brief data summaries such as this one are produced following each sampling year. A technical report is completed following year five sampling, focusing on long-term trends in lake condition. The next technical report is scheduled for completion following 2008 monitoring.

Data analysis focuses on the assessment of lake conditions, specifically on the level of algal growth and related parameters. Basic summary statistics showing central tendency and variability

of the data are calculated on seasonal datasets and summarized in tables. Data are also displayed using simple graphical techniques, such as time series and possibly box-and-whisker plots.

A Trophic State Index (TSI) is used to describe the level of productivity of a lake, or the amount of algal matter produced by photosynthesis. Indices are used to integrate complex datasets, provide a common reference point to describe lake conditions, and help track changes over time. A single measurement of TSI does not indicate whether a lake's health is deteriorating, nor does it imply where a lake *should be* in terms of the current health.

Lake conditions

Based on a series of investigations dating back to the early 1980s, Lacamas and Round Lakes are categorized as "eutrophic" (see Table 1 at the conclusion of this report for summary water quality values). The terms oligotrophic, mesotrophic, and eutrophic are often used to characterize lakes according to a low, medium, or high level of algal production, respectively. Over time, lakes naturally move slowly along this continuum in the direction toward eutrophic conditions (high algal production). In some cases, however, this movement can be dramatically accelerated due to human activities in a lake or watershed.

Trophic categories are not meant to convey value judgments. Oligotrophic conditions do not necessarily imply "good" water quality or a "healthy" lake. Conversely, eutrophic conditions do not always mean a lake is impaired or has "bad" water quality. Rather, trophic categories describe the amount of nutrient enrichment and biological productivity in a lake, whereas terms like "healthy" and "impaired" refer to the condition of a lake relative to its desired uses or natural condition (Snohomish County, 2003).

In the case of Lacamas Lake, accelerated eutrophication has dramatically altered the lake from its natural historical condition and resulted in conditions that may impair current desired uses such as fishing, swimming, and aesthetic enjoyment. Water quality monitoring during 2007 supports previous conclusions regarding the eutrophic condition of the lake.

Water clarity

Lacamas Lake has low water clarity. In general, an average summertime Secchi disk depth of less than 2.0 meters is indicative of eutrophic conditions. From May through October 2007, Secchi depth averaged 1.8 m and ranged from 0.9 to 3.0 m. Turbidity values were generally low, averaging 5.6 NTU and ranging from 1.5 to 10.4 NTU.

Secchi Disk

Water clarity in Lacamas Lake is impacted primarily by algal cells during the summer months. The lake often takes on a green tint when algal populations are high, and these algal blooms limit light penetration.

Nutrients

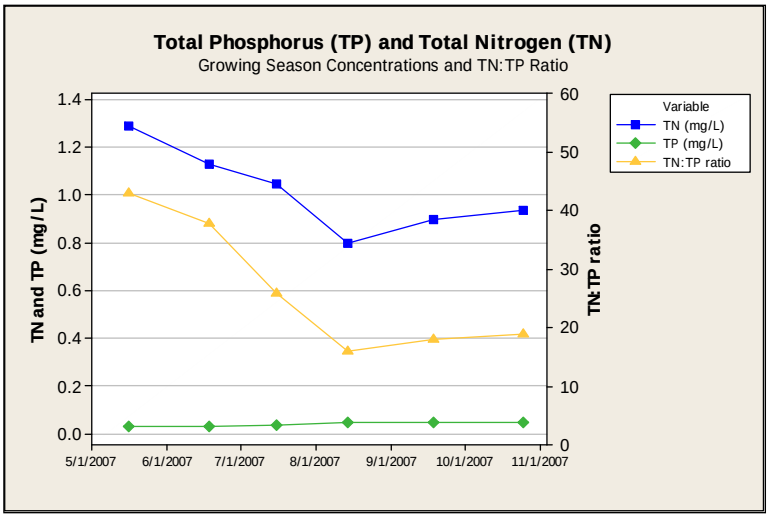
The total phosphorus criterion for preventing nuisance algal blooms and controlling eutrophication is 25 *ug*/L (EPA, 1986). Lacamas Lake had moderate surface phosphorus levels somewhat above this criterion throughout the summer, averaging 42 *ug*/L and ranging from 30 to 50 *ug*/L.

Total nitrogen concentrations were fairly high, averaging 1.02 *mg*/L and ranging from 0.80 to 1.29 *mg*/L.

Nutrient availability to algae is an important aspect of nutrient dynamics in lakes. The ratio of TN to TP is often used to interpret the availability of nutrients relative to one another. Low ratios

indicate an abundance of phosphorus and a relatively low amount of nitrogen. Higher ratios indicate a scarcity of phosphorus relative to nitrogen. In these cases we say that the nutrient in shorter supply is "limiting" algal growth. In some cases, the ratio may indicate the potential for either phosphorus or nitrogen to be limiting.

Similar to recent years, TN:TP ratios in the lake were very high during 2007, ranging from 16 to 43. This suggests that phosphorus was the limiting factor for algal growth throughout the summer. This situation may have a positive impact on algal blooms because in a nitrogen-limited system nuisance blue-green algal species can have a competitive advantage.



(Above) Total Nitrogen and Total Phosphorus concentration and ratio, summer 2007

Temperature/Oxygen

Vertical profiles of temperature and oxygen indicate that Lacamas Lake typically stratifies, or separates into layers by temperature. Stratification occurs when solar energy warms the surface water, while the deeper water tends to remain colder because the sun's rays only penetrate a short distance.

The resulting temperature gradient is often strong enough to confine water, nutrients, dissolved oxygen, and suspended materials to a discrete layer, playing a key role in the movement of materials within lakes.

Summer surface water temperatures are typically quite warm in Lacamas Lake. In 2007, surface temperatures almost reached 25 degrees Celsius, about 77 degrees Fahrenheit. Temperatures in this range are sufficient to promote algal growth throughout the summer, and often favor certain species of algae, such as blue-green algae, that may increase to nuisance levels. These temperatures are also above the acceptable range for cold-water fish species such as trout (generally <18 degrees Celsius). Suitable water temperatures were present throughout the summer at depths greater than approximately 5 meters. However, these cold-water areas were often uninhabitable by fish due to extremely low dissolved oxygen concentrations.

Oxygen depletion results from the decomposition of biological material that settles to the lake bottom. Thermal stratification does not allow fresh oxygen from the atmosphere to reach the deeper layer and the oxygen is eventually depleted. The oxygen is only replenished when the stratification breaks down and vertical mixing of the water column occurs during fall.

In Lacamas Lake there is generally insufficient oxygen for most aquatic life uses (<5 mg/L) at depths greater than 4-5 meters from July through September, with essentially no oxygen at all below 6 meters from July through September. This historical pattern was again observed in 2007.

The combination of dissolved oxygen depletion in deeper cool water and elevated surface temperatures in shallower water forces fish and other aquatic life to survive in a very restricted, and sometimes non-existent, band of suitable habitat.

pH

Typically, aquatic life criteria require that pH levels remain close to neutral (6.5) to slightly basic, not to exceed a value of 8.5-9.0 units (EPA, 1986). Lacamas Lake has relatively high pH levels and 2007 data indicated values were highest (~9.0 units) during July and August, most likely due to intense algal growth at these times. By-products of the photosynthetic reactions in algal cells cause a net increase in pH.

Algae

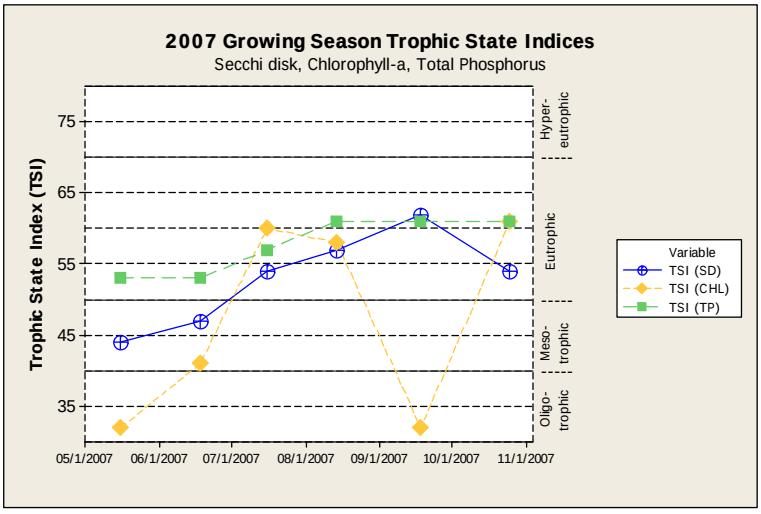
Chlorophyll-a, a pigment present in algae utilized for photosynthesis, is often used to estimate the amount of algae in lakes. The average chlorophyll-a concentration for the May – October 2007 period was 11 *ug*/L and ranged from 1 to 23 *ug*/L. Eutrophic lakes typically have maximum chlorophyll-a concentrations ranging between 20 and 200 *ug*/L (Holdren and others, 2001).

The average chlorophyll-a value for the May-October 2007 period was substantially lower than for the same period in 2005 (excluding comparison with partial data period for 2006).

Algal cell counts were most recently summarized following sampling in summer 2003. The phytoplankton community biovolume was then dominated by species commonly associated with eutrophic conditions. The average biovolume and a general pattern of dominance by the diatom *Fragilaria crotonensis* and blue-green algal species were consistent with results from earlier studies in 1984 and 1995. However, a significant increase in the blue-green alga *Aphanizomenon flos-aquae* since 1984 is a likely indication of advancing eutrophication.

Trophic State

Trophic state indices (TSI) calculated from Secchi disk, chlorophyll-a, and total phosphorus values generally indicated that the lake was eutrophic during much of the summer, meaning the lake is enriched with nutrients and algae. Using all three TSI characteristics on a scale of 0-100, the overall average monthly TSI value for summer 2007 was 53 with individual monthly TSI values ranging from 32 to 62. Values between 50 and 70 are associated with eutrophic lakes. Periodically, monthly Secchi disk and chlorophyll-a TSI estimates suggested short periods for Lacamas Lake that were more similar to mesotrophic or even oligotrophic conditions that may have been associated with zooplankton grazing of algae.



(Above) Trophic State Index (TSI) values, summer 2007

Aquatic Plants

Lacamas Lake is characterized by extensive aquatic plant growth. Based on surface and scuba surveys, scientists in 1984 concluded that at least 97% of the potential colonizable area in Lacamas Lake was populated with aquatic plants. Results from the most recent Washington State Department of Ecology survey in 1999 indicated increasing dominance of the plant community by Brazilian waterweed (*Egeria densa)*, an aggressive exotic species (photo). Since 1984, *Egeria densa* has largely displaced more desirable native species in the shallow-water areas (Parsons, 1999).

Egeria densa

Fish

The most recent Lacamas Lake fish population study was conducted in 1997 by the Washington Department of Fish and Wildlife. Lacamas Lake supports self-sustaining populations of warm-water fish (e.g. perch, bluegill, and largemouth bass).

The native cutthroat trout historically found in the lake are thought to be non-existent. Brown and rainbow trout are introduced through an annual stocking program and support a well-used fishery (Mueller and Downen, 1999).

The 1997 investigation concluded that warm-water species in Lacamas Lake exhibit signs of an unbalanced community, including slow growth, poor condition, and low recruitment. There appeared to be an overpopulation of small, slow growing fish with key size classes lacking.

Food availability did not appear to be a factor in causing the poor fish growth. Rather, the report concluded that poor water quality (primarily dissolved oxygen depletion) causes stress, limits habitat, and may be the greatest impediment to both the cold and warm-water fisheries (Mueller and Downen, 1999).

Summary

Overall conditions in Lacamas Lake were similar in 2007 to those observed over the past several years. Phosphorus levels were slightly higher than EPA's aquatic life criteria to avoid nuisance algal blooms, and nitrogen levels were relatively high. Elevated surface water temperatures combined with low dissolved oxygen conditions in the deeper areas limited summer cold-water fish habitat. Light penetration was consistently low due to abundant algal growth. Trophic state indices for Secchi disk, total phosphorus, and chlorophyll-a all indicated Lacamas Lake was eutrophic.

Algal growth was strongly phosphorus-limited during 2007. This pattern has been noted for the past several years and represents a change from historical conditions that have seen the lake typically shift to nitrogen limitation during late summer. The consistently elevated nitrogen values, compared with relatively low phosphorus inputs could indicate increased nitrogen sources in the watershed and/or an increased role of nitrogen in the ecology of Lacamas Lake.

Consistent limitation of algal growth by phosphorus could be a positive development for the lake, maintaining conditions favorable to desirable algal species. However, despite the limitation by phosphorus in 2007, current phosphorus levels are still easily sufficient to allow high levels of plant and algal growth and maintain a trophic status well into the eutrophic range.

Recommendations

Continued monitoring during the summer season is recommended to track long-term changes in lake conditions and inform future management efforts. Successfully decreasing phosphorus inputs may help limit blue-green algal blooms and, if the decrease was significant enough, potentially move the lake toward a lower trophic status.

Public and agency activities to improve Lacamas Lake have diminished since the major grant-funded restoration effort concluded in 2001. Renewed community interest and support would encourage further measures by state and local agencies to build on earlier successes in improving Lacamas Lake. Focused management efforts within the lake aimed at maintaining beneficial uses, such as mechanically introducing oxygen during the summer, would require consistent funding sources and broad public support.

Acknowledgements

The assistance of Frances Foley for her 2007 Lacamas Lake volunteer monitoring was greatly appreciated.

This report was originally written by Jeff Schnabel and updated by Robert Hutton in June 2008 based on 2007 Lacamas Lake data.

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jeff.schnabel@clark.wa.gov

Or, visit the Clean Water Program website:
www.clark.wa.gov/water-resources/index.html

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Table 1. Average values for Lacamas Lake monitoring projects; values in parentheses are ranges for the period

Data Source	Date Range	Maximum Surface water temperature *(deg-C)*	Minimum water column oxygen concentration *(mg/L)*	Surface water pH *(units)*	Secchi Depth *(meters)*	Turbidity *(NTU)*	Total phosphorus *(mg/L-P)*	Total nitrogen *(mg/L-N)*	Chlorophyll-a *(ug/L)*
Beak and SRI, 1984	Dec 1983 to Nov 1984	23.2	<0.1	7.7 (6.6 - 9.4)	1.3 (0.6 – 2.0)	7.3	0.070	1.16	19 (0.4 – 65)
Clark County, 1994 (Lafer)	July 1991 to Nov. 1992	23.0	<0.1	8.5 (7.5 – 9.6)	1.7	--	0.030 (0.015 – 0.063)	0.8 (0.4 – 1.6)	25 (est) 64 (max)
E&S, 1996	April to Nov. 1995	25.0	<0.1	7.9 (6.4 – 9.9)	1.4 (0.9 – 2.8)	4.3 (2.0 – 8.5)	0.041 (0.030 – 0.066)	1.13 (0.8– 1.4)	--
E&S, 1997	February to May, 1996	15.2	<0.1	6.4 (6.2 – 6.7)	1.1 (0.9 – 1.3)	6.8 (4.0 – 9.3)	0.102 (0.026 – 0.310)	1.5 (1.1 -1.9)	--
Clark County, 2000 (Schnabel)	Oct. 1998 to Sept. 1999	22.1	<0.1	7.5 (6.7 – 8.9)	1.6 (0.9 -2.1)	--	0.033 (0.018 – 0.050)	--	--
Clark County, 2002 (Schnabel)	Oct. 1999 to Sept. 2001	23.2	<0.1	--	1.4 (0.6 – 3.0)	--	0.030 (0.010 – 0.053)	1.2 (0.6 – 2.3)	--
Clark County, 2004 (Schnabel)	Oct. 2001 to Sept. 2003	25	<0.1	7.9 (6.8 – 9.3)	1.7 (0.5 – 3.0)	--	0.036 (0.010 – 0.079)	1.3 (0.4 – 2.4)	(May-Oct 2003 data unreliable)
Clark County (unpublished)	Oct. 2003 to Oct. 2004	24	<0.1	8.1 (6.9 – 9.0)	1.7 (1.2 – 2.5)	3.5	0.041 (0.023 – 0.144)	1.2 (0.5 – 2.2)	29 (18 – 35)
Clark County, 2006 (Schnabel)	May to Oct. 2005	23.6	<0.1	8.6 (8.0 – 9.0)	1.5 (1.1 – 2.0)	6.0	0.036 (0.021 – 0.58)	1.09 (0.7 – 1.3)	37 (15 – 82)
Clark County, 2007 (Schnabel)	May to Oct. 2006	22.9	<0.1	8.2 (6.6 – 9.2)	1.7 (1.3 – 2.6)	3.6 (1.4 – 6.9)	0.037 (0.023 – 0.060)	1.13 (0.8 – 1.6)	(July-Oct only) 13 (10-13)
Clark County, 2008 (Hutton & Schnabel)	May thru Oct. 2007	24.8	0.13	7.9 (6.5-9.1)	1.8 (0.9-3.0)	5.6 (1.5-10.4)	0.042 (0.030-0.050)	1.02 (0.8-1.29)	11 (1-23)

Lacamas Lake:
Nutrient Loading and In-lake Conditions

Clark County Public Works
Water Resources Section

April 2004

Prepared by
Jeff Schnabel and Bob Hutton

Funded by the
Clark County NPDES Clean Water Program

Table of Contents

Acknowledgements
We appreciate the assistance of Water Resources staff in the completion of this project. Ron Wierenga and Jason Wolf assisted with field data collection. Peer review was provided by Bob Hutton, Kelli Frost, and Rod Swanson.

Bob Hutton constructed report graphics and performed all statistical analyses. Thanks also to Jim Sweet, Aquatic Analysts Inc., for assistance with phytoplankton data interpretation.

Introduction

Background

Lacamas Lake and Round Lake are located in Clark County, Washington, on the northern boundary of the city of Camas. In a county with few lakes, Lacamas and Round Lakes are recognized as an important recreational resource. Fishermen, swimmers, boaters, and hikers utilize the lakes and their shores year-round.

Periodic water quality monitoring by the Southwest Washington Health District (SWHD) from 1974-1980 first raised concerns about water quality in Lacamas Lake and its tributary streams. In 1983, the Clark County Intergovernmental Resource Center (IRC) received a grant from the Washington Department of Ecology (Ecology) to fund a Phase I Diagnostic and Restoration Analysis (SRI, 1985).

Based on this investigation, Lacamas and Round Lake were categorized as "eutrophic". The terms oligotrophic, mesotrophic, and eutrophic are often used to characterize lakes according to a low, medium, or high level of algae production, respectively. Over time, lakes naturally move slowly along this continuum in a direction toward eutrophic conditions (high algal production). In some cases, however, this movement can be dramatically accelerated due to human activities in a lake or watershed.

It should be noted that trophic categories are not meant to convey value judgments. Oligotrophic conditions do not necessarily imply "good" water quality or a "healthy" lake. Conversely, eutrophic conditions do not always mean a lake is impaired or has "bad" water quality. Rather, trophic categories describe the amount of nutrient enrichment and biological productivity in a lake, whereas terms like "healthy" and "impaired" refer to the condition of a lake relative to its desired uses or natural condition (Snohomish County, 2003).

In the case of Lacamas Lake, accelerated eutrophication has dramatically altered the lake from its natural historical condition and resulted in conditions that may impair current desired uses such as fishing, swimming, and aesthetic enjoyment.

Water quality problems associated with Lacamas Lake eutrophication in 1984 included severe dissolved oxygen depletion, poor water clarity, high levels of algae growth, nuisance blue-green algae blooms, and dense beds of aquatic macrophytes. These conditions are typical of a highly eutrophic lake, and were attributed primarily to excessive inputs of the nutrient phosphorus due to human activities in the Lacamas watershed.

Subsequently, the Lacamas Lake Restoration Program (LLRP), supported in part by grants from the Centennial Clean Water Fund and Section 319 Fund, implemented a program of agricultural Best Management Practice (BMP) installation, water quality monitoring, and public education in the watershed between 1987 and 2001. Those efforts were aimed at reducing the amount of phosphorus in Lacamas Lake and are summarized in the Lacamas Lake Restoration Program Final Report (Hutton, 2002), Lacamas Lake Restoration Program: WY2000 and WY 2001 Water Quality Monitoring (Schnabel, 2002), and the Lacamas Lake Watershed Restoration Project Program Review (E&S, 1998). These reports and others relating to Lacamas Lake are available from Clark County Water Resources.

The LLRP was successful in reducing the number of agricultural sources of phosphorus to the lake, establishing a greater scientific understanding of its water quality and dynamics, and raising awareness among the citizens of Clark County. However, despite the fact that annual loading and

in-lake concentrations of phosphorus declined, the lake continued to exhibit the signs of eutrophication observed in the early 1980s.

Since the expiration of the Lacamas grant in December 2001, Clark County Water Resources has continued ambient monitoring activities in Lacamas Creek and Lacamas Lake under its Clean Water Program. In the absence of a coordinated lake management and monitoring approach by other local and state jurisdictions, Water Resources continues ambient monitoring of this resource to enhance future lake management decisions and improve the evaluation of potential changes in lake health.

Purpose and Scope

This report updates water quality status and trend information for Lacamas Creek and Lacamas Lake. The report describes annual loading estimates, explores possible trends in key nutrient concentrations, presents recent lake monitoring results, and defines current lake trophic status. Although comparisons are made with historical data, the report does not include a comprehensive discussion of past Lacamas Lake monitoring results.

Report Components

The report describes two separate project components:

1) Lacamas Creek (inlet/outlet): the final summary for a five-year project to estimate total phosphorus and total suspended solids loading to and from Lacamas Lake.

Annual total phosphorus (TP) and total suspended solids (TSS) loads into and out of the lake are calculated, including an estimate of annual TP and TSS retention within the lake. Average annual TP concentrations in Lacamas Creek are compared with EPA criteria. The 1999-2003 Lacamas Creek data set is analyzed for trends in TP and TSS concentration, and current TP/TSS loading rates are compared with earlier estimates.

2) Lacamas Lake: an update of lake condition and trend information based on data collected during water year (WY) 2002 and WY2003, as well as the historical dataset.

Patterns of lake stratification, dissolved oxygen, and temperature are presented for WY2003. Box-plots of summertime epilimnetic TP and total Kjeldahl nitrogen (TKN) concentrations are constructed and the 1991-2003 lake data set is analyzed for trends in epilimnetic water transparency (Secchi disk), TP, and TKN. Median epilimnetic TP concentrations are compared to EPA criteria and nitrogen concentrations are compared to expected ranges for eutrophic water bodies.

WY2003 phytoplankton population density and biovolume are compared to results from 1984 and 1995, and current population composition is discussed. Recent Washington Department of Ecology (Ecology) aquatic plant survey results are also summarized. WY2003 lake trophic status is determined through the calculation of trophic state indices (TSI) for TP, Secchi disk, chlorophyll-*a*, and phytoplankton data. Box-plots of yearly summertime TSI values are presented for the 1984-2003 dataset.

Methods

Methods and QA procedures utilized in this project are described in the Lacamas Lake Watershed Water Quality Monitoring Program QAPP (1998), Lacamas Lake Monitoring Project QAPP (2004, draft), and, where noted, the report titled Lacamas Lake Restoration Program: WY2000 and WY2001 Monitoring (2002). For a complete description of laboratory procedures, see NCA's Quality Assurance Manual (2001).

Sample station locations

Figure 1 shows sample station locations for the Lacamas project. Station LACL11 (lake samples) is located over the deepest part of Lacamas Lake, and corresponds to the location of ambient water quality monitoring in previous Lacamas Lake studies. Station LACL00 (outlet samples) is located in the narrow channel connecting Lacamas and Round Lakes, immediately east of the State Route 500 bridge. Station LAC050 (inlet samples) is located on Lacamas Creek at the Goodwin Road bridge (County bridge #172), approximately ½ mile upstream from Lacamas Lake.

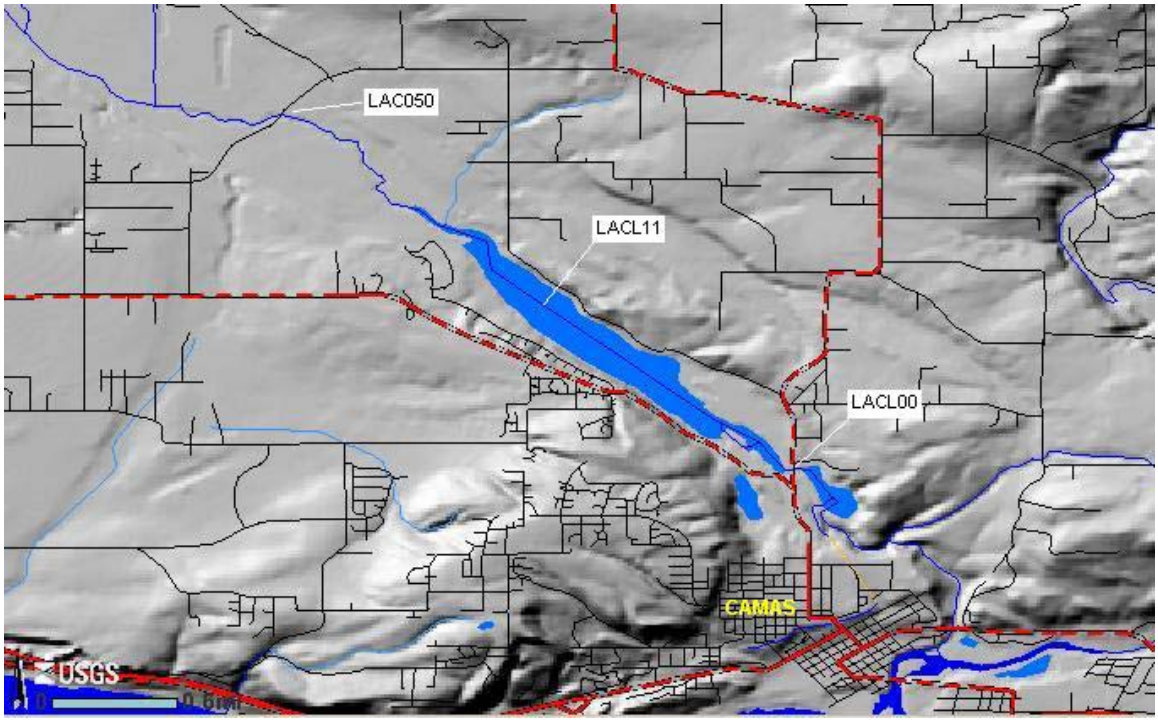

Figure 1. Location of Lacamas Lake Monitoring Program sample stations.

Sampling scheme and Parameters

The project consisted of two separate sampling components. The first component involved monitoring at the inlet and outlet of the lake to evaluate annual TP and TSS loading. The second consisted of monitoring in-lake conditions. Sampling schedules and parameters for each project component are shown in Table 1.

Field procedures

Lacamas Lake

Lake samples were collected at station LACL11. Field measurements for water temperature, dissolved oxygen, ph, and conductivity were collected at 1m intervals using a calibrated Hydrolab Datasonde 4 multi-probe and Surveyor 4 data-logger. Water samples for nutrient and suspended solids analyses were collected from the epilimnion, metalimnion, and hypolimnion using a

vertical VanDorn-style sampling bottle.

Appropriate sample bottles were supplied by the analytical laboratory. Water samples were stored on ice in coolers until delivery to the lab. Secchi disk readings were taken on the shady side of the boat, with eye level just above the gunwale.

Chlorophyll *a* and phytoplankton samples were obtained by compositing three grab samples equally spaced through the photic zone. Photic zone depth was estimated as 2.5 times the measured Secchi depth. Grabs were collected using a VanDorn-style sampling bottle and composited in a nalgene carboy, from which sub-samples were drawn.

All field measurements were recorded on data sheets to provide a written backup of electronically stored data. Ancillary data pertaining to weather conditions, equipment function, and staff observations were also recorded on data sheets.

Project Component	Parameter	Schedule	Collection
Lacamas Creek:			
Inlet (LAC050)	stream flow	hourly	pressure transducer
	total phosphorus	weekly + storm events	automated grab
	total suspended solids	weekly + storm events	automated grab
Outlet (LACL00)	total phosphorus	weekly	manual grab
	total suspended solids	weekly	manual grab
Lacamas Lake:			
Lake (LACL11)	Secchi depth	monthly	visual measurement
	temperature	monthly	field meter, vertical profile
	dissolved oxygen	monthly	field meter, vertical profile
	conductivity	monthly	field meter, vertical profile
	pH	monthly	field meter, vertical profile
	total phosphorus	monthly	manual grab, 3 depths
	orthophosphorus	monthly	manual grab, 3 depths
	total suspended solids	monthly	manual grab, 3 depths
	total kjeldahl nitrogen	monthly	manual grab, 3 depths
	ammonia-nitrogen	monthly	manual grab, 3 depths
	nitrate + nitrite nitrogen	monthly	manual grab, 3 depths
	chlorophyll *a*	monthly (May-Oct 2003)	Composite, photic zone
	phytoplankton	monthly (May-Oct 2003)	Composite, photic zone

Table 1. Sampling schedule and collection methods.

Lacamas Creek (Inlet/Outlet)
Inlet samples were collected at station LAC050 using a Sigma 900MAX all-weather refrigerated sampler. In addition to providing automated sample collection, the Sigma equipment recorded hourly stream stage to calculate discharge. Water samples were collected approximately weekly and analyzed for total phosphorus and total suspended solids. In addition to this weekly base-flow sampling, selected storm events were sampled at a higher frequency to capture rapidly changing TP and TSS concentrations. A total of 125 samples were collected during WY2002 and 90 during WY2003.

Outlet samples were collected at station LACL00 using a vertical VanDorn-style sampling bottle or Sigma 900MAX portable sampler. Samples were collected from the SR500 bridge at approximately the midpoint of the channel and near the middle of the water column

(approximately 2m below the water surface). Samples were collected approximately weekly and analyzed for total phosphorus and total suspended solids. A total of 53 samples were collected during WY2002 and 38 during WY 2003.

Laboratory procedures

Laboratory analyses for TP, TSS, TKN, ammonia nitrogen, nitrate + nitrite nitrogen, and chlorophyll *a* were conducted by North Creek Analytical, an Ecology-accredited facility in Beaverton, Oregon. Phytoplankton samples were analyzed by Aquatic Analysts in White Salmon, Washington. Table 2 contains analytical methods and reporting limits, in addition to precision, accuracy, and bias targets.

Characteristic	Method	Reference	Reporting Limit	Precision	Accuracy	Bias
		lab	conc/units	%RSD	units/% error	%REC
stream flow		na				
temperature	thermistor	na	0.01 C	10%	±0.15 C	na
dissolved oxygen	membrane electrode	na	0.01 mg/L	10%	±0.2 mg/L	na
conductivity	electrode	na	4 digits	10%	±0.5% of reading	na
pH	glass electrode	na	0.01 units	10%	±0.2 units	na
total phosphorus	colorimetric	EPA 365.1	0.02 mg/L	10%	25%	5%
orthophosphorus	colorimetric	EPA 365.2	0.01 mg/L	10%	25%	5%
total kjeldahl nitrogen	colorimetric	EPA 351.2	0.5 mg/L	10%	25%	5%
ammonia-nitrogen	colorimetric	EPA 350.1	0.05 mg/L	10%	25%	5%
nitrate+nitrite nitrogen	colorimetric	EPA 353.2	0.05 mg/L	10%	25%	5%
chlorophyll *a*	spectrophotometric	SM 10200H	0.2 ug/L	20%	45%	5%
phytoplankton	slide transect	na	na	na	na	na

Table 2. Analytical methods and measurement quality objectives.

QA/QC

Field QA

The Quality Assurance program for field sampling consisted of several components: 1) sample collection according to standard procedures as described in the previous section and in Standard Procedures for Monitoring Activities, Clark County Water Resources Section (June 2002), 2) field staff training, 3) documented instrument calibration, and 4) the collection of field Quality Control (QC) samples.

Four types of field QC samples or measurements were collected.

- Duplicate field samples and duplicate field measurements- these consisted of an additional sample collection or measurement made a few minutes after the initial sample or measurement. These samples are also referred to as "sequential" duplicates and represent the variability due to short-term in-stream or in-lake processes, sample collection and processing, and laboratory analysis.
- Split field samples- these consisted of a single composite sample split into two containers that were processed as individual samples. This eliminated the in-lake variability and isolated the variability to that due to field processing and analysis.
- Transfer blanks- these consisted of the submission and analysis of de-ionized water samples exposed to sampling equipment and procedures in the field.
- Transport blanks- these consisted of the submission and analysis of de-ionized water samples prepared in the office and carried through the field trip.

QC collection targets were modified during late 2002 as part of a Water Resources QA review and update. QC sample schedules below reflect the updated targets used during WY 2003. At the lake station (LACL11), duplicate field samples and duplicate field measurements were collected every other month for all characteristics except chlorophyll-*a*. One split field sample was collected for chlorophyll-*a* analysis. Transfer blanks were collected during lake trips semi-annually and a transport blank was collected annually. QC samples were submitted semi-blind to the laboratory. They were identified as QC samples from a particular station, but sample type (duplicate, transfer blank, or transport blank) was not identified.

Field meters were calibrated and maintained in accordance with manufacturer's instructions. Conductivity check standards and a NIST-certified thermometer were used to verify field meter accuracy. Calibration logs were completed during each calibration and are archived in Water Resources Section files. Calibration drift in pH meters was checked against pH buffer solutions, and dissolved oxygen measurements were verified using a modified Winkler titration.

Duplicate field samples from the inlet/outlet stations (LAC050 and LACL00) were collected every other month beginning in late WY2002. Stage measurements recorded with the Sigma 900MAX at station LAC050 were checked for consistency against staff gage readings and a backup stage recorder at the same location. The accuracy of the stage-discharge relationship used for calculating stream discharge was verified through comparison with instantaneous discharge measurements collected during WY2003.

Laboratory QA

Laboratory check standards, matrix spikes, analytical duplicates, and blanks were analyzed in accordance with the NCA Quality Assurance Manual (2001). QC results were reported to Water Resources along with sample data. Laboratory data reduction, review, assessment, and reporting were performed according to the NCA Quality Assurance Manual.

Data Analysis Procedures

Data analysis included the calculation of annual loading estimates, construction of box-and-whisker plots, trend analysis, trend power and the calculation of trophic state index values. Analyses were performed using Microsoft Excel, Minitab, and WQStat Plus software. Data analysis procedures are included in the Appendix.

Results and Discussion

Quality Assurance
QA/QC results and discussion are included in the Appendix.

Lacamas Creek (inlet/outlet)
TP and TSS loading
Table 3 and Figure 2 summarize available TP loading, TSS loading, and streamflow estimates for Lacamas Creek since 1984.

During WY 2003, TP loading was estimated at 5000 kg (~5.5 tons) and TP export from the lake was ~4400 kg. This amounts to a net annual TP retention of 600 kg (12%) within the lake. Between WY1999 and WY2003, mean annual TP loading was 6000 kg, which compares favorably to the estimate of 14,000 kg in 1984. However, differences in annual stream discharge can greatly affect annual loads. To compensate for these differences, loading was also calculated per unit of stream discharge (kilograms/acre-ft). Since 1999, estimated TP loading has remained consistently between 0.06 and 0.07 kilograms per acre-foot of stream discharge. Again, this compares favorably to the earlier estimate of 0.11 kg/acre-ft in 1984 (Figure 2).

	~WY 1984	WY 1999	WY 2000	WY 2001	WY 2002	WY 2003
Total Stream Discharge (ac-ft/yr):	128,237	127,098	96,265	48,778	102,471	81,151
Mean Discharge (cfs)	178	176	133	67	141	112
TP In-load (kg):	14,387	7,560	6,414	3,061	7,632	5,001
TP load per discharge (kg/ac-ft):	0.11	0.06	0.07	0.06	0.07	0.06
TP Out-load (kg):	12,161	n/a	5,065	1,785	6,650	4,390
% Retained in lake:	15	n/a	21	42	13	12
TSS In-load (kg):	1,820,000	812,094	1,238,691	719,246	615,291	523,891
TSS load per discharge (kg/ac-ft):	14.2	6.4	12.9	14.8	6.0	6.5
TSS Out-load (kg):	n/a	n/a	543,242	464,888	417,687	204,967
% Retained in lake:	n/a	n/a	56	35	32	61

Table 3. Streamflow and loading estimates since 1984.

There has been a net retention of TP in the lake each year that loading estimates have been calculated. The retention rate has ranged from 12% to 42% of the estimated in-load, with the highest annual retention rate corresponding to a water year with exceptionally low annual discharge (WY2001).

TSS loading for WY 2003 was estimated at slightly more than 500,000 kg (~550 tons, or about 55 dump-truck loads). TSS export was estimated at ~200,000 kg, leaving a net annual TSS retention of ~300,000 kg (61%) during WY 2003. The mean annual TSS load between WY1999 and WY2003 was just under 800,000 kg, compared to 1,820,000 kg in 1984. However, TSS loading per unit of stream discharge has ranged from 6 to 15 kg/ac-ft over the past five years, compared to 14 kg/ac-ft in 1984 (Figure 2).

As with TP, there has been a net retention of TSS in the lake during each year monitored. Retention rate estimates have ranged from 32% to 61% of the estimated in-load, indicating consistent deposition of sediment within Lacamas Lake.

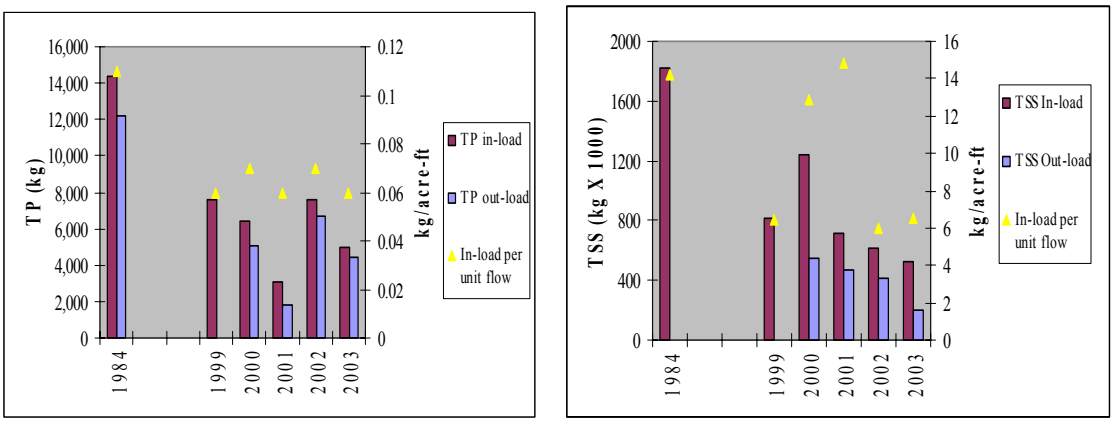

Figure 2. Annual TP and TSS in-load, out-load, and in-load per unit flow.

TP and TSS concentrations

Table 4 shows the time-weighted mean TP and TSS concentrations at the inlet and outlet of Lacamas Lake. Time-weighted means were calculated by taking the mean of the entire hourly dataset, so that individual measurements were weighted according to the length of time they were used to represent stream concentration. The time-weighted mean is an estimate, but should be a more accurate representation of annual stream conditions than the mean of the individual samples because it compensates for the effect of high concentrations in storm samples which only persist for a short time.

	~WY 1984	WY 1999	WY 2000	WY 2001	WY 2002	WY 2003
Mean In-flow TP (mg/L):*	0.089	0.050	0.061	0.046	0.052	0.038
Mean Out-flow TP (mg/L):*	n/a	n/a	0.039	0.034	0.034	0.030
Mean In-flow TSS (mg/L):*	11.5	6.3	12.5	9.6	5.3	4.1
Mean Out-flow TSS (mg/L):*	n/a	n/a	6.2	8.4	3.0	2.0
*Time-weighted						

Table 4. Time-weighted mean TP and TSS concentrations at Lacamas Lake inlet and outlet.

The usual EPA criterion for TP in streams is 0.100 mg/L. However, EPA established a more stringent criterion of 0.050 mg/L for streams that enter lakes. The EPA in-lake criterion for avoiding eutrophication is 0.025 mg/L. Since 1999, the mean inflow TP has remained near the 0.050 mg/L criterion, with the lowest concentration occurring during WY 2003. This represents a considerable decrease when compared to the annual mean of 0.089 mg/L TP in 1984. Mean outflow TP slightly exceeded the in-lake criteria of 0.025 mg/L, but has remained well below stream criteria as it enters Round Lake and, presumably, Lacamas Creek downstream of the lakes.

Figure 3 shows the results of a Seasonal Kendall test for trend on flow-adjusted monthly TP data collected at station LAC050 for WY1999-2003. For months with multiple samples, the sample collected closest to the middle of each month was used in the analysis. See the trend analysis section in the Appendix for a complete explanation of the data set and procedures used for trend analysis.

The trend analysis indicates a slight downward slope in concentration. However, the trend is not statistically significant at the 80%, 90%, or 95% confidence levels.

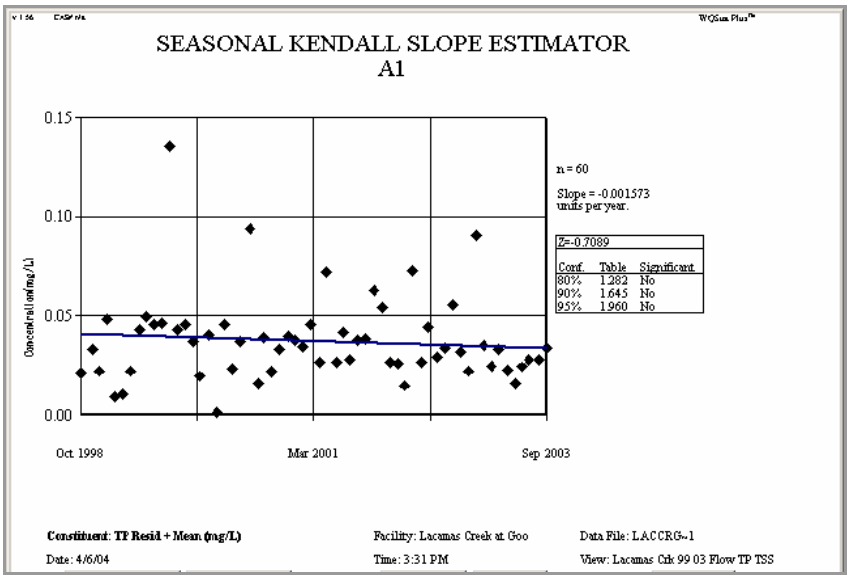

Figure 3. Seasonal Kendall test for trend in flow-adjusted total phosphorus concentrations, Lacamas Creek station LAC050, WY1999-2003.

Time-weighted mean TSS concentrations at station LAC050 from 1999-2003 ranged from 4.1 to 12.5 mg/L. Numeric criteria for TSS in streams have not been established.

Figure 4 shows the results of a Seasonal Kendall test for trend on monthly TSS data collected at station LAC050 for WY1999-2003. Again, for months with multiple samples the sample collected closest to the middle of each month was used in the analysis. TSS values were not flow-adjusted because a large number of censored data points (below laboratory reporting limits) precluded the use of the flow-adjustment procedure. The test indicates a decreasing trend in TSS concentration between 1999 and 2003. The trend is statistically significant at the 95% confidence level. However, a reliable estimate of the *slope* of the trend cannot be calculated due to the large proportion of censored data.

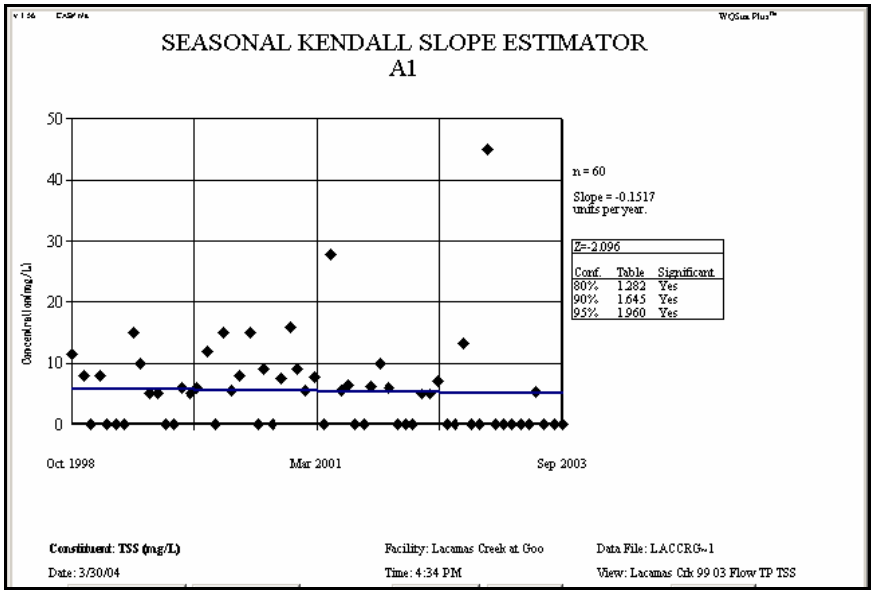

Figure 4. Seasonal Kendall test for trend in total suspended solids concentrations, Lacamas Creek station LAC050, WY1999-2003.

Lacamas Lake

Thermal stratification

In lake ecology, thermal stratification refers to the separation of the water column into distinct, non-mixing layers. Stratification occurs when solar energy warms the surface water, or epilimnion. The deeper water (hypolimnion) tends to remain colder because the sun's rays only penetrate a short distance. In a sense, the warm upper water "floats" on the cold deeper water, separated by a layer of rapidly decreasing temperature called the thermocline.

This temperature gradient is often strong enough to confine water, nutrients, dissolved oxygen, and suspended materials to a discrete layer, playing a key role in the movement of materials within lakes. Stratification generally occurs during summer, with fully-mixed periods occurring during fall through spring when solar warming is less pronounced. During mixed periods, the temperature gradient is weak or non-existent, allowing water and materials to circulate throughout the water column.

Lacamas Lake typically displays strong thermal stratification from approximately May through October. The progression of thermal stratification during WY 2003 (Figure 5) followed a similar pattern to previous years. Note the fully mixed conditions during January through March, followed by increasing stratification through spring and a strong thermocline developing between three and six meters during June through September.

Temperature

Water temperature is a key element controlling biological processes in lakes, and has a direct impact on the health of aquatic organisms. Washington State water quality criteria require that "all lakes and all feeder streams to lakes (reservoirs with a mean detention time greater than fifteen days are to be treated as a lake for use designation) … be protected for the designated uses of salmon and trout spawning, core rearing, and migration; and extraordinary primary contact recreation" (Washington Administrative Code 173-201A-600). The mean detention time calculated for Lacamas Lake (1984) is approximately 22 days. This criterion specifies that lake water temperature should not exceed 16° C (60.8° F).

Lacamas Lake temperature data from WY 2003 is summarized in Figure 5. Epilimnetic water temperatures exceeded the state criterion from June through September during both WY2002 and WY2003, reaching a maximum of approximately 23° C and 25° C during July of each year, respectively. Temperatures in this range are sufficient to promote algal growth throughout the summer, and are considerably above the acceptable temperature range for cold-water fish species such as trout. Water temperatures below 16° C were present throughout the summer at depths greater than 4-6 meters. However, as shown in the next section, these cold-water areas were often uninhabitable by fish due to extremely low dissolved oxygen concentrations.

Dissolved Oxygen

The state criterion for dissolved oxygen in lakes is 9.5 mg/L (WAC 173-201A-200). Figure 5 shows Lacamas Lake dissolved oxygen concentrations during WY2003. Dissolved oxygen concentrations have followed a similar pattern since at least 1984, decreasing dramatically with increasing depth during the summer months.

There is generally insufficient oxygen for most aquatic life uses (<5 mg/L) at depths greater than 4-5 meters from June through October, with essentially no oxygen at all below 6 meters from July through September (see lighter shades in lower section of Figure 5). Only from January through March does the entire water column meet the state criterion.

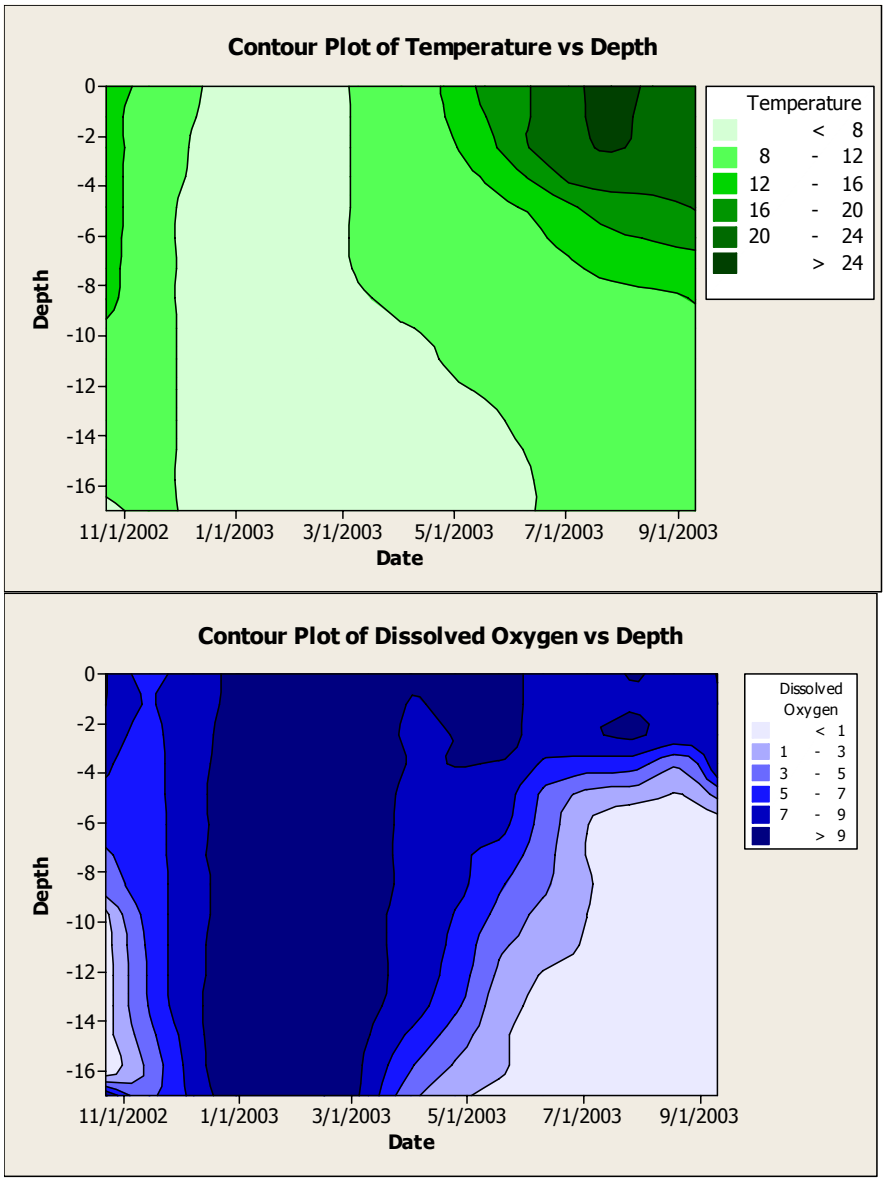

Figure 5. Water temperature and dissolved oxygen contours in Lacamas Lake, WY 2003.

Oxygen in the deeper waters is consumed as microorganisms decompose settled algae and larger plant material. Thermal stratification does not allow fresh oxygen from the atmosphere to reach the deeper layers and the hypolimnion eventually becomes anoxic. The oxygen is only replenished when the thermocline breaks down and vertical mixing of the water column occurs during fall.

During May to October of most years, the combination of hypolimnetic dissolved oxygen depletion and elevated epilimnetic temperatures in Lacamas Lake forces fish and other aquatic life to survive in a very restricted, and sometimes non-existent, band of suitable habitat.

Water transparency

Transparency represents light penetration in a lake. It is measured with a standard Secchi disk, a 20-cm white and black disk that is lowered into the water to the point it is no longer visible. Transparency can be affected by suspended sediment as well as algal growth and other organic

material in the water. The Secchi disk is widely used as a general indicator of lake condition. Measurements <2.0 m often coincide with eutrophic conditions.

During WY2003, summer season (May-October) transparency in Lacamas Lake ranged from 1.2 m to 2.8 m, with a median of 1.6 m. Between 1984 and 2003, for years having at least three summer season readings, median Secchi depth has ranged from 1.2 m to 1.9 m. Figure 6 shows the results of a Seasonal Kendall test for trend on the 1991-2003 monthly Secchi disk dataset. Measurements ranged from approximately 0.5 m to 3.0 m during this time period, reflecting seasonal changes in weather, turbidity, and biological growth. The results do not indicate a statistically significant trend in water transparency since 1991.

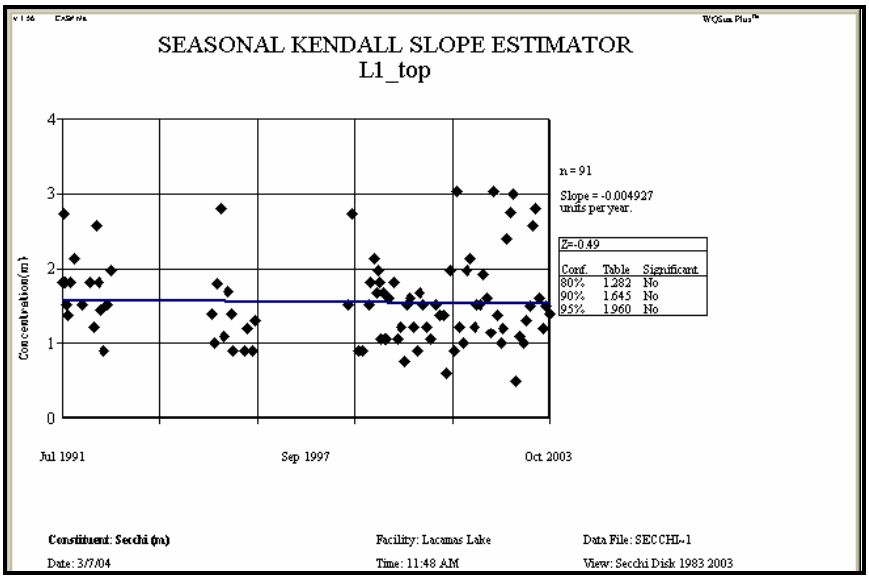

Figure 6. Seasonal Kendall test for trend in water transparency (Secchi disk), Lacamas Lake 1991-2003.

Total Phosphorus

High levels of phosphorus in Lacamas Lake were well-documented in 1984 (Beak and SRI, 1985). Phosphorus is an essential nutrient for the metabolism of all living organisms. Plant and algal growth are normally limited by phosphorus availability. Consequently, a scarcity of phosphorus will limit algal growth, while the addition of more phosphorus may produce excessive algae. Decreased dissolved oxygen concentrations often follow when the dead plant matter is broken down by oxygen-consuming bacteria. Based on the results of 1984 sampling, phosphorus reduction became the central goal of the Lacamas Lake Restoration Program.

The EPA has established TP criteria for lakes at a level of 0.025 mg/L to minimize eutrophication. Additionally, the State of Washington uses nutrient criteria to assess lakes and determine whether action needs to be taken to reduce nutrient loading (Section 173-201A-230 WAC). Washington State TP criteria are assigned by ecoregion but have not been determined for the Willamette Valley Foothills Ecoregion, where Lacamas Lake is located. However, an "action level" from the near-by Coast Range, Puget Lowlands, and Northern Rockies Ecoregions has been set at 20 µg/L (WAC Section 173-201A-230).

Based on total phosphorus samples collected by Water Resources during WY1999-WY2001, Ecology has listed Lacamas Lake as impaired in the draft 2002/2004 303(d) list, requiring that a TMDL (Total Maximum Daily Load) be developed to further reduce phosphorus loading to the lake.

Figure 7 contains annual box plots of epilimnetic (surface) TP concentrations during the summer growing season (May-October). A visual inspection of the plots suggests significant differences in the following cases where confidence intervals (darker internal boxes) do not overlap: 1984 vs. 1994, 1984 vs. 2002, 1984 vs. 2003, and 1994 vs. 1995. Overall, data from the more recent years indicates a significant decrease from the concentrations observed in 1984.

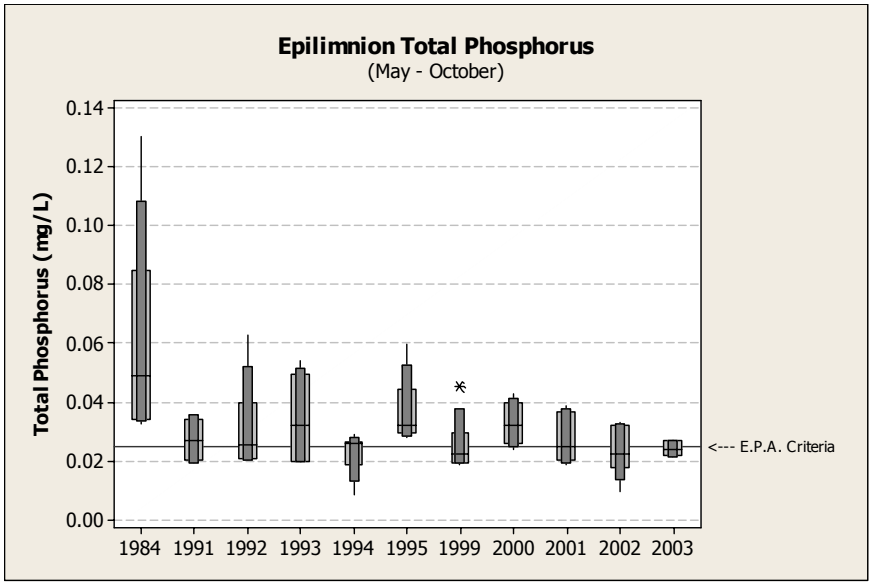

Figure 7. Median and interquartile range of May-October epilimnetic total phosphorus concentrations, Lacamas Lake, 1984-2003.

Despite this improvement, median summertime concentrations (indicated by horizontal line in each box) since 1984 have generally remained above the EPA lake criterion, indicating sufficient TP to facilitate eutrophic conditions. Small variations between years are likely due to fluctuating weather patterns and biological activity.

The Seasonal Kendall test for trend does not indicate a statistically significant trend in epilimnetic TP between 1991 and 2003 (Figure 8).

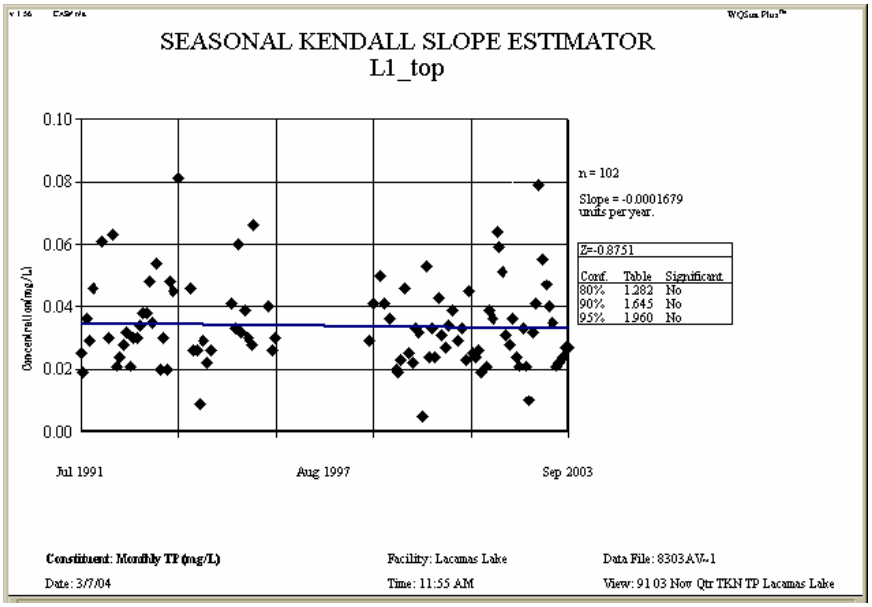

Figure 8. Seasonal Kendall trend test, Lacamas Lake epilimnion total phosphorus, 1991-2003.

Nitrogen

Nitrogen is the second major plant nutrient of interest in lakes. In the presence of sufficient phosphorus, elevated nitrogen levels may also cause excess algal and plant growth. Inorganic nitrogen forms are the most readily available for uptake by algae and plants, while total Kjeldahl nitrogen primarily reflects nitrogen already captured in organic material. Total Kjeldahl Nitrogen is the sum of organic + ammonia nitrogen, while inorganic nitrogen consists of nitrite + nitrate-N and ammonia.

Inorganic-N concentrations are highly variable seasonally. In general, springtime inorganic-N concentrations >0.3 mg/L are sufficient to facilitate summer algal blooms, and average concentrations 0.5 to 1.5 mg/L are often associated with eutrophic conditions (Wetzel, 1983). Springtime inorganic-N concentrations in Lacamas Lake routinely range from 0.5 – 1.2 mg/L, and annual average concentrations in WY2002 and WY2003 were 0.65 mg/L and 0.56 mg/L, respectively.

Wetzel (1983) suggests that average epilimnetic organic nitrogen concentrations of 0.4 to 0.7 mg/L generally correspond to meso-eutrophic conditions while average concentrations >0.7 mg/L correspond to eutrophic conditions. Annual average concentrations in WY2002 and WY2003 were 0.72 mg/L and 0.55 mg/L, respectively, placing Lacamas Lake in the meso-eutrophic to eutrophic categories. Additionally, Figure 9 contains annual box plots of epilimnetic TKN during the growing season (May-October). The plots suggest significant differences in the following cases where confidence intervals do not overlap: 1991 vs. 2000, 1991 vs. 2001, 1991 vs. 2002, and 1993 vs. 2000.

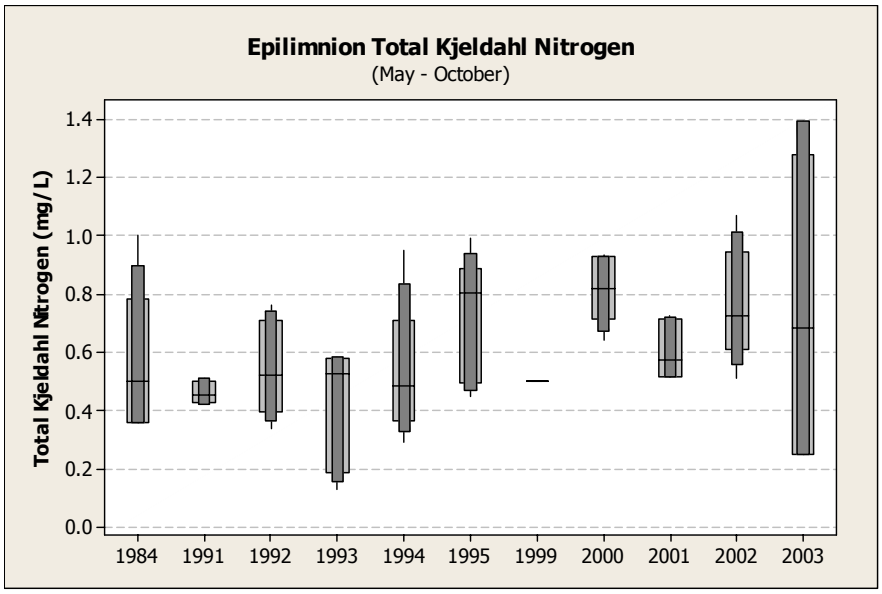

Figure 9. Median and interquartile range of epilimnetic total Kjeldahl nitrogen concentrations, Lacamas Lake, 1984-2003.

Figure 10 shows the results of the seasonal Kendall test for trend in epilimnetic TKN from 1991-2003. The test indicates an increasing trend in TKN concentrations of approximately 0.020 mg/L per year and is significant at the 95% confidence level. The trend suggests an overall increase in the amount of nitrogen being captured in organic material in Lacamas Lake.

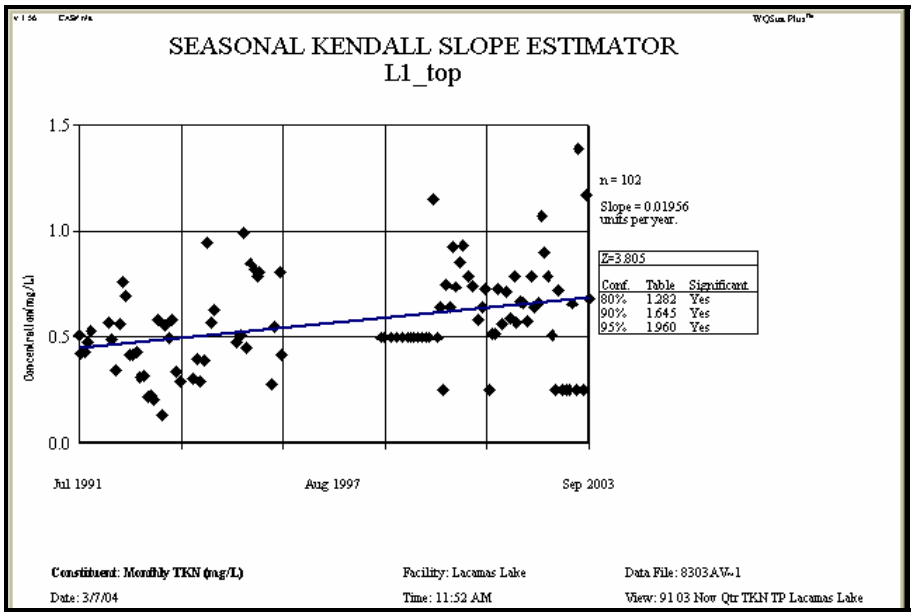

Figure 10. Seasonal Kendall test for trend, Lacamas Lake epilimnetic total Kjeldahl nitrogen, 1991-2003.

TIN:TP ratio

The ratio of Total Inorganic Nitrogen (TIN) to TP provides an indication of lake nutrient dynamics and the likelihood of blue-green algae blooms. TIN includes nitrate-nitrite N and ammonia-N. As noted above, phosphorus is often the limiting factor for algal growth in lakes.

However, in some lakes with plentiful phosphorus, nitrogen may become the limiting factor during certain periods, especially summer and fall. In a nitrogen-limited system, blue-green algae species have a competitive advantage due to their ability to utilize atmospheric nitrogen. Under these circumstances, large blooms of blue-green species may occur.

Monitoring during 1995 by E&S Environmental Chemistry, Inc. suggested that Lacamas Lake may be nitrogen limited during parts of the summer and fall. A TIN:TP ratio >20 suggests phosphorus limitation, while a ratio <15 often indicates limitation by nitrogen. Figure 11 shows the monthly TIN:TP ratios for Lacamas Lake during WY2003, following the same procedure used in 1995. Although P was limiting during much of the winter, spring, and early summer, the lake was N-limited from mid- summer through fall. The switch from P to N limitation during July coincides with the onset of dominance by blue-green algal species.

On a practical level, the N-limitation during summer and fall indicates that the P concentration would need to be further reduced in order for phosphorus to be limiting during this time period. Consistent limitation by phosphorus could be a positive change in the lake, possibly leading to lower overall algal biomass and a decreased competitive advantage for blue-greens.

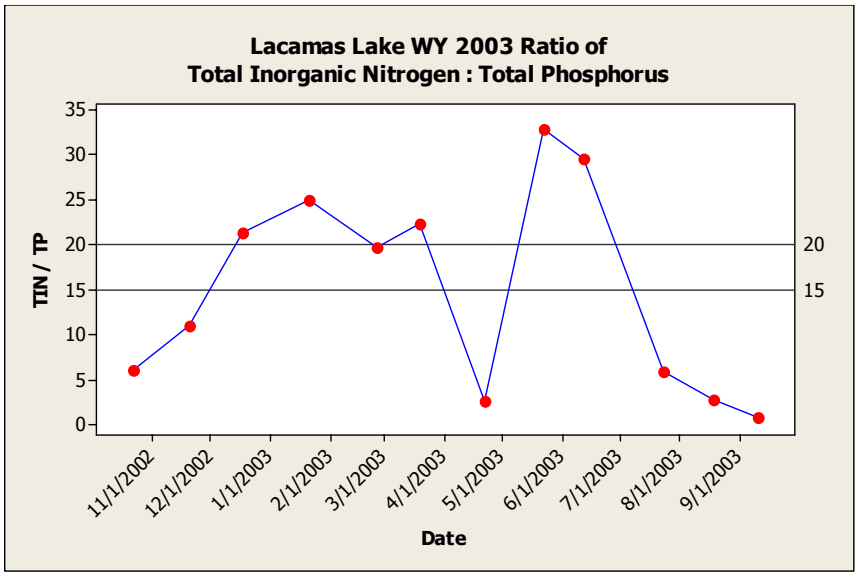

Figure 11. TIN:TP ratio in the eplimnion of Lacamas Lake, WY2003.

Phytoplankton

Phytoplankton, or algae, are microscopic plant-like organisms that capture solar energy through photosynthesis. They are the source of primary production that forms the base of the aquatic food web. The type and amount of algae affects water chemistry, transparency, food availability, and the composition of the higher food web.

Cell density was enumerated and biovolume calculated for each algal species in each sample. Density is simply the number of algal units/mL of sample, while biovolume is a measure of the total volume of the algal cells. Because algal cells of different species vary widely in size, biovolume provides a convenient way to measure the total amount, or volume, of algal production. Diatom species are often the most desirable food for grazers (zooplankton), though green algae and cryptophytes are also grazed. Blue-green species are considered a poor food source.

Figure 12 shows the percentage of total 2003 density and biovolume by algal division. The figures are based on the five most dominant species in each sample (either by density or biovolume), which in most cases accounted for over 90% of the total.

The small, flagellated cryptophytes *Rhodomonas minuta* and *Cryptomonas erosa* comprised the majority of the algal density from May through July and were present in significant numbers throughout the sampling period. Rhodomonas is among the most common planktonic algae nationwide and is common in all types of lakes, whereas Cryptomonas tends to be more abundant in mesotrophic to eutrophic conditions. Rhodomonas was generally more common than Cryptomonas until late summer. Due to their small size, the cryptophytes comprised only a small percentage of the total biovolume.

During May, June, and September, diatom blooms consisting primarily of *Fragilaria crotonensis* dominated the biovolume. Fragilaria is a large, colonial, planktonic species and usually indicates eutrophic conditions. It rarely occurs in oligotrophic lakes. Although it can thrive in cool water and low-light conditions, Fragilaria is more typical of warmer surface waters.

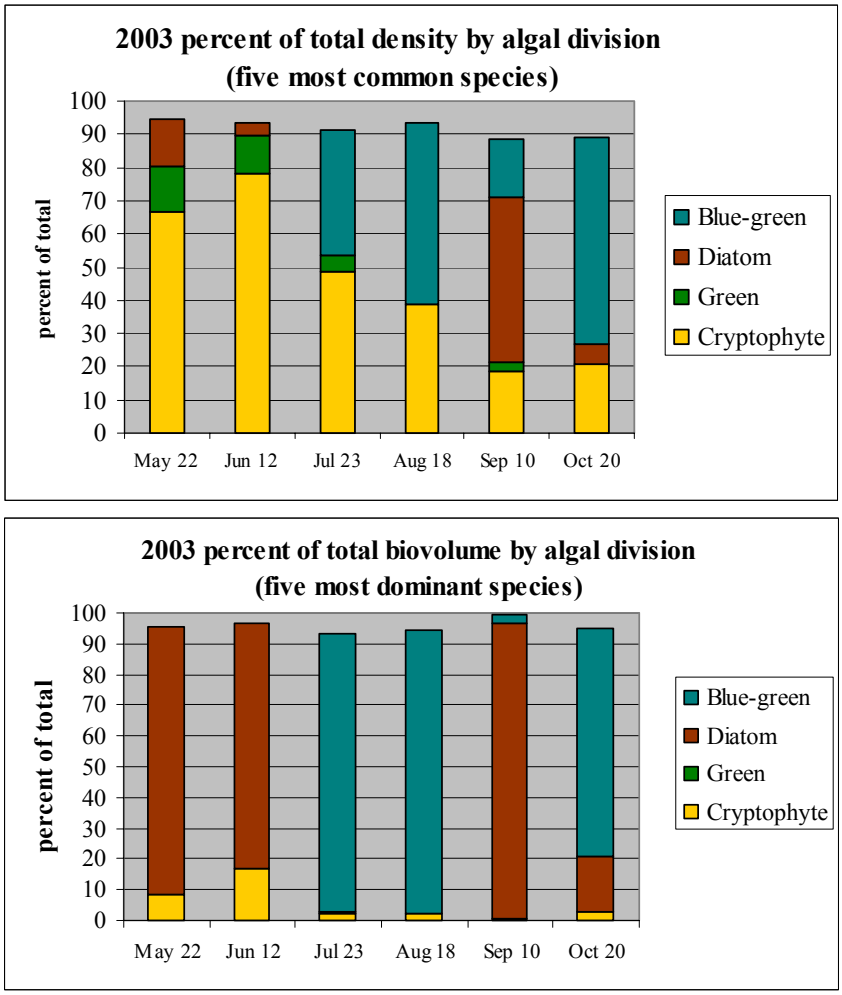

Figure 12. 2003 summer Lacamas Lake algal density and biovolume, by algal division.

During July, August, and October, algal biovolume was dominated by blooms of blue-green algae species. During July and August, both density and biovolume were dominated by *Anabaena planctonica*. In September, *Anabaena planctonica* declined sharply while *Aphanizomenon flos-aquae* increased. By October, *Aphanizomenon flos-aquae* dominated in terms of density while the larger *Anabaena planctonica* had a smaller population but represented most of the biovolume.

Anabaena species tend toward eutrophic lakes and often form blooms that may be unaesthetic, smell badly, and deplete hypolimnetic oxygen after decomposing. *Aphanizomenon flos-aquae* is a very good indicator of eutrophic and hyper-eutrophic lakes. An increase in either of these two species over time is a good indicator of advancing eutrophication (Jim Sweet, personal comm.).

The dominance of blue-green species can be problematic in several ways. Blue-green algae are highly specialized and often have a competitive advantage over more desirable algae species. In addition to being a poor food source for zooplankton, some species produce toxins that may be harmful to aquatic biota, terrestrial animals, or humans in significant amounts.

All Anabaena species are potentially toxin-producing, although *Anabaena flos-aquae* is usually more related to harmful toxin levels than is *Anabaena planctonica*. *Anabaena flos-aquae* was present in very low numbers in Lacamas Lake during 2003. *Microcystis aeruginosa*, a highly toxic species, was also present in low numbers in 2003. *Aphanizomenon flos-aquae* is generally not particularly toxic, but it too has the potential to produce toxins under certain conditions.

Lacamas Lake phytoplankton were sampled in 1984 and 1995 in addition to 2003. This phytoplankton dataset is not sufficient to perform statistical comparisons between sampling periods, and extensive comparative analysis of algal populations is beyond the scope of this report. However, a limited examination of growing season (May-October) algal density and biovolume during these years reveals several notable differences.

Overall, the relative densities of dominant species for May-October of 1984, 1995, and 2003 were:

1984		**1995**		**2003**	
Fragilaria crotonensis	44.0 %	Fragilaria crotonensis	19.6%	Rhodomonas minuta	25.8%
Rhodomonas minuta	9.8	Anabaena planctonica	19.0	Cryptomonas erosa	19.4
Schroederia judayi	7.4	Rhodomonas minuta	17.6	Anabaena planctonica	17.6
Ochromonas sp.	3.2	Cryptomonas erosa	14.1	Fragilaria crotonensis	11.6
Chrysophyte sp.	3.2	Asterionella Formosa	7.6	Aphanizomenon f.-aquae	10.4

Among individual species, several possible shifts are apparent. The dominance of *Fragilaria crotonensis* in 1984 was reduced in 1995, and by 2003 Fragilaria comprised only 12% of the population density. As noted above, Fragilaria remains a dominant species in terms of biovolume due to its large colonial structure. It is also noteworthy that the most common 5 species in 1984 composed 67% of the total phytoplankton population. By 1995, this percentage increased to 78%, and by 2003 the most common 5 species comprised 85% of the total algal density.

The most notable shift may be the advance of *Aphanizomenon flos-aquae.* As noted above, an increase in this species over time is a good indication of advancing eutrophication. In 2003, *Aphanizomenon flos-aquae* comprised 10% of the algal density during the May-October period. During the same period in 1995 it represented 1%, and in 1984 only 0.1%. Also, the highly toxic blue-green alga *Microcystis aeruginosa*, though still not common, increased from 0.1% in 1995 to 0.6% in 2003. This species was not found in 1984.

Although toxic algal blooms have not been a historical problem in Lacamas Lake, the dominance of blue-green species during mid-late summer, and particularly the increasing presence of *Microcystis aeruginosa*, is a potential area of concern for future recreational use.

Mean summer biovolume was similar in May-October of 1984, 1995, and 2003. Figure 13 shows the average monthly biovolume by algal division in the summer of 1984. A somewhat similar pattern of biovolume dominance among algal divisions is apparent when compared with the 2003 results shown in Figure 12, although the dominance by diatoms and blue-green algae evident in 2003 was not as pronounced in 1984. In particular, during 1984 the cryptophytes represented a much greater percentage of early summer biovolume, and green algae were present in measurable amounts throughout much of the summer.

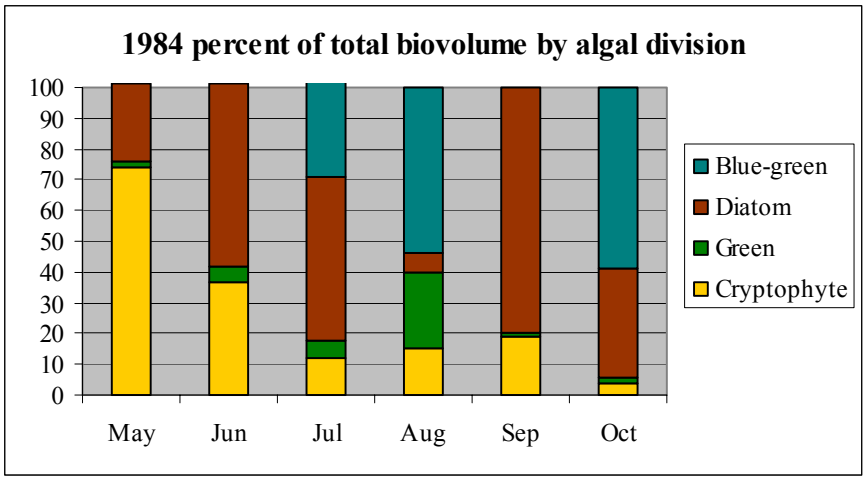

Figure 13. 1984 summer Lacamas Lake algal biovolume, by division.

Aquatic plants

Lacamas Lake is characterized by extensive aquatic plant (macrophyte) growth. Based on surface and scuba surveys, as well as Secchi disk readings and lake bathymetry, scientists in 1984 concluded that at least 97% of the potential colonizable area in Lacamas Lake was already being used by macrophytes.

An aggressive exotic species called *Egeria densa* (Brazilian elodea) was common in Lacamas Lake by 1984, although it was generally found on the outer (deeper) edges of plant beds and was interspersed with several other species. The native *Elodea canadensis* (Common elodea) dominated shallower depths. In Round Lake, *Egeria densa* was already dominant by 1984, to the almost complete exclusion of other submersed macrophytes (Beak and SRI, 1985).

The most recent Ecology aquatic plant survey performed in Lacamas Lake took place in June, 1999. Plant species and distribution data are summarized in Table 5. Of particular interest is the continued expansion of *Egeria densa*. In many areas, *Egeria densa* has displaced more desirable species such as the native *Elodea canadensis* and some pondweed species.

Trophic state index

Monthly TSI values for Lacamas Lake during May-October 2003 are shown in Figure 14. Values are generally in the mid to upper mesotrophic range (45-50) during late May and June, increasing to the eutrophic range (50-70) from July-October.

The seasonal pattern of results is generally consistent between parameters, although some variability is normal. 2003 phytoplankton results consistently indicate a higher trophic status than the other variables, while chlorophyll-*a*, Secchi disk, and total phosphorus results generally agree more closely.

In some cases, variability between parameters may be caused by non-random variability such as errors in sample collection or analysis. The exceptionally low TSI value for chlorophyll-a during August 2003 is probably an example of this type of error. It is likely that the low value (40, or oligo-mesotrophic) is erroneous when compared to the results from the other three parameters (52-63, or eutrophic). See the QA discussion in the Appendix for a description of chlorophyll-*a* analysis issues.

Date **17-Jun-99**

Scientific name	Common name	Distribution Value	Comments
Callitriche stagnalis	pond water-starwort	1	only in north end of lake near river
Ceratophyllum demersum	Coontail; hornwort	2	
Egeria densa	Brazilian elodea	4	dominant or co-dominant throughout most of shoreline
Elodea canadensis	common elodea	2	some dense areas in north end
Lemna minor	duckweed	1	only in north end of lake near river
Nitella sp.	stonewort	1	
Nuphar polysepala	spatter-dock, yellow water-lily	2	most in north end
Phalaris arundinacia	reed canarygrass	3	dense in north end
Potamogeton amplifolius	large-leaf pondweed	3	co-dominant with Egeria
Potamogeton epihydrus	ribbonleaf pondweed	1	only in north end of lake near river
Potamogeton illinoensis	Illinois pondweed	2	
Potamogeton robbinsii	fern leaf pondweed	2	
Scirpus sp.	bulrush	1	one patch seen on E shore
Sparganium sp.	bur-reed	1	only in north end of lake near river
Typha sp.	cat-tail	1	

Comments: Overcast, cool. Egeria very dense in many areas, at the surface and blooming. Grows densely to 3 m deep. More diverse in the river north of the lake. Lots of water skiers. Made a map with plant locations.

Distribution Value Definitions:

0 the value was not recorded (plant may not be submersed)
1 few plants in only 1 or a few locations
2 few plants, but with a wide patchy distribution
3 plants growing in large patches, co-dominant with other plants
4 plants in nearly mono-specific patches, dominant
5 thick growth covering the substrate at the exclusion of other species

Table 5. 1999 Lacamas Lake aquatic plant summary (Washington State Dept of Ecology).

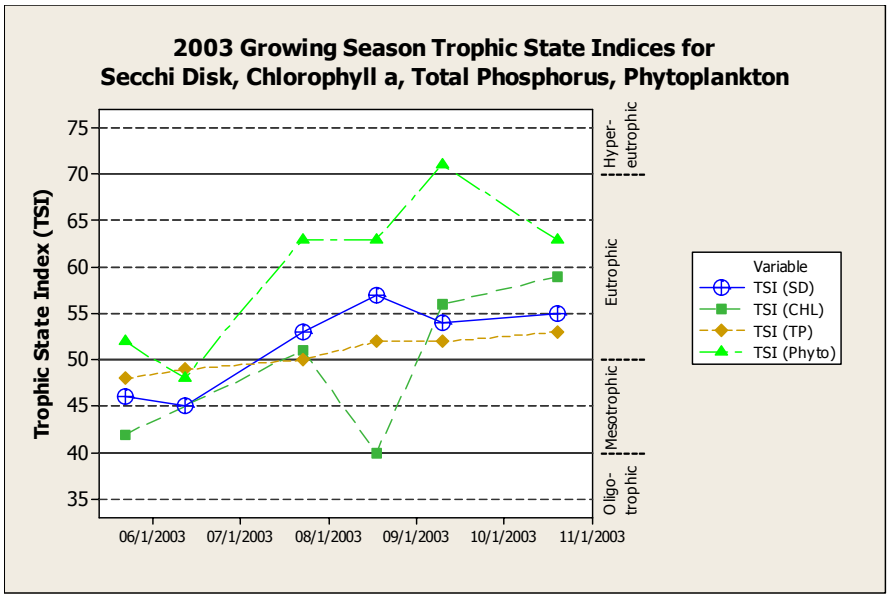

Figure 14. Monthly TSI values for Lacamas Lake, May-October 2003.

Annual box plots of May-October TSI values, based on the historical Lacamas Lake dataset (1984-2003), are shown in Figures 15, 16, 17, and 18. Note that phytoplankton and chlorophyll-*a* data are somewhat limited for the period of record.

Despite some variation in median TSI values for each parameter, most of the annual confidence intervals overlap indicating that statistically significant differences in medians between years are unlikely.

Median TSI values for Secchi depth and total phosphorus tend to be in the low to mid-eutrophic range (50-60), occasionally dropping into the upper mesotrophic category (45-50) for TP. No significant differences are indicated for Secchi depth TSI. However, a significant difference is indicated between the total phosphorus median values in 1984 versus 1994, 2002, and 2003. In 1984, median total phosphorus TSI was in the mid-eutrophic range (60), with values ranging upwards into the hyper-eutrophic range (>70). Since that time, medians have not exceeded 55 and individual values have generally remained below 60.

Most of the available chlorophyll-*a* and phytoplankton data consistently indicate eutrophic status, with median values tending to fall in the mid to upper-eutrophic range. The exception is the median of the 2003 chlorophyll-a data. However, as discussed in the QA section in the Appendix, the low chlorophyll-*a* TSI values for 2003 may be due to problems with the laboratory analysis. Despite the questionable low values, the median value for 2003 still falls in the lower eutrophic range.

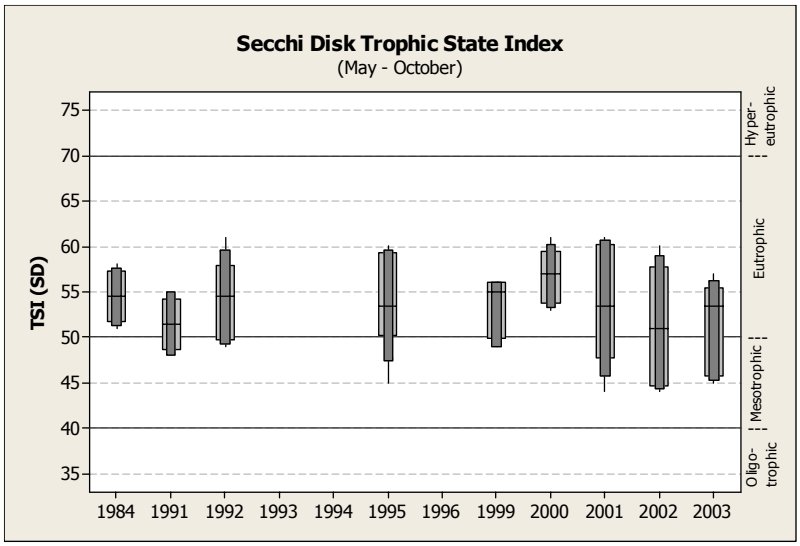

Figure 15. Median and interquartile range for May-October Secchi depth TSI, ` Lacamas Lake 1984-2003.

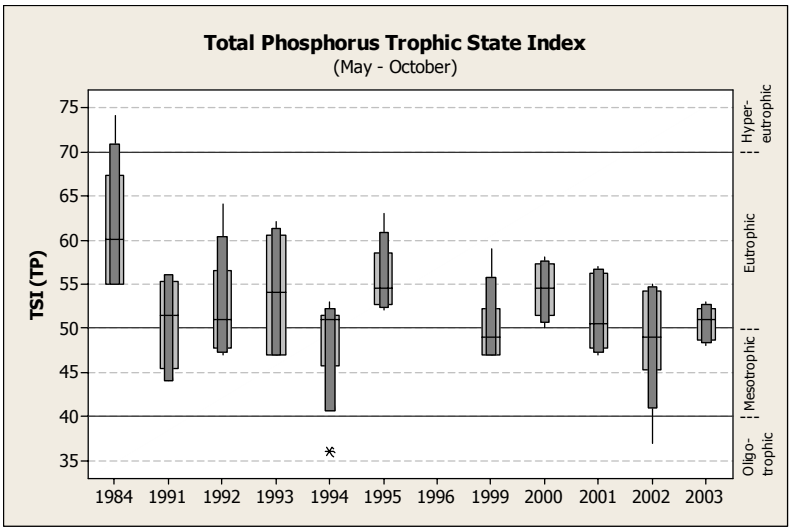

Figure 16. Median and interquartile range of May-October total phosphorus TSI, Lacamas Lake 1984-2003.

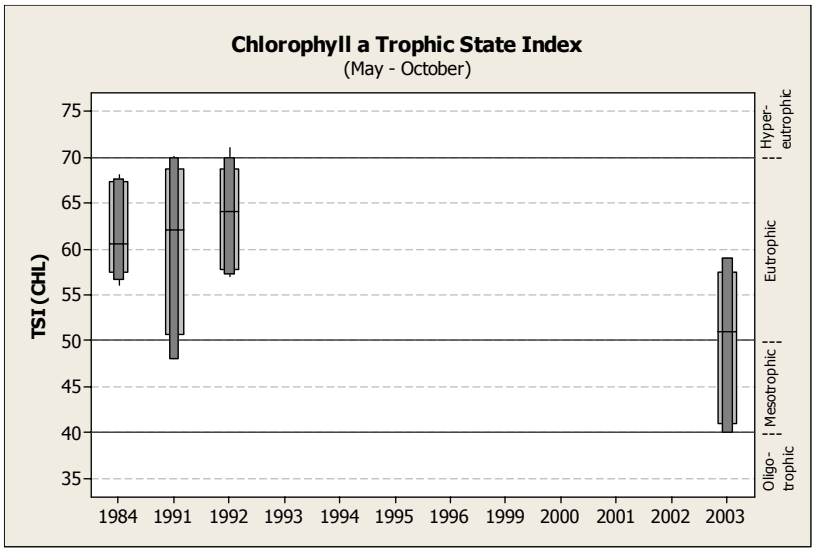

Figure 17. Median and interquartile range of May-October chlorophyll-*a* TSI, Lacamas Lake 1984-2003.

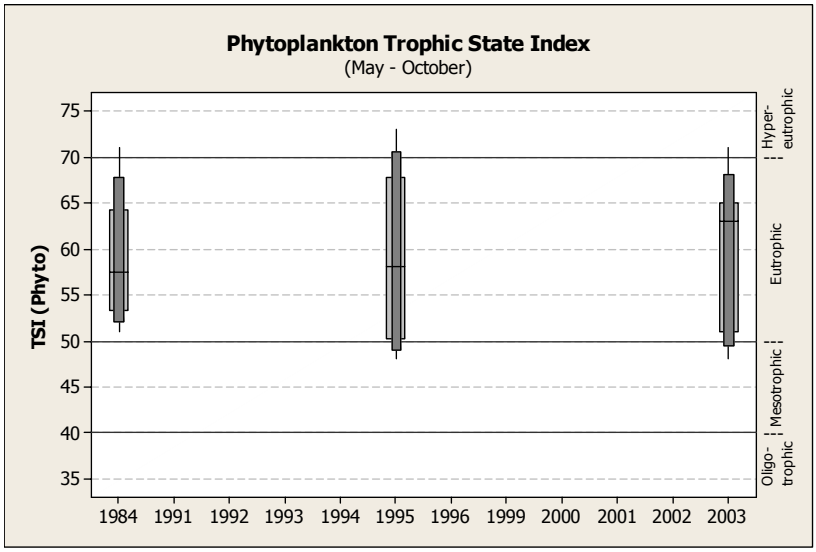

Figure 18. Median and interquartile range of May-October phytoplankton TSI, Lacamas Lake 1984-2003

Trend Power

The trend power analysis and results are described in more detail in the Appendix. The power of a trend test is the probability that the test will actually detect a trend when one is present. Therefore, an evaluation of the trend power provides insights into the limitations of conclusions reached using statistical tests. A failure to *detect* a trend is often used to improperly conclude that there *was no trend*, when in reality there may have simply been insufficient data or too much variance in the data to allow trend detection at the specified level of confidence (Hallock, 2003).

Predicted minimum detectable trends (as a percentage change in the mean) for the Lacamas Creek data were 37% and 93% for TP and TSS data, respectively. In effect, this means we would only expect to be able to detect trends in excess of these magnitudes. For example, the calculated change in the mean for Lacamas Creek TP over the 5-year monitoring period was 21%, and no

significant trend was detected. A trend was detected in TSS data, even though the calculated change in mean was only 13%. This significant trend was probably influenced by the presence of a large number of censored data points in the TSS data set. Although a significant TSS trend does exist, it was not possible to reliably assign a magnitude to that trend.

Predicted minimum detectable trends (as a percentage change in the mean) for the Lacamas Lake data were 20%, 29%, and 20% for TKN, TP, and Secchi disk data, respectively. Therefore, we would only expect to be able to detect trends in excess of these magnitudes. The calculated changes in the means were 34% for TKN, 5% for TP, and 3% for Secchi disk. TKN was the only parameter having a calculated trend larger than the predicted minimum detectable trend, and was also the only parameter where a significant trend was detected.

Summary

The information summarized below is addressed in greater detail in the Results and Discussion section. For additional information from historical monitoring in Lacamas Creek and Lacamas Lake, see the documents listed in the Background section of this report.

Creek

Loading:

In 2003, annual loading was estimated at 5000 kg of total phosphorus (TP) and 500,000 kg of total suspended solids (TSS). Since 1999, annual TP loading has averaged 6000 kg and TSS has averaged 800,000 kg. During this time, the in-lake retention rate for TP ranged from 12-42% of the annual load. TSS retention in the lake ranged from 32-61%. This indicates a considerable annual accumulation of nutrients and settled material in Lacamas Lake.

Current loading rates compare favorably with annual estimates from 1984, when TP load was estimated at 14,000 kg and TSS load was estimated at 1,800,000 kg. On the basis of kilograms/acre-ft of annual discharge, TP loading since 1999 has remained consistently between 0.06 and 0.07 kg/acre-ft, compared to 0.11 kg/acre-ft in 1984. TSS has not followed a similar pattern: loading since 1999 has ranged from 6-15 kg/acre-ft, compared to 14 kg/acre-ft in 1984.

Total phosphorus concentration:

The EPA criterion for TP in streams that enter lakes is a maximum of 0.050 mg/L. For the five-year period beginning in 1999, the annual mean TP concentration in Lacamas Creek has ranged from 0.038 to 0.061 mg/L, meeting the EPA criterion in 3 years and narrowly exceeding the criterion (0.052 mg/L) in another year. These values compare favorably to an annual mean of 0.089 mg/L estimated in 1984. Despite the apparent reduction compared to 1984 estimates, no trend is apparent in recent Lacamas Creek TP concentration (1999-2003). Outflow TP concentration ranged from 0.030 to 0.039 mg/L during 1999-2003. If concentrations remain fairly constant as the water travels through Round Lake, then water discharged to Lacamas Creek downstream of the lakes is well within the EPA criterion of 0.1 mg/L for streams not flowing into lakes.

Total suspended solids concentration:

For the five-year period beginning in 1999, the annual mean TSS concentration in Lacamas Creek has ranged from 4.1 to 12.5 mg/L. An annual mean of 11.5 mg/L was calculated in 1984. Since 1999, trend analysis indicates a decrease in TSS concentration in Lacamas Creek at the 95% confidence level. However, due to limitations in the dataset, it is not possible to reliably calculate the slope, or magnitude, of the apparent trend. Overall, baseflow TSS concentrations in Lacamas Creek tended to remain quite low, with somewhat higher concentrations occurring during storm events.

Lake

Secchi transparency:

Secchi measurements <2.0 m are often associated with eutrophic conditions. Median secchi depth during 1984 and 1991-2003 ranged from 1.2-1.9 m. No trend is apparent in the 1991-2003 dataset.

Temperature:

The Washington State temperature criterion for lakes is <16 degrees C. In 2002 and 2003, Lacamas Lake failed to meet the criterion from June-September. Annual maximums were 22 C and 25 C, respectively. The dataset since 1984 indicates that summer cold-water habitat beneficial uses are consistently impaired.

Dissolved Oxygen(DO):

The Washington State dissolved oxygen criterion for lakes is >9.5 mg/L. In 2002 and 2003, Lacamas Lake had severe DO depletion below 4m depth from June-October. Severe summertime DO depletion below 4-5 meters depth has been a consistent issue since 1984. Habitat for aquatic biota is severely limited during summer due to a combination of elevated water temperatures in the epilimnion and dissolved oxygen depletion in the hypolimnion.

Total Phosphorus(TP):

The EPA criteria for TP in lakes is <0.025 mg/L. The State of Washington has set an "action level" of TP in nearby ecoregions at <0.020 mg/L. In 2002 and 2003, median TP concentrations met the EPA lake criterion, but still exceeded the state action level for nearby ecoregions. Summer TP concentrations are significantly lower today than in 1984, but since 1991 have continued to exceed state action levels and EPA criteria on a regular basis. No statistically significant trend in TP is apparent in the 1991 to 2003 dataset. Based on data collected by Water Resources between 1999 and 2001, Ecology has listed Lacamas Lake as impaired in the draft 2002/2004 303(d) list, requiring that a TMDL (Total Maximum Daily Load) be developed under the Clean Water Act to further reduce phosphorus loading to the lake.

Nitrogen

Inorganic nitrogen, consisting of nitrite + nitrate-N and ammonia-N, occurs in the forms most readily available for uptake by algae and plants. Springtime inorganic-N concentrations in Lacamas Lake typically range from 0.5 – 1.2 mg/L, and annual average concentrations in 2002 and 2003 were 0.65 mg/L and 0.56 mg/L. Springtime concentrations >0.3 mg/L and annual average concentrations 0.5 to 1.5 mg/L are often associated with eutrophic conditions and summer algal blooms.

Total Kjeldahl nitrogen (organic N + ammonia) is composed primarily of nitrogen that has been incorporated into biomass. In general, recent annual average TKN concentrations correspond to concentrations typically found in meso-eutrophic to eutrophic lakes. An increasing trend in TKN of ~0.020 mg/L per year is apparent in the 1991-2003 dataset. This trend is significant at the 95% confidence level (i.e. there is a 95% chance that the perceived trend actually exists). The trend suggests an overall increase in the amount of nitrogen being captured in organic material in Lacamas Lake.

TIN:TP ratio

The ratio of total inorganic nitrogen to total phosphorus gives an indication of which primary nutrient (N or P) is the limiting factor for algal growth in lakes. A ratio >20 suggests P limitation and <15 suggests N limitation. In 2003, similar to 1995 and 1984, Lacamas Lake was nitrogen limited during mid-summer through fall, probably contributing to the dominance of blue-green algae which, unlike other algae species, are able to obtain nitrogen directly from the atmosphere.

Phytoplankton (algae):
In summer 2003, the phytoplankton community biovolume was dominated by species commonly associated with eutrophic conditions. The average biovolume and a general pattern of dominance by the diatom *Fragilaria crotonensis* and blue-green algal species were consistent with results from 1984 and 1995. However, a significant increase in the blue-green algae *Aphanizomenon flos-aquae* since 1984 is a likely indication of advancing eutrophication.

Macrophytes (aquatic plants):
Results of a WA Dept of Ecology survey in 1999 indicate increasing dominance of the macrophyte community by *Egeria densa*, an aggressive exotic species. Since 1984, *Egeria densa* has largely displaced more desirable native species in the shallow-water areas.

Trophic state:
A Trophic State Index (TSI) is used to describe the level of algae production of a lake. The index uses a numbered scale to compare variables with one another, or with a reference number. Thus indices provide a "common currency" with which to describe lake conditions. A TSI value <40 = oligotrophic, 40-50 = mesotrophic, 50-70 = eutrophic, and >70 = hypereutrophic.

Median monthly TSI values (May-October 2003) for secchi transparency (53), total phosphorus (51), chlorophyll-*a* (51), and phytoplankton (63) all indicate that Lacamas Lake is eutrophic. Total phosphorus is the only TSI indicator that suggests a possible decrease in trophic status since 1984. There has been no significant change in the median value for other TSI indicators, though individual TSI values for Secchi disk and TP periodically dip into the upper-mesotrophic range.

Conclusions

All of the measurements and indicators utilized in this report suggest that Lacamas Lake remains eutrophic. A few indicators suggest that eutrophication may in fact be increasing.

Total phosphorus concentrations in the creek and lake are much lower today than when first measured in the 1970s and 1980s. Despite this improvement, Trophic State Index values for secchi disk, total phosphorus, chlorophyll-a, and phytoplankton have remained relatively constant since 1984, with annual median values falling consistently within the eutrophic range. The available data do not suggest an impending shift to a lower trophic state.

An increasing trend in total Kjeldahl nitrogen since 1991 may be an indication of continuing or accelerating eutrophication despite past reductions in phosphorus. Additionally, continued high levels of algal production and an apparent increase in the blue-green species *Aphanizomenon flos-aquae* suggest that the level of eutrophication is stable at best and possibly increasing.

The water quality issues first noted in the 1970s and 1980s continue to threaten the beneficial uses of Lacamas Lake. In particular, the combination of severe hypolimnetic dissolved oxygen depletion and high surface water temperatures during the summer, high algal productivity dominated by blue-green species during mid-late summer, and the continued expansion of the exotic macrophyte *Elodea densa* pose significant challenges to the primary beneficial uses of fishing, swimming, and boating.

In assessing the long-term information available for Lacamas Lake, it appears that early efforts in the watershed successfully decreased phosphorus inputs. Although these reductions were not sufficient to bring about an improvement in overall lake conditions, they appear to have slowed or even temporarily halted the rapid advance of eutrophication. The long-term dataset suggests that lake conditions, though still eutrophic, have remained relatively stable since the early 1990s. However, some current data raises concerns that Lacamas Lake may be sliding toward further eutrophication and increased water quality problems.

Given the already significant extent of eutrophication, further nutrient enrichment and the associated water quality degradation it causes has the potential to seriously impact future beneficial uses of Lacamas Lake.

Current monitoring results and trend analyses support the premise put forth by E&S Environmental Chemistry, Inc (1998) and Clark County Water Resources (Schnabel 2002), that future Lacamas Lake management efforts should focus not on returning the lake to a pristine state but rather on protecting and enhancing current beneficial uses and minimizing further degradation.

The Lacamas watershed has been and will continue to be impacted by human activities. Despite past progress in controlling phosphorus pollution, historical and ongoing land use changes have permanently altered the lake and watershed in ways that render a return to pristine, pre-settlement conditions infeasible. In all likelihood, Lacamas Lake and its watershed will require diligent, ongoing management simply to maintain current beneficial uses such as fishing, boating, and aesthetic enjoyment, especially given increasing impacts from a growing population.

A renewed commitment by the public and local agencies, along with prudent lake and watershed management choices, is needed if Lacamas Lake and its watershed are to remain valuable community assets for future generations.

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Appendix

Data Analysis Procedures

Loading estimates

Annual loading estimates for TP and TSS in WY2002 and WY2003 were calculated according to the method described in Lacamas Lake Restoration Program: WY2000 and WY2001 Monitoring (Schnabel, 2002). Individual TP and TSS grab sample concentrations were combined with the hourly discharge dataset. Each grab sample result was assumed to represent the constituent concentration in the stream until the time of the next sample collection. Using hourly discharge totals and the concurrent TP or TSS concentration, individual loads (in kg) were calculated for each 1-hr period and summed to provide an estimate of annual load.

Discharge data was not available at the outlet of Lacamas Lake (station LACL00). As a result, out-load calculations were based on the discharge dataset from the lake inlet (station LAC050). However, dam operations, fluctuating lake storage, and the effect of Dwyer Creek inflow below station LAC050 all result in differences in the instantaneous discharge at the two stations. Over the course of a year the effect of these fluctuations is assumed to be negligible, but outload estimates should be interpreted with caution as the true instantaneous discharge is unknown.

Box-and-whisker plots

Box-and-whisker plots, or box-plots, allow convenient comparison of central tendency and distribution characteristics such as medians, ranges or dispersion, symmetry, and extreme values. The horizontal line within each box depicts the median value of the data set. The upper and lower edges of the outer (light gray) box depict the 75^{th} and 25^{th} percentiles while the distance between them is the interquartile range (IQR) or the middle 50% of values. The inner (dark gray) box that extends within and often beyond the ends of the IQR represents the 95% confidence interval around the median (e.g. there is a 95% probability that the true median lies somewhere within this range). Vertical lines or whiskers extending from the ends of the inner box include all values that are less than 1.5 times the IQR. Finally, asterisks appear for extreme values or outliers that are more than 1.5 times the IQR from the box.

Differences between medians are statistically significant at the 95% confidence level only if the inner (dark gray) boxes do not overlap. If the data are symmetrically distributed the median will lie near the center of the box-plot and the whiskers will be of similar length. High variability in the data is reflected by a large IQR. The statistical software package MINITAB (MINITAB, 2003 [Release 14]) was used to construct the box-plots.

Annual box-plots of growing season data (May-October) were constructed to highlight both inter-annual changes and potential patterns in nutrients and trophic state index values.

Trends

Both Lacamas Lake and Lacamas Creek water quality were evaluated for trends over time. Initially, exploratory data analysis was conducted using descriptive statistics, time series plots, and scatterplots to examine distributions, patterns in the data, and relationships between water quality parameters. The effects of seasonality and flow for Lacamas Creek data were addressed with the overall goal of reducing background variability and improving trend detection.

Lacamas Lake secchi disk depth, total phosphorus, and total Kjeldahl nitrogen values and Lacamas Creek total phosphorus and total suspended solids were analyzed for monotonic trends using the nonparametric Seasonal Kendall test. Statistical considerations (Helsel and Hirsch, 1993) supported the use of monotonic trend analysis (for trends are generally expected to indicate gradual and continuous changes over time). Step-trend analysis was not supported due to the

relative continuity of the data and the absence of any definable event that may have dramatically changed overall water quality.

The analysis was limited to the periods of July 1991 through September 2003 for the lake data and October 1998 through September 2003 for the creek data due to the limited amount of earlier data and substantial gaps in the historical dataset.

Data transformation was not required because the nonparametric Seasonal Kendall test (used for both lake and creek trend analyses) has less restrictive distribution assumptions than comparable parametric approaches, the variability of the tested parameters was relatively constant over time, and the ratio of the smallest to largest data values was less than twenty (Gilbert, 1987).

Prior to trend analysis, censored data (values below reporting limits) were substituted with other values. Data sets containing less than 5% censored data and a single reporting limit had their censored data recoded as one-half of the reporting limit (Schertz, et al., 1991). For data sets with more than 5% censored data and multiple reporting limits, values reported as less than the most common reporting limit were entered as zero, while three censored values greater than the most common reporting limit were discarded.

Additional statistical techniques were needed to analyze Lacamas Creek data (station LAC050) for trends in TP and TSS concentrations. Natural, random fluctuations in an associated variable (X) such as flow often increase the variability of constituent concentrations due to the effects of dilution and surface wash-off or overland flow (Helsel and Hirsch, 1993). Statistical models such as regression or smoothing can help explain or account for the effects of flow, increasing the ability or power of the trend test to discern changes over time. As with the lake data, seasonal variation must also be compensated for in order to better discern trends.

Prior to testing for trends, applicable Lacamas Creek data were flow-adjusted by utilizing the smoothing technique LOWESS (Locally Weighted Scatter-plot Smoothing) to describe the relationship between Y (concentration) and X (flow). An f (fraction) value of 0.5 and two iterations for smoothing were utilized. This approach does not assume linearity or normality of residuals. Residuals, which express the differences between the fitted model $\hat{Y}$ and the actual Y values (concentrations), describe the variation in concentrations over and above that due to changes in X (flow). The assumption was made that there was no substantial trend or drift in flow over the monitoring period.

Both the Lacamas Lake and Creek data sets were reduced in order to maintain representativeness and minimize bias. In the few cases where multiple Lacamas Lake values existed for any particular month, the values were averaged to obtain a single monthly value. Because Lacamas Creek was often sampled more frequently during data gathering primarily for loading estimates, its data set was reduced by selecting the data point closest to the middle of each month over the five year monitoring period (Schertz, et al., 1991).

After the data were reduced, the Seasonal Kendall trend test was applied. The statistical test was applied directly to the monthly Lacamas Lake values. However, prior to performing the trend test, the applicable flow-adjusted Lacamas Creek values [residuals of the LOWESS model of Y (concentration) versus X (flow)] were transformed by adding the mean of the reduced data set to each flow adjusted value. Statistical significance is reported for tests at the 80, 90, and 95% confidence levels while the yearly rate of change in median values is expressed as a slope (WQSTAT PLUS, 1998).

Data sets were analyzed and results graphed utilizing the spreadsheet software EXCEL (Microsoft EXCEL 2002, 2002), statistical software (MINITAB release 14 for Windows, 2003), and the water quality statistical software WQSTAT PLUS (WQSTAT PLUS, 1998).

Trend power

The power of a trend test is the probability that the test will actually detect a trend where one is present. Therefore, an evaluation of the trend power provides insights into the limitations of conclusions reached using statistical tests. A failure to *detect* a trend is often used to improperly conclude that there *was no trend*, when in reality there may have simply been insufficient data or too much variance in the data to allow trend detection at the specified level of confidence (Hallock, 2003). An understanding of the smallest practical difference (versus actual statistical difference) in the means over time is also needed (Kleinbaum, et al., 1988).

Estimates of minimum detectable trends for each parameter over the monitoring period were derived from chosen levels of acceptable errors and other calculations. First, acceptable probabilities for alpha (Type I error) and Beta (Type II error) were set at 10%. Estimates were then made of the central tendencies of the original data (mean and median). The standard deviation was calculated after de-seasonalizing (subtracting seasonal means from individual data points then adding back the overall mean) and de-trending the data (Sen's Slope estimator in WQStat Plus). A minimum *relative* detectable trend (delta value) was looked up (Hallock and Ehinger, 2003) for a given number of monthly values (sample size).

The *predicted* minimum detectable trend was then calculated from the above information and expressed as a percent of the change in the mean over the monitoring period. A correction factor (Hallock, 2003) was incorporated to address the non-normality typically found in water quality data. Finally, statistically calculated changes in the mean over the monitoring period were compared to the predicted minimum detectable trend to evaluate the reliability of the statistical test. If the absolute value of the calculated statistical trend is smaller than the predicted minimum detectable trends, the results of statistical tests may be suspect.

Trend power calculations for Lacamas Creek and Lacamas Lake are shown in the following table:

Methodology for Water Resources Trend Power Calculations

Adapted from Washington Department of Ecology's:

River and Stream Ambient Monitoring Report for Water Year 2002, Publication No. 03-03-032, June 2003,
Stream Ambient Water Quality Monitoring Quality Assurance Monitoring Plan (Draft), January 2003.

Assumptions:

Type 1 Error (alpha or significance level) = 0.1 (i.e., 10% probability of incorrectly deciding trend exists when in fact one does not.)
Type 2 Error (beta) = 0.1 (i.e., 10% probability of incorrectly deciding trend does not exists when one in fact does exist.)
Minimum Relative Detectable Trend (delta) for monthly data:

For n = 60 months or 5 years, delta = 1.33 — For n = 120 months or 10 years, delta = 0.93
For n = 180 months or 15 years, delta = 0.76 — For n = 240 months or 20 years, delta = 0.66

Usually preferable to use flow adjusted values for applicable data sets (if for example, less than 5% of the original data is censored).

Formulas:

Minimum change in the mean over some time period for normally distributed data:
Minimum change in the mean = total standard deviation of deseasonalized & detrended data * minimum relative detectable trend

Correction Factor (used by Washington State Department of Ecology):
CF=(1+(mean-median)/mean)**-6

Predicted Minimum Detectable Trends (MDT) for nonnormally distributed data (combination of above two formulas):
Predicted MDT expressed as a percent of change in the mean over some time period at given Type I and II Error rates.
PredMDT=(100/mean)*(Std Dev of Deseasonalized Detrended Data*Minimum Relative Detectable Trend)*(1+(mean-median)/mean)**-6

Lacamas Watershed Trend Power Calculations (Typical of Nonnormally Distributed Data):

Using **Lacamas Creek** at Goodwin Road monthly data for WY 1999 - 2003 (assuming Type 1 and 2 errors of 10%):

Parameter	Mean	Median	Standard Deviation of Deseasonalized & Detrended Data	Minimum Relative Detectable Trend (delta for 60 months)	Predicted Minimum Detectable Trend (% of change in mean over monitoring period)
Flow (cfs)	139.8	76.7	99.15	1.33	10.1
Flow Adjusted TP (mg/L)	0.038	0.034	0.019	1.33	36.5
Non-Flow-Adjusted TSS (mg/L)	5.542	5	6.78	1.33	93.0

Compared to Seasonal Kendall test and Slope Estimator for Trend calculated in WQSTAT PLUS for above parameters:

Parameter	Significant Trend (alpha=0.1)	Number Of Months (n)	Annual Trend Slope (units per year)	5 Year Change (units per 5 years)	Calculated Change in Mean Over 5 Years*
Flow (cfs)	Yes	60	-7.875	-39.375	-28.2%
Flow Adjusted TP (mg/L)	No	60	-0.0016	-0.008	-21.1%
Non-Flow-Adjusted TSS (mg/L)	Yes *	60	-0.1517	-0.7585	-13.7%

* Note:
Calculated trend for non-flow-adjusted TSS was statistically significant but was less than the predicted minimum detectable trend.
The magnitude of this trend is not reliable possibly due to highly censored and variable data and / or too short a monitoring period.

Using **Lacamas Lake** monthly data for WY 1991 - 2003 (assuming Type 1 and 2 errors of 10%):

Parameter	Mean	Median	Standard Deviation of Deseasonalized & Detrended Data	Minimum Relative Detectable Trend (delta for 120 months)	Predicted Minimum Detectable Trend (% of change in mean over monitoring period)
TKN (mg/L)	0.5694	0.5240	0.1947	0.93	20.1
TP (mg/L)	0.0367	0.0310	0.02729	0.93	29.0
Secchi (m)	1.5509	1.4440	0.5012	0.93	20.1

Compared to Seasonal Kendall test and Slope Estimator for Trend calculated in WQSTAT PLUS for above parameters:

Parameter	Significant Trend (alpha=0.1)	Number Of Months (n)	Annual Trend Slope (units per year)	Approximate 10 Year Change (units per 10 years)	Approximate Calculated Change in Mean Over 10 Years
TKN (mg/L)	Yes	102	0.0196	0.1956	34.4%
TP (mg/L)	No	102	-0.0002	-0.0017	-4.6%
Secchi (m)	No	91	-0.0049	-0.0493	-3.2%

Trophic state index
A Trophic State Index (TSI) is used to describe the level of production of a lake, or the amount of algal matter produced by photosynthesis in a lake (Carlson, 1981, Wetzel, 1983). The amount of algal matter has proven to be a reliable measure of the problems that typically plague lakes. An index generally uses a numbered scale to compare variables with one another, or with a reference number. Thus indices provide a "common currency" with which to describe lake conditions.

The terms oligotrophic, mesotrophic, and eutrophic are used to characterize lakes by a low, medium, and high amount of algae production, respectively. The TSI interprets measured indicators of algal biomass, and expresses the result on a numbered scale that is easy to understand, approximately from zero to one hundred. A single measurement of TSI does not imply whether a lake's health is deteriorating, nor does it imply where a lake *should be* in terms of the current health.

The following equations, taken from Carlson and Simpson, 1996, were used to calculate the TSI from chlorophyll-a , Secchi depth, and total phosphorus data. The equation calculating TSI from algal biovolume was provided by the consultant performing the algal counts (Jim Sweet, personal communication, December 2003):

- TSI(SD) = 60 - 14.41 ln(SD), where SD is Secchi depth in meters;
- TSI(CHL) = 9.81 ln(CHL) + 30.6, where CHL is chlorophyll-a in µg/L;
- TSI(TP) = 14.42 ln(TP) + 4.15, where TP is total phosphorus in µg/L;
- TSI (BV) = (Log-base 2 (B+1))*5, where B is the phytoplankton biovolume in cubic micrometers per milliliter, divided by 1000.

Quality Assurance/Quality Control Results
During WY2002 and WY2003, all of the scheduled lake nutrient samples, vertical lake profiles, and composite samples were collected. Inlet/outlet samples were collected at nearly the intended rates, with sampling intervals sometimes exceeding one week. A total of 215 inlet and 91 outlet samples were collected during the monitoring period, but fewer outlet samples were collected in WY2003 (38) than were anticipated (52).

Quality Control sample collection for WY2002 and WY2003 is shown in Table X. Note that QC collection targets were modified during late 2002 as part of a Water Resources QA review and update. WY2002 QC collection met targets for that time period, except for duplicate field samples at the inlet/outlet stations. During WY2003, duplicate field sample collection at the inlet/outlet stations again fell slightly short of targets, but all other QC sample collection met or exceeded targets.

Precision results for duplicate samples, duplicate measurements, and split samples are reported as pooled percent relative standard deviation (%RSD) in Table X. Target precision for each characteristic was 10% RSD, except for chlorophyll-*a* which had a target of 20% RSD.

Percent RSD calculations for chlorophyll-*a* included data from Battleground Lake and Vancouver Lake because only one duplicate pair was collected in Lacamas Lake. All other percent RSD values include only LLMP project duplicates.

Field QC sample type	WY2002 Collected	WY2003 Collected	WY2003 Target	Comment
Transfer blank	1	3	4	expanded in WY2003
Transport blank	0	1	1	added in WY2003
Duplicate field sample (lake)	12	7	6	reduced in WY2003
Duplicate field sample (inlet/outlet)	2	4	6	expanded in WY2003
Duplicate field measurement (lake)	2	6	6	expanded in WY2003
Field split sample (chlorophyll-*a*)	0	1	1	not applicable in WY2002

Table X. Field QC sample collection completeness.

Characteristic	Pooled %RSD	Characteristic	Pooled %RSD
Total Phosphorus (lake)	± 18%	Total Suspended Solids (lake)	± 8%
Total Phosphorus (inlet/outlet)	± 10%	Total Suspended Solids (inlet/outlet)	± 17%
Ortho-phosphorus	± 6%	Temperature	± 0.8%
Total Kjeldahl Nitrogen	± 21%	Dissolved Oxygen	± 12%
Nitrate/Nitrite-Nitrogen	± 8%	pH	± 5%
Ammonia-Nitrogen	± 13%	Conductivity	± 0.7%
Chlorophyll-a	± 38%		

Table X. Precision as pooled % relative standard deviation.

Six constituent categories failed to meet target criteria. However, in-lake or in-stream variability is included in the duplicate field samples and duplicate field measurements, so their variability is not solely a measure of sampling error plus analytical error. Allowing for expected natural variability, %RSD results were acceptable for all characteristics except chlorophyll-*a*.

The split field samples collected for chlorophyll-*a* measure variability from sampling error plus analytical error, and do not include in-lake variability. The 38% RSD for chlorophyll-*a* was nearly twice the target level and is addressed in the issues section below.

The expected results of the analyses of blank samples were "below reporting limit" for all measured characteristics. With one exception, all results for blank samples met expectations. The total phosphorus transport blank was reported at 0.241 mg/L and is discussed below.

Review of stage measurement comparisons and the stage-discharge relationship versus manual measurements indicated good agreement.

Laboratory staff assessed the laboratory QA program through review of laboratory quality control results including check standards, matrix spikes, and laboratory blanks. Results were within acceptable ranges as defined in NCA's quality assurance manual or were coded as necessary on laboratory reports.

Quality Assurance Issues

1) 117 of 432 lake nutrient results (27%) were below laboratory reporting limits, primarily ammonia (35 results), total suspended solids (27 results), and ortho-phosphorus (24 results).

Large numbers of results reported as non-detects can complicate data analysis and may limit the usefulness of a monitored characteristic. Ortho-phosphorus non-detects will not be addressed

because results are expected to fall below reporting limits during summer. Ammonia concentrations are also expected to remain relatively low, but in response to the high rate of non-detects the laboratory reporting procedure has been modified. Ammonia results below the reporting limit but above the method detection limit (MDL) will be reported and flagged as an estimated value (J) rather than ND. Total suspended solids analysis will be replaced by turbidity measurements in future Lacamas Lake sampling. Turbidity data provide a useful measure of water clarity and will reflect the presence of suspended colloidal material (very fine sediment) more effectively than TSS.

2) Chlorophyll-a results from WY2003 did not meet measurement quality objectives for precision. Comparison with pheophytin concentrations and other results indicate that samples may have been unintentionally degraded during storage, preparation, or analysis. One clearly suspect chl-a value from 6/12/03 has been excluded from the dataset. The remaining five values from WY2003 are utilized in this report, but the reader should note the poor data precision and the probability that reported chl-a values are lower than the true value. Based on WY2003 results, Water Resources may utilize a different laboratory for future chlorophyll-*a* analyses.

3) The high transport blank TP result suggests that sample contamination occurred during field processing or during laboratory analysis. A specific cause was not apparent. Possible sources of this error could include contamination during bottle prep (e.g. phosphorus soap), sample switching at the laboratory, contamination during the analytical procedures, or data entry error at the laboratory. The abnormal result was brought to the attention of the contracted laboratory.

Staff Report

November 2, 2020 Council Workshop

Mayor's Recommended 2021-2022 Capital Budget Presentation
Presenter: Cathy Huber Nickerson, Finance Director

Phone	Email
360.817.1537	chuber@cityofcamas.us

BACKGROUND: This presentation is designed to provide a mid-level overview of the Mayor's Recommended 2021-2022 Capital Budget to City Council and the public. This presentation will provide Capital Decision Packages as well as how the Mayor's budget initiatives are incorporated in the Capital budget for the upcoming biennium.

SUMMARY: The Mayor's Recommended 2021-2022 Biennial Budget was prepared to incorporate his three initiatives for the biennium: Honesty, Land, People. With Honesty, communications and equity are a focus. The use of technology will be key. With the investment in the Legacy Lands in 2019-2020, this next biennium, 2021-2022 will focus on the City's efforts to be careful stewards of the City's natural assets This budget will provide funding for trails, care for the historic Leadbetter House, clean-up of Lacamas Lake and support for our existing parks. For the final initiative, the budget will focus on our children and older citizens, by enhancing our parks, library, streets to provide accessibility and safety.

The City's revenue budget for the 2021-2022 is projected to be slower than in recent years but still stable with modest growth. Camas continues to be a place people desire to move to. The budget is built to address the City's growing community with several infrastructure projects.

Given the uncertain economic times during the COVID-19 pandemic, the Mayor's Recommended 2021-2022 Budget has a budget strategy designed to adapt to a changing financial environment. The Recommended Budget appears to be status quo budget with several capital projects, but the implementation of the 2021-2022 Budget is tied to the Washington State's Phased Approach for Safe Start. As a result, in Phase 1 the budget will be limited in 2020 Budget levels with some line item placed on hold such as staff hires, seasonal help, travel, training and all construction. In Phase 2, the Mayor has discretion to open some expenses and allow capital projects as well. In Phase 3, the 2021-2022 Budget is implemented but may still have some restrictions in place. In Phase 4, the Mayor may opt to implement the fully adopted 2021-2022 Budget.

The 2021-2022 Capital Budget consists of 42 decision packages for a total of $24,436,989. These packages include:

General Government	Major Facilities Maintenance and ERP Replacement System
Streets	9 projects and 1 large equipment acquisition
Parks	11 park and trail projects with 2 large equipment
Camas/Washougal Fire Dept.	New Fire Engine
Stormwater	4 projects and 1 vacuum truck
Solid Waste	Solid Waste Truck
Water	9 projects
Sewer	1 project

The majority of the projects were intended to start in 2020 before COVID-19 occurred with 20 considered new projects.

EQUITY CONSIDERATIONS:

What are the desired results and outcomes for this agenda item? The intent of this budget is to fund City services which benefit the whole community while delivery is inclusive and accessible.

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

How have communities been engaged? Are there opportunities to expand engagement? Prior to the COVID-19 pandemic, the City had planned several public engagement activities during the budget building process. Unfortunately, with the COVID-19 restrictions, the City has one online engagement activity to evaluate capital project decision packages this month and two public hearings which will be scheduled. As in prior budget planning efforts, the City will place the whole 2021-2022 budget online which allows the community to drill down into the budget as well as track in real time how the City's resources are spent against the adopted budget.

Who will benefit from, or be burdened by this agenda item? All Camas citizens will benefit from the 2021-2022 Budget.

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. No, the 2021-2022 Budget provides equal access to resources.

Will this agenda item improve ADA accessibilities for people with disabilities? The Mayor's Recommended Budget provides funding to provide more accessible street crossings and more accessibility to the Louis Bloch park and ball fields.

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

How will you ensure accountabilities, communicate, and evaluate results? The Finance Department provides at https://finance.cityofcamas.us the City's Open Budget tool for residents to ensure the City is accountable and provides results of the approved budget. The Finance Director also provides quarterly reviews of the budget to actual in an open meeting which is televised online. In addition, the Washington State Auditor's Office audits the City's Annual Financial Report which provides a budget to actual statements.

How does this item support a comprehensive plan goal, policy or other adopted resolution? This item will eventually be adopted by City Ordinance and is compliant with state law, City's municipal code, the City's Strategic Plan and all other City plans and financial policies.

BUDGET IMPACT: This presentation provides the Mayor's Recommended Capital 2021-2022 Budget.

RECOMMENDATION: Presentation only.

2021-2022 MAYOR'S RECOMMENDED CAPITAL BUDGET

City of Camas November 2, 2020

City of Camas
Strategic Plan
2018-2020

OUR MISSION

The City of Camas commits to preserving its heritage, sustaining and enhancing a high quality of life for all its citizens and developing the community to meet the challenges of the future.

OUR VISION

OUR DECISION PRINCIPLES

Are we...

- Providing services in line with community needs & priorities?
- Maintaining or building financial sustainability for our City?
- Preserving our integration with the outdoors?
- Creating an inclusive community that feels like a home town?

OUR INTERNAL VALUES

- Service Oriented
- Vision Driven
- Partnering and Collaboration
- Accountability
- Continuous Improvement

CITY OF CAMAS 2018-2020 STRATEGIC PRIORITIES

1. **Meet COMMUNITY NEEDS with optimal use of community resources**
2. Build FINANCIAL SUSTAINABILITY for our City
3. Ensure CORE INFRASTRUCTURE to meet community needs
4. Proactively MANAGE GROWTH in line with our vision & decision principles

2018-2020 KEY OBJECTIVES

- **All community needs & chosen priorities funded at defined service levels by 2020**
- **Improve efficiency: Six (6) process improvements completed annually**
- **Balanced Budget (with reserve funded AND community needs and high priority wants funded)**
- **Improve Bond Rating from AA to AAA**
- **Infrastructure capacity**
- **Corrective Maintenance/ Preventive Maintenance %**
- **"Jobs" Ready Land/Residential "Ready" Land**
- **Green Space per capita**
- **Infrastructure capacity**

2018-2020 KEY INITIATIVES

1. Define and prioritize service levels, including performance measures
2. Implement Lean city-wide
3. Develop technology roadmap
4. Evaluate service delivery models
5. Develop community engagement and communications strategy

1. Update all Financial Policies to GFOA best practices
2. Open and transparent program-based budget
3. Update Utility Rates, Impact Fees, SDC's
4. Revenue Strategy (overall size and diversification)
5. Develop Long-Term Financial Plan, Including Capital Programs

1. Complete Condition assessment on all core infrastructure and facilities
2. SR500 corridor strategy with a Lake-Everett Intersection plan
3. Infrastructure and facilities capacity plan
4. Asset Management System specified
5. Water & Sewer Level of Service Analysis

1. Protect Backdrop of Lacamas Lake on North Shore
2. Prioritize, fund & implement an updated Parks Recreation Open Space (PROS) plan
3. Complete Grass Valley subarea plan
4. Transportation Capital Facilities Plan and level of service analysis

Enhance tools and processes to improve communications: within departments, across departments, and with Council.

Updated as of 2017

MAYOR'S INITIATIVES

Land

- Legacy Lands
- Facilities
- Climate Change – Evaluate sustainability goals. Including but not limited to energy efficiency options

People

- Programs for young people in the City
- Services for the older adults

Honesty

- Communication
- Equity

MAYOR'S INITIATIVES FOCUS ON STRATEGIC PLAN

Land

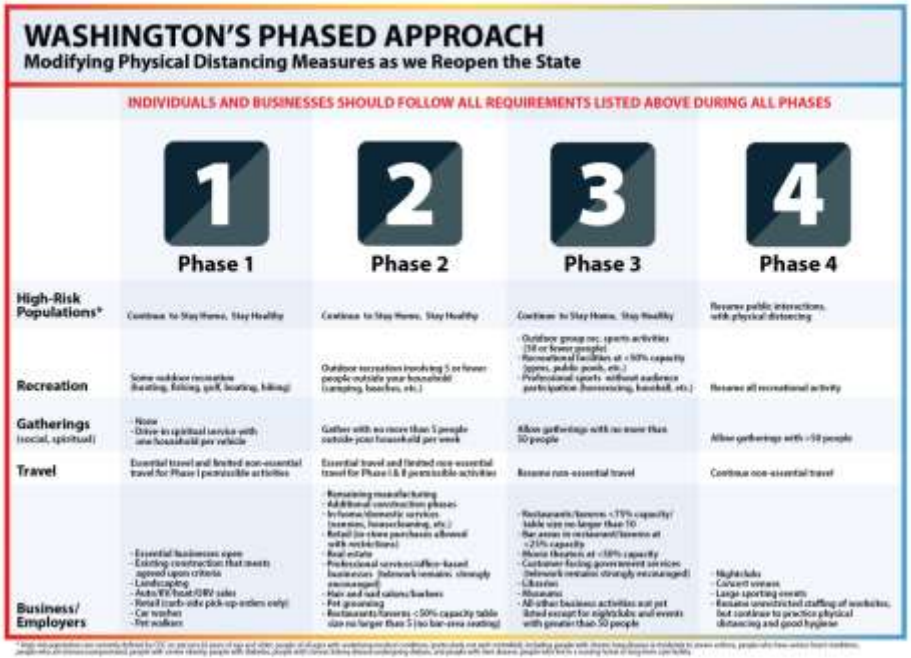
- Protect backdrop of Lacamas Lake on North Shore
- Infrastructure and facilities capacity plan
- Asset Management System
- Complete North Shore subarea plan

People

- Prioritize, fund and implement an updated Parks Recreation Open Space plan
- Complete condition assessment on all core infrastructure and facilities

Honesty

- Develop community engagement and communications strategy
- Update all financial policies to GFOA best practices



WASHINGTON'S PHASED APPROACH

Modifying Physical Distancing Measures as we Reopen the State

INDIVIDUALS AND BUSINESSES SHOULD FOLLOW ALL REQUIREMENTS LISTED ABOVE DURING ALL PHASES

	1 Phase 1	2 Phase 2	3 Phase 3	4 Phase 4
High-Risk Populations*	Continue to Stay Home, Stay Healthy	Continue to Stay Home, Stay Healthy	Continue to Stay Home, Stay Healthy	Reverse public interactions with physical distancing
Recreation	Some outdoor recreation (boating, fishing, golf, boating, hiking)	Outdoor recreation involving 5 or fewer people outside your household (camping, beaches, etc.)	Outdoor group rec. sports activities (50 or fewer people) Recreational facilities at <50% capacity (gyms, public pools, etc.) Professional sports without audience participation (horseracing, baseball, etc.)	Resume all recreational activity
Gatherings (social, spiritual)	- None - Drive-in spiritual service with one household per vehicle	Gather with no more than 5 people outside your household per week	Allow gatherings with no more than 50 people	Allow gatherings with >50 people
Travel	Essential travel and limited non-essential travel for Phase I permissible activities	Essential travel and limited non-essential travel for Phase I & II permissible activities	Resume non-essential travel	Continue non-essential travel
Business/ Employers	- Essential businesses open - Existing construction that meets agreed upon criteria - Landscaping - Auto/RV/boat/ORV sales - Retail (curb-side pick-up orders only) - Car washes - Pet walkers	- Remaining manufacturing - Additional construction phases - In-home/domestic services (nannies, housecleaning, etc.) - Retail (in-store purchases allowed with restrictions) - Real estate - Professional services/office-based businesses (telework remains strongly encouraged) - Hair and nail salons/barbers - Pet grooming - Restaurants/taverns <50% capacity table size no larger than 5 (no bar-area seating)	- Restaurants/taverns <75% capacity/ table size no larger than 10/ Bar areas in restaurant/taverns at <25% capacity - Movie theaters at <50% capacity - Customer-facing government services (telework remains strongly encouraged) - Libraries - Museums - All other business activities not yet listed except for nightclubs and events with greater than 50 people	- Nightclubs - Concert venues - Large sporting events - Resume unrestricted staffing of worksites, but continue to practice physical distancing and good hygiene

GOVERNOR INSLEE'S PHASED APPROACH

Following Safe Start Washington's Phased Approach provides a clear path forward

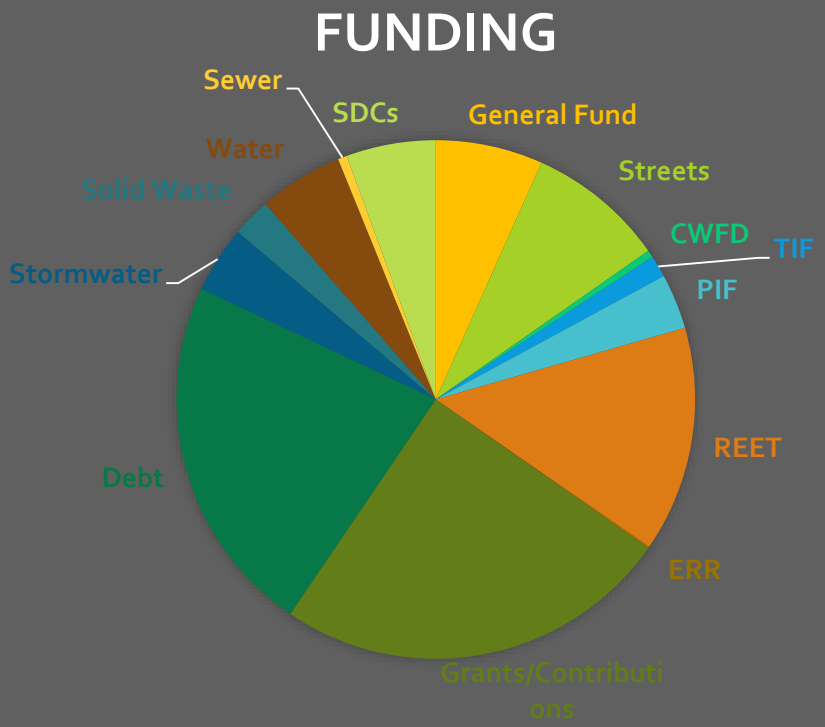
BUDGET GUIDANCE

Governor's Phase	Budget Phase	2020 Service Delivery	2020 Staffing Level	2021 Budget Plan Revenue	2021 Budget Plan Operating	2021 Budget Plan Capital	2022 Budget Plan Revenue	2022 Budget Plan Operating	2022 Budget Plan Capital
PHASE 1									
Stay Home, Stay Safe No Gatherings Only Essential Travel Essential Businesses Some outdoor recreation	Essential	No travel Essential capital	No hirings No seasonals No OT Work at Home	Property Tax Status Quo 2020 Fee Schedule No late fees or penalties Limited Com Dev Fees No Recreation Fees/Rentals	No hirings No seasonals No OT Work at Home Furlough employees No travel Essential expenses	2020 Essential Capital	Property Tax Status Quo 2020 Fee Schedule No late fees or penalties Limited Com Dev Fees No Recreation Fees/Rentals	No hirings No seasonals No OT Work at Home Furlough employees No travel Essential expenses	Essential Capital
If a Rollback			***Furloughs*** ***Leave accruals to be used***						
PHASE 2									
Limited Reopening 5 People Gatherings Limited Travel New Construction Retail limited 50% capacity for restaurants Recreation with fewer than 5	Essential + COVID costs	No travel Essential capital	Hiring exceptions per Mayor No seasonals No OT Work at Home Work onsite permitted	Property Tax 1% 2020 Fee Schedule No late fees or penalties Com Dev Fees resume No Recreation Fees/Rentals	2020 Limited Budget No seasonals Hiring exceptions per Mayor Work at Home Work onsite permitted No travel No OT	2020 Essential Capital	Property Tax 1% 2021 Fee Schedule No late fees or penalties Com Dev Fees resume No Recreation Fees/Rentals	2021 Limited Budget	Essential Capital
PHASE 3									
Moderate Reopening Gatherings (of 10 to possibly 50) Resume Travel Govt, libraries, movie theaters 75% capacity for restaurants Outdoor group activities	Limted Budget	Limited travel Capital Projects Studies	Begin hiring Seasonals Work at Home (compromised) Work onsite Offices open	Property Tax 1% 2021 Fee Schedule Late fees and penalties Com Dev Fees resume Recreation Fees/Rentals	2020 Status Quo Budget	2020 Capital Projects Studies	Property Tax 1% 2022 Fee Schedule Late fees and penalties Com Dev Fees resume Recreation Fees/Rentals	2021 Status Quo Budget	2022 Capital Budget Studies
PHASE 4									
Resume Public Interaction Allow gatherings >50 Continue travel Resume unrestricted worksites	Full Budget	Travel permitted Studies	Work onsite Offices open	Property Tax 1% 2021 Fee Schedule Late fees and penalties Comm Dev Fees Recreation Fees/Rentals	2021 Proposed Decision Packages	2020-2021 Capital Projects Studies	Property Tax 1% 2021 Fee Schedule Late fees and penalties Comm Dev Fees Recreation Fees/Rentals	2022 Proposed Budget Decision Packages	2022 Capital Budget Studies

2021-2022 CAPITAL BUDGET SUMMARY

42 Capital Projects

- 2 General Government
- 10 Street
- 1 CWFD
- 14 Parks
- 5 Stormwater
- 9 Water
- 1 Sewer



GENERAL GOVERNMENT

CDP 1 Major Building Maintenance

2021 $889,874

2022 $500,000

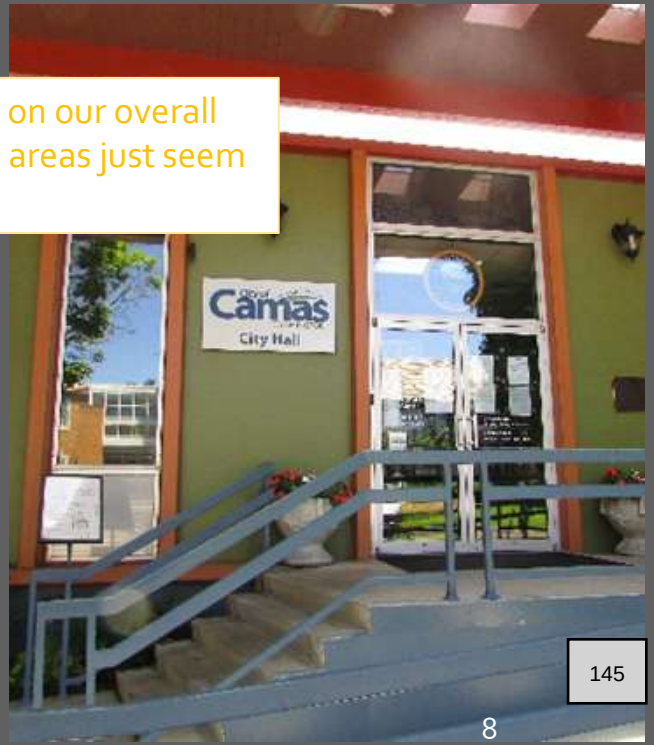
Projects include:

- Annex Building
- Library HVAC
- City Hall Generator
- Community Center Renovation
- General Building Maintenance

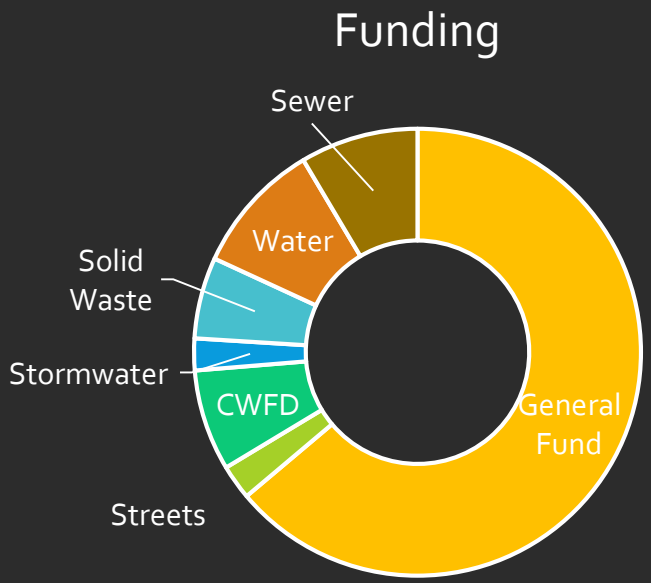
Funding

- General Fund
- REET1/REET2

"We really need to focus on our overall City maintenance, some areas just seem old and falling apart"



GENERAL GOVERNMENT



CDP 2 ERP (Enterprise Resource Planning) System

2021	$750,000
2022	$750,000

Modules to include:

financials, payroll, human resources, permitting, asset management, grant management, code enforcement and project management

"Wait for next biennium, use Funds for firefighter and/or police-related staffing increase for better/consistent service."
"Be careful, this can snowball. Prepare accordingly"
"I hope you have budgeted a run-over of at least 20% along with a schedule allowance."

STREETS CAPITAL

CDP 3 – ADA Access Upgrades

The City is required by Federal mandate to continue to improve American's with Disabilities Act (ADA) access by removing barriers in the public rights-of-way for all pedestrians, including sidewalks, curb ramps, traffic signal controls, street crossings and ADA parking spaces.

2021	$50,000
2022	$50,000

Funded with REET 1

STREETS CAPITAL

CDP 4 – Pavement Management Program

City Council elected to use full banked capacity of property taxes to fund the Street Preservation Program.

2021 $879,859

2022 $913,887

STREETS CAPITAL

CDP 5 – Lake and Everett Intersection

The project was partially funded by a grant with the balance funded by low interest state loans. Construction began in earnest in 2020 with the final close out of the project anticipated in 2021. Depending on schedules and mitigation, it is possible this project may be closed out in 2020.

2021 $100,000 funded with Public Works Trust Fund Loan

STREETS CAPITAL

CDP 6 – NW 38th Ave Phase 3 Design and ROW

Phase 3 will be the final phase of a street improvement project on NW 38th Ave. The project improves the corridor from NW Parker Street to Grass Valley Park.

2021 $466,500

2022 $813,000

Funded with a grant, TIF, and REET

STREETS CAPITAL

CDP 7 – Traffic Controller Upgrades

This project will allow the City to migrate our traffic signals onto the county's server- based system.

2021 $232,000

Funded with grant, street funds

"I am not completely opposed to this concept I just wonder what the value this has for us to Need to do this at his time?"

STREET CAPITAL

"Developers in this surrounding area should pay for intersection improvements as they increase the population in the area. If the current system doesn't allow charging them for that, how do we change the system?"

CDP 8 – NW Brady and Grand Ridge Intersection Improvements

This proposed project will allow the City to complete surveying, develop design alternatives, and complete design of intersection improvements that will potentially include a left-turn lane, illumination and sight distance enhancements.

2021 $75,000

Funded with Street revenues

STREET CAPITAL

CDP 9 – NW 6th Ave Road Diet

This package completes a road diet to convert the existing four-lane, undivided roadway segment to a three-lane segment consisting of two through lanes and a center, two-way left-turn lane.

2021 $75,000

Funded with Street revenue

STREET CAPITAL

CDP 10 – NW 12th Ave CDBG Project

This project is to improve NW 12th Avenue including new asphalt and sidewalks and will be completed primarily with Community Development Block Grant (CDBG) funds. The City will contribute matching funds with Engineering services of $51,000 and water line improvements of $109,000.

2021 $232,000

STREET CAPITAL

CDP 11 – NE 3rd Ave Bridge Seismic Retrofit

This grant enables the City to ensure the bridge meets seismic thresholds.

2021 $2,917,118 all funded by a grant

" I know we're getting matching funds but wondering if some of this can be moved to the next budgeting cycle to save during this cycle."

STREET CAPITAL

CDP 12 Trailer Mounted Attenuator

Purchase of a trailer mounted traffic attenuator (or crash impact cushion) with mounted arrow board for the purpose of providing extra safety precautions for operations crews while working on our high speed and multiple lane roads, added safety for hours of darkness and may be utilized by police and fire during emergencies.

2021$35,000

Funded with revenue from Streets, Water, Sewer and Stormwater

CWFD CAPITAL

CDP 13 New Fire Engine (Pumper)

The CWFD is in need of a new pumper. Two of the oldest pumpers are nearing the end of their lifespan and maintenance costs are quickly increasing. Presently, staff is having trouble keeping both engines in service as they are frequently in the shop for repairs. By the time, the City takes possession of a new engine, the Fire Capital Plan should be complete which will allow for fire impact fees to pay for the costs or the debt service.

2021 $600,000

"Yes we much procure during this cycle"

PARKS CAPITAL

CDP 14 Open Space/Trails/ Park Upgrades

This package is a placeholder budget for unanticipated opportunities, repairs, enhancement or grant matching funds. This budget is defined in the Parks Comp Plan.

2021 $225,000

2022 $225,000

Funded with REET 2

PARKS CAPITAL

"I think this should be done with less upfront capital and move over time in phased portions. I think we should e ban most boats on this lake except small electric motorboats and paddle/canoe/SUP/etc."
"Please make a dock"

CDP 15 Boat Launch at Wildlife League

This package is to restore the boat launch on the northside of Lacamas Lake at the Wildlife League.

Funds will be used for the project preliminary design, permitting, and the application of the grant.

2021 $271,847 funded with PIF

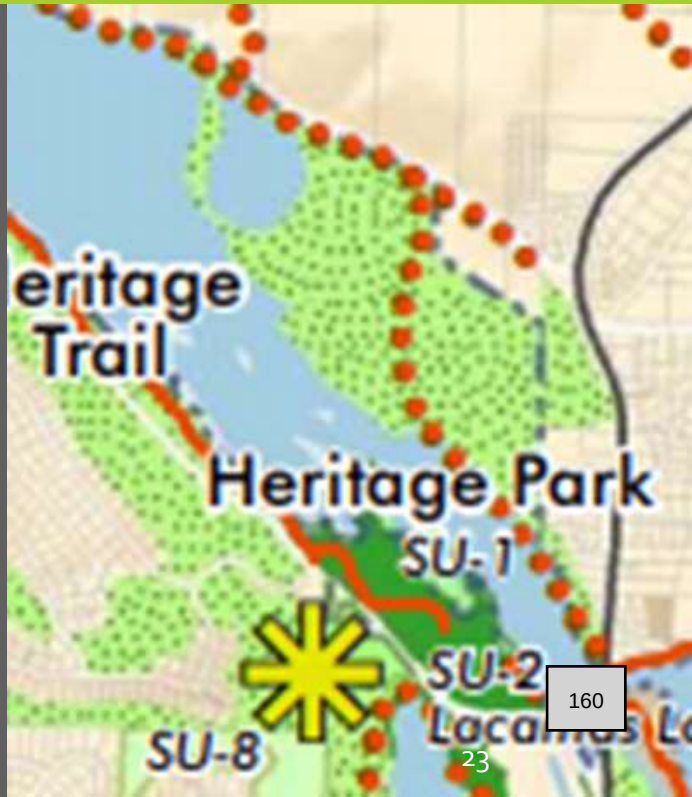
PARKS CAPITAL

CDP 16 – East Lake Trail

This package is for construction activities for a trail on the East side of Lacamas Lake along the waterfront which will include a boardwalk, primitive soft surfaced and compacted gravel trails. Permitting has been completed.

2021 $175,000 funded with PIF

"Make sure you put a porto-potty or permanent bathroom at all ends of the trails. In fact, why can't we fund keeping them open year-around, around the lake."



PARKS CAPITAL

CDP 17 – Parklands to Heritage Trail

The trail would include some boardwalks and level compacted gravel surface trail through the Camas Meadows Golf Course and connect to Heritage Trail.

2021 $92,904

2022 $300,000

Funded with PIF

"Make sure you put a porto-potty or permanent bathroom at all ends of the trails. In fact, why can't we fund keeping them open year-around, around the lake."

PARKS CAPITAL

CDP 18 – Crown Park Restrooms and Sport Court

The sports court is designed so the budget reflects construction only. The budget includes the design and construction of a restroom.

2021 $0

2022 $450,000

Funded with REET2

PARKS CAPITAL

"Incremental maintenance over longer period preferred."

CDP 19 – Skate Park Improvements

This budget funds the City 's portion of a joint project between Camas, Washougal and a group of interested residents. The funds would cover the City's portion of design and construction of enhancements to the skate park on 3rd Avenue.

2021 $0

2022 $75,000

Funded with REET, City of Washougal and Private Donations

PARKS CAPITAL

CDP 20 – North Shore Conservation

The funding is intended to provide building maintenance for the Leadbetter House, the barn, and the Rose property. The Leadbetter House and barn need roof replacements and the Rose house needs interior maintenance.

2021 $500,000 funded with 2020 bond proceeds

"Another TOTAL WASTE of money"

PARKS CAPITAL

CDP 21 – Currie Trail

This project is contingent on RCO grant funding to complete. It is a leg of the trail around Lacamas Lake which includes a trailhead on one of the North Shore City properties (Buma) with a parking lot, a trail through Camp Currie and ends at the Heritage trailhead at Goodwin.

2021 $960,000 funded with REET2

2022 $1,900,000 funded with RCO grant

"This is a TOTAL WASTE of money"

PARKS CAPITAL

"They seem to be in good enough shape at th
time, maybe wait another budget cycle for this."

CDP 22 – Grass Valley Tennis Courts Resurfacing

Resurfacing the tennis courts would extend the life an additional 10-15 years including painting of new lines to accommodate tennis and other sports such as pickle ball.

This project will seek partnerships and contributions to fund.

2021 $45,000

PARKS CAPITAL

CDP 23 – NE 3rd Ave Trail Design and Permit

This project will build a restroom and improve the parking lot. This package funds the design for the project with construction occurring in the following biennium.

2021 $75,000 funded with REET2

PARKS CAPITAL

"…are directly responsible for the LIGHTING project at Louis Bloch park, and there is NO WAY the bleachers should cost this much…Something needs to be done, but the price is ABSOLUTELY INSANE."
"Only the ADA portion should be funded at this Time and any critical at-risk concerns."

CDP 24 – Louis Bloch Bleacher and ADA Access Improvements

This package is to remove all existing bleachers and asphalt within the fenced area and replace with concrete surfacing and new bleachers that provide maximum viewing capacity, that are accessible to all patrons with additional curb ramps and ADA access into both sides of the viewing area.

2021 $250,000 funded with General Fund

PARKS CAPITAL

CDP 25 – Large Mower

Increased mower efficiencies will reduce overall labor hours. It is also proposed to eliminate a small mower scheduled for replacement in 2021 and utilize the capital replacement funds of $26,000 towards this purchase.

2021$0

2022 $100,000 funded by ERR and General Fund

PARKS CAPITAL

CDP 26 – Turf Sweeper

This will provide a usable resource to enhance turf health in all areas, reduce unnecessary wear on mowers, and will increase crew productivity.

2021 $50,000 funded by the General Fund

"FOR WHAT TURF FIELDS?"
"Not crazy about replacing something that may not be old but sounds like it still works. What are we doing with the old one?"

STORMWATER CAPITAL

CDP 27 – Ostenson Canyon Road Repair Design

This package should produce a cost effective repair plan to repair a damaged roadway and improve the intersection of Ostenson Canyon Road and 18th Loop.

2021 $200,000 funded with Stormwater Rates

"I believe the minimal number of homes at the end of this road along with the current state of the Road does not warrant a line item this large during this cycle. Unless this is a critical safety issue… Technically they all do have access from the other side"

STORMWATER CAPITAL

CDP 28 – Parker Estates Stormwater Design and Construction

This package is to design and construct a new stormwater facility to replace one which has been overgrown and damaged by beavers for many years. This project will allow the beavers to remain in place and but provide a functional facility meeting the intent of the original design.

2021	$200,000 funded with Stormwater Rates

STORMWATER CAPITAL

"What specifically is the money being spent on? A study?"
"This item seems somewhat undefined as to how the funds will Be used. Can you provide additional clarity?"

CDP 29 – Lacamas Lake Dam Improvements

Replacement of the handwheels with electronic actuators that can be controlled remotely will enhance safety and security and be more efficient for operators. Removal of fish screens. If budget allows, a hydraulic analysis to determine the correlation between rain events and water level to develop a program for raising/lowering water level.

2021 $75,000

2022 $75,000

STORMWATER CAPITAL

CDP 30 – Lake Water Quality

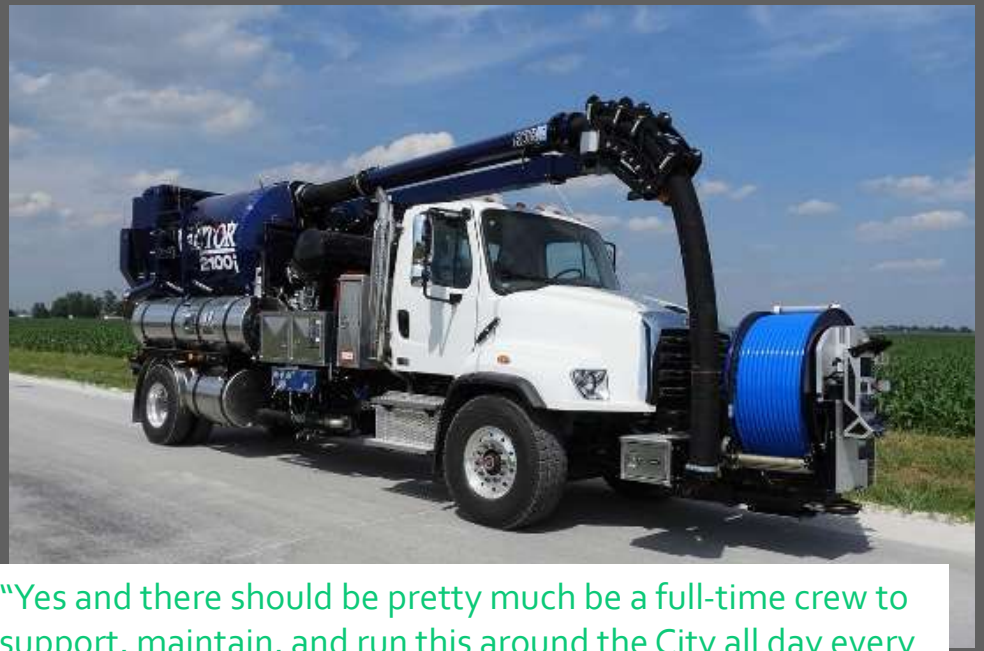
Provide funding for staff to work with Clark County and State/Federal agencies and develop both a short-term and long-term strategy for improving and managing the water quality of Lacamas Lake and Round Lake.

2021 $150,000

2022 $150,000

Funded with Stormwater Rates

STORMWATER CAPITAL



"Yes and there should be pretty much be a full-time crew to support, maintain, and run this around the City all day every business day for preventative maintenance of our system."

CDP 31 – Vactor Truck

The City may be eligible for a grant thought the Washington State Department of Ecology that would provide the majority of funding of a stormwater dedicated vacuum truck, which has a total purchase price of $500,000 and a recipient match of 25%, or $125,000.

2021 $500,000 funded 75% with grant and 25% Stormwater Rates

SOLID WASTE CAPITAL

CDP 32 – Solid Waste Truck

Purchase a new Sanitation Truck to serve City customers in the Green Mountain and North Shore areas.

2022 $500,000 funded with Solid Waste revenue

"Since it was known prior to now that the city would be taking over the route, why has at least part of the cost of the truck not been set aside from the contract the city maintained with Waste Connections?"
"Yes the sooner the better."

WATER CAPITAL

CDP 33 – Lower Prune Hill Booster Station

This project will replace existing infrastructure that is undersized and has reached its useful life. The new station will add pumping capacity to the water system that will be used to serve future growth. This project is located next to the Lower Prune Hill Reservoirs on the north side of 18th Loop.

2021 $2,100,000 funded with 2019 Revenue Bond ($1,175,000) and Water SDCs ($925,000)

WATER CAPITAL

CDP 34 – Well 6/14 Waterline Transmission Main

This project is to enable additional pumping capacity from Wells 6 and14 in the City's existing Washougal Wellfield by connecting the two wells with a larger diameter pipeline.

2021 $440,000 funded by Water SDCs

WATER CAPITAL

CDP 35 – Meter Replacement Project

This is a multi-year project to replace all the water meters in the City with radio read meters. The radio meters will shorten meter reading by the Water Crews and require less staff as well. Most of the water meters will be read as the Water Crew vehicle drives through a neighborhood. The technology is highly accurate and provides more water consumption data.

2021 $275,000

2022 $275,000

Funded with Water Rates

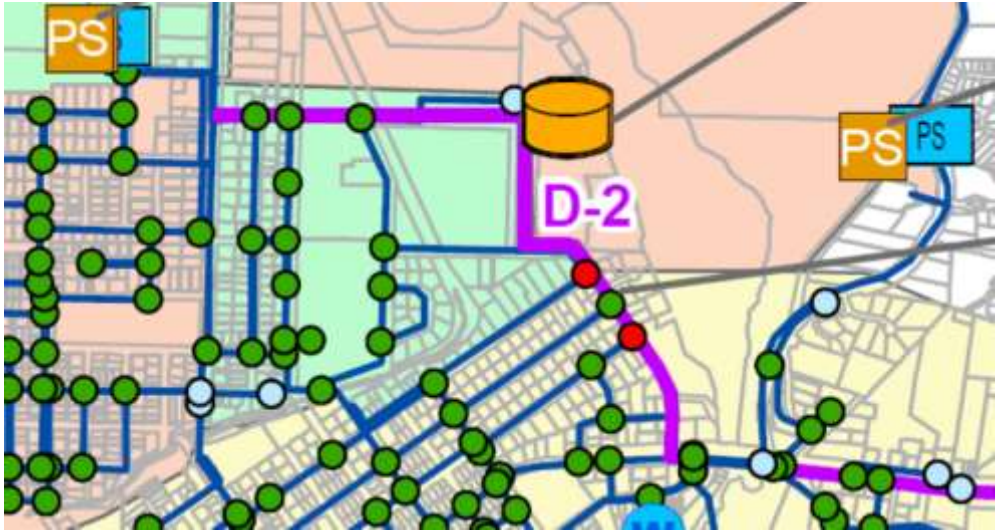
"Only if this is cheaper in the end vs manual reading. This might be a nice to have and if it is, we should move this e nex
Are you taking away someone's job to enable this feature? I'd rather pay a person to do this right now than to say we autor

WATER CAPITAL

CDP 36 – 343 Zone Supply Transmission Line

This project (identified as Project D-2 in the 2019 adopted Water System Plan Update) is to construct a new water transmission main to help move water from the Washougal Wellfield to the Angelo Booster Station located near Fallen Leaf Park, which then pumps water towards the top of Prune Hill.

2021 $1,890,000 funded by the 2019 Revenue Bond



WATER CAPITAL

CDP 37 – Forest Home Booster Station

This will fund the remaining design necessary to replace the existing Forest Home Booster Station with a new Booster Station. The existing station has more than reached its useful life, is undersized, and is not located in a location conducive to easy maintenance.

2021 $600,000 funded with 2019 Revenue Bond

WATER CAPITAL

CPD 38 – 343 Zone Reservoir

This package includes completing a siting analysis and identifying properties that may be suited for a new Reservoir. Once the analysis is completed, this decision package may also support the acquisition of property for future construction.

2021 $540,000 funded with 2019 Revenue Bond

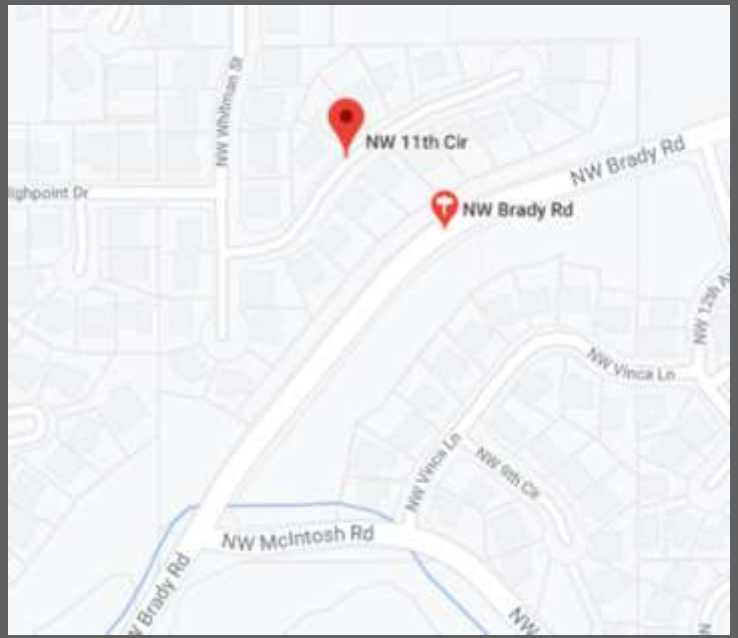
WATER CAPITAL

CDP 39 – Washougal River Wellfield Improvements

The City has been evaluating use of the existing Washougal Wellfield and working with the Department of Ecology to maximize the amount of water pulled from the existing wellfield. This package will allow staff to work with consultants to finalize the analysis and potentially design a portion of any necessary upgrades.

2021 $100,000 funded with Water Rates

WATER CAPITAL



CDP 40 – Watermain at 11th Circle to Brady

This package will add waterline between 11th Circle and Brady Road. The project will improve fire flows and system redundancy in the surrounding area.

2021 - $275,000 funded by Water Rates

WATER CAPITAL

CDP 41 – Water Transmission Dallas Street to Railroad Tracks

This will replace old and undersized waterline on Dallas Street between 3rd Avenue and the Railroad Tracks. The project will improve fire flows and system redundancy in the surrounding area.

2021 $100,000 funded with Water Rates

SEWER CAPITAL

CDP 42 – Lacamas Creek Pump Station

This decision package is to close out construction of the Lacamas Creek Pump Station Project.

2021 $100,000 funded with the 2015 Revenue Bond

QUESTIONS

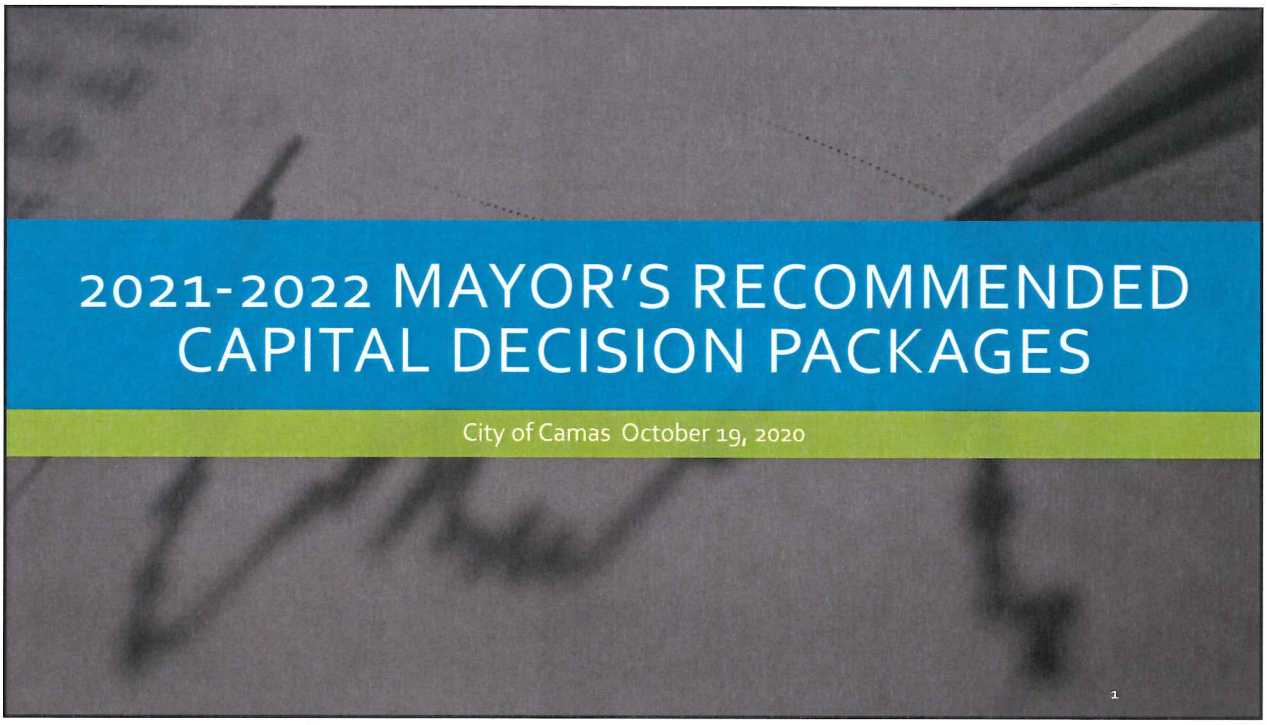
Next Meeting

Updated 2021-2022 Proposed Budget

Public Hearing and Adoption of Property Tax Levies

Resolution of 2021 Fee Schedule

2020 Fall Omnibus Budget Presentation and Open Public Hearing


2021-2022 MAYOR'S RECOMMENDED CAPITAL DECISION PACKAGES
City of Camas October 19, 2020
1

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Capital Program 2020-2021 Budget Program - 10/15/20

	Department/Fund	Title	2021 Proposed	2022 Proposed
1	General Govt.	Major Building Maintenance	$ 889,874	$ 500,000
2	General Govt.	ERP Replacement System (City-wide)	$ 750,000	$ 750,000
3	Streets/Capital	ADA Access Upgrades	$ 50,000	$ 50,000
4	Streets/Capital	Pavement Management Program	$ 879,859	$ 913,887
5	Streets/Capital	Lake and Everett Intersection	$ 100,000	
6	Streets/Capital	38th Avenue Phase 3-Design and ROW	$ 466,500	$ 813,000
7	Streets/Capital	Traffic Signal Controller Upgrades	$ 232,000	
8	Streets/Capital	NW Brady & Grand Ridge Intersection Improvements	$ 75,000	
9	Streets/Capital	NW 6th Ave Road Diet	$ 75,000	
10	Streets/Capital	NW 12th Ave CDBG Project	$ 415,000	
11	Streets/Capital	NE 3rd Ave. Bridge Seismic Retrofit	$ 2,917,118	$ -
12	Streets/Capital	Trailer Mounted Attenuator	$ 35,000	
13	CWFD	New Fire Engine (Pumper)		$ 600,000
14	Parks	Open Space/Trails/Park Upgrades	$ 255,000	$ 255,000
15	Parks	Wildlife League/Boat Launch	$ 271,847	
16	Parks	East Lake Trail (North Shore Trail T-3)	$ 175,000	
17	Parks	Parklands To Heritage Trail T-1	$ 92,904	$ 300,000
18	Parks	Crown Park Restrooms and Sport Court		$ 450,000
19	Parks	Skate Park Improvements		$ 75,000
20	Parks	North Shore Conservation (Legacy Lands)	$ 500,000	
21	Parks	Currie Trail	$ 960,000	$ 1,900,000
22	Parks	Grass Valley Tennis Courts Resurfacing	$ 45,000	
23	Parks	NE 3rd Ave Trail Design and Permit	$ 75,000	
24	Parks	Louis Bloch Bleacher and ADA Access Improvement		$ 250,000
25	Parks	Large Mower		$ 100,000
26	Parks	Turf Sweeper	$ 50,000	
27	Stormwater	Ostenson Canyon Road Repair Design	$ 200,000	
28	Stormwater	Parker Estates Stormwater Design and Construction	$ 200,000	
29	Stormwater	Dam Improvements	$ 75,000	$ 75,000
30	Stormwater	Lake Water Quality	$ 150,000	$ 150,000
31	Stormwater	Vacuum Truck	$ 125,000	
32	Solid Waste	New Garbage Truck		$ 500,000
33	PW/Water	Lower Prune Hill Booster Station	$ 2,100,000	
34	PW/Water	Well 6/14 Waterline Transmission Project	$ 440,000	
35	PW/Water	Meter Replacement Program	$ 275,000	$ 275,000
36	PW/Water	343 Zone Supply Trans Line	$ 1,890,000	
37	PW/Water	Forest Home Booster Station Design	$ 600,000	
38	PW/Water	343 Zone Reservoir	$ 40,000	$ 500,000
39	PW/Water	Washougal River Wellfield Improvements	$ 50,000	$ 50,000
40	PW/Water	11th Circle to Brady Watermain	$ 275,000	
41	PW/Water	Dallas Street Water Transmission - 3rd Ave to RR	$ -	$ 100,000
42	PW/Sewer	Lacamas Creek Pump Station	$ 100,000	
		Total	$ 15,830,102	$ 8,606,887
		Biennial Total		$ 24,436,989

Capital Program 2020-2021 Budget Program - 10/15/20

	Department/Fund	Title	2021 Proposed	2022 Proposed	2021-2022 SOURCES OF FUNDING: General	Streets	CWFD	TIF	PIF	FIF	REET 1	REET 2	Vehicle R&R	Grants/ Contributions	Debt	Storm Water	Solid Waste	Water	Sewer	SDC	Shortfall
1	General Govt.	Major Building Maintenance	$ 889,874	$ 500,000	$ 250,000						$ 639,874	$ 500,000									$ -
2	General Govt.	ERP Replacement System (City-wide)	$ 750,000	$ 750,000	$ 957,870	$ 37,683	$ 109,853									$ 34,491	$ 88,267	$ 143,870	$ 127,966		$ -
3	Streets/Capital	ADA Access Upgrades	$ 50,000	$ 50,000							$ 100,000										$ -
4	Streets/Capital	Pavement Management Program	$ 879,859	$ 913,887		$ 1,793,746															$ -
5	Streets/Capital	Lake and Everett Intersection	$ 100,000												$ 100,000						$ -
6	Streets/Capital	38th Avenue Phase 3-Design and ROW	$ 466,500	$ 813,000				$ 335,500			$ 131,000			$ 813,000							$ -
7	Streets/Capital	Traffic Signal Controller Upgrades	$ 232,000			$ 112,000								$ 120,000							$ -
8	Streets/Capital	NW Brady & Grand Ridge Intersection Improvements	$ 75,000			$ 75,000															$ -
9	Streets/Capital	NW 6th Ave Road Diet	$ 75,000			$ 75,000															$ -
10	Streets/Capital	NW 12th Ave CDBG Project	$ 415,000		$ 51,000									$ 255,000				$ 109,000			$ -
11	Streets/Capital	NE 3rd Ave. Bridge Seismic Retrofit	$ 2,917,118	$ -										$ 2,917,118							$ -
12	Streets/Capital	Trailer Mounted Attenuator	$ 35,000			$ 8,750										8750		$ 8,750	$ 8,750		$ -
13	CWFD	New Fire Engine (Pumper)		$ 600,000											$ 600,000						$ -
14	Parks	Open Space/Trails/Park Upgrades	$ 255,000	$ 255,000								$ 510,000									$ -
15	Parks	Wildlife League/Boat Launch	$ 271,847						$ 271,847												$ -
16	Parks	East Lake Trail (North Shore Trail T-3)	$ 175,000						$ 175,000												$ -
17	Parks	Parklands To Heritage Trail T-1	$ 92,904	$ 300,000					$ 392,904												$ -
18	Parks	Crown Park Restrooms and Sport Court		$ 450,000								$ 450,000									$ -
19	Parks	Skate Park Improvements		$ 75,000								$ 75,000									$ -
20	Parks	North Shore Conservation (Legacy Lands)	$ 500,000												$ 500,000						$ -
21	Parks	Currie Trail	$ 960,000	$ 1,900,000								$ 960,000		$ 1,900,000							$ -
22	Parks	Grass Valley Tennis Courts Resurfacing	$ 45,000											$ 45,000							$ -
23	Parks	NE 3rd Ave Trail Design and Permit	$ 75,000									$ 75,000									$ -
24	Parks	Louis Bloch Bleacher and ADA Access Improvement		$ 250,000	$ 250,000																$ -
25	Parks	Large Mower		$ 100,000	$ 74,000								$ 26,000								$ -
26	Parks	Turf Sweeper	$ 50,000		$ 50,000																$ -
27	Stormwater	Ostenson Canyon Road Repair Design	$ 200,000													$ 200,000					$ -
28	Stormwater	Parker Estates Stormwater Design and Construction	$ 200,000													$ 200,000					$ -
29	Stormwater	Dam Improvements	$ 75,000	$ 75,000												$ 150,000					$ -
30	Stormwater	Lake Water Quality	$ 150,000	$ 150,000												$ 300,000					$ -
31	Stormwater	Vacuum Truck	$ 125,000													$ 125,000					$ -
32	Solid Waste	New Garbage Truck		$ 500,000													$ 500,000				$ -
33	PW/Water	Lower Prune Hill Booster Station	$ 2,100,000												$ 1,175,000					$ 925,000	$ -
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36	PW/Water	343 Zone Supply Trans Line	$ 1,890,000												$ 1,890,000						$ -
37	PW/Water	Forest Home Booster Station Design	$ 600,000												$ 600,000						$ -
38	PW/Water	343 Zone Reservoir	$ 40,000	$ 500,000											$ 540,000						$ -
39	PW/Water	Washougal River Wellfield Improvements	$ 50,000	$ 50,000														$ 100,000			$ -
40	PW/Water	11th Circle to Brady Watermain	$ 275,000															$ 275,000			$ -
41	PW/Water	Dallas Street Water Transmission - 3rd Ave to RR	$ -	$ 100,000														$ 100,000			$ -
42	PW/Sewer	Lacamas Creek Pump Station	$ 100,000												$ 100,000						$ -
		Total	$ 15,830,102	$ 8,606,887	$ 1,632,870	$ 2,102,179	$ 109,853	$ 335,500	$ 839,751	$ -	$ 870,874	$ 2,570,000	$ 26,000	$ 6,050,118	$ 5,505,000	$ 1,018,241	$ 588,267	$ 1,286,620	$ 136,716	$ 1,365,000	$ -
		Biennial Total		$ 24,436,989																	

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: General Government Decision Package No CDP 1

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Facilities Maintenance	REET	$250,000	$639,874 REET1 $500,000 REET 2	$1389,874
The City is combining all its facilities capital maintenance projects into one fund. This budget is combination of several projects including the annex building, Library HVAC system, City Hall generator, Community Center renovation, and general major maintenance budget. This is the next step to centralize City's facilities maintenance. The City is working on a plan to be proactive to develop a facilities plan which would schedule and budget ongoing maintenance annually.				
Performance Results:	This effort is a stop gap measure at best and is not adequate to meet the ongoing needs of the City's aging facilities.			
Impact Statement, if Capital is not funded: If this package is not funded, all repairs and maintenance would need to be addressed by the City's omnibus budget process.				

Total Budget	2021	$889,874	2022	$500,000

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: General Government Decision Package No CDP 2

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
ERP System Replacement	Gen/Streets/CW FD/Util Funds	$957,870	$542,130	$1,500,000

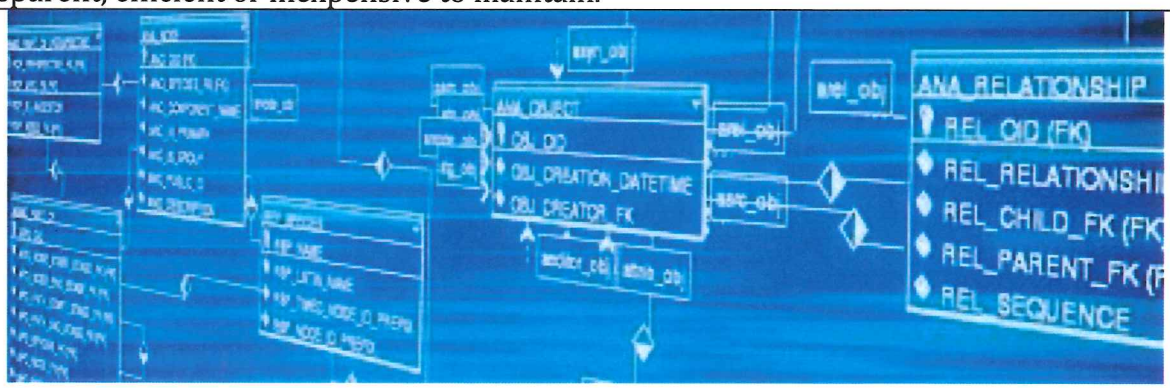
The City acquired Springbrook Financials as a Y2K project. The software has been upgraded over the years. All the cities in Clark County with the exception of Camas, have implemented to the next generation of financial software in recent years. City staff have viewed demonstrations of a software suite which a number of cities in the Puget Sound and some cities in Oregon are using.

This decision package includes acquiring, implementing, and training of a cloud-based system. The goal would be to implement a system which would increase efficiencies and effectiveness of the City by providing seamless, paperless, self-service, and transparent solution. The modules would include financials, payroll, human resources, permitting, asset management, grant management, project management, and code enforcement.

The first phase of this project would be the Permitting and Asset Management Modules followed by the financials.

Performance Results:	This package is intended to meet the needs of the City today as well as tomorrow.

Impact Statement, if Capital is not funded: If this package is not funded, the City would continue using its current financials and ad hoc miscellaneous systems and spreadsheets which are not transparent, efficient or inexpensive to maintain.



Total Budget	2021	$750,000	2022	$750,000

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Streets Capital

Decision Package No CDP 3

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
ADA Access Upgrades	Streets and REET		$100,000	$100,000

The City is required by Federal mandate to continue to improve American's with Disabilities Act (ADA) access by removing barriers in the public rights-of-way for all pedestrians, including sidewalks, curb ramps, traffic signal controls, street crossings and ADA parking spaces. The City completed the federally required ADA Transition Plan in 2015, and shortly thereafter, began a concerted effort to replace sections of sidewalks and ramps at street corners that were found to be non-compliant. ADA Access Upgrades address ADA improvements specified in the Transition Plan as well as ADA improvement needs identified by the public and City staff.

Performance Results:	City has improved 17 street corners to date with the specified REET Funding. 8 Addional corners and 3 ADA parking spots are to be improved in 2020.

Impact Statement, if Capital is not funded: If this package is not funded, the City falls short in providing accessible public access as well as possible risk to a loss of federal funds for non-compliance.

Total Budget	2021	$50,000	2022	$50,000

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Streets Capital

Decision Package No CDP 4

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Pavement Management Program	General Fund (property taxes)	$1,793,746		$1,793,746

In 2014, City Council elected to use full banked capacity of property taxes to fund the Street Preservation Program. Each year the amount of property taxes which fund the program increase by 1% from the prior year plus the proportionate amount of new construction property taxes. The Public Works department determines the streets to receive treatment each year based on the revenue available and the City's Pavement Asset Management System. As part of the budget adoption, City Council approves the Preservation Program by authorizing the transfer of the appropriate amount of property taxes to be transferred to the Street fund.

Performance Results:	The current funding is not fully adequate to fund the program at best practices targets but is coming closer each year as the revenues grow.

Impact Statement, if Capital is not funded: If Council no longer wishes to transfer the banked capacity property taxes, there would no longer be a dedicated revenue stream to support the preservation effort and the streets would continue to degrade city-wide.

Total Budget	2021	$879,859	2022	$913,887

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Streets Capital

Decision Package No CDP 5

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Lake and Everett Intersection	PWTF Loan		$100,000	$100,000

In 2018, the City of Camas began a public process to determine what type of intersection should replace one of the City's highest volume intersections which moves traffic with two regional parks, one high school and two major arterials and is surrounded by three lakes. From several options analyzed, a roundabout was selected and approved by City Council. The project was partially funded by a grant with the balance funded by low interest state loans. Construction began in earnest in 2020 with the final close out of the project anticipated in 2021. Depending on schedules and mitigation, it is possible this project may be closed out in 2020.

Performance Results:	The project should be nearly completed at year-end and this budget is for wrapping up the project.

Impact Statement, if Capital is not funded: This project's funding is fully secured and the final reimbursement from the State of Washington will be contingent upon final inspection and completion.

Total Budget	2021	$1,000,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Streets Capital

Decision Package No CDP 6

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
NW 38th Ave Phase 3 – Design and ROW	Federal Grant/ TIF/REET		$1,279,500	$1,279,500
Phase 3 will be the final phase of a street improvement project on NW 38th Ave. The project improves the corridor from NW Parker Street to Grass Valley Park. The design and right of way on this project are grant-funded with supplemental local funding from transportation impact fees and real estate excise tax. The improvements are to include widening the street to include bike lanes, sidewalks, storm facilities, illumination and turn lanes.				
Performance Results:	This will be a multi-year project with the design and right of way funded mostly with federal funds. Federal funds have also been awarded that will partially pay for construction. Remaining construction funding will need to be determined prior to construction bidding.			
Impact Statement, if Capital is not funded: If this budget is not approved, the City may lose the grant opportunity.				

Total Budget	2021	$466,500	2022	$813,000

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Streets Capital

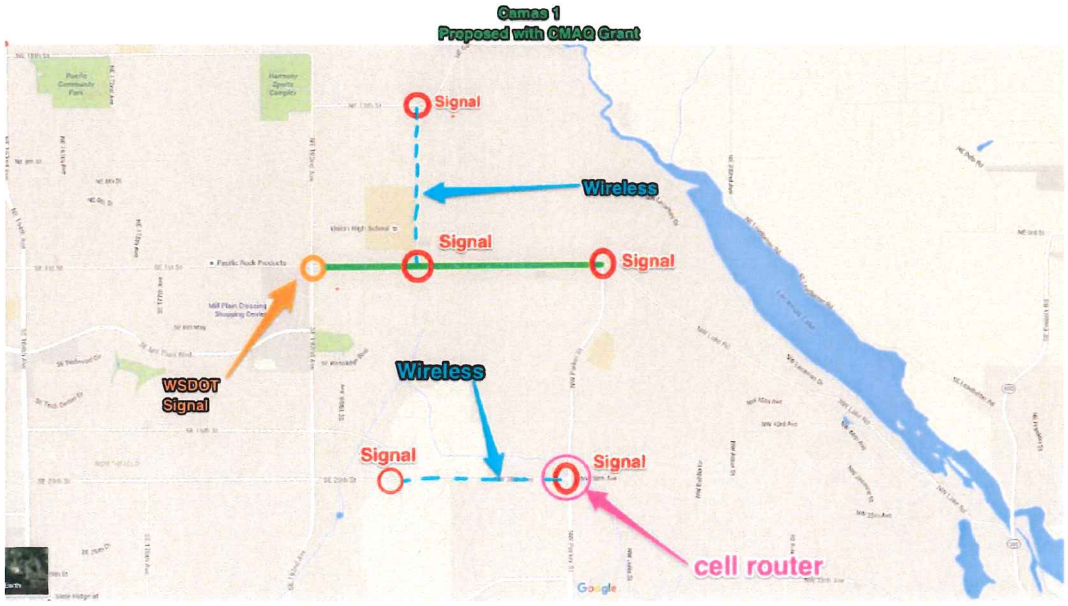
Decision Package No CDP 7

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Traffic Controller Upgrades	Street Fund/Grant Funding	$112,000 (transfer to Streets)	$120,000 Grant	$232,000

This Decision Package will fund a project to integrate the City's traffic signals with the County's "Central Traffic System". This project is a joint venture between the City of Battle Ground, the City of Camas, and the City of Washougal. This project will allow the City to migrate our traffic signals onto the county's server based system. This will be particularly beneficial to signalized intersections that interface with both Clark County and WSDOT facilities.

Performance Results:	Integration of the region's traffic signals and uniformity/consistency to various transportation corridors having shared jurisdictions.

Impact Statement, if Capital is not funded:
Camas would continue having a unique stand-alone system that is not integrated with regional partners and is not able to be accessed remotely. Loss of grant funds and potential impact on our regional partners would also result.



Total Budget	2021	$232,000	2022	$0

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Streets Capital

Decision Package No CDP 8

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
NW Brady & Grand Ridge Intersection Improvements	Street Fund		$75,000	$75,000

Members of the Grand Ridge Subdivision community requested this intersection improvement in June 2020 during the Council's discussion of the City's Six Year Transportation Plan. This proposed project will allow the City to complete surveying, develop design alternatives, and complete design of intersection improvements that will potentially include a left-turn lane, illumination and sight distance enhancements. This project is not included in any capital improvement plan and is therefore not eligible to be funded with any capital account revenues (e.g. Traffic Impact Fees, Real Estate Excise Taxes, etc.).

Performance Results:	Enhanced sight distance and improved illumination.

Impact Statement, if Capital is not funded: The intersection will remain as is and citizen comments will not be addressed.

Total Budget	2021	$75,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Streets Capital

Decision Package No CDP 9

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
NW 6th Avenue Road Diet	Street Fund		$75,000	$75,000
This package completes a road diet to convert the existing four-lane, undivided roadway segment to a three-lane segment consisting of two through lanes and a center, two-way left-turn lane. Work will be completed in association with a pavement preservation project on NW 6th Avenue that is currently anticipated to include a slurry seal. This project has been included in past budgets; however, the work has been delayed as other roads have been prioritized over NW 6th for preservation treatments.				
Performance Results:	This improvement will include enhanced safety, mobility and access for all road users and a "complete streets" environment to accommodate a variety of transportation modes.			
Impact Statement, if Capital is not funded: As traffic volumes and turning movements increase over time, four-lane undivided roadways result in conflicts between high-speed through traffic, left-turning vehicles and other road users which can ultimately lead to higher crash frequencies.				

Before After

Total Budget	2021	$75,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Streets Capital

Decision Package No CDP 10

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
NW 12th Ave CDBG Project	Gen Fund Grant Funding Water Fund	$51,000	$255,000 Grant $109,000 Water	$415,000

This project is to improve NW 12th Avenue including new asphalt and sidewalks and will be completed primarily with Community Development Block Grant (CDBG) funds. The City will contribute matching funds with Engineering services of $51,000 and water line improvements of $109,000.

Performance Results:	CDBG projects help the City update older infrastructure in the City's Census based low-moderate income neighborhoods.

Impact Statement, if Capital is not funded: If the City does not appropriate match funds, the City will not receive the grant.

Total Budget	2021	$232,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Streets Capital

Decision Package No CDP 11

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
NE 3rd Ave Bridge Seismic Retrofit	Grant Funding	$0	$2,917,118	$2,917,118

This project is completely funded by grant funds to retrofit the NE 3rd Avenue bridge to meet current seismic standards.

Performance Results:	This grant enables the City to ensure the bridge meets seismic thresholds.

Impact Statement, if Capital is not funded: N/A

Total Budget	2021	$2,917,118	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Streets Capital

Decision Package No CDP 12

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Trailer Mounted Attenuator	Street, Water, Sewer, Storm		$35,000	$35,000
Purchase of a trailer mounted traffic attenuator (or crash impact cushion) with mounted arrow board for the purpose of providing extra safety precautions for operations crews while working on our high speed and multiple lane roads, added safety for hours of darkness and may be utilized by police and fire during emergencies.				
Performance Results:	This will provide a highly visible safety mechanism to protect crews working in the right of way			
Impact Statement, if Capital is not funded: In an Accident Investigation and Safety Committee Review of a past year near miss in a work zone, this equipment was identified as something that could provide added visibility to employees, and if needed, a buffered cushion.				

Total Budget	2021	$35,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: CWFD Capital

Decision Package No CDP 13

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
New Engine (pumper)	CWFD		$600,000	$600,000
The CWFD is in need of a new pumper. Two of the oldest pumpers are nearing the end of their lifespan and maintenance costs are quickly increasing. Presently, staff is having trouble keeping both engines in service as they are frequently in the shop for repairs. By the time, the City takes possession of a new engine, the Fire Capital Plan should be complete which will allow for fire impact fees to pay for the costs or the debt service.				
Performance Results:	Would allow CWFD to replace the oldest engine with a newer model and maintain current level of service.			
Impact Statement, if Capital is not funded: If the oldest engine is not replaced, the City will be unable to repair it eventually due to a lack of parts. This would leave the City without a reserve engine, which means that if the front line unit has to go into the shop for repairs or maintenance, the City would have to shut down a fire station until the engine is back in service.				
				
Total Budget	2021	$600,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Parks and Recreation Decision Package No CDP 14

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Open Space/Trails/Park Upgrades	REET		$510,000	$510,000
This package is a placeholder budget for unanticipated opportunities, repairs, enhancement or grant matching funds. This budget is defined in the Parks Comp Plan.				
Performance Results:	The intent of this package is to ensure grant matching funds are available if needed or if essential projects are needed for emergencies.			
Impact Statement, if Capital is not funded: Not funding this package may result in the loss of grant funds for parks and park facilities.				

Total Budget	2021	$225,000	2022	$225,000

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Parks and Recreation Decision Package No CDP 15

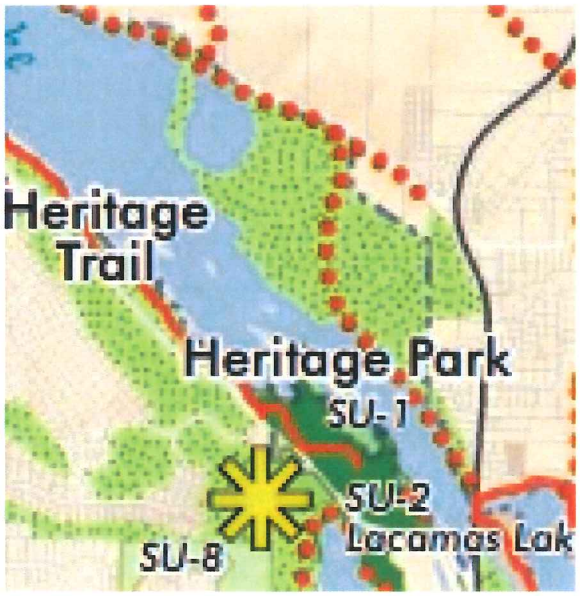
Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Wildlife League/Boat Launch	Park Impact Fees		$271,847	$271,847
This package is to restore the boat launch on the northside of Lacamas Lake at the Wildlife League. The City acquired the boat launch with the Wildlife League property and plan to apply for a grant in 2022 to restore the boat launch for public access in the future. Funds will be used for the project preliminary design, permitting, and the application of the grant.				
Performance Results:	This package will provide much needed relief for boaters and kayaks to access Lacamas Lake other than Heritage Park.			
Impact Statement, if Capital is not funded: Not funding this package may result more congestion at the Heritage Park boat launch which currently requires a monitor on the week-ends to help ease congestion.				

Total Budget	2021	$271,847	2022	$0

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Parks and Recreation Decision Package No CDP 16

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
East Lake Trail (North Shore Trail T-3)	Park Impact Fees		$175,000	$175,000
This package is for construction activities for a trail on the East side of Lacamas Lake along the waterfront which will include a boardwalk, primitive soft surfaced and compacted gravel trails. Permitting has been completed.				
Performance Results:	This package will provide a critical link for the full trail around Lacamas Lake.			
Impact Statement, if Capital is not funded: Might impact future grant funds for other links in the system and permits may expire.				



Total Budget	2021	$175,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Parks and Recreation Decision Package No CDP 17

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Parklands to Heritage Trail T-1	Park Impact Fees		$392,904	$392,904
This package is to permit and construct a community and neighborhood trail section (T-1). The trail would include some boardwalks and level compacted gravel surface trail through the Camas Meadows Golf Course and connect to Heritage Trail.				
Performance Results:	This package will provide a link to the full trail around Lacamas Lake.			
Impact Statement, if Capital is not funded: Residents in those neighborhoods would have to access the trail at the Heritage Trailhead on Goodwin.				

Total Budget	2021	$92,904	2022	$300,000

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Parks and Recreation Decision Package No CDP 18

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Crown Park Restrooms and Sport Court	REET		$450,000	$450,000
This package starts a phased approach for Crown Park Improvements. The first stage is the construction of restrooms and a sports court. The sports court is designed so the budget reflects construction only. The budget includes the design and construction of a restroom.				
Performance Results:	This package implements a phase of a large master plan for Crown Park.			
Impact Statement, if Capital is not funded: These items could be delayed until the whole master plan is implemented. The City would continue to rent portable toilets for the park.				

Total Budget	2021	$0	2022	$450,000

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Parks and Recreation Decision Package No CDP 19

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Skate Park Improvements	REET/Washougal /Private Donations		$75,000	$75,000
This budget funds the City 's portion of a joint project between Camas, Washougal and a group of interested residents. The funds would cover the City's portion of design and construction of enhancements to the skate park on 3rd Avenue.				
Performance Results:	Improved Skate Park features.			
Impact Statement, if Capital is not funded: This project has been deferred three other times due to other projects, costs, and partnership readiness. Skate Park would remain as is.				

Total Budget	2021	$0	2022	$75,000

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Parks and Recreation Decision Package No CDP 20

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
North Shore Conservation	2020 GO Bond		$500,000	$500,000

The funding is intended to provide building maintenance for the Leadbetter House, the barn, and the Rose property. The Leadbetter House and barn need roof replacements and the Rose house needs interior maintenance.

Performance Results:	The maintenance work is to protect the historical Leadbetter structures and to ready the Rose property for a caretaker.

Impact Statement, if Capital is not funded: The GO bond was sized to fund these maintenance items. If the package is not funded, the bond proceeds would need to be spent on other North Shore Conservation efforts.

Total Budget	2021	$500,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Parks and Recreation Decision Package No CDP 21

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Currie Trail	REET/RCO Grant		$2,860,000	$2,860,000
This project is contingent on RCO grant funding to complete. It is a leg of the trail around Lacamas Lake which includes a trailhead on one of the North Shore City properties (Buma) with a parking lot, a trail through Camp Currie and ends at the Heritage trailhead at Goodwin.				
Performance Results:	This project would also provide parking relief to the Heritage Trail.			
Impact Statement, if Capital is not funded: This project will not proceed without the grant funding.				

Total Budget	2021	$960,000	2022	$1,900,000

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Parks and Recreation Decision Package No CDP 22

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Grass Valley Tennis Courts Resurfacing	General Fund	$45,000		$45,000

Grass Valley Park was completed in 2002 and is one of two locations in Camas that offers tennis courts to the general public. At 18 years old, the surfacing is distressed and could potentially become hazardous to users. Resurfacing the tennis courts would extend the life an additional 10-15 years including painting of new lines to accommodate tennis and other sports such as pickle ball.
This project will seek partnerships and contributions to fund.

Performance Results:	This package is a reinvestment in a park which is very popular to the community.

Impact Statement, if Capital is not funded:This package is a safety issue and by not funding the package there is a liability concern.

Total Budget	2021	$45,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Parks and Recreation Decision Package No CDP 23

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
NE 3rd Ave Trail Design and Permit	REET		$75,000	$75,000

This project will improve the Lacamas Creek trailhead at NE 3rd Ave. In 2020, the City completed the Lacamas Creek pump station at the trailhead parking lot. This project will utilize the new facility to build a restroom and improve the parking lot. This package funds the design for the project with construction occurring in the following biennium.

Performance Results:	This project would improve accessability as well as provide additional facilities to the park.

Impact Statement, if Capital is not funded: This project would continue to be on the list for future funding.

Total Budget	2021	$75,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Parks and Recreation Decision Package No. 24

Decision Package Item	Positions	General Fund Expenditures	Other Fund Expenditures	All Fund Expenditures
Louis Bloch Bleacher and ADA Access Improvement		$250,000		$250,000

At 80 years old Louis Bloch Park's baseball bleachers do not meet current safety standards. Conditions of access into the viewing area are non-compliant under the American with Disabilities Act with surface disruptions from tree roots and no accessible curb ramps into viewing area.
This package is to remove all existing bleachers and asphalt within the fenced area and replace with concrete surfacing and new bleachers that provide maximum viewing capacity, that are accessible to all patrons with additional curb ramps and ADA access into both sides of the viewing area.

Performance Results:	Provide access to all users with all abilities to Louis Bloch Baseball Park.

Impact Statement, if change not funded: The City will continue to receive complaints and viewing opportunities will continue to be limited.

Total Charges	2021	$0	2022	$250,000

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Parks and Recreation Decision Package No. 25

Decision Package Item	Funding Source(s)	General Fund Expenditures	Other Fund Expenditures	All Fund Expenditures
Large Mower	General Fund & ERR	$74,000	$26,000	$100,000

Purchase of Mower with 11-foot deck.
Traditionally, parks have been mowed with mower decks ranging between 5'-6' (feet). As part of the 2019 budget a 11-foot deck mower was purchased which has helped reduce the staff weekly mowing time, freeing up time to complete renovation projects and other deferred maintenance in efforts to increase parks maintenance level of service. With multiple recent property acquisitions large scale capital projects, and several acres of previously owned Georgia Pacific properties donated to the City, Parks Maintenance is struggling to keep up.

Performance Results:	Increased mower efficiencies will reduce overall labor hours. It is also proposed to eliminate a small mower scheduled for replacement in 2021 and utilize the capital replacement funds of $26,000 towards this purchase.

Impact Statement, if change not funded: If we do not continue to look for alternative methods and practices to complete routine maintenance while continuing the practice of adding facilities, landscapes, additional parks and open spaces, maintenance level of service

Total Charges	2021	$0	2022	$100,000

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Parks and Recreation Decision Package No. 26

Decision Package Item	Funding Source(s)	General Fund Expenditures	Other Fund Expenditures	All Fund Expenditures
Turf Sweeper	General Fund	$50,000	$0	$50,000

Purchase of a Self-Propelled Turf Sweeper
Parks Maintenance has a turf sweeper that is not included in the City's Fleet ("department owned") and is over 20 years old. The sweeper is a tow-behind that is used for the removal of heavy grass clippings and leaves. The trailer is difficult to maneuver in parks and the cemetery with the truck not being conducive to driving on wet turf. This results to heavy wear and tear on mowers, which have been used to mulch leaves and heavy clippings.

Performance Results:	This will provide a usable resource to enhance turf health in all areas, reduce unnecessary wear on mowers, and will increase crew productivity.

Impact Statement, if change not funded: Reduced life of mowers and continued impacts to turf health.

Total Charges	2021	$50,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Stormwater

Decision Package No CDP 27

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Ostenson Canyon Road Repair Design	Stormwater		$200,000	$200,000
Ostenson Canyon Road near its intersection with 18th Loop is currently compromised due to stormwater damage that has occurred over a long period of time. This decision package will complete design and prepare a bid package for construction of the repair necessary to fix the road and to prevent further damage.				
Performance Results:	This package should produce a cost effective repair plan to repair a damaged roadway and improve the intersection of Ostenson Canyon Road and 18th Loop.			
Impact Statement, if Capital is not funded: This package is a safety issue for the Ostenson Canyon neighborhood.				

Total Budget	2021	$200,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Stormwater

Decision Package No CDP 28

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Parker Estates Stormwater Design and Construction	Stormwater		$200,000	$200,000

This package is to design and construct a new stormwater facility to replace one which has been overgrown and damaged by beavers for many years. This project will allow the beavers to remain in place and but provide a functional facility meeting the intent of the original design.

Performance Results:	This new facility will address stormwater needs of the neighborhood while maintaining a wildlife habitat.

Impact Statement, if Capital is not funded: Parker Estates would continue to have stormwater concerns with flooding.

Total Budget	2021	$200,000	2022	$0

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Stormwater Decision Package No. 29

Decision Package Item	Positions	General Fund Expenditures	Other Fund Expenditures	All Fund Expenditures
Lacamas Lake Dam Improvements		$0	$75,000 Stormwater	$75,000

Mechanical upgrade improvements to the Lacamas Lake Dams, removal of unnecessary equipment, and hydraulic analysis. All operations associated with the Lacamas Lake Dams is currently done via manual labor, including almost daily operations of the gates via handwheels that are decades old. Replacement of the handwheels with electronic actuators that can be controlled remotely will enhance safety and security and be more efficient for operators. Additionally, with no water entering the Mill Ditch through the Lower Dam area, there is no longer a need for the fish screen. The fish screen requires a lot of maintenance and serves no purpose. If budget allows, staff would also complete a hydraulic analysis to determine the correlation between rain events and water level to develop a program for raising/lowering water level.

Performance Results:	Dam upgrades, safety, and security; employee safety; and more efficient operations.

Impact Statement, if change not funded: Continue operating dams via manual operation, reduced safety and efficiencies.

Total Charges	2021	$75,000	2022	$75,000

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Stormwater Decision Package No. 30

Decision Package Item	Positions	General Fund Expenditures	Other Fund Expenditures	All Fund Expenditures
Lake Water Quality		$0	$300,000 Stormwater	$300,000

Provide funding for staff to work with Clark County and State/Federal agencies and develop both a short-term and long-term strategy for improving and managing the water quality of Lacamas Lake and Round Lake. Expenditures may be used on efforts such as paying the County and/or consultants to complete sampling and monitoring, assistance with grant applications, planning and strategizing on approaches, working with State agencies, etc.

Performance Results:	Development of a plan to analyze and improve Lacamas Lake Water Quality

Impact Statement, if change not funded: Lacamas Lake and Round Lake water quality degrades further minimizing public use and enjoyment ever more so than today.

Total Charges	2021	$150,000	2022	$150,000

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Stormwater Decision Package No. 31

Decision Package	Funding Source(s)	General Fund Expenditures	Other Fund Expenditures	All Fund Expenditures
Vacuum Truck	Stormwater	$0	$125,000	$125,000

Purchase of a new Vacuum Truck. The City may be eligible for a grant thought the Washington State Department of Ecology that would provide the majority of funding of a stormwater dedicated vacuum truck, which has a total purchase price of $500,000 and a recipient match of 25%, or $125,000. The City operates one vacuum truck shared between water, sewer, streets and stormwater. Often times work is scheduled to meet stormwater NPDES permit requirements and postponed due to emergency water and sewer repairs, the result is the difficulty of achieving full compliance and benchmark goals for the City's stormwater permit.

Performance Results:	Ability to expand maintenance programs such as more frenquent catch basin cleaning and mainline trunk cleaning that will provide clear access for TV inspection. Overall efficiency will be gained by far less schedule disruptions and maintenance goals will be achieved and expanded upon.

Impact Statement, if change not funded: The use of the current vacuum truck will be status quo. Inefficiencies with scheduling will still occur. Stormwater will be pushed into the rainy season to meet permit compliance with wetter conditions the truck typically fills up twice as fast. Routine maintenance will continuously be deferred resulting in major maintenance and repairs.

Total Charges	2021	$125,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT Solid Waste Truck Decision Package No. 32

Decision Package Item	Funding Source	General Fund Expenditures	Other Fund Expenditures	All Fund Expenditures
Solid Waste Truck	Solid Waste Fund	$0	$500,000	$500,000

Purchase a new Sanitation Truck to serve City customers in the Green Mountain and North Shore areas. The City undertook a Solid Waste planning and rerouting effort 3 years ago which was presented to City Council. The routing plan identified the North Shore, Green Mountain, and Woodburn areas as high growth, but not yet populated enough to make a new collection route. The intent was for the areas to remain under Waste Connection services until a full route could be filled, at which time it would be taken over by the City. Residential growth in that area has greatly increased since our planning efforts and based on recent growth it appears the City should take over service in 2022. Because of the long lead-time, the truck would be ordered in 2021.

Performance Results:	Increased Garbage customers and better customer service with additional truck/driver

Impact Statement, if change not funded: Waste Connections Inc. would continue to serve the Green Mountain, North Shore and Woodburn areas. Increased overtime from our existing sanitation worker due to overall growth in Camas sanitation services.

Total Charges	2021	$0	2022	$500,000

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Water

Decision Package No CDP 33

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Lower Prune Hill Booster Station	Revenue Bond/SDCs		$2,100,000	$2,100,000

This project is funded partially from 2019 Revenue Bond ($1,175,000) and Water SDCs of $925,000. This project will replace existing infrastructure that is undersized and has reached its useful life. The new station will add pumping capacity to the water system that will be used to serve future growth. This project is located next to the Lower Prune Hill Reservoirs on the north side of 18th Loop.

Performance Results:	Design of a new water booster station to serve new growth.

Impact Statement, if Capital is not funded: The existing station is not adequate to serve future growth and will continue to cost the city more in operating and maintenance if not replaced.

Total Budget	2021	$2,100,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Water

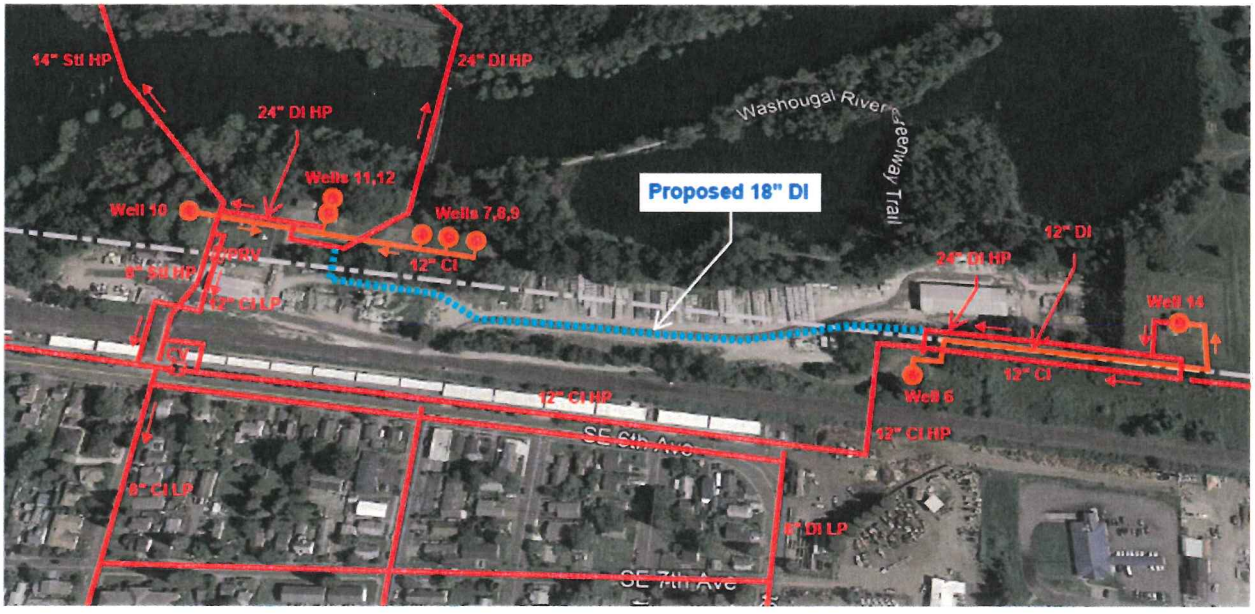
Decision Package No CDP 34

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Well 6/14 Waterline Transmission Main	Water SDCs		$440,000	$440,000

This project is to enable additional pumping capacity from Wells 6 and14 in the City's existing Washougal Wellfield by connecting the two wells with a larger diameter pipeline. This project will be funded from water SDCs. Currently, both wells are not able to be ran at the same time, limiting the amount of water the City can push into the system.

Performance Results:	Additional pumping capacity from the City's existing Washougal Wellfield.

Impact Statement, if Capital is not funded: Wells 6 and 14 will continue to be operated individually without the ability to run them at the same time. Ultimately, this capacity would have to be found somewhere else, causing the City additional time and money.



Total Budget	2021	$440,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Water

Decision Package No CDP 35

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Meter Replacement Project	Water Rates		$550,000	$550,000

This is a multi-year project to replace all the water meters in the City with radio read meters. The radio meters will shorten meter reading by the Water Crews and require less staff as well. Most of the water meters will be read as the Water Crew vehicle drives through a neighborhood. The technology is highly accurate and provides more water consumption data.

Performance Results:	Sound asset management replacing outdated equipment that has reached its useful life with newer technology. This project will also help the City move toward monthly billing.

Impact Statement, if Capital is not funded: This project will continue to be on the list because the City is more than halfway converted and the old technology will no longer be supported. Additionally, the existing meters have reached their useful life which can lead to inaccurate accounting of water.

Total Budget	2021	$275,000	2022	$275,000

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Water

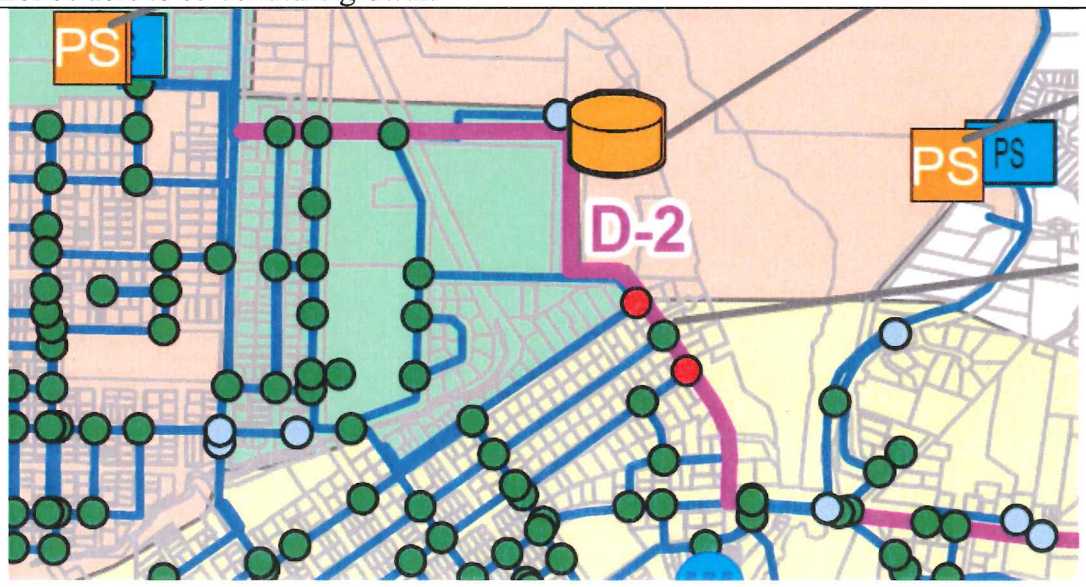
Decision Package No CDP 36

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
343 Zone Supply Transmission Line	Revenue Bond		$1,890,000	$1,890,000

This project (identified as Project D-2 in the 2019 adopted Water System Plan Update) is to construct a new water transmission main to help move water from the Washougal Wellfield to the Angelo Booster Station located near Fallen Leaf Park, which then pumps water towards the top of Prune Hill. This project will likely be designed and constructed in sections as the need arises. For example, the NE 22nd Avenue project completed in 2020 included replacement of a section of the 343 Zone Supply Transmission Line.

Performance Results:	This project will help move water from the Washougal Wellfield to various areas of the city as the demand arises.

Impact Statement, if Capital is not funded: This project would continue to be on the list for funding given the growth throughout the city. If not ever funded, the city's water system would likely not be able to serve future growth.



Total Budget	2021	$1,890,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Water

Decision Package No CDP 37

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Forest Home Booster Station Design	Revenue Bond		$600,000	$600,000

This Decision Package will fund the remaining design necessary to replace the existing Forest Home Booster Station with a new Booster Station. The existing station has more than reached its useful life, is undersized, and is not located in a location conducive to easy maintenance. This project is identified as a necessary project in the City's 2019 Water System Plan Update.

Performance Results:	Completion of a bid package necessary to construct a new water booster station.

Impact Statement, if Capital is not funded: Design will not be completed and the existing booster station will not be replaced, potentially resulting in insufficient water being pumped to the top of Prune Hill to serve customers.

Total Budget	2021	$600,000	2022	$0

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Water

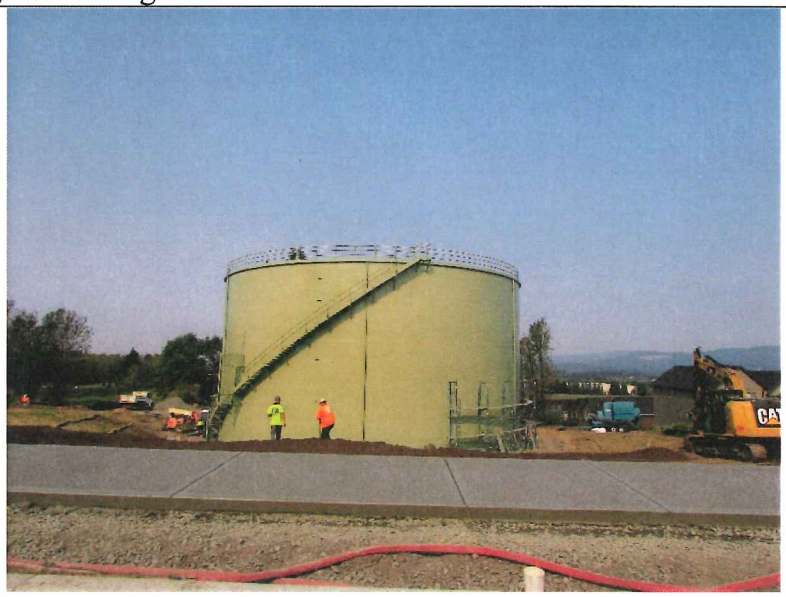
Decision Package No CDP 38

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
343 Zone Reservoir	Revenue Bond		$540,000	$540,000

The City's 2019 Water System Plan Update identifies future storage needs for the City and includes design and construction of a new reservoir to serve the 343 Zone, which generally includes the Crown Park and Downtown areas. A location for the proposed reservoir has not been identified. This Decision Package will complete a siting analysis and identify properties that may be suited for a new Reservoir. Once the analysis is completed, this decision package may also support the acquisition of property for future construction.

Performance Results:	Selection of a preferred location for a new reservoir to provide additional water system storage.

Impact Statement, if Capital is not funded: Acquisition of property can often take years to complete. Not moving forward with this Decision Package will further delay construction of necessary water system storage.



Total Budget	2021	$540,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Water

Decision Package No CDP 39

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Washougal River Wellfield Improvements	Water Rates		$100,000	$100,000

After determining it was not feasible to install new water wells along Lake Road, at the Port of Camas-Washougal, and near the City's wastewater treatment plant, the City has been evaluating use of the existing Washougal Wellfield and working with the Department of Ecology to maximize the amount of water pulled from the existing wellfield. This package will allow staff to work with consultants to finalize the analysis and potentially design a portion of any necessary upgrades.

Performance Results:	Increased wellfield capacity to serve future growth within the City.

Impact Statement, if Capital is not funded: The City will need to find other places that could potentially provide sufficient water to serve new growth.

Total Budget	2021	$100,000	2022	$0

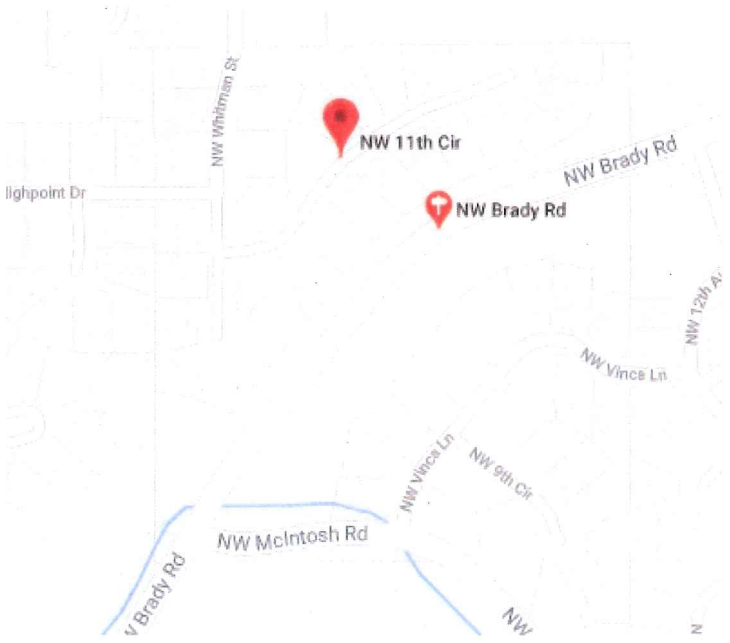
City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Water

Decision Package No CDP 40

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Watermain – 11th Circle to Brady	Water Rates		$275,000	$275,000
This project is identified in the City's 2019 Water System Plan Update and will add waterline between 11th Circle and Brady Road. The project will improve fire flows and system redundancy in the surrounding area.				
Performance Results:	Installation of new watermain to improve fire flows and improve redundancy in the system.			
Impact Statement, if Capital is not funded: The existing system will not meet the goals of the Water System Plan Update.				



Total Budget	2021	$275,000	2022	$0

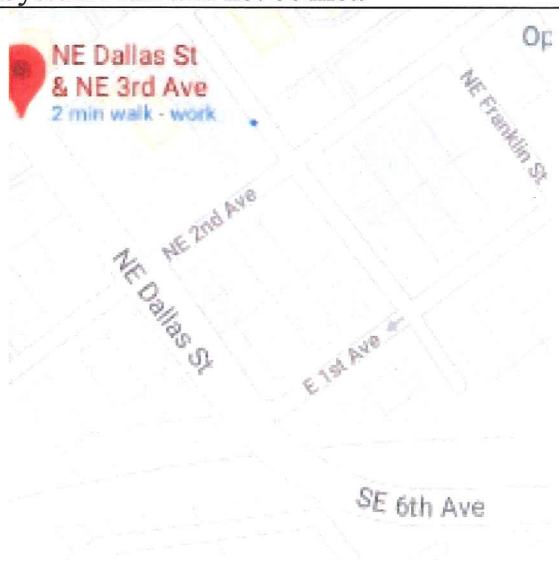
City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Water

Decision Package No CDP 41

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Water Transmission Dallas Street – 3rd Ave to RR	Water Rates		$100,000	$100,000
This project is identified in the City's 2019 Water System Plan Update and will replace old and undersized waterline on Dallas Street between 3rd Avenue and the Railroad Tracks. The project will improve fire flows and system redundancy in the surrounding area.				
Performance Results:	Upgrade of existing water system to extend life of the system, improve fire flows, and improve redundancy in the system.			
Impact Statement, if Capital is not funded: The existing system will continue to be undersized and the goals of the Water System Plan will not be met.				



Total Budget	2021	$100,000	2022	$0

City of Camas WASHINGTON

2021-2022 BUDGET DECISION PACKAGE

DEPARTMENT: Sewer

Decision Package No CDP 42

Decision Package Item	Funding Source(s)	General Fund Costs	Other Fund Costs	Total Project Cost for Biennium
Lacamas Creek Pump Station	2015 Revenue Bond		$100,000	$100,000

This decision package is to close out construction of the Lacamas Creek Pump Station Project. The existing Lacamas Creek Pump Station was constructed in 1958 and is located just east of 1642 NE 3rd Avenue in Camas on the west shoreline of Lacamas Creek. The pump station was nearing its design capacity, and many of the components had reached their useful life. The City's project team designed and permitted a new Lacamas Creek pump station, and a nearby satellite pump station to serve homes and businesses in the NE 3rd Loop area. Construction should reach substantial completion by October 31, 2020 and it's possible this funding may not be needed in 2021.

Performance Results:	This pump station will add much needed capacity while safeguarding Lacamas Creek.

Impact Statement, if Capital is not funded: N/A

Total Budget	2021	$100,000	2022	$0

Staff Report

November 2, 2020 Council Workshop

2021 Fee Schedule Presentation
Presenter: Cathy Huber Nickerson, Finance Director

Phone	Email
360.817.1537	chuber@cityofcamas.us

BACKGROUND: This agenda item is to provide the City Council an additional opportunity to review the proposed 2021 Fee Schedule prior to consideration on November 16, 2020.

SUMMARY: This presentation will review updates to the City 's Fee Schedule for 2021. Most of the fees did not change with the 1.7% inflation increase because of the rounding to the nearest denomination effect. A few updates included removing fees in Administrative Service which could be consolidated, for example map fees to one fee. The Building department eliminated a few fees which were no longer in use. Fees which did not change include fees prescribed by RCW, library fees, cemetery fees as well as parks and recreation fees.

EQUITY CONSIDERATIONS:

What are the desired results and outcomes for this agenda item? The intent of the presentation is to provide context and an opportunity to ask questions prior to consideration of the 2021 Fee Schedule Resolution scheduled for November 16th.

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.

BUDGET IMPACT: The 2021 Fee Schedule is status quo and should not have an impact on the 2021 Budget.

RECOMMENDATION: Presentation only.

City of Camas

2021 PROPOSED FEE SCHEDULE

Fee Schedule changes

- CPI at 1.7%
- Rounding to nearest denomination

Table A. West region CPI-U 1-month and 12-month percent changes, all items index, not seasonally adjusted

Month	2016		2017		2018		2019		2020	
	1-month	12-month	1-month	12-month	1-month	12-month	1-month	12-month	1-month	12-month
January	0.5	2.6	0.5	2.5	0.5	3.1	0.2	2.7	0.3	2.9
February	0.1	2.1	0.6	3.0	0.5	3.1	0.2	2.4	0.4	3.1
March	0.2	1.5	0.3	3.1	0.4	3.2	0.4	2.4	-0.2	2.5
April	0.5	1.8	0.3	2.9	0.4	3.2	0.8	2.9	-0.4	1.3
May	0.5	1.5	0.2	2.6	0.5	3.5	0.5	2.9	0.1	0.8
June	0.2	1.6	0.0	2.5	0.2	3.6	0.0	2.7	0.4	1.2
July	0.1	1.4	0.1	2.5	0.1	3.6	0.0	2.7	0.5	1.7
August	0.0	1.5	0.2	2.7	0.2	3.6	0.1	2.6	0.3	1.9
September	0.3	2.0	0.5	2.9	0.3	3.4	0.3	2.6		
October	0.3	2.3	0.3	2.9	0.4	3.5	0.5	2.8		
November	-0.2	2.3	0.0	3.1	-0.2	3.3	-0.1	2.8		
December	0.0	2.5	0.1	3.1	-0.2	3.1	-0.2	2.8		

CPI Data

Updates

Administrative Fees

- Removed and consolidated fees for rarely used or RCW does not call out

Building Fees

- Removed Other Inspections and Fees – no longer used

Cemetery Fees

- Not updated by inflation

Fees Not Changed

Fees defined by RCW such as public records

Library Fees

Park and Recreation Fees

Cemetery Fees

Questions

2021 City of Camas Fee Schedule - DRAFT		Inflated / Rounded Recommended	1.7%	
Fee Description	**Notes**	**2021**	**2020**	**Notes**
ADMINISTRATIVE FEES				
Public Records				
Photocopies of Public Records, printed copies of electronic when requested by the person requesting records, or for use of agency equipment to photocopy records - Black & White	per page	$0.15	$0.15	Per RCW
Photocopies of Public Records, printed copies of electronic when requested by the person requesting records, or for use of agency equipment to photocopy records - Color	per page	$ -	$0.85	Removed - combined with above because no differeiniation in RCW
Public Records scanned into an electronic format or for use of agency equipment to scan records	per page	$0.10	$0.10	Per RCW
Each electronic file or attachment uploaded to email, cloud-based data storage service or other means of electronic delivery	per electronic file	$0.05	$0.05	Per RCW
Transmission of Public Records in an electronic format or for the use of agency equipment to send the records electronically	per gigabyte	$0.10	$0.10	Per RCW
Camas Municipal Code Book	Actual Cost			
Compact Disk of Council Meeting	each	$1.00	$1.00	
Map - 11 x 17 Color		$ -	$4.00	Removed - combined all maps into one line. Rarely used
Map - 24 x 36 print		$ -	$4.00	Removed - combined all maps into one line. Rarely used
Map - 24 x 36 color original		$ -	$8.00	Removed - combined all maps into one line. Rarely used
Maps Printed		$8.00	$8.00	Updated Fee wording to include all printed maps provided by the City
Map - 42 x 36 color original		$ -	$15.00	Removed - combined all maps into one line. Rarely used
Non-Sufficient Funds / Returned Payments Processed		$31.00	$31.00	
Photos	Actual Cost			
Photos - Digital Black & White	per page	$ -	$0.15	Removed - No cost to the City to provide a digital photo
Photos - Digital Color	per page	$ -	$1.25	Removed - No cost to the City to provide a digital photo
Postage	Actual Cost	$0.00		
Tape of Council Meeting		$ -	$6.00	Removed - No longer available
COMMUNITY DEVELOPMENT, BUILDING, ENGINEERING & PLANNING FEES				
Building Permit Fees Total Valuation				
$1.00 to $500.00		$ 28.00	$ 28.00	
$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 $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 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 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 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.			
Inspections & Fees				
Inspections During Non-Business Hours (minimum charge 2 hours)	per hour	$ 80.00	$ 79.00	
Re-inspection Fees	per hour	$ 80.00	$ 79.00	
Inspections for which No Fee is Specifically Indicated (minimum charge - one half hour)	per hour	$ 80.00	$ 79.00	
Additional Plan Review for Changes, Additions or Revisions to Plans (minimum charge - one half hour	per hour	$ 80.00	$ 79.00	
Use of Outside Consultants for Plan Checking and Inspections, or both	Actual Costs1	$ -		
Reissue of Lost Permit		$ 40.00	$ 40.00	
Reissue of Lost or Damaged Approved Construction Plans & Documents		$ 80.00	$ 79.00	
Impact Fee Deferral	$521 plus pass through lien filing/release fee per dwelling	$ -		
Latecomer Pass-Through Fee		$ 57.00	$ 56.00	
[1]Actual costs include administrative and overhead costs.		$ -		
Building Valuation Table				
Building Valuation Table	100% of ICC Building Safety Journal Building Valuation Data			
Grading Plan Review Fees				
Additional Plan Review required by Changes, Additions or Revisions to Approved Plans (minimum charge - one half hour)	per hour	$ 80.00	$ 79.00	
Other Grading Plan Fees				
Inspections Outside of Normal Business Hours (minimum charge - 2 hours)	per hour	$ 80.00	$ 79.00	
Reinspection Fees, per Inspection	per hour	$ 80.00	$ 79.00	
Inspections for which no fee is specifically indicated (minimum charge -one half hour)	per hour	$ 80.00	$ 79.00	
[1]The fee for a grading permit authorizing additional work under a valid permit shall be the difference between the fee paid for the original permit and the fee shown for the entire project.		$ -		
Mechanical Permit Fees				
Mechanical Permit		$ 41.00	$ 40.00	
Unit Fee Schedule - Does not include permit issuance fee				
For the installation or relocation of each forced-air or gravity-type furnace or burner, including ducts and vents attached to such appliance, up to and including 100,000 Btu/h (29.3kW)		$ 28.00	$ 28.00	
For the installation or relocation of each forced-air or gravity-type furnace or burner, including ducts and vents attached to such appliance, over 100,000 Btu/h (29.3kW)		$ 34.00	$ 33.00	
For the installation or relocation of each floor furnace, including vent		$ 28.00	$ 28.00	
For the installation or relocation of each suspended heater, recessed wall heater or floor-mounted heater		$ 28.00	$ 28.00	

Appliance Vents				
For the installation, relocation or replacement of each appliance vent installed and not included in an appliance permit		$ 14.00	$ 13.00	
Repairs or Additions				
Repair or alteration or addition to heating appliance, refrigeration unit, cooking unit, absorption unit or heating, cooling, absorption or evaporative cooling system including installation of controls regulated by Mechanical Code		$ 24.00	$ 24.00	
Boilers, Compressor and Absorption Systems				
For the installation or relocation of each boiler or compressor to and including 3 horsepower (10.6 kW), or each absorption system to and including 100,000 Btu/h (29.3kW)		$ 28.00	$ 28.00	
For the installation or relocation of each boiler or compressor over 3 horsepower (10.6 kW), to and including 15 horsepower (52.7 kW) or each absorption system over 100,000 Btu/h (29.3 kW) to and including 500,000 Btu/h (146.6 kW)		$ 51.00	$ 50.00	
For the installation or relocation of each boiler or compressor over 15 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)		$ 69.00	$ 68.00	
For the installation or relocation of each boiler or compressor over 30 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)		$ 97.00	$ 95.00	
For the installation or relocation of each boiler or compressor over 50 horsepower (176 kW), or each absorption system over 1,750,000 Btu/h (512.9 kW)		$ 160.00	$ 157.00	
Air Handlers				
For each air-handling unit to and including 10,000 cubic feet per minute (cfm) (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 unit, evaporative cooler or absorption unit for which a permit is required elsewhere in the Mechanical Code		$ 20.00	$ 20.00	
For each air-handling unit to and including 10,000 cubic feet per minute (cfm) (4719L/s)		$ 35.00	$ 34.00	
Evaporative Coolers				
For each evaporative cooler, other than a portable type		$ 19.00	$ 19.00	
Ventilation & Exhaust				
For each ventilation fan connected to a single duct		$ 14.00	$ 13.00	
For each ventilation system which is not a portion of any heating or air-conditioning system authorized by a permit		$ 20.00	$ 20.00	
For the installation of each hood which is served by a mechanical exhaust, including ducts for such hood		$ 20.00	$ 19.00	
Incinerators				
For the installation or relocation of each domestic-type incinerator		$ 35.00	$ 34.00	
For the installation or relocation of each commercial or industrial-type incinerator		$ 25.00	$ 25.00	
Miscellaneous				
For each appliance or piece of equipment regulated by the Mechanical Code but not classed in other appliance categories, or for which no other fee is listed in the table		$ 18.00	$ 18.00	
Gas Piping System				
For each gas piping system of one to four outlets		$ 9.00	$ 9.00	
For each gas piping exceeding four, each		$ 3.00	$ 3.00	
For each hazardous process piping system (HPP) of one to four outlets		$ 9.00	$ 9.00	
For each hazardous process piping of five or more outlets, per outlet		$ 3.00	$ 3.00	
For each non-hazardous process piping system (NPP) of one to four outlets		$ 5.00	$ 5.00	
For each non-hazardous piping system of five or more outlets, per outlet		$ 3.00	$ 2.50	
Other Inspections & Fees				
Inspections outside of normal business hours, per hour (minimum charge 2 hours)	per hour	$ -	$ 79.00	Removed - No longer valid per CD Dept
Reinspection fees, per inspection		$ -	$ 79.00	Removed - No longer valid per CD Dept
Inspections for which no fee is specifically indicated, per hour (minimum charge - one half hour)	per hour	$ -	$ 79.00	Removed - No longer valid per CD Dept
Additional plan review time required by changes, additions, or revisions to plans or plans for which an initial review has been completed, per hour (minimum charge - one half hour)	per hour	$ -	$ 79.00	Removed - No longer valid per CD Dept
Plumbing Permit Fees				
For issuance of each permit		$ 41.00	$ 40.00	
Unit Fee Schedule (in addition to 2 items above)				
For each plumbing fixture on one trap or a set of fixtures on one trap (including water, drainage piping and backflow protection thereof)		$ 14.00	$ 13.00	
For each building sewer and each trailer park sewer		$ 28.00	$ 28.00	
Rainwater systems - per drain (inside building)		$ 14.00	$ 13.00	
For each water heater and/or vent		$ 14.00	$ 13.00	
For each gas-piping system of one to five outlets		$ 9.00	$ 9.00	
For each additional gas-piping systems outlet, each outlet		$ 3.00	$ 3.00	
For each industrial waste pretreatment interceptor including its trap and vent, except kitchen-type grease interceptors functioning as fixture traps		$ 14.00	$ 13.00	
For each installation, alteration or repair of water piping and/or water treating equipment, each		$ 14.00	$ 13.00	
For each repair or alteration of drainage or vent piping, each fixture		$ 14.00	$ 13.00	
For each lawn sprinkler system on any one meter including backflow protection devices thereof		$ 14.00	$ 13.00	
For atmospheric-type vacuum breaker not included in item above:		$ -		
one to five		$ 9.00	$ 9.00	
over five, each		$ 3.00	$ 3.00	
For each backflow protective device other than atmospheric type vacuum breakers:		$ -		
two inch (51 mm) diameter and smaller		$ 14.00	$ 13.00	
over two inch (51 mm) diameter		$ 28.00	$ 28.00	
For each graywater system		$ 69.00	$ 68.00	
For each annual cross-connection testing of a reclaimed water system (excluding initial test)	per hour	$ 80.00	$ 79.00	
For each medical gas piping system serving one to five inlet(s)/outlet(s) for a specific gas		$ 85.00	$ 84.00	

For each additional medical gas inlet(s)/outlet(s)		$ 9.00	$ 9.00
Other Inspections & Fees			
Inspections outside of normal business hours (minimum charge - two hours)	per hour	$ 80.00	$ 79.00
Reinspection fees, per inspection		$ 80.00	$ 79.00
Inspections for which no fee is specifically indicated (minimum charge - one half hour)	per hour	$ 80.00	$ 79.00
Additional plan review required by changes, additions, or revisions to approved plans (minimum charge - one half hour)	per hour	$ 80.00	$ 79.00
*Per hour for each hour worked, minimum charge: one hour		$ -	
Demolition Permit		$ 27.00	$ 27.00
Encroachment Permit	first $1,500 construction value	$ 35.00	$ 34.00
Encroachment Permit	over $1,500 construction value $30.00 plus 2.5% of construction value	$ -	
Encroachment Permit extension		$ 29.00	$ 29.00
Residential Re-Roofing		$ 142.00	$ 140.00
Residential Siding		$ 142.00	$ 140.00
Commercial Re-Reroofing		$ 313.00	$ 308.00
Commercial Siding		$ 313.00	$ 308.00
Administrative Fee - Residential Permits		$ 57.00	$ 56.00
Planning Fees			
Annexation - 10% petition		$ 863.00	$ 849.00
Annexation - 60% petition		$ 3,669.00	$ 3,608.00
Appeal Fee		$ 399.00	$ 392.00
Archaeological Review		$ 137.00	$ 135.00
Binding Site Plan	plus $24 per unit	$ 1,879.00	$ 1,848.00
Boundary Line Adjustment		$ 103.00	$ 101.00
Comprehensive Plan Amendment		$ 5,826.00	$ 5,729.00
Conditional Use Permit - Residential	plus $105 per unit	$ 3,417.00	$ 3,360.00
Conditional Use Permit - Non-Residential		$ 4,328.00	$ 4,256.00
Continuance of Public Hearing		$ 524.00	$ 515.00
Critical or Sensitive Areas	fee per type (wetlands, steep slopes/ potentially unstable soils, streams & watercourses, vegetation removal, wildlife habitat)	$ 775.00	$ 762.00
Design Review - Minor		$ 433.00	$ 426.00
Design - Review -Committee		$ 2,375.00	$ 2,335.00
Development Agreement	first hearing	$ 877.00	$ 862.00
Development Agreement Continuance or Additional Hearing		$ 539.00	$ 530.00
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		$ 5,207.00	$ 5,120.00
Gates/Barrier on Private Street Review Fee		$ 1,041.00	$ 1,024.00
Home Occupation - Minor	Notification	$ -	$ -
Home Occupation - Major		$ 69.00	$ 68.00
LI/BP Development	plus $41 per 1,000 sf of GFA	$ 4,328.00	$ 4,256.00
Lot Line Adjustment		$ 102.00	$ 100.00
Minor Modifications to Approved Development		$ 346.00	$ 340.00
Modification to Approved Construction Plans		$ 420.00	$ 415.00
Planned Residential Development	Per unit plus subdivision fee	$ 35.00	$ 34.00
Plat, Preliminary - Short Plat	4 lots or less: per lot	$ 1,936.00	$ 1,904.00
Plat, Preliminary - Short Plat	5 lots or more: plus $250 per lot	$ 7,175.00	$ 7,055.00
Plat, Preliminary Subdivision	plus $250 per lot	$ 7,175.00	$ 7,055.00
Plat, Final - Short Plat		$ 200.00	$ 197.00
Plat, Final - Subdivision		$ 2,375.00	$ 2,335.00
Plat Modification/Alteration		$ 1,196.00	$ 1,176.00
Pre-Application Conference for Type III or IV	General	$ 354.00	$ 348.00
Pre-Application Conference for Type III or IV	Subdivision	$ 911.00	$ 896.00
SEPA		$ 810.00	$ 796.00
Shoreline Permit		$ 1,196.00	$ 1,176.00
Sign Permit - General Sign	exempt if building permit is required	$ 41.00	$ 40.00
Sign Permit - Master Sign Permit		$ 126.00	$ 124.00
Site Plan Review - Residential	plus $34 per lot	$ 1,151.00	$ 1,132.00
Site Plan Review - Non-Residential	plus $68 per 1,000 sf of GFA	$ 2,876.00	$ 2,828.00
Site Plan Review - Mixed Use	plus $34 per residential unit plus $68 per 1,000 sf of GFA	$ 4,055.00	$ 3,987.00
Storm Water Review Fee - Single Family Residence		$ 208.00	$ 205.00
Temporary Use Permit		$ 80.00	$ 79.00
Variance - Minor		$ 695.00	$ 683.00
Variance - Major		$ 1,295.00	$ 1,273.00
Zone Change	single tract	$ 3,345.00	$ 3,289.00
Sexually Oriented Businesses			
Live Entertainment Application Fee		$ 888.00	$ 873.00
Live Entertainment License Fee	Renewal Date 12/31	$ 297.00	$ 292.00
Live Entertainment Renewal Fee		$ 297.00	$ 292.00
Live Entertainment Renewal Fee - 1/2 Year	After 6/30	$ 155.00	$ 152.00
Other Sexually Oriented Business Application Fee		$ 593.00	$ 583.00
Other Sexually Oriented Business License Fee	Renewal Date 12/31	$ 297.00	$ 292.00
Other Sexually Oriented Business Renewal Fee		$ 297.00	$ 292.00
Other Sexually Oriented Business Renewal Fee - 1/2 Year	After 6/30	$ 156.00	$ 153.00
Manager's License Application Fee		$ 125.00	$ 123.00
Manager's License Fee	Renewal Date 12/31	$ 62.00	$ 61.00
Manager's License Renewal Fee		$ 62.00	$ 61.00
Manager's License Renewal Fee - 1/2 Year	After 6/30	$ 35.00	$ 34.00
Entertainer's License Application Fee		$ 125.00	$ 123.00
Entertainer's License Fee	Renewal Date 12/31	$ 62.00	$ 61.00
Entertainer's License Renewal Fee		$ 62.00	$ 61.00
Entertainer's License Renewal Fee - 1/2 Year	After 6/30	$ 35.00	$ 34.00
FINANCE FEES			

Ambulance				
ALS In-District		$ 807.00	$ 807.00	
ALS Out-of-District		$ 1,288.00	$ 1,288.00	
BLS In-District		$ 807.00	$ 807.00	
BLS Out-of-District		$ 1,288.00	$ 1,288.00	
Extra Attendant		$ 179.00	$ 179.00	
Late Fee		$ 31.00	$ 31.00	
Mileage (in district)	per mile	$ 20.00	$ 20.00	
Mileage (out of district)	per mile	$ 22.00	$ 22.00	
Non-emergency transport		$ 605.00	$ 605.00	
Patient treated - no transport		$ 213.00	$ 213.00	
Ambulance - annual license		$ 62.00	$ 62.00	
Cemetery				
Lots - Full Burial				
Adult - Flat Marker		$1,100.00	$1,100.00	
Adult - Upright Marker		$2,300.00	$2,300.00	
Child under 5 years in Garden of Angels		$300.00	$300.00	
Cremains				
Single Niche Garden of Faith		$900.00	$900.00	
Single Niche Premium		$1,100.00	$1,100.00	
Single Niche Standard		$900.00	$900.00	
Double Niche Premium		$1,695.00	$1,695.00	
Double Niche Standard		$1,425.00	$1,425.00	
4 x 4 Foot Ground Lot		$526.00	$526.00	
Liners				
Cremains Liner (Single Urn Vaults)		$230.00	$230.00	
Cremains Liner (Double Urn Vaults)		$385.00	$385.00	
Niche Wall (Single Bronze Urns)		$165.00	$165.00	
Urn Vault Liner (Wooden Urns)		$270.00	$270.00	
Open & Close Fees				
Disinterment Charges	Includes Inspection / Staking fees and Deed Transfer Fees	$500.00	$500.00	
Cremains - Added with a Full Burial Lot		$385.00	$385.00	
Cremains - 4 x 4 Lot		$385.00	$385.00	
Cremains - Niche Wall	does not include engraving	$350.00	$350.00	
Saturday Services - (in addition to)		$250.00	$250.00	
Sunday/Holiday Services - (in addition to)		$450.00	$450.00	
Locating, Marker & Staking Fees				
Staking & Inspection (cremains & grave lots)		$125.00	$125.00	
Marker Setting Fee		$125.00	$125.00	
Miscellaneous Additional Charges				
Remembrance Wall - Inscription	pass through from vendor			
Engraving of Niche Wall	pass through from vendor			
Deed Transfers/Replacement Deeds		$35.00	$35.00	
Maintenance Fund Lot		$200.00	$200.00	
Maintenance Fund Niche		$250.00	$250.00	
Marker Replacement Vase		$0.00	$50.00	This is not in line with services the City provides - removing and will not replenish supply of vases
Second Rite of Burial	one full burial & two cremains/three cremains per lot	$350.00	$350.00	
Other License & Permits				
Dog License - life time		$35.00	$34.00	
Dog License - replacement		$6.00	$6.00	
Guard Dog		$62.00	$61.00	
Pawnbroker's/Second Hand Dealer - 2 yr. license		$125.00	$123.00	
Solicitor's License application/back ground check		$52.00	$51.00	
Solicitor's License New or Renewal		$35.00	$34.00	
Special Event Permit		$46.00	$45.00	
Taxicab - annual license	issued after 7/1 - half of fee	$46.00	$45.00	
Taxicab per vehicle		$14.00	$13.00	
Taxi Driver's license		$7.00	$7.00	
Taxi Driver's License Renewal		$7.00	$7.00	
Vehicle Restoration Permit		$28.00	$28.00	
Utilities				
Lien Filing Fee	pass through fees from Clark County			
New Utility Account Set-Up Fee		$26.00	$26.00	
Title Check Fee	plus pass through fee from vendor	$15.00	$15.00	
Utility Late Fee	5% of past due balance minimum $15	$15.00	$15.00	
Utility Service Call Fee	first call free, additional each	$26.00	$26.00	
Water - Sewer				
Portable Hydrant Meter Rental - Deposit	Refundable - damage dependent	$1,231.00	$1,210.00	
Portable Hydrant Meter Rental - Placement Fee		$104.00	$102.00	
STEP/STEF Inspection		$177.00	$ 174.00	
STEP/STEF Reinspection	per inspection	$80.00	$ 79.00	
Temporary Water Service	to be determined based on meter size and use	$0.00		
Water Meter Installation - 3/4" Meter		$401.00	$394.00	
Water Meter Installation - 1" Meter		$445.00	$438.00	
Water Meter Installation - 1.5" Meter		$851.00	$837.00	
Water Meter Installation - 1.5" Turbine Meter		$1,074.00	$1,056.00	
Water Meter Installation - 2" Meter		$2,075.00	$2,040.00	
2" Service with 1.5" Meter	in addition to 1.5" Water Meter Installation fee	$509.00	$500.00	
Water Service Connection by City (requires written approval)	time and materials as determined by PW Director			
Water Meter Installation Reinspection		$80.00	$ 79.00	
Water Disconnection at Owner's Request		$36.00	$36.00	
Water Disconnection for Non-Payment		$46.00	$46.00	
Water Reconnection After Hours		$92.00	$92.00	

Padlocking Water Meter		$46.00	$46.00
Removal of Water Meter		$46.00	$46.00
Wrongfully or Illegally Reconnection		$254.00	$250.00
Water Meter Testing	deposit to be returned if meter found not to be operating within range	$224.00	$220.00
Sewer Service Installation by City (requires written approval)	time and materials as determined by PW Director		
Solid Waste			
Change Can Size		$ 11.00	$ 11.00
Return Trip For Missed Service		$ 6.00	$ 6.00
Overfilling Can		$ 4.00	$ 3.50
Extra Bag		$ 4.00	$ 3.50
Extra Can 35 gallon		$ 7.00	$ 7.00
Extra Can 65 gallon		$ 15.00	$ 15.00
Extra Can 95 gallon		$ 23.00	$ 22.50
Bi-weekly service on off-week		$ 7.00	$ 7.00
Unscheduled Pick Up Charge (Day other than normal service day)		$ 20.00	$ 19.50
Extra Yard (not in rented containor)		$ 35.00	$ 35.00
Replacement of damaged can	pass through fee -- cost of replacement from vendor	$ -	
Extra Items			
Barbeque		$7.00	$7.00
Bicycle		$12.00	$12.00
Car Tire		$8.00	$8.00
Car Tire w/Rim		$12.00	$12.00
Chair/Recliner		$12.00	$12.00
Christmas Tree	no taller than five feet	$12.00	$12.00
Microwave (Large)		$8.00	$8.00
Microwave (Small)		$5.00	$5.00
Table		$25.00	$25.00
Toilet		$15.00	$14.00
Truck Tire		$26.00	$26.00
Truck Tire w/rim		$38.00	$38.00
Recycling/Yard Debris			
FIRE DEPARTMENT (FMO)			
Development Review			
Commercial Site Plans - Review Fee		$212.00	$208.00
Commercial Site Plans - Inspection Fee		$212.00	$208.00
Subdivision or PRD - Review Fee		$177.00	$174.00
Subdivision or PRD - Inspection Fee		$177.00	$174.00
Pre-Application Conference - Review Fee		$142.00	$140.00
Other Land Use Applications - Review Fee		$142.00	$140.00
Other Land Use Applications - Inspection Fee		$142.00	$140.00
Building Construction/Change of Use or Occupancy			
A, B, E, F, M, R Occupancies 0-1,000 sq. .ft. - Review Fee		$108.00	$106.00
A, B, E, F, M, R Occupancies 0-1,000 sq. ft. - Inspection Fee		$108.00	$106.00
A, B, E, F, M, R Occupancies 1,001-5,000 sq. ft. - Review Fee		$142.00	$140.00
A, B, E, F, M, R Occupancies 1,001-5,000 sq. .ft. - Inspection Fee		$108.00	$106.00
A, B, E, F, M, R Occupancies 5,001-10,000 sq. ft. - Review Fee		$177.00	$174.00
A, B, E, F, M, R Occupancies 5,001-10,000 sq. ft. - Inspection Fee		$142.00	$140.00
A, B, E, F, M, R Occupancies 10,001-20,000 sq. ft. - Review Fee		$219.00	$215.00
A, B, E, F, M, R Occupancies 10,001-20,000 sq. ft. - Inspection Fee		$177.00	$174.00
A, B, E, F, M, R Occupancies 20,001-40,000 sq. ft. - Review Fee		$261.00	$257.00
A, B, E, F, M, R Occupancies 20,001-40,000 sq. ft. - Inspection Fee		$211.00	$207.00
Each Additional 20,000 sq. ft. - Review Fee		$43.00	$42.00
Each Additional 20,000 sq. ft. - Inspection Fee		$35.00	$34.00
Portable Classroom - Review Fee		$160.00	$157.00
Portable Classroom - Inspection Fee		$160.00	$157.00
H1 Occupancy - Review Fee		$422.00	$415.00
H1 Occupancy - Inspection Fee		$422.00	$415.00
H2 Occupancy - Review Fee		$422.00	$415.00
H2 Occupancy - Inspection Fee		$422.00	$415.00
H3 Occupancy - Review Fee		$468.00	$460.00
H3 Occupancy - Inspection Fee		$468.00	$460.00
H4 Occupancy - Review Fee		$329.00	$314.00
H4 Occupancy - Inspection Fee		$319.00	$314.00
H5 Occupancy - Review Fee		$581.00	$571.00
H5 Occupancy - Inspection Fee		$581.00	$571.00
I Occupancy - Review Fee		$319.00	$314.00
I Occupancy - Inspection Fee		$212.00	$208.00
S Occupancy - Review Fee		$212.00	$208.00
S Occupancy - Inspection Fee		$212.00	$208.00
Each additional 10,000 sq. ft. - Review Fee		$108.00	$106.00
Each additional 10,000 sq. ft. - Inspection Fee		$108.00	$106.00
Building or Structure for Special or Temporary Use - Review Fee		$160.00	$157.00
Building or Structure for Special or Temporary Use - Inspection Fee		$160.00	$157.00
Fire Alarm System			
Fire Alarm - Minor Alteration - Review Fee		$108.00	$106.00
Fire Alarm - Minor Alteration - Inspection Fee		$108.00	$106.00
Fire Alarm - Zoned System 1 Zone - Review Fee		$160.00	$157.00
Fire Alarm - Zone System 1 Zone - Inspection Fee		$160.00	$157.00
Each Additional Zone - Review Fee		$73.00	$72.00
Each Additional Zone - Inspection Fee		$73.00	$72.00
Fire Alarm - Addressable System, 1 to 20 Devices - Review Fee		$160.00	$157.00
Fire Alarm - Addressable System, 1 to 20 Devices - Inspection Fee		$160.00	$157.00
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		$319.00	$314.00
New System NFPA 13 - Single Riser - Inspection Fee	includes five inspections	$319.00	$314.00
Each Additional Inspection		$108.00	$106.00
Each Additional Riser - Review Fee		$319.00	$314.00
Each Additional Riser - Inspection Fee	includes five inspections	$319.00	$314.00
New System NFPA 13D (Single Family) - Inspection Fee		$108.00	$106.00
Each Additional Inspection		$108.00	$106.00
Alteration to Fire Sprinkler Systems - Review Fee		$108.00	$106.00
Alteration to Fire Sprinkler Systems - Inspection Fee		$108.00	$106.00
New System NFPA 13R (Per Building) - Review Fee		$212.00	$208.00
New System NFPA 13R (Per Building) - Inspection Fee	includes four inspections	$212.00	$208.00
Each Additional Inspection		$108.00	$106.00
Underground Fire Sprinkler Mains - Review Fee		$160.00	$157.00
Underground Fire Sprinkler Mains - Inspection Fee		$160.00	$157.00
Standpipe System/Wet or Dry - Review Fee		$108.00	$106.00
Standpipe System/Wet or Dry - Inspection Fee		$108.00	$106.00
Commercial Cooking Extinguishing System/Protection - Review Fee		$160.00	$157.00
Commercial Cooking Extinguishing System/Protection - Inspection Fee		$160.00	$157.00
Other Extinguishing Systems - Review Fee		$262.00	$258.00
Other Extinguishing Systems -Inspection Fee		$262.00	$258.00
Fire Pumps and Private or Dedicated Fire Hydrant Systems - Review Fee		$262.00	$258.00
Fire Pumps and Private or Dedicated Fire Hydrant Systems - Inspection Fee		$262.00	$258.00
Hazardous Operations			
Smoke Removal Systems - Review Fee		$262.00	$258.00
Smoke Removal Systems - Inspection Fee		$262.00	$258.00
Application of Flammable Finishes - Review Fee		$262.00	$258.00
Application of Flammable Finishes - Inspection Fee		$262.00	$258.00
Commercial Drying Ovens - Review Fee		$160.00	$157.00
Commercial Drying Ovens - Inspection Fee		$160.00	$157.00
Organic Coating Systems - Review Fee		$160.00	$157.00
Organic Coating Systems - Inspection Fee		$160.00	$157.00
Dip Tanks, Listed Spray Booths - Review Fee		$142.00	$140.00
Dip Tanks, Listed Spray Booths - Inspection Fee		$108.00	$106.00
Unlisted Spray Booths - Review Fee		$212.00	$208.00
Unlisted Spray Booths - Inspection Fee		$142.00	$140.00
Semiconductor Fabrication HPM Tool Installation - Review Fee		$262.00	$258.00
Semiconductor Fabrication HPM Tool Installation - Inspection Fee		$262.00	$258.00
Other Hazardous Material Equipment & Systems - Review Fee		$262.00	$258.00
Other Hazardous Material Equipment & Systems - Inspection Fee		$262.00	$258.00
Compressed Gas System (greater than exempt amounts) - Review Fee		$319.00	$314.00
Compressed Gas System (greater than exempt amounts) - Inspection Fee		$319.00	$314.00
Refrigeration Systems - Review Fee		$262.00	$258.00
Refrigeration Systems - Inspection Fee		$142.00	$140.00
LPG Tank Installation (greater than 125 gal.) - Review Fee		$160.00	$157.00
LPG Tank Installation (greater than 125 gal.) - Inspection Fee		$160.00	$157.00
Dispensing and use of LPG - Review Fee		$177.00	$174.00
Dispensing and use of LPG - Inspection Fee		$142.00	$140.00
Dispensing and use of Combustible/Flammable Liquids Above Ground Tanks - Review Fee		$177.00	$174.00
Dispensing and use of Combustible/Flammable Liquids Above Ground Tanks - Inspection Fee		$142.00	$140.00
Dispensing and use of Combustible/Flammable Liquids Underground Tanks - Review Fee		$422.00	$415.00
Dispensing and use of Combustible/Flammable Liquids Underground Tanks - Inspection Fee		$422.00	$415.00
Aerosols - Review Fee		$160.00	$157.00
Aerosols - Inspection Fee		$160.00	$157.00
CO2 Monitoring Systems - Review Fee		$0.00	$0.00
CO2 Monitoring Systems - Inspection Fee		$108.00	$106.00
Hazardous Materials			
Storage, Dispensing & Use of Hazardous Materials - Review Fee		$422.00	$415.00
Storage, Dispensing & Use of Hazardous Materials - Inspection Fee		$422.00	$415.00
HMIS - Review Fee		$212.00	$208.00
HMIS - Inspection Fee		$212.00	$208.00
HMMP - Review Fee		$319.00	$314.00
HMMP - Inspection Fee		$319.00	$314.00
Decommissioning Underground Storage Tank - Review Fee		$160.00	$157.00
Decommissioning Underground Storage Tank - Inspection Fee		$108.00	$106.00
Explosive Materials			
Explosive Storage & Use/Blast Permit - Review Fee		$422.00	$415.00
Explosive Storage & Use/Blast Permit - Inspection Fee		$212.00	$208.00
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, and primers for consumer consumption - Review Fee		$108.00	$106.00
Storage of black or smokeless powder, small arms ammunition, precession caps, and primers for consumer consumption - Inspection Fee		$108.00	$106.00
Manufacture, assembly, testing of ammunition, fireworks, blasting agents, and other explosives or explosive material - Review Fee		$142.00	$140.00
Manufacture, assembly, testing of ammunition, fireworks, blasting agents, and other explosives or explosive material - Inspection Fee		$108.00	$106.00
Other storage, use, handling, or demolition of explosives or explosive material - Review Fee		$433.00	$426.00

Other storage, use, handling, or demolition of explosives or explosive material - Inspection Fee		$142.00	$140.00	
Magazines (Explosives) - Review Fee		$212.00	$208.00	
Magazines (Explosives) - Inspection Fee		$212.00	$208.00	
Fireworks Stand - Review Fee		$50.00	$50.00	Stay at $50 per State RCW
Fireworks Stand - Inspection Fee		$50.00	$50.00	Stay at $50 per State RCW
Fireworks Display - Review Fee		$212.00	$208.00	
Fireworks Display - Inspection Fee		$212.00	$208.00	
Pyrotechnic special effects - Review Fee		$108.00	$106.00	
Pyrotechnic special effects - Inspection Fee		$108.00	$106.00	
High-Piled Combustible Storage				
Designated storage area 501 - 2,500 sq. ft. - Review Fee		$142.00	$140.00	
Designated storage area 501 - 2,500 sq. ft. - Inspection Fee		$108.00	$106.00	
Designated storage area 2,501 - 12,000 sq. ft. - Inspection Fee		$177.00	$174.00	
Designated storage area 2,501 - 12,000 sq. ft. - Review Fee		$142.00	$140.00	
Designated storage area 12,001 - 20,000 sq. ft. - Review Fee		$212.00	$208.00	
Designated storage area 12,001 - 20,000 sq. ft. - Inspection Fee		$177.00	$174.00	
Designated storage area 20,001 - 30,000 sq. ft. - Review Fee		$262.00	$258.00	
Designated storage area 20,001 - 30,000 sq. ft. - Inspection Fee		$212.00	$208.00	
Each additional 30,000 sq. ft. or portion thereof - Review Fee		$319.00	$314.00	
Each additional 30,000 sq. ft. or portion thereof - Inspection Fee		$262.00	$258.00	
Cryogenic Systems, process or product - Review Fee		$160.00	$157.00	
Cryogenic Systems, process or product - Inspection Fee		$160.00	$157.00	
Each tank or vessel - Review Fee		$57.00	$56.00	
Each tank or vessel - Inspection Fee		$46.00	$45.00	
Candles & Open Flames in Places of Assembly - Review Fee		$23.00	$23.00	
Other Fire Permits				
Revision to plan previously submitted	per hour	$108.00	$106.00	
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		$108.00	$106.00	
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		$108.00	$106.00	
Emergency Generators - Inspection Fee		$108.00	$106.00	
Privacy/Security Gates - Review Fee		$108.00	$106.00	
Privacy/Security Gates - Inspection Fee		$108.00	$106.00	
Other plan reviews or permits required by the International Fire Code - Review Fee	per hour	$108.00	$106.00	
Other plan reviews or permits required by the International Fire Code - Inspection Fee	per hour	$108.00	$106.00	
Training Burn	$.50 per sq. ft. minimum $1,000, maximum $2,000			
Hot Works - Inspection		$108.00	$106.00	
Hydrants				
Witness Flow Test - Inspection Fee		$109.00	$107.00	
LIBRARY				
Meeting Rooms				
Room A				
Maintenance Charge:				
Non-Profit	No Charge	$0.00	$0.00	
Private Functions	per hour	$50.00	$50.00	
Cleaning deposit, if serving food (refundable);	cost exceeding deposit will be billed	$60.00	$60.00	
For-Profit	per hour	$50.00	$50.00	
Cleaning deposit, if serving food (refundable);	cost exceeding deposit will be billed	$60.00	$60.00	
Room B				
Maintenance Charge:				
Non-Profit		$0.00	$0.00	
Private Functions	per hour	$50.00	$50.00	
Cleaning deposit, if serving food (refundable);	cost exceeding deposit will be billed	$60.00	$60.00	
For-Profit	per hour	$50.00	$50.00	
Cleaning deposit, if serving food (refundable);	cost exceeding deposit will be billed	$60.00	$60.00	
Rooms A & B				
Maintenance Charge:				
Non-Profit		$0.00	$0.00	
Private Functions	per hour	$93.00	$93.00	
Cleaning deposit, if serving food (refundable);	cost exceeding deposit will be billed	$60.00	$60.00	
For-Profit	per hour	$99.00	$99.00	
Cleaning deposit, if serving food (refundable);	cost exceeding deposit will be billed	$60.00	$60.00	
Kitchen Use				
Non-Profit		$17.00	$17.00	
Private Functions		$33.00	$33.00	
For Profit		$33.00	$33.00	
Closed Hours Staffing Fee				
Non-Profit	per hour in addition to hourly charge	$60.00	$60.00	
Private Functions	per hour in addition to hourly charge	$60.00	$60.00	
For Profit	per hour in addition to hourly charge	$60.00	$60.00	
Non-refundable application fee				
Non-Profit		$0.00	$0.00	
Private Functions		$17.00	$17.00	
For Profit		$17.00	$17.00	
Non-Resident Annual Fees				
Household		$137.00	$135.00	
Operational Charges				

Black & White Photocopy/Printing	over 10 per person, per day, each	$0.10	$0.10	
Color Photocopy/Printing	each	$0.50	$0.50	
Photocopy/Printing	10 black and white per person, per day - no charge	$0.00		
Lost & Damaged Materials: Default prices if not noted in bib record				
Audiobooks		$42.00	$42.00	
Board book		$10.00	$10.00	
Book discussion kit		$120.00	$120.00	
Devices		$250.00	$250.00	
DVD/Blue Ray		$35.00	$35.00	
Hardcover & Paperback Books		$32.00	$32.00	
Interlibrary loan	pass through - assessed by lending library			
Magazines & Documents		$7.00	$7.00	
Music CD		$25.00	$25.00	
Playaway		$54.00	$54.00	
Reference book	Replacement Cost - pass through from vendor			
PARKS & RECREATION FEES				
Camas Community Center Rental				
Reception Room - Midweek	per day	$80.00	$75.00	
Reception Room - Weekend	per day	$160.00	$150.00	
Reception Room - Long Term Use	per hour	$10.00	$10.00	
Conference Room - Midweek	per day	$55.00	$50.00	
Conference Room - Weekend	per day	$110.00	$100.00	
Conference Room - Long Term Use	per hour	$10.00	$10.00	
Ball Room - Midweek	per day	$160.00	$150.00	
Ball Room - Weekend	per day	$320.00	$300.00	
Ball Room - Long Term Use	per hour	$10.00	$10.00	
Kitchen - Midweek	per day	$35.00	$30.00	
Kitchen - Weekend	per day	$55.00	$50.00	
Kitchen - Long Term Use	per hour	$10.00	$10.00	
Sound System - Midweek	per day	$75.00	$75.00	
Sound System - Weekend	per day	$75.00	$75.00	
Sound System Projector - Midweek	per day	$100.00	$100.00	
Sound System Projector - Weekend	per day	$100.00	$100.00	
Deposit - refundable		$500.00	$500.00	
Alcohol Use Fee		$100.00	$100.00	
Key Call Back Fee		$150.00	$150.00	
Midweek is Monday through Thursday and Friday until 2:00 p.m.				
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 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.				
Camas residents will receive 20% discount				
Long Term Users will be charged per hour	Must pay for 6 months to be long term user	$11.00	$8.00	
Fallen Leaf Lake Park Rental				
Monday through Thursday	per day	$200.00	$200.00	
Fridays, Saturdays, Sundays and Holidays	per day	$350.00	$350.00	
Deposit - refundable		$500.00	$500.00	
Alcohol Use Fee		$100.00	$100.00	
Key Call Back Fee		$150.00	$150.00	
Camas residents will receive 20% discount				
Non-profit groups renting on weekends will be charged mid-week rates				
Lacamas Lake Lodge Rental				
Main Hall	hourly; Saturday-5 hr. minimum; all other days-2 hrs. minimum	$185.00	$175.00	
Main Hall - public agencies	hourly; mid-week excluding Fridays during normal business hours	$60.00	$60.00	
Deposit - refundable	per day	$500.00	$500.00	
Room 1A	hourly; Saturday-5 hr. minimum; all other days-2 hrs. minimum	$35.00	$30.00	
Deposit - refundable	per day	$200.00	$200.00	
Room 1B	hourly; Saturday-5 hr. minimum; all other days-2 hrs. minimum	$35.00	$30.00	
Deposit - refundable	per day	$200.00	$200.00	
AV Equipment	per day	$100.00	$100.00	
Alcohol Use Fee		$100.00	$100.00	
Key Call Back Fee		$150.00	$150.00	
Non-profit will receive a 50% discount off the hourly rate				
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		$12.00	$12.00	
Fingerprint Cards	per card	$18.00	$18.00	
Lost/Unreturned Community Room Key		$26.00	$26.00	
Police Case Reports (no charge to victim)	per page	$0.15	$0.15	
Record Checks/Non-Criminal Justice Agency inc. Military Services		$12.00	$12.00	
State Accident Reports (no charge to involved party)		$7.00	$7.00	
Work crew Sign-Up Fee		$25.00	$25.00	

Staff Report

November 2, 2020 Council Workshop

City of Camas Third Quarter Financial Performance Presentation
Presenter: Cathy Huber Nickerson, Finance Director

Phone	Email
360.817.1537	chuber@cityofcamas.us

BACKGROUND: This presentation is to review the financial performance of the City from the perspective of budget to actual, investment performance and status of short and long term debt. The presentation also will provide an economic overview both nationally and regionally to provide context as well as provide the outlook for the next quarter.

SUMMARY: The City of Camas' third quarter performance proved to be stronger than anticipated but still showed signs of COVID-19 weakness. The revenue collections were higher due to stable housing growth and continued moderate pace in housing purchases. Retail sales from e-commerce has provided a much needed boost in sales tax receipts. The combination of these economic activities has offset weaker revenue collection such as lower charges for services, fines and forfeitures and rental activity. Maintained revenue with spending constraints have enabled the City to maintain or increase fund balances which should provided resources to weather a second wave recession anticipated in the next biennium.

EQUITY CONSIDERATIONS:

What are the desired results and outcomes for this agenda item? The intent of the presentation is to provide City Council a status report on the City's financial performance and an outlook to the fourth quarter.

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

How have communities been engaged? Are there opportunities to expand engagement? N/A

Who will benefit from, or be burdened by this agenda item? This agenda item provides context for decision making for City Council and discloses the state of the City's finances to the residents of Camas.

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

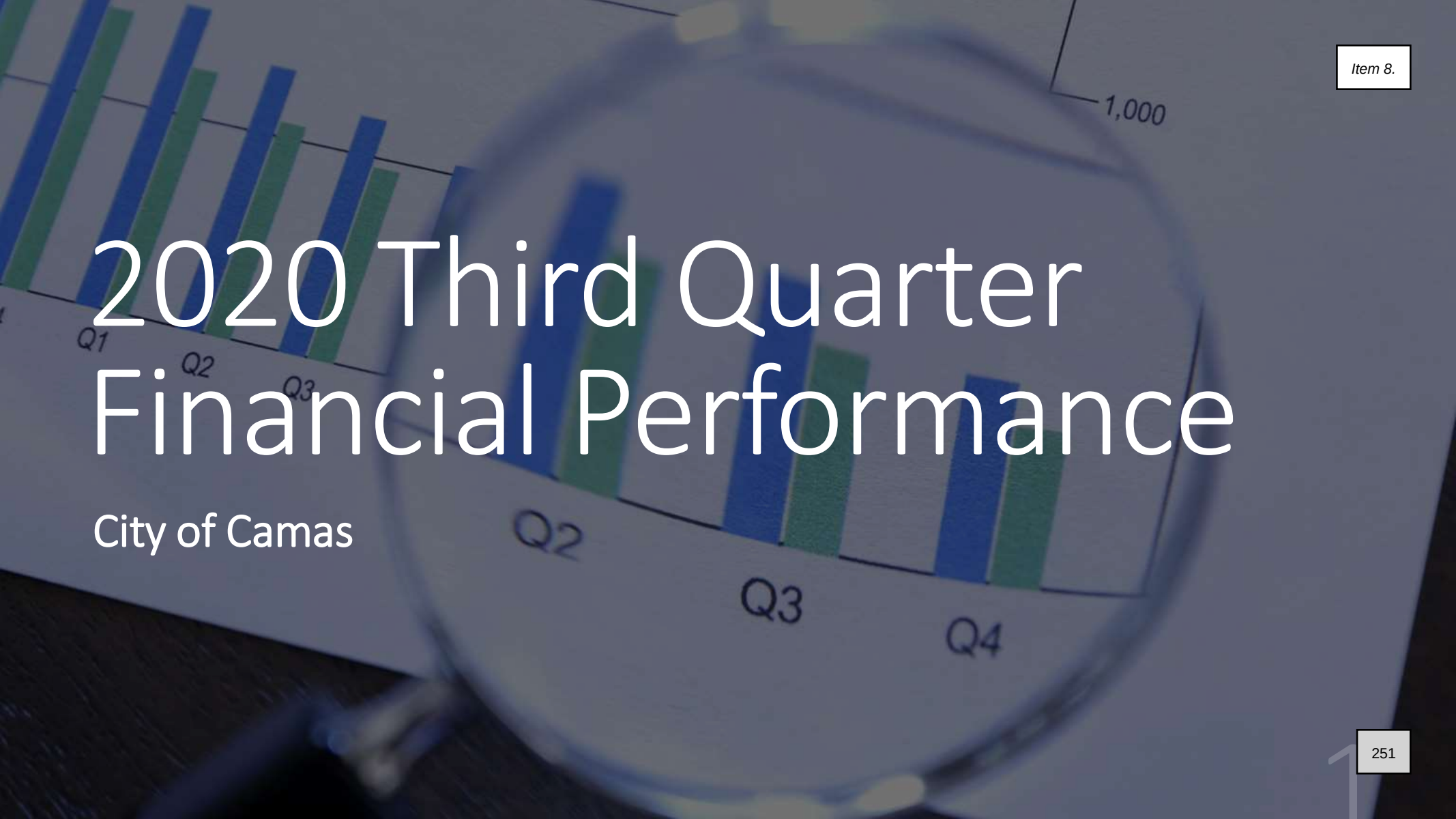
What potential hurdles exists in implementing this proposal (include both operational and political)? N/A

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 provides open and transparent financial reporting which is a goal of the City's strategic plan and meets best financial practices.

BUDGET IMPACT: This agenda item provides financial context for City Council considerations.

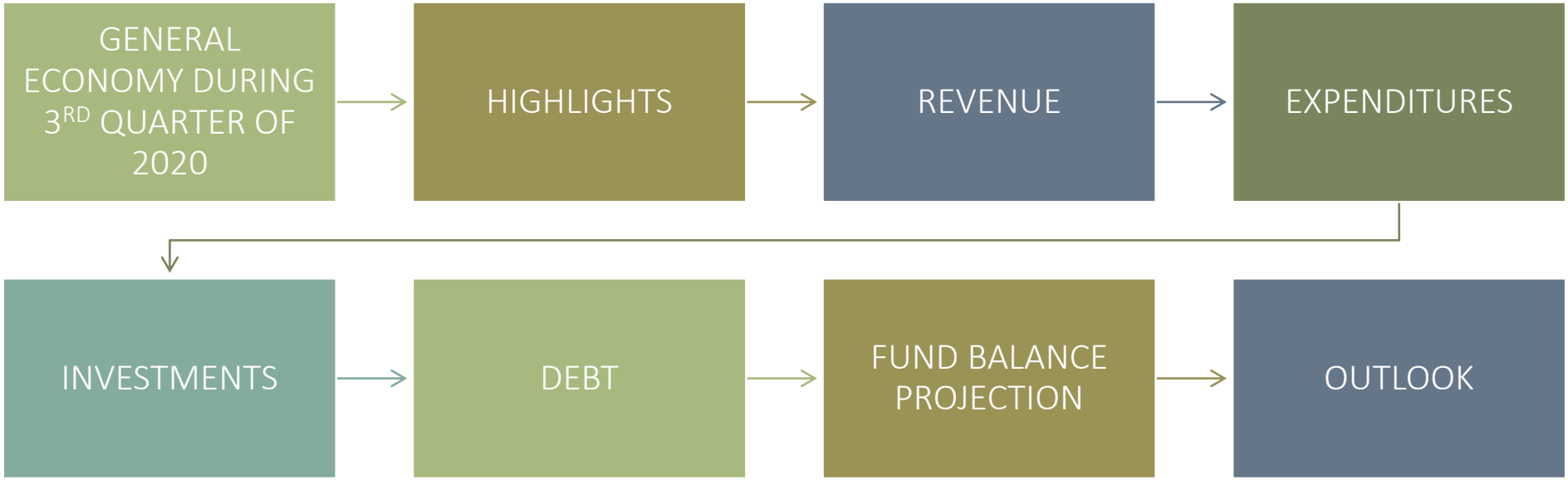
RECOMMENDATION: Information only.



2020 Third Quarter Financial Performance

City of Camas

Agenda


GENERAL ECONOMY DURING 3RD QUARTER OF 2020
HIGHLIGHTS
REVENUE
EXPENDITURES
INVESTMENTS
DEBT
FUND BALANCE PROJECTION
OUTLOOK

3Rd Quarter Economy

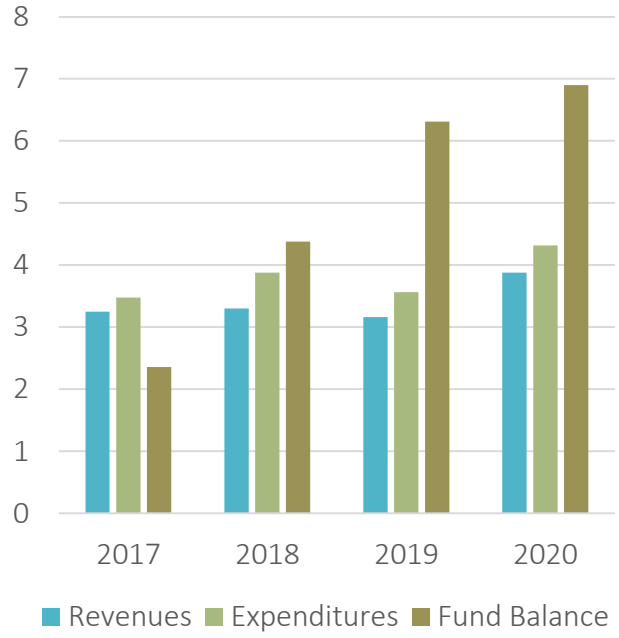
Indicators at September 30, 2020

Avg. Mortgage Rate	LOWER 2.88% v. 3.07% than June 30, 2020
Unemployment	LOWER (improving) 7.9 v. 11.1%
Retail Sales (% change yr.)	HIGHER 8.2% v. -1.4%
CPI (national)	HIGHER 1.4% v. 0.2%
Avg. Gas Prices	STABLE $2.20 v. $2.19

- GDP growth projected in the 3rd Quarter
- Retail sales were stronger than expected
- Building materials rose sharply
- "Flight to the suburbs" seems to be helping Camas home sales

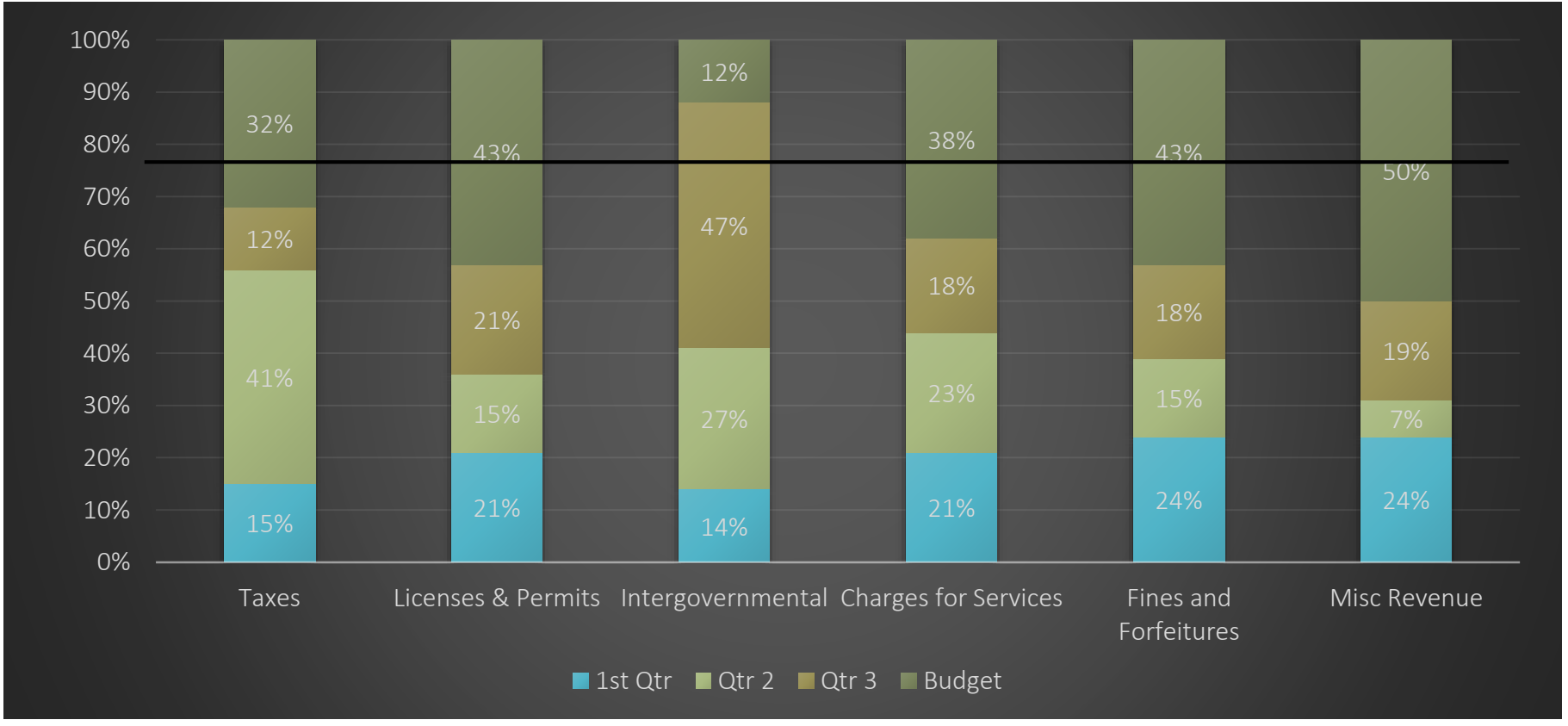
General Fund Highlights

	2017 Third Quarter	2018 Third Quarter	2019 Third Quarter	2020 Third Quarter
Net revenues (less transfers)	$3,249,670	$3,300,172	$3,162,339	$3,877,772
Net expenditures (less transfers)	$3,473,766	$3,878,795	$3,565,085	$4,315,168
Net Cash Flow	($244,096)	($578,623)	($402,746)	($437,396)
% of Budget Spent	68%	70%	67%	70%
General Fund Balance	$2,356,789	$4,379,006	$6,311,706	$6,900,610
Overall Cash and Investments for All Funds	$45,215,198 Includes Bond Proceeds	$46,338,377 Includes Bond Proceeds	$69,995,036 Includes Bond Proceeds	$74,900,074 Includes Bond Proceeds

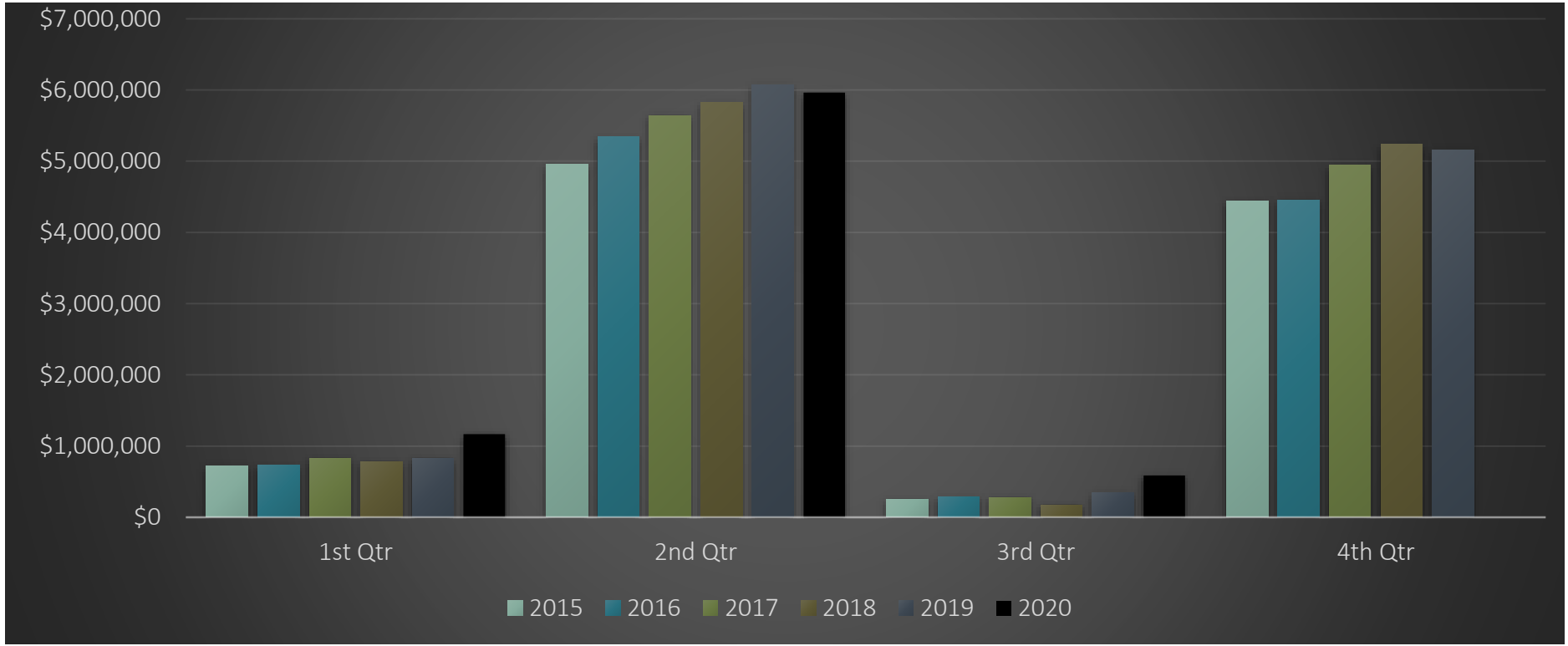


This table illustrates the cash flow of the General Fund.

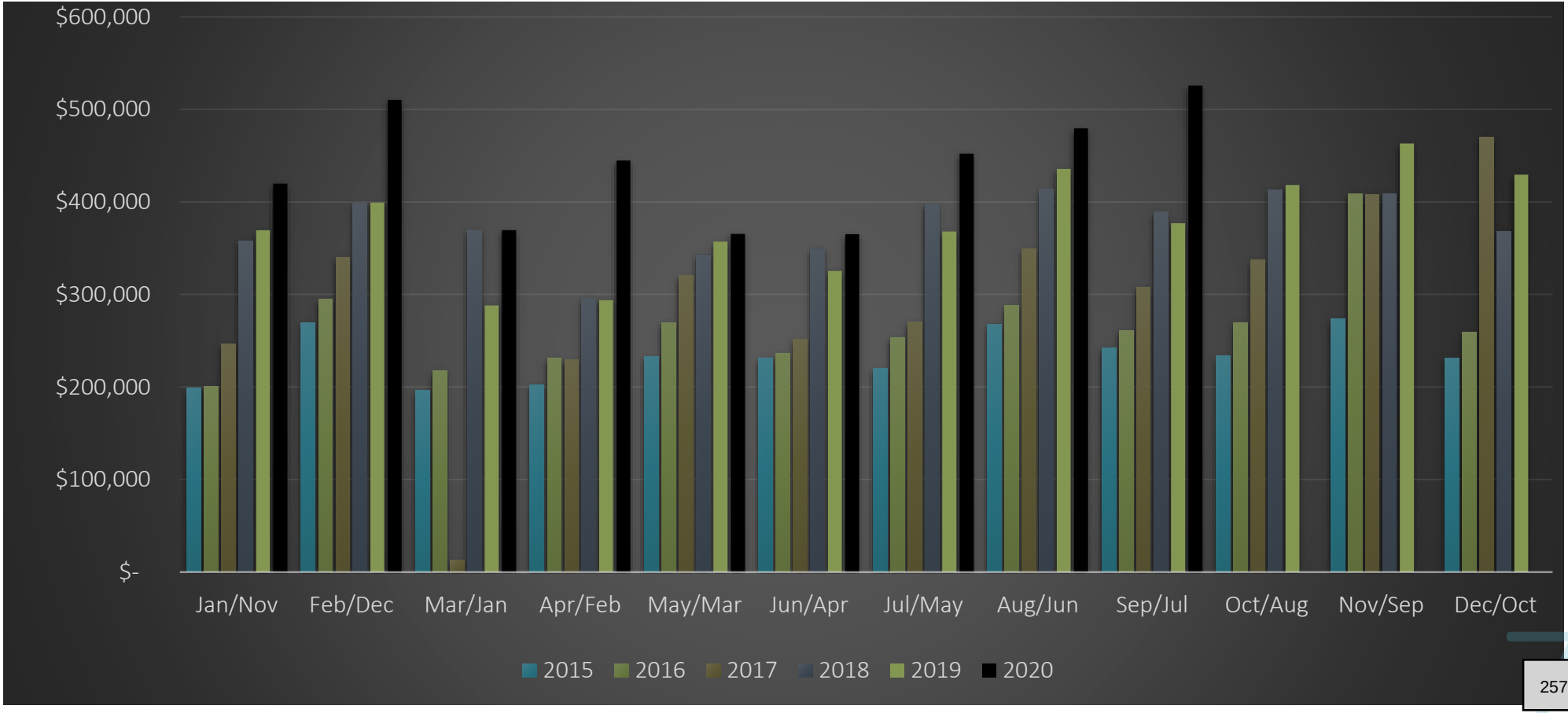
General Fund Revenues



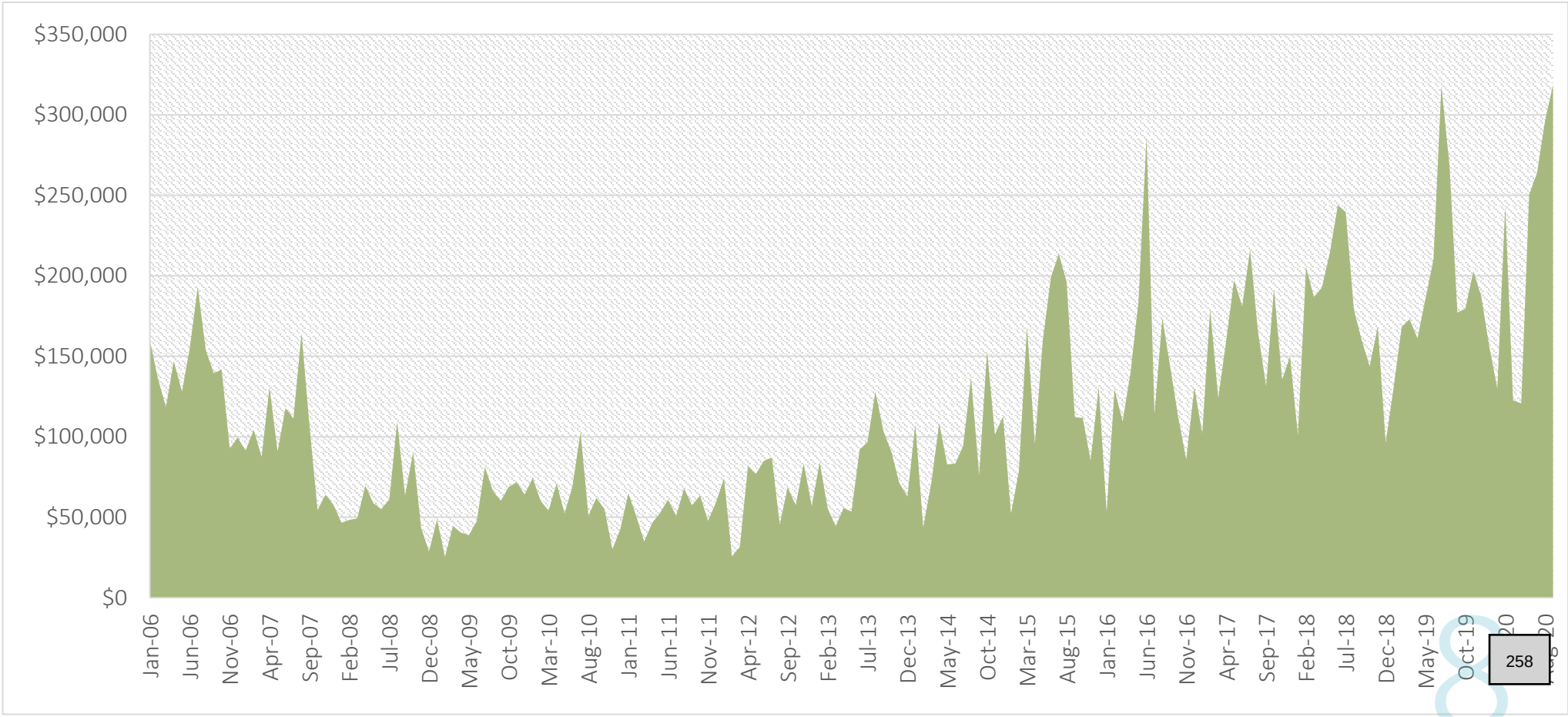
Property Tax Collections



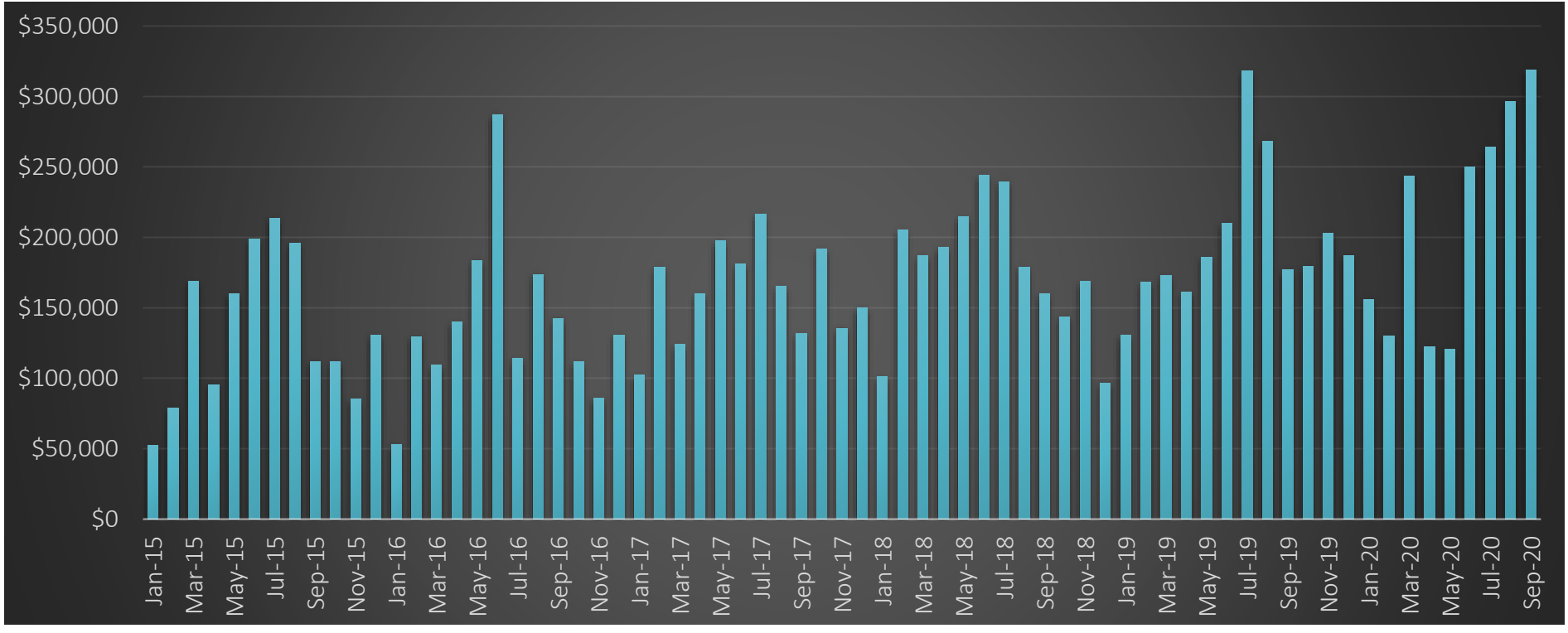
Sales and Use Tax

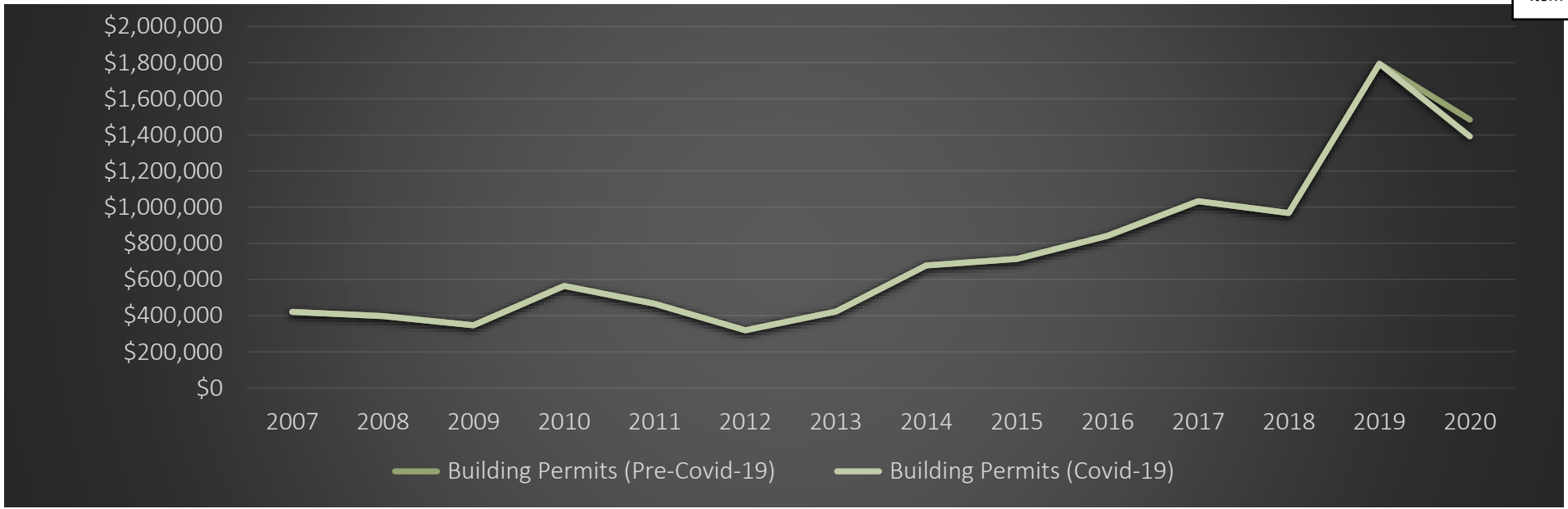


Real Estate Excise Tax

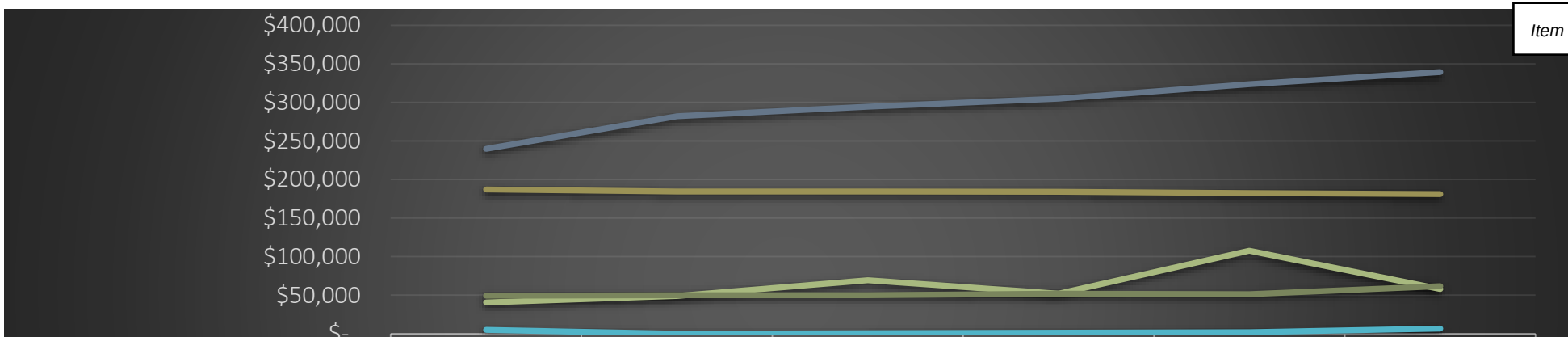


Real Estate Excise Tax





Building Permits

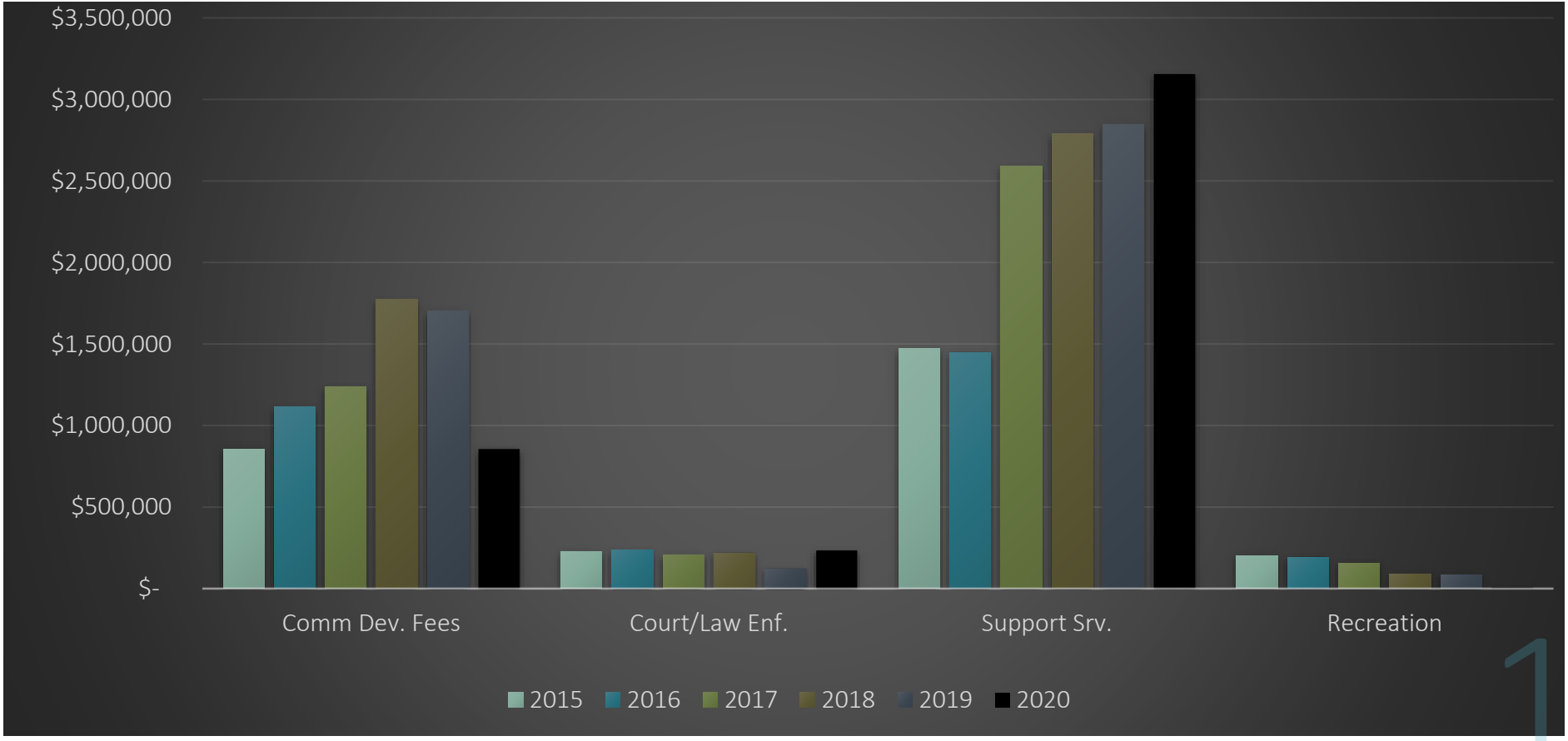


	2015	2016	2017	2018	2019	2020
Federal Grants	$5,046	$-	$735	$1,500	$2,149	$6,688
State Grants/Shared Rev.	$40,627	$48,916	$69,469	$51,988	$107,624	$57,945
PUD Priv. Tax	$187,023	$184,334	$184,308	$184,244	$182,277	$180,994
Liquor Revenue	$239,804	$281,939	$294,332	$304,623	$323,729	$339,306
Fire Premium Tax	$49,459	$50,025	$49,970	$52,134	$51,447	$61,790

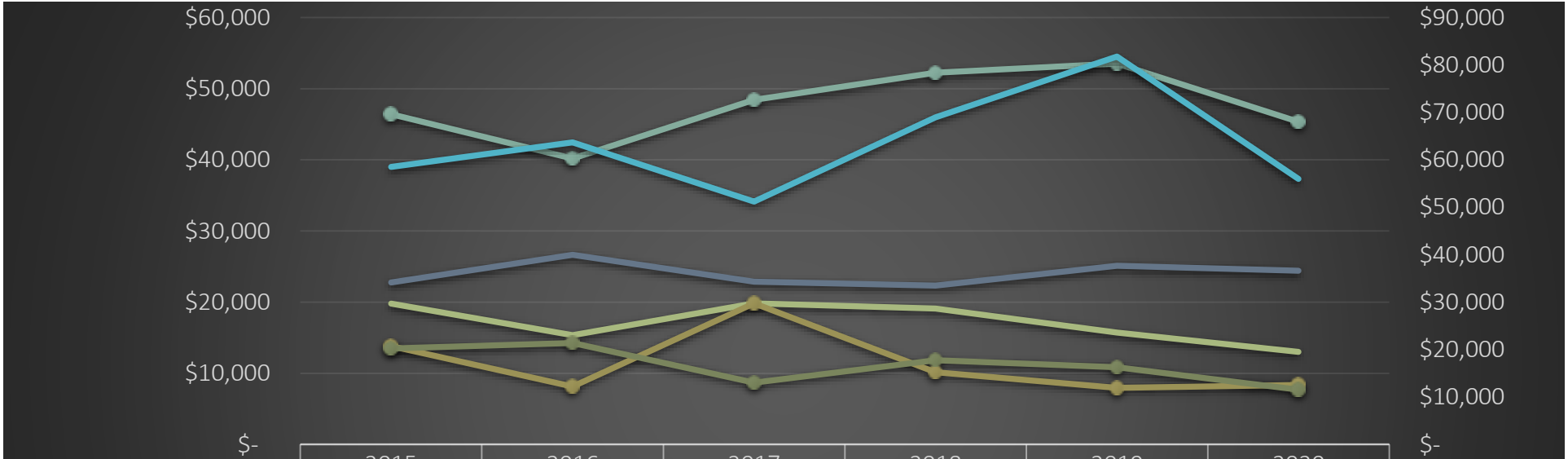
Intergovernmental

Federal grants will change with the Coronavirus Relief Fund

Charges for Services

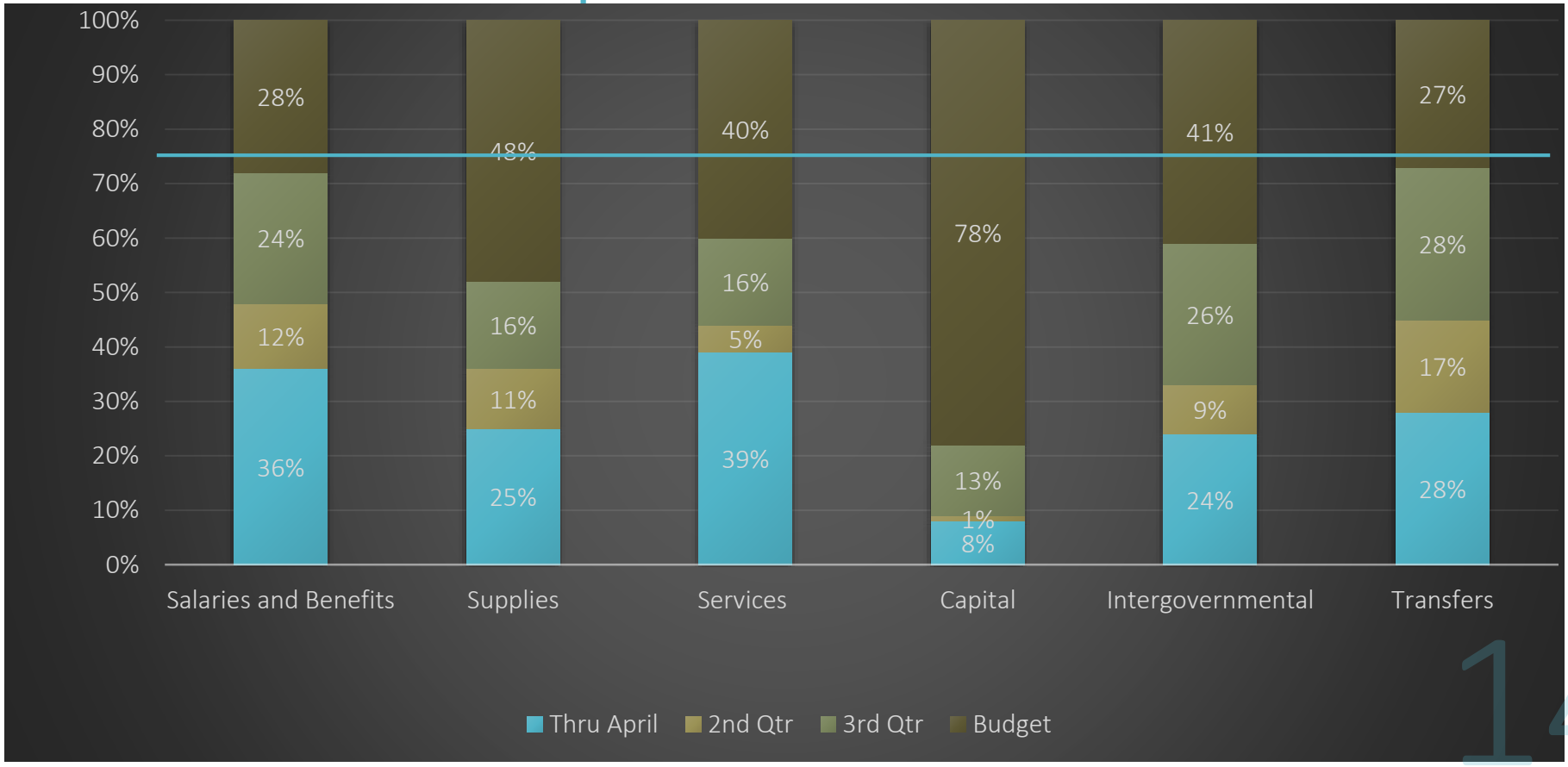


Fines and Forfeitures

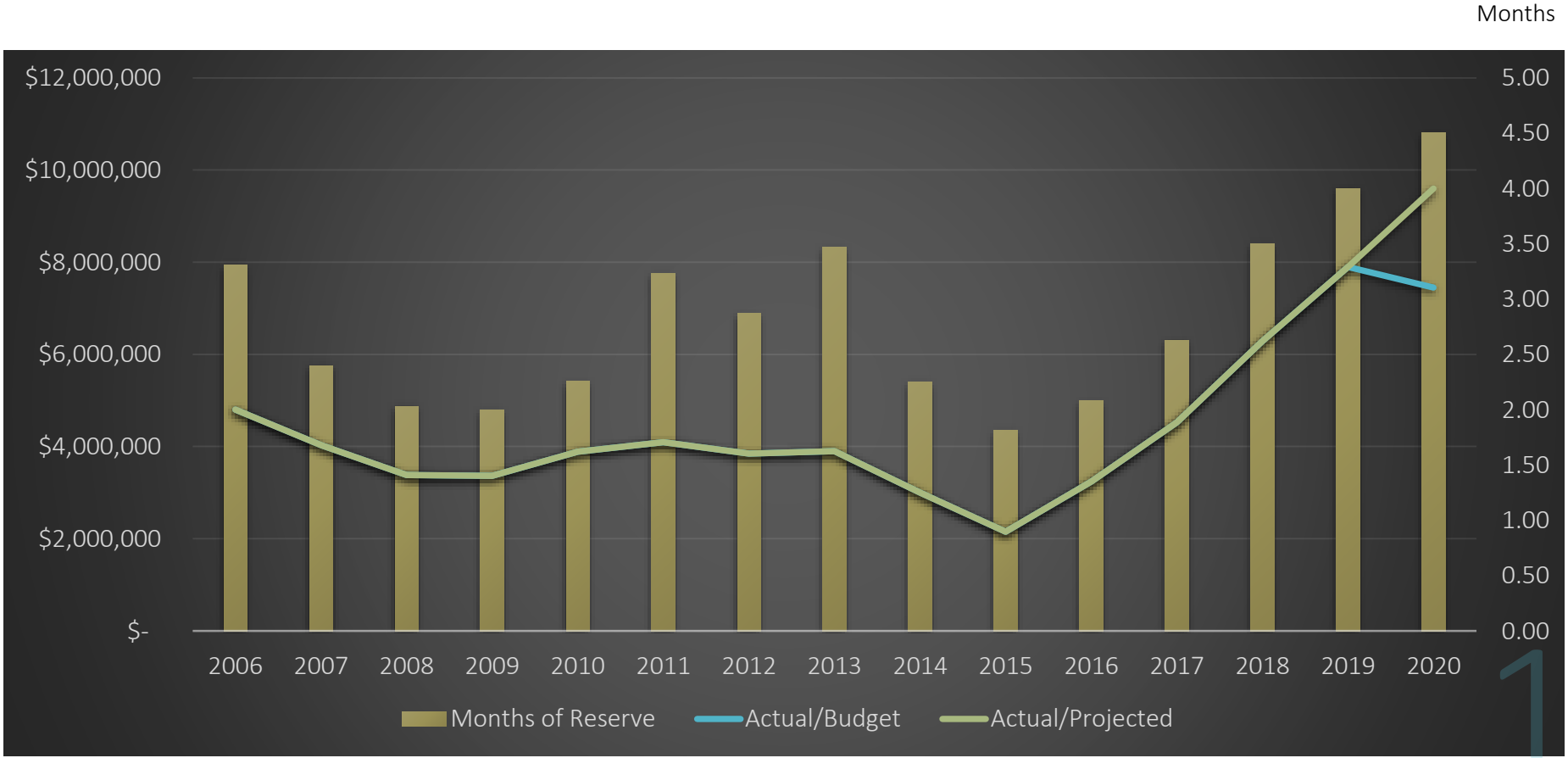


	2015	2016	2017	2018	2019	2020
Other Traffic	$19,800	$15,362	$19,822	$19,107	$15,728	$13,009
Non-Traffic	$13,799	$8,147	$19,822	$10,142	$7,947	$8,365
Parking Viol.	$22,760	$26,647	$22,889	$22,338	$25,098	$24,406
DWI	$13,473	$14,271	$8,675	$11,838	$10,850	$7,699
Crim Costs/EHM	$46,418	$40,183	$48,437	$52,233	$53,532	$45,338
Traffic Infractions	$58,530	$63,694	$51,218	$68,937	$81,749	$55,963

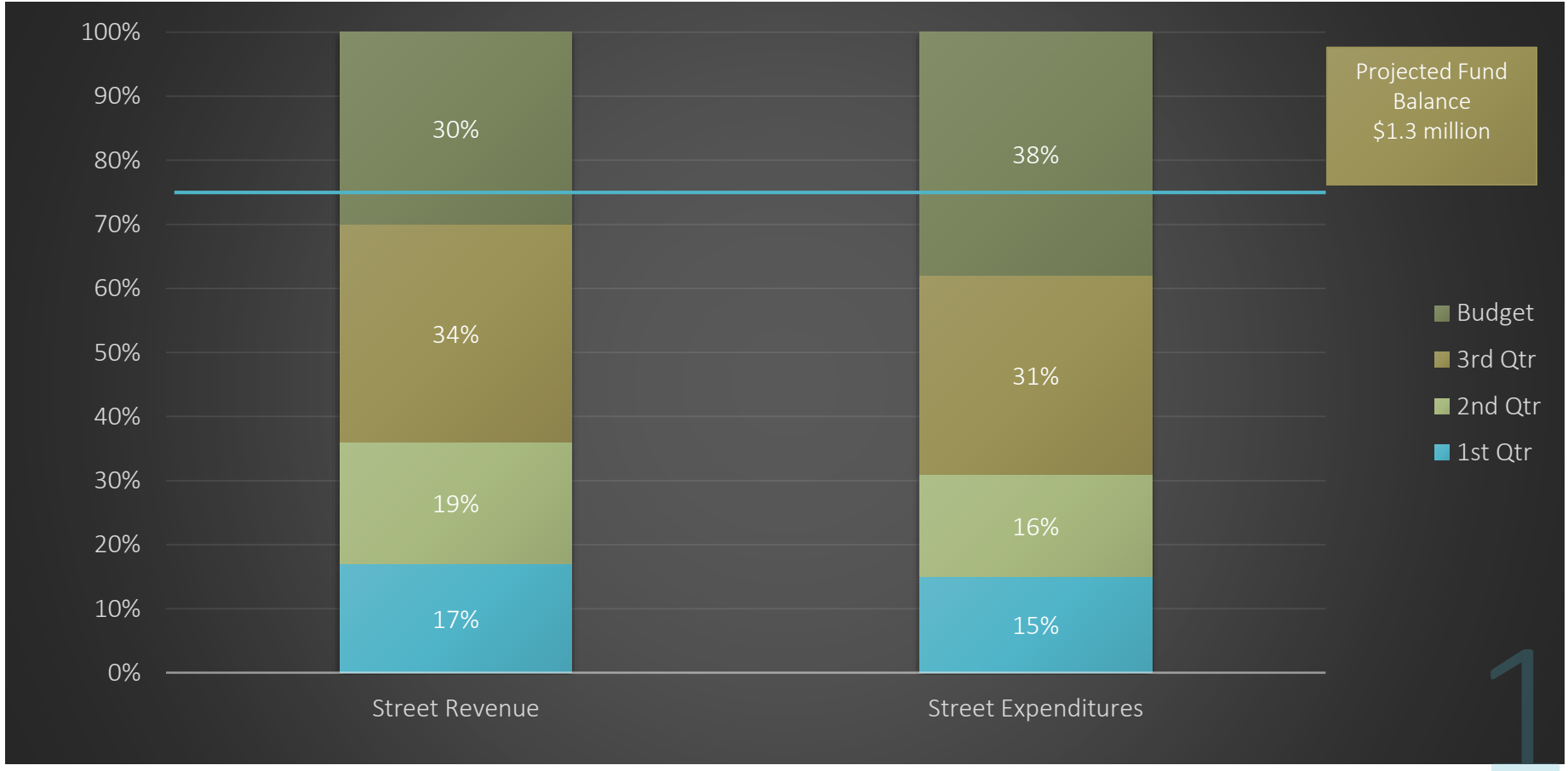
General Fund Expenditures



General Fund Balance



Streets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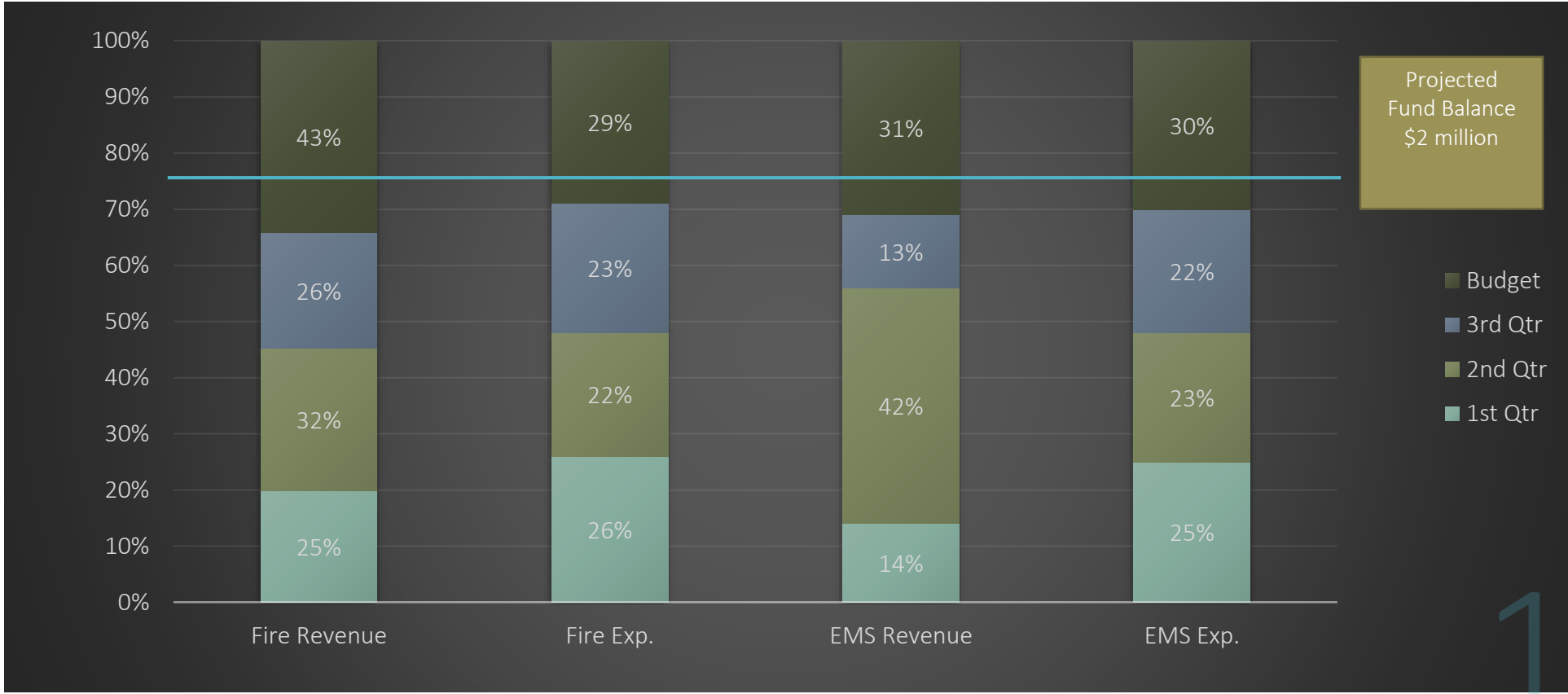
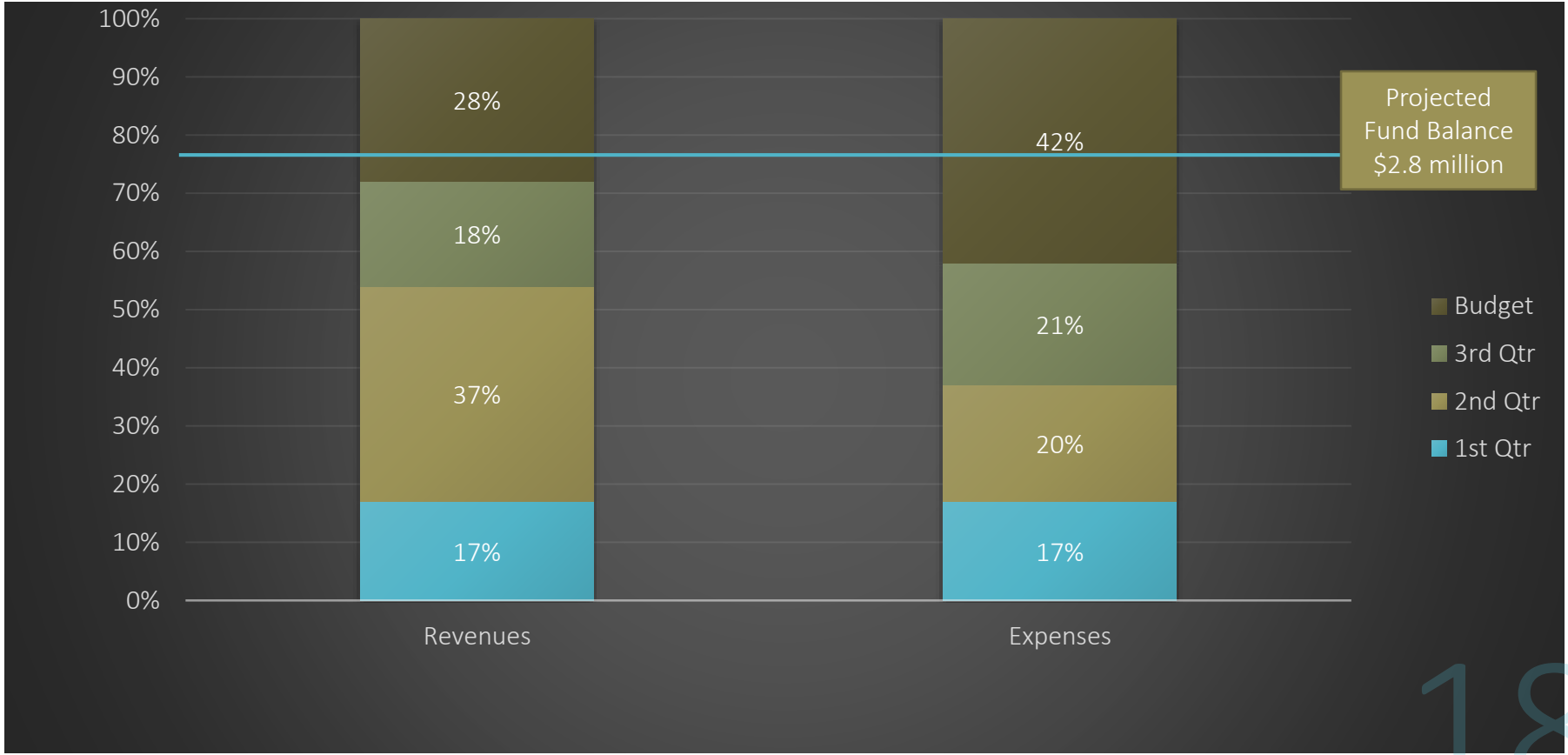
16%
15%
Projected Fund Balance $1.3 million
Budget
3rd Qtr
2nd Qtr
1st Qtr
Street Revenue
Street Expenditures

Camas/Washougal Fire and EMS



Storm Water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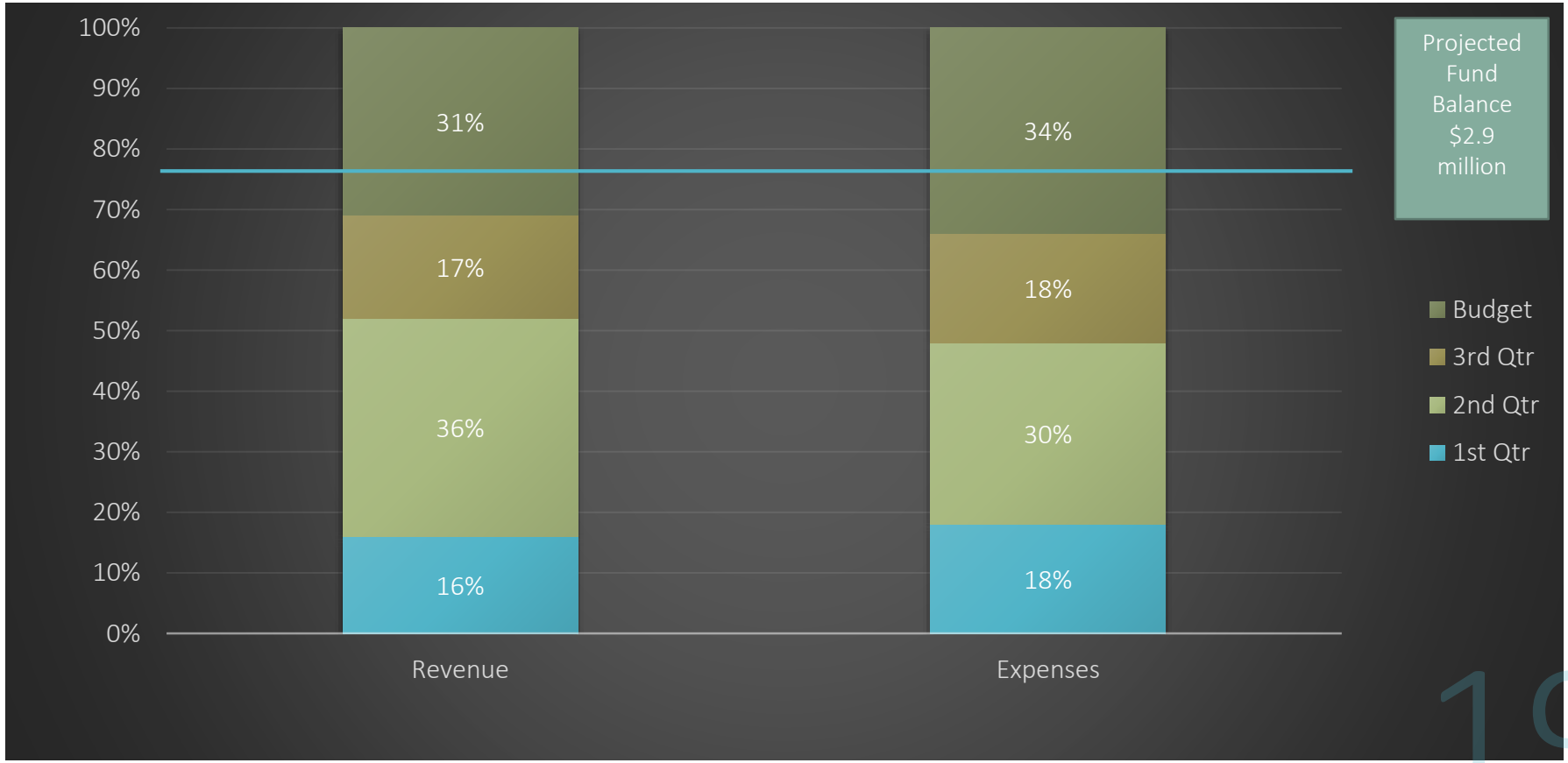
21%
20%
17%
Revenues
Expenses
Projected Fund Balance $2.8 million
Budget
3rd Qtr
2nd Qtr
1st Qtr

Solid Waste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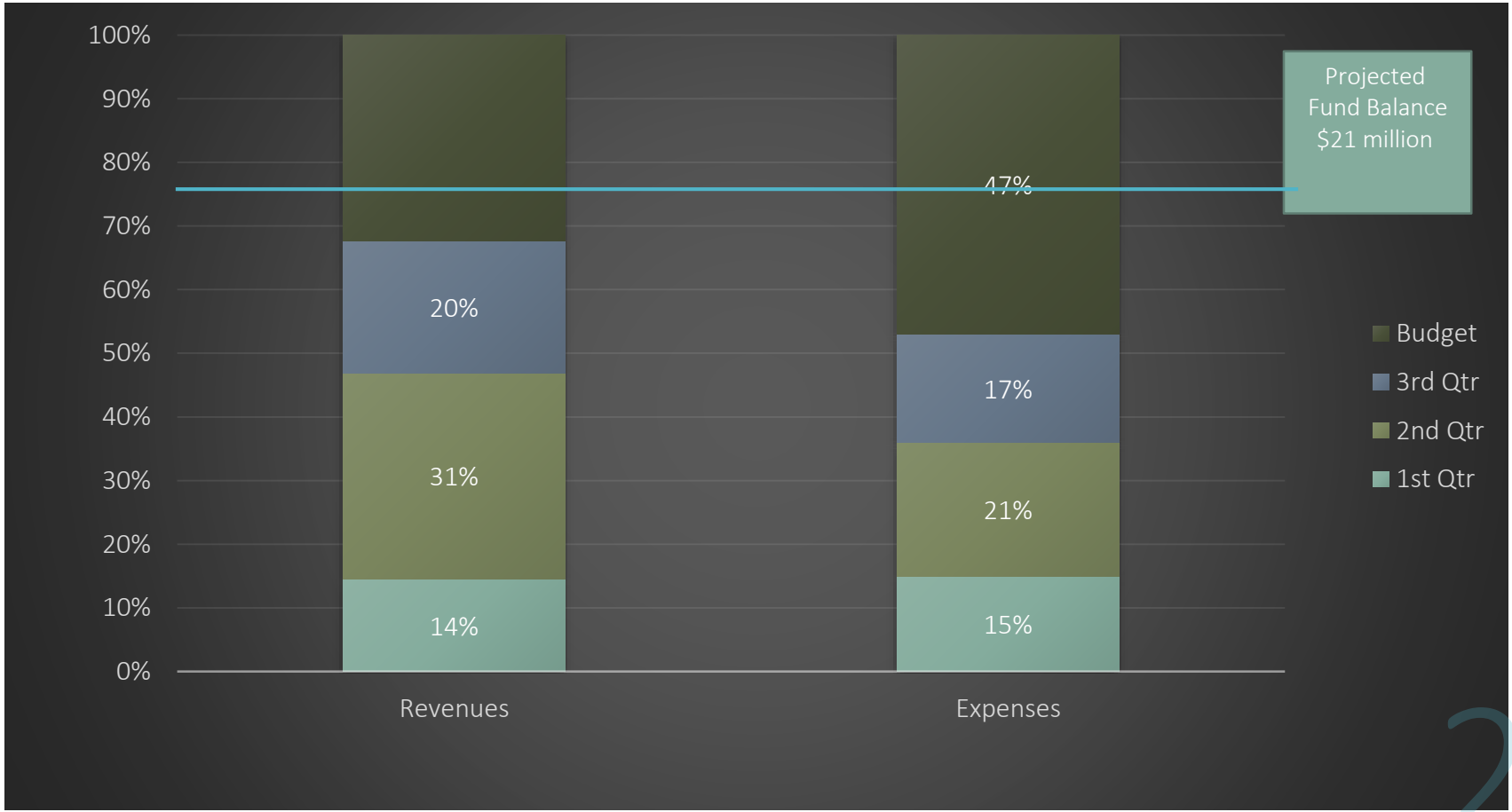
16%
34%
18%
30%
18%
Revenue
Expenses
Projected Fund Balance $2.9 million
Budget
3rd Qtr
2nd Qtr
1st Qtr

Water/Sewer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50%
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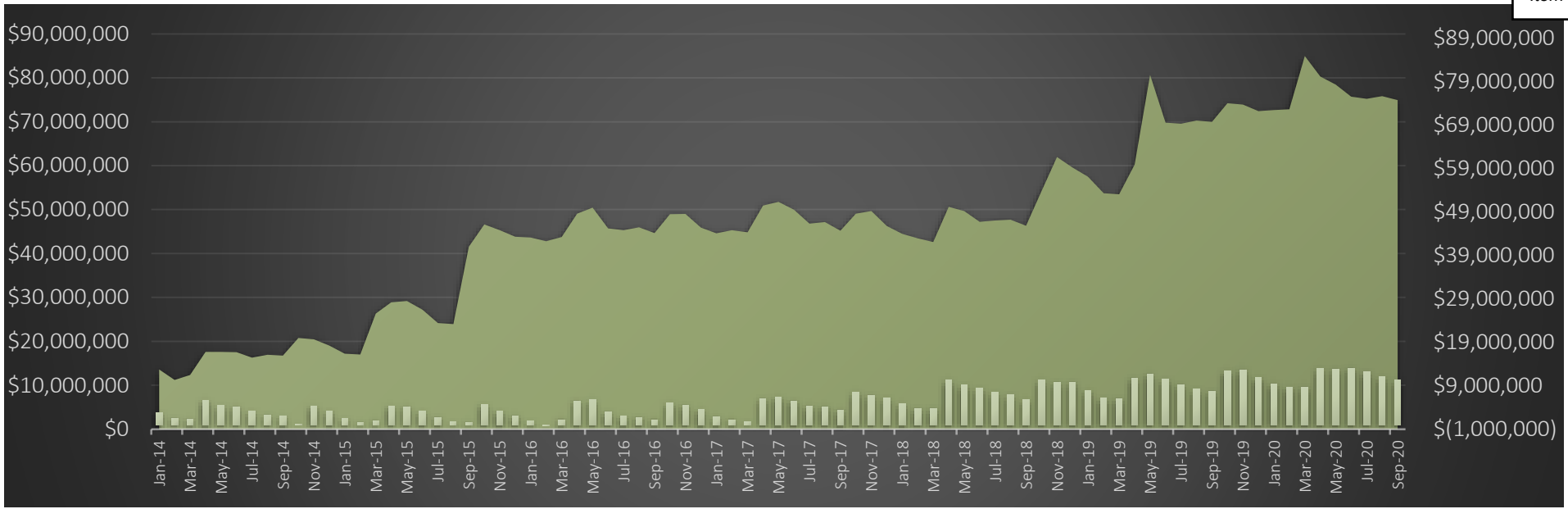
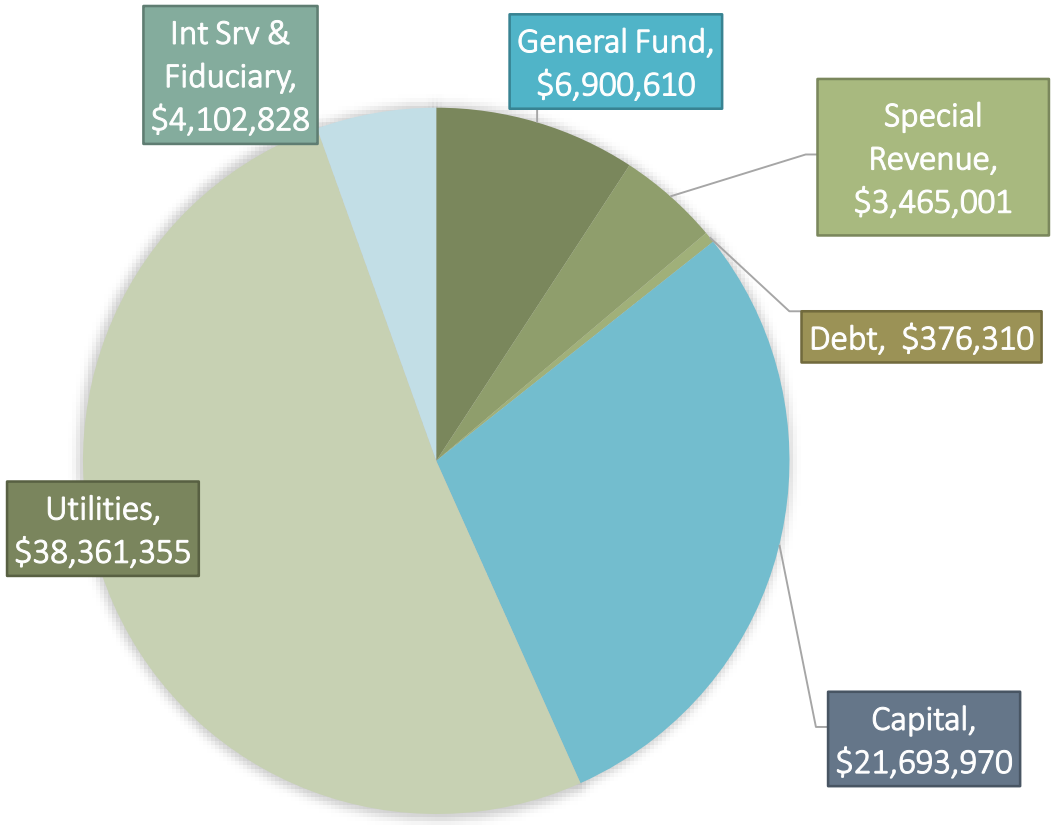
20%
10%
0%
Revenues
Expenses
20%
31%
14%
47%
17%
21%
15%
Projected Fund Balance $21 million
Budget
3rd Qtr
2nd Qtr
1st Qtr



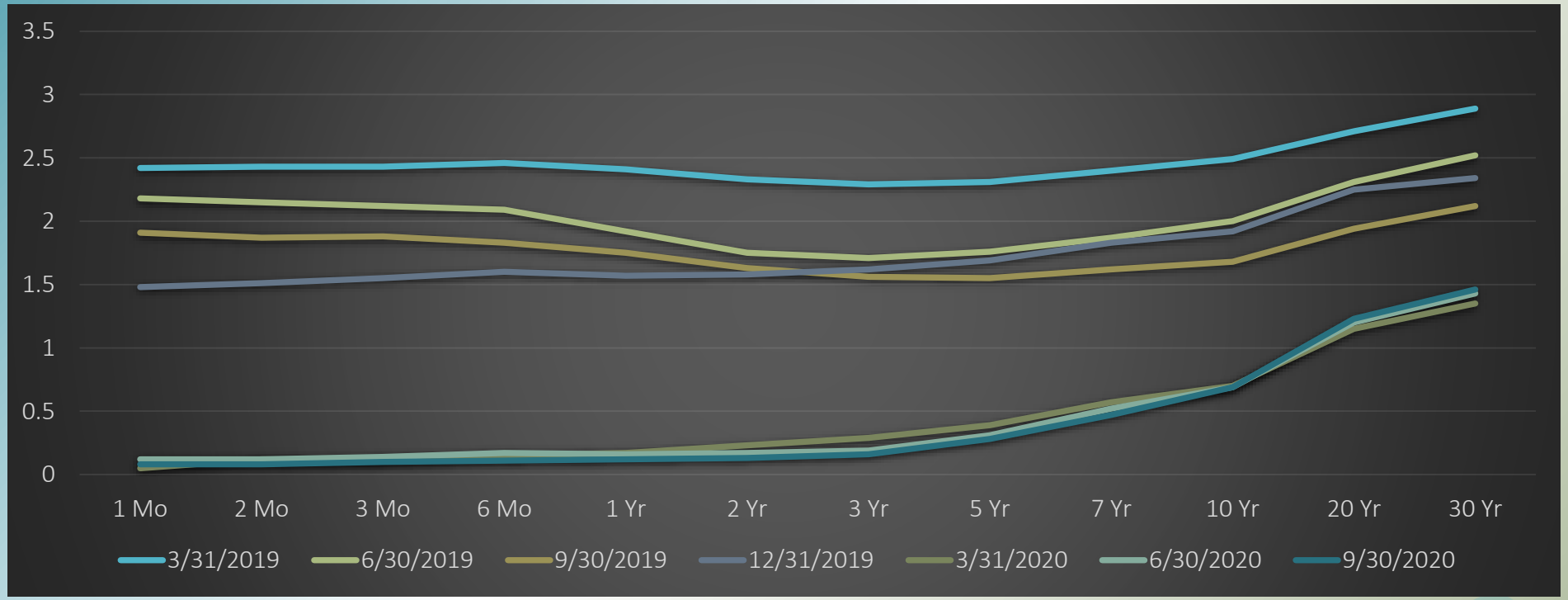
Cash and Cash Equivalent Assets



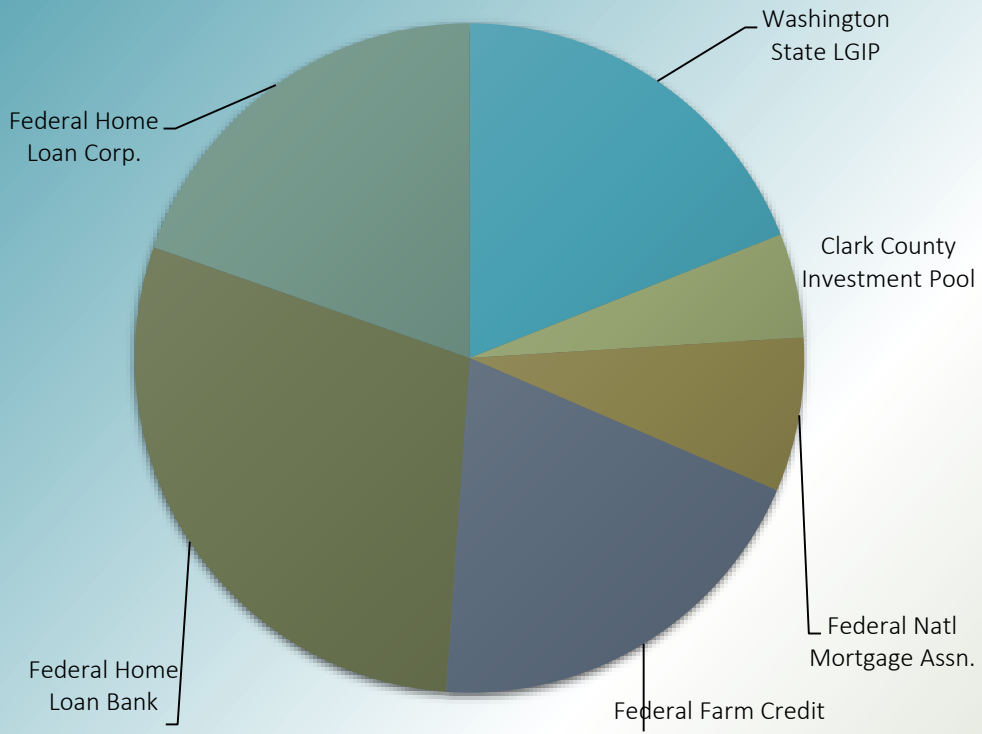
Fund Composition of Investment Portfolio

Investment Portfolio Balance

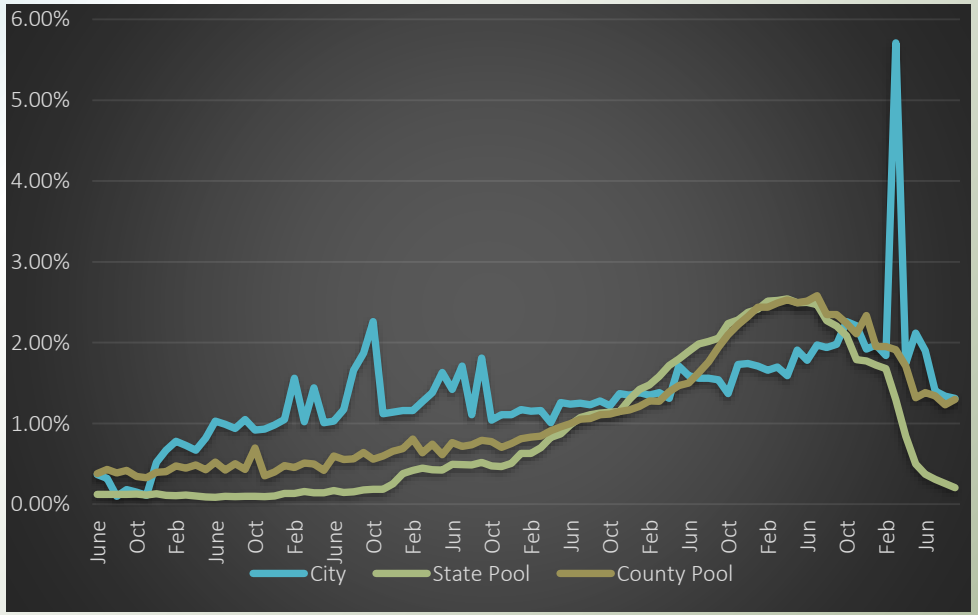
Yield Curve - Interest Rates



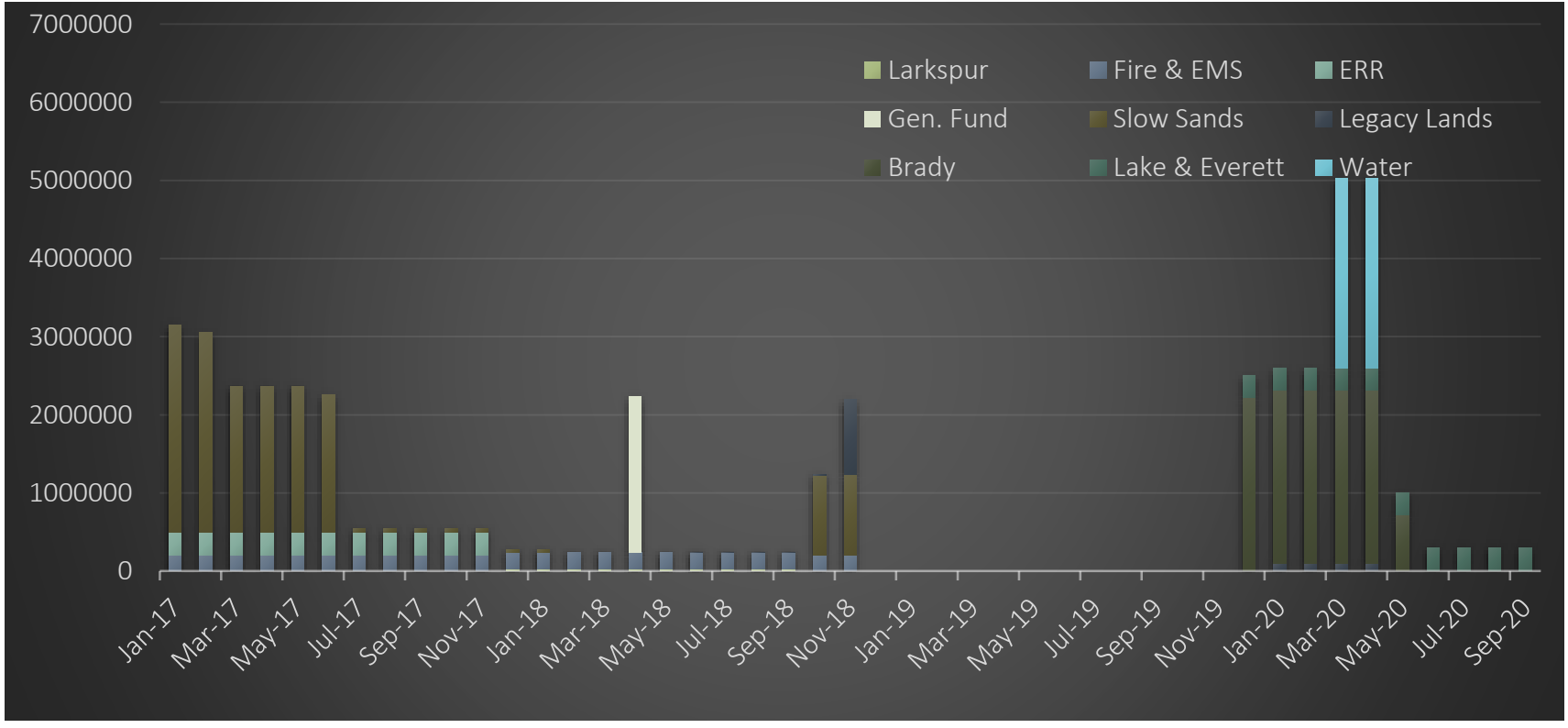
Investment Portfolio

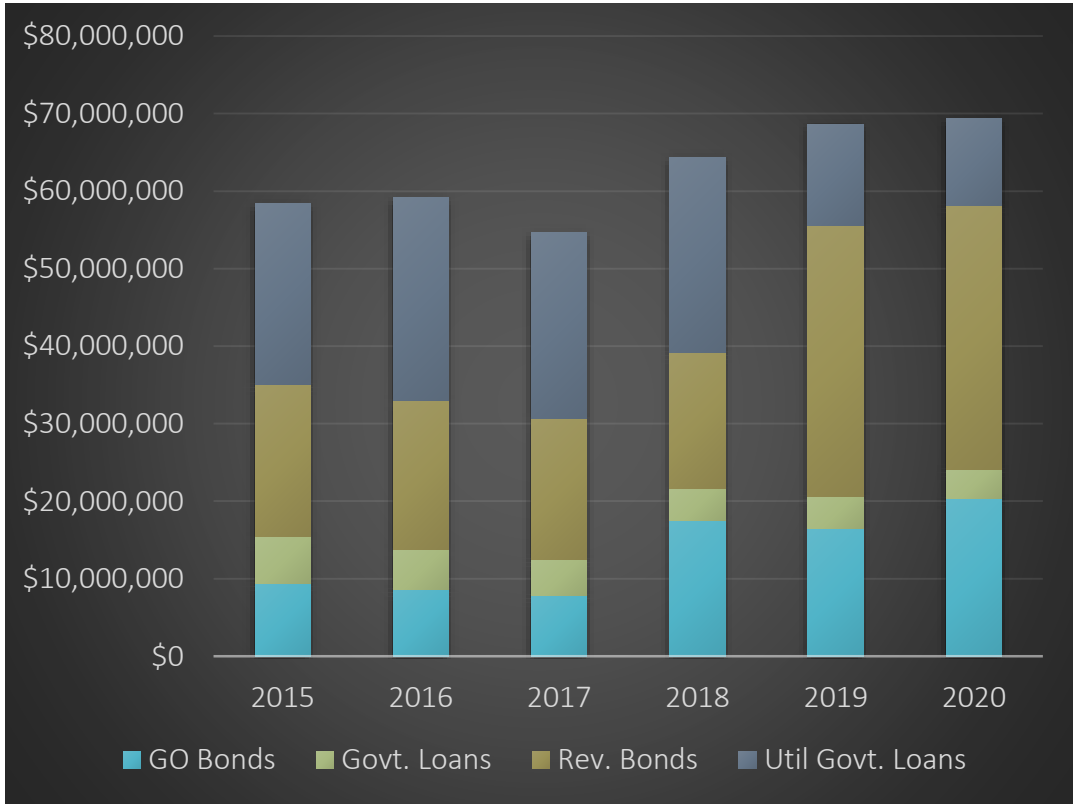


PORTFOLIO PERFORMANCE 2013-2020



Line of Credit





Debt Outstanding

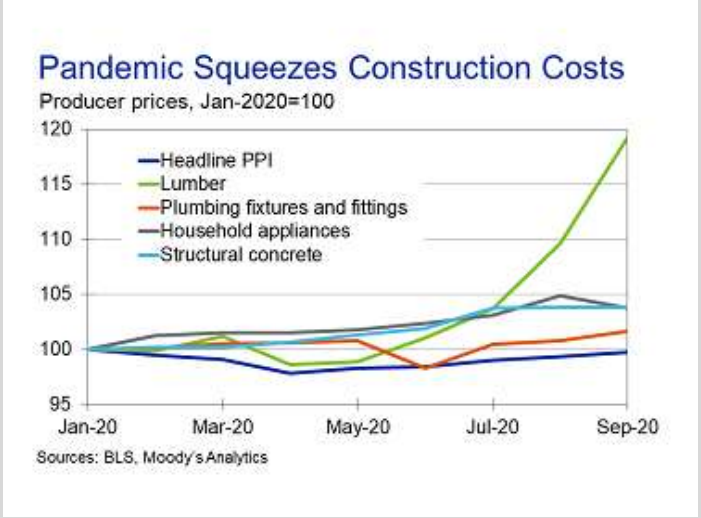
Projects Financed:

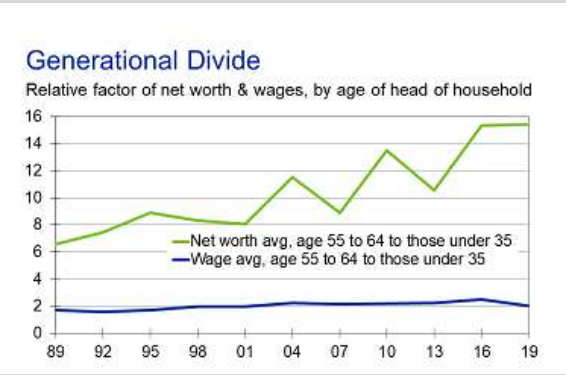
- 2015 LED Lights
- 6th and Norwood Roundabout
- Friberg/Strunk
- 38th Ave
- Parker
- Fire Truck
- Annex Building
- Sewer Transmission Main
- Lacamas Creek Pump Station
- 2018 Lake and Everett Roundabout
- 2019 Water Projects
- Legacy Lands
- Water Reservoir
- 2020 Legacy Lands

Final Debt Payments

- 2016 Water Transmission Line
- Parker Street
- 2017 Parker Street
- Sewer Treatment Plant
- 2018 Friberg/Strunk
- 2019 Ambulance
- Sewer Treatment Plant Upgrade
- 2020 Sewer Treatment Plant Upgrade
- Library Bond

Outlook





Unemployment rate improving but long way to go – employment is 10.7 million below Pre-COVID levels

Employment may take until 2023 to recover

Economic activity maybe moving sideways, the good news it is not moving downwards yet