



Adopted Budget

2021-2023



TUALATIN VALLEY
WATER DISTRICT

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TUALATIN VALLEY
WATER DISTRICT



OUR MISSION

To Provide Our Community Quality Water and Customer Service

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Dick Schmidt

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Chief Financial Officer

Paul Matthews

General Counsel

Clark Balfour

Human Resources Director

Amy Blue

Chief Engineer

Carrie Pak, P.E.

Water Supply Program Director

David Kraska, P.E.

Customer Service Manager

Andrew Carlstrom

Information Technology Services Director

Tim Boylan

TUALATIN VALLEY WATER DISTRICT

At a Glance...

The Tualatin Valley Water District (TVWD or the District) is the second largest water provider in the State of Oregon and is located in suburban Washington County, west of Portland. The District is organized as a domestic water supply district under Oregon Revised Statutes (ORS) 264, and governed by a five-member Board of Commissioners, elected to four-year terms by the District's voters. The Board of Commissioners, with help from management, sets our policies and procedures. Listed below are some key District statistics:

General Statistics

- Service territory: 45 square miles
- Estimated population: 217,800
- Service connections: 60,248
- Customer base: 95% single-family & multifamily residential; 5% commercial/industrial/fireline/irrigation
- Water sales (volume): 68% residential & multifamily; 30% commercial/industrial/government; 2% wholesale/wheeled water
- Percent of total water sales (volume) by ten largest customers: 13.84%
- Number of District employees: 132 full time as of June 30, 2021

Water System

- Average daily demand: 22.80 million gallons/day; 8.41 billion gallons/year in FY2021
- Peak consumption: 40.98 million gallons/day in FY2021
- 23 finished water reservoirs
- Capacity of reservoirs: 67 million gallons
- 12 pump stations
- Miles of pipeline: 758
- Sources of supply include water purchased from the Portland Water Bureau using the Bull Run Watershed & Columbia South Shore Wellfield, and the Joint Water Commission Hagg Lake, Barney Reservoir and directly from Tualatin River (during wintertime)
- Aquifer Storage & Recovery: 300 million gallons storage; 2.5 million gallons/day for peak-summer use

TVWD also:

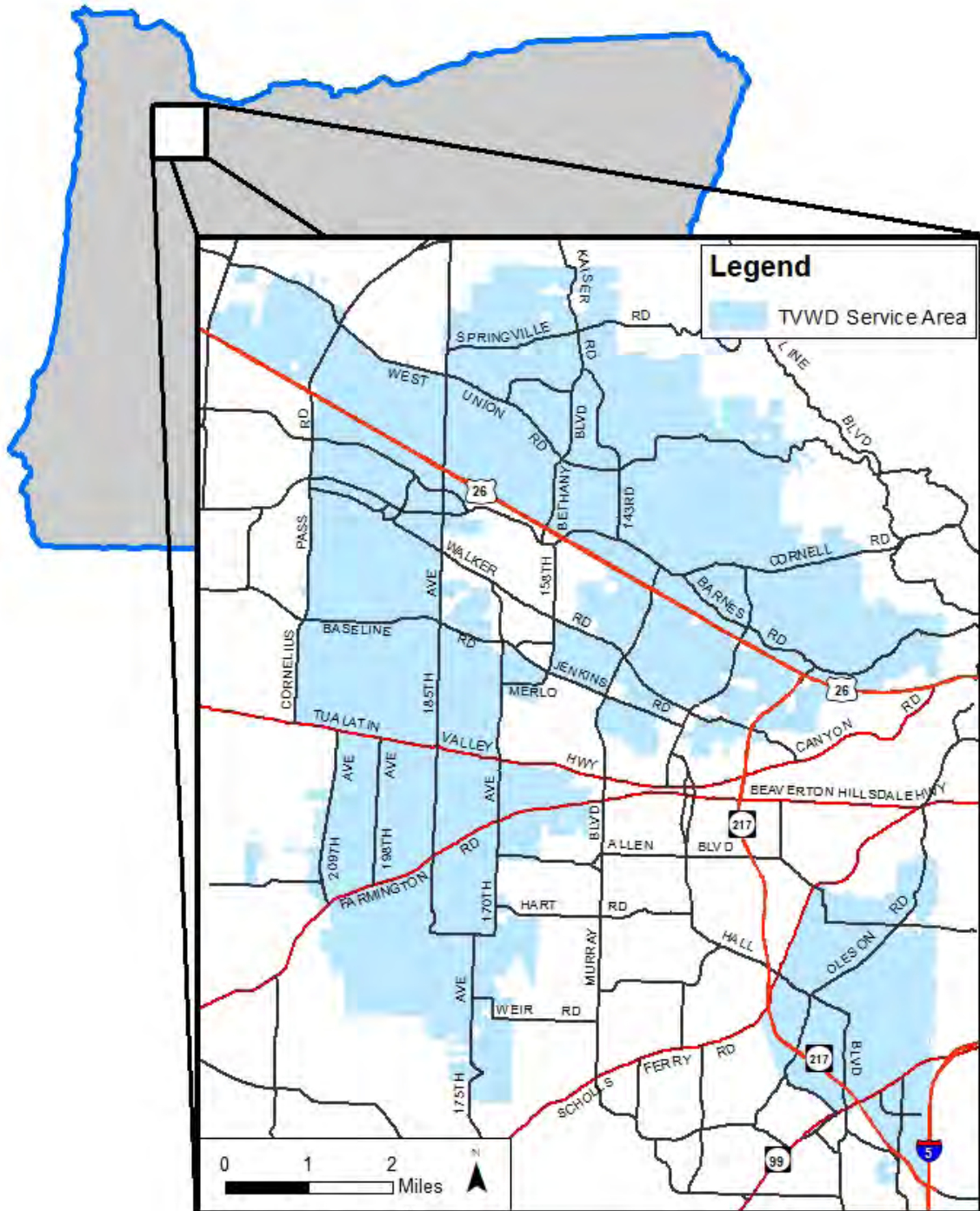
- Provides billing services to Clean Water Services, including sewer-only accounts (approximately 72,000 accounts)
- Provides meter reading and billing services to the City of Beaverton (approximately 21,600 accounts)
- Serves as the region's managing agency on the development of the Willamette Water Supply System Commission and Willamette Intake Facilities Commission

District Profile:

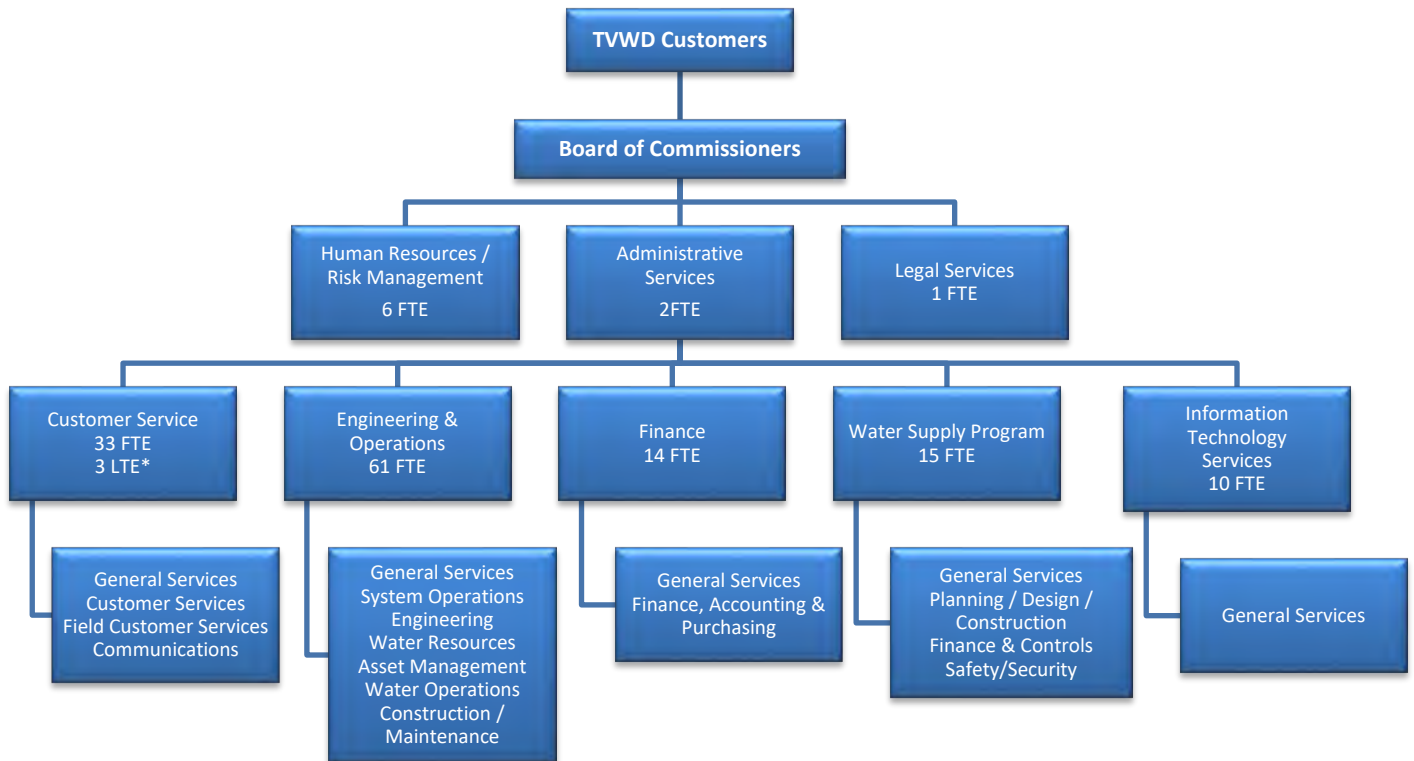
The District serves a significant portion of Washington County, Oregon. The county is the second largest in the state with an estimated 2020 population of 610,436, which represents an increase of approximately 1.4% annually over the past ten years. Customer growth (meter installations) for the District has grown from 58,117 in 2011 to 59,938 in 2020, or about 1.0% annually over the same ten-year period. Washington County also has the highest median household income in the state – \$85,665, compared to \$74,413 for Oregon and \$68,703 nationally. The District's service area is largely single-family, and multifamily residential, and is home to several large high-tech and food processing businesses, which have contributed significantly to the economy of the county. Other principal industries are agriculture, trade, healthcare, and business services. Nike's World Headquarters is located in the District, as are Reser's Fine Foods, Maxim Integrated Products, and an Intel facility. A light rail corridor running through the District which has a special zoning overlay for high-density

use. Future growth potential for TVWD's service area is expected to be in single-family housing, apartments, condominiums, and commercial development.

Service Area Map of the Tualatin Valley Water District Washington County, Oregon



**TUALATIN VALLEY WATER DISTRICT
ORGANIZATIONAL CHART
(Adopted 2021-23 Budget)**



* LTE – Limited-Term Employee

Contact Information

For additional information, please contact:

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Beaverton, OR 97003

DISTINGUISHED BUDGET PRESENTATION AWARD

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to the **Tualatin Valley Water District for its biennial budget for the period beginning July 1, 2019.**

In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communication device.

This award is valid for a period of two years only. We believe our current budget document continues to conform to program requirements, and we are submitting it to GFOA to determine its eligibility for another award.



GOVERNMENT FINANCE OFFICERS ASSOCIATION

Distinguished Budget Presentation Award

PRESENTED TO

Tualatin Valley Water District

Oregon

For the Biennium Beginning

July 1, 2019

Christopher P. Morill

Executive Director



TUALATIN VALLEY
WATER DISTRICT

TABLE OF CONTENTS

Preface – District Mission, Budget Committee Members, Management Staff Tualatin Valley Water District at a Glance, Service Area Map, Organizational Chart Government Finance Officers Association Distinguished Budget Presentation Award	
Section 1 – Table of Contents	1-1
Section 2 – Budget Message	2-1
Section 3 – User’s Guide	3-1
The Budgeting Process.....	3-3
Financial Policies.....	3-6
District Debt Limitation	3-9
Section 4 – Strategic Planning	4-1
Section 5 – Multi-Year Financial Outlook.....	5-1
Section 6 – Fund Summaries	
Fund Structure	6-1
Financial Position by Fund	6-2
All Funds Summary – Historic & Current.....	6-7
All Funds Summary – By Fund	6-9
Local Budget (LB) Forms	6-11
Section 7 – General Fund Resources and Expenditures	7-1
General Fund Departments and Divisions.....	7-3
General Fund Expenditures and Other Appropriations by Department	7-5
Personnel Services Historical and Budget Data.....	7-6
Section 8 – Non-Departmental	8-1
Section 9 – Administrative Services Department	9-1
Section 10 – Customer Service Department.....	10-1
Section 11 – Engineering & Operations Department	11-1
Section 12 – Finance Department.....	12-1
Section 13 – Water Supply Program Department	13-1
Section 14 – Information Technology Services Department	14-1

TABLE OF CONTENTS (Cont.)

Section 15– District Capital Improvement Plan (CIP).....15-1
 Capital Improvement Plan Overview.....15-1
 Biennial Budget for CIP by Category / Project.....15-9
 Six-year Summary CIP Planned Expenditures15-12
 Individual CIP Project Pages.....15-16

Section 16 – Willamette Water Supply System Fund16-1

Section 17 – Willamette Intake Facilities Fund.....17-1

Section 18 – Willamette River Water Coalition Fund18-1

Section 19 – Supplemental Information19-1
 Description of the Tualatin Valley Water District19-1
 Glossary19-6
 Acronyms and Abbreviations19-11

Tualatin Valley Water District



Delivering the Best Water  Service  Value

July 1, 2021

Members of the Board of Commissioners:

Bernice Bagnall, President
Jim Doane, P.E.
Jim Duggan, P.E.
Todd Sanders, PhD
Dick Schmidt

BUDGET MESSAGE

We are pleased to present the Adopted Biennial Budget for 2021-23 for the Tualatin Valley Water District (District or TVWD). The Budget Committee approved the budget unanimously on May 25, 2021 after holding a public hearing. Also, the Board of Commissioners adopted the budget unanimously on June 16, 2021 after holding a public hearing.

This budget message provides background information and highlights portions of the budget document to aid your review of the Adopted Budget. The budget message is organized into the following sections:

- Budget Process, Format, and Basis
- District Goals and Initiatives
- Financial Policies and Long-Term Planning
- 2021-23 Biennium Budget Summary
- Capital improvements plan for the District and the Willamette Water Supply Program¹
- Concluding Thoughts and Future Planning

As a special district and a water utility, TVWD's costs and planning efforts revolve around the imperative to provide high-quality water on demand to all residential and business customers within the District's service area. This 2021-23 Adopted Budget reflects alignment to the District's strategic planning efforts and the District's priority to build a long-term water supply in partnership with neighboring utilities to meet the projected water demands of both current and future TVWD customers and within the region.

¹ The Willamette Water Supply Program (WWSP) is a program management office (PMO) created by the District and its partners to deliver the Willamette Intake Facilities (WIF) and the Willamette Water Supply System (WWSS). The WIF and WWSS are joint ventures that will deliver treated drinking water to the District and its partners. The District is the managing agency for both joint ventures. More information on these joint ventures is included below in this budget message.

To deliver water to TVWD customers, the District maintains approximately 750 miles of pipe, ranging in size from 2 to 60 inches. Thirteen pumping stations are on-line to move water throughout the District. There are 23 finished water reservoirs with a combined storage capacity of 67 million gallons (MG). All pump stations and reservoirs have full telemetry control systems. The District's water system is monitored 24 hours a day, seven days a week. In addition to monitoring water flows and pressure, the District's state-of-the-art Supervisory Control and Data Acquisition (SCADA) system monitors several water-quality parameters and security systems.

The District's Board has long recognized the need to access water supplies from multiple sources. Currently, the District purchases about 77% of its water through a wholesale contract with the City of Portland. The remainder of the water needed by the District (about 23%) comes from the District's ownership share in the Joint Water Commission (JWC) and Barney Reservoir Joint Operating Commission (BJOC), and the District's aquifer storage and recovery (ASR) facility.

Maintaining a reliable and efficient water system is a major focus at TVWD. Capital improvement projects are planned and constructed throughout the year to meet current and future water needs, maintain a resilient infrastructure, and provide reliability by maintaining backup systems to reduce the risk of service interruptions. At any time, the District has a variety of these projects underway, including pipe upgrades, reservoir construction, and facility improvements.

In addition to the types of capital activities noted above, the District is engaged in a major infrastructure project to develop a new water source on the mid-Willamette River for the Tualatin Valley. This project is commonly referred to as the Willamette Water Supply Program (WWSP), and includes significant capital investments that are part of two new regional water entities.

1. Willamette Water Supply System (WWSS) Commission – The WWSS is a joint venture of the District and the cities of Beaverton and Hillsboro to construct and operate supply facilities that convey raw water from the intake facility on the Willamette River, treat the raw water to potable standards, and convey the potable water to each partner's distribution system. The District serves as the managing agency for the WWSS.
2. Willamette Intake Facilities (WIF) Commission – The WIF is a joint venture of the District and the cities of Beaverton, Hillsboro, Sherwood, Tigard, and Wilsonville to jointly own, operate, and construct improvements at the raw water intake facility located at the existing Willamette River Water Treatment Plant in Wilsonville. The District serves as the managing agency for the WIF.

The District also serves as the managing agency for another joint venture, the Willamette River Water Coalition (WRWC). The WRWC's partners include TVWD, and the cities of Sherwood, Tigard, and Tualatin. The primary charge of the WRWC is to develop and maintain water rights on the Willamette River for regional needs.

Taken together these three entities form the foundation of regional partnerships to build and maintain a long-term water supply. As TVWD's most important priority, this Adopted 2021-23 Budget includes resources to continue implementation of the Board's direction to develop the District's next increment of water supply on the Willamette River. With operations planned to begin in 2026, the WWSP continues to be a key theme for this and future budgets.

BUDGET PROCESS, FORMAT, AND BASIS

Management and staff prepare the District's budget guided by the Board's policy direction. Six departmental budgets are prepared by the department managers. These departmental budgets are reviewed by the District's Chief Executive Officer and Chief Financial Officer (who also serves as the District's Budget Officer). These operating budgets are combined with the non-departmental budget, the District's six-year Capital Improvement Plan (CIP), and the WWSP and its related funds, to create a consolidated budget request. The consolidated budget request is then analyzed for financial sufficiency using the District's long-term financial plan (Financial Plan) and reviewed again by the CEO, CFO/Budget Officer.

The District prepares a biennial budget as allowed by Oregon Local Budget Law, Oregon Revised Statutes (ORS), Chapter 294. This Adopted Budget covers the period from July 1, 2021 to June 30, 2023. The general format is to present the actual history for the last two completed biennial budgets, the revised budget for the prior biennium, and the Adopted 2021-23 Budget for this biennium.

The Adopted 2021-23 Budget has the same fund structure as the Adopted 2019-21 Budget. This fund structure reflects the District's role as a service provider to TVWD's customers and as the managing agency for the various joint ventures related to the new Willamette water supply. The fund structure for the Adopted 2021-23 Budget consists of:

- General Fund (01): Accounts for the administration, operations, and maintenance activity of the District. All District staff are budgeted in this fund.
- Capital Improvement Fund (11): Accounts for the resources and expenditures used for acquisition or construction of major capital facilities.
- Capital Reserve Fund (18): Holds resources for current and future capital improvement and water supply projects.
- Debt Proceeds Fund (22): Holds proceeds from the District's debt issuances, including revenue bonds, WIFIA loan proceeds, and other types of borrowings.
- Revenue Bond Debt Service Fund (31): Accounts for repayment of principal and interest on the District's revenue bonds.
- Willamette River Water Coalition Fund - WRWC (41): Joint venture fund that accounts for the activities of the WRWC which TVWD serves as the managing agency.
- Customer Emergency Assistance Fund (43): Accounts for the resources, administration, and customer assistance to those customers who qualify for emergency assistance.
- Willamette Intake Facilities Fund - WIF (44): Joint venture fund that accounts for the activities of the WIF Commission which TVWD serves as the managing agency.
- Willamette Water Supply System Fund - WWSS (45): Joint venture fund that accounts for the activities of the WWSS Commission which TVWD serves as the managing agency.

More information about the District's funds and fund structure can be found in *Section 6 Fund Summaries*.

The public process for the District's biennial budget begins when the "Proposed Budget" is presented to the Budget Committee, by fund, for consideration, public comment, and approval. The budget, as approved by the Budget Committee, is then presented to the Board of Commissioners who conducts a separate public hearing, makes revisions if necessary, and adopts the budget and sets appropriations by resolution.

In accordance with Oregon Local Budget Law, the resolution authorizing budget appropriations is adopted by fund for the budget period in the categories of:

- Personnel Services,
- Materials & Services,
- Capital Outlay,
- Debt Service,
- Special Payments,
- Interfund Transfers, and
- General Operating Contingency.

The budget process, including a description of Oregon Local Budget Law, is presented in greater detail in *Section 3 User's Guide*.

The District reports costs as a single enterprise. For financial reporting purposes, financial statements are presented on a full accrual basis of accounting. In this method, revenues are recorded when earned, and expenses are recorded at the time liabilities are incurred regardless of the timing of related cash inflows and outflows.

The District's budget is prepared using the modified accrual basis of accounting. Under the modified accrual basis of accounting, revenues are recognized as soon as they are both measurable and available. Measurable means the amount of the transaction can be determined and revenues are considered available when they are collected within the current period or expected to be collected soon enough thereafter to be used to pay liabilities of the current period. Debt service is budgeted on a cash basis to provide the reader complete information pertaining to the District's outstanding long-term debt obligations.

Under the definition of Oregon Local Budget Law, the Adopted 2021-23 Budget is balanced, meaning the resources in each fund are equal to the expenditures and other requirements in that fund.

PRINCIPAL ISSUES FACING THE DISTRICT

Like most water utilities, the District has faced new and unprecedented challenges during the COVID-19 pandemic. These challenges have occurred as the District continues to focus on its key priorities of building the WWSS and WIF and deploying a new Customer Information System.

The pandemic affected the District's water sales and collections. During these unprecedented times, the District suspended its long-held practice of shutting off water service to customers who fail to pay their water bills. This suspension has increased the arrearages for many customers. As a result, the District increased its allowance for doubtful accounts during the 2019-21 biennium from approximately \$250,000 to \$750,000. The District also increased its accrual of bad debt expense from approximately 0.15% of water sales revenue to 0.85%. This increase in bad debt expense is estimated to maintain an adequate allowance for doubtful accounts as the District and its customers adjust to economic consequences of the pandemic.

In addition to the challenges with collections, the pandemic reduced the District's water sales revenue during the biennium. This reduction was especially pronounced for the District's commercial and irrigation customers. The District updated its Financial Plan to account for the increases in bad debt expense and decreases in water sales revenue. For more information see *Section 5, Multi-Year Financial Outlook*, especially pages 5-3 and 5-4. These new assumptions in the District's Financial Plan, including the appropriations of this biennial budget, resulted in a Financial Plan that included higher increases in water rates than had previously been forecast.

BUDGETING FOR WIFIA AND DEBT ISSUANCE

On August 2, 2019, the District closed a long-term loan with an interest rate of 2.39% with the US Environmental Protection Agency (EPA) to help finance the District's investment in the WWSS and WIF. This loan was part of the EPA's Water Infrastructure Finance and Innovation Act (WIFIA) program. The WIFIA program is a federal loan and guarantee program that aims to accelerate investment in the nation's water infrastructure by providing credit assistance for regionally and nationally significant projects.

Interest rates declined after the initial WIFIA loan closed. To realize these interest savings, the District requested to re-execute its WIFIA loan in the spring of 2020. That re-execution of the District's WIFIA loan closed on September 15, 2020 at an interest rate of 1.35%. The District and the EPA estimated that the initial WIFIA loan saved the District's customers approximately \$138.4 million. When the WIFIA loan was re-executed with the lower interest rate of 1.35%, the District and the EPA estimated additional savings for the District's customers of approximately \$122.0 million.

The District's WIFIA loan is expected to fund up to 49% of the WWSS and WIF project costs. Key benefits of the WIFIA loan program include flexible terms, a low interest rate that is fixed at closing, and the ability to defer repayment, as well as make penalty-free prepayments.

The Adopted 2021-23 Budget includes estimated draws on the WIFIA loan of \$226.5 million. These draws will be the District's first draws on its WIFIA loan.

The District has no plans to issue revenue bonds during this biennium. Rather than issuing revenue bonds during the biennium, the District plans to rely on its WIFIA draws, cash from operations, revenue from system development charges, and accumulated reserves. However, the District may accelerate its plan to issue revenue bonds depending on interest rates and other factors that could create a favorable financing strategy. The District has authority to issue revenue bonds under its existing Bond Ordinance and Master Declaration. For more information on the District's financing plans see *Section 5 - Multi-Year Financial Outlook*.

STRATEGIC PLANNING AND KEY INITIATIVES

The District's vision, mission and values are shown below.

<p style="text-align: center;"><i>TVWD Vision</i> Delivering the Best Water ♦ Service ♦ Value</p> <p style="text-align: center;"><i>TVWD Mission</i> To Provide Our Community Quality Water and Customer Service</p> <p style="text-align: center;"><i>TVWD Values</i> Reliability ♦ Integrity ♦ Stewardship ♦ Excellence ♦ Safety</p>

In 2012, the Board adopted a set of desired results to reinforce its policy objectives and decision-making. TVWD's desired results are what other organizations might call organizational goals. The District refers to these as desired results to emphasize the District's focus more on the results of actions than the actions themselves. These desired results stem from the District's vision, mission and values and summarize what the District's Board and staff seek to accomplish.

TUALATIN VALLEY WATER DISTRICT DESIRED RESULTS

1. The Water Supply Meets Community Needs and Expectations
2. The Community Is Confident in Our Water, Service, and Employees
3. We Are Good Stewards of Our Financial Resources
4. We Are Good Stewards of Natural Resources
5. We Are Good Stewards of Our Own Assets and Resources (People & Physical Assets)

With the desired results in mind, the District’s leadership starts each budget development cycle by updating the District’s strategic plan. This strategic planning process forms the basis for setting the District’s upcoming biennium budget priorities and recommended resource allocations. The District’s strategic planning process is discussed more fully in *Section 4 – Strategic Planning & Performance Measures*. Below is a discussion of the District’s initiatives for the 2021-23 biennium.

2021-23 District Initiatives

Mission, Vision, and Values
<ul style="list-style-type: none"> ➤ Refine/update mission, vision, and values ➤ Integrate DiSC training into District’s culture ➤ Implement DEI initiative
Conduct Classification/Compensation Study
<ul style="list-style-type: none"> ➤ Conduct a classification and compensation study
Governmental Affairs
<ul style="list-style-type: none"> ➤ Implement Governmental Affairs Strategy ➤ Reorganize Communications ➤ Implement new survey protocols
Business Decision Data
<ul style="list-style-type: none"> ➤ Develop data warehouse ➤ Implement dashboarding ➤ Develop data-informed processes
Modernization
<ul style="list-style-type: none"> ➤ Develop an AMI Strategy and Implementation Plan ➤ Develop/Implement Project Management Center ➤ Develop/mature asset management
Existing Initiatives
<ul style="list-style-type: none"> ➤ Implement WWSS and WIF ➤ Develop plan for the wind-down of the PMO ➤ Implement CIS ➤ Invest in critical infrastructure ➤ Complete TVWD branding strategy ➤ Decommission on-premises SharePoint

The District’s desired results and the initiatives that align with them are presented on the following pages.

Supports: Desired Result 1 - *The Water Supply meets Community Needs and Expectations*

As noted above, the planning, design and construction of a new water supply is considered an integral element of the District's core mission. TVWD is implementing an expansion of its existing portfolio of water

sources through participation in the WWSP, which was established to develop and deliver the WWSS and WIF to the District and its partners by 2026.

When complete, the WWSS will consist of a new state-of-the-art water treatment plant, two fifteen million-gallon reservoirs, and over thirty miles of seismically resilient large diameter pipeline. It is a once-in-a-generation project intended to meet the long-term water demands for residential, commercial, and industrial customers of the District and its partners. The WWSS partners include the District and the cities of Beaverton and Hillsboro.

The WIF is a smaller effort than the WWSS, however, it includes more partners. The WIF owns, operates, and maintains the intake facilities at the existing Willamette River Water Treatment Plant in Wilsonville. This water treatment plant currently serves the cities of Sherwood and Wilsonville. The intake facilities will be upgraded and seismically hardened to serve both the existing Willamette River Water Treatment Plant and the planned WWSS water treatment plant. WIF partners include the District, and the cities of Beaverton, Hillsboro, Sherwood, Tigard, and Wilsonville.

The WIF Commission was established by an intergovernmental agreement (IGA) in April 2018, and the District's Board of Commissioners approved a supplemental budget to create a new Willamette Intake Facilities Fund (Fund 44). The WWSS Commission was also established by an IGA effective July 1, 2019. The WWSS' activities are accounted for in its own WWSS fund (Fund 45). Both the WIF Commission and the WWSS Commission have workplans that establish their budgets for the fiscal year ending June 30, 2022.

The District serves as managing agency to both the WWSS and WIF, which are governed by TVWD and its partners. District staff for both entities is budgeted in the General Fund (Fund 01) within the *Water Supply Program Department* found in Section 13. Labor and overhead expenditures are reimbursed to the General Fund as staff charges time to the WWSS and WIF operating and capital projects.

While planning, design, and construction of the WIF and WWSS will continue for the next several years, the District is already planning for the operations of the new Willamette supply. An interdisciplinary team from both the District and its partners representing operations, water quality, asset management, risk management, and finance have been meeting to undertake and update a needs assessment and build the foundation for the eventual operation of WWSS.

As the managing agency, TVWD includes all WWSS and WIF expenditures in the two funds. Both the District's and partners' shares are recognized as contributed capital and contract reimbursements, depending on the type of expenditure. The District and its partners record their investments in the WWSS and WIF as investments in joint ventures.

In addition, TVWD's share of the WWSS and WIF capital expenditures are budgeted as Capital Outlay in the District's Capital Improvement Fund (Fund 11). This budgeting method is necessary to allow the District to pay for its share of the WWSS and WIF projects, while at the same time serve as the managing agency to record and maintain all partnership shares in the separate WWSS and WIF funds.

Supports: Desired Result 2 - *The Community is Confident in our Water, Service, and Employees*

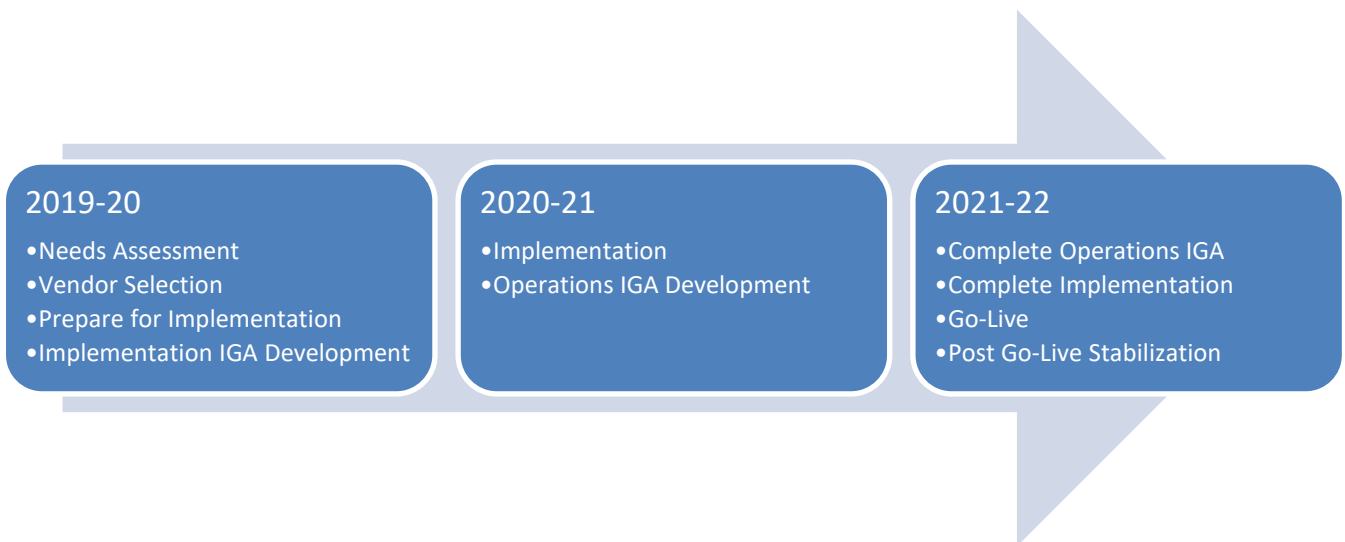
Develop and Implement a Customer Information System (CIS)

The District currently relies on an in-house developed utility billing (UB) system to prepare and manage customer billings. The District performed the last major upgrade to this system in 2007. In addition to billing for water services, the District uses this UB system for billing sanitary sewer and surface water management services under intergovernmental agreements with Clean Water Services and the City of Beaverton.

The District’s 2015 Information Technology Master Plan identified the current UB system as requiring significant ongoing maintenance and development costs. As technologies have evolved, utilities like the District have benefited from implementing commercial-off-the-shelf solutions for utility billing. Moreover, current technology trends have integrated additional customer care functions directly into the billing software and offer what the market generally refers to as a Customer Information System (CIS). These integrated CIS solutions include the functionality that the current UB system provides with the additional functionality of a customer-centered information system, and an improved ability to integrate with financial management and computerized maintenance management systems.

In the 2017-19 biennium the District developed a CIS replacement strategy. Significant efforts and progress were made on the project during the 2019-21 biennium. The project is now at a critical stage of the implementation which will continue into the 2021-23 biennium. In the Capital Improvement Plan, for the 2021-23 biennium the District has budgeted a total of \$6.6 million for the project. Costs include items such as CIS application software, hardware and licensing, project management and implementation services, testing, training, integration with other District systems, and internal staff costs. The District has a current cost-sharing agreement with Clean Water Services.

As shown in the figure below, the District expects to complete the CIS implementation project during the 2021-23 biennium. “Go live” of the core CIS is expected to be completed during the first year of the 2021-23 biennium.



Supports: Desired Result 3 – We are Good Stewards of Our Financial Resources

As described above, the District secured WIFIA loans to fund a large portion of the Willamette supply project at a significant savings to ratepayers. After securing its initial WIFIA loan,

with an interest rate of 2.39%, the District requested to re-execute the loan at a lower interest rate. By re-executing its WIFIA loan, the District was able to lower its WIFIA loan interest rate from 2.39% to 1.35%. The re-execution will save District customers an estimated \$122.0 million in financing costs over the life of the loan. These savings are in addition to the savings from the initial WIFIA loan, which were estimated to be \$138.4 million over the life of the loan.²

Another key stewardship strategy of the District is to achieve economies of scale by securing partners for both the WWSS and WIF. In total, the Adopted 2021-23 Budget includes \$454.9 million in operating and capital appropriation for the WWSS. Hillsboro's and Beaverton's shares combined are \$211.6 million and the District's share is \$243.3 million. For the WIF, the Adopted 2021-23 Budget includes \$7.7 million in operating and capital appropriation with the partner's share \$4.2 million and the District's share \$3.5 million. More information on the WWSP and its projects is provided in *Section 16 Willamette Water Supply System* and *Section 17 Willamette Intake Facilities*. The District's share of these projects is also included in *Section 15 Capital Improvement Plan*.

The WWSP website (<http://www.ourreliablewater.org/>) provides additional information on the WWSP including its history, project maps, current activities to-date, a schedule of upcoming events and other relevant information.

Supports: Desired Result 5 – We are Good Stewards of our own Assets and Resources (People & Physical Assets)

District Resiliency Program and Human Capital Strategy

Two other District initiatives are directed towards resiliency of District assets and operations, and resiliency of TWVD's workforce. On the human capital side, staffing at the District has changed significantly in recent years due to retirements and the realignment of duties to reflect changing work requirements brought on by new technology and commitments such as the WWSP. To address these challenges, proactively managing staffing requirements remains a District priority.

The Adopted 2021-23 Budget includes resources to conduct a classification/compensation study of the District. The goals for this study include:

1. Reviewing the structure of the District's classifications and grades. TWVD's current classification/grade structure uses wide ranges of pay from the entry level to the maximum level. This approach, sometimes referred to as "wide bands" was more common in the past than now. The goal of a wide-band structure was to allow employees to stay within very few classes for their entire careers. Reviewing the benefits and drawbacks of this structure will be analyzed as part of the study.
2. Aligning job duties and classifications and grades. As TWVD transitions to its new role as a regional water supplier, its current list of job duties with the corresponding classifications and grades may not be appropriate. The study will examine current and future roles to ensure alignment of job duties with classifications and grades.

² Original estimated savings were based on WIFIA total loan costs in comparison to the total financing costs (principal and interest) of traditional water revenue bonds.

3. Evaluating TVWD's pay-for-performance system. TVWD currently has a pay-for-performance system where an employee's performance directly affects changes in compensation. The overall structure of the pay-for-performance system has evolved over the years, but this study will examine its current approach and compare it to other compensation strategies common in the labor market.
4. Ensuring legal compliance. Like all Oregon employers, TVWD is subject to the Oregon Equal Pay Act and other federal requirements like the Fair Labor Standards Act. Proposed changes that result from the study will be analyzed to ensure compliance with federal and state laws.

In addition, the District will continue to enhance the effectiveness of the District's work force through cross-training, mentoring, and other direct training. The District will also continue to document its operational procedures and identify information gaps where institutional knowledge should be preserved. The Human Resources Division will continue to take the lead on this District-wide effort during the next biennium.

Finally, the new biennium continues the District's internship and seasonal worker programs aimed at students to attract future employees to the District and the industry in general. The Adopted 2021-23 Biennium Budget continues with the District's existing program of three engineering and operations internships. In addition, the Adopted 2021-23 Budget continues with the seasonal worker program by funding five positions in the Asset Management Division to work on field and facility related projects.

Partnerships

The District's partnerships in the WWSP, Joint Water Commission, and Barney Reservoir Joint Operating Commission combine common objectives and broader expertise in pursuit of providing reliable long-term water supplies. A similar synergy is achieved for the promotion of conservation and sustainability practices within the region through the District's memberships in the Regional Water Providers Consortium and Partners for a Sustainable Washington County Community.

TVWD's active involvement with organizations such as the American Water Works Association (AWWA) and its Pacific Northwest Section creates opportunities for the District to share its leadership and knowledge, while learning from others on matters important to the industry. The Adopted 2021-23 Budget includes \$255,000 for regional partnerships in the Administrative Services Department to continue these activities. Membership dues for AWWA and other professional associations are budgeted in individual departments.

In addition, the District provides services to Clean Water Services and the City of Beaverton for utility billing and meter reading and operates a joint fueling operation that also serves the Tualatin Hills Park and Recreation District. These partnerships improve service levels for customers in common and enhance economies of scale for delivery of these services.

Finally, the District offers customers backflow device testing services performed by independent certified testers to reduce customer costs of compliance while helping to protect the safety of the water supply. A significant amount of General Fund support is received for these and other similar services. During 2021-23, projected revenue from these partnerships includes \$3.4 million, which represents about 4.0% of the General Fund operating budget.

FINANCIAL MANAGEMENT POLICIES AND LONG-TERM PLANNING

The District financial management policies were formally adopted by the Board in March 2019. The purpose of the financial management policies is to guide the District's management in its financial affairs, including policies for financial planning, budgeting, debt management, accounting and reporting, business case evaluations, and other related matters. These policies follow GFOA best practices, provide specific guidance to the District management and affirm the Board's commitment to sound financial management.

A summary of TVWD's financial management policies including their purposes, goals and requirements can be found in *Section 3 User's Guide*. A complete set of the District's financial management policies can be found on the District's website at <https://www.tvwd.org/finance>. The tables below highlight some of the important financial management policies that drive the preparation of the Adopted 2021-23 Budget.

DISTRICT BUDGET
<p>Purpose: The District makes program and service decisions to allocate scarce resources for operational or capital needs through its budget process.</p>
<p>Section 3.4.4 Basis of Budgeting</p> <p>The District prepares its budget on a modified accrual basis. For budget purposes, the District recognizes revenues when they are both measurable and available. Measurable means the amount of the transaction can be determined and revenues are considered available when they are collected within the current period or expected to be collected soon enough thereafter to be used to pay liabilities of the current period. Expenses are recognized when the liability is incurred. An exception to this rule on recognizing expenses is debt service. The payment of debt service is recognized when payments are due. Other accounting treatments under generally accepted accounting principles (GAAP) such as depreciation, are not considered expenses under the District's budgetary basis.</p>
<p>Section 3.4.5 Sufficiency of Operating Revenues</p> <p>The District's budget shall require that operating revenues be sufficient to at least cover operating expenses (excluding depreciation), and that net revenues are sufficient to comply with bond covenant requirements each year. Sufficiency of operating revenues shall be included in determining water rates, fees, and charges.</p>
<p>Section 3.4.6 Capital Planning</p> <p>Each biennium, the District shall develop and adopt a six-year Capital Improvement Plan (CIP) that details capital projects and fixed asset acquisitions for the District consistent with its current Water System Master Plan, Financial Plan, fleet and facility plans, asset management plan and capital plans prepared by other agencies with whom the District has contractual or other legal obligations (e.g., the District's joint ventures). The District's Chief Engineer will prioritize proposed projects based on criteria reflecting the direction and policies established by the Board and needs of the District. The District's Chief Engineer will identify significant operating expenses associated with each project that will be required when the asset is placed into service.</p>

WATER RATES, FEES, & CHARGES

Purpose: This Policy describes the Board’s general rate-setting goals and directives.

4.3.1 Cost-of-Service Framework

The District’s water rates, fees, and charges should reflect the costs of providing the various services to the District’s customers, following generally accepted ratemaking methodologies. The cost of service should include operating and capacity costs and send appropriate price signals to customers to encourage the wise use of water.

4.3.2 Water Rates

Water rates should be adjusted annually, with those annual adjustments adopted on a biennial or annual basis depending on financial planning needs.

MINIMUM FUND BALANCES & RESERVES

Purpose: This policy guides the development of minimum cash balances that directly affect the District’s Financial Plan, rates and charges, and budget.

5.3.1 Working Capital

Working capital shall be at least equal to two months’ operations and maintenance expenses (i.e., 60 days cash on hand).

5.3.2 Capital Reserves

The District’s rate setting goals include a preference to avoid sudden and/or unexpected rate increases for customers. Capital reserves are one mechanism the District can use to lower the overall costs of acquiring capital assets by saving money early in the planning process. Capital reserve levels shall be determined through the financial planning process and identified in the District’s Financial Plan.

Financial Plan

One of the keystones of the District’s financial management policies is the development and ongoing maintenance of the District’s Financial Plan. The District’s financial planning process is intended to stimulate discussion and create a long-range perspective for the Board and other decision makers.

The Financial Plan assists in avoiding financial challenges; stimulating long-term and strategic thinking; creating a consensus on long-term financial direction; and communicating with internal and external stakeholders. Specifically, the Financial Plan is intended to assist the District with the following:

- Setting water rates over the long term, thereby avoiding unnecessary and/or unexpected large increases in rates and customer bills
- Providing the Board, customers, and the debt market insight into the District’s long-term financial needs
- Promoting sound financial management through long-range planning
- Contributing to the preservation or enhancement of the District’s credit ratings
- Informing the biennial operating and capital budget development process by identifying current budgetary needs and considering the phasing of changes to service levels, particularly capital improvement projects.

Among its many components, the District's Financial Plan includes long-term forecasts for growth of customers and water demands, sources and uses of funds, operating expenditures, capital expenditures, use of cash and proceeds from borrowing, and compliance with debt covenants.

The District's most recent update of the Financial Plan was approved by the TVWD Board at its May 19, 2021 regular meeting. More detailed information on the District's Financial Plan can be found in *Section 5 Multi-Year Financial Outlook*. A complete version of the Financial Plan can be found on the District's website at <https://www.tvwd.org/finance>.

2021-23 ADOPTED BIENNIAL BUDGET SUMMARY

The Sources & Uses of Funds table on the following page presents summary data comparing the key resources and requirements of the Adopted 2021-23 Budget to the Revised 2019-21 Budget.

The funds summarized on this table are of five types: General, Capital Projects, Reserves, Debt Service, and Agency. All funds work together to support the water utility and manage the District's partnerships. Total budgeted positions decrease from 144 to 142 from the prior biennium.

Specific budget detail for each fund can be found in *Section 6 Fund Summaries* and *Section 7 General Fund Resources and Expenditures*.

SOURCES & USES OF FUNDS

	2019-21 Biennial Revised Budget	2021-23 Biennial Adopted Budget	% Change from Revised 2019-21 Biennial
SOURCES OF FUNDS			
Operating Revenue			
Water Service Charges and Fees	\$149,248,486	\$158,826,968	6.4%
Right of Way Fee collections	\$1,446,000	\$1,625,000	12.4%
Contract Reimbursements	\$5,198,492	\$6,178,325	18.8%
Other Fees & Revenues	\$4,319,349	\$3,142,698	-27.2%
Construction Revenue from Other Funds	\$10,194,616	\$10,722,620	5.2%
Non-Operating Revenue			
System Development Charges	\$11,426,151	\$9,574,073	-16.2%
Contrib. & Assessments	\$224,854,690	\$462,143,386	105.5%
Interest Earnings	\$4,199,254	\$869,427	-79.3%
Total Revenues:	\$410,887,038	\$653,082,497	58.9%
Transfers In From Other Funds	\$283,013,943	\$686,262,670	142.5%
Debt Resources	\$25,000,000	\$226,500,000	806.0%
Combined Beginning Fund Balance:	\$132,950,815	\$93,893,898	-29.4%
TOTAL RESOURCES & TRANSFERS	\$851,851,796	\$1,659,739,065	94.8%
USES OF FUNDS			
Operating Expenses			
Personnel Services	\$43,536,651	\$42,330,036	-2.8%
Materials and Services	\$44,391,964	\$51,686,496	16.4%
Total Operating Budget	\$87,928,615	\$94,016,532	6.9%
Capital Budget			
Capital Outlay	\$404,589,611	\$839,112,006	107.4%
Debt Service	\$0	\$0	0.0%
Total Capital Budget	\$404,589,611	\$839,112,006	107.4%
Special Payments	\$21,446,000	\$1,625,000	-92.4%
Total Expenditures:	\$513,964,226	\$934,753,538	81.9%
Contingency	\$15,209,000	\$20,353,650	33.8%
Total Expenditures & Contingency:	\$529,173,226	\$955,107,188	80.5%
Transfers Out To Other Funds	\$283,013,943	\$686,262,670	142.5%
Total Budget Appropriations:	\$812,187,169	\$1,641,369,858	102.1%
Ending Fund Balance *	\$39,664,627	\$18,369,207	-53.7%
TOTAL USES, TRANSFERS, CONTING.	\$851,851,796	\$1,659,739,065	94.8%
TOTAL FTE's	144.0	142.0	-1.4%

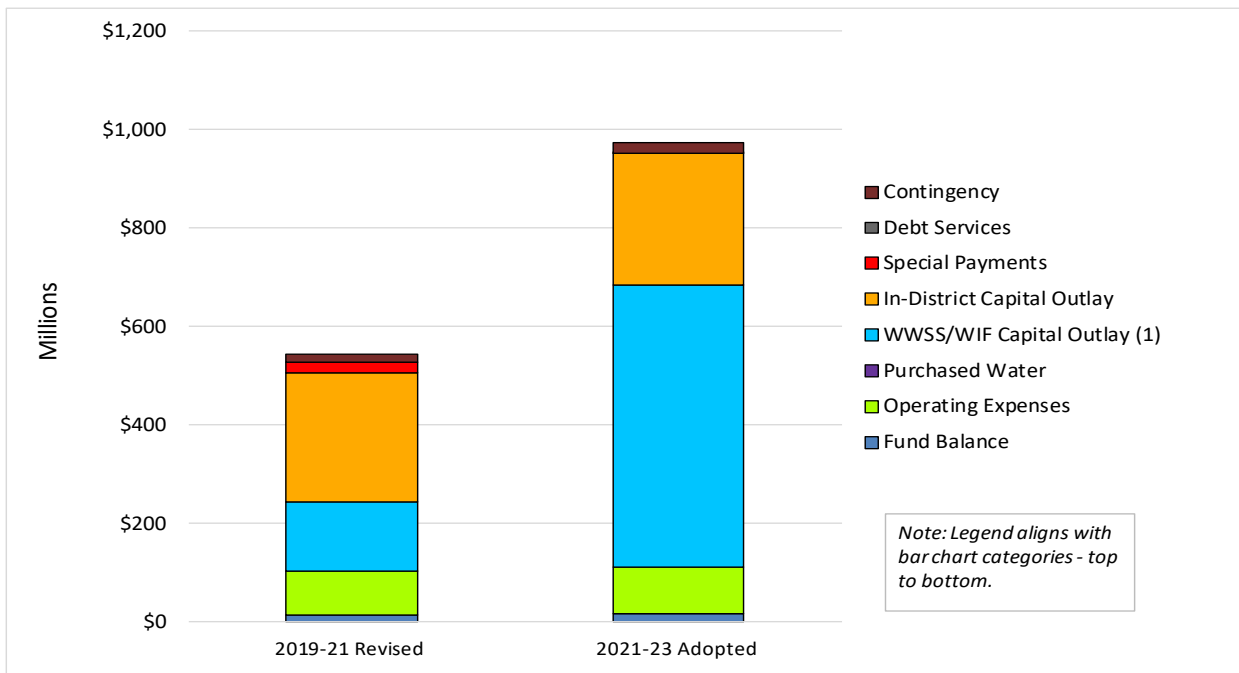
*Unappropriated Ending Fund Balance include District resources available for future use.

In accordance with Oregon budget law, total budget appropriations must include Interfund Transfers and exclude ending fund balances. Total appropriations for the Adopted 2021-23 Budget are \$1,659.7 million, a 100.7% or \$832.9 million increase from the Revised 2019-21 Budget. The key appropriation category that contributes to this increase is Capital Outlay, particularly for projects in the WWSS and WIF, as well as the District’s share of Capital Outlay for those projects, which are budgeted in its Capital Improvements Fund.

The projected unappropriated ending fund balance of \$18.4 million will be available for future use. This fund balance represents the combined assets that exceed projected 2021-23 revenues less all appropriations, including Contingency, which can be transferred to an appropriations category by resolution of the Board of Commissioners.

District Expenditures Excluding Transfers

District operating expenditures consist of Personnel Services, and Materials & Services including purchased water. As a utility, capital construction is also significant as the District maintains its infrastructure, improves service reliability, and plans for its future water supply, through participation in the WWSP. The Adopted 2021-23 Budget continues this work as illustrated on the chart below.



Note 1: Includes TVWD share of WWSS/WIF capital which is also budgeted in the in-District’s Capital Outlay.

Operating Expenditures

- The Adopted 2021-23 Budget operating expenditures for all funds (including Personnel Services, and Materials & Services) increase 6.9% for the biennium or about 3.4% annually. The primary driver for the increase is Materials & Services expenditures in the General Fund which increased \$5.5 million. This increase in Materials & Services includes the District’s share of WWSS and WIF partnership dues, professional services for the District to perform additional condition assessments of key infrastructure and update its long-term facilities plan, as well as services focusing on the District’s transitioning role as a regional water provider and key strategic partner with neighboring entities.
- General Fund Adopted 2021-23 Budget for Personnel Services is down \$1.2 million, a 2.8% decrease from the prior biennium or 1.13% on an annualized basis. The decrease is the result

of a combination of factors including a reduction of two full-time equivalent (FTE) positions, additional savings on health care costs, pension savings attributable to legislative changes and the District's investment in a PERS side account in the prior biennium, and the transition to a lower-cost workforce as the District's more senior staff reach retirement age. The Personnel Services budget is very sensitive to assumptions of benefit costs and general inflation. The Personnel Services budget may require adjustments if the current assumptions prove incorrect.

All District staff positions are budgeted in the General Fund. Labor and overhead for staff working on in-District CIP, WWSS and WIF projects are reimbursed to the General Fund. In addition, the other WWSS and WIF partners are invoiced for their share of District labor and overhead for the water supply projects.

Medical and dental premiums are estimated to increase at a rate of 7.5% each year of the 2021-23 biennium. The District continues to seek ways to reduce the financial challenges of increasing medical insurance through loss prevention and wellness efforts, review of providers with more competitive rates, and management/staff engagement to seek ways to control costs.

The Adopted 2021-23 Personnel Services budget also includes the District's ongoing participation in the Oregon Public Employees Retirement System (PERS). The District will contribute an average of 12.5% of payroll to PERS during the biennium. This rate is significantly lower than in the 2019-21 biennium because the District established a PERS side account of \$10.8 million in September 2019³. District employees continue to pay their mandatory 6.0% contribution.

- Purchased water, and associated power for pumping, is the largest Materials & Services expenditure representing about 27% of the District's total General Fund operating budget. Based on projected water demand, the District has budgeted purchased water and power at \$24.5 million, a 9.0% increase from 2019-21.

The City of Portland wholesale water rate is decreasing 8.6% for the first year with a planned increase of 15.4% for the second year. The JWC estimates that the effective water rate for TVWD will increase 15.5% for the first year with a projected 3.5% increase in year two. The District is also planning for a \$59,000 cost increase in electrical power to pump water within the distribution system and \$6,000 cost increase for the Grabhorn ASR operations.

Capital Expenditures, Special Payments Contingency, Debt Service

- Appropriation in the Adopted 2021-23 Budget for in-District capital construction is \$133.5 million, 109% higher than 2019-21 as the District enters an intensive investment cycle for water system infrastructure investments and the CIS project. *Section 15 Capital Improvement Plan* provides an overview of the District's six-year capital program including descriptions and planned expenditures for each project. Section 15 also includes the District's share of joint venture costs in the WWSS (\$241.9 million), WIF (\$3.1 million), and JWC (\$1.0 million).

³ The District's PERS side account was established with a \$10 million payment from the District and an \$0.8 million matching contribution from Oregon's Employer Incentive Fund.

Both the District's and its partners' shares of WWSS and WIF expenditures are recognized in the WWSS and WIF Funds as contributed capital. These Funds are described in Section 16 Willamette Water Supply System and in Section 17 Willamette Intake Facilities.

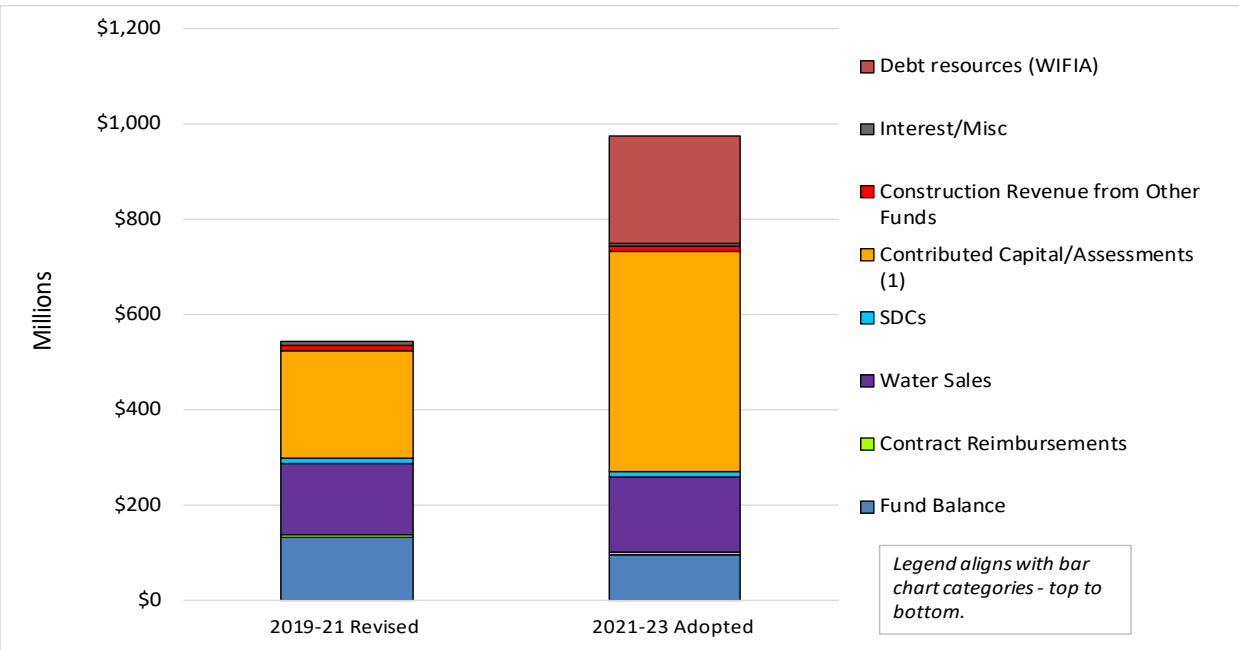
- General Fund equipment Capital Outlay varies each budget period based on scheduled replacements. The Adopted 2021-23 Budget for Capital Outlay of \$705,950 represents a 233% increase from 2019-21 driven primarily by completing a major IT replacement cycle during the biennium and new project management software supporting the District's Modernization Initiative.
- Special Payments in the 2021-23 Adopted Budget are \$1.6 million. This appropriation is for right-of-way (ROW) fees paid to the cities of Beaverton, Hillsboro, and Tigard on behalf of TVWD's customers who live within the cities' boundaries.
- The Adopted 2021-23 Budget includes a General Fund general operating contingency of \$20 million. Smaller contingencies of \$235,000 in the WWSS Fund, \$107,000 in the WIF Fund, and \$11,650 in the WRWC Fund are also budgeted. Contingency resources can only be accessed for expenditure or appropriated as a fund transfer with approval by the TVWD Board. Use of any WWSS, WIF, and WRWC contingencies must also be approved by their respective governing commissions.
- No debt service is budgeted for the 2021-23 biennium. The District plans to draw funds from its WIFIA loan during the biennium. Interest on the WIFIA loan will be capitalized for future debt payments as allowed by the District's WIFIA loan agreement.

District Resources Excluding Transfers

Resources for District operations and capital investment come primarily from sales of water to TVWD's customers. These revenues are supplemented by SDCs, interest earnings, draws on the District's WIFIA loan, and fund balance.

In addition, with the District serving as the managing agency for the WWSS and WIF, a significant resource to the Adopted 2021-23 Budget is contributed capital representing both the District's and its partners' shares of expenditures for the water supply project.

As the chart below shows, overall District resources (net of Transfers) are projected to increase about 79.0% for the upcoming biennium. By far the largest increase is for Contributed Capital, a non-operating revenue budgeted at \$462.1 million, an increase of \$237.3 million from the prior biennium.



Note 1: Includes both TVWD’s and the partners’ share of WWSS and WIF Fund Capital Outlay.

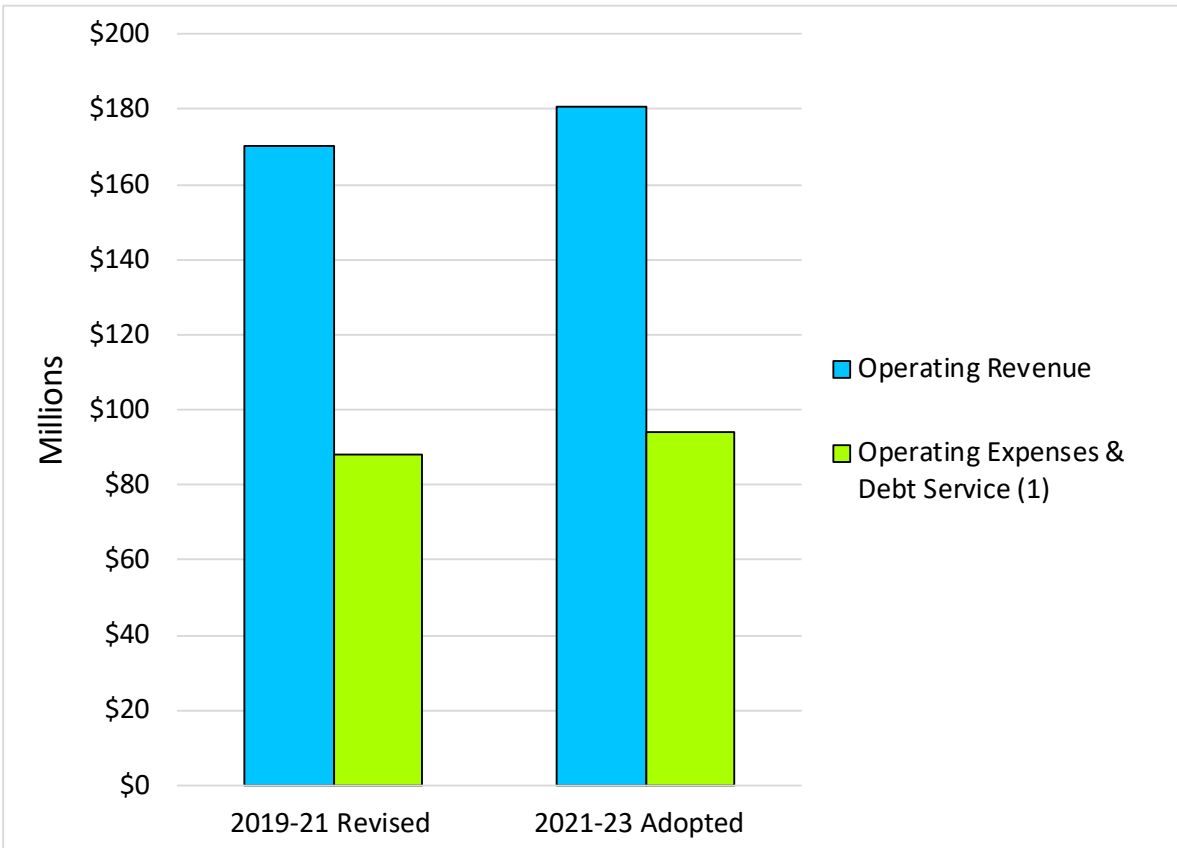
The combined *Fund Balance* shown above includes the beginning fund balances of the District’s General, Capital Reserve, WRWC, and Customer Emergency Assistance funds. The District’s other funds do not have beginning balances in either biennium. During the 2021-23 biennium, the Capital Reserve Fund will serve as the primary fund for holding the District’s current reserves and unappropriated fund balance for future use. It is anticipated the District may establish additional reserve funds depending on the timing and requirements of the next revenue bond debt issuance. WIFIA draws will be held in the Debt Proceeds Fund.

Operating Revenue

- Adopted 2021-23 water service revenue and fees are projected at \$158.8 million, 6.4% higher than 2019-21. This increase is due to the District’s plans for annual rate increases consistent with its Financial Plan approved by the Board on May 19, 2021. Changes to water rates and charges is a separate Board-driven process. Increases in water rates over the 2021-23 biennium are projected to be 9.5% annually. TVWD will continue with its financial planning discipline articulated by the District’s financial management policies: maintaining its long-term financial forecast to anticipate funding needs and adjust for changes to its operating and capital improvement plans; setting rates annually to meet revenue requirements; and recommending rate changes that are predictable and stable to avoid sudden or unexpected increases.
- Other sources of operating revenue include contract reimbursements, miscellaneous revenue for services, and receipts for right-of-way fees that are passed through to three cities imposing these fees. Contract reimbursements are projected at \$6.2 million. These are for utility billing and meter reading services provided to Clean Water Services and the City of Beaverton, reimbursements for operating a joint fueling facility with the local parks district and reimbursement for non-capitalized costs for WWSS and WIF activities. The largest increases in contract reimbursements are in the WIF and WWSS funds. These increases in contract reimbursements are the result of planning activities required for the WWSS and WIF.

- Labor and overhead charged to other funds at \$10.7 million represents reimbursements to the General Fund for labor, equipment and overhead for in-District CIP projects, the WWSP, and staff time associated with management of the WWSS and WIF Commissions.

As illustrated on the graph below, water service charge revenue, along with other operating revenue, continue to cover operating expenditures. Water sales and miscellaneous revenue also contribute to ongoing capital improvement and replacement costs. In the future, net revenues to the District will also meet the coverage requirements for debt service. Revenue in excess of budgeted requirements is used as fund balance or reserves available for future appropriation.



Note 1: Debt Service will not be required in the 2021-23 biennium.

Other Non-Operating Revenue

- In anticipation of slower growth, SDC revenue is projected to be about \$9.6 million which is a reduction from \$11.4 million estimated for the Adopted 2019-21 Biennial Budget. The past two years started strong (Prior to the onset of the COVID-19 crisis) for new development within the District, but since the onset of the COVID-19 crisis, the SDC revenue have declined. Revenue from SDCs is based on projected future growth from the District’s Water System Master Plan and updated financial plans, as well as annual increases to SDC fees indexed to inflationary changes of construction costs.
- Interest earnings are expected to decrease 79% to \$0.9 million. The District anticipates yields will continue to stay at historic lows in the next biennium.

WILLAMETTE WATER SUPPLY & THE SIX-YEAR CAPITAL IMPROVEMENT PLAN

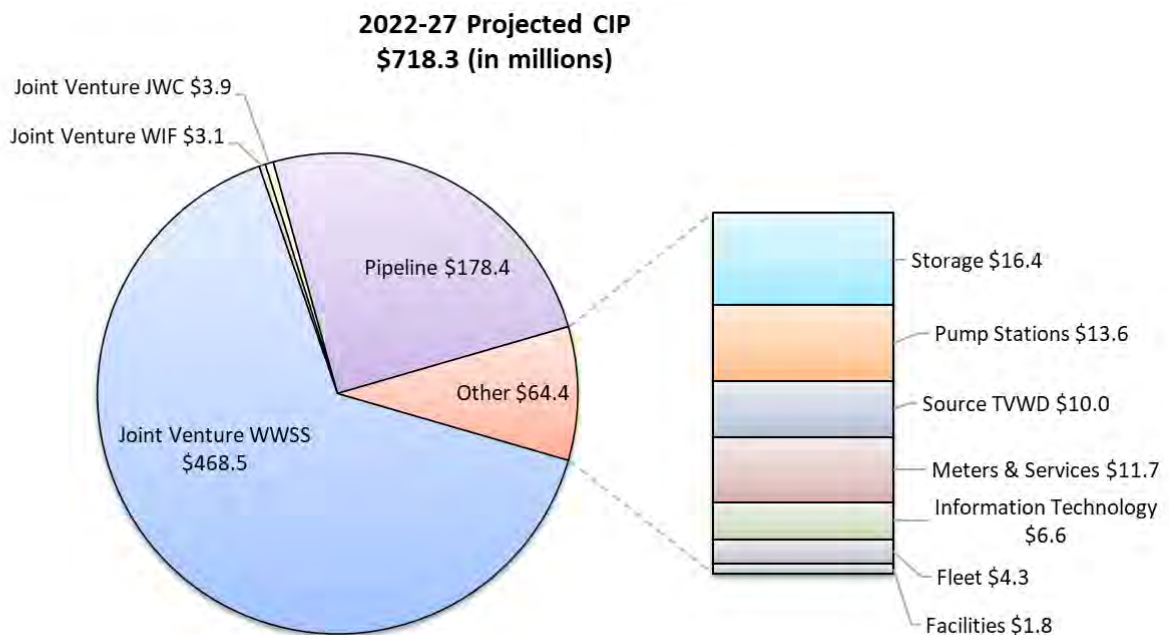
The District's participation in the WWSP through the WWSS is the primary driver for TVWD's capital requirements during the 2021-23 biennium and beyond. For more information, see *Section 16 Willamette Water Supply System Fund*. During 2021-23, work on the future water supply will continue with several permitting, design, construction, real estate and easement acquisition, and program management activities as detailed in this budget document.

Moreover, each biennium the District updates its six-year Capital Improvement Plan (CIP) for in-District projects, which is presented in detail in *Section 15 Capital Improvement Plan*. New project requests and status updates on existing projects, including those under construction, are prepared by the Engineering and Operations Department and presented for review by the Chief Executive Officer, Chief Financial Officer/Budget Officer prior to being included in the budget.

The in-District CIP planned for the next six years emphasizes upgrading and replacing critical reservoirs, pump stations, and water distribution system pipelines, strengthening seismic resiliency, addressing fire-flow demands, and enhancing the reliability of service. In addition, the District will prepare for the WWSS by constructing a pipeline to serve the eastside of TVWD's service area (including the Metzger area), and by constructing other turnouts from the main WWSS supply line to serve the District's customers.

Fleet replacements, the District's Customer Information System (CIS) project, and several facility and security improvements are also included in the adopted CIP.

Finally, the District's participation in JWC projects, including a share of its water treatment plant expansion project, and District's financial participation in the WWSS and WIF are reflected in the CIP. The chart below summarizes the District's six-year CIP included in the Adopted 2021-23 Budget. As illustrated in the chart, the investments in the WWSS dominate the District's expenditures for Capital Outlay over the next six-year cycle.



Capital Improvement Plan and Relationship to the Adopted 2021-23 Budget

Appropriations for the first two years of the in-District CIP are incorporated in the Adopted 2021-23 Budget and reflected as Capital Outlay in the Capital Improvement Fund. JWC joint venture projects are recorded by the City of Hillsboro in its role as the JWC managing agency. The District records all joint venture activity for the WWSS and WIF as the managing agency for those joint ventures.

The Adopted 2021-23 Budget includes appropriation of \$379.6 million in the District's Capital Improvement Fund which includes \$246.1 million in capital contributions to joint ventures. Key projects for the biennium include:

A. Source (TVWD)

- \$6.1 million – Farmington Fluoride & Flow Control Facility

B. Storage

- \$6.9 million – Taylors Ferry Reservoir Replacements

C. Pump Stations

- \$841 thousand – SCADA / PLC / ShakeAlert Upgrades

D. Pipeline

- Mains Replacement Program
 - \$1.5 million – Todd St & Linda Ln - Mainline replacement & upgrade:
 - \$3.6 million – Other Mains Replacement Program projects (2021-23 portion of ongoing program)
- Agency-Driven Upgrades and Renewals
 - \$3.5 million – Murray & Walker 42-inch Relocation
 - \$1.1 million – TV Hwy at 209th Main Relocation
- Other Pipeline
 - \$1.5 million – Kemmer Rd 24-inch Connection to Beaverton
 - \$83 million – Metzger Pipeline East (2021-23 portion of \$115 million six-year cost; \$125 million total project cost)

E. Facilities

- \$632 thousand – Safety and Security Improvements
- \$515 thousand – Headquarters Yard Modifications

F. Fleet Replacements

- \$1.47 million – 2021-23 portion of ongoing replacements program

G. Information Technology (Computer Hardware/Software)

- \$6.64 million – Customer Information System (2021-23 portion of \$9.7 million total)

H. Meters and Services

- \$3.1 million – 2021-23 portion of ongoing program for service installations for new and existing residential and commercial customers

I. Joint Venture: WIF

- \$3.1 million – District's share of WIF improvements. From inception to completion, WIF-related expenditures include new fish screens, air burst system improvements, and seismic improvements to the expanded intake within the raw water facility at the Willamette River Water Treatment Plant. It is important to note that some WIF expenditures have already occurred and that the \$3.1 million is the District's share in the 2021-23 biennium.

J. Joint Venture: WWSS

- \$242 million – District’s share of WWSS costs for design and construction of the WWSS projects, real estate and easements, permitting and mitigation, legal expenses, program management services, and management reserves. (2021-23 portion of \$468.5 million total District share in six-year CIP)

K. Joint Venture: JWC

- \$1.04 million – District’s share of JWC costs for treatment plant improvements, Fern Hill reservoir repairs, and other capital projects, repairs, and replacements. (2021-23 portion of \$3.9 million total District share in six-year CIP)

CONCLUDING THOUGHTS AND FUTURE PLANNING

Although the COVID-19 crisis has affected the District’s revenue, its financial status is projected to remain strong over the long term. TVWD presents an Adopted 2021-23 Budget that reflects the direction provided by the Board of Commissioners, aligns with District strategic priorities and financial management policies, and continues to deliver key initiatives such as long-term water supply development and infrastructure improvements for reliability and seismic resiliency. Ongoing system maintenance, customer support, asset management, sustainability and conservation also remain important priorities with programmatic efforts in these areas included in the department budgets.

The District’s credit rating from both Standard & Poor’s and Fitch Ratings of AA+ serve as an indication of the strong financial position of the District and its capable management.

TVWD will continue to use its financial plan to prepare for future opportunities, trends, and challenges. As the District continues developing an additional water supply through participation in the WWSP and continued investment in the JWC, management will monitor capital and operating expenditures, debt levels, and investment balances to minimize purchase water costs and limit unexpected water rate increases.

The District’s continuing emphasis on cost-effective operations and comprehensive long-range planning will be essential to enable TVWD to meet its mission of providing quality water and customer service to the community.

ACKNOWLEDGEMENTS AND SUBMISSION

We want to acknowledge the creative energy of staff and their dedication to the customers of the Tualatin Valley Water District. This document represents the expertise and resourcefulness of the department managers, supervisors, and staff. We also want to thank the members of the Board of Commissioners and Budget Committee for your continuing support and thoughtful analysis of the issues facing the District. It is with your help that we can face challenges and maintain a strong financial position.

We hereby respectfully present this Tualatin Valley Water District Adopted Budget for the 2021-23 Biennium.



Tom Hickmann, PE
Chief Executive Officer



Paul L. Matthews
Chief Financial Officer/Budget Officer

Tualatin Valley Water District



Delivering the Best Water Service Value

RESOLUTION NO. 06-21

A RESOLUTION ADOPTING THE BUDGET AND MAKING APPROPRIATIONS FOR THE TUALATIN VALLEY WATER DISTRICT FOR THE 2021-23 BIENNIUM.

WHEREAS, pursuant to the requirements of Oregon Revised Statutes (ORS) Chapter 294, the Board of Commissioners of the Tualatin Valley Water District is required to adopt a budget and make appropriations for the District for the 2021-23 biennium; and

WHEREAS, on May 25, 2021, following public notice and hearing thereon, the duly appointed and authorized Budget Committee unanimously approved the biennial budget proposed for 2021-23, now on file at the District office.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COMMISSIONERS OF THE TUALATIN VALLEY WATER DISTRICT THAT:

Section 1: In compliance with Oregon Local Budget Law under ORS 294, the Board of Commissioners of the Tualatin Valley Water District hereby adopts the biennial budget of the District as approved on May 25, 2021 by the Budget Committee of Tualatin Valley Water District.

Section 2: That the amounts for the biennium beginning July 1, 2021 and for the purposes shown are hereby appropriated as follows:

General Fund	
Appropriations	
Personnel Services	\$42,330,036
Materials & Services	47,640,836
Capital Outlay	705,950
Debt Service	0
Special Payments:	1,625,000
Transfers to Other Funds	83,500,000
General Operating Contingency	20,000,000
Total Appropriation	<u>\$195,801,822</u>
Capital Improvements Fund	
Appropriations	
Capital Outlay	\$379,582,670
Total Appropriation	<u>\$379,582,670</u>
Capital Reserve Fund	
Appropriations	
Transfers to Other Funds	\$376,262,670
Total Appropriation	<u>\$376,262,670</u>

Debt Proceeds Fund	
Appropriations	
Transfers to Other Funds	\$226,500,000
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Total Appropriation	\$226,500,000
Willamette River Water Coalition Fund	
Appropriations	
Materials & Services	\$114,300
General Operating Contingency	11,650
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Total Appropriation	\$125,950
Customer Emergency Assistance Fund	
Appropriations	
Materials & Services	\$531,035
	<hr/>
Total Appropriation	\$531,035
Water Intake Facilities Fund	
Appropriations	
Materials & Services	\$1,056,920
Capital Outlay	6,533,736
General Operating Contingency	107,000
	<hr/>
Total Appropriation	\$7,697,656
Willamette Water Supply System Fund	
Appropriations	
Materials & Services	\$2,343,405
Capital Outlay	452,289,650
General Operating Contingency	235,000
	<hr/>
Total Appropriation	\$454,868,055
Total Appropriations	\$1,641,369,858

Section 3: That the Budget Officer, in accordance with ORS 294.458(2), shall file with the Oregon Department of Revenue a true copy of this resolution and the Exhibit A Notice of Budget Hearing attached hereto and by this reference incorporated herein.

Approved and adopted at a regular meeting held on the 16th day of June 2021.

Original signatures on file
Not included for security purposes

Bernice Bagnall, President

Original signatures on file
Not included for security purposes

Todd Sanders, Secretary

Exhibit A: FORM LB-1

A public meeting of the Tualatin Valley Water District will be virtually held on June 16, 2021 at 6:00pm. The purpose of this meeting is to discuss the budget for the fiscal year beginning July 1, 2021 as approved by the Tualatin Valley Water District Budget Committee. A summary of the budget is presented below. A copy of the budget may be inspected at the Tualatin Valley Water District, between the hours of 9:00 a.m. and 4:30 p.m. or online at www.tvwd.org/budget. This budget is for a biennial budget period 2021-23. This budget was prepared on a basis of accounting that is the same as the preceding biennium.

Contact: Paul Matthews **Ph: (503) 848-3000** **Email: Paul.Matthews@tvwd.org**

FINANCIAL SUMMARY - RESOURCES			
TOTAL OF ALL FUNDS	Actual Amount Biennium 2017-19	Revised Budget This Biennium 2019-21	Approved Budget Next Biennium 2021-23
Beginning Fund Balance/Net Working Capital	209,944,383	132,950,815	93,893,898
Fees, Licenses, Permits, Fines, Assessments & Other Service Charges	133,180,525	149,248,486	158,826,968
Federal, State and All Other Grants, Gifts, Allocations and Donations	0	0	0
Revenue from Bonds and Other Debt	0	25,000,000	226,500,000
Interfund Transfers / Internal Service Reimbursements	172,476,060	293,208,559	696,985,290
All Other Resources Except Current Year Property Taxes	64,461,246	251,443,936	483,532,909
Current Year Property Taxes Estimated to be Received	0	0	0
Total Resources	580,062,214	851,851,796	1,659,739,065

FINANCIAL SUMMARY - REQUIREMENTS BY OBJECT CLASSIFICATION			
Personnel Services	34,688,179	43,536,651	42,330,036
Materials and Services	34,951,713	44,391,964	51,686,496
Capital Outlay	106,686,147	404,589,611	839,112,006
Debt Service	0	0	0
Interfund Transfers	163,505,599	283,013,943	686,262,670
Contingencies	0	15,209,000	20,353,650
Special Payments	336,823	21,446,000	1,625,000
Unappropriated Ending Balance and Reserved for Future Expenditure	239,893,753	39,664,627	18,369,207
Total Requirements	580,062,214	851,851,796	1,659,739,065

FINANCIAL SUMMARY - REQUIREMENTS AND FULL-TIME EQUIVALENT EMPLOYEES (FTE) BY ORGANIZATIONAL UNIT OR PROGRAM *			
Name of Organizational Unit or Program FTE for that unit or program			
Administrative Services Department	4,619,778	7,318,327	8,382,511
FTE	9	9	9
Customer Service Department	9,468,139	11,619,808	11,612,132
FTE	33	37	36
Engineering & Operations Department	20,778,778	25,024,595	27,038,499
FTE	60	59	61
Finance Department	7,473,185	7,113,877	8,545,344
FTE	14	14	14
Water Supply Program	2,971,415	4,870,901	4,084,042
FTE	13	15	12
Information Technology Services Department	4,535,010	5,567,941	6,491,370
FTE	10	10	10
Water Purchases (General Fund)	20,212,227	24,364,600	24,522,925
FTE	0	0	0
Capital Improvements Fund	29,866,781	179,522,721	379,582,670
FTE	0	0	0
Willamette Water Supply Program Fund	79,959,232	0	0
FTE	0	0	0
Capital Reserve Fund	207,483,416	207,101,734	377,164,545
FTE	0	0	0
Bond Construction Fund	0	0	0
FTE	0	0	0
Debt Proceeds Fund	0	25,000,000	226,500,000
FTE	0	0	0
Revenue Bond Debt Service Fund	0	0	0
FTE	0	0	0
Customer Emergency Assistance	38,061	45,805	531,035
FTE	0	0	0
Willamette River Water Coalition Fund	115,474	188,948	129,995
FTE	0	0	0
Willamette Intake Facilities Fund	2,518,332	7,976,440	7,697,656
FTE	0	0	0
Willamette Water Supply System Fund	0	219,184,019	454,868,055
FTE	0	0	0

Non-Departmental / Non-Program	185,547,665	126,979,683	122,588,287
FTE	0	0	0
Total Requirements	575,587,491	851,879,400	1,659,739,065
Total FTE	139	144	142

STATEMENT OF CHANGES IN ACTIVITIES and SOURCES OF FINANCING *

Total Approved 2021-23 Budget general fund operating expenditures increase 5.0% for the two-year period. The personnel services budget decreased by 2.8%, while the budget for materials and services increased by 13.1%.

Total capital outlay expenditures increase 207.4%, driven by the timing and scope of the District's participation in the Willamette River Water Supply Program (WWSP) and serving as managing agency for both the Willamette Water Supply System (WWSS) and Willamette Intake Facilities (WIF) joint ventures. Approved in-district capital improvements plan (CIP) expenditures continue to be planned for reservoir, pump station, and pipeline construction and upgrades. No debt service is included in the Approved 2021-23 Budget. In 2019, the District secured a Water Infrastructure Finance and Innovation Act loan through the US Environmental Protection Agency and is planning to draw \$265 million during the 2021-23 Biennium to finance its investment in the WWSS.

Transfers to other funds, although not an expenditure category, represents the second largest appropriation item in the Approved 2021-23 Budget at \$686.3 million. The District uses a capital reserve fund to hold substantially all current and future district reserves. This fund supports the in-district CIP and the District's share of the WWSS and WIF. Transfers to the capital reserve fund are initiated through the general fund and the debt proceeds fund, and during the biennium transfers out from the fund will support the District's capital project expenditures. General fund operating contingency is budgeted at \$20 million and contingencies of \$11,650, \$107,000, and \$235,000 are approved for the Willamette River Water Coalition, the WIF, and the WWSS Funds respectively. Contingency can only be accessed through approval by resolution by the District Board of Commissioners. Special payments decreased by 92.4% in the Approved 2021-23 Budget. The District budgeted \$20 million in the 2019-21 Budget to establish a PERS side account, which resulted in a reduction of future pension obligations.

Total Approved 2021-23 Budget resources, including transfers, debt proceeds, reserves and fund balance increase 94.8%. Primary revenues to support operating, WWSS, WIF and in-district CIP expenditures include water rates and service fees, contributed capital from WWSS and WIF partners, contract reimbursements for services provided to other entities, and meter and services installation fees paid by customers/developers. Water services charges and fees increase 6.4% based on projected rates and fees for services, projected water demand, and customer growth. System development charges are projected to decrease 16.2% based on development trends. WWSS and WIF partners pay their portion of water supply project expenditures. The Approved 2021-23 Budget includes \$462.6 million in contributed capital and reimbursements by WWSS/WIF partners.

PROPERTY TAX LEVIES

	Rate or Amount Imposed	Rate or Amount Imposed	Rate or Amount Approved
Permanent Rate Levy (rate limit _____ per \$1,000)	0	0	0
Local Option Levy	0	0	0
Levy For General Obligation Bonds	0	0	0

STATEMENT OF INDEBTEDNESS

LONG TERM DEBT	Estimated Debt Outstanding on July 1.	Estimated Debt Authorized, But Not Incurred on July 1
General Obligation Bonds	\$0	\$0
Other Bonds	\$0	\$0
Other Borrowings	\$0	\$0
Total	\$0	\$0

* If more space is needed to complete any section of this form, insert lines (rows) on this sheet or add sheets. You may delete unused lines.

The Tualatin Valley Water District (TVWD) budget document contains a variety of information in narrative, table, and graphic form. This guide describing the general layout of the budget is offered to assist the reader in finding specific information throughout the document.

This **User's Guide** contains information to acquaint the reader with TVWD as an entity. The first page, TVWD at a Glance, provides an overview of vital statistics and areas of responsibility. Following that is a map, and an organizational chart. As a special district organized under Oregon Revised Statute (ORS) 264, TVWD is subject to Oregon Local Budget Law (ORS 294). This User's Guide contains a description of the budget process to maintain compliance with the law and provide the District's customers with opportunities for input. A summary of TVWD's Financial Policies is included, as well as a discussion of the District's general obligation debt limitation.

An Appendix at the end of this document in Section 19 includes a glossary explaining terminology and acronyms used throughout this document, as well as supplemental information about the District.

The "flow" of the budget document begins in Section 2, with the **Budget Message**. This is in the form of a letter to the Board of Commissioners highlighting key elements of the budget and identifying significant changes from prior years. At its core, the Budget Message is simply a written explanation of the budget and its priorities. The initial draft of the Budget Message is prepared by the Chief Executive Officer and the Chief Financial Officer/Budget Officer and presented in public hearing to the Budget Committee as part of the Proposed Budget. The Budget Message contained in this document is adapted for the Adopted Budget.

Section 4 outlines the District's **Strategic Planning** efforts covering the status and progress towards the 2019-21 District Initiatives and initiatives that are included in the Adopted 2021-23 Budget. Section 4 also outlines a few Performance Measures designed to track progress towards key initiatives adopted by the Board of Commissioners and/or management. More data regarding each performance measure may also be found in individual department sections (Sections 9 through 15)

Following established public financial management best practices and guidance from GFOA, the District is engaged in continual long-range financial planning and forecasting. Section 5 provides information on the District's **Financial Plan**.

Long-range planning is essential in the utility business. Water supply, transmission, and distribution infrastructure is long-lived in nature, and system improvements often require many years of advanced planning and permitting before construction can begin.

A 30-year financial forecasting model is used as the framework within which revenues, reserves, operating costs, and capital costs are projected and analyzed. The forecast is updated periodically (generally about every six months) and is used to run alternative scenarios to project the financial effects of various courses of action, determine District revenue requirements and cash flow needs, test the affordability and timing of debt issuance, and confirm the feasibility of the financial plan against certain benchmarks such as required reserve levels and debt service coverage targets.

The next portion, Section 6, **Fund Summaries**, describes the District's fund structure and includes the summary budget forms required by the state for each individual fund. Most of the budget centers around the General Fund – much of the financial activity of the operation takes place in the General Fund, and all staff positions are located there. The other 8 funds exist to account for capital improvements, capital reserves, debt proceeds,

future debt service, customer emergency assistance, and joint ventures that the District manages on behalf of its partners.¹

The next sections deal specifically with the **General Fund**. Section 7 outlines General Fund Resources, Expenditures, and provides a summary of department expenditures. Because of the central role of the General Fund, additional detail is provided in Sections 8 through 14. Section 8 includes non-departmental expenditures. This section highlights TVWD's largest single operating expense – Purchased Water. The subsequent sections describe the District's staffing and expenditure activity of the six **individual departments** housed within the General Fund.

- Section 9 – Administrative Services Department
- Section 10 – Customer Service Department
- Section 11 – Engineering & Operations Department
- Section 12 – Finance Department
- Section 13 – Water Supply Program Department
- Section 14 – Information Technology Services Department

Section 15 covers TVWD's six-year **Capital Improvement Plan (CIP)** including both in-District CIP projects and District's investments in joint venture that fund projects for the JWC, WWSS and WIF. A discussion of the assumptions underlying the plan is provided with anticipated funding sources and individual project descriptions. The first two years of the CIP are included in the budget as capital outlay in the **Capital Improvement Fund**.

The next three sections address the Joint ventures the District manages on behalf of its partners.

The **Willamette Water Supply System Fund (WWSS)** in Section 16 is a fund established as part of the Adopted 2019-21 Budget. This fund accounts for the resources and expenditures of the WWSS. Currently the infrastructure for the WWSS is under construction. When complete, the WWSS will include a new water treatment plant, terminal storage reservoirs, and more than thirty miles of large-diameter pipeline. Partners in the WWSS include the District and the cities of Hillsboro and Beaverton. TVWD serves as the managing agency of the WWSS – consequently, all appropriations for the WWSS, primarily capital expenditures, are included in the District's budget.

The **Willamette Intake Facilities Fund (WIF)** in Section 17 was established by the Board of Commissioners during the 2017-19 biennium. This fund accounts for the resources and expenditures of the WIF Commission. The primary facilities of the WIF are the intake facilities located at the Willamette River Water Treatment Plant in Wilsonville. WIF members include the cities of Beaverton, Hillsboro, Sherwood, Tigard, Wilsonville, and TVWD. The cities of Wilsonville and Sherwood receive water from the existing water treatment plant in Wilsonville. TVWD, Hillsboro and Beaverton will be served by the future WWSS, and Tigard is investing in the WIF as a potential future water source. TVWD serves as the managing agency of the WIF. As with the WWSS, all appropriations for the WIF are included in the District's budget.

Section 18, **Willamette River Water Coalition Fund (WRWC)**, accounts for the activities of the four-member agency that includes TVWD and the cities of Tigard, Tualatin, and Sherwood. TVWD serves as the managing agency for the WRWC. This intergovernmental entity was created to develop and maintain water rights on the Willamette River for regional needs.

We hope this guide will be helpful to the reader and we welcome suggestions for improvement.

¹ The District is the managing agency for three joint ventures – the Willamette River Water Coalition, the Willamette Intake Facilities Commission, and the Willamette Water Supply System – described in the lower half of this page.

The Budgeting Process

Overview

Periodically, but at least annually, the District conducts a goal/strategic planning session to discuss progress on existing goals and develop new key strategic initiatives. The strategic initiatives are divided into broad subject areas. Most initiatives represent major multi-year efforts, but initiatives can also include incremental improvements to the day-to-day operations of the District. A summary of the District's Strategic Planning is presented in Section 4. This year the District's strategic planning process was modified slightly to accommodate the operating requirements of COVID-19.

This goal-setting session provides overall direction to management and staff, and the long-range financial plan (Section 5) and capital plans (Sections 15 through 17) are the expressions of that direction over a 6 to 30-year period. The biennial budget defines the needs and allocations of available resources to implement the first two years of the long-range plans.

Biennial Budget Process

The District's budget process is consistent with Oregon Local Budget Law. Further details about these requirements can be found in ORS 294. Figure 3-1 on page 3-4 presents the District's long-range planning and budget process schedule. The phases of the budget process are:

Requested (December-March): The initial development of the departmental budgets begins in the late fall/early winter. Each department develops a preliminary requested budget which is used to update the financial forecast. The financial forecast is used to provide information about the impact that departmental budgets and strategic initiatives are likely to have on the District's financial results. Alternative assumptions for key expenditures and revenue adjustments are presented to the Board in March as financial strategies that the District can use to prioritize initiatives and programs. Development of the District's capital improvement plan and the budgets for the WWSS starts earlier in the fall consistent with requirements of the individual IGAs that form the joint ventures and the engineering analyses required to support the joint ventures and the in-District CIP.

The District's executive leadership conducts extensive review of the operating and capital plans prior to including them in the proposed budget presented to the Budget Committee. The operating and capital plans for the District and the joint ventures are presented to the Budget Committee in workshops to highlight key efforts planned for the upcoming biennium and to show significant changes from the current budget period. The results of the financial plan, including assumptions and risks, are also presented to the Board and the Budget Committee. A key objective of this phase of budget development is to solicit input by the Budget Committee early in the process.

Proposed (April/May): The Proposed Budget is prepared and published by the Budget Officer using the results from the District's internal review process and discussions occurring within the Budget Committee workshops. The Proposed Budget includes the budget message, which explains the budget and discloses significant changes in the District's financial position. The Proposed Budget is presented to the Budget Committee in a specially noticed public meeting. The Budget Committee receives the document, takes public testimony, holds discussions and deliberations, and amends the Proposed Budget, as necessary. If more meetings are required, the Budget Committee schedules them at this time. When deliberations and amendments are complete, the Budget Committee votes to approve the Proposed Budget and recommend it to the Board for adoption. A budget is "Approved" only once by the Budget Committee and this approved budget becomes the District's Approved Budget.

Approved (May/June): Once the budget has moved to approved status it can only be amended by the Board. If amendments by the Board exceed \$10,000 (for biennial budgets) or 10 percent (whichever is greater) in any fund, they must publish a financial summary and hold a separate public hearings process.

Adopted (June): In this final phase of the budget process a financial summary of the approved budget is published. The Board holds a public hearing to take testimony, make amendments as necessary, and formally adopt the budget. The appropriations resolution then is filed with the Oregon Department of Revenue.

Amended: Oregon Local Budget Law allows amendments to the budget after adoption. Budgets can be amended to address new or unforeseen needs that arise during the biennium. The District’s Board may adopt resolution that decrease one appropriation and increase another. Changes over 10% to any fund or transfers from contingency of more than 15% of fund appropriations require a supplemental budget process which is similar to the biennial budget process, including a public hearing.

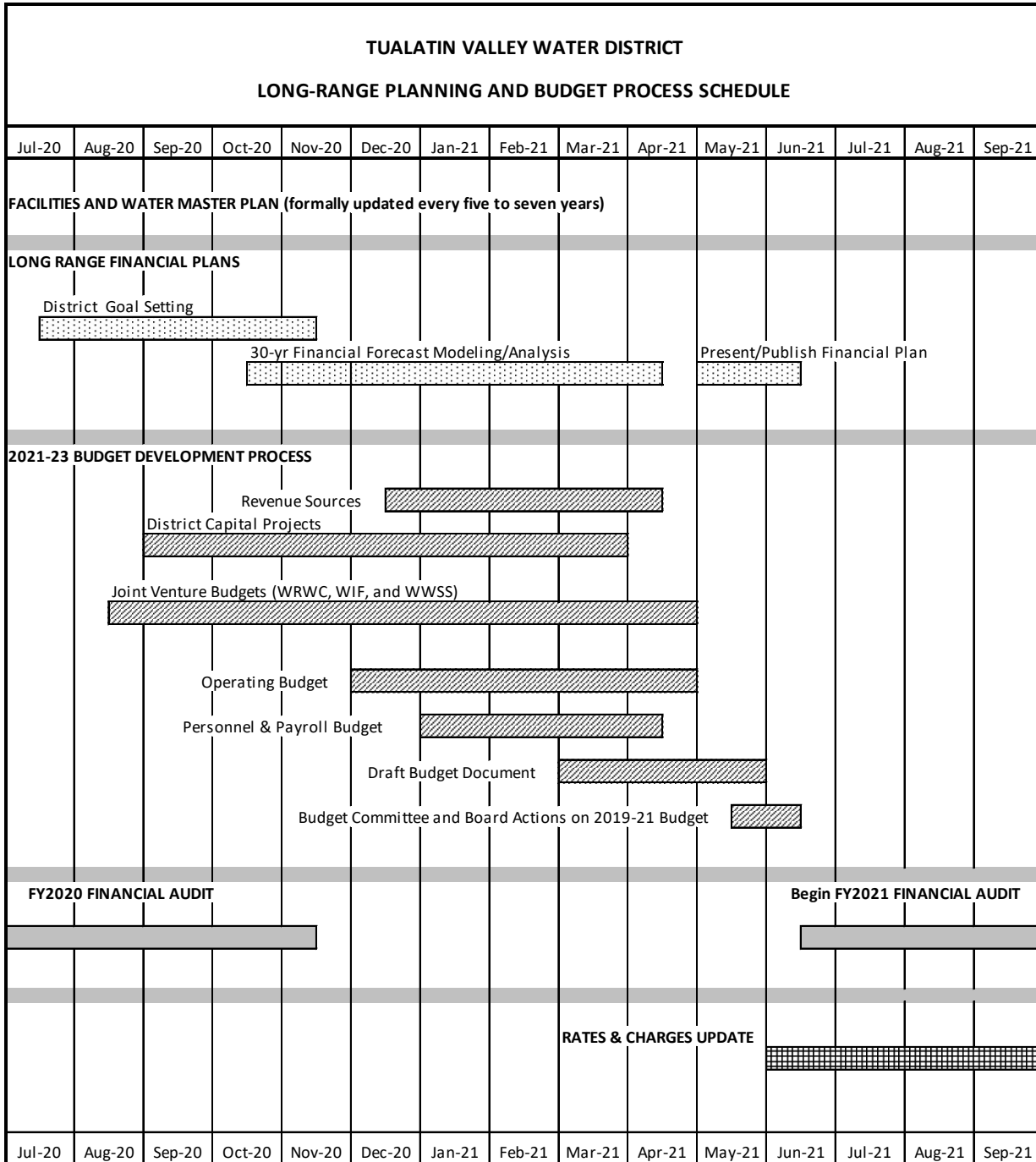


Figure 3- 1: Schedule for Long-Range Planning and Budget Process

Figure 3-2 presents a schematic of the District’s budget process.

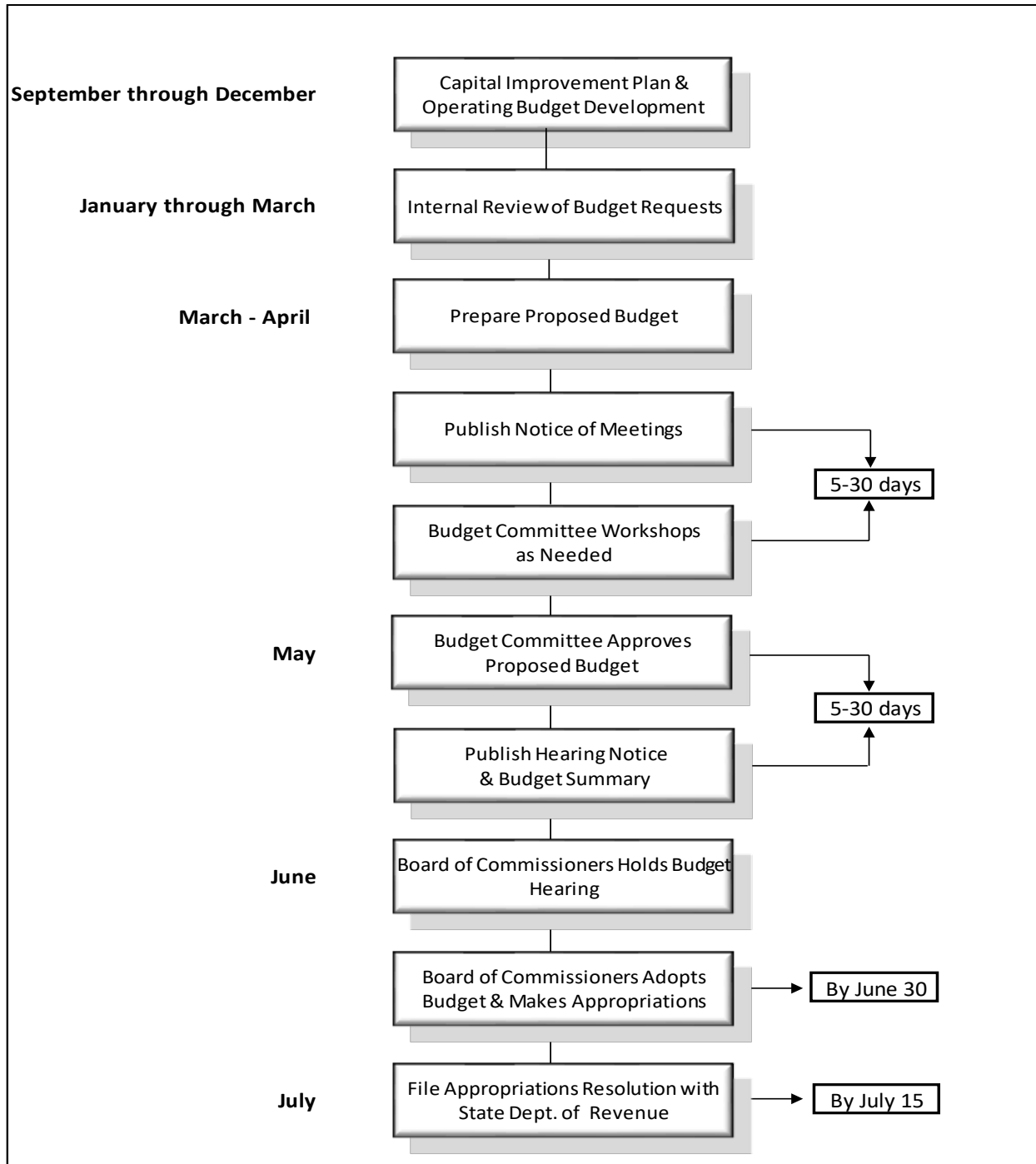


Figure 3- 2: Schematic of Budget Process

Financial Policies

Overview

On March 20, 2019, the TVWD Board of Commissioners adopted resolution 08-19, a resolution adopting the District's Financial Management Policies.² The purpose of the Financial Management Policies is to guide the management of the District's financial affairs, including policies related to financial planning, budgeting, debt management, accounting and reporting, business case evaluations, and other related matters. These policies provided specific guidance to the District's management and affirms the Board's commitment to the practices of sound financial management.

These policies follow GFOA best practices to institutionalize good financial management practice, manage risks to the District's financial condition, and support good bond ratings. This budget, and the District's Financial Plan presented in Section 5 comply with the relevant financial policies. The following summarize the purpose, goals and requirements of the District financial policies.

FINANCIAL PLAN
<p>Purpose: Long-term financial planning is the process of aligning financial capacity with long-term service objectives. This policy provides guidance on conducting the District's long-range financial plan.</p> <p>Goals: This Policy is intended to assist the District in the following:</p> <ul style="list-style-type: none">➤ Setting water rates over long term.➤ Providing insight into the District's long-term financial needs.➤ Promoting sound financial management.➤ Contributing to the preservation or enhancement of the District's credit ratings.➤ Informing the biennial operating and capital budget development process. <p>Requirements:</p> <ol style="list-style-type: none">1. Biennial preparation or more frequent updates of the Financial Plan.2. Consider new and updated information contained in other planning documents (e.g., Water Master Plan, Capital Improvement Plans, Biennial Budget).3. Forecast sources and uses of funds, capital expenditures, cash and debt usage, compliance with debt covenants, designated levels of cash reserves, revenue requirements, and growth in customers and demand.
DISTRICT BUDGET
<p>Purpose: The District makes program and service decisions to allocate scarce resources for operational or capital needs through its budget process.</p> <p>Goals: The District's budget provides guidance to District management by:</p> <ul style="list-style-type: none">➤ Establishing priorities for work during the budget period.➤ Establishing the legal spending limits for achieving those priorities. <p>Requirements:</p> <ol style="list-style-type: none">1. Biennial budget process.2. Compliance with Oregon Local Budget Law.3. Citizens' Budget Committee.4. Modified accrual as the basis of budgeting.5. Sufficiency of operating revenues.6. Capital Improvement Plan.7. Supplemental budgets, when necessary.

²The District's adopted Financial Management Policies are available at: <https://www.tvwd.org/finance>.

WATER RATES, FEES, & CHARGES

Purpose: This Policy describes the Board’s general rate-setting goals and directives.

Goals: The goal of this policy is to provide the District’s management guidance in setting rates, fees, and charges consistent with the Board’s policy direction.

Requirements:

1. Cost-of-service framework.
2. Water rates adjusted annually.
3. System development charges.
4. Cost recovery for services provided to other entities.
5. Miscellaneous fees and charges.

MINIMUM FUND BALANCES & RESERVES

Purpose: This policy guides the development of minimum cash balances that directly affect the District’s Financial Plan, rates and charges, and budget.

Goals: The decision to retain financial resources in fund balance or reserve directly affects:

- Financial risks to the District from unexpected disruptions to revenue or unexpected expenditures.
- Water rates required in current and future years.
- The District’s credit ratings.
- Other financial related matters.

Requirements: The District shall manage the following consistent with financial goals:

1. Working capital – shall be as least two months’ operations and maintenance expense.
2. Capital reserves – as identified in the District’s Financial Plan.
3. Debt service reserves – as required for debt issuance.

DEBT FINANCING

Purpose: This policy provides guidance on the issuance, structure, and management of the District’s long- and short-term debt.

Goals: This policy is intended to assist the District in the following:

- Evaluating available debt issuance options.
- Maintaining appropriate capital assets for present and future needs.
- Promoting sound financial management through timely information and disclosure.
- Protecting and enhancing the District’s credit ratings.
- Safeguarding the legal use of the District’s financing authority.

Requirements: The District shall consider the following and comply with all related policies in managing debt financing:

1. Type and use of debt.
2. Federal, state, or other loan programs.
3. Debt refinancing.
4. Debt structure considerations.
5. Method of sale.
6. Investment of proceeds.
7. Credit ratings objectives.
8. Investor relations.
9. Tax and arbitrage rebate compliance.
10. Post-issuance disclosure.
11. Consultants, advisors, and underwriters.

Financial Policies (continued)

ACCOUNTING STANDARDS & FINANCIAL REPORTING

Purpose: This policy provides guidance to management on the accounting standards to be used by the District and expectations of financial reporting.

Goals: To provide management guidance to produce and disseminate timely financial statements to meet the needs of the public, investors, and other District stakeholders.

- Providing accurate, transparent, and reliable accounting of the District's financial performance.
- Timely disclosure of the District's financial performance.

Requirements: The District shall comply with the following accounting and reporting policies:

1. Basis of accounting – compliance with GAAP and GASB.
2. Reporting entity.
3. Capitalization standards.
4. Depreciable lives and depreciation rates.
5. Accounting for joint ventures.
6. Valuation of inventory.
7. Indirect cost allocation plan.
8. Reporting including monthly reporting and annual preparation of a Comprehensive Annual Financial Report (CAFR).

INTERNAL CONTROLS

Purpose: Internal controls are used by management to mitigate the risk that the District's resources are not properly used.

Goals: Internal controls focus on operational effectiveness and efficiency, fraud prevention, reliable financial reporting, and compliance with laws, regulations, and policies to meet the following goals:

- Managing the risk of financial transactions.
- Establishing the legal authority of the procurement function.
- Building public confidence in the District's stewardship of its economic resources and management of its risks.
- Safeguarding the integrity of the District's procurement and accounting systems and protect against corruption, fraud, waste, and abuse.

Requirements:

1. Compliance with formal procurement rules.
2. Purchasing Limits.
3. Approval requirements for payments.
4. Obligations (Contracts, Leases, etc.).

Financial Policies (continued)

BUSINESS CASE EVALUATIONS
<p>Purpose: Business case evaluations are used to guide the expenditure of resources by capturing the rationale for undertaking a specific project or task.</p> <p>Goals: The goal of these policies is to promote efficient resource allocation through well-informed decision making by the District. The policies are intended to:</p> <ul style="list-style-type: none">➤ Protect the District’s economic resources by forecasting the expected returns from the District’s efforts and investments.➤ Provide a common framework for evaluating business decisions throughout the District. <p>Requirements:</p> <ol style="list-style-type: none">1. The CFO shall periodically publish guidance for the conduct of business case evaluations, including appropriate discount rates.2. The District shall evaluate alternatives that meet the service level at the least cost.
OTHER BOARD FINANCIAL GOALS & OBJECTIVES
<p>Purpose: The Board has adopted other financial goals and objectives that do not fall within one of the above categories.</p> <p>Goals: To provide additional guidance to management on other Board financial goals and objectives.</p> <p>Requirements:</p> <ol style="list-style-type: none">1. The District shall purchase water for distribution to balance the need to minimize cost and maximize water quality and reliability for its customers.2. The District will have access to multiple sources of supply with the goal to provide redundant supplies to all customers.3. The District shall maintain an Asset Management Plan that protects the value of the District’s infrastructure and maximizes the value of the District’s expenditures on operations and maintenance.

District Debt Limitation

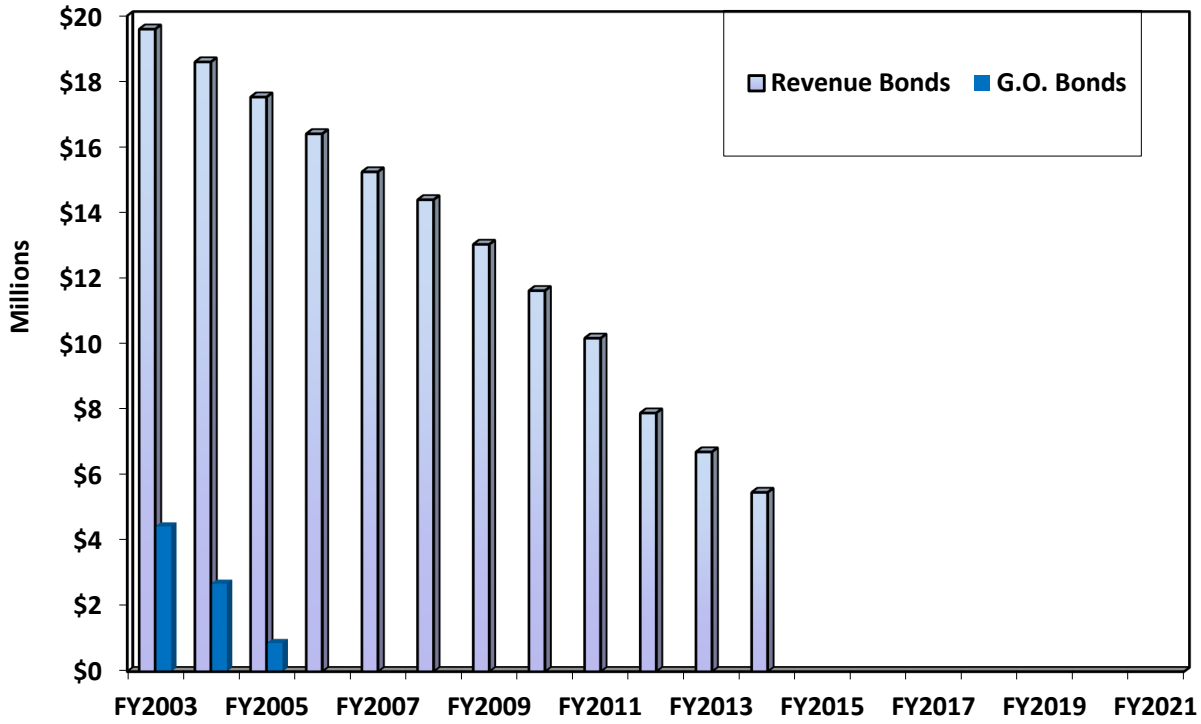
Oregon Revised Statute (ORS) 264.250(3) limits general obligation (GO) debt of water supply districts with a population of 300 or more to no more than ten percent of real market value of all taxable property. The real market value of the taxable property within the Tualatin Valley Water District boundaries is \$46.6 billion according to information provided by the Washington County Assessor’s Office. That value would allow the District to issue up to \$4.66 billion in GO debt. The District last issued GO debt in 1993 and retired the last of that obligation in 2005, leaving a theoretical debt margin available of \$4.66 billion.

The District has no plans to issue general obligation debt. Consistent with the District’s Financial Management Policies, the District plans to use revenue bonds and other rate-supported debt instruments.

The District’s authority to issue revenue bonds is contained in the Oregon State Uniform Revenue Bond Act (ORS 288.805 – 288.945). There is no explicit limitation on the amount of revenue debt that may be issued, but as a practical matter debt issuance is limited by available revenues and customer affordability concerns.

As in the prior biennium, the District’s 2021-23 biennium begins debt free. However, the District is planning to access its WIFIA loan proceeds during the 2021-23 biennium for the Willamette Water Supply Program. The District has authority to issue revenue bonds under its existing Bond Ordinance and Master Declaration. For more information on the District’s financing plans see **Section 5 - Multi-Year Financial Outlook**.

Bond Principal Outstanding
 (As of June 2015, TVWD has no debt outstanding)



Introduction

The Tualatin Valley Water District (District) prepares its strategic plan biennially as part of its biennial budget development process. Developing the District’s strategic plan is a multidisciplinary effort that includes participation by the entire District – the governing body, management staff, and employees.

Mission, Vision, and Values

The District develops its strategic plan to align with its mission, vision, and values. This biennial budget includes resources to review, and if prudent, update the District’s mission, vision, and values. Along with this review/update, the District plans to examine its strategic planning process to ensure both the mission/vision/value and strategic planning process reflect the District’s evolving role as a regional water provider. For this biennial budget, the District used its current vision, mission, and values, and its strategic planning process, with slight modifications to accommodate the COVID-19 crisis, that support them.

The District’s vision, mission, and values are the foundation for the organization, providing a clear direction and helping each employee and work group make appropriate decisions on a day-to-day basis.

<p><i>TVWD Vision</i> Delivering the Best Water ♦ Service ♦ Value</p> <p><i>TVWD Mission</i> To Provide Our Community Quality Water and Customer Service</p> <p><i>TVWD Values</i> Reliability ♦ Integrity ♦ Stewardship ♦ Excellence ♦ Safety</p>

Strategic Planning Process

Development of the Strategic Plan

The District modified its strategic planning process slightly this biennium to be successful within the District’s operating protocols required by the COVID-19 pandemic. These modifications included using the District’s leadership team to validate major themes and develop the initiatives that support the District’s strategic plan. Once constructed, the strategic plan along with its major themes and initiatives were presented to the District’s governing body, the Board of Commissioners, for review and discussion.

On the next page, Figure 4-1 graphically depicts the steps used for the District’s strategic planning process.

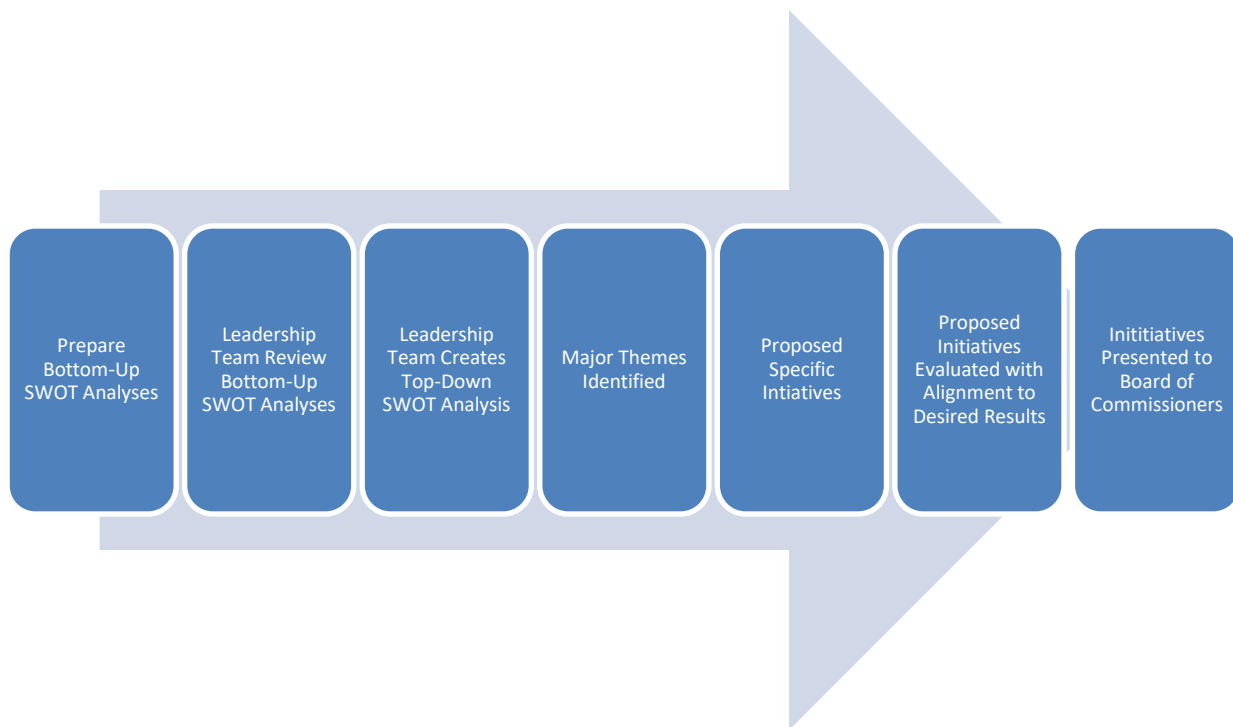


Figure 4-1: Graphic Depiction of the District’s Strategic Planning Process

SWOT Analysis and Major Themes

The District’s 2021-23 strategic planning process started before the COVID-19 pandemic in the fall of 2019 with a detailed Strengths, Weakness, Opportunity, and Threat (SWOT) analysis. The SWOT analysis was conducted from both a “bottom-up” and “top-down” perspective. As part of the bottom-up analysis, each working group prepared a SWOT analysis which was then presented by each department manager to the District’s Leadership Team. This comprehensive bottom-up SWOT analyses included input from all employees within the District.

After considering the District’s bottom-up SWOT analyses (i.e., one SWOT analysis from each work group), the District’s Leadership Team created a consolidated top-down SWOT analysis. The consolidated SWOT analysis was not merely a collection of the elements identified by each work group. Rather, the bottom-up SWOT analysis was used to provide context for the District’s consolidated analysis. This process of both a bottom-up and top-down analysis provided a broad view of the District’s strengths, weaknesses, opportunities, and threats. The Leadership Team then used the consolidated SWOT analysis to guide its development of the District’s strategic plan. Each work group used its bottom-up analysis, and the District’s top-down analysis, to align their overall work plan and budget request for the biennium.

In reviewing the consolidated SWOT analysis, the Leadership Team identified five major themes that guided the development of the actionable components (i.e., initiatives) of the District’s strategic plan. These major themes included:

1. Human investment. Prepare employees to be successful in meeting the future requirements of the District.
2. Intergovernmental relations. Improve relationships with local governments and neighboring utilities to solidify TVWD as a necessary and desired regional resource.
3. Business intelligence. Improve planning and the District’s ability to respond by developing actionable information from disparate sources of data.

4. Efficiency through modernization. Improve the service levels provided to the District’s customers and find long-term strategies to lower the cost of doing so.
5. Current initiatives. Successfully execute and complete the initiatives currently underway.

Strategic Plan Aligns with Desired Results

The District’s strategic plan was created in a manner that aligns with its adopted *desired results*. TVWD’s desired results are what many other organizations might call organizational goals. The District refers to them as desired results to emphasize the District’s focus on the results of actions more than the actions themselves.

The District developed its current desired results to align with its mission, vision, and values. The desired results identify what District staff, programs, and policies seek to accomplish. Figure 4-2 presents the District’s desired results which were adopted by the Board of Commissioners in December 2012. The District will review the adopted desired results as part of its project to update its current mission, vision, and values. The resources required for this update are included within this biennial budget.

Tualatin Valley Water District Desired Results
1. The Water Supply Meets Community Needs and Expectations
2. The Community Is Confident in Our Water, Service and Employees
3. We Are Good Stewards of Our Financial Resources
4. We Are Good Stewards of Natural Resources
5. We Are Good Stewards of Our Own Assets and Resources (People & Physical Assets)

Figure 4-2: District's Desired Results

Monitoring Progress and Reporting

The District tracks progress on the selected initiatives and reports that progress periodically to management and the Board of Commissioners. These periodic reports continue until the initiatives are complete.

Update on 2019-21 Strategic Initiatives

The District identified six initiatives for its 2019-21 strategic plan. Figure 4-3 below presents the 2019-21 initiatives and how these initiatives align with the District’s desired results.

#	District Initiatives	Desired Results				
		Water Needs & Expectations	Community Confidence in TVWD	Stewards of Financial Resources	Stewards of Natural Resources	Stewards of People and System
1	Program for Management and Operation of the WWSS	✓	✓	✓	✓	✓
2	Debt Program	✓	✓	✓		
3	Strategic Communications Program	✓	✓	✓		✓
4	Develop and Implement CIS		✓	✓		✓
5	District Resiliency Program	✓	✓	✓	✓	✓
6	Human Capital Strategy	✓	✓	✓		✓

Figure 4-3: Alignment of 2019-21 Initiatives with Desired Results

The District has made significant progress on the initiatives during the 2019-21 biennium. Of the six initiatives, the District has completed three. The remaining three initiatives are ongoing; one remains on schedule and two are reported as “some issues slowing this down”. Figure 4-4 below presents the status of the 2019-21 initiatives.

#	Description	Dept. or Division	Target Date	Status	Status
1	Program for Management and Operation of the Willamette Water Supply System	Admin	June 2026	G	●
2	Debt Program	Finance	June 2021	C	✓
3	Strategic Communications Program	Communications & Public Affairs	December 2021	Y	●
4	Develop and Implement CIS	Customer Service	February 2022	Y	●
5	District Resiliency Program	Risk	June 2021	C	✓
6	Human Capital Strategy	HR	June 2021	C	✓

KEY:			
	Completed	C	✓
	On Schedule	G	●
	Some issues slowing this down	Y	●
	Significantly off schedule	R	●

Figure 4-4: Status of 2019-21 Initiatives

Initiative No. 1 is the development of the program for the operations and management of the Willamette Water Supply System (WWSS). This initiative will continue until the new WWSS is commissioned and online at the end of FY2026.

Initiative No. 2 is complete. This initiative included implementing all the requirements for the District to issue debt to finance its infrastructure investment, including its major investment in the WWSS. The initiative included:

- Developing a revenue bond master declaration for the issuance of debt.
- Completing the planned execution of the District's Water Infrastructure Finance and Innovation Act (WIFIA) loan with the US Environmental Protection Agency.
- Receiving credit ratings from two nationally recognized rating agencies.

In addition, during the biennium the District re-executed its WIFIA loan, thereby reducing the interest rate on its WIFIA loan from 2.39 percent to 1.35 percent. The District will continue to plan for future debt issuances to support its infrastructure investments. But the District considers the debt program to be complete and this initiative will not be carried forward in the 2021-23 biennium.

Initiative No. 3 is the District's strategic communications program. The District is implementing a strategic communications program to enhance its communications with the community and partners. To date the strategic communications program initiative has launched a new web presence, implemented a new logo, developed a monthly online forum for customers to learn about the District, and supported the other important initiatives of the District. Although largely complete, certain elements of the strategic communications program have been delayed largely due to COVID-19. Those delayed elements include developing templates and other tools to be used by the District in communicating with the public. This initiative is scheduled to be complete in the coming biennium.

Initiative No. 4 is the replacement of the District's in-house developed Utility Billing (UB) system with a modern, commercially available system. This new Customer Information System (CIS) is scheduled to go live in the late winter early spring of 2022 and is a partnership project with Clean Water Services. During the 2019-21 biennium the District conducted a rigorous procurement process that resulted in the selection of a vendor, Open International, which will implement its Smartflex CIS product. This project is extremely complex. Progress has been steady, but the project team remains concerned about the effects that COVID-19 will have on the project schedule.

Initiative No. 5 is the District's resiliency program. To increase resiliency, the District adopted an updated *All Hazards Emergency Response Plan (ERP)* in 2014. This initiative included updating the District's Risk & Resilience Plan (Vulnerability Analyses, or VA) following the requirements of the *America's Water Infrastructure Act of 2018*. In addition, the resiliency program aimed to:

- Continue implementation of the ERP adopted in 2014,
- Establish level of service goals for each department and continuity of operation plans,
- Develop standard operating procedures that support resiliency,
- Strengthen cooperative relationships with partner agencies for effective emergency responses,
- Develop community and staff preparedness plans, and
- Conduct employee and family support/training.

This initiative was completed earlier in the biennium and will be closed out by the end of FY2021.

The last initiative, Initiative No. 6, is the District's Human Capital Strategy. The District is facing a challenging labor market that includes increasing competition and labor regulations (e.g., Oregon Public Employee Retirement System, aging workforce, Oregon Equal Pay Act). The goal of this initiative includes increasing the pool of candidates for job openings. Specifically, this initiative included implementing a new hiring process based on the widely used NeoGov platform. This initiative also supported the departments implementing workforce development and cross-training opportunities. The District completed its NeoGov implementation and extended the value of NeoGov by integrating it into the District's employee performance review process. This initiative is complete and has provided a framework for future work related to employee investments.

2021-23 Strategic Initiatives

Description of Strategic Initiatives

The strategic initiatives for the 2021-23 biennium were based on the major themes prepared by the leadership team and presented to the Board of Commissioners. As described on Page 4-2, the District's SWOT analysis and major themes were used to identify the following initiatives:

Initiative 1: Mission, Vision, and Values. The District will review, and if appropriate, update its mission, vision, and values. This review/update will also include a review of the District's strategic planning process. The goal of this initiative is to make sure the District's mission, vision, and value remain relevant as the District continues its transformation to a regional water provider with the development of the WWSS and WIF.

Part of the initiative will examine the District's culture related to leadership and communications to ensure the District is fully prepared for its evolving role. The District began this effort in the current biennium by implementing District-wide leadership and communications training. This will continue in the coming biennium and is part of this initiative.

Also, the District's efforts to be more diverse and inclusive is included in this initiative. The goal is to ensure the District's values related to diversity, equity, and inclusion are more fully integrated into its culture.

Every department within the District has a role in supporting this initiative. The Administrative Services Department is the lead department, and its budget includes resources to complete the initiative. See Section 9 for more information.

Initiative 2: Classification and Compensation Study. The District continues to operate in a competitive labor market that has differing expectations for compensation. The District's current classification and compensation structure dates from the 1990s and will likely benefit from modernization. Over the years, compensation for some of the District's positions may have deviated from the local labor market. Additionally, the District's current wide-band compensation structure may not be appealing to the modern work force that is becoming a greater portion of the District's employee base as retirements occur.

Every department within the District will actively participate in the Classification and Compensation Study. The Human Resources Division within the Administrative Services Department is the lead, and its budget includes resources to complete the initiative. See Section 9 for more information.

Initiative 3: Governmental Affairs. Enhancement to the District's governmental affairs capabilities is needed as the District increases its role as a regional water provider. This initiative has three major elements. First is the development of an overall strategy to enhance the District's ability to work closely with its partners and other local water providers. Second is the reorganization of the communications team to align with the newly created government affairs program. And lastly is the implementation of new survey tools that will allow the District to better understand the needs of its customers, employees, and regional partners.

The Government Affairs initiative will primarily be led by the Administrative Services Department (see section 9). However, the reorganization of the communications team and the new survey tools will be led by the Communications Division within the Customer Service Department (see Section 10). Funding for this initiative is included in both departments' budget (see Section 9 for the Administrative Services Department, and Section 10 for the Customer Services Department).

Initiative 4: Business Decisions Data. Like many organizations, the District's data resources are growing as technology allows. This accumulation of data, often from disparate data sources, can be a source of incredible information. This initiative strives to enhance the District's ability to use disparate sources of data to inform business decisions. The overall goal is to increase the quality and availability of data to support data-informed decision making. The initiative includes the further deployment of the District's data warehousing capabilities and implementation of a District-wide strategy to make the data available in relevant dashboards. The overall goal is to help the District make data-informed decisions and have more efficient business processes.

Every department within the District is expected to participate in the Business Decision Data initiative. The IT Services Department is the lead, and its budget includes resources to complete the initiative. See Section 14 for more information.

Initiative 5: Modernization. The District continues to embrace technology as a way of reducing costs, enhancing service levels, or both. This initiative focuses on three areas of modernization. The first is developing a strategy for Advanced Metering Infrastructure (AMI) for the District. AMI will allow the District to reduce its operating expenses while enhancing the service level to customers. The second focus area of this initiative is implementing a project management center to provide leadership in managing projects within the District. Although the primary goal of the project management center is to manage capital project delivery, all projects executed by the District will benefit from the development of a standardized methodology. Finally, the last area of focus for this initiative is the maturing of the District's asset management efforts. The District continues to acquire data and methods of reducing the costs of maintaining and replacing infrastructure by improving its asset management techniques.

The Customer Service department will lead the development of the District's AMI strategy. See Section 10 for more information on this initiative effort.

The Engineering and Operations Department will lead the Project Management Center and Asset Management project. See section 11 for more information.

Initiative 6: Complete Existing Initiatives. The District is in mid-execution of two very significant efforts that must be continued in the coming biennium. The first is the construction of the WWSS and the WIF. This long-term project will continue through the end of FY2026 and will require significant financial and managerial resources to be successful. The Water Supply Program Department was created in the 2015-17 biennial budget to execute this initiative (see Section 13). In addition to Section 13, Sections 16 and 17 provide more information on the capital projects associated with this initiative.

The District's CIS project is at a critical phase and its implementation will carry over into the 2021-23 biennium. CIS projects are notorious for their risk and complexity. This budget continues to provide the financial and managerial resources to make the CIS

project a success. The Customer Service Department is leading the effort on the CIS. More information on the CIS project is included in those Department budget (see Section 10) as well as the District’s CIP. See page 15-89 for more information on the planned capital spending for the CIS project.

There are four other efforts that are of lesser profile than the WWSS/WIF and CIS efforts. Those lower profile efforts include developing a plan to close the Program Management Office that is managing the WWSS/WIF efforts, complete the branding process for the District, decommission the District’s on-premises SharePoint site, and maintain the investments in other critical infrastructure within the District. These lesser-profile efforts are led by the Water Supply Program Department (see Section 13), Customer Service Department (see Section 10), the IT Services Department (see Section 14), and Engineering and Operations Department (see section 11), respectively.

Department Involvement in Strategic Initiatives

As described above, each strategic initiative has one or more leaders. Figure 4-5 presents the involvement of each department and the HR division in the strategic initiatives.

Strategic Initiative	Administrative Services	Human Resources	Customer Service	Engineering & Operations	Finance	Water Supply Program	IT Services
Mission, Vision, and Values	Lead	Support	Support	Support	Support	Support	Support
Classification/Compensation Study	Support	Lead	Support	Support	Support	Support	Support
Government Affairs	Lead						
Business Decision Data	Support	Support	Support	Support	Support	Support	Lead
Business Decision Data	Support	Support	Lead	Lead	Support	Support	Support
Existing Initiatives	Support	Support	Lead	Lead	Support	Lead	Lead

Figure 4-5: Department Involvement in Strategic Initiatives

Alignment of Strategic Initiatives with Desired Results

Figure 4-6 presents the alignment of each strategic initiative with the District’s adopted Desired Results.

Strategic Initiatives	Desired Results				
	Water Needs & Expectations	Community Confidence in TVWD	Stewards of Financial Resources	Stewards of Natural Resources	Stewards of People and Systems
Mission, Vision, and Values		✓	✓	✓	✓
Conduct Classification / Compensation Study			✓		✓
Government Affairs	✓	✓			✓
Business Decision Data	✓	✓	✓	✓	✓
Modernization	✓		✓	✓	✓
Existing Initiatives	✓	✓	✓	✓	✓

Figure 4-6: Alignment of Strategic Initiatives with Adopted Desired Results

The District continues to review and update its initiatives with each biennium cycle. Management provides periodic progress reports to the District’s Board, customers, and stakeholders as part of the ongoing effort to achieve the Desired Results listed above.

Performance Measures

TVWD measures performance in areas that move the organization closer to its mission, vision, and values. The strategic planning process emphasizes the results of staff actions and District policies. The District uses its adopted performance measures to monitor the results of the District’s efforts. Measures are listed below under the appropriate Desired Result with responsible department.

DESIRED RESULT 1: The water supply meets community needs and expectations

DESIRED RESULT 1 PERFORMANCE MEASURES	Department responsible
No violations of National Primary Drinking Water Regulations. Target met.	Engineering & Operations
≥ 90% of unplanned outages responded to within 4 hours. Target met.	Engineering & Operations

DESIRED RESULT 2: The community is confident in our water, service and employees

DESIRED RESULT 2 PERFORMANCE MEASURES	Department responsible
TVWD maintains leadership role in ≥50% of IGAs, partnerships, etc. Target met.	Administrative Services
≥15% of District employees actively participate in water industry related organizations. Target met.	District

DESIRED RESULT 3: We are good stewards of our financial resources

DESIRED RESULT 3 PERFORMANCE MEASURES	Department responsible
Number of unscheduled maintenance events is ≤ 60. Target not met. Actual events were 65.	Engineering & Operations
District bond rating (S&P and/or Fitch) is AA+ or better. Target met.	Finance
Regular hours worked per workable hours available is ≥ 85%. Target met.	Finance

DESIRED RESULT 4: We are good stewards of natural resources

DESIRED RESULT 4 PERFORMANCE MEASURES	Department responsible
District implements no Stage 3 (mandatory usage reduction) or greater measures in curtailment plan. Target met.	Engineering & Operations
Average water usage in gallons per capita per day for single- and multi-family accounts is 100 or less. Target met.	Customer Service
Number of water efficiency fixture rebates provided is $\geq 1,200$. Target not met. Actual water efficiency fixture rebates were 970.	Customer Service

DESIRED RESULT 5. We are good stewards of our own assets and resources (people and assets)

DESIRED RESULT 5 PERFORMANCE MEASURES	Department responsible
No incidents of vandalism reported that exceed insurance deductible (\$1,000). Target met.	Admin
90%+ of our #1 hiring choices accept a position offer. Target met.	Admin
90%+ of employees with last performance review of 3.0 or better (excluding retirements) stay at the District. Target met.	Admin
85% safety corrective actions completed on schedule (with Safety Committee recommendations). Target met.	Admin

The District uses a 30-year financial forecast model (Forecast) to analyze future revenue needs, cash reserves, operating expenditures, and capital expenditures. The 30-year timeframe allows the District to plan for the financial impacts of a planned new water supply, the in-District capital expenditures, potential changes in customers and demands, and other important factors.

Although the Forecast is an indispensable management tool to assess the feasibility and effects of future capital and operating plans, it does not establish future rate strategies. Establishing those rate strategies is the prerogative of the Board and undertaken separately as part of the District's rate-setting process.

As this proposed budget was being developed, the District published its *2021-23 Financial Plan* document which summarizes its current Forecast. The current Forecast and Financial Plan are based on the District's latest data and assumptions from the then-requested 2021-23 Budget, including capital improvement plan (CIP) costs, operations and maintenance (O&M) costs, rate and non-rate revenues, and system development charge (SDC) collections. For more detail on these and other assumptions used in the Forecast model, please refer to the District's *2021-23 Financial Plan* available online at <https://www.tvwd.org/finance/page/financial-plan-0>.

Willamette Water Supply Program

In 2013, the District's Board voted to expand the District's portfolio of water sources and develop a new water supply on the mid-Willamette River near Wilsonville. As a result of the Board's decision, the District established the Willamette Water Supply Program (WWSP) to manage the development of this new supply. The District worked with neighboring water utilities to develop partnerships to reduce the overall cost and risks of the new supply. Those new partnerships resulted in the creation of the Willamette Intake Facilities (WIF) Commission and the Willamette Water Supply System (WWSS) Commission. More information on these new entities is provided below.

In addition to creating a more reliable and resilient system, the District will replace its Portland purchased water with this newly created water source. The new supply is scheduled to be available to the District by July 1, 2026, at which time the District will replace its water purchased from Portland with this new source.

The District is using regional partnerships to implement the new water supply. TVWD serves as the Managing Agency for the new regional water entities:

1. WIF Commission – The WIF is a joint venture of the District and the cities of Beaverton, Hillsboro, Sherwood, Tigard, and Wilsonville to jointly own and operate a raw water intake facility located at the current Willamette River Water Treatment Plant in Wilsonville, Oregon.
2. WWSS Commission – The WWSS is a joint venture of the District and the cities of Beaverton and Hillsboro to construct and operate supply facilities that convey raw water from the WIF, treat the raw water to potable standards, and convey the potable water to each partner's distribution systems.¹

¹ The WWSP website (<http://www.ourreliablewater.org/>) provides additional information including activities-to-date, maps, and other related information for all WIF and WWSS projects.

WIFIA

The total cost of the WIF and WWSS infrastructure (including inflation) is approximately \$1.3 billion. Until 2018, the District had assumed that it would fund its projected share (approximately \$729 million at the time) with cash and revenue bond proceeds.² In 2019, the District and its WWSS partner, the City of Hillsboro, applied for loans through the Water Infrastructure Finance and Innovation Act (WIFIA) program, a federal loan and guarantee program administered by the U.S. Environmental Protection Agency (EPA). The District closed its original WIFIA loan on August 2, 2019 and Hillsboro closed its loan shortly thereafter. The interest rate for the District's original loan, which would fund up to 49% of the District's share of WIFIA-eligible project costs was 2.39%. The District and the EPA estimated that this WIFIA loan would save the District's customers approximately \$138.4 million.

In the spring of 2020, the District requested the EPA amend the District's draw schedule under its existing WIFIA loan. This requested amendment better aligned the District's WIFIA draws with its new projected cash flow requirements. The EPA approved the revised draw schedule, allowing the District to make more of its total WIFIA funding (i.e., \$387.75 million) available earlier in the WIF's and WWSS's construction phase.

After the District closed its WIFIA loan, market conditions changed and interest rates declined. To achieve greater interest rate savings, the District requested that its WIFIA loan be re-executed. The EPA allowed this re-execution, and the District closed its re-executed WIFIA loan on September 15, 2020 at a lower interest rate of 1.35%. Under the new terms (i.e., revised draw schedule and lower interest rate), the District and the EPA estimated additional savings of approximately \$122 million for the District's customers. To date, the District has not drawn on its WIFIA loan.

Key Policies Guiding the Forecast

- Until the WWSS is available FY2027,³ water purchases will continue to be balanced between the Portland and Joint Water Commission (JWC) sources.
- Capital costs will be funded with a blend of cash and debt, with the cash portion coming from water rate revenue, SDCs, and capital reserve fund balances.
- Related to debt financing (WIFIA and revenue bonds) capital expenditures, the District will manage its finances to:
 - Meet or exceed a combined debt service coverage (DSC) ratio of 2.0 times annual debt service, and
 - Avoid net leverage greater than 8.0 times adjusted annual net revenue in all future years.
- The District anticipates funding debt service reserves with each future revenue bond issue.
- The District's will maintain its combined year-end cash balances at 250 days (or more) of operating expenditures.
- Other key policies guiding the Forecast are defined in the District's *Financial Management Policies*,⁴ adopted by the Board of Commissioners on March 20, 2019 (Resolution 08-19) and updated as required.

² WWSP partner costs will be funded individually by the District's partners, with payments made through the District as Managing Agency of the WWSP.

³ FY2027 refers to the fiscal year beginning July 1, 2026 and ending June 30, 2027; commonly known as fiscal year ending 2027, or FY2027.

⁴ Available under "Supporting Documents" on the District's Finance Dept. page (<https://www.tvwd.org/finance>).

Customer Withdrawals, Water Demands, and Revenue Impacts

In February 2018, the District and the City of Beaverton entered into a service area agreement (Beaverton Service Area Agreement). This service area agreement provided a framework for the District and Beaverton to plan for serving customers within Beaverton's corporate jurisdiction in places where it overlaps with the District's boundaries. The agreement provided Beaverton an opportunity to withdraw a limited number of customers from the District, thereby making them Beaverton customers. Since then, Beaverton has withdrawn approximately 4,300 water services from the District.

The water demand forecast underlying the District's Financial Plan incorporates Beaverton's withdrawals. Related reductions in the District's service accounts and associated water consumption are embedded in the projected source water purchases and rate revenue (fixed charges and water sales) included in the Forecast model.

At this time, the District is aware of limited additional areas from which Beaverton could withdraw customers in the future.⁵ Regardless of the ultimate number of services that Beaverton withdraws, the probability is low that future withdrawals would occur all at once. Rather, a series of withdrawals with subsequent transfer activities over multiple years may impact the District's finances in a gradual way.

Given the staggered timing of customer transfers to wheeling status and then separated status (i.e., served directly by Beaverton), the impact to the District's finances has been gradual. Should Beaverton pursue additional transfers in the future as the implementation of the agreement proceeds, the District will refine the projected revenue impacts in the Forecast.

Other Demographic Assumptions Underlying the Revenue Forecast

- **Customer Growth** – Before factoring in assumed withdrawals by Beaverton, the assumed annual customer growth rate begins at 0.70% in FY2022 and then declines by 0.05% annually until it reaches zero in FY2036. These reductions in growth recognize the anticipation of slowing of development as the District approaches its build-out capacity. Expansions of the region's urban growth boundary on the northern edge of the District's current service area may increase these assumed growth rates for future years.
- **Water Sales** – Recently, the District has seen fluctuations in its water demand. In the summer of 2019, consumption per capita declined 8% but then stabilized until the COVID-19 pandemic hit in 2020. The District saw further declines in the summer of 2020, likely due to the economic impacts of the pandemic. Since November 2020, it appears that water usage per customer has rebounded somewhat.

In its Forecast modeling, the District assumes that these past conservation savings and declines in system demands are permanent and forecasts sales growth at approximately half the rate of customer growth in FY2022 (i.e., 0.37%). This assumption is related to a combination of factors including the potential for mild weather, a successful conservation program that has depressed summer water demands, and the District's similar experience to the nation-wide trends towards higher density developments, smaller family sizes, and widespread assimilation of water-efficient appliances. The Forecast uses the assumed 0.37% annual sales growth rate through FY2028. After FY2028, the District assumes that sales growth will align with customer growth, ultimately becoming zero by FY2036.

⁵ Section 3.7 of the Beaverton Service Area Agreement defines the obligations of Beaverton to assume a proportionate share of the District's outstanding debt for all withdrawals effective after July 2, 2020.

- **COVID-19** – The COVID-19 pandemic and resulting economic crisis have had significant impacts on the District’s financial performance over the last year, including:
 - Large unfavorable monthly water sales variances over the summer of 2020.
 - Temporary moratorium on shutting off customers’ service for non-payment. The number of water customers in shutoff status increased from 1,180 in April 2020 to a total of 1,797 in June 2021.
 - Increase in the accounts receivable (AR) for customers who would have experienced shutoff from \$234 thousand in April 2020 to \$902 thousand in June 2021.
 - A corresponding increase in the average age of accounts receivable (AR Aging) for these customers from 51 days in April 2020 to 97 days in June 2021.
 - Clear indications, as measured in days of sales outstanding (DSO), that many customers are taking longer to pay their water bills than before the COVID-19 crisis began.
 - Declining yields on the District’s portfolio of investments.

As the COVID-19 crisis extends into FY2022, the District continues to monitor its revenues, collections, and expenses to anticipate potential impacts on the District’s financial performance. The District anticipates that revenues will be lower than planned and estimates that it will finish the 2019-2021 biennium with an unfavorable water sales revenue variance between \$9 and \$11 million. Additionally, over the next few years, the District expects a significant increase in spending on the WWSS, which will result in a significant decrease in its investment portfolio.

Key Economic Assumptions Included in the Forecast

- **Operations and Maintenance (O&M) Costs** – Most O&M costs (i.e., personnel services and materials and services costs) were projected to escalate from FY2023 budget data at 4.5% annually.
- **PERS Pension Costs** – Like many pension plans, the Oregon Public Employees Retirement System (OPERS) plans currently have an unfunded actuarial liability (UAL). The OPERS UAL is allocated to employers of the plan. Based on its latest valuation report, the District estimates its current share of OPERS UAL is approximately \$10.5 million. In addition, District management believes the assumed discount rate currently used by OPERS to value the UAL may be reduced in the future. A reduction in the assumed discount rate, everything else being equal, increases the OPERS UAL and the UAL allocated to the District. Based on analysis conducted by OPERS consultants and actuaries, a change in the assumed discount rate by 1% could add another \$10 million to the District’s UAL.

The District’s share of the OPERS UAL is the result of many factors including changes in actuarial assumptions, earnings on the OPERS investments, and other OPERS policies (e.g., rate collaring). The District’s share of OPERS UAL is a liability of the District and is reported in the District’s financial statements consistent with the requirements of the various Government Accounting Standards Board (GASB) statements on pension reporting.

In the 2019-21 biennium, the District’s budget included \$20 million to fund an OPERS side account with two deposits of \$10 million each. The deposits were to be separated in time to mitigate market risks since the OPERS investments of side accounts has greater market risk than the District’s investment portfolio. Ultimately, only the first \$10 million deposit was made which cut the District’s UAL almost in half to its current level of approximately \$10.5 million.⁶ Nonetheless,

⁶ For details on the District’s PERS valuation and a system-wide analysis of OPERS, see *Appendix G – PERS Valuation Report* in the District’s 2021-23 *Financial Plan*.

funding the side account resulted in lower OPERS rates and payments by the District, and allows the District's assets to be invested in a manner more consistent with long-term retirement needs.⁷ Currently, there is no additional side account funding included in the District's Adopted 2021-2023 Budget or Forecast model.

- **Wholesale Water Rates** – Portland Water Bureau (Portland) wholesale contract rates were provided by Portland. Through FY2026, annual changes are projected to vary from a decrease of 8.6% (FY2022) to an increase of 16.9% (FY2023). Staff will closely monitor PWB wholesale rate increases and adjust the Forecast accordingly.

Based on recent trends, JWC rates are projected with 4.5% annual increases in the Forecast.

- **WIFIA** – WIFIA issuance costs were approximately \$500,000. These costs will be reimbursed from WIFIA loan proceeds. Currently, the District estimates that the total WIFIA loan amount will include \$27.4 million of accumulated (capitalized) interest, based on projected WIFIA funds drawn from FY2022 to FY2024 and the 1.35% interest rate from the re-executed WIFIA loan. The total projected WIFIA loan amount of \$415.1 million⁸ is expected to be repaid over 33 years, beginning in FY2028.⁹
- **Revenue Bonds** – A detailed summary of the Forecast's estimated debt financings is included in the *2021-23 Financial Plan at Section 5.4 – Schedule of Future Debt Issuance*. Key assumptions include the following:
 - Revenue bond issuance costs are estimated at 0.75% of the par amount for each issuance through FY2025 and 1.50% of the par amount for each issuance thereafter, with the costs included in the total issuance amount.
 - Each projected bond issue also includes funding for a debt service reserve. The assumed reserve requirements were calculated based on the maximum annual debt service (MADS) of each issuance.
 - Revenue bond debt repayments were projected for all bond issuances using a 30-year term.
 - In the Forecast, interest rates vary by year of issuance. The assumed interest rate is 3.5% for revenue bonds issued through FY2026. The District assumed that rates would increase by 0.5% each year thereafter, until leveling off at 5.5% in FY2030 and beyond.

Additional details on the Forecast's economic assumptions are available in the *2021-23 Financial Plan at Section 6 – Financial Forecast*.

Planned Capital Expenditures, Financing, and District Reserves

Over the next ten years, the forecast results are driven largely by anticipated capital spending on the WWSS. As discussed above, the District will require outside debt financing throughout the WWSS construction period. In addition to assumed WIFIA draws from FY2022 through FY2024, the District's capital investments may require an initial revenue bond sale in FY2025. The District may accelerate its bonding strategy should WWSS cashflow requirements change or if other conditions exist that make entering the debt market sooner a more favorable option. In any event, the exact amount and timing of bond sales will be determined as future CIP expenditures and cash flow requirements are refined.

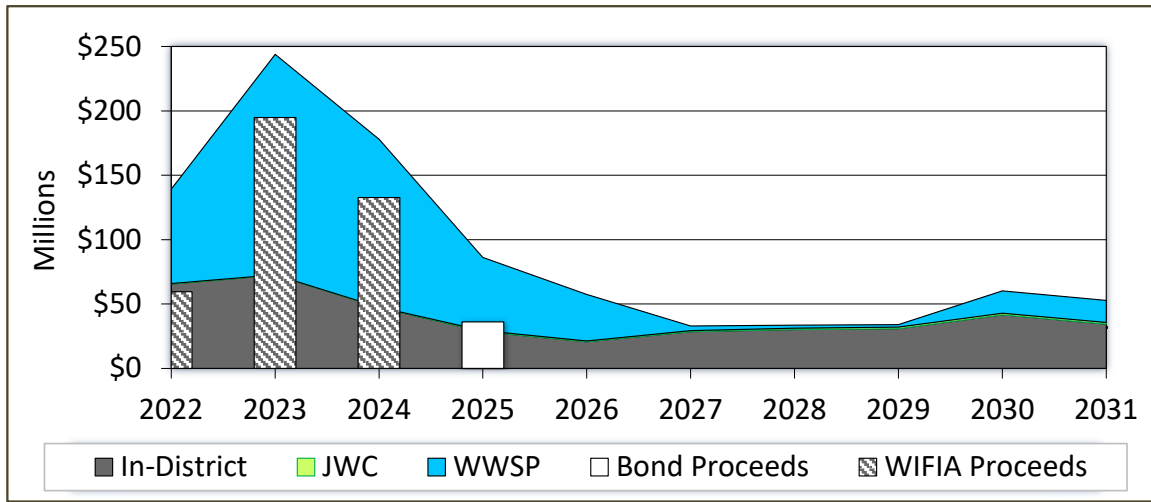
⁷ The District's investment policies are conservative and restrict the types and maturities of investments whereas OPERS-funded side accounts are invested consistent with long-term retirement funds.

⁸ The total WIFIA loan amount is a projection that includes estimates of capitalized interest.

⁹ The terms of the WIFIA loan agreement allow the District to delay loan repayments until after substantial completion of the WWSS.

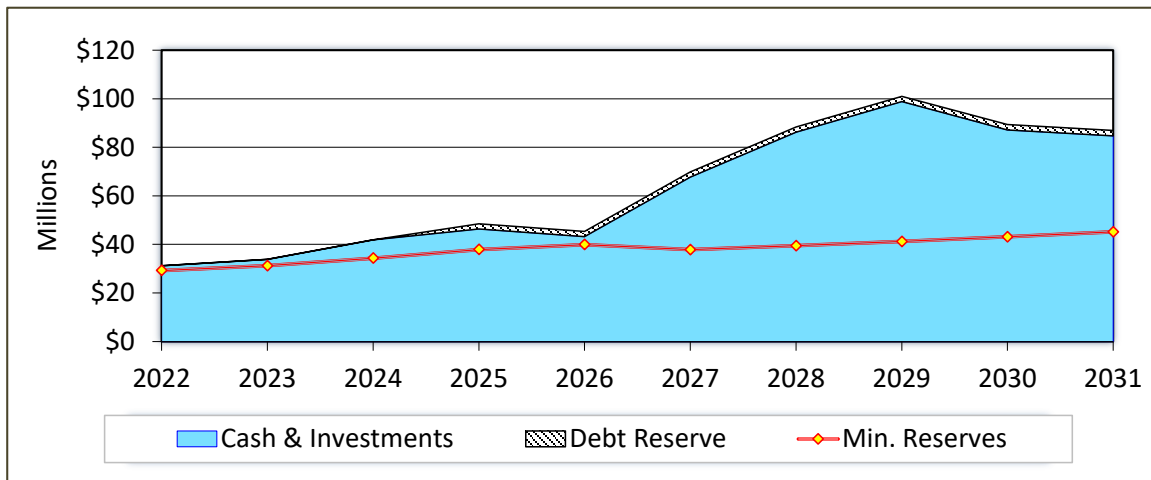
Investments in future supply projects and the financing considerations for those projects dominate TVWD's cash-flow forecast through FY2031 as shown in the *CIP and Financing* graph below.

CIP and Financing by Fiscal Year



In addition to the debt proceeds presented in the *CIP and Financing* graph above, cash reserves will be used¹⁰ for capital expenditures. Based on the assumptions of this analysis, the District projects that it will meet or exceed its minimum reserves balance targets in each year during the planning period, as shown on the graph below.

Year-End Reserves by Fiscal Year



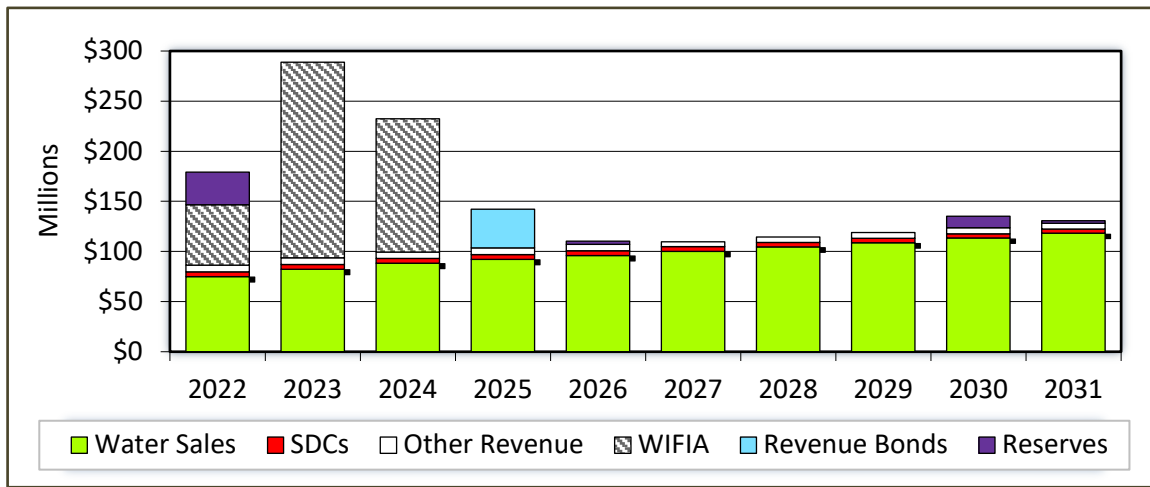
In the *Reserves* graph above, *Cash & Investments* includes General Fund and Capital Reserve Fund balances. The *Debt Reserve* includes funds from revenue bond proceeds that are required to be held in lieu of bond insurance. The *Minimum (Total) Reserves* target is included for reference.

¹⁰ Cash reserves (i.e., greater than minimum fund balance requirements) may be used for capital expenditures.

Projected Sources of Funds

The next graph presents a summary of the District’s projected sources of funds over the next ten years.

Projected Sources of Funds by Fiscal Year



The table below presents the same information in tabular detail.

Revenues and Other Funding Sources by Fiscal Year

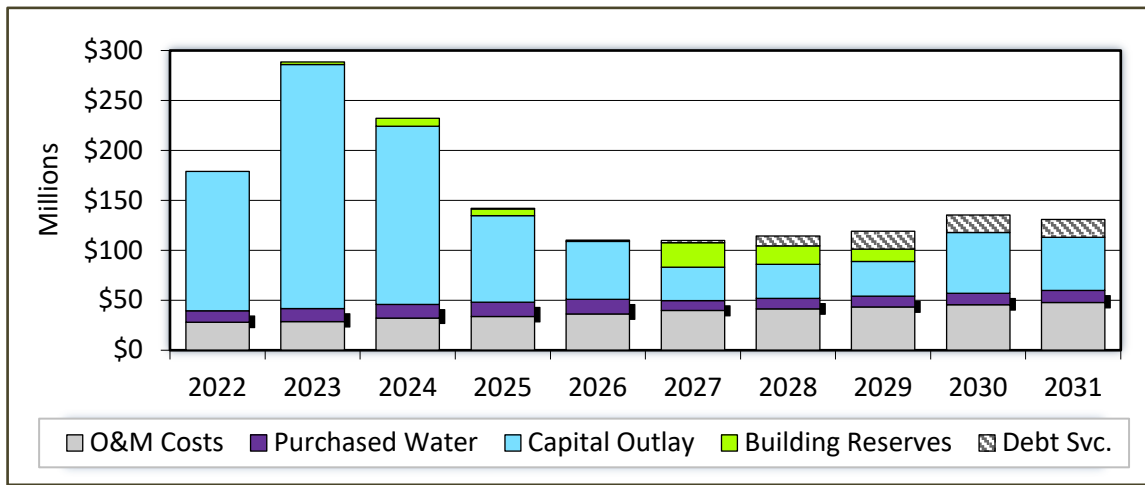
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Totals
Water Sales	\$74.8	\$82.3	\$88.2	\$92.0	\$96.0	\$100.1	\$104.4	\$108.9	\$113.5	\$118.2	\$978.6
SDCs	4.8	4.8	4.8	4.8	4.8	4.7	4.6	4.4	4.3	4.1	46.1
Other Revenue	7.0	6.5	6.6	6.6	6.3	5.0	5.3	5.6	5.8	6.0	60.8
WIFIA	60.0	195.0	132.7	-	-	-	-	-	-	-	387.7
Revenue Bonds	-	-	-	38.6	-	-	-	-	-	-	38.6
Reserves	32.6	-	-	-	3.1	-	-	-	11.7	2.4	49.8
Totals	\$179.2	\$288.7	\$232.3	\$142.1	\$110.3	\$109.8	\$114.3	\$118.9	\$135.3	\$130.7	\$1561.6

Detailed descriptions for each of the items listed above are included in the *2021-23 Financial Plan* at *Section 6.3 – Projected Sources of Funds*.

Projected Uses of Funds

This graph presents a summary of the District’s projected uses of funds through FY2031.

Projected Uses of Funds by Fiscal Year



The table below presents a tabular detail of the projected uses of funds over the next ten years.

Annual Expenditures and Increases in Reserves by Fiscal Year

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Totals
O&M Costs [1]	\$27.9	\$28.7	\$32.2	\$33.8	\$36.2	\$39.7	\$41.5	\$43.3	\$45.5	\$47.8	\$376.6
Purchased Water [2]	11.3	13.1	13.7	14.1	14.7	9.9	10.4	10.9	11.4	11.9	121.4
Capital Outlay	139.9	244.2	178.4	86.8	58.0	33.6	34.2	34.5	60.8	53.4	923.8
Building Reserves	-	2.6	8.0	6.7	-	24.5	18.5	12.6	-	-	73.0
Debt Service	-	-	-	0.7	1.4	2.2	9.9	17.6	17.6	17.6	66.8
Totals	\$179.2	\$288.7	\$232.3	\$142.1	\$110.3	\$109.8	\$114.3	\$118.9	\$135.3	\$130.7	\$1561.6

[1] O&M costs shown include debt issuance costs.

[2] Consistent with past reporting, Purchased Water includes pumping power costs.

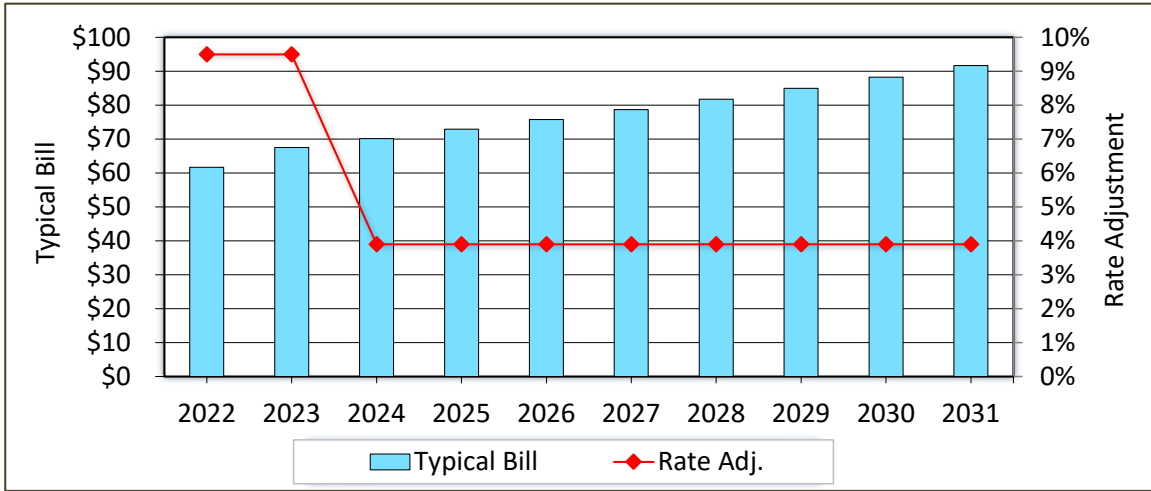
Detailed descriptions for each of the items listed above are included in the *2021-23 Financial Plan* at Section 6.4 – *Projected Uses of Funds*.

Projected Customer Impacts

Based on the assumptions and results of this analysis, the District pursued a strategy to meet its financial targets with rate revenue adjustments of 9.5% annually in the next biennium. Future rate adjustments may be significantly lower, depending on many external factors. Currently, the Forecast results include annual increases of 3.9% beginning in FY2025. The graph on the next page presents the Forecast customer impacts, including annual rate revenue adjustments and typical monthly bills.¹¹

¹¹ Typical monthly bill includes monthly fixed charge plus 7 CCF of water multiplied by the volumetric rate (\$/CCF).

Annual Rate Adjustments and Typical Monthly Bill by Fiscal Year



Many assumptions are employed in an analysis like this. For that reason, results are not concrete in nature but are planning estimates. In the future, the actual rate adjustments required to fund revenue requirements may vary from the estimates presented here. Future capital requirements, O&M costs, customer demands, and other assumptions will influence the accuracy of the estimates as current projections become future realities.

Risks to the Forecast

Specific risks that the District will be monitoring include the following:

- Projected purchased water rate increases from Portland which may be impacted by:
 - Costs of future treatment facilities in the Portland system
 - Changes to peaking factors
 - Contract difficulties
 - Other Portland O&M and CIP
- Interest rates that may be impacted by:
 - Loss of tax-exempt bonds
 - Reduction in the District’s credit rating
 - General increase in interest rates as the economy recovers
- WWSP
 - Timing of program expenditures
 - Changes to the project definition
 - Fluctuations in construction costs
 - Loss of a partner
- Others
 - Economic conditions (general downturn, changes in inflation)
 - Changes in water demands
 - Loss of customers through annexations with withdrawals
 - Curtailment of water sales

Although risks are generally thought of as negative, the District may also realize positive risks (opportunities) as it pushes ahead with the WWSS, completes its debt program, and works towards partnerships with neighboring cities. Specific opportunities that the District will be monitoring include:

- WWSP
 - Cost savings through value engineering
 - Refinement of project definition
 - Favorable bid environment and resulting construction costs
 - Gaining partners
- Others
 - Economic growth within the service area
 - Favorable financing programs
 - Other unplanned savings

Conclusion

The District will continue to take great care to manage risk by following prudent management practices. This includes frequent updates to its 30-year financial forecast and reviewing rates and revenues annually to see if additional adjustments are necessary. However, establishing rate strategies remains a prerogative of the Board and is undertaken as a separate process.

Setting water rates involves a series of policy decisions that the Board will develop over time. Historically, the Board considered these policies and specific water rate adjustments each July through September period, with the effective date of new water rates in November (after the summer watering season). Beginning with the 2017 rate adoption process, the Board now considers policies and water rate adjustments for a two-year period, with annual water rate changes effective each November. That process will commence following the adoption of the 2021-23 Budget.

FUND STRUCTURE

The Tualatin Valley Water District is a water utility enterprise currently consisting of nine funds.

On a day-to-day basis, all administration, operations, and maintenance activities are accounted for in the General Fund. Construction and capital improvement activities are accounted for in the Capital Improvement Fund. District financial reserves are held in the Capital Reserve Fund.

The Debt Proceeds Fund was established in the 2019-21 biennium and will account for the District’s draws of its WIFIA loan, as well as future revenue bond debt issues. The Revenue Bond Debt Service Fund accounts for the District’s debt service obligations. The District is currently debt free until it draws from its WIFIA loan, and while there are no appropriations in this fund in the Adopted 2021-23 Budget, it is maintained for future use.

The District is a member of, and provides management services for, the Willamette River Water Coalition (WRWC), the Willamette Intake Facilities (WIF) Commission and the Willamette Water Supply System (WWSS) Commission and accounts for the activities of each of these joint ventures in separate funds. The WIF Fund was established during 2017-19 biennium through a supplemental budget action approved by the TVWD Board. The WWSS Fund was established with 2019-21 Budget.

Six Funds Directly Support the Water Utility	
General Fund (01)	Administration, operations, and maintenance activity. All District staff are budgeted in this fund. This fund is appropriated in this biennial budget.
Capital Improvement Fund (11)	Accounts for the resources and expenditures used for acquisition or construction of major capital facilities not funded by bond proceeds. This fund is appropriated in this biennial budget.
Capital Reserve Fund (18)	Holds resources for current and future capital improvement and water supply projects. This fund is appropriated in this biennial budget.
Debt Proceeds Fund (22)	Holds proceeds from the District's debt portfolio including the revenue bonds, WIFIA loan proceeds, and other types of borrowings. This fund is appropriated in this biennial budget.
Revenue Bond Debt Service Fund (31)	Accounts for repayment of principal and interest on the District's revenue bonds. This fund is appropriated in this biennial budget. No appropriations are required for this fund during this biennial budget period.
Customer Emergency Assistance Fund (43)	Accounts for the resources, administration, and customer payments for those who qualify for emergency assistance. This fund is appropriated in this biennial budget.
Three Funds Manage Partnerships	
Willamette Water Supply System Fund - WWSS (45)	An ORS chapter 190 Joint Venture with the cities of Beaverton, Hillsboro, and TVWD. TVWD serves as the managing agency providing administration, operations, project management and accounting services. This fund is appropriated in this biennial budget.
Willamette Intake Facilities Fund - WIF (44)	An ORS chapter 190 Joint Venture with the cities of Beaverton, Hillsboro, Sherwood, Tigard, Wilsonville, and TVWD. TVWD serves as the managing agency providing general administration, project management, and accounting services. This fund is appropriated in this biennial budget.
Willamette River Water Coalition Fund - WRWC (41)	An ORS chapter 190 Joint Venture with the cities of Sherwood, Tigard, Tualatin, and TVWD. TVWD serves as the managing agency providing general administration and accounting services. This fund is appropriated in this biennial budget.

FINANCIAL POSITION BY FUND

A. THE GENERAL FUND

The General Fund budget is developed by organizational units referred to as divisions within the District, then aggregated per object classification, i.e., Personnel Services, Materials and Services, and Capital Outlay, for appropriation. All operating departments and District staff are accounted for in the General Fund. There are currently six departments, ranging in size from 9 to 61 staff members. The departments are:

1. Administrative Services
2. Customer Service
3. Engineering and Operations
4. Finance
5. Water Supply Program
6. Information Technology (IT) Services

Additionally, the budget for purchased water and pumping power is in the General Fund as a non-departmental expenditure. Purchased water represents the District's single largest Materials and Services (M&S) expenditure and staff from Administrative Services, Engineering and Operations, and Finance play a role in its management and administration. In addition to purchased water and pumping power, the District also pass revenue from right-of-way (ROW) fees from customers to the cities of Beaverton, Hillsboro, and Tigard. The ROW fees are assessed by the cities based on the amount of the water bill for the customers within their jurisdictions. The ROW fee rate and the billing items subject to the ROW fee vary by jurisdiction. As a pass-through revenue, the District treats the ROW fees as a Special Payment and budgets it as a non-departmental appropriation. Detailed information on Purchased Water and each of the departmental budgets is contained in Sections 8 through 14 of this document.

The major source of revenue for the General Fund is water sales. Approximately 80% of water sales revenue is based on volume rates per hundred cubic feet (CCF, or 748 gallons) of water used. The remainder of water sales revenue is received from fixed charges based on meter size. Since water volume usage varies from one year to another depending on weather and other factors, significant fluctuations are possible in end-of-year fund balances.

Personnel Services: The Adopted 2021-23 Budget for Personnel Services decreased \$1.2 million or 2.8% from the 2019-21 Budget. The decrease is the result of a combination factors including a reduction of two full-time equivalent (FTE) positions, lower than anticipated health care costs, pension savings attributable to legislative changes and the District's investment in a PERS side account, and the transition to a lower-cost workforce as the District's more senior staff reach retirement age.

Materials and Services (M&S): Adopted General Fund M&S expenditures are up \$5.5 million, a 13.1% increase over the prior biennium or 6.3% on an annualized basis. Key drivers for this cost increase include the District's share of WWSS and WIF partnership dues, professional services for the District to perform additional condition assessments of key infrastructure and update its long-term facilities plan, as well as services focusing on the District's transitioning role as a regional water provider and key strategic partner with neighboring entities.

Capital Outlay for Equipment: The District capitalizes equipment acquisitions that meet a threshold of \$7,500 and estimated useful life of more than one year. Requests for capital equipment purchases in the Adopted 2021-23 Budget are \$705,950, an increase of 82.4% from the prior biennium driven primarily by the implementation of a new project management information system (PMIS) as well as the replacement of IT and geographic information system (GIS) hardware.

Fleet replacements continue to be budgeted in the Capital Improvement Fund, rather than the General Fund, allowing the District to efficiently capitalize internal labor and overhead costs associated with the required customizations for vehicles to be placed into service.

For Departments requesting capital purchases in the 2021-23 biennium (e.g., Engineering and Operations, IT Services), the Adopted 2021-23 Budget includes summary tables at the end of the departmental sections. A schedule of fleet replacements is included on page 15-87.

Special Payments: Special Payments include right-of-way (ROW) fees paid to neighboring cities where TVWD's customers live within the cities' boundaries. Cities impose a fee based on a percentage of the gross revenue from water sales for those customers and the District passes the fee through on the customer's water bill. ROW fees are budgeted at \$1.6 million for the 2021-23 biennium.

The Adopted 2019-21 Budget for Special Payments also included the funding of a PERS side account at \$20 million, intended to reduce the District's pension liability and future rates paid to the Oregon PERS. After additional analysis the District opted to invest \$10 million during the 2019-21 biennium. There are no plans to fund an additional PERS side account currently.

Transfers: At \$83.5 million, Transfers to Other Funds are \$5 million higher than the 2019-21 biennium. Nearly all this appropriation is for transfers from the General Fund to the Capital Reserve Fund for current and future capital related expenditures. The Adopted 2021-23 Budget also includes a \$500,000 transfer to the Customer Emergency Assistance Fund for the District's share of that program's expenditures. This significant increase from the prior biennium is in anticipation of increasing need for assistance from the District's customers, related to the COVID-19 pandemic. Since March of 2020, the District has held a moratorium on turning water service off for nonpayment. During that time, accounts receivable has increased along with the number of days for payments outstanding. With the encouragement of the District's Board of Commissioners, the District is planning to increase the level of assistance made available to those who qualify, which is expected to result in lower account write-offs and collections expenses, while providing relief to customers who are in temporary financial need.

Contingency: The General Operating Contingency is reserved for unanticipated but well-defined needs. The Adopted 2021-23 Budget includes \$20.0 million in contingency, representing 22% of the General Fund operating budget excluding Capital Outlay and Special Payments. Use of General Operating Contingency requires action by the Board of Commissioners. In addition, Oregon Local Budget Law specifies certain public hearing and notice requirements depending on the size and scope of a budget adjustment involving Contingency.

The District's biennial budget anticipates a reduction in the General Fund ending fund balance of 53%. This reduction, however, includes an appropriation of \$20 million in contingency which is not expected to be expended during the biennium. Once the contingency is included with the ending fund balance, there is no expectation of a significant decline in the ending fund balance of the District's General Fund.

B. CAPITAL IMPROVEMENT FUND

The Capital Improvement Fund does not maintain a fund balance. All reserves for current and future capital investments are held in the Capital Reserve Fund and transferred as needed. In addition to the transfers in from the Capital Reserve Fund, the Adopted 2021-23 Budget has \$3.3 million in contributed capital, which represents the District's billing partner, Clean Water Services', estimated share of the customer information system (CIS) software project.

The Adopted 2021-23 Budget includes expenditures of \$133.5 million for the District's capital improvements including fleet and IT projects and \$246.1 million to fund joint venture capital improvements at the Joint Water Commission, the Willamette Intake Facilities, and continuing the development of the Willamette Water Supply System.

For a complete listing of District's capital projects in the Adopted 2021-23 Budget please see Section 15 *Capital Improvement Plan*.

C. CAPITAL RESERVE FUND

The Capital Reserve Fund is used to hold resources available for current and future capital investments for the District. Prior to FY2016, the District held reserves in the General and the Capital Improvement Funds. The use of the Capital Reserve Fund allows the flow of funds for current and future uses to be managed in a more transparent manner consistent with budgeting best practices. In anticipation of the significant costs associated with WWSS, the District has increased its reserves deliberately. These reserves are easily monitored in a single fund.

Resources for the fund include an anticipated fund balance in the amount of \$56.5 million, system development charges, meter install fees and interest earnings totaling an additional \$11.2 million, and transfers in from the General Fund and Debt Proceeds Fund in the amount of \$309.5 million. The Capital Reserve Fund requirements include transfers out to the Capital Improvement Fund in the amount of \$376.3 million.

By design, the ending balance of the Capital Reserve Fund is planned to decline by more than 10% (actual reduction in fund balance is estimated to be 98%) as the District uses its reserves to fund its major investment in the WIF and WWSS. The District plans to use its existing capital reserves to fund its capital outlays rather than accessing its available WIFIA loan or other long-term debt. The expected interest earnings rate for the District's investments is far below the interest rate associated with its WIFIA loan or other long-term debt. This deliberate strategy of using cash rather than debt is consistent with the District's Financial Plan described in *Section 5 – Multi-Year Financial Outlook*. Because the District has a capital funding strategy that it is following, there is no specific consequences of this policy choice other than the economic benefits of avoiding negative arbitrage.

D. DEBT PROCEEDS FUND

The Debt Proceeds Fund was established in 2019-21 biennium. It tracks the proceeds received by the District from United States Environmental Protections Agency's Water Infrastructure Finance and Innovation Act (WIFIA) loan program, revenue bonds, and other types of borrowings. The Adopted 2021-23 Budget includes resources and requirements of \$226.5 million. The resources are draws from the District's WIFIA loan, and the requirements are transfers to the Capital Reserve Fund to reimburse the District for capital outlays in the WIF and WWSS. The District does not plan to issue revenue bonds in the 2021-23 biennium.

E. REVENUE BOND DEBT SERVICE FUND

The Revenue Bond Debt Service Fund accounts for the District's obligations for principal and interest payments on its outstanding revenue bonds. The District fully cash redeemed its last outstanding revenue bonds in June of 2015 and does not currently plan to issue traditional revenue bonds during the 2021-23 biennium.

The District has executed a WIFIA loan agreement to assist with the funding of the WWSS. In general, WIFIA loan terms allow for deferred repayment, beginning up to five years after completion of the WIFIA-funded

project. The District's WIFIA loan calls for repayment beginning in 2028. The District's WIFIA loan is a revenue bond, and the repayment of the loan will be accounted for in this fund.

F. CUSTOMER EMERGENCY ASSISTANCE FUND

The Customer Emergency Assistance (CEA) Fund was established as part of the 2015-17 Budget. Its purpose is to account for the resources and requirements used to provide emergency bill assistance to qualified District customers. A third-party administrator reviews and qualifies requests from customers facing temporary financial hardships.

The resources for the CEA Fund include funds transferred from the General Fund and funds donated directly from customers, District staff, and members of the Board of Commissioners. The Adopted 2021-23 Budget includes resources for the CEA Fund totaling \$531,035. The Adopted 2021-23 Budget appropriates \$496,335 for customer assistance and \$34,700 for third-party administrative costs. The District appropriates all the resources of the CEA Fund to assist customers. As a result, the ending balance of the CEA Fund is budgeted to be zero. However, depending on the donations received and the needs of the District's customers, the actual ending fund balance for the CEA Fund may exceed budget. Regardless of ending fund balances, the District anticipates continued funding of transfers to the CEA Fund in future years to assist customers.

G. WILLAMETTE WATER SUPPLY SYSTEM FUND

The Willamette Water Supply System (WWSS) Fund was established in the 2019-21 biennium to account for the activities of the WWSS Commission. The WWSS Commission is a joint venture formed by an intergovernmental agreement with the cities of Beaverton, Hillsboro, and the District. The WWSS Commission is established to design, construct, and operate the WWSS for the mutual benefit of the partners. The system is scheduled to be operational by July 2026.

Prior to establishing the WWSS Commission, TVWD and Hillsboro began the design and construct of the WWSS infrastructure under an interim design and construction agreement. TVWD served as the managing partner for that agreement and accounted for the resources and requirements of those activities in a separate WWSP Fund. With the establishment of the WWSS Commission, the assets and liabilities were transferred to the new joint venture. The District serves as the managing agency for the WWSS, and as such, appropriates the full costs for operations and capital in the WWSS Fund, while the District's share of the operational and capital costs of the WWSS are budgeted in the General Fund and Capital Improvement Fund respectively. Additionally, the District's labor and overhead costs are reimbursed by the WWSS Fund to the General Fund.

The Adopted 2021-23 Budget for the WWSS Commission includes \$2.3 million in M&S and \$452.3 million in Capital Outlays. The fund also has a General Operating Contingency of \$235,000. Additional information about the WWSS Commission budget, including WWSS capital projects, is in Section 16 *Willamette Water Supply System Fund*.

H. WILLAMETTE INTAKE FACILITIES FUND

The Willamette Intake Facilities (WIF) Fund was established in April 2018, when the District entered into an intergovernmental agreement with cities of Beaverton, Hillsboro, Sherwood, Tigard, and Wilsonville to create the WIF Commission. The WIF Commission's purpose is to own, operate, and maintain the assets of the WIF, which are used to draw and distribute water to the existing Willamette River Water Treatment Plant serving the cities of Sherwood and Wilsonville, and to the future Willamette Water Supply System (WWSS) Treatment Plant being constructed to serve the WWSS members which include Beaverton, Hillsboro, and TVWD.

The District serves as the managing agency of the WIF and is responsible for planning, budgeting, administration, accounting, and capital project management. The budget is set by the WIF governing body and administered by the District. Resources are funded through member dues for operations and capital contributions (which fund the capital expenditures). The Adopted 2021-13 Budget includes \$1.1 million in M&S appropriations, \$6.5 million in Capital Outlay, and \$107,000 for General Operating Contingency. Additional information about the WIF budget can be found in Section 17 *Willamette Intake Facilities Fund*.

I. WILLAMETTE RIVER WATER COALITION

This fund accounts for the activities of the Willamette River Water Coalition (WRWC), a coalition of four local governments of which the District is a member. The organization's purpose is to preserve water rights to the Willamette River for municipal and industrial uses. An annual work plan and budget is adopted by the WRWC governing body and administered by the District. Resources for the WRWC Fund come from member agency dues based on a formula agreed to in the intergovernmental agreement. The balance on July 1, 2021, is projected at \$3,947. The Adopted 2021-23 Budget includes M&S expenditures of \$114,300. The anticipated ending fund balance on June 30, 2023, is \$4,045. Additional information on the WRWC Fund is in Section 18 *Willamette River Water Coalition*.

J. WILLAMETTE WATER SUPPLY PROGRAM FUND - Retired

The Willamette Water Supply Program (WWSP) Fund was established in 2014 to track resources and expenditures associated with the development of the Willamette Water Supply System. Under the terms of an interim design and construction agreement with the City of Hillsboro, TVWD was the managing partner and appropriated all the costs while receiving reimbursements from Hillsboro. Effective July 1, 2019, the WWSS Commission joint venture superseded the interim design and construction agreement, and therefore the WWSP Fund was retired with the 2019-21 biennium and is only shown in the fund summaries for historical comparison.

K. FINANCIAL POSITION AND FUND BALANCES

Despite water sales being \$9.1 million below budget, the District is beginning the 2021-23 biennium in a strong financial position. Combined projected beginning fund balances total \$93.9 million. These strong balances allow the District to continue to fund planned capital expenditures while taking a deliberate and comprehensive approach to its future debt issuance plans and debt program development.

The District's large fund balances are primarily the result of lower than projected capital expenditures associated with WWSP. The WWSP has multiple work packages, some of which are being constructed in partnership with Washington County and other local jurisdictions. These partnership projects reduce cost and public impacts from construction, but they also affect the schedule. The overall schedule of the WWSP remains on time for substantial completion by July 2026.

The combined 2021-23 ending fund balance will primarily be held in the General Fund and held for future operations. As part of the District's long-term financial plan, reserves will be drawn down to pay for the investments in the WWSP and other capital improvement projects this biennium.

The following pages provide summary information on all the District funds. The tables on pages 6-7 and 6-8 of this section display a combined summary of all funds for the Adopted 2021-23 Budget in comparison to the current Revised 2019-21 Budget and the actual results for the 2017-19 biennium. Pages 6-9 and 6-10 provide fund-by-fund detail for the Adopted 2021-23 Budget. Beginning on page 6-11, additional historical information and appropriation detail for all the District's funds is provided.

ALL FUNDS SUMMARY

	1st Preceding Biennium Actual	Prior Revised Biennial	Biennial Adopted
RESOURCES			
	<u>2017-2019</u>	<u>2019-2021</u>	<u>2021-2023</u>
Beginning Fund Balance	\$209,944,383	\$132,950,815	\$93,893,898
Tot. Beg. Fund Bal & Reserves:	\$209,944,383	\$132,950,815	\$93,893,898
Water Service Charges	\$133,180,525	\$149,248,486	\$158,826,968
Right of way fee collections	\$1,575,115	\$1,446,000	\$1,625,000
Admin. Fees	\$1,389,766	\$1,178,849	\$751,303
Other Revenues	\$5,881,506	\$771,510	\$1,240,385
Contract Reimbursements	\$3,441,415	\$5,198,492	\$6,178,325
Overhead Charges to Other Funds	\$8,970,461	\$10,194,616	\$10,722,620
Total Misc. Revenues:	\$21,258,263	\$18,789,467	\$20,517,633
Meter/Service Installations	\$1,812,717	\$2,368,990	\$1,151,010
System Development Charges	\$12,488,955	\$11,426,151	\$9,574,073
Contributed Capital	\$33,259,097	\$224,854,690	\$462,143,386
Interest Earnings	\$4,612,675	\$4,199,254	\$869,427
Tot. Operating Resources	\$206,612,232	\$410,887,038	\$653,082,497
Tot. Resources before trans.	\$416,556,615	\$543,837,853	\$746,976,395
Debt Resources			
Revenue Bond Sale	\$0	\$0	\$0
WIFIA Draw	\$0	\$25,000,000	\$226,500,000
Total Debt Resources	\$0	\$25,000,000	\$226,500,000
TRANSFERS IN FROM:			
General Fund	\$84,836,731	\$78,491,222	\$83,500,000
Capital Improvement Fund	\$0	\$0	\$0
Water Supply Fund	\$0	\$0	\$0
Revenue Bond Fund	\$0	\$0	\$0
Capital Reserve Fund	\$78,668,868	\$179,522,721	\$376,262,670
Debt Proceeds Fund	\$0	\$25,000,000	\$226,500,000
WRWC	\$0	\$0	\$0
Cust. Emergency Asst. Fund	\$0	\$0	\$0
Total Transfers In:	\$163,505,599	\$283,013,943	\$686,262,670
TOTAL RESOURCES	\$580,062,214	\$851,851,796	\$1,659,739,065

ALL FUNDS SUMMARY

	1st Preceding Biennium Actual	Prior Revised Biennial	Biennial Adopted
REQUIREMENTS	<u>2017-2019</u>	<u>2019-2021</u>	<u>2021-2023</u>
Operating Expenditures:			
Personnel Services	\$34,688,179	\$43,536,651	\$42,330,036
Materials & Services	\$34,951,713	\$44,391,964	\$51,686,496
Total Operating Expenditures:	\$69,639,892	\$87,928,615	\$94,016,532
			\$0
Capital Expenditures:			
Capital Outlay	\$106,686,147	\$404,589,611	\$839,112,006
Debt Service	\$0	\$0	\$0
Total Capital Expenditures:	\$106,686,147	\$404,589,611	\$839,112,006
Special Payments			
ROW Fees	\$336,823	\$1,446,000	\$1,625,000
PERS Side Account	\$0	\$20,000,000	\$0
Tot. Expend. before trans.	\$176,662,862	\$513,964,226	\$934,753,538
TRANSFERS OUT TO:			
General Fund	\$0	\$0	\$0
Capital Improvements Fund	\$29,859,476	\$179,522,721	\$376,262,670
Water Supply Fund	\$48,809,392	\$0	\$0
Revenue Bond Fund	\$0	\$0	\$0
Capital Reserve Fund	\$84,816,731	\$103,457,822	\$309,500,000
WRWC	\$0	\$0	\$0
Customer Emergency Assistance Fund	\$20,000	\$33,400	\$500,000
Total Transfers Out:	\$163,505,599	\$283,013,943	\$686,262,670
Contingency	\$0	\$15,209,000	\$20,353,650
TOTAL APPROPRIATIONS (Expend.+Trans+Conting.)	\$340,168,461	\$812,187,169	\$1,641,369,858
Ending Fund Balance:	\$239,893,753	\$39,664,627	\$18,369,207
TOTAL REQUIREMENTS	\$580,062,214	\$851,851,796	\$1,659,739,065

ALL FUNDS SUMMARY BY FUND: 2021-2023

RESOURCES

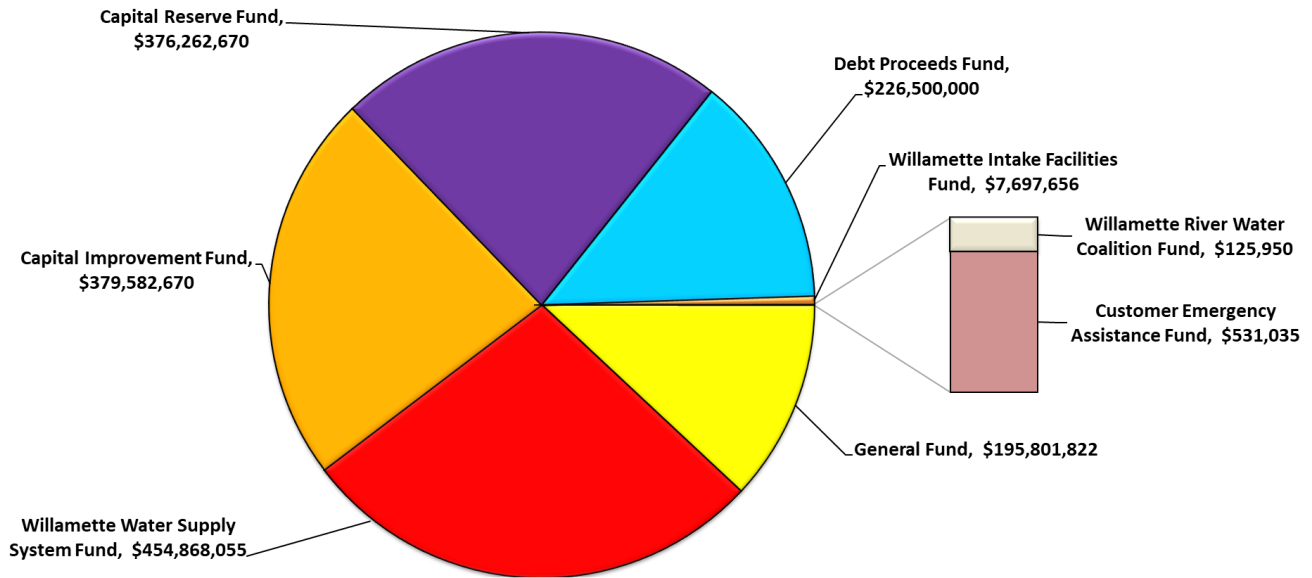
									TOTAL
	General Fund	Capital Improvements	Capital Reserve	Debt Proceeds	WRWC	Customer Emergency Assistance	Water Intake Facilities	Willamette Water Supply System	ALL FUNDS
Beginning Fund Balance	\$37,376,583	\$0	\$56,508,462	\$0	\$3,853	\$5,000	\$0	\$0	\$93,893,898
Tot. Beg. Fd. Bal & Reserves:	\$37,376,583	\$0	\$56,508,462	\$0	\$3,853	\$5,000	\$0	\$0	\$93,893,898
Water Service Charges	\$158,826,968	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$158,826,968
Right of way fee collections	\$1,625,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,625,000
Admin. Fees	\$751,303	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$751,303
Other Revenues	\$1,088,435	\$0	\$0	\$0	\$125,950	\$26,000	\$0	\$0	\$1,240,385
Contract Reimbursements	\$2,436,000	\$0	\$0	\$0	\$0	\$0	\$1,163,920	\$2,578,405	\$6,178,325
Overhead Charges to Other Funds	\$10,722,620	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,722,620
Total Misc. Revenues:	\$16,623,358	\$0	\$0	\$0	\$125,950	\$26,000	\$1,163,920	\$2,578,405	\$20,517,633
Meter/Service Installations	\$0	\$0	\$1,151,010	\$0	\$0	\$0	\$0	\$0	\$1,151,010
System Development Charges	\$0	\$0	\$9,574,073	\$0	\$0	\$0	\$0	\$0	\$9,574,073
Contributed Capital	\$0	\$3,320,000	\$0	\$0	\$0	\$0	\$6,533,736	\$452,289,650	\$462,143,386
Interest Earnings	\$438,200	\$0	\$431,000	\$0	\$192	\$35	\$0	\$0	\$869,427
Tot. Operating Resources	\$175,888,526	\$3,320,000	\$11,156,083	\$0	\$126,142	\$26,035	\$7,697,656	\$454,868,055	\$653,082,497
Tot. Resources before trans.	\$213,265,109	\$3,320,000	\$67,664,545	\$0	\$129,995	\$31,035	\$7,697,656	\$454,868,055	\$746,976,395
Debt Resources									
Revenue Bond Sale	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WIFIA Draw	\$0	\$0	\$0	\$226,500,000	\$0	\$0	\$0	\$0	\$226,500,000
Total Debt Resources	\$0	\$0	\$0	\$226,500,000	\$0	\$0	\$0	\$0	\$226,500,000
TRANSFERS IN FROM:									
General Fund	\$0	\$0	\$83,000,000	\$0	\$0	\$500,000	\$0	\$0	\$83,500,000
Capital Improvement Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Supply Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Revenue Bond Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Reserve Fund	\$0	\$376,262,670	\$0	\$0	\$0	\$0	\$0	\$0	\$376,262,670
Debt Proceeds Fund	\$0	\$0	\$226,500,000	\$0	\$0	\$0	\$0	\$0	\$226,500,000
WRWC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Cust. Emergency Asst. Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Transfers In:	\$0	\$376,262,670	\$309,500,000	\$0	\$0	\$500,000	\$0	\$0	\$686,262,670
TOTAL RESOURCES	\$213,265,109	\$379,582,670	\$377,164,545	\$226,500,000	\$129,995	\$531,035	\$7,697,656	\$454,868,055	\$1,659,739,065

ALL FUNDS SUMMARY BY FUND: 2021-2023

REQUIREMENTS

	TOTAL								TOTAL
	General Fund	Capital Improvements	Capital Reserve	Debt Proceeds	WRWC	Cust. Emerg. Asst	Water Intake Facilities	Willamette Water Supply System	
Operating Expenditures:									
Personnel Services	\$42,330,036	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$42,330,036
Materials & Services	\$47,640,836	\$0	\$0	\$0	\$114,300	\$531,035	\$1,056,920	\$2,343,405	\$51,686,496
Total Operating Expenditures:	\$89,970,872	\$0	\$0	\$0	\$114,300	\$531,035	\$1,056,920	\$2,343,405	\$94,016,532
Capital Expenditures:									
Capital Outlay	\$705,950	\$379,582,670	\$0	\$0	\$0	\$0	\$6,533,736	\$452,289,650	\$839,112,006
Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Capital Expenditures:	\$705,950	\$379,582,670	\$0	\$0	\$0	\$0	\$6,533,736	\$452,289,650	\$839,112,006
Special Payments:									
ROW Fees	\$1,625,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,625,000
PERS Side Account	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tot. Expend. before trans.	\$92,301,822	\$379,582,670	\$0	\$0	\$114,300	\$531,035	\$7,590,656	\$454,633,055	\$934,753,538
TRANSFERS OUT TO:									
General Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Improvement Fund	\$0	\$0	\$376,262,670	\$0	\$0	\$0	\$0	\$0	\$376,262,670
Water Supply Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Revenue Bond Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Reserve Fund	\$83,000,000	\$0	\$0	\$226,500,000	\$0	\$0	\$0	\$0	\$309,500,000
WRWC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Customer Emergency Assistance Fund	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$500,000
Total Transfers Out:	\$83,500,000	\$0	\$376,262,670	\$226,500,000	\$0	\$0	\$0	\$0	\$686,262,670
Contingency	\$20,000,000	\$0	\$0	\$0	\$11,650	\$0	\$107,000	\$235,000	\$20,353,650
TOTAL APPROPRIATIONS (Expend.+Trans+Conting.)	\$195,801,822	\$379,582,670	\$376,262,670	\$226,500,000	\$125,950	\$531,035	\$7,697,656	\$454,868,055	\$1,641,369,858
Ending Fund Balance:	\$17,463,287	\$0	\$901,875	\$0	\$4,045	\$0	\$0	\$0	\$18,369,207
TOTAL REQUIREMENTS	\$213,265,109	\$379,582,670	\$377,164,545	\$226,500,000	\$129,995	\$531,035	\$7,697,656	\$454,868,055	\$1,659,739,065

Adopted 2021-23 Budget Appropriations by Fund



RESOURCES SUMMARY

GENERAL FUND
Fund 01

TUALATIN VALLEY WATER DISTRICT

FORM LB-20			GENERAL FUND Fund 01			TUALATIN VALLEY WATER DISTRICT		
HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2021-2023				
ACTUAL 15-17	ACTUAL 17-19	AMENDED BUDGET 19-21		2021-23 PROPOSED	2021-23 APPROVED	2021-23 ADOPTED		
			BEGINNING FUND BALANCE					
\$64,612,132	\$31,369,807	\$46,685,284	NET WORKING CAPITAL (ACCRUAL BASIS)	\$37,376,583	\$37,376,583	\$37,376,583		
			OTHER RESOURCES					
\$101,190,314	\$133,180,525	\$149,248,486	WATER SALES	\$158,826,968	\$158,826,968	\$158,826,968		
\$241,891	\$1,575,115	\$1,446,000	RIGHT OF WAY FEE COLLECTIONS	\$1,625,000	\$1,625,000	\$1,625,000		
\$1,315,800	\$1,389,766	\$1,178,849	ADMINISTRATIVE FEES	\$751,303	\$751,303	\$751,303		
\$0	\$0	\$0	SYSTEM DEVELOPMENT CHARGES	\$0	\$0	\$0		
\$786,114	\$5,779,199	\$592,770	OTHER RESOURCES	\$1,088,435	\$1,088,435	\$1,088,435		
\$530,606	\$1,389,766	\$585,000	INTEREST EARNINGS	\$438,200	\$438,200	\$438,200		
\$3,017,652	\$3,083,495	\$2,928,724	CONTRACT REIMBURSEMENTS	\$2,436,000	\$2,436,000	\$2,436,000		
\$6,441,752	\$8,970,461	\$10,194,616	OVERHEAD CHARGES TO CONSTRUCTION AND JOINT VENTURES	\$10,722,620	\$10,722,620	\$10,722,620		
	(\$5,483,759)		LOSS IN JOINT VENTURES					
\$178,136,261	\$181,254,375	\$212,859,729	TOTAL RESOURCES	\$213,265,109	\$213,265,109	\$213,265,109		

REQUIREMENTS SUMMARY

FORM LB-30			GENERAL FUND Fund 01	Y WATER DISTRICT		
HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2021-2023		
ACTUAL 15-17	ACTUAL 17-19	AMENDED BUDGET 19-21		2021-23 PROPOSED	2021-23 APPROVED	2021-23 ADOPTED
\$31,219,215	\$34,688,179	\$43,536,650	PERSONNEL SERVICES	\$42,330,036	\$42,330,036	\$42,330,036
\$30,556,189	\$34,129,922	\$42,131,196	MATERIALS & SERVICES	\$47,640,836	\$47,640,836	\$47,640,836
\$456,783	\$282,549	\$212,200	CAPITAL OUTLAY	\$705,950	\$705,950	\$705,950
	\$336,823	\$1,446,000	SPECIAL PAYMENTS, ROW FEES	\$1,625,000	\$1,625,000	\$1,625,000
		\$20,000,000	SPECIAL PAYMENTS, PERS SIDE ACCOUNT CONTRIBUTIONS	\$0	\$0	\$0
			TRANSFERS TO OTHER FUNDS			
\$0	\$84,816,731	\$78,457,822	TO CAPITAL IMPROVEMENT/RESERVE FUNDS	\$83,000,000	\$83,000,000	\$83,000,000
\$4,003,919		\$0	TO WILLAMETTE WATER SUPPLY FUND	\$0	\$0	\$0
	\$20,000	\$25,000	TO CUSTOMER EMERGENCY ASSISTANCE FUND	500,000	\$500,000	\$500,000
\$7,136,408	\$0	\$0	TO REVENUE BOND DEBT SERVICE FUND	\$0	\$0	\$0
\$39,868	\$84,836,731	\$78,491,222	TOTAL TRANSFERS	\$83,500,000	\$83,500,000	\$83,500,000
		\$15,000,000	GENERAL OPERATING CONTINGENCY	\$20,000,000	\$20,000,000	\$20,000,000
\$39,868	\$85,173,554	\$114,937,222	TOTAL SPECIAL PAYMENTS, TRANSFERS & CONTINGENCY	\$105,125,000	\$105,125,000	\$105,125,000
\$73,372,514	\$154,274,204	\$200,808,868	TOTAL EXPENDITURES	\$195,801,822	\$195,801,822	\$195,801,822
\$104,763,747	\$100,374,111	\$12,050,861	UNAPPROPRIATED FUND BALANCE	\$17,463,287	\$17,463,287	\$17,463,287
\$178,136,261	\$254,648,315	\$212,859,729	TOTAL REQUIREMENTS	\$213,265,109	\$213,265,109	\$213,265,109

PERSONNEL SERVICES

GENERAL FUND
Fund 01

TUALATIN VALLEY WATER DISTRICT

FORM LB-31

HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2021-2023		
ACTUAL 15-17	ACTUAL 17-19	AMENDED BUDGET 19-21		2021-23 PROPOSED	2021-23 APPROVED	2021-23 ADOPTED
			PERSONNEL SERVICES			
			ADMINISTRATIVE SERVICES DEPARTMENT			
\$1,793,993	\$1,458,004	\$1,646,779	GENERAL SERVICES	\$1,483,428	\$1,483,428	\$1,483,428
\$1,128,547	\$1,183,947	\$1,321,621	HUMAN RESOURCES	\$1,319,051	\$1,319,051	\$1,319,051
\$627,799	\$622,873	\$720,957	RISK MANAGEMENT	\$727,111	\$727,111	\$727,111
\$3,550,339	\$3,264,824	\$3,689,357	ADMINISTRATIVE SERVICES DEPARTMENT SUBTOTAL	\$3,529,590	\$3,529,590	\$3,529,590
			CUSTOMER SERVICE DEPARTMENT			
\$670,058	\$824,025	\$1,005,351	General Services	\$1,085,748	\$1,085,748	\$1,085,748
\$2,261,427	\$2,499,080	\$3,435,492	Customer Service & Utility Billing	\$3,389,110	\$3,389,110	\$3,389,110
\$2,889,207	\$3,141,967	\$3,618,604	Field Customer Service	\$3,567,646	\$3,567,646	\$3,567,646
\$0	\$805,110	\$986,238	Communications	\$996,059	\$996,059	\$996,059
\$5,820,692	\$6,465,072	\$9,045,685	CUSTOMER SERVICE DEPARTMENT SUBTOTAL	\$9,038,562	\$9,038,562	\$9,038,562
			ENGINEERING AND OPERATIONS DEPARTMENT			
\$490,865	\$486,426	\$558,748	General Services	\$572,291	\$572,291	\$572,291
\$5,331,601	\$4,394,411	\$5,272,462	System Operations	\$5,789,431	\$5,789,431	\$5,789,431
\$2,793,444	\$2,642,943	\$3,543,785	Engineering	\$3,142,702	\$3,142,702	\$3,142,702
\$1,054,906	\$1,380,525	\$1,648,220	Water Resources	\$1,519,250	\$1,519,250	\$1,519,250
\$1,194,011	\$2,299,701	\$2,488,632	Asset Management	\$2,504,878	\$2,504,878	\$2,504,878
\$792,714	\$673,514	\$535,207	Water Operations	\$573,517	\$573,517	\$573,517
\$2,793,694	\$3,672,797	\$4,160,366	Construction And Maintenance	\$4,156,152	\$4,156,152	\$4,156,152
\$14,451,235	\$15,550,317	\$18,207,420	ENGINEERING AND OPERATIONS DEPARTMENT SUBTOTAL	\$18,258,221	\$18,258,221	\$18,258,221
			FINANCIAL SERVICES DEPARTMENT			
\$499,106	\$714,256	\$791,473	General Services	\$786,369	\$786,369	\$786,369
\$2,600,084	\$3,014,057	\$3,589,569	Finance And Accounting	\$3,333,473	\$3,333,473	\$3,333,473
\$2,096,793	\$0	\$0	Information Technology	\$0	\$0	\$0
\$5,195,983	\$3,728,313	\$4,381,042	FINANCIAL SERVICES DEPARTMENT SUBTOTAL	\$4,119,842	\$4,119,842	\$4,119,842
\$2,200,965	\$2,928,105	\$4,798,806	WATER SUPPLY PROGRAM SUBTOTAL	\$4,007,052	\$4,007,052	\$4,007,052
\$0	\$2,751,547	\$3,414,341	INFORMATION TECHNOLOGY DEPARTMENT SUBTOTAL	\$3,376,770	\$3,376,770	\$3,376,770
\$31,219,215	\$34,688,178	\$43,536,651	TOTAL PERSONNEL SERVICES	\$42,330,036	\$42,330,036	\$42,330,036

MATERIALS & SERVICES

FORM LB-31			GENERAL FUND Fund 01	TUALATIN VALLEY WATER DISTRICT BIENNIAL BUDGET FOR 2021-2023		
HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2021-2023		
ACTUAL 15-17	ACTUAL 17-19	AMENDED BUDGET 19-21		2021-23 PROPOSED	2021-23 APPROVED	2021-23 ADOPTED
			MATERIALS & SERVICES			
\$18,744,720	\$20,212,227	\$24,364,600	OTHER GENERAL FUND M&S: WATER PURCHASES	\$24,522,925	\$24,522,925	\$24,522,925
			ADMINISTRATIVE SERVICES DEPARTMENT			
\$885,668	\$492,704	\$2,265,479	General Services	\$3,403,495	\$3,403,495	\$3,403,495
\$188,468	\$201,062	\$512,870	Human Resources	\$652,606	\$652,606	\$652,606
\$648,698	\$637,134	\$832,620	Risk Management	\$796,820	\$796,820	\$796,820
\$1,722,834	\$1,330,900	\$3,610,969	ADMINISTRATIVE SERVICES DEPT. SUBTOTAL	\$4,852,921	\$4,852,921	\$4,852,921
			CUSTOMER SERVICE DEPARTMENT			
\$430,122	\$490,497	\$511,000	General Services	\$592,371	\$592,371	\$592,371
\$1,402,850	\$1,378,124	\$1,521,625	Customer Service	\$1,497,452	\$1,497,452	\$1,497,452
\$165,329	\$176,563	\$233,660	Field Customer Service	\$262,647	\$262,647	\$262,647
\$0	\$0	\$267,340	Communications	\$221,100	\$221,100	\$221,100
\$1,998,301	\$2,045,185	\$2,533,625	CUSTOMER SERVICE DEPT. SUBTOTAL	\$2,573,570	\$2,573,570	\$2,573,570
			ENGINEERING AND OPERATIONS DEPARTMENT			
\$523,156	\$523,411	\$1,117,970	General Services	\$1,985,581	\$1,985,581	\$1,985,581
\$800,000	\$680,130	\$990,900	System Operations	\$955,150	\$955,150	\$955,150
\$18,257	\$23,081	\$9,500	Engineering	\$15,500	\$15,500	\$15,500
\$631,476	\$880,965	\$1,117,323	Water Resources	\$1,363,301	\$1,363,301	\$1,363,301
\$1,482,943	\$1,760,192	\$2,287,079	Asset Management	\$2,424,246	\$2,424,246	\$2,424,246
\$116,793	\$146,134	\$191,000	Water Operations	\$181,500	\$181,500	\$181,500
\$712,475	\$1,154,708	\$1,062,800	Construction and Maintenance	\$1,421,000	\$1,421,000	\$1,421,000
\$4,285,101	\$5,168,621	\$6,776,572	ENGINEERING AND OPERATIONS DEPARTMENT SUBTOTAL	\$8,346,278	\$8,346,278	\$8,346,278
			FINANCE DEPARTMENT			
\$497,124	\$277,310	\$363,735	General Services	\$694,763	\$694,763	\$694,763
\$2,047,724	\$3,467,562	\$2,369,100	Finance And Accounting	\$3,730,740	\$3,730,740	\$3,730,740
\$906,365	\$0	\$0	Information Technology	\$0	\$0	\$0
\$3,451,213	\$3,744,872	\$2,732,835	FINANCE DEPARTMENT SUBTOTAL	\$4,425,503	\$4,425,503	\$4,425,503
\$37,541	\$43,310	\$72,095	WATER SUPPLY PROGRAM SUBTOTAL	\$76,990	\$76,990	\$76,990
\$0	\$1,584,809	\$2,040,500	INFORMATION TECHNOLOGY SERVICES DEPARTMENT SUBTOTAL	\$2,842,650	\$2,842,650	\$2,842,650
\$30,239,710	\$34,129,922	\$42,131,196	TOTAL MATERIALS & SERVICES	\$47,640,836	\$47,640,836	\$47,640,836

CAPITAL OUTLAY
CAPITAL OUTLAY, TRANSFERS & CONTINGENCY
GENERAL FUND
Fund 01

FORM LB-31

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2021-2023		
ACTUAL 15-17	ACTUAL 17-19	AMENDED BUDGET 19-21		2021-23 PROPOSED	2021-23 APPROVED	2021-23 ADOPTED
			CAPITAL OUTLAY			
\$0	\$0	\$0	LAND	\$0	\$0	\$0
\$0	\$0	\$0	BUILDINGS	\$0	\$0	\$0
\$0	\$0	\$0	OTHER IMPROVEMENTS	\$0	\$0	\$0
\$456,784	\$282,549	\$212,200	EQUIPMENT	\$705,950	\$705,950	\$705,950
\$456,784	\$282,549	\$212,200	TOTAL CAPITAL OUTLAY	\$705,950	\$705,950	\$705,950
\$336,823	\$1,569,468	\$1,446,000	SPECIAL PAYMENTS (ROW FEES)	\$1,625,000	\$1,625,000	\$1,625,000
\$0	\$0	\$20,000,000	SPECIAL PAYMENTS (PERS SIDE ACCOUNTS)	\$0	\$0	\$0
			TRANSFERS TO OTHER FUNDS			
\$0	\$84,816,731	\$78,457,822	TO CAPITAL IMPROVEMENT/RESERVE FUNDS	\$83,000,000	\$83,000,000	\$83,000,000
\$0	\$0	\$0	TO WILLAMETTE WATER SUPPLY FUND	\$0	\$0	\$0
\$39,868	\$38,061	\$33,400	TO CUSTOMER EMERGENCY ASSISTANCE FUND	\$500,000	\$500,000	\$500,000
\$0	\$0	\$0	TO REVENUE BOND DEBT SERVICE FUND	\$0	\$0	\$0
\$39,868	\$84,854,792	\$78,491,222	TOTAL TRANSFERS	\$83,500,000	\$83,500,000	\$83,500,000
\$0	\$0	\$15,000,000	OPERATING CONTINGENCY	\$20,000,000	\$20,000,000	\$20,000,000
\$62,608,883	\$155,524,909	\$180,817,269	TOTAL EXPENDITURES	\$195,801,822	\$195,801,822	\$195,801,822
<u>\$115,527,384</u>	<u>\$99,123,394</u>	<u>\$32,042,450</u>	UNAPPROPRIATED ENDING FUND BALANCE	<u>\$17,463,287</u>	<u>\$17,463,287</u>	<u>\$17,463,287</u>
\$178,136,267	\$254,648,303	\$212,859,719	TOTAL REQUIREMENTS	\$213,265,109	\$213,265,109	\$213,265,109

CAPITAL PROJECT FUND
CAPITAL IMPROVEMENT FUND

FORM LB-10

Fund 11

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2021-2023		
ACTUAL 15-17	ACTUAL 17-19	BUDGET 19-21		2021-23 PROPOSED	2021-23 APPROVED	2021-23 ADOPTED
RESOURCES						
\$20,994,493	\$0	\$0	BEGINNING FUND BALANCE	\$0	\$0	\$0
\$98,688	\$7,304	\$0	INTEREST INCOME	\$0	\$0	\$0
\$48,011	\$0	\$0	CONTRIBUTED CAPITAL	\$3,320,000	\$3,320,000	\$3,320,000
\$0	\$0	\$0	METER & SERVICE INSTALLATIONS	\$0	\$0	\$0
\$0	\$0	\$0	OTHER REVENUE	\$0	\$0	\$0
\$5,146,339	\$29,859,476	\$179,522,721	TRANSFERS: FROM CAPITAL RESERVE FUND	\$376,262,670	\$376,262,670	\$376,262,670
\$26,287,531	\$29,866,781	\$179,522,721	TOTAL RESOURCES	\$379,582,670	\$379,582,670	\$379,582,670
REQUIREMENTS						
CAPITAL OUTLAY:						
\$2,666,486	\$151,959	\$103,500	SOURCE PROJECTS, TVWD	\$7,785,100	\$7,785,100	\$7,785,100
\$7,826,326	\$14,565,440	\$2,504,400	STORAGE (RESERVOIR) PROJECTS	\$8,412,300	\$8,412,300	\$8,412,300
\$6,556,056	\$138,991	\$5,900,500	PUMP STATIONS	\$2,000,800	\$2,000,800	\$2,000,800
\$5,653,774	\$6,013,364	\$40,874,233	VALVES & VAULTS & OTHER EQUIPMENT	\$0	\$0	\$0
\$895,092	\$1,072,025	\$11,092,900	PIPELINE	\$101,746,361	\$101,746,361	\$101,746,361
\$2,689,796	\$620,921	\$0	FACILITES, FLEET & IT	\$9,904,400	\$9,904,400	\$9,904,400
\$0	\$2,131,609	\$3,334,000	LAND	\$0	\$0	\$0
\$0	\$0	\$115,713,188	METERS & SERVICES	\$3,637,500	\$3,637,500	\$3,637,500
			JOINT VENTURE PROJECTS	\$246,096,208	\$246,096,208	\$246,096,208
\$26,287,531	\$24,694,309	\$179,522,721	TOTAL CAPITAL OUTLAY	\$379,582,670	\$379,582,670	\$379,582,670
\$0	\$5,172,472	\$0	TRANSFER TO GENERAL FUND FOR JOINT VENTURES	\$0	\$0	\$0
\$0	\$0	\$0	UNAPPROPRIATED ENDING FUND BALANCE	\$0	\$0	\$0
\$26,287,531	\$24,694,309	\$179,522,721	TOTAL REQUIREMENTS	\$379,582,670	\$379,582,670	\$379,582,670

CAPITAL PROJECT FUND
RESOURCES AND EXPENDITURES
WATER SUPPLY FUND

FORM LB-10			Fund 15	TUALATIN VALLEY WATER DISTRICT		
HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2021-2023		
ACTUAL 15-17	ACTUAL 17-19	BUDGET 19-21		2021-23 PROPOSED	2021-23 APPROVED	2021-23 ADOPTED
			RESOURCES			
\$0	\$0	\$0	BEGINNING FUND BALANCE	\$0	\$0	\$0
\$1,717,587	\$284,828	\$0	CONTRACT REIMBURSEMENTS	\$0	\$0	\$0
\$13,892,685	\$30,813,857	\$0	CONTRIBUTED CAPITAL	\$0	\$0	\$0
\$22,896,376	\$48,809,392	\$0	INTERFUND TRANSFERS	\$0	\$0	\$0
	\$51,155	\$0	MISCELLANEOUS INCOME	\$0	\$0	\$0
\$38,506,648	\$79,959,232	\$0	TOTAL RESOURCES	\$0	\$0	\$0
			EXPENDITURES			
\$0	\$0	\$0	TOTAL PERSONNEL SERVICES	\$0	\$0	\$0
\$3,486,421	\$622,090	\$0	TOTAL MATERIALS & SERVICES	\$0	\$0	\$0
\$35,020,227	\$79,337,142	\$0	TOTAL CAPITAL OUTLAY	\$0	\$0	\$0
		\$0	OPERATING CONTINGENCY	\$0	\$0	\$0
\$38,506,648	\$79,959,232	\$0	TOTAL EXPENDITURES	\$0	\$0	\$0
\$0	\$0	\$0	UNAPPROPRIATED ENDING FUND BALANCE	\$0	\$0	\$0
\$38,506,648	\$79,959,232	\$0	TOTAL REQUIREMENTS	\$0	\$0	\$0

RESERVE FUND
CAPITAL RESERVE FUND
Fund 18

FORM LB-11

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2021-2023		
ACTUAL 15-17	ACTUAL 17-19	BUDGET 19-21		2021-23 PROPOSED	2021-23 APPROVED	2021-23 ADOPTED
			RESOURCES			
\$0	\$105,149,954	\$86,235,671	BEGINNING FUND BALANCE	\$56,508,462	56,508,462	56,508,462
\$1,150,552	\$3,215,059	\$3,613,100	INTEREST INCOME	\$431,000	431,000	431,000
\$2,210,220	\$1,812,717	\$2,368,990	CONTRIBUTED CAPITAL (I.E. METERS & SERVICES)	\$1,151,010	1,151,010	1,151,010
\$16,958,432	\$12,488,955	\$11,426,151	SYSTEM DEVELOPMENT CHARGES	\$9,574,073	9,574,073	9,574,073
			TRANSFERS IN:			
\$84,830,750	\$84,816,731	\$78,457,822	FROM GENERAL FUND FOR CAPITAL	\$83,000,000	\$83,000,000	\$83,000,000
		\$25,000,000	FROM DEBT PROCEEDS FUND	\$226,500,000	\$226,500,000	\$226,500,000
\$105,149,954	\$207,483,416	\$207,101,734	TOTAL RESOURCES	\$377,164,545	377,164,545	377,164,545
			EXPENDITURES			
			TRANSFERS OUT OF FUND:			
\$5,146,339	\$29,859,476	\$179,522,721	TRANSFERS TO CAPITAL IMPROVEMENT FUND	\$376,262,670	376,262,670	376,262,670
\$22,896,376	\$48,809,392	\$0	TRANSFERS TO WATER SUPPLY FUND	\$0	0	0
			TRANSFERS TO WILLAMETTE INTAKE FACILITIES			
			TRANSFERS TO WILLAMETTE WATER SUPPLY SYSTEM			
\$28,042,715	\$78,668,868	\$179,522,721	TOTAL TRANSFERS OUT OF FUND	\$376,262,670	376,262,670	376,262,670
\$77,107,239	\$128,814,548	\$27,579,013	RESERVED FOR FUTURE EXPENDITURE	\$901,875	\$901,875	\$901,875
\$105,149,954	\$207,483,416	\$207,101,734	TOTAL REQUIREMENTS	\$377,164,545	377,164,545	377,164,545

SPECIAL REVENUE FUND
DEBT PROCEEDS FUND

FORM LB-10

Fund 22

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA			ITEM	BIENNIAL BUDGET FOR 2021-2023		
ACTUAL 15-17	ACTUAL 17-19	BUDGET 19-21		2021-23 PROPOSED	2021-23 APPROVED	2021-23 ADOPTED
		\$0	RESOURCES BEGINNING FUND BALANCE	\$0	\$0	\$0
		\$0	INTEREST INCOME	\$0	\$0	\$0
		\$25,000,000	DEBT PROCEEDS	\$226,500,000	\$226,500,000	\$226,500,000
		\$25,000,000	TOTAL RESOURCES	\$226,500,000	226,500,000	226,500,000
			EXPENDITURES			
			TRANSFERS OUT OF FUND:			
		\$0	TRANSFERS TO CAPITAL IMPROVEMENT FUND	\$0	\$0	\$0
		\$25,000,000	TRANSFERS TO CAPITAL RESERVE FUND	\$226,500,000	\$226,500,000	\$226,500,000
		\$0	TRANSFERS TO WIF	\$0	\$0	\$0
		\$0	TRANSFERS TO WWSS	\$0	\$0	\$0
		\$25,000,000	TOTAL TRANSFERS OUT OF FUND	\$226,500,000	\$226,500,000	\$226,500,000
		\$0	UNAPPROPRIATED ENDING FUND BALANCE	\$0	\$0	\$0
		\$25,000,000	TOTAL	\$226,500,000	\$226,500,000	\$226,500,000

DEBT SERVICE FUND
RESOURCES & EXPENDITURES
REVENUE BOND DEBT SERVICE FUND

FORM LB-10

Fund 31

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2021-2023		
ACTUAL 15-17	ACTUAL 17-19	BUDGET 19-21		2021-22 PROPOSED	2022-23 APPROVED	2021-23 ADOPTED
			RESOURCES			
\$374	\$0	\$0	CASH ON HAND FOR REVENUE BONDS	\$0	\$0	\$0
\$0	\$0	\$0	TRANSFERS FROM GENERAL FUND	\$0	\$0	\$0
\$0	\$0	\$0	MISCELLANEOUS REVENUE - REV. BONDS	\$0	\$0	\$0
\$0	\$0	\$0	INTEREST ON INVESTMENTS	\$0	\$0	\$0
\$0	\$0	\$0	PROCEEDS FROM BOND SALE	\$0	\$0	\$0
			CONTINGENCY TRANSFER IN			
\$374	\$0	\$0	TOTAL RESOURCES	\$0	\$0	\$0
			REQUIREMENTS			
\$0	\$0	\$0	EXPENDITURE FOR BOND PRINCIPAL	\$0	\$0	\$0
\$0	\$0	\$0	EXPENDITURES FOR INTEREST	\$0	\$0	\$0
\$0	\$0	\$0	TOTAL EXPENDITURES - REVENUE BONDS	\$0	\$0	\$0
\$0	\$0	\$0	REVENUE BOND RESERVE	\$0	\$0	\$0
\$374	\$0	\$0	RESIDUAL EQUITY TRANSFER	\$0	\$0	\$0
\$0	\$0	\$0	ENDING FUND BALANCE	\$0	\$0	\$0
\$374	\$0	\$0	TOTAL REQUIREMENTS	\$0	\$0	\$0

TRUST AND AGENCY FUND
 RESOURCES & EXPENDITURES
 WILLAMETTE RIVER WATER COALITION FUND

FORM LB-10			Fund 41	TUALATIN VALLEY WATER DISTRICT		
HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2021-2023		
ACTUAL 15-17	ACTUAL 17-19	AMENDED BUDGET 19-21		2021-23 PROPOSED	2021-23 APPROVED	2021-23 ADOPTED
			R E S O U R C E S			
\$79,251	\$24,074	\$20,794	BEGINNING FUND BALANCE			
			NET WORKING CAPITAL (ACCRUAL)	\$3,853	\$3,853	\$3,853
\$1,545	\$400	\$1,154	EARNINGS FROM TEMP INVESTMENTS	\$192	\$192	\$192
\$267,713	\$91,000	\$167,000	CONTRIBUTIONS	\$125,950	\$125,950	\$125,950
			CAPITAL OUTLAY RECEIPTS			
			OTHER RESOURCES			
			TRANSFERS FROM GENERAL FUND			
\$348,509	\$115,474	\$188,948	TOTAL RESOURCES	\$129,995	\$129,995	\$129,995
			E X P E N D I T U R E S			
\$324,435	\$107,364	\$167,000	MATERIALS & SERVICES	\$114,300	\$114,300	\$114,300
\$0	\$0	\$0	CAPITAL OUTLAY	\$0	\$0	\$0
\$324,435	\$107,364	\$167,000	TOTAL EXPENDITURES	\$114,300	\$114,300	\$114,300
\$0	\$0	\$0	TRANSFERS	\$0	\$0	\$0
\$0	\$0	\$0	OPERATING CONTINGENCY	\$11,650	\$11,650	\$11,650
\$24,074	\$8,110	\$21,948	UNAPPROPRIATED ENDING FUND BALANCE	\$4,045	\$4,045	\$4,045
\$348,509	\$115,474	\$188,948	TOTAL REQUIREMENTS	\$129,995	\$129,995	\$129,995

TRUST AND AGENCY FUND
RESOURCES & EXPENDITURES
CUSTOMER EMERGENCY ASSISTANCE FUND
Fund 43

FORM LB-10

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2021-2023		
ACTUAL 15-17	ACTUAL 17-19	AMENDED BUDGET 19-21		2021-23 PROPOSED	2021-23 APPROVED	2021-23 ADOPTED
			R E S O U R C E S			
	\$6,608	\$9,065	BEGINNING FUND BALANCE	\$5,000	\$5,000	\$5,000
\$19,615	\$11,307	\$11,740	CONTRIBUTIONS	\$26,000	\$26,000	\$26,000
\$253	\$146	\$0	INTEREST EARNINGS	\$35	\$35	\$35
\$20,000	\$20,000	\$33,400	TRANSFERS FROM GENERAL FUND	\$500,000	\$500,000	\$500,000
\$39,868	\$38,061	\$54,205	TOTAL RESOURCES	\$531,035	\$531,035	\$531,035
			E X P E N D I T U R E S			
			MATERIALS & SERVICES			
\$7,000	\$6,708	\$8,000	Payments to servicing agent	\$34,700	\$34,700	\$34,700
\$26,260	\$22,195	\$33,400	Payments to customers	\$496,335	\$496,335	\$496,335
\$33,260	\$28,903	\$41,400	TOTAL EXPENDITURES	\$531,035	\$531,035	\$531,035
\$0	\$0	\$0	OPERATING CONTINGENCY	\$0	\$0	\$0
\$6,608	\$9,158	\$12,805	UNAPPROPRIATED ENDING BALANCE	\$0	\$0	\$0
\$39,868	\$38,061	\$54,205	TOTAL REQUIREMENTS	\$531,035	\$531,035	\$531,035

TRUST AND AGENCY FUND
 RESOURCES & EXPENDITURES
 WILLAMETTE INTAKE FACILITIES FUND

FORM LB-10

Fund 44

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA			ITEM	BIENNIAL BUDGET FOR 2021-2023		
ACTUAL 15-17	ACTUAL 17-19	AMENDED BUDGET 19-21		2021-23 PROPOSED	2021-23 APPROVED	2021-23 ADOPTED
	\$0	\$0	RESOURCES BEGINNING FUND BALANCE	\$0	\$0	\$0
	\$73,092	\$382,615	CONTRACT REIMBURSEMENTS	\$1,163,920	\$1,163,920	\$1,163,920
	\$0	\$0	INTEREST EARNINGS	\$0	\$0	\$0
	\$2,445,240	\$7,557,825	CAPITAL CONTRIBUTIONS	\$6,533,736	\$6,533,736	\$6,533,736
		\$0	TRANSFERS FROM CAPITAL IMPROVEMENT FUND	\$0	\$0	\$0
		\$0	TRANSFERS FROM DEBT PROCEEDS FUND	\$0	\$0	\$0
	\$2,518,332	\$7,940,440	TOTAL RESOURCES	\$7,697,656	\$7,697,656	\$7,697,656
			EXPENDITURES			
	\$63,434	\$420,590	MATERIALS & SERVICES	\$1,056,920	\$1,056,920	\$1,056,920
	\$2,372,148	\$8,113,208	CAPITAL OUTLAY	\$6,533,736	\$6,533,736	\$6,533,736
	\$0	\$36,000	OPERATING CONTINGENCY	\$107,000	\$107,000	\$107,000
	\$2,435,582	\$8,569,798	TOTAL EXPENDITURES	\$7,697,656	\$7,697,656	\$7,697,656
	\$82,750	(\$629,358)	UNAPPROPRIATED ENDING BALANCE	\$0	\$0	\$0
	\$2,518,332	\$7,976,440	TOTAL REQUIREMENTS	\$7,697,656	\$7,697,656	\$7,697,656

TRUST AND AGENCY FUND
RESOURCES & EXPENDITURES
WILLAMETTE WATER SUPPLY SYSTEM FUND
Fund 45

FORM LB-10

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2021-2023		
ACTUAL 15-17	ACTUAL 17-19	BUDGET 19-21		2021-23 PROPOSED	2021-23 APPROVED	2021-23 ADOPTED
			R E S O U R C E S			
		\$0	BEGINNING FUND BALANCE	\$0	\$0	\$0
		\$1,887,154	CONTRACT REIMBURSEMENTS	\$2,578,405	\$2,578,405	\$2,578,405
		\$0	INTEREST EARNINGS	\$0	\$0	\$0
		\$217,296,865	CONTRIBUTED CAPITAL	\$452,289,650	\$452,289,650	\$452,289,650
		\$0	TRANSFERS FROM CAPITAL RESERVE FUND	\$0	\$0	\$0
		\$0	TRANSFERS FROM BOND PROCEEDS FUND	\$0	\$0	\$0
		\$219,184,019	TOTAL RESOURCES	\$454,868,055	\$454,868,055	\$454,868,055
			E X P E N D I T U R E S			
		\$1,714,154	MATERIALS & SERVICES	\$2,343,405	\$2,343,405	\$2,343,405
		\$217,296,865	CAPITAL OUTLAY	\$452,289,650	\$452,289,650	\$452,289,650
		\$173,000	OPERATING CONTINGENCY	\$235,000	\$235,000	\$235,000
		\$219,011,019	TOTAL EXPENDITURES	\$454,868,055	\$454,868,055	\$454,868,055
		\$0	UNAPPROPRIATED ENDING BALANCE	\$0	\$0	\$0
		\$219,184,019	TOTAL REQUIREMENTS	\$454,868,055	\$454,868,055	\$454,868,055

SECTION 7

GENERAL FUND RESOURCES AND EXPENDITURES

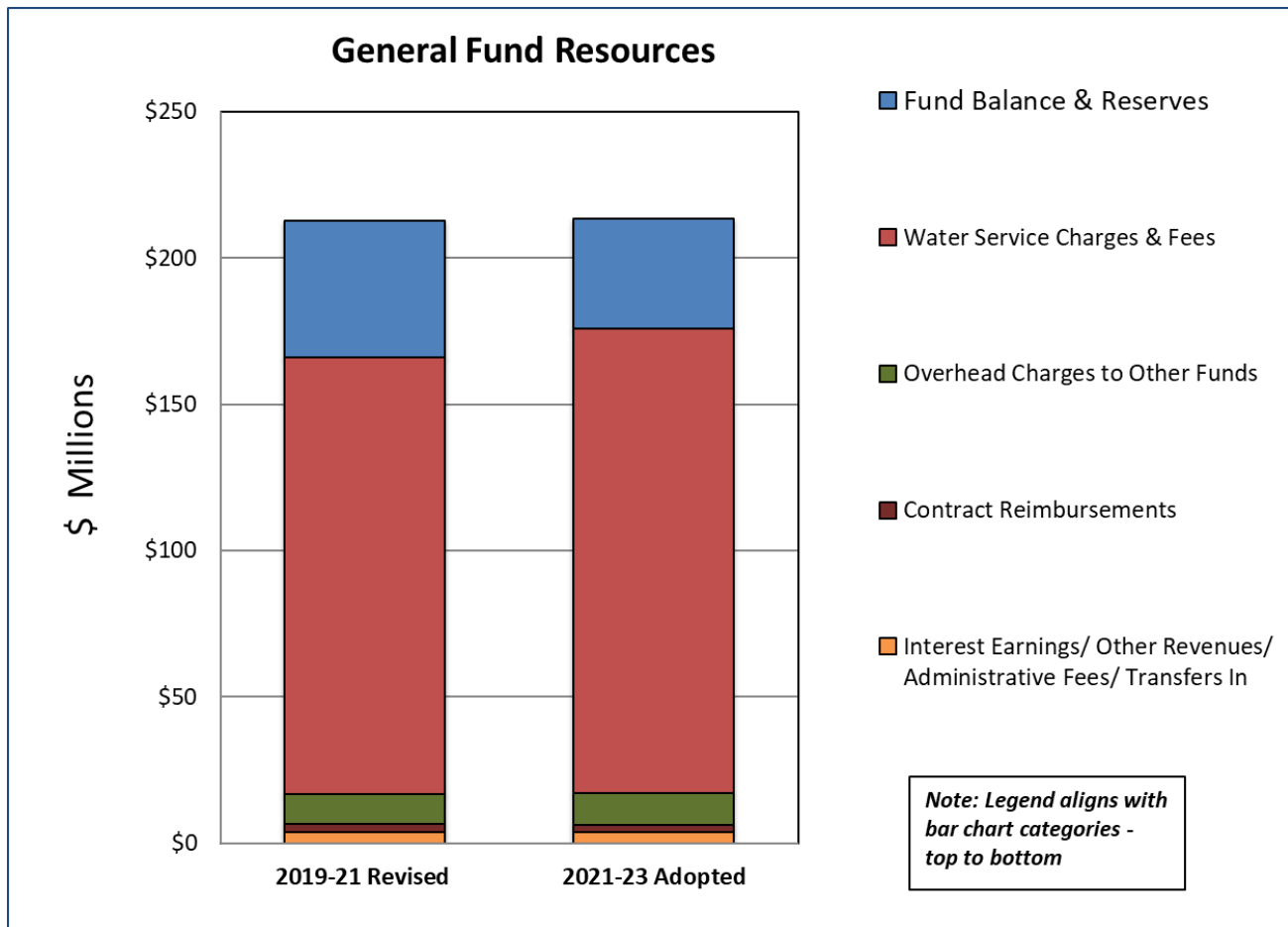
The General Fund accounts for nearly all the operating costs of the District, and over \$213 million, or 12.9% of all District budgetary requirements. On a day-to-day basis, all administration, operations, and maintenance activities are accounted for in the General Fund.

Resources for the General Fund include fund balances, contract reimbursements from partner agencies, interest earnings, and most significantly water service charges, which is the largest revenue source to the General Fund. Water service charges in the Adopted 2021-23 Budget are estimated at \$158.8 million. Water sales revenue is based on projected demands and the revenue requirements for the District's operating and capital expenditure needs.

The District's significant planned investments in the WWSP serve as the primary driver for developing water revenue increase projections. The water sales revenue in the Adopted 2021-23 Budget are based on rate revenue adjustments of 9.5% in each year of the biennium. (See page 5-8 in Section 5 *Multi-Year Financial Outlook*.) Approval of annual water rates and all other adjustments to the District's rate and charges are subject to a separate Board action.

The General Fund also receives resources from the other funds. Overhead charges to other funds account for reimbursements made to the General Fund from the Capital Improvement Fund, the Willamette Water Supply System Fund, and the Willamette Intake Facilities Fund for labor, overhead, and the use of District equipment constructing capital assets and providing services the WWSS and WIF joint ventures. These resources are estimated to be \$10.7 million in the Adopted 2021-23 Budget.

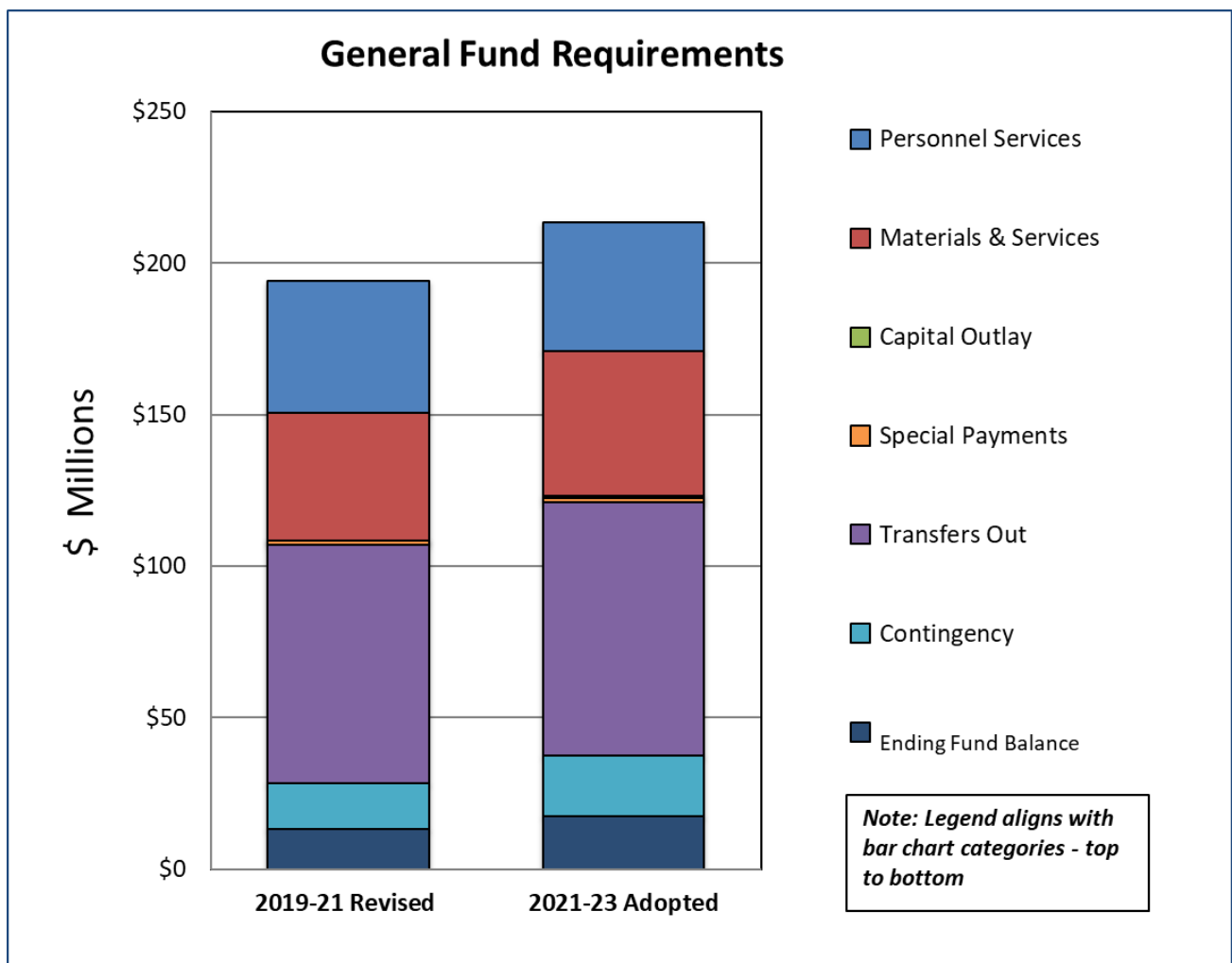
As the graphic below shows, water sales revenue continues to be the District's key resource.



The requirements for the General Fund include Personnel Services (\$42.3 million) for the District’s labor-related costs; Materials and Services (\$47.6 million) for purchased water and general operations and maintenance; Capital Outlay for equipment (\$705,950); Special Payments for utility right-of-way fees; Transfers to other funds to be held as reserves for capital expenditures; and a General Operating Contingency. More detail on the Adopted 2021-23 Budget for Personnel Services, Material and Services and Capital Outlay expenses can be found in Sections 8-14 *Purchased Water* and the six District departments.

The Special Payments appropriation category in the General Fund is used to pay utility right-of-way fees imposed by the cities of Beaverton, Hillsboro, and Tigard. These fees were implemented by the three cities during the latter part of the 2015-17 biennium. For the Adopted 2021-23 biennium budget the appropriation for right-of-way fees is \$1,625,000. This is an increase of \$179 thousand over the prior biennium.

The Adopted 2021-23 Budget for Transfers is \$83.5 million, representing the largest appropriation category in the General Fund. The transfer to the Capital Reserve Fund for current and future capital construction requirements is \$83 million. A \$500,000 transfer to the Customer Emergency Assistance represents the District share of support to this program. The District has increased the financial support to Customer Emergency Assistance program in response to the financial hardships experienced by its customers, resulting from the COVID-19 pandemic. General Operating Contingency is budgeted at \$20 million. Under Oregon Local Budget Law, General Operating Contingency may be appropriated for unanticipated expenditures, which requires prior Board approval. Unappropriated ending fund balance in the General Fund is estimated in the Adopted 2021-23 Budget at 17.5 million for future use.



GENERAL FUND DEPARTMENTS AND DIVISIONS

General Fund expenditures are distributed among the District's six departments and Purchased Water non-departmental level program. Each department has a General Services Division and, as applicable, other divisions grouped by core functions. Each General Services Division represents the management of that department and the activities that are in support of the department, such as training and education. Smaller departments are limited to just the General Services Division. Due to its size and significance, the Water Purchases Program is budgeted as a non-departmental expenditure and is not part of any specific departmental budget (See Section 8 *Purchased Water*). The District's departments and divisions are listed below:

Administrative Services

Responsible for leadership, administration, and oversight of the District; provides direct support to the TVWD Board of Commissioners; conducts legal services; manages District records; administers human resources and risk management.

Divisions: General Services: 10-01
 Human Resources: 10-11
 Risk Management: 10-12

Customer Service

Manages customer billing and payment; provides visitor reception and telephone call routing; reads and maintains water meters; turns accounts on and off; investigates customer matters; administers the District's conservation and key customer contact programs; and maintains District public information and community outreach.

Divisions: General Services: 20-01
 Customer Service & Utility Billing: 20-21
 Field Customer Service: 20-22
 Communications: 20-24

Engineering & Operations

Develops and implements Capital Improvement Plan; determines and monitors compliance with water system design and construction standards; reviews developer and construction projects; operates and maintains storage, transmission, and distribution; controls compliance with backflow regulations; performs locates to protect system from damage; ensures compliance with State and Federal water quality regulations. Conducts installations, relocates, repair, and maintenance for District mainlines, hydrants, valves, services, and vaults; manages mainline flushing program; maintains geographic information system (GIS), field mapping and asset documentation; manages District vehicle fleet and fueling facility; maintains all District facilities.

Divisions: General Services: 35-01
 System Operations: 35-31
 Engineering: 35-32
 Water Resources: 35-33
 Asset Management: 35-34
 Water Operations: 35-35
 Construction & Maintenance: 35-36

Finance

Responsible for all financial operations in the District including treasury, financial planning, and budget development; administers fiscal responsibilities, accounting, and payroll; manages debt issuance program; analyzes rates and charges; prepares financial forecasting; and coordinates purchasing and contracts.

Divisions: General Services: 50-01
 Accounting & Finance: 50-51

Water Supply Program

Provides administration of the Willamette Water Supply Program (WWSP) partnership; oversees planning, design, and construction of assets associated with Willamette Water Supply System and Willamette Intake Facilities commissions; provides financial oversight and reporting for the WWSP.

Divisions: General Services: 60-01

Information Technology Services

Responsible for the management and support of all aspects of the District's information technology (IT) systems, including all computer networks, major server environments, data and voice communications, and hardware and software; implements the District's strategic IT initiatives; provides offsite recovery of critical systems; maintains suite of enterprise applications; supports office and mobile work force; and develops the District's overall IT strategy. This department was formed in the 2017-19 Budget. Previously, IT Services was a division within the Finance and IT Department. The IT Services Department is led by a director reporting to the CEO.

Divisions: General Services: 70-01

Non-Departmental appropriation categories**Water Purchases Program**

Purchases water for the District through wholesale agreements with the City of Portland and an ownership share with the Joint Water Commission. As a district-wide expenditure, it is considered a separate program in the General Fund and not associated with any specific department. The Engineering Services Department is the primary group that budgets and manages the District's water purchases, with support from Administrative Services and the Finance Department. More information can be found in Section 8- Purchased Water.

Special Payments – RIGHTS OF WAY PAYMENTS

The Cities of Hillsboro, Beaverton and Tigard implemented right-of-way fees on water bills of customers of the District located within their city limits. Payments to the cities by the District constitute a Special Payment under Oregon Local Budget Law. The Board of Commissioners has implemented a right-a-way fees recovery strategy to generate enough resources to fund the Special Payments appropriation category.

The table on the next page provides a summary of all the General Fund expenditures and appropriations for the Adopted 2021-23 Budget.

GENERAL FUND EXPENDITURES AND OTHER APPROPRIATIONS BY DEPARTMENT

HISTORICAL DATA			TUALATIN VALLEY WATER DISTRICT PERSONNEL SERVICES EXPENDITURE TOTALS BY DEPARTMENT					BIENNIAL BUDGET FOR 2021-2023	
ACTUAL 15-17	ACTUAL 17-19	BUDGET 19-21	DEPARTMENT/PROGRAM	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 19-21		
\$3,550,339	\$3,264,824	\$3,689,357	ADMINISTRATIVE SERVICES DEPARTMENT	\$3,529,590	\$3,529,590	\$3,529,590	-4.3%		
\$5,820,692	\$7,270,182	\$9,045,685	CUSTOMER SERVICES DEPARTMENT	\$9,038,562	\$9,038,562	\$9,038,562	-0.1%		
\$14,451,235	\$15,550,317	\$18,207,420	ENGINEERING AND OPERATIONS DEPARTMENT	\$18,258,221	\$18,258,221	\$18,258,221	0.3%		
\$5,195,983	\$3,728,313	\$4,381,042	FINANCIAL SERVICES DEPARTMENT	\$4,119,842	\$4,119,842	\$4,119,842	-6.0%		
\$2,200,965	\$2,928,105	\$4,798,806	WATER SUPPLY PROGRAM	\$4,007,052	\$4,007,052	\$4,007,052	-16.5%		
\$0	\$2,751,547	\$3,414,341	INFORMATION TECHNOLOGY SERVICES DEPARTMENT	\$3,376,770	\$3,376,770	\$3,376,770	-1.1%		
\$31,219,215	\$35,493,288	\$43,536,651	TOTAL PERSONNEL SERVICES	\$42,330,036	\$42,330,036	\$42,330,036	-2.8%		

HISTORICAL DATA			TUALATIN VALLEY WATER DISTRICT MATERIALS & SERVICES EXPENDITURE TOTALS BY DEPARTMENT					BIENNIAL BUDGET FOR 2021-2023	
ACTUAL 15-17	ACTUAL 17-19	BUDGET 19-21	DEPARTMENT/PROGRAM	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 19-21		
\$18,744,720	\$20,212,227	\$24,364,600	GENERAL FUND M&S PURCHASES: WATER	\$24,522,925	\$24,522,925	\$24,522,925	0.6%		
\$885,668	\$1,330,900	\$3,610,969	ADMINISTRATIVE SERVICES DEPARTMENT	\$4,852,921	\$4,852,921	\$4,852,921	34.4%		
\$1,998,301	\$2,045,185	\$2,533,625	CUSTOMER SERVICES DEPARTMENT	\$2,573,570	\$2,573,570	\$2,573,570	1.6%		
\$4,285,101	\$5,168,621	\$6,776,572	ENGINEERING AND OPERATIONS DEPARTMENT	\$8,346,278	\$8,346,278	\$8,346,278	23.2%		
\$3,451,213	\$3,744,872	\$2,732,835	FINANCIAL SERVICES DEPARTMENT	\$4,425,503	\$4,425,503	\$4,425,503	61.9%		
\$37,541	\$43,310	\$72,095	WATER SUPPLY PROGRAM	\$76,990	\$76,990	\$76,990	6.8%		
\$0	\$1,584,809	\$2,040,500	INFORMATION TECHNOLOGY SERVICES DEPARTMENT	\$2,842,650	\$2,842,650	\$2,842,650	39.3%		
\$29,402,545	\$34,129,922	\$42,131,196	TOTAL MATERIALS & SERVICES	\$47,640,836	\$47,640,836	\$47,640,836	13.1%		

HISTORICAL DATA			TUALATIN VALLEY WATER DISTRICT CAPITAL OUTLAY EXPENDITURE TOTALS BY DEPARTMENT					BIENNIAL BUDGET FOR 2021-2023	
ACTUAL 15-17	ACTUAL 17-19	BUDGET 19-21	DEPARTMENT/PROGRAM	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 19-21		
\$0	\$24,054	\$18,000	ADMINISTRATIVE SERVICES DEPARTMENT	\$0	\$0	\$0	-100.0%		
\$18,051	\$0	\$40,500	CUSTOMER SERVICES DEPARTMENT	\$0	\$0	\$0	-100.0%		
(\$11,330)	\$59,840	\$40,600	ENGINEERING AND OPERATIONS DEPARTMENT	\$434,000	\$434,000	\$434,000	969.0%		
\$450,063	\$0	\$0	FINANCIAL SERVICES DEPARTMENT	\$0	\$0	\$0	0.0%		
\$0	\$0	\$0	WATER SUPPLY PROGRAM	\$0	\$0	\$0	0.0%		
\$0	\$198,654	\$113,100	INFORMATION TECHNOLOGY SERVICES DEPARTMENT	\$271,950	\$271,950	\$271,950	140.5%		
\$456,784	\$282,549	\$212,200	TOTAL CAPITAL OUTLAY	\$705,950	\$705,950	\$705,950	232.7%		

HISTORICAL DATA			SPECIAL PAYMENTS, TRANSFERS, CONTINGENCY & RESERVES					BIENNIAL BUDGET FOR 2021-2023	
ACTUAL 15-17	ACTUAL 17-19	BUDGET 19-21	DEPARTMENT/PROGRAM	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 19-21		
\$39,733,590	\$84,850,750	\$78,482,822	TRANSFERS	\$83,500,000	\$83,500,000	\$83,500,000	6.4%		
\$0	\$336,823	\$21,446,000	SPECIAL PAYMENTS	\$1,625,000	\$1,625,000	\$1,625,000	-92.4%		
\$0	\$0	\$15,000,000	GENERAL OPERATING CONTINGENCY	\$20,000,000	\$20,000,000	\$20,000,000	33.3%		
\$39,733,590	\$85,187,573	\$114,928,822	TOTAL TRANSFERS AND CONTINGENCY	\$105,125,000	\$105,125,000	\$105,125,000	-8.5%		

HISTORICAL DATA			TOTAL EXPENDITURES					BIENNIAL BUDGET FOR 2021-2023	
ACTUAL 15-17	ACTUAL 17-19	BUDGET 19-21	DEPARTMENT/PROGRAM	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 19-21		
\$100,812,133	\$155,093,332	\$200,808,869	TOTAL DISTRICT EXPENDITURES	\$195,801,822	\$195,801,822	\$195,801,822	-2.5%		

Below is a table listing all the positions in the District by grade, which includes the salary range and total Personnel Services costs.

PERSONNEL SERVICES

GENERAL FUND

STAFFING SALARY AND WAGE ANALYSIS

Fund 01

TUALATIN VALLEY WATER DISTRICT

--- HISTORICAL DATA ---					CLASSIFICATION TITLE	BIENNIUM BUDGET FOR 2021-23		
ACTUAL (AT JUNE 30)		BUDGET				CLASS RANGE		ADOPTED TOTAL
2019	2020	20-21	21-22	22-23		FROM	TO	
					BY CONTRACT	N/A	N/A	\$453,281
1	1	1	1	1	1 CHIEF EXECUTIVE OFFICER			
					GRADE 13	\$134,659	\$202,010	\$2,072,544
1	1	1	1	1	1 CHIEF ENGINEER			
1	1	1	1	1	1 CHIEF FINANCIAL OFFICER			
1	1	1	1	1	1 GENERAL COUNSEL			
1	1	1	1	1	1 WATER SUPPLY PROGRAM DIRECTOR			
1	1	1	1	1	1 INFORMATION TECHNOLOGY SERVICES DIRECTOR			
					GRADE 12	\$121,098	\$181,667	\$0
					MANAGER OF SUPPORT SERVICES			
					MANAGER OF FIELD OPERATIONS			
		1			WILLAMETTE WATER SUPPLY MANAGER			
					GRADE 11	\$108,909	\$163,363	\$1,269,819
1	1	1	1	1	1 HUMAN RESOURCES DIRECTOR			
1	1	1	1	1	1 PRINCIPAL ENGINEER			
1	1	1	1	1	1 CUSTOMER SERVICE MANAGER			
	1	1	1	1	1 WATER SUPPLY ASSISTANT PROGRAM DIRECTOR			
					GRADE 10	\$97,947	\$146,910	\$995,184
					SENIOR ENGINEER			
1	1	1	1	1	1 ENGINEERING DIVISION MANAGER			
1	1	1	1	1	1 WATER OPERATIONS DIVISION MANAGER			
1					FINANCE AND ACCOUNTING SUPERVISOR			
1	1	1	1	1	1 CONTROLLER			
1	1	1	1	1	1 FINANCIAL OPERATIONS MANAGER			
					WILLAMETTE SUPPLY OPERATIONS SUPERVISOR			
		1			WATER RESOURCES DIVISION MANAGER			
					GRADE 9	\$88,067	\$132,122	\$3,603,438
1	1	1	1	1	1 CONSTRUCTION/MAINTENANCE SUPERVISOR			
1	1	1	1	1	1 SYSTEMS OPERATIONS SUPERVISOR			
1	1	1	1	1	1 WATER RESOURCES DIVISION MANAGER			
1	1	1	1	1	1 ASSET MANAGEMENT DIVISION MANAGER			
1	1	1	1	1	1 BUILDINGS & GROUNDS SUPERVISOR			
1	1	1	1	1	1 FIELD CUSTOMER SERVICE SUPERVISOR			
1	1	1	1	1	1 PURCHASING AGENT/CONTRACTS COORDINATOR			
1	1	1	1	1	1 INFORMATION TECHNOLOGY ARCHITECT			
1	1	1	1	1	1 IT DEVELOPMENT COORD & PROGRAMMER			
23	23	26	23	23	SUBTOTAL FORWARD TO PAGE 2			\$8,394,266

Note: Personnel Services by position include salary ranges only, and exclude other allowances, payroll taxes and benefits. These costs are totaled for the entire Adopted 2021-23 Budget at the bottom of the table on page 7-9.

PERSONNEL SERVICES

GENERAL FUND

TUALATIN VALLEY WATER DISTRICT

--- HISTORICAL DATA ---					CLASSIFICATION TITLE	BIENNIUM BUDGET FOR 2021-23		ADOPTED TOTAL
ACTUAL (AT JUNE 30)		BUDGET				CLASS RANGE		
2019	2020	20-21	21-22	22-23		FROM	TO	
23	23	26	23	23	BALANCE FORWARD			\$8,394,266
					GRADE 9 CONTINUED			
1		1			FINANCIAL PLANNING DEBT PROJ MGR			
1	1	1	1	1	RISK MANAGEMENT COORDINATOR			
1	1	1	1	1	SENIOR PROJECT ENGINEER			
1	1	1	1	1	COMMUNICATIONS & PUBLIC AFFAIRS SUPERVISOR			
1	1	1	1	1	WWSP FINANCE MANAGER			
1	1	1	1	1	WWSP SENIOR ENGINEER			
1	1	1	1	1	PERMITTING & OUTREACH MANAGER			
					GRADE 8	\$79,206	\$118,810	\$3,870,344
3	3	3	3	3	CONSTRUCTION & MAINTENANCE LEAD			
1	1	1	1	1	DISTRIBUTION CREW LEAD			
1	1	1	1	1	VALVE CREW LEAD			
1	1	1	1	1	FIELD CUSTOMER SERVICE LEAD			
2	1	1	1	1	CUSTOMER SERVICE & BILLING SUPERVISOR			
1	1	1	1	1	FLEET COORDINATOR			
1	1	1	1	1	MAINTENANCE ENGINEERING SUPERVISOR			
1	1	1	1	1	SENIOR MANAGEMENT ANALYST			
2	2	2	2	2	GIS ANALYST			
1	1	1	1	1	WWSP COMMUNICATIONS SUPERVISOR			
1	1	1	1	1	SENIOR NETWORK ADMINISTRATOR			
1	1	1	1	1	SENIOR SYSTEMS ADMINISTRATOR			
1	1	1	1	1	DATA ANALYST/ETL DEVELOPER			
1	1	1	1	1	SCADA TECHNICIAN			
1	1	1	1	1	PROGRAMMER SYSTEM ANALYST			
					GRADE 7	\$71,240	\$106,850	\$3,109,604
1	1	1	2	2	CONSTRUCTION INSPECTOR III			
1	1	1	1	1	COMMUNICATIONS /YOUTH EDUCATION COORDINATOR			
1	1	1	1	1	EMERGENCY PROGRAM COORDINATOR			
1	1	1	1	1	CONSERVATION TECHNICIAN			
1	1	1	1	1	SENIOR WQ INSPECTOR			
1	1	1	1	1	SENIOR WQ SPECIALIST			
55	53	57	54	54	SUBTOTAL FORWARD TO PAGE 3			\$15,374,214

Note: Personnel Services by position include salary ranges only, and exclude other allowances, payroll taxes and benefits. These costs are totaled for the entire Adopted 2021-23 Budget at the bottom of the table on page 7-9.

PERSONNEL SERVICES

GENERAL FUND

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA---					CLASSIFICATION TITLE	BIENNIAL BUDGET FOR 2021-23		
ACTUAL (AT JUNE 30)		BUDGET				CLASS RANGE		ADOPTED
2019	2020	20-21	21-22	22-23		FROM	TO	TOTAL
					BALANCE FORWARD			\$15,374,214
					GRADE 7 CONTINUED			
					1 INVENTORY CONTROLLER & INDUSTRIAL BUYER			
					1 FLD SVC OPERATION SPECIALIST			
					1 CONSTRUCTION INSPECTOR II			
					3 ENGINEERING ASSOCIATE			
					1 FLEET MECHANIC			
					2 BUSINESS ANALYST			
					1 TECHNICAL SERVICES ACCOUNTANT			
					1 PROJECT DELIVERY COORDINATOR			
					GRADE 6	\$64,043	\$96,075	\$6,179,261
					5 FIELD SERVICE REPRESENTATIVE			
					7 WATER WORKS OPERATOR-DISTRIBUTION			
					11 WATER WORKS OPERATOR CONST/MAINT			
					6 WATER WORKS OPERATOR-VALVE			
					1 ENGINEERING TECHNICIAN II			
					2 ACCOUNTANT			
					1 HUMAN RESOURCES ANALYST			
					1 DISTRICT RECORDER			
					1 SYSTEMS ADMINISTRATOR			
					1 CUSTOMER SERVICE & BILLING LEAD			
					1 SCADA STAFF			
					GRADE 5	\$57,616	\$86,403	\$1,641,845
					1 COMPUTER SUPPORT & SYSTEMS TECHNICIAN			
					1 EXECUTIVE ASSISTANT			
					2 CUSTOMER SERVICE & BILLING LEAD			
					1 PAYROLL SPECIALIST			
					2 FACILITIES MAINTENANCE II			
					1 HUMAN RESOURCES SPECIALIST			
					1 OUTREACH & ENGAGEMENT COORDINATOR			
					1 WWSP OUTREACH COORDINATOR			
					1 DOCUMENT AND CONTROLS SPECIALIST			
					1 GIS TECHNICIAN			
					1 WATER QUALITY INSPECTOR			
					1 WATER QUALITY SPECIALIST			
111	108	112	111	112	SUBTOTAL FORWARD TO PAGE 4			\$23,195,320

Note: Personnel Services by position include salary ranges only, and exclude other allowances, payroll taxes and benefits. These costs are totaled for the entire Adopted 2021-23 Budget at the bottom of the table on page 7-9.

PERSONNEL SERVICES

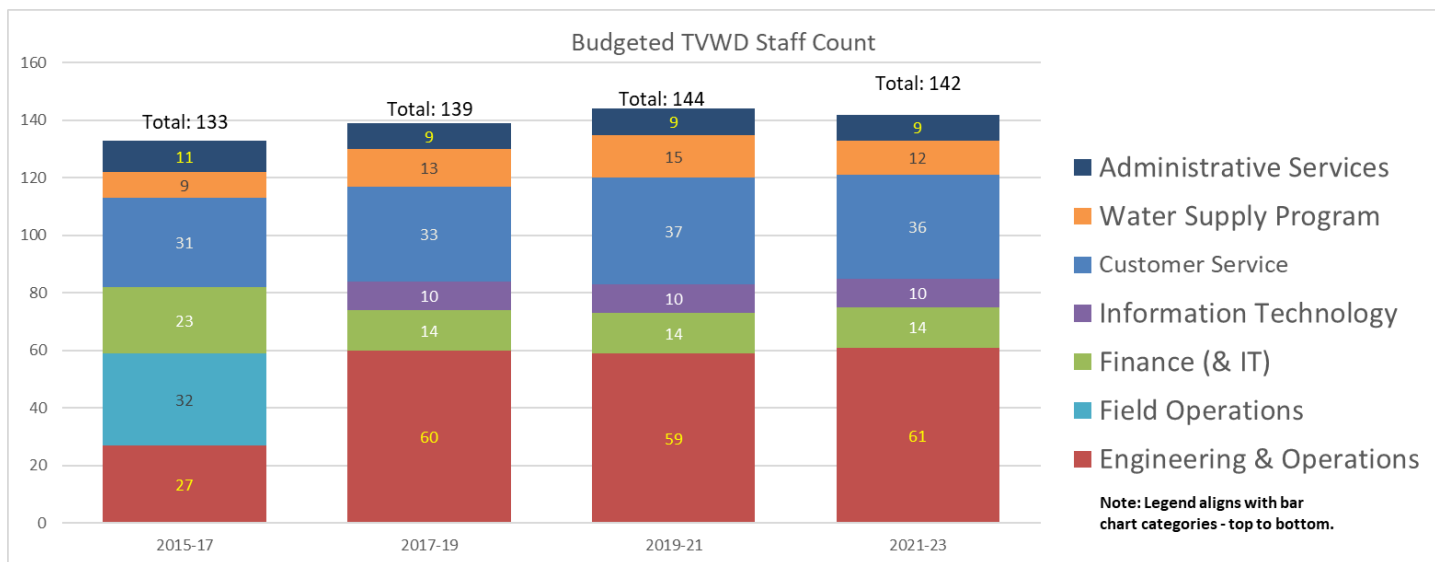
GENERAL FUND

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA---					CLASSIFICATION TITLE	BIENNIAL BUDGET FOR 2021-23		
ACTUAL (AT JUNE 30)		BUDGET				CLASS RANGE		ADOPTED
2019	2020	20-21	21-22	22-23		FROM	TO	TOTAL
111	108	112	111	112	BALANCE FORWARD			\$23,195,320
					GRADE 4	\$51,792	\$77,709	\$1,251,138
6	6	6	6	6	METER READERS			
1	1	1	1		DOCUMENT & CONTROLS SPECIALIST			
		1			EXECUTIVE ASSISTANT			
			2		SENIOR BILLING SPECIALIST			
			1		ACCOUNTING SPECIALIST			
		1	1		ENGINEERING TECHNICIAN 1			
					PROPOSED CIS IMPLEMENT SCHEDULER LTD DUR			
					GRADE 3	\$46,592	\$69,888	\$2,417,027
1					ADMINISTRATION CLERICAL SUPPORT			
	4	6	5		ADMINISTRATIVE ASSISTANT			
1	1				DISTRICT SUPPORT			
1	1		1		CONSERVATION ASSISTANT			
6	8	10	9		CUSTOMER SERVICE REPRESENTATIVE			
			3		CSR - LIMITED DURATION DURING CIS IMPLEMENTATION			
3					BILLING SPECIALIST			
1					ENGINEERING CLERICAL SUPPORT			
1					CROSS CONNECTION SUPPORT			
1					FIELD OPERATIONS CLERICAL SUPPORT			
2	2	2	2		ACCOUNTING TECHNICIAN			
					GRADE 2	\$41,891	\$62,858	\$0
					GRADE 1	\$37,669	\$56,514	\$0
					TOTAL SALARY & WAGES			\$26,863,485
					ALLOWANCE FOR PART-TIME, OVERTIME, AND WEEKEND DUTY			\$1,155,265
					PAYROLL TAXES AND BENEFITS			\$14,311,286
135	131	139	141	142	TOTAL PERSONNEL SERVICES			\$42,330,036

Notes: Personnel Services by position include salary ranges only, and exclude other allowances, payroll taxes and benefits. Total Adopted 2021-23 Budget allowance, payroll and benefit related costs shown separately at the bottom of the table above.

The Water Supply Program Department eliminated two positions that were held vacant during the 2019-21 biennium. The Customer Service Department also eliminated a position that was never filled, and is maintain three limited-duration positions in the 2021-23 biennium. The Engineering and Operations Department is proposing adding two new positions, a new SCADA staff and an additional water works operator.



Note: Effective for the 2017-19 biennium Engineering and Fields Operations were reorganized into a single department.

Non-Departmental Expenses

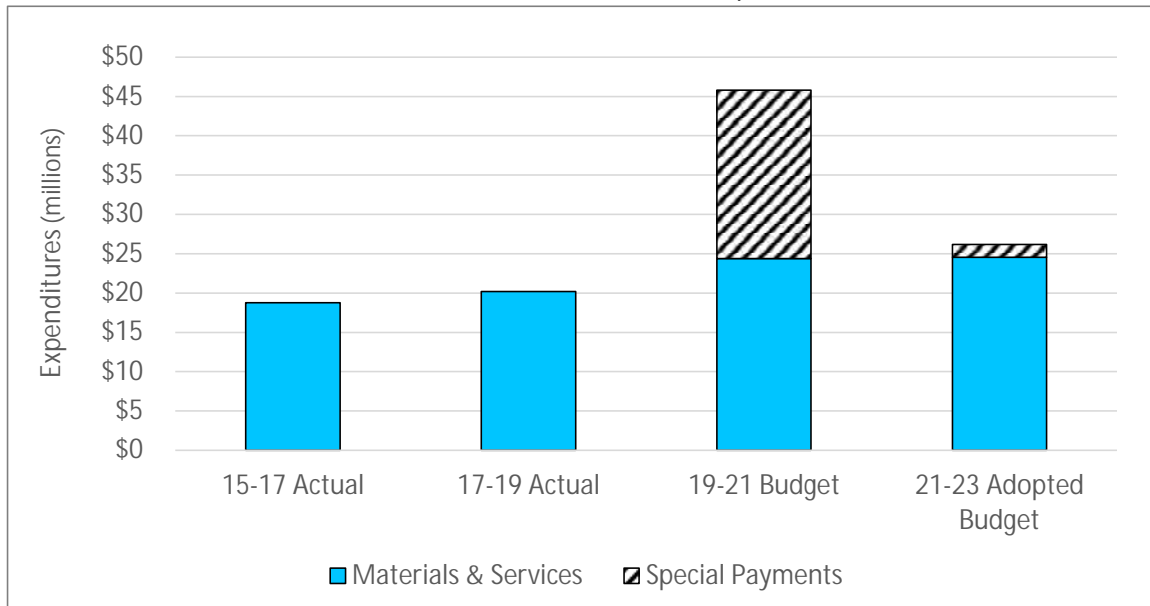
No Staff

Non-departmental expenditures include purchased water, pumping power, and special payments. These expenditures were fund level expenditures appropriated in the General Fund (01) until this biennium. The District purchases its water from both the City of Portland and the Joint Water Commission (JWC).

Major Budget Changes for 2021-23

- Materials & Services budget in the Non-Departmental expenses primarily include purchased water and pumping power.
- The budget for purchased water is relatively flat this biennium. This reduction in the cost of purchased water is the result of lower-than-expected rate increases from the City of Portland, lower water sales resulting from continued withdrawals of customers by the City of Beaverton, and increased operational flexibility to lower the overall cost of purchased water by accessing winter interruptible water from the City of Portland.
- Pumping power expenditures reflect an estimated 6.5% annual increase in electricity rates. Pumping power expenditures also include electricity to operate both the Grabhorn and the Miller Hill Road Aquifer Storage & Recovery (ASR) wells.
- For this biennium, special payments only include right-of-way fees collected by the District in compliance with the requirements of the cities of Beaverton, Hillsboro, and Tigard. The fees collected are passed through to the respective cities. Special payments does not include funding of a Public Employees Retirement System (PERS) side account.

Historical and **Adopted** Biennial Expenditures



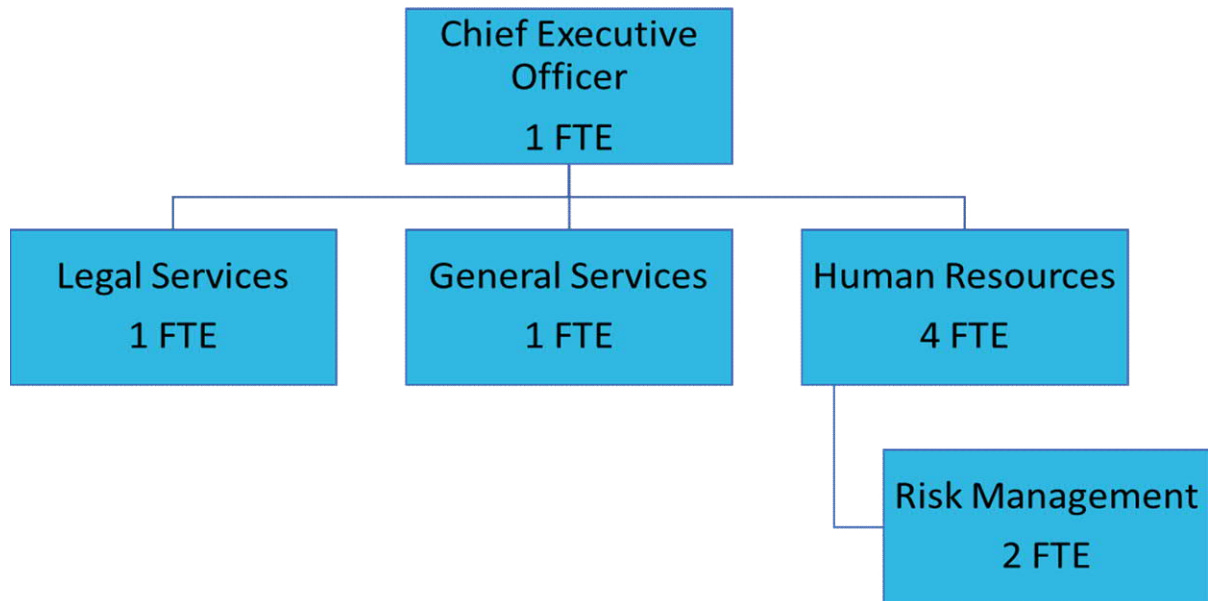
Non-Departmental – Budget Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$14,700,004	\$16,207,961	\$18,113,284	Water Purchased - PWB (7470)	01-00-01-7470	\$17,938,800	\$17,938,800	\$17,938,800	-1.0%
3,386,958	3,107,872	5,327,016	Water Purchased - JWC (7471)	01-00-01-7471	5,594,800	5,594,800	5,594,800	5.0%
0	0	0	Water Purchased - WWSS (7472)	01-00-01-7472	0	0	0	N/A
657,758	896,394	924,300	Pumping Power	01-00-01-7480	989,325	989,325	989,325	7.0%
<u>\$18,744,720</u>	<u>\$20,212,227</u>	<u>\$24,364,600</u>	Total Materials & Services		<u>\$24,522,925</u>	<u>\$24,522,925</u>	<u>\$24,522,925</u>	<u>0.6%</u>

Historical Data			SPECIAL PAYMENTS		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$0	\$0	\$1,446,000	Right-of-Way Fees	01-00-01-9350	\$1,625,000	\$1,625,000	\$1,625,000	12.4%
0	0	20,000,000	Other Special Payments	01-00-01-9355	0	0	0	-100.0%
<u>\$0</u>	<u>\$0</u>	<u>\$21,446,000</u>	Total Special Payments		<u>\$1,625,000</u>	<u>\$1,625,000</u>	<u>\$1,625,000</u>	<u>-92.4%</u>

Historical Data			TOTAL DEPARTMENT BUDGET		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description		Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$18,744,720	\$20,212,227	\$24,364,600	Materials & Services		\$24,522,925	\$24,522,925	\$24,522,925	0.6%
0	0	21,446,000	Special Payments		1,625,000	1,625,000	1,625,000	-92.4%
<u>\$18,744,720</u>	<u>\$20,212,227</u>	<u>\$45,810,600</u>	Total Department Budget		<u>\$26,147,925</u>	<u>\$26,147,925</u>	<u>\$26,147,925</u>	<u>-42.9%</u>

Administrative Services

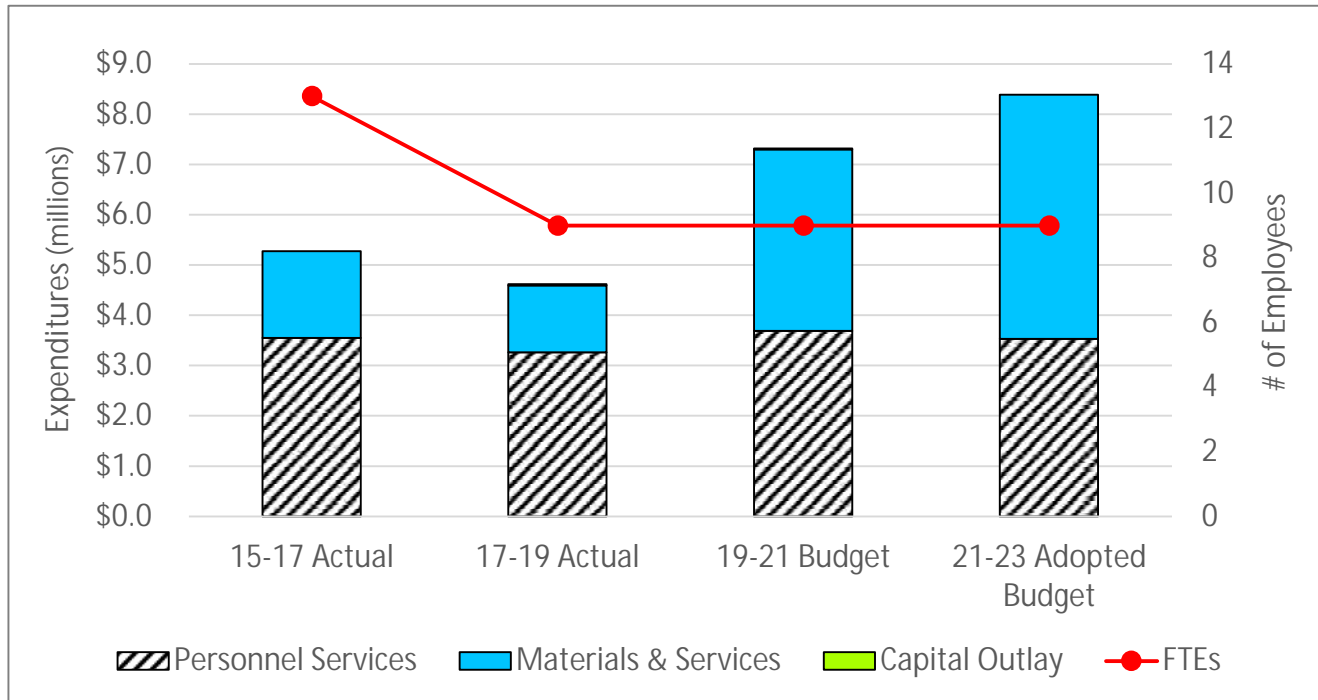


The Administrative Services Department is responsible for the overall administration of the District including direct support to the Board of Commissioners. In addition, this department is responsible for District legal services, human resources and risk management. During the 2019-21 biennium, Administrative Services will continue to lead District efforts pertaining to oversight and coordination with regional partners, negotiation and monitoring of intergovernmental agreements, records management and workforce development.

Major Budget Changes for 2021-23

- TVWD completed the transition within the Chief Executive Officer (CEO) position during the 19-21 biennium. The 21-23 biennium budget reflects the current CEO's vision.
- Professional services for intergovernmental relations consultation increased based on needs identified during the 2019-2021 biennium and in conjunction with the District's Governmental Affairs initiative.
- The District continues funding its share of dues for the new regional Willamette water supply commissions, including the Willamette Intake Facilities (WIF) and Willamette Water Supply System (WWSS) Commissions. Dues are projected to increase during the 21-23 biennium.
- HR will engage a consultant to help guide the District's next steps related to Diversity, Equity and Inclusion.
- HR will engage a consultant to increase awareness District-wide on different communication styles and approaches while working with co-workers and customers.
- HR will engage a consultant to conduct a classification and compensation study.

Administrative Services Department 2021-23 Expenditures



Administrative Services Department Performance Measures

	Actual 16-17	Actual 17-18	Actual 18-19	Actual 19-20	Actual 20-21	Target 21-22	Target 22-23
% of our #1 hiring choices that accept a position offer.	95%	94%	95%	93%	100%	≥90%	≥90%
% of employees with last performance review (excluding retirements) of 3.0 or better that stay at the District.	96%	93%	96%	99%	99%	≥90%	≥90%
% of IGAs, partnerships, etc. in which TVWD maintains a leadership role.	55%	65%	70%	33%	75%	≥50%	≥50%
# of incidents of vandalism reported that exceed insurance deductible (\$1000).	0	0	0	0	0	0	0
% of safety corrective actions completed on schedule (Safety Committee recommendations).	88%	83%	85%	85%	85%	85%	85%

Administrative Services Department – Budget Summary

Historical Data			PERSONNEL SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$1,793,993	\$1,458,004	\$1,646,779	General Services	10-01	\$1,483,428	\$1,483,428	\$1,483,428	-9.9%
\$1,128,547	\$1,183,947	\$1,321,621	Human Resources	10-11	\$1,319,051	\$1,319,051	\$1,319,051	-0.2%
\$627,799	\$622,873	\$720,957	Risk Management	10-12	\$727,111	\$727,111	\$727,111	0.9%
<u>\$3,550,339</u>	<u>\$3,264,824</u>	<u>\$3,689,357</u>	Department Totals		<u>\$3,529,590</u>	<u>\$3,529,590</u>	<u>\$3,529,590</u>	<u>-4.3%</u>

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$885,668	\$492,704	\$2,265,480	General Services	10-01	\$3,403,495	\$3,403,495	\$3,403,495	50.2%
\$188,468	\$201,062	\$512,870	Human Resources	10-11	\$652,606	\$652,606	\$652,606	27.2%
\$648,698	\$637,134	\$832,620	Risk Management	10-12	\$796,820	\$796,820	\$796,820	-4.3%
<u>\$1,722,834</u>	<u>\$1,330,900</u>	<u>\$3,610,970</u>	Department Totals		<u>\$4,852,921</u>	<u>\$4,852,921</u>	<u>\$4,852,921</u>	<u>34.4%</u>

Historical Data			CAPITAL OUTLAY		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$0	\$24,054	\$18,000	General Services	10-01	\$0	\$0	\$0	-100.0%
<u>\$0</u>	<u>\$24,054</u>	<u>\$18,000</u>	Department Totals		<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>-100.0%</u>

Historical Data			TOTAL DEPARTMENT BUDGET		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$2,679,661	\$1,974,762	\$3,930,259	General Services	10-01	\$4,886,923	\$4,886,923	\$4,886,923	24.3%
\$1,317,015	\$1,385,009	\$1,834,491	Human Resources	10-11	\$1,971,657	\$1,971,657	\$1,971,657	7.5%
\$1,276,497	\$1,260,007	\$1,553,577	Risk Management	10-12	\$1,523,931	\$1,523,931	\$1,523,931	-1.9%
<u>\$5,273,173</u>	<u>\$4,619,778</u>	<u>\$7,318,327</u>	Department Totals		<u>\$8,382,511</u>	<u>\$8,382,511</u>	<u>\$8,382,511</u>	<u>14.5%</u>

Administrative Services Department
General Services Division (10-01) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$113,333	\$45,995	\$400,000	Legal Fees	01-10-01-7300	\$400,000	\$400,000	\$400,000	0.0%
\$128,917	\$50,607	\$93,000	Professional Services Expense	01-10-01-7310	\$463,600	\$463,600	\$463,600	398.5%
\$47,694	\$41,245	\$42,300	Business Expense	01-10-01-7330	\$54,953	\$54,953	\$54,953	29.9%
\$77,127	\$45,836	\$120,080	Training & Education	01-10-01-7340	\$135,545	\$135,545	\$135,545	12.9%
\$50,452	\$56,604	\$62,990	Dues & Subscriptions	01-10-01-7350	\$84,465	\$84,465	\$84,465	34.1%
\$5,189	\$5,212	\$9,150	Other Sundry	01-10-01-7360	\$10,400	\$10,400	\$10,400	13.7%
\$23,500	\$22,200	\$30,000	Commissioner Fees	01-10-01-7370	\$30,000	\$30,000	\$30,000	0.0%
\$41,677	\$33,755	\$60,000	Election Expense	01-10-01-7390	\$40,000	\$40,000	\$40,000	-33.3%
\$364	\$246	\$0	Miscellaneous	01-10-01-7410	\$0	\$0	\$0	N/A
\$242,289	\$145,511	\$1,414,100	Regional Partnerships	01-10-01-7425	\$2,137,169	\$2,137,169	\$2,137,169	51.1%
\$123,044	\$0	\$0	Public Information	01-10-01-7450	\$0	\$0	\$0	N/A
\$14,287	\$16,199	\$10,000	Temporary Help	01-10-01-7525	\$20,000	\$20,000	\$20,000	100.0%
\$17,796	\$29,293	\$23,860	Office Equipment Maintenance	01-10-01-7550	\$27,363	\$27,363	\$27,363	14.7%
<u>\$885,668</u>	<u>\$492,704</u>	<u>\$2,265,480</u>	Division Totals		<u>\$3,403,495</u>	<u>\$3,403,495</u>	<u>\$3,403,495</u>	<u>50.2%</u>

Administrative Services Department
General Services Division (10-01) – Staffing

Senior manager: Chief Executive Officer									
Historical Data				Job Title	Adopted Budget 2021-23				Comments
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted	
1	1	1	N/A	Chief Executive Officer	N/A	1	1	1	
1	1	1	13	General Counsel	13	1	1	1	
1	1	1	4	Executive Assistant	5	1	1	1	
1	0	0	9	Communications & Public Affairs Supervisor	9	0	0	0	
1	0	0	7	Community & Youth Ed Coordinator	7	0	0	0	
1	0	0	7	Resources Coordinator	7	0	0	0	
6	3	3		Total Staff		3	3	3	

<p>Functions:</p> <ul style="list-style-type: none"> • Overall administration of the District • Board of Commissioners support • Provide in-house legal services • Administrative support

Personnel Services Hours: Hours, by grade, required for each type of staffing need.									
Historical Data				Description	Grade	Adopted Budget 2021-23			Comments
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted	
0	0	0	0	After-Hours Duty		0	0	0	
0	0	0	0			0	0	0	
57	44	55	60	Overtime		35	35	70	
51	44	55	60		5	35	35	70	
6	0	0	0		3	0	0	0	
0	0	0	0	Callback		0	0	0	
0	0	0	0			0	0	0	
274	462	545	0	Part-Time Interns		0	0	0	
274	462	545	0		3	0	0	0	

Administrative Services Department
Human Resources Division (10-11) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$26,278	\$27,854	\$34,000	Legal Fees	01-10-11-7300	\$43,000	\$43,000	\$43,000	26.5%
\$92,443	\$95,635	\$352,890	Professional Services Expense	01-10-11-7310	\$466,500	\$466,500	\$466,500	32.2%
\$17,301	\$24,544	\$29,310	Business Expense	01-10-11-7330	\$17,690	\$17,690	\$17,690	-39.6%
\$19,295	\$17,231	\$48,890	Training & Education	01-10-11-7340	\$48,170	\$48,170	\$48,170	-1.5%
\$8,135	\$7,317	\$8,500	Dues & Subscriptions	01-10-11-7350	\$36,276	\$36,276	\$36,276	326.8%
\$25,017	\$28,482	\$39,280	Miscellaneous	01-10-11-7410	\$40,970	\$40,970	\$40,970	4.3%
-----	-----	-----	Division Totals		-----	-----	-----	-----
\$188,468	\$201,062	\$512,870			\$652,606	\$652,606	\$652,606	27.2%

Administrative Services Department
Human Resources Division (10-11) – Staffing

Senior manager: Chief Executive Officer										
Historical Data				Job Title	Adopted Budget 2021-23				Comments	
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted		
1	1	1	11	Human Resources Director	11	1	1	1		
1	1	1	6	Human Resources Analyst	6	1	1	1		
1	1	1	5	Human Resources Specialist	5	1	1	1		
1	1	1	6	District Recorder	6	1	1	1		
1	0	0	3	District Support	3	0	0	0		
5	4	4		Total Staff		4	4	4		

- Functions:
- Develop, maintain, interpret and enforce personnel policies
 - Coordinate staff recruitment and selection; annual performance reviews
 - District benefits administration
 - Assist managers and supervisors on personnel issues; coordinate District-wide and supervisory training

Personnel Services Hours: Hours, by grade, required for each type of staffing need.										
Historical Data				Description	Grade	Adopted Budget 2021-23			Comments	
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted		
0	0	0	0	After-Hours Duty		0	0	0		
0	0	0	0			0	0	0		
139	153	61	278	Overtime		64	64	128		
126	44	52	230		6	40	40	80		
13	109	9	48		5	24	24	48		
0	0	0	0	Callback		0	0	0		
0	0	0	0			0	0	0		
0	108	0	0	Part-Time		0	0	0		
0	108	0	0			0	0	0		

Administrative Services Department
Risk Management Division (10-12) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$393,545	\$436,802	\$623,500	Insurance Expense	01-10-12-7320	\$616,940	\$616,940	\$616,940	-1.1%
\$16,197	\$9,986	\$23,000	Self-Insurance	01-10-12-7325	\$23,000	\$23,000	\$23,000	0.0%
\$16,592	\$17,975	\$22,650	Health Services	01-10-12-7415	\$23,900	\$23,900	\$23,900	5.5%
\$67,559	\$80,133	\$75,800	Safety Expense & Supplies	01-10-12-7420	\$50,000	\$50,000	\$50,000	-34.0%
\$92,543	\$73,528	\$75,170	Security	01-10-12-7455	\$79,480	\$79,480	\$79,480	5.7%
\$20,492	\$18,710	\$12,500	Emergency Planning	01-10-12-7460	\$3,500	\$3,500	\$3,500	-72.0%
\$41,771	\$0	\$0	Mobile Communications	01-10-12-7795	\$0	\$0	\$0	N/A
<u>\$648,698</u>	<u>\$637,134</u>	<u>\$832,620</u>	Division Totals		<u>\$796,820</u>	<u>\$796,820</u>	<u>\$796,820</u>	<u>-4.3%</u>

Administrative Services Department
Risk Management Division (10-12) – Staffing

Senior manager: Chief Executive Officer									
Historical Data				Job Title	Adopted Budget 2021-23				Comments
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted	
1	1	1	9	Risk Management Coordinator	9	1	1	1	
1	1	1	7	Emergency Program Coordinator	7	1	1	1	
-----	-----	-----		Total Staff		-----	-----	-----	
2	2	2				2	2	2	

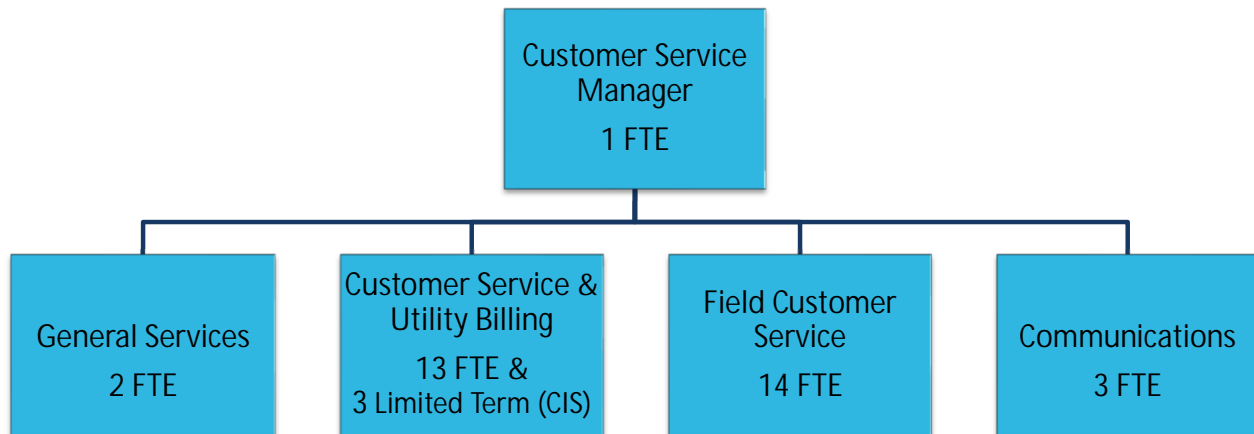
<p>Functions:</p> <ul style="list-style-type: none"> • Provide a safe working environment for District employees • Ensure compliance with State and Federally mandated health and safety laws and regulations • Manage Worker Compensation Program • Handle District matters related to emergency planning, security, insurance and risk

Personnel Services Hours: Hours, by grade, required for each type of staffing need.									
Historical Data				Description	Grade	Adopted Budget 2021-23			Comments
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted	
0	0	0	0	After-Hours Duty		0	0	0	
0	0	0	0			0	0	0	
0	0	0	0	Overtime		0	0	0	
0	0	0	0			0	0	0	Both positions exempt
0	0	0	0	Callback		0	0	0	
0	0	0	0			0	0	0	
0	0	0	0	Part-Time		0	0	0	
0	0	0	0			0	0	0	



TUALATIN VALLEY
WATER DISTRICT

Customer Service Department



The Customer Service Department consists of the General Services, Customer Service/Utility Billing (CS/UB), Field Customer Service (FCS), and Communications Divisions. Included in the General Services Division is the Conservation program and a business analyst serving the implementation and ongoing system support of a new Customer Information System (CIS). The CS/UB and FCS Divisions provide account and meter maintenance for over 63,000 water service connections. This includes all web, phone and field customer service responses, utility billing, and meter reading. Additionally, the Divisions provide contracted support to other entities including meter reading for the City of Beaverton and billing services for both Clean Water Services and the City of Beaverton.

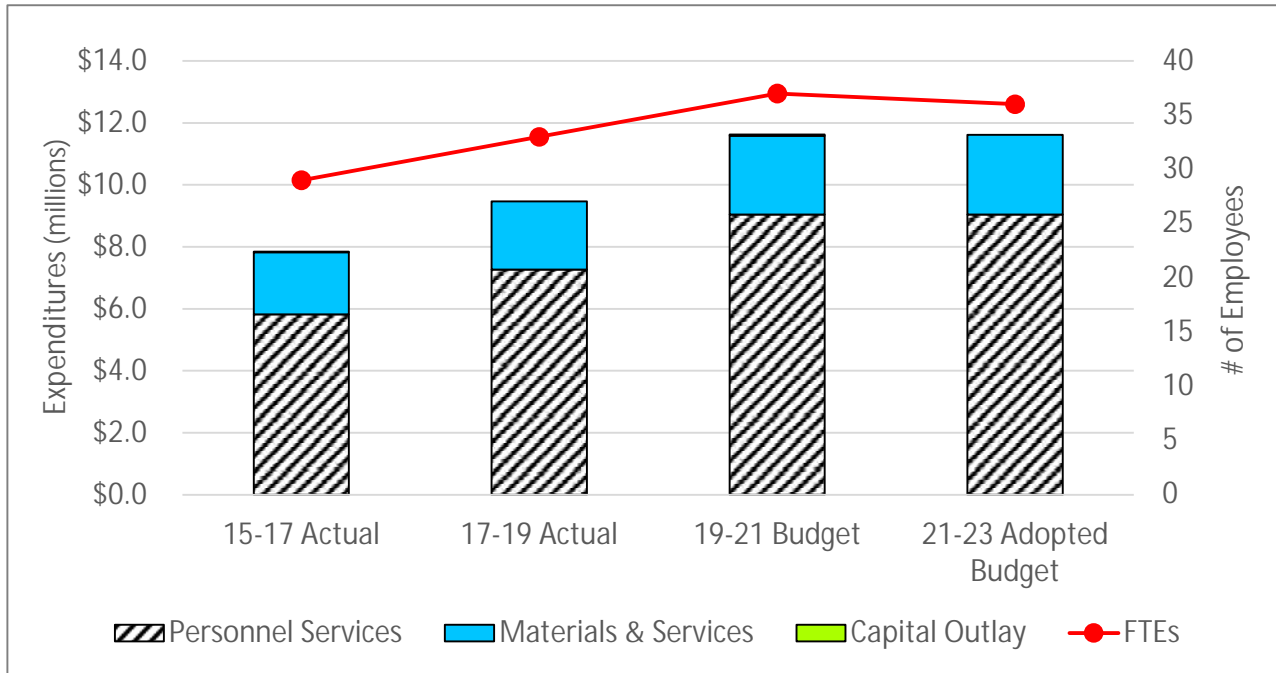
The Communications Division leads the District's publications, branding, external communications, social media outreach, and media relations. This Division also manages the District's Key Customer Program, the focus of which is to maintain contact with key commercial, industrial and institutional customers and provide information in respect to the District's current operations, emergency planning, water rates and charges, and capital improvement plans.

The Conservation Program staff administers the implementation of the District's water conservation programs that are consistent with regional and state requirements, as well as administer residential and commercial customer rebate programs for high efficiency toilets and irrigation systems.

Major Budget Changes for 2021-23

- Complete the implementation of the District's new Customer Information System (CIS) with project and billing partner Clean Water Services. The targeted "go live" date is during FY2022.
- Lead the District's initiation of a project to implement Advanced Metering Infrastructure (AMI).
- Implement surveys, externally with District customers and internally with District staff, in order to better inform District continuous improvement efforts.

Customer Service Department 2021-23 Expenditures



Customer Service Department Performance Measures

	Actual 16-17	Actual 17-18	Actual 18-19	Actual 19-20	Actual 20-21	Target 21-22	Target 22-23
Number of times District goes to mandatory curtailment plan.	0	0	0	0	0	0	0
# of water efficiency rebates. (Fewer rebate programs offered in later years).	1300	1300	1200	840	970	≥ 1200	≥ 1200

Customer Service Department – Budget Summary

Historical Data			PERSONNEL SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$670,058	\$824,025	\$1,005,351	General Services	20-01	\$1,085,748	\$1,085,748	\$1,085,748	8.0%
\$2,261,427	\$2,499,080	\$3,435,492	Customer Service & Utility Billing	20-21	\$3,389,110	\$3,389,110	\$3,389,110	-1.4%
\$2,889,207	\$3,141,967	\$3,618,604	Field Customer Service	20-22	\$3,567,646	\$3,567,646	\$3,567,646	-1.4%
\$0	\$805,110	\$986,237	Communications	20-24	\$996,059	\$996,059	\$996,059	1.0%
<u>\$5,820,692</u>	<u>\$7,270,182</u>	<u>\$9,045,684</u>	Department Totals		<u>\$9,038,562</u>	<u>\$9,038,562</u>	<u>\$9,038,562</u>	<u>-0.1%</u>

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$430,122	\$490,497	\$511,000	General Services	20-01	\$592,371	\$592,371	\$592,371	15.9%
\$1,402,850	\$1,378,124	\$1,521,624	Customer Service & Utility Billing	20-21	\$1,497,452	\$1,497,452	\$1,497,452	-1.6%
\$165,329	\$176,563	\$233,660	Field Customer Service	20-22	\$262,647	\$262,647	\$262,647	12.4%
\$0	\$152,773	\$267,340	Communications	20-24	\$221,100	\$221,100	\$221,100	-17.3%
<u>\$1,998,301</u>	<u>\$2,197,957</u>	<u>\$2,533,624</u>	Department Totals		<u>\$2,573,570</u>	<u>\$2,573,570</u>	<u>\$2,573,570</u>	<u>1.6%</u>

Historical Data			CAPITAL OUTLAY		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$18,051	\$0	\$40,500	General Services	20-01	\$0	\$0	\$0	-100.0%
<u>\$18,051</u>	<u>\$0</u>	<u>\$40,500</u>	Department Totals		<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>-100.0%</u>

Historical Data			TOTAL DEPARTMENT BUDGET		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$1,118,231	\$1,314,522	\$1,556,851	General Services	20-01	\$1,678,119	\$1,678,119	\$1,678,119	7.8%
\$3,664,277	\$3,877,204	\$4,957,116	Customer Service & Utility Billing	20-21	\$4,886,562	\$4,886,562	\$4,886,562	-1.4%
\$3,054,536	\$3,318,530	\$3,852,264	Field Customer Service	20-22	\$3,830,293	\$3,830,293	\$3,830,293	-0.6%
\$0	\$957,883	\$1,253,577	Communications	20-24	\$1,217,159	\$1,217,159	\$1,217,159	-2.9%
<u>\$7,837,044</u>	<u>\$9,468,139</u>	<u>\$11,619,808</u>	Department Totals		<u>\$11,612,132</u>	<u>\$11,612,132</u>	<u>\$11,612,132</u>	<u>-0.1%</u>

Customer Service Department
General Services Division (20-01) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$91,927	\$195,704	\$106,960	Professional Services Expense	01-20-01-7310	\$230,000	\$230,000	\$230,000	115.0%
\$3,242	\$4,836	\$15,210	Business Expense	01-20-01-7330	\$12,440	\$12,440	\$12,440	-18.2%
\$15,996	\$49,646	\$81,030	Training & Education	01-20-01-7340	\$96,050	\$96,050	\$96,050	18.5%
\$6,321	\$4,342	\$8,970	Dues & Subscriptions	01-20-01-7350	\$115,981	\$115,981	\$115,981	1193.0%
\$29,436	\$27,319	\$29,500	Sundry Expense	01-20-01-7360	\$3,575	\$3,575	\$3,575	-87.9%
\$283,201	\$208,651	\$269,330	Conservation	01-20-01-7785	\$134,325	\$134,325	\$134,325	-50.1%
<u>\$430,122</u>	<u>\$490,497</u>	<u>\$511,000</u>	Division Totals		<u>\$592,371</u>	<u>\$592,371</u>	<u>\$592,371</u>	<u>15.9%</u>

Customer Service Department
General Services Division (20-01) – Staffing

Senior manager: Customer Service Manager										
Historical Data				Job Title	Adopted Budget 2021-23				Comments	
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted		
1	1	1	11	Customer Service Manager	11	1	1	1		
0	0	1	7	Business Analyst	7	1	1	1		
1	1	1	7	Conservation Technician	7	1	1	1		
1	1	0	3	Conservation Assistant	3	0	0	0		
0	0	0	9	Safety Coordinator	9	0	0	0		
0	0	0	9	Emergency Program Coordinator	9	0	0	0		
-----	-----	-----				-----	-----	-----		
3	3	3		Total Staff		3	3	3		

<p>Functions:</p> <ul style="list-style-type: none"> • Provide overall Department direction. • Leadership and support for modernization efforts: Customer Information System (CIS) and Automated Metering Infrastructure (AMI) projects. • Manage District conservation programs.
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Personnel Services Hours: Hours, by grade, required for each type of staffing need.										
Historical Data				Description	Grade	Adopted Budget 2021-23			Comments	
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted		
0	0	0	0	After-Hours Duty		0	0	0		
0	0	0	0			0	0	0		
46	29	7	30	Overtime		15	15	30		
46	29	7	30		7	15	15	30	Conservation Technician	
0	0	0	0		3	0	0	0		
0	0	0	0	Callback		0	0	0		
0	0	0	0			0	0	0		
0	0	0	0	Part-Time		0	0	0		
0	0	0	0			0	0	0		

Customer Service Department
Customer Service & Utility Billing Division (20-21) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$523,186	\$422,724	\$515,094	Postage Expense	01-20-21-7600	\$454,344	\$454,344	\$454,344	-11.8%
\$3,775	\$1,045	\$10,000	Billing Adjustments	01-20-21-7610	\$10,000	\$10,000	\$10,000	0.0%
\$582,223	\$655,184	\$731,270	Leak Adjustments	01-20-21-7620	\$787,140	\$787,140	\$787,140	7.6%
\$62,964	\$76,097	\$14,600	Cash Remittance Expense	01-20-21-7645	\$14,900	\$14,900	\$14,900	2.1%
(\$108)	(\$10)	\$200	Cash Overs/Shorts	01-20-21-7650	\$200	\$200	\$200	0.0%
\$230,811	\$223,083	\$250,460	Bill Printing & Mailing	01-20-21-7665	\$230,869	\$230,869	\$230,869	-7.8%
<u>\$1,402,850</u>	<u>\$1,378,124</u>	<u>\$1,521,624</u>	Division Totals		<u>\$1,497,452</u>	<u>\$1,497,452</u>	<u>\$1,497,452</u>	<u>-1.6%</u>

Customer Service Department
Customer Service & Utility Billing Division (20-21) – Staffing

Senior manager: Customer Service Manager									
Historical Data				Job Title	Adopted Budget 2021-23				Comments
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted	
2	1	1	8	Customer Service & Billing Supervisor	8	1	1	1	
0	0	1	6	Customer Service & Billing Lead	6	1	1	1	
0	0	1	4	Senior Billing Specialist	4	2	2	2	
7	10	10	3	Customer Service Representative	3	9	9	9	
3	0	0	3	Billing Specialist	3	0	0	0	
0	0	1	3	CIS Project Scheduler (Limited Duration)	3	0	0	0	Limited duration CIS
0	0	3	3	Customer Service Representative (Limited Duration)	3	3	3	3	Limited duration CIS
0	2	0	5	Customer Service Lead	5	0	0	0	
12	13	17		Total Staff		16	16	16	

<p>Functions:</p> <ul style="list-style-type: none"> • Utility billing and customer payment processing. • Leadership and support for modernization efforts: Customer Information System (CIS) and Automated Metering Infrastructure (AMI) projects. • Customer care and contact center. • Visitor reception and District call routing. • Customer inquiries and issues requiring field customer service dispatch.
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Personnel Services Hours: Hours, by grade, required for each type of staffing need.									
Historical Data				Description	Grade	Adopted Budget 2021-23			Comments
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted	
0	0	0	0	After-Hours Duty		0	0	0	
0	0	0	0			0	0	0	
476	412	268	272	Overtime		136	136	272	
0	66	35	0		6	0	0	0	
0	20	21	72		4	36	36	72	CIS Implementation
476	326	212	200		3	100	100	200	CIS Implementation
0	0	0	0	Callback		0	0	0	
0	0	0	0			0	0	0	
1121	739	0	0	Part-Time		0	0	0	
1121	739	0	0		3	0	0	0	

Customer Service Department
Field Customer Service Division (20-22) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$165,329	\$175,089	\$229,560	Meter Maintenance	01-20-22-7660	\$258,547	\$258,547	\$258,547	12.6%
\$0	\$1,474	\$4,100	Small Tools & Supplies	01-20-22-7790	\$4,100	\$4,100	\$4,100	0.0%
<u>\$165,329</u>	<u>\$176,563</u>	<u>\$233,660</u>	Division Totals		<u>\$262,647</u>	<u>\$262,647</u>	<u>\$262,647</u>	<u>12.4%</u>

Customer Service Department
Field Customer Service Division (20-22) – Staffing

Senior manager: Customer Service Manager										
Historical Data				Job Title	Adopted Budget 2021-23				Comments	
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted		
1	1	1	9	Field Customer Service Supervisor	9	1	1	1		
1	1	1	8	Field Customer Service Lead	8	1	1	1		
1	1	1	7	Field Service Operation Specialist	7	1	1	1		
5	5	5	6	Field Service Representative	6	5	5	5		
6	6	6	4	Meter Reader	4	6	6	6		
-----	-----	-----				-----	-----	-----		
14	14	14		Total Staff		14	14	14		

<p>Functions:</p> <ul style="list-style-type: none"> • Leadership and support for modernization efforts: Customer Information System (CIS) and Automated Metering Infrastructure (AMI) projects. • Investigating customer requests and assisting customers with leaks and other needs. • Reading and maintenance of meters; installing meters in pre-set services; turning on and turning off of service connections.

Personnel Services Hours: Hours, by grade, required for each type of staffing need.										
Historical Data				Description	Grade	Adopted Budget 2021-23			Comments	
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted		
100	168	313	290	After-Hours Duty		147	147	294		
26	2	0	28		9	0	0	0		
51	68	190	28		8	49	49	98		
23	0	66	42		7	42	42	84		
0	78	42	96		6	42	42	84		
0	20	15	96		4	14	14	28		
104	238	319	260	Overtime		129	129	258		
0	24	14	20		9	10	10	20		
12	47	22	30		8	15	15	30		
89	0	27	30		7	17	17	34		
3	109	128	60		6	60	60	120		
0	58	129	120		4	27	27	54		
215	282	333	450	Callback		190	190	380		
41	7	1	30		9	0	0	0		
61	125	117	140		8	65	65	130		
76	0	130	80		7	75	75	150		
21	118	58	140		6	40	40	80		
16	32	26	60		4	10	10	20		
454	0	0	0	Part-Time		0	0	0		
454	0	0	0		3	0	0	0		

Customer Service Department
Communications Division (20-24) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$0	\$66,661	\$109,700	Professional Services Expense	01-20-24-7310	\$102,000	\$102,000	\$102,000	-7.0%
\$0	\$86,111	\$157,640	Public Information	01-20-24-7450	\$119,100	\$119,100	\$119,100	-24.4%
----- \$0	----- \$152,773	----- \$267,340	Division Totals		----- \$221,100	----- \$221,100	----- \$221,100	----- -17.3%

Customer Service Department
Communications Division (20-24) – Staffing

Senior manager: Customer Service Manager									
Historical Data				Job Title	Adopted Budget 2021-23				Comments
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted	
0	1	1	9	Communications & Public Affairs Supervisor	9	1	1	1	
0	1	1	7	Community & Youth Ed Coordinator	7	1	1	1	
0	1	1	5	Outreach & Engagement Coordinator	5	1	1	1	
0	3	3		Total Staff		3	3	3	

Functions:

- Manage District publications, utility bill inserts, and internal and external communications, including the District's website and social media outreach.
- Coordinate customer outreach, feedback, and responses to questions.
- Leadership and support for District customer affordability issues, measures, and projects.
- Coordinate community/stakeholder outreach and events, including in support of in-District Capital Improvement Plan (CIP) projects.
- Coordinate District media relations.
- Communications support for modernization efforts: Customer Information System (CIS) and Automated Metering Infrastructure (AMI) projects.

Personnel Services Hours:

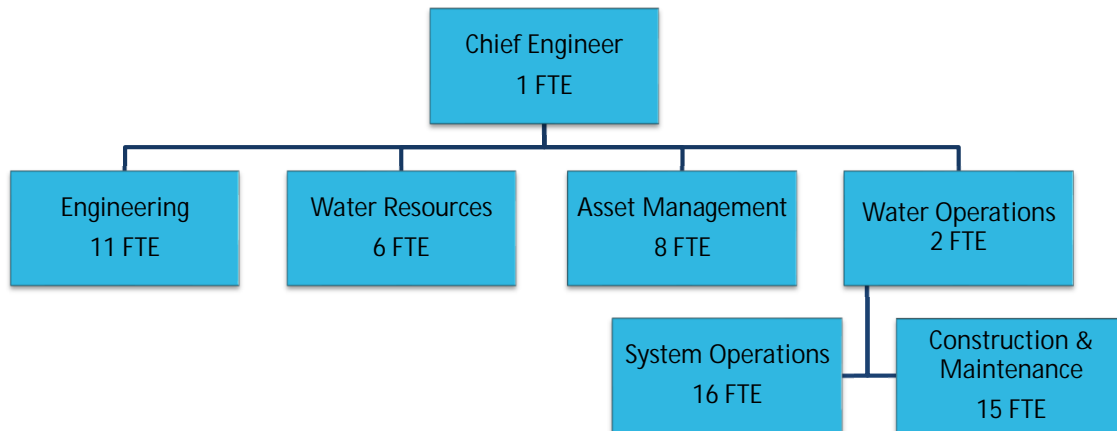
Hours, by grade, required for each type of staffing need.

Historical Data				Description	Grade	Adopted Budget 2021-23			Comments
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted	
0	0	0	0	After-Hours Duty		0	0	0	
0	0	0	0			0	0	0	
13	83	45	96	Overtime		48	48	96	
4	40	12	48		7	24	24	48	
9	44	34	48		5	24	24	48	
0	11	7	0	Callback		0	0	0	
0	11	0	0		7	0	0	0	
0	0	7	0		5	0	0	0	
0	0	0	0	Part-Time		0	0	0	
0	0	0	0			0	0	0	



TUALATIN VALLEY
WATER DISTRICT

Engineering and Operations Department



Engineering and Operations Department contains four divisions: Asset Management, Water Operations, Engineering, and Water Resources; led by the District's Chief Engineer. The Department is responsible for development and implementation of the District's Capital Improvement Plan (CIP), and works in close coordination with the Willamette Water Supply Program.

The Water Operations Division performs day-to-day operations and maintenance of the water distribution system including pump stations, reservoirs, hydrants, valves, and other assets. The division also provides locating services for the District's underground assets, coordinates water purchases from the Portland Water Bureau and Joint Water Commission and manages the District's supervisory control and data acquisition (SCADA) system. Construction and maintenance crews perform water system maintenance activities, undertake capital improvement upgrades and replacements, and respond to water system leaks and other service needs.

The Engineering Division is responsible for development services; specifically providing development plan review, inspection services, water service/meter sales, fire flow testing, and maintaining the District's design and construction standards. The Engineering Division is also responsible for Capital Project delivery, and providing engineering support for miscellaneous other maintenance projects throughout the District.

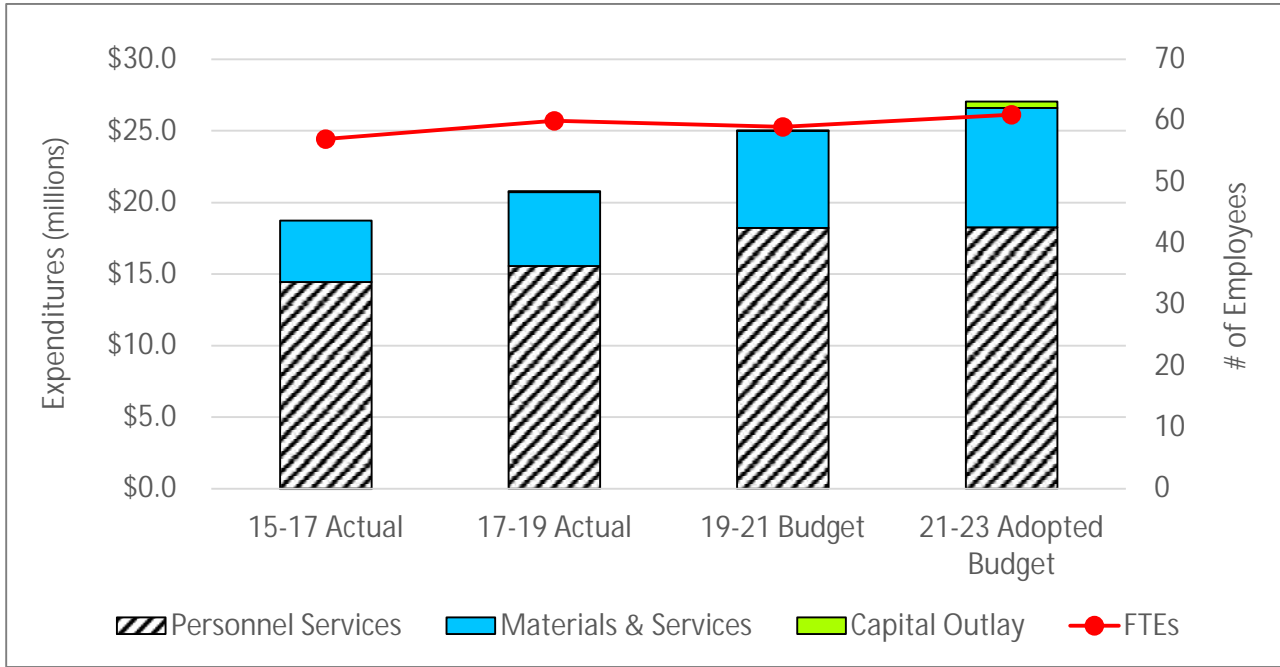
The Asset Management Division maintains the District's structures, grounds, vehicles, equipment, and GIS data with staff in the following teams: Facilities, Fleet, and Geographic Information System (GIS) services. The Division is also responsible for the District's Asset Management Program.

The Water Resources Division includes regulatory compliance, water quality monitoring and reporting, water rights management, source water protection planning and engagement, and system water quality protection through the cross connection control and inspection program.

Major Budget Changes for 2021-23

- Continue to improve system resiliency and reliability by maintaining and replacing aging infrastructure.
- Expand the Asset Management Program to understand the condition of District assets, and manage their condition to maintain reliable water delivery and minimize service disruptions.
- Continued delivery of projects shown in the Capital Improvement Plan. Major projects include the Taylors Ferry Reservoirs and Pump Station, mains replacements, and other projects specific to WWSS integration.
- Undertake security improvements at the District's main office and other facilities.
- Continue to collaborate for successful completion of the Willamette Water Supply System (WWSS) including preparation for water supply integration, WWSS operations and maintenance planning, source water protection planning, and commissioning.
- Continued water quality and regulatory compliance, including work to meet new requirements of the Lead and Copper Rule Revisions.

Engineering and Operations Department 2021-23 Expenditures



Engineering and Operations Department Performance Measures

	Actual 16-17	Actual 17-18	Actual 18-19	Actual 19-20	Actual 20-21	Target 21-22	Target 22-23
Gallons per capita per day demand.	96	95.6	98.4	88.5	90.5	≤ 100	≤ 100
# of violations of National Primary Drinking Water Regulations.	0	0	0	0	0	0	0

Engineering and Operations Department

Historical Data			PERSONNEL SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Divison	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$490,865	\$486,426	\$558,748	General Services	35-01	\$572,291	\$572,291	\$572,291	2.4%
5,331,601	4,394,411	5,272,462	System Operations	35-31	5,789,431	5,789,431	5,789,431	9.8%
2,793,444	2,642,943	3,543,785	Engineering	35-32	3,142,702	3,142,702	3,142,702	-11.3%
1,054,906	1,380,525	1,648,222	Water Resources	35-33	1,519,250	1,519,250	1,519,250	-7.8%
1,194,011	2,299,701	2,488,632	Asset Management	35-34	2,504,878	2,504,878	2,504,878	0.7%
792,714	673,514	535,207	Water Operations	35-35	573,517	573,517	573,517	7.2%
2,793,694	3,672,797	4,160,366	Construction & Maint.	35-36	4,156,152	4,156,152	4,156,152	-0.1%
<u>\$14,451,235</u>	<u>\$15,550,317</u>	<u>\$18,207,422</u>	Department Totals		<u>\$18,258,221</u>	<u>\$18,258,221</u>	<u>\$18,258,221</u>	<u>0.3%</u>

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Divison	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$523,156	\$523,411	\$1,117,970	General Services	35-01	\$1,985,581	\$1,985,581	\$1,985,581	77.6%
800,000	680,130	990,900	System Operations	35-31	955,150	955,150	955,150	-3.6%
18,257	23,081	9,500	Engineering	35-32	15,500	15,500	15,500	63.2%
631,476	880,965	1,117,323	Water Resources	35-33	1,363,301	1,363,301	1,363,301	22.0%
1,482,943	1,760,192	2,287,080	Asset Management	35-34	2,424,246	2,424,246	2,424,246	6.0%
116,793	146,134	191,000	Water Operations	35-35	181,500	181,500	181,500	-5.0%
712,475	1,154,708	1,062,800	Construction & Maint.	35-36	1,421,000	1,421,000	1,421,000	33.7%
<u>\$4,285,101</u>	<u>\$5,168,621</u>	<u>\$6,776,573</u>	Department Totals		<u>\$8,346,278</u>	<u>\$8,346,278</u>	<u>\$8,346,278</u>	<u>23.2%</u>

Historical Data			CAPITAL OUTLAY		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Divison	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
(\$11,330)	\$59,840	\$40,600	General Services	35-01	\$434,000	\$434,000	\$434,000	969.0%
<u>(\$11,330)</u>	<u>\$59,840</u>	<u>\$40,600</u>	Department Totals		<u>\$434,000</u>	<u>\$434,000</u>	<u>\$434,000</u>	<u>969.0%</u>

Historical Data			TOTAL DEPARTMENT BUDGET		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Divison	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$1,002,691	\$1,069,677	\$1,717,318	General Services	35-01	\$2,991,872	\$2,991,872	\$2,991,872	74.2%
6,131,601	5,074,541	6,263,362	System Operations	35-31	6,744,581	6,744,581	6,744,581	7.7%
2,811,701	2,666,024	3,553,285	Engineering	35-32	3,158,202	3,158,202	3,158,202	-11.1%
1,686,382	2,261,490	2,765,545	Water Resources	35-33	2,882,551	2,882,551	2,882,551	4.2%
2,676,954	4,059,893	4,775,712	Asset Management	35-34	4,929,124	4,929,124	4,929,124	3.2%
909,507	819,648	726,207	Water Operations	35-35	755,017	755,017	755,017	4.0%
3,506,169	4,827,505	5,223,166	Construction & Maint.	35-36	5,577,152	5,577,152	5,577,152	6.8%
<u>\$18,725,006</u>	<u>\$20,778,778</u>	<u>\$25,024,595</u>	Department Totals		<u>\$27,038,499</u>	<u>\$27,038,499</u>	<u>\$27,038,499</u>	<u>8.0%</u>

Engineering and Operations Department
General Services Division (35-01) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$355,003	\$318,190	\$939,000	Professional Services Expense	01-35-01-7310	\$1,754,000	\$1,754,000	\$1,754,000	86.8%
\$6,068	\$9,195	\$8,200	Business Expense	01-35-01-7330	\$24,200	\$24,200	\$24,200	195.1%
\$71,990	\$86,043	\$128,270	Training & Education	01-35-01-7340	\$128,725	\$128,725	\$128,725	0.4%
\$27,085	\$28,572	\$42,500	Dues & Subscriptions	01-35-01-7350	\$77,656	\$77,656	\$77,656	82.7%
\$62,738	\$81,305	\$0	Sundry Expense	01-35-01-7360	\$1,000	\$1,000	\$1,000	N/A
\$0	\$106	\$0	Small Tools & Shop Supplies	01-35-01-7790	\$0	\$0	\$0	N/A
\$272	\$0	\$0	Dispatch	N/A	\$0	\$0	\$0	N/A
<u>\$523,156</u>	<u>\$523,411</u>	<u>\$1,117,970</u>	Division Totals		<u>\$1,985,581</u>	<u>\$1,985,581</u>	<u>\$1,985,581</u>	<u>77.6%</u>

Engineering and Operations Department
General Services Division (35-01) – Staffing

Senior manager: Chief Engineer										
Historical Data				Job Title	Adopted Budget 2021-23				Comments	
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted		
1	1	1	13	Chief Engineer	13	1	1	1		
1	0	0	3	Administrative Assistant	3	0	0	0		
-----	-----	-----				-----	-----	-----		
2	1	1		Total Staff		1	1	1		

- Functions:
- Overall management for the department.
 - Overall management of the Capital Improvement Plan.

Personnel Services Hours:
Hours, by grade, required for each type of staffing need.

Historical Data				Description	Grade	Adopted Budget 2021-23			Comments
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted	
0	0	0	0	After-Hours Duty		0	0	0	
0	0	0	0			0	0	0	
0	0	0	0	Overtime		0	0	0	
0	0	0	0			0	0	0	
0	0	0	0	Callback		0	0	0	
0	0	0	0			0	0	0	
0	0	0	0	Part-Time		0	0	0	
0	0	0	0			0	0	0	

Engineering and Operations Department
System Operations Division (35-31) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$54,754	\$57,516	\$56,000	Utilities	01-35-31-7560	\$66,000	\$66,000	\$66,000	17.9%
\$47,883	\$46,942	\$64,400	Locates	01-35-31-7678	\$68,400	\$68,400	\$68,400	6.2%
\$239,029	\$83,861	\$119,000	Pump Station Maintenance	01-35-31-7690	\$119,000	\$119,000	\$119,000	0.0%
\$63,081	\$75,986	\$74,500	Reservoir Maintenance	01-35-31-7700	\$64,500	\$64,500	\$64,500	-13.4%
\$76,447	\$48,731	\$170,000	Mainline Valve Maintenance	01-35-31-7710	\$170,000	\$170,000	\$170,000	0.0%
\$36,263	\$59,385	\$85,000	Automatic Valves Maintenance	01-35-31-7715	\$95,000	\$95,000	\$95,000	11.8%
\$131,055	\$140,459	\$125,000	SCADA Expense	01-35-31-7720	\$55,000	\$55,000	\$55,000	-56.0%
\$149,086	\$167,057	\$296,000	Fluoride & Chlorine	01-35-31-7730	\$316,250	\$316,250	\$316,250	6.8%
\$2,401	\$193	\$1,000	Cathodic Protection	01-35-31-7735	\$1,000	\$1,000	\$1,000	0.0%
<u>\$800,000</u>	<u>\$680,130</u>	<u>\$990,900</u>	Division Totals		<u>\$955,150</u>	<u>\$955,150</u>	<u>\$955,150</u>	<u>-3.6%</u>

Engineering and Operations Department
System Operations Division (35-31) – Staffing

Senior manager: Chief Engineer										
Historical Data				Job Title	Adopted Budget 2021-23				Comments	
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted		
1	1	1	9	System Operations Supervisor	9	1	1	1		
1	1	1	8	WWO Distribution Crew Lead	8	1	1	1		
1	1	1	8	WWO Valve Crew Lead	8	1	1	1		
1	1	1	8	SCADA Technician	8	1	1	1		
6	6	6	6	WWO Distribution Crew	6	6	7	7		
7	6	6	6	WWO Valve Crew	6	6	6	6		
-	-	-	-	SCADA Staff	6	1	1	1		
-----	-----	-----		Total Staff		-----	-----	-----		
17	16	16				17	18	18		

- Functions:
- Operate and maintain the water distribution system; 24/7 monitoring and problem response.
 - Monitor and maintain pumps, reservoirs, valves and related distribution system equipment.
 - Manage the Supervisory Control and Data Acquisition (SCADA) system.
 - Perform locates to protect the system from excavation activity.
 - Monitor cathodic protection stations to evaluate potential system deterioration from electrolysis.

Personnel Services Hours:
Hours, by grade, required for each type of staffing need.

Historical Data				Description	Grade	Adopted Budget 2021-23			Comments
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted	
1907	2076	1375	1712	After-Hours Duty		856	856	1712	
257	206	148	168		9	84	84	168	
98	434	170	382		8	191	191	382	
1552	1436	1057	1162		6	581	581	1162	
337	501	311	262	Overtime		240	240	480	
5	21	6	20		9	40	40	80	
96	104	108	90		8	80	80	160	
236	376	197	152		6	120	120	240	
1952	1836	1247	1660	Callback		960	960	1920	
100	102	88	108		9	80	80	160	
179	288	125	276		8	180	180	360	
1673	1446	1034	1276		6	700	700	1400	
1203	873	0	3360	Part-Time		1680	1680	3360	
1203	873	0	3360		3	1680	1680	3360	

Engineering and Operations Department
Engineering Division (35-32) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$18,257	\$23,081	\$9,500	Engineering Supplies	01-35-32-7740	\$15,500	\$15,500	\$15,500	63.2%
\$18,257	\$23,081	\$9,500	Division Totals		\$15,500	\$15,500	\$15,500	63.2%

Engineering and Operations Department
Engineering Division (35-32) – Staffing

Senior manager: Chief Engineer									
Historical Data				Job Title	Adopted Budget 2021-23				Comments
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted	
0	1	1	10	Engineering Division Manager	10	1	1	1	
1	1	1	9	Senior Project Engineer	9	1	1	1	
0	1	1	8	Maint. Engineering Supervisor	8	1	1	1	
1	0	0	9	Project Engineer	9	0	0	0	
3	3	3	7	Engineering Associate	7	3	3	3	
2	1	1	6	Engineering Technician II	6	1	1	1	
0	1	1	4	Engineering Technician I	4	1	1	1	
0	0	1	6	Construction Inspector II	6	0	0	0	
2	2	1	7	Construction Inspector III	7	2	2	2	
0	1	1	3	Administrative Assistant	3	1	1	1	
1	0	0	11	Principal Engineer	11	0	0	0	
10	11	11		Total Staff		11	11	11	

- Functions:
- Plan, design, and construct capital improvements.
 - Implement the mains replacement program.
 - Long-range planning - seismic resiliency, master planning, and water supply planning.
 - Development services including design and construction standards, plan review, construction inspection, and meter sales.
 - Provide engineering support for various construction and maintenance activities.

Personnel Services Hours: Hours, by grade, required for each type of staffing need.									
Historical Data				Description	Grade	Adopted Budget 2021-23			Comments
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted	
140	52	6	56	After-Hours Duty		20	20	40	
126	49	0	0		8	0	0	0	
14	3	0	56		7	20	20	40	Construction Inspector
0	0	6	0		6	0	0	0	
104	172	154	150	Overtime		135	135	270	
0	0	0	0		10	0	0	0	
12	18	0	0		9	0	0	0	
89	89	0	0		8	0	0	0	
0	0	107	110		7	115	115	230	
3	59	42	0		6	0	0	0	
0	8	5	40		3	20	20	40	
89	15	17	40	Callback		20	20	40	
15	0	0	0		9	0	0	0	
74	9	0	0		8	0	0	0	
0	6	0	40		7	20	20	40	
0	0	17	0		6	0	0	0	
2137	2601	2425	4160	Part-Time		0	2080	2080	
2137	2601	2425	4160		3	0	2080	2080	Includes 2 P/T engr. interns (6 months ea.)

Engineering and Operations Department
Water Resources Division (35-33) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$104,861	\$121,426	\$173,076	Professional Services Expense	01-35-33-7310	\$305,426	\$305,426	\$305,426	76.5%
\$61,730	\$89,510	\$234,647	Water Resources Expense & Supplies	01-35-33-7430	\$259,015	\$259,015	\$259,015	10.4%
\$464,885	\$670,029	\$709,600	Backflow Contract Testing	01-35-33-7435	\$798,860	\$798,860	\$798,860	12.6%
<u>\$631,476</u>	<u>\$880,965</u>	<u>\$1,117,323</u>	Division Totals		<u>\$1,363,301</u>	<u>\$1,363,301</u>	<u>\$1,363,301</u>	<u>22.0%</u>

Engineering and Operations Department
Water Resources Division (35-33) – Staffing

Senior manager: Chief Engineer									
Historical Data				Job Title	Adopted Budget 2021-23				Comments
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted	
1	1	1	9	Water Resources Div. Manager	9	1	1	1	
1	1	1	7	Sr Water Quality Specialist	7	1	1	1	
1	1	1	5	Water Quality Specialist	5	1	1	1	
1	1	1	7	Sr Water Quality Inspector	7	1	1	1	
1	1	1	5	Water Quality Inspector	5	1	1	1	
1	1	1	3	Administrative Assistant	3	1	1	1	
6	6	6		Total Staff		6	6	6	

- Functions:**
- Maintain compliance with state and federal water quality regulations; review proposed rules and implement adopted revisions.
 - Monitor and report on District owned water rights permits; engagement and planning for watershed and other water resources related activities.
 - Collect and analyze water quality samples from distribution system; calibrate, maintain, and deploy routine testing equipment for Department staff.
 - Respond to water quality, water resources, and backflow inquiries from customers; perform non-routine, special water quality assessments to support system operations and customers.
 - Administer Cross Connection Control Program; provide notices and enforce program; complete commercial and residential site inspections to determine hazards and degree of protection needed. This includes management of the hydrant meter and bulk water program.

Personnel Services Hours:
Hours, by grade, required for each type of staffing need.

Historical Data				Description	Grade	Adopted Budget 2021-23			Comments
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted	
64	0	0	0	After-Hours Duty		0	0	0	
0	0	0	0		9	0	0	0	
44	0	0	0		7	0	0	0	
20	0	0	0		6	0	0	0	
0	0	0	0		5	0	0	0	
46	39	42	80	Overtime		27	27	54	
5	2	0	20		7	9	9	18	
8	37	33	30		5	9	9	18	
1	0	0	0		4	0	0	0	
32	0	9	30		3	9	9	18	
60	6	0	40	Callback		18	18	36	
42	0	0	20		7	9	9	18	
18	6	0	20		5	9	9	18	
0	0	0	0		3	0	0	0	
379	0	0	0	Part-Time		0	0	0	
379	0	0	0		3	0	0	0	

Engineering and Operations Department
 Asset Management Division (35-34) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$61,028	\$83,458	\$84,636	Property Maintenance	01-35-34-7400	\$134,450	\$134,450	\$134,450	58.9%
\$550,294	\$676,936	\$887,780	Facilities Maintenance	01-35-34-7405	\$979,305	\$979,305	\$979,305	10.3%
\$226,555	\$229,539	\$265,410	Utilities	01-35-34-7560	\$290,460	\$290,460	\$290,460	9.4%
\$340,995	\$367,584	\$576,250	Vehicle Maintenance	01-35-34-7760	\$545,725	\$545,725	\$545,725	-5.3%
\$304,071	\$382,914	\$414,144	Gas & Diesel	01-35-34-7780	\$418,766	\$418,766	\$418,766	1.1%
\$0	\$19,761	\$33,360	Oil, Propane & Misc Fluids	01-35-34-7782	\$30,690	\$30,690	\$30,690	-8.0%
\$0	\$0	\$25,500	Small Tools & Supplies	01-35-34-7790	\$24,850	\$24,850	\$24,850	-2.5%
<u>\$1,482,943</u>	<u>\$1,760,192</u>	<u>\$2,287,080</u>	Division Totals		<u>\$2,424,246</u>	<u>\$2,424,246</u>	<u>\$2,424,246</u>	<u>6.0%</u>

Engineering and Operations Department
Asset Management Division (35-34) – Staffing

Senior manager: Chief Engineer										
Historical Data				19-21 Grade	Job Title	Adopted Budget 2021-23				Comments
15-17	17-19	19-21	21-23 Grade			21-22 Adopted	22-23 Adopted	21-23 Adopted		
0	1	1	9	Asset Mgmt Division Manager	9	1	1	1		
1	1	0	7	Field Operations Analyst	7	0	0	0		
1	1	1	8	GIS Analyst	8	1	1	1		
1	1	1	5	GIS Technician	5	1	1	1		
1	1	1	9	Building & Grounds Maint. Supervisor	9	1	1	1		
1	1	1	8	Fleet Coordinator	8	1	1	1		
1	1	1	7	Fleet Mechanic	7	1	1	1		
2	2	2	5	Facilities Maintenance II	5	2	2	2		
8	9	8		Total Staff		8	8	8		

<p>Functions:</p> <ul style="list-style-type: none"> • Asset management program administration. • Geographic information system (GIS) mapping. • Facilities - landscaping, building maintenance, custodial services, security and space planning. • Fleet maintenance, replacement - vehicles, heavy equipment, power tools. • Fuel purchasing and operation of the joint fueling facility.
--

Personnel Services Hours: Hours, by grade, required for each type of staffing need.									
Historical Data				Description	Grade	Adopted Budget 2021-23			Comments
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted	
219	88	35	40	After-Hours Duty		40	40	80	
109	28	0	0		9	0	0	0	
110	60	35	40		5	40	40	80	
284	239	167	240	Overtime		120	120	240	
120	85	63	80		9	40	40	80	
35	85	57	60		8	30	30	60	
0	1	2	20		7	10	10	20	
59	0	0	0		6	0	0	0	
70	68	45	80		5	40	40	80	
350	89	65	150	Callback		130	130	260	
125	5	1	10		9	5	5	10	
0	9	28	40		8	40	40	80	
66	1	1	10		7	5	5	10	
159	74	35	90		5	80	80	160	
3020	5072	3765	5600	Part-Time		2800	2800	5600	
3020	5072	3765	5600		3	2800	2800	5600	5 Seasonal (3.5 mos.)

Engineering and Operations Department
 Water Operations Division (35-35) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$116,793	\$146,134	\$191,000	Small Tools & Supplies	01-35-35-7790	\$181,500	\$181,500	\$181,500	-5.0%
\$116,793	\$146,134	\$191,000	Division Totals		\$181,500	\$181,500	\$181,500	-5.0%

Engineering and Operations Department
Water Operations Division (35-35) – Staffing

Senior manager: Chief Engineer									
Historical Data				Job Title	Adopted Budget 2021-23				Comments
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted	
0	0	1	10	Water Ops. Division Manager	10	1	1	1	
1	1	1	3	Administrative Assistant	3	1	1	1	
1	1	0	12	Manager of Field Operations	12	0	0	0	
<u>2</u>	<u>2</u>	<u>2</u>		Total Staff		<u>2</u>	<u>2</u>	<u>2</u>	

<p>Functions:</p> <ul style="list-style-type: none"> • Manage system operations, construction and maintenance. • Division administrative support.

Personnel Services Hours: Hours, by grade, required for each type of staffing need.									
Historical Data				Description	Grade	Adopted Budget 2021-23			Comments
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted	
0	0	0	0	After-Hours Duty		0	0	0	
0	0	0	0			0	0	0	
4	41	13	60	Overtime		40	40	80	
0	0	0	0		10	0	0	0	
4	41	13	60		3	40	40	80	
0	0	0	0	Callback		0	0	0	
0	0	0	0			0	0	0	
0	0	0	0	Part-Time		0	0	0	
0	0	0	0			0	0	0	

Engineering and Operations Department
 Construction & Maintenance Division (35-36) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$712,475	\$1,154,708	\$1,062,800	General System Maintenance	01-35-36-7670	\$1,421,000	\$1,421,000	\$1,421,000	33.7%
<u>\$712,475</u>	<u>\$1,154,708</u>	<u>\$1,062,800</u>	Division Totals		<u>\$1,421,000</u>	<u>\$1,421,000</u>	<u>\$1,421,000</u>	<u>33.7%</u>

Engineering and Operations Department
Construction & Maintenance Division (35-36) – Staffing

Senior manager: Chief Engineer										
Historical Data				Job Title	Adopted Budget 2021-23				Comments	
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted		
1	1	1	9	Construction & Maintenance Supervisor	9	1	1	1		
2	3	3	8	Construction & Maint. Lead	8	3	3	3		
9	11	11	6	Water Works Operator	6	11	11	11		
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12	15	15		Total Staff		15	15	15		

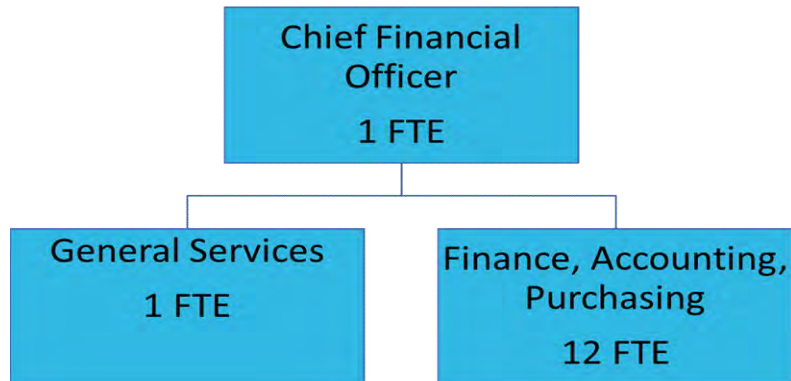
Functions: <ul style="list-style-type: none"> • Construct, repair, and replace water system assets. • Respond to system leaks and other emergency needs.

Personnel Services Hours: Hours, by grade, required for each type of staffing need.										
Historical Data				Description	Grade	Adopted Budget 2021-23			Comments	
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted		
211	490	562	912	After-Hours Duty		456	456	912		
0	145	103	176			9	88	88	176	
0	191	134	492			8	246	246	492	
211	154	325	244			6	122	122	244	
480	936	589	714	Overtime		408	408	816		
0	135	28	96			9	48	48	96	
67	198	99	288			8	160	160	320	
413	604	462	330			6	200	200	400	
801	745	714	800	Callback		540	540	1080		
0	116	31	60			9	60	60	120	
112	153	45	180			8	120	120	240	
689	476	638	560			6	360	360	720	
0	0	0	0	Part-Time		0	0	0		
0	0	0	0			0	0	0		

Engineering and Operations Department
 General Services Division
Adopted Capital Outlay for 2021-23
 01-35-01

			Biennial Total	21-22	22-23
			\$434,000	\$380,500	\$53,500
Division / Program	Item	Description	Total Amount	Est. Month Needed	Est. Year Needed
Construction/Maint.		Fusing equipment for 6" and 8" HDPE pipe.	\$25,000	October	2022
Water Resources	1	Hach CA610 replacement.	\$8,500	\$8,500 in second year.	2023
Asset Management	2	EOS Arrow Gold GPS Equipment and iPad	\$40,000	August	2021
Asset Management from Add Package		GPS equipment for data collection.	\$50,000		Multiple
General Services from Add Package		Project Management software tools.	\$300,000		21-22
Asset Mgmt / Fleet from Add Package		Fleet Telematics equipment.	\$10,500		21-22
			\$0		
			\$0		
			\$0		
			\$0		
			\$0		
			\$0		
			\$0		
			\$0		
			\$0		

Finance Department



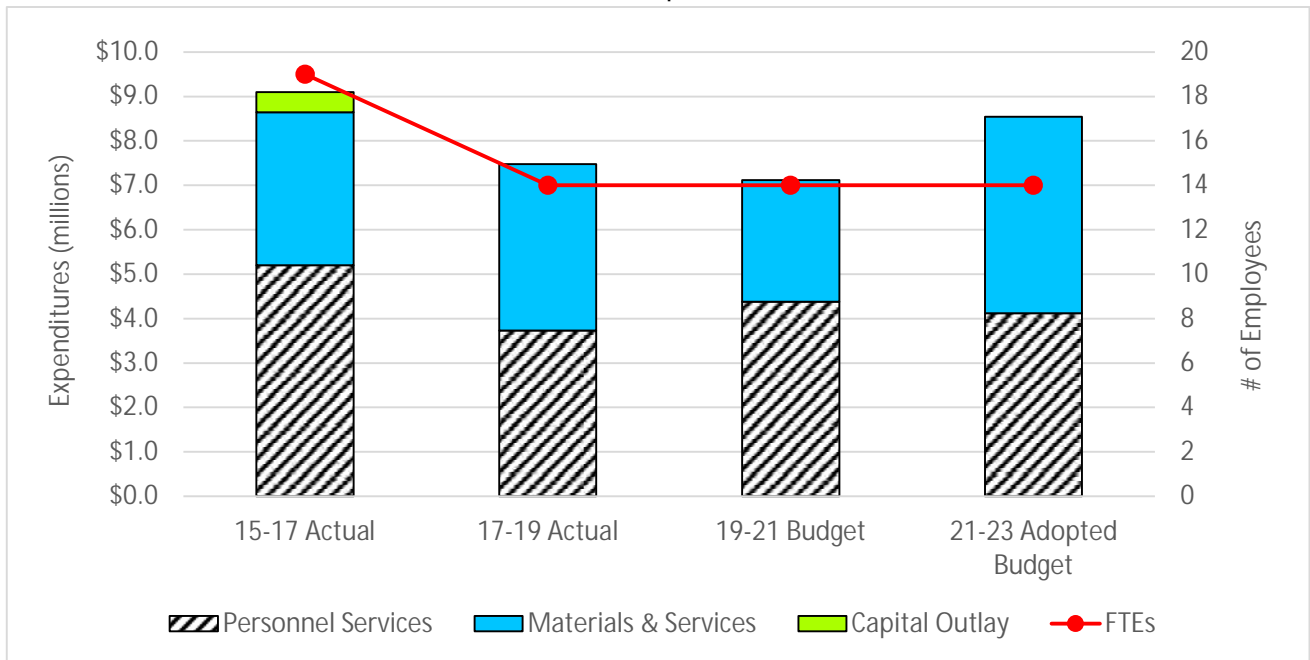
The Finance Department is responsible for all financial operations of the District. These operations include accounting and reporting for the District and its joint ventures (WRWC, WIF, and WWSS), treasury, investments, financial planning, budget development and monitoring, financial forecasting, debt management, water rates and charges, including charges for the District's various partnerships (e.g., wheeling rates, meter reading charges). In addition, the Finance Department oversees and District's purchasing and contracting functions, and warehouse inventory control.

Major Budget Changes for 2021-23

Major initiatives for the coming two years include preparing the District to support the financial administration of the Willamette Water Supply Program's joint ventures (Willamette Intake Facilities Commission and the Willamette Water Supply System Commission). Additionally, the Department will continue to execute the long-term funding strategy of the District by preparing for future revenue bond issuances. The Department will also monitor federal funding incentives for both capital improvements and operations.

- Execute the District's long-term debt program including monitoring low-cost funding alternatives.
- As required by the District's WIFIA Loan, implement Single-Audit Standards following the Uniform Guidance from Office of Management and Budget (OMB).
- Update and maintain accounting procedures and reporting for accounting for District's joint ventures including the Willamette Intake Facilities (WIF) and Willamette Water Supply System (WWSS).
- Improve the District's business intelligence systems by supporting the development of the District's data warehouse.

Finance Department 2021-23 Expenditures



Finance Department Performance Measures

	Actual 16-17	Actual 17-18	Actual 18-19	Actual 19-20	Actual 20-21	Target 21-22	Target 22-23
Minimum District bond rating (S&P/Fitch). No outstanding debt since FY2015.	N/A	N/A	N/A	AA+	AA+	AA+	AA+
Regular hours worked per workable hours available (2080 hrs. x # of staff).	86%	85%	87%	88%	88%	≥85%	≥85%

Finance Department – Budget Summary

Historical Data			PERSONNEL SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$499,106	\$714,256	\$791,473	General Services	50-01	\$786,369	\$786,369	\$786,369	-0.6%
\$2,600,084	\$3,014,057	\$3,589,569	Accounting & Finance	50-51	\$3,333,473	\$3,333,473	\$3,333,473	-7.1%
\$2,096,793	\$0	\$0	Information Technology	50-52	\$0	\$0	\$0	N/A
\$5,195,983	\$3,728,313	\$4,381,042	Department Totals		\$4,119,842	\$4,119,842	\$4,119,842	-6.0%

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$497,124	\$277,310	\$363,735	General Services	50-01	\$694,763	\$694,763	\$694,763	91.0%
\$2,047,724	\$3,467,562	\$2,369,100	Accounting & Finance	50-51	\$3,730,740	\$3,730,740	\$3,730,740	57.5%
\$906,365	\$0	\$0	Information Technology	50-52	\$0	\$0	\$0	N/A
\$3,451,213	\$3,744,872	\$2,732,835	Department Totals		\$4,425,503	\$4,425,503	\$4,425,503	61.9%

Historical Data			CAPITAL OUTLAY		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$450,063	\$0	\$0	General Services	50-01	\$0	\$0	\$0	N/A
\$450,063	\$0	\$0	Department Totals		\$0	\$0	\$0	N/A

Historical Data			TOTAL DEPARTMENT BUDGET		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$1,446,293	\$991,566	\$1,155,208	General Services	50-01	\$1,481,132	\$1,481,132	\$1,481,132	28.2%
\$4,647,808	\$6,481,619	\$5,958,669	Accounting & Finance	50-51	\$7,064,213	\$7,064,213	\$7,064,213	18.6%
\$3,003,158	\$0	\$0	Information Technology	50-52	\$0	\$0	\$0	N/A
\$9,097,259	\$7,473,185	\$7,113,877	Department Totals		\$8,545,344	\$8,545,344	\$8,545,344	20.1%

Finance Department
General Services Division (50-01) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$0	\$32,991	\$35,000	Legal Fees	01-50-01-7300	\$20,000	\$20,000	\$20,000	-42.9%
\$431,303	\$194,631	\$220,500	Professional Services Expense	01-50-01-7310	\$552,000	\$552,000	\$552,000	150.3%
\$5,732	\$3,608	\$3,550	Business Expense	01-50-01-7330	\$5,500	\$5,500	\$5,500	54.9%
\$0	\$0	\$39,650	Business Services	01-50-01-7335	\$42,000	\$42,000	\$42,000	5.9%
\$49,758	\$30,149	\$44,795	Training & Education	01-50-01-7340	\$53,673	\$53,673	\$53,673	19.8%
\$10,330	\$15,931	\$20,240	Dues & Subscriptions	01-50-01-7350	\$21,190	\$21,190	\$21,190	4.7%
\$0	\$0	\$0	Sundry Expense	01-50-01-7360	\$400	\$400	\$400	N/A
<u>\$497,124</u>	<u>\$277,310</u>	<u>\$363,735</u>	Division Totals		<u>\$694,763</u>	<u>\$694,763</u>	<u>\$694,763</u>	<u>91.0%</u>

Finance Department
General Services Division (50-01) – Staffing

Senior manager: Chief Financial Officer										
Historical Data				Job Title	Adopted Budget 2021-23				Comments	
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted		
1	1	1	13	Chief Financial Officer	13	1	1	1		
0	1	1	3	Administrative Assistant	3	1	1	1		
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1	2	2		Total Staff		2	2	2		

<p>Functions:</p> <ul style="list-style-type: none"> • Overall management for the department. • Specific emphasis on financial forecasting, debt planning, audit services, special studies, intergovernmental agreements. • Department administrative support.

Personnel Services Hours: Hours, by grade, required for each type of staffing need.										
Historical Data				Description	Grade	Adopted Budget 2021-23			Comments	
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted		
0	0	0	0	After-Hours Duty		0	0	0		
0	0	0	0			0	0	0		
0	5	0	30	Overtime		30	20	50		
0	5	0	30		3	30	20	50		
0	0	0	0	Callback		0	0	0		
0	0	0	0			0	0	0		
0	0	0	0	Part-Time		0	0	0		
0	0	0	0			0	0	0		

Finance Department
Accounting & Finance Division (50-51) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$336,823	\$1,569,468	\$0	Misc. Taxes & Licenses	01-50-51-7380	\$0	\$0	\$0	N/A
\$101,730	\$91,986	\$190,720	Audit Fees	01-50-51-7490	\$200,820	\$200,820	\$200,820	5.3%
\$1,145,076	\$1,271,262	\$1,409,050	Banking & Treasury Services	01-50-51-7500	\$1,648,320	\$1,648,320	\$1,648,320	17.0%
\$115	\$100,000	\$300,000	Bond Sale Expenses	01-50-51-7505	\$38,000	\$38,000	\$38,000	-87.3%
\$1,226	\$3,172	\$3,500	Interest Expense	01-50-51-7510	\$6,000	\$6,000	\$6,000	71.4%
\$87,686	\$115,909	\$124,900	Office Expense	01-50-51-7530	\$131,400	\$131,400	\$131,400	5.2%
\$169,853	\$181,467	\$169,500	Collection Expense	01-50-51-7630	\$350,000	\$350,000	\$350,000	106.5%
\$207,702	\$137,444	\$161,430	Bad Debt Expense	01-50-51-7640	\$1,336,200	\$1,336,200	\$1,336,200	727.7%
(\$2,486)	(\$3,147)	\$10,000	Inventory Adjustment	01-50-51-7770	\$20,000	\$20,000	\$20,000	100.0%
<u>\$2,047,724</u>	<u>\$3,467,562</u>	<u>\$2,369,100</u>	Division Totals		<u>\$3,730,740</u>	<u>\$3,730,740</u>	<u>\$3,730,740</u>	<u>57.5%</u>

Finance Department
Accounting & Finance Division (50-51) – Staffing

Senior manager: Chief Financial Officer										
Historical Data				19-21 Grade	Job Title	Adopted Budget 2021-23				Comments
15-17	17-19	19-21	21-23 Grade			21-22 Adopted	22-23 Adopted	21-23 Adopted		
1	1	0	10	Finance and Accounting Supervisor	-	-	-	-		
0	0	1	10	Controller	10	1	1	1		
0	0	0	10	Financial Operations Manager	10	1	1	1		
1	1	1	9	Financial Planning & Debt Project Mgr.	-	0	0	0		
1	1	1	9	Purchasing Agent/Contracts Coordinator	9	1	1	1		
0	1	1	8	Senior Management Analyst	8	1	1	1		
1	1	1	7	Inventory Controller & Industrial Buyer	7	1	1	1		
0	1	1	7	Technical Services Accountant	7	1	1	1		
2	2	2	6	Accountant	6	2	2	2		
1	2	2	3	Accounting Technician	3	1	1	1		
1	0	0	6	Project Accountant	6	0	0	0		
1	1	1	5	Payroll Specialist	5	1	1	1		
0	1	1	4	Accounting Specialist	4	1	1	1		
1	0	0	7	Financial Analyst	7	0	0	0		
0	0	0	-	Management Analyst I	TBD	1	1	1		
10	12	12		Total Staff		12	12	12		

- Functions:**
- Prepare financial statements for annual audit and accounting of joint ventures
 - Provide full service accounting services including accounts payable, accounts receivable and payroll
 - Administer procurement cards.
 - Oversee and maintain internal control systems.
 - Update and monitor the financial contract and intergovernmental agreement costs.
 - Provide financial and cost accounting and reporting for internal use and to meet state and federal requirements.
 - Prepare biennial budget and six-year capital improvement plan; update and report on financial plan
 - Manage District investments and debt management program.
 - Update cost-of-service studies; conduct annual water rates, fees and charges review
 - Issues solicitations, negotiate contract terms, issue contracts and purchase orders; maintain TVWD's Local Contract Review Board Rules.
 - Provide warehouse staffing support; perform buying functions and inventory control

Personnel Services Hours:
Hours, by grade, required for each type of staffing need.

Historical Data				Description	Grade	Adopted Budget 2021-23			Comments
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted	
0	0	0	34	After-Hours Duty	7	0	0	0	
0	0	0	34			0	0	0	
154	157	98	160	Overtime	7	90	90	180	
19	44	8	20			10	10	20	
46	20	26	40			20	20	40	
76	79	42	40			40	40	80	
0	5	17	30			10	10	20	
13	10	5	30			10	10	20	
0	0	0	0	Callback		0	0	0	
0	0	0	0			0	0	0	
504	621	240	0	Part-Time		0	0	0	
504	621	240	0	Accounting Transition		0	0	0	

Finance Department
Information Technology Division (50-52) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$135,702	\$0	\$0	Hardware & Maintenance	01-50-52-7575	\$0	\$0	\$0	N/A
\$413,861	\$0	\$0	Software & Maintenance	01-50-52-7576	\$0	\$0	\$0	N/A
\$157,263	\$0	\$0	Subscription Services	01-50-52-7577	\$0	\$0	\$0	N/A
\$159,657	\$0	\$0	Communication Services	01-50-52-7590	\$0	\$0	\$0	N/A
\$39,881	\$0	\$0	Communication Hardware	01-50-52-7591	\$0	\$0	\$0	N/A
<u>\$906,365</u>	<u>\$0</u>	<u>\$0</u>	Division Totals		<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>N/A</u>

Finance Department
Information Technology Division (50-52) – Staffing

Senior manager: Chief Financial Officer										
Historical Data				Job Title	Adopted Budget 2021-23				Comments	
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted		
1	0	0	11	Information Technology Officer	-	-	-	-		
0	0	0	10	Senior Business Analyst	-	-	-	-		
1	0	0	9	Development Coordinator/ Programmer	-	-	-	-		
1	0	0	8	Data Analyst/ETL Developer	-	-	-	-		
1	0	0	8	Programmer System Analyst	-	-	-	-		
1	0	0	8	Senior Network Administrator	-	-	-	-		
1	0	0	8	Senior Systems Administrator	-	-	-	-		
1	0	0	7	Application Developer	-	-	-	-		
1	0	0	5	Computer Support and Systems Technician	-	-	-	-		
8	0	0		Total Staff		0	0	0		

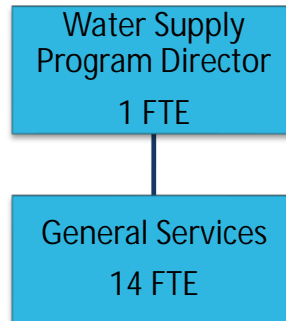
Note: Information Technology was established as a separate department beginning in the 2017-19 biennium. See Section 14 – Information Technology Services Dept.

Personnel Services Hours: Hours, by grade, required for each type of staffing need.										
Historical Data				Description	Grade	Adopted Budget 2021-23			Comments	
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted		
0	0	0	0	After-Hours Duty		0	0	0		
0	0	0	0			0	0	0		
295	0	0	0	Overtime		0	0	0		
125	0	0	0		9	0	0	0		
65	0	0	0		8	0	0	0		
19	0	0	0		7	0	0	0		
12	0	0	0		6	0	0	0		
74	0	0	0		5	0	0	0		
11	0	0	0	Callback		0	0	0		
11	0	0	0		8	0	0	0		
0	0	0	0	Part-Time		0	0	0		
0	0	0	0			0	0	0		



TUALATIN VALLEY
WATER DISTRICT

Water Supply Program



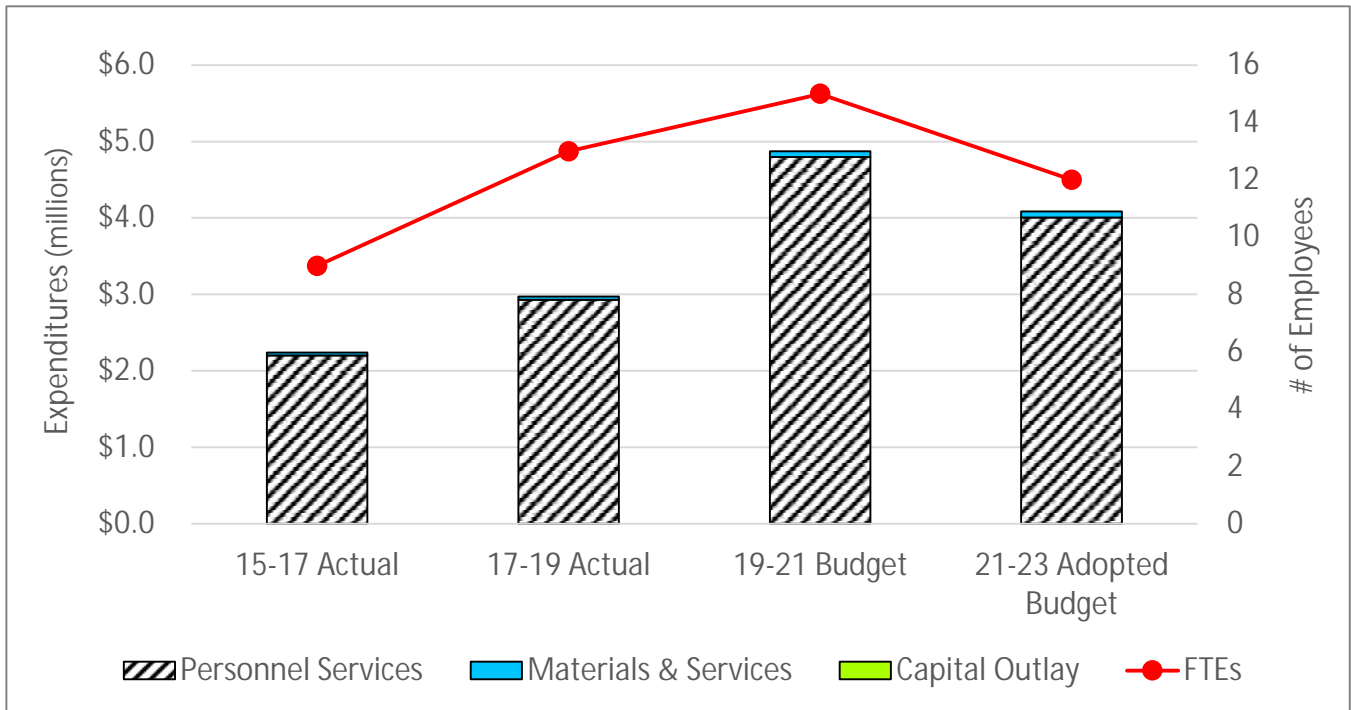
The Water Supply Program Department (WSP) is responsible for managing the planning, design and construction of the Willamette supply system, as well as managing finance, administration, communication, and coordination with the Willamette Water Supply System (WWSS) partners. Additionally, the WSP Department serves as the primary group overseeing the District's managing agency responsibilities for the WWSS partnership and the Willamette Intake Facilities (WIF) Commission.

The WSP Department houses the TVWD staff responsible for the WWSS and WIF, although other District staff may support the partnerships as needed. Budgeted expenditures include Personnel Services for fifteen staff, and Materials & Services associated with staff support costs. Expenditures directly associated with WWSS and the WIF are appropriated in their respective funds. WSP labor and overhead expenditures are reimbursed to the General Fund by the WWSS and WIF Funds as staff charges their time to capital and expense projects associated with the different partnerships.

Major Budget Changes for 2021-23

- Continued management of the WWSS and WIF programs including significant capital improvement plans. Several WWSS projects are scheduled to move into construction during the biennium and staff will be fully vested in their successful completion.
- FTEs are reduced from the prior biennium to better align with current forecasts of project and operational functions. FTEs included in the biennium will provide the administrative and operational leadership necessary for the WWSS and WIF partnerships.
- Materials & Services Expenditures are for staff support costs such as membership dues for professional associations and training and education. All partnership related costs are appropriated directly in the WWSS (Fund 45) and WIF (Fund 44) Funds.

Water Supply Program 2021-23 Expenditures



Note: The Water Supply Program (WSP) Department was established at the start of the 2015-17 biennium.

Water Supply Program Performance Measures

	Actual Data (Program totals) through:					Targets (based on total costs to date.)
	16-17	17-18	18-19	19-20	20-21	
% change in total program costs (actuals plus budget through June 2026), in comparison to Baseline 7.1 total budget (through June 2026). ^{1,2}	-	-	-	-	-	≤15%
% of cumulative program dollars spent in the local economy to date.	50%	96%	95%	95%	92%	≥67%
% of cumulative program dollars spent in the local and regional economy to date.	52%	97%	97%	97%	97%	≥75%

¹ Program budget Baseline 7.1 (adopted in fiscal year 2021-22). This will be the basis for measuring Program budget performance in future periods, beginning with the 2021-23 biennium reported in the District's 2023-25 biennial budget. If there are substantive additions or removals of Program scope, the Baseline 7.1 budget may be adjusted to reflect the approximate value of the scope change.

² Target set as a maximum increase from budget with the metric based on the Cost Estimate Classification System standards of the Association for the Advancement of Cost Engineering (AACE).

Water Supply Program – Budget Summary

Historical Data			PERSONNEL SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Divison	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$2,200,965	\$2,928,105	\$4,798,806	General Services	60-01	\$4,007,052	\$4,007,052	\$4,007,052	-16.5%
\$2,200,965	\$2,928,105	\$4,798,806	Department Totals		\$4,007,052	\$4,007,052	\$4,007,052	-16.5%

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Divison	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$37,541	\$43,310	\$72,095	General Services	60-01	\$76,990	\$76,990	\$76,990	6.8%
\$37,541	\$43,310	\$72,095	Department Totals		\$76,990	\$76,990	\$76,990	6.8%

Historical Data			CAPITAL OUTLAY		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Divison	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$0	\$0	\$0	General Services	60-01	\$0	\$0	\$0	N/A
\$0	\$0	\$0	Department Totals		\$0	\$0	\$0	N/A

Historical Data			TOTAL DEPARTMENT BUDGET		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Divison	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$2,238,506	\$2,971,415	\$4,870,901	General Services	60-01	\$4,084,042	\$4,084,042	\$4,084,042	-16.2%
\$2,238,506	\$2,971,415	\$4,870,901	Department Totals		\$4,084,042	\$4,084,042	\$4,084,042	-16.2%

Water Supply Program
General Services Division (60-01) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$361	\$0	\$0	Professional Services Expense	01-60-01-7310	\$0	\$0	\$0	N/A
\$11,176	\$4,402	\$2,725	Business Expense	01-60-01-7330	\$2,755	\$2,755	\$2,755	1.1%
\$22,914	\$35,063	\$62,180	Training & Education	01-60-01-7340	\$64,790	\$64,790	\$64,790	4.2%
\$3,090	\$3,457	\$6,690	Dues & Subscriptions	01-60-01-7350	\$8,245	\$8,245	\$8,245	23.2%
\$0	\$388	\$500	Other Sundry	01-60-01-7360	\$1,200	\$1,200	\$1,200	140.0%
\$0	\$0	\$0	Public Information	01-60-01-7450	\$0	\$0	\$0	N/A
\$0	\$0	\$0	Conservation	01-60-01-7785	\$0	\$0	\$0	N/A
<u>\$37,541</u>	<u>\$43,310</u>	<u>\$72,095</u>	Division Totals		<u>\$76,990</u>	<u>\$76,990</u>	<u>\$76,990</u>	<u>6.8%</u>

Water Supply Program
General Services Division (60-01) – Staffing

Senior manager: Water Supply Program Director									
Historical Data				Job Title	Adopted Budget 2021-23				Comments
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted	
1	1	1	13	Water Supply Program Director	13	1	1	1	
0	0	1	12	Willamette Supply Manager	12	0	0	0	
0	1	1	11	Water Supply Deputy Program Director	11	1	1	1	
1	2	1	11	Principal Engineer	11	1	1	1	
0	0	1	10	Willamette Supply Operations Supervisor	10	0	0	0	
1	1	1	9	Senior Engineer	9	1	1	1	
1	1	1	9	Finance Manager	9	1	1	1	
0	1	1	9	Permitting & Outreach Manager	9	1	1	1	
1	1	1	8	GIS Analyst	8	1	1	1	
1	1	1	8	Communications Supervisor	8	1	1	1	
1	1	1	7	Project Delivery Coordinator	7	1	1	1	
0	0	1	5	Outreach Coordinator	5	0	0	0	
1	1	1	4	Document & Controls Specialist	5	1	1	1	
1	2	2	3	Administrative Assistant	3	2	2	2	
-----	-----	-----		Total Staff		-----	-----	-----	
9	13	15				12	12	12	

- Functions:**
- Oversees the administration of the Willamette Water Supply Program.
 - Oversees planning, design, and construction of assets associated with Willamette Water Supply System (WWSS) and Willamette Intake Facilities Commission (WIF).
 - Provides financial oversight and reporting for the WWSS and WIF.

Personnel Services Hours:
Hours, by grade, required for each type of staffing need.

Historical Data				Description	Grade	Adopted Budget 2021-23			Comments
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted	
0	0	0	0	After-Hours Duty	6	0	0	0	
0	0	0	0			0	0	0	
216	225	90	180	Overtime	8	100	100	200	
0	6	0	0			0	0	0	
3	31	36	20			20	20	40	
213	189	54	160		3	80	80	160	
0	1	0	0	Callback	8	0	0	0	
0	1	0	0			0	0	0	
945	924	0	0	Part-Time Engineering Intern	3	0	0	0	
945	924	0	0			0	0	0	



TUALATIN VALLEY
WATER DISTRICT

Information Technology Services Department



The Information Technology Services Department is responsible for the management and support of all aspects of the District's information technology (IT) systems, including all data and voice communications hardware and software, as well as development and execution of the District's overall IT strategy.

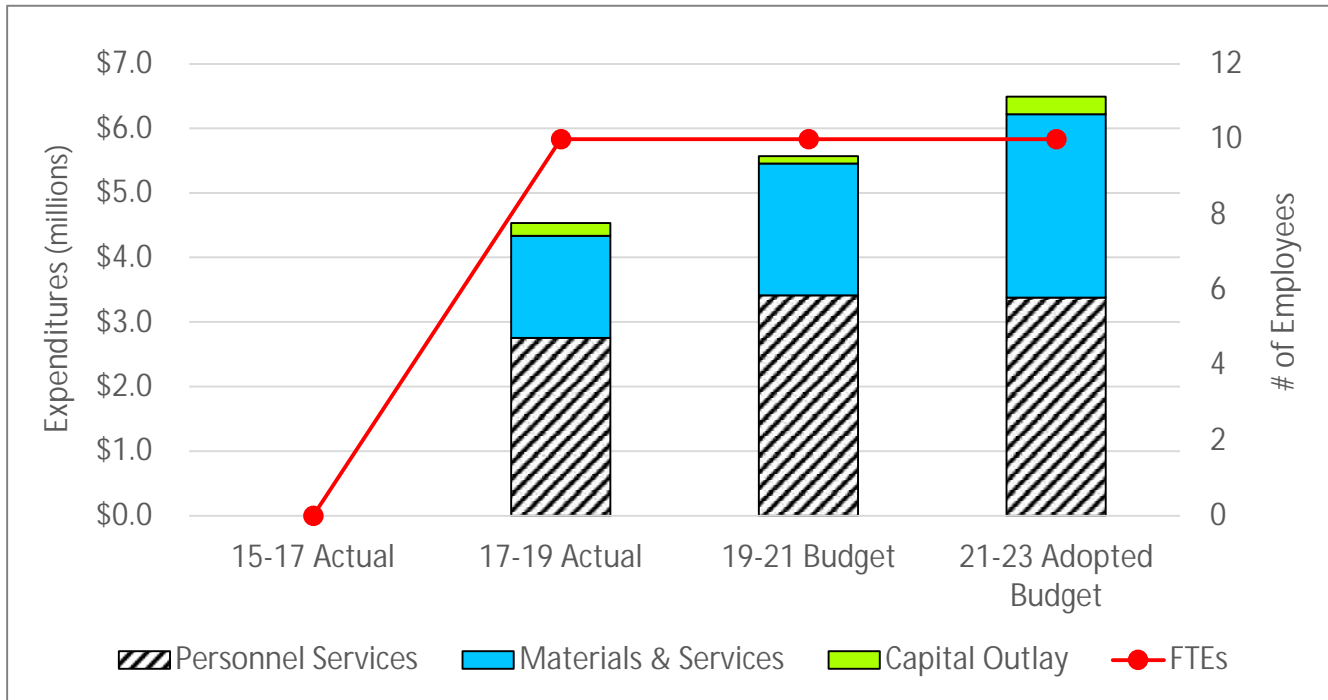
The IT Services Department was a new department beginning with the 2017-19 biennium. Previously, IT was a separate division of the Finance & Information Technology Department. A significant initiative for the department has been the deployment of a new service-oriented IT governance model. Establishing IT as a separate department was an important step in the process.

Major Budget Changes for 2021-23

Major initiatives for the coming two years include completing the implementation of the District's new Customer Information System, increasing access to data, providing educational resources, and streamlining work processes.

- Provide focused resources for the successful implementation of the District's new Customer Information System (CIS) billing system.
- Invest in creating a data warehouse to aggregate information from multiple systems in order to provide access to business intelligence reports and dashboards.
- Migrate legacy on premises applications and data to cloud-based alternatives for utility, resiliency, and security.
- Enhance the District's cyber-security posture and execute projects to align with America's Water Infrastructure Act of 2018 (AWIA) and the District's cyber security insurance guidelines. The District is required to provide an updated AWIA assessment every five years.

Information Technology Services 2021-23 Expenditures



Note: The Information Technology Services (IT) Department was established as a separate department effective for the 2017-19 Biennium. Previously IT was a division of the Finance Department.

Information Technology Services Performance Measures

	Actual 16-17	Actual 17-18	Actual 18-19	Actual 19-20	Actual 20-21	Target 21-22	Target 22-23
Local Area Network Availability	NA	NA	NA	99.75%	99.88%	≥99%	≥99%
Internet Availability	NA	NA	NA	99.80%	99.99%	≥99%	≥99%
Server / Application Availability	NA	NA	NA	99.92%	99.99%	≥99%	≥99%

Information Technology Services Department – Budget Summary

Historical Data			PERSONNEL SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$0	\$2,751,547	\$3,414,341	General Services	70-01	\$3,376,770	\$3,376,770	\$3,376,770	-1.1%
\$0	\$2,751,547	\$3,414,341	Department Totals		\$3,376,770	\$3,376,770	\$3,376,770	-1.1%

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$0	\$1,584,809	\$2,040,500	General Services	70-01	\$2,842,650	\$2,842,650	\$2,842,650	39.3%
\$0	\$1,584,809	\$2,040,500	Department Totals		\$2,842,650	\$2,842,650	\$2,842,650	39.3%

Historical Data			CAPITAL OUTLAY		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$0	\$198,654	\$113,100	General Services	70-01	\$271,950	\$271,950	\$271,950	140.5%
\$0	\$198,654	\$113,100	Department Totals		\$271,950	\$271,950	\$271,950	140.5%

Historical Data			TOTAL DEPARTMENT BUDGET		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Totals by Division	Division #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$0	\$4,535,010	\$5,567,941	General Services	70-01	\$6,491,370	\$6,491,370	\$6,491,370	16.6%
\$0	\$4,535,010	\$5,567,941	Department Totals		\$6,491,370	\$6,491,370	\$6,491,370	16.6%

Information Technology Services Department
General Services Division (70-01) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$0	\$180,425	\$164,000	Professional Services Expense	01-70-01-7310	\$430,550	\$430,550	\$430,550	162.5%
\$0	\$3,116	\$1,250	Business Expense	01-70-01-7330	\$1,300	\$1,300	\$1,300	4.0%
\$0	\$8,935	\$25,000	Training & Education	01-70-01-7340	\$51,000	\$51,000	\$51,000	104.0%
\$0	\$3,575	\$2,300	Dues & Subscriptions	01-70-01-7350	\$2,300	\$2,300	\$2,300	0.0%
\$0	\$230,513	\$268,850	Computer Hardware/Maint.	01-70-01-7575	\$303,200	\$303,200	\$303,200	12.8%
\$0	\$469,330	\$576,440	Computer Software/Maint.	01-70-01-7576	\$672,368	\$672,368	\$672,368	16.6%
\$0	\$514,135	\$584,880	Computer Subscription Services	01-70-01-7577	\$786,937	\$786,937	\$786,937	34.5%
\$0	\$165,850	\$375,180	Communication Services	01-70-01-7590	\$552,995	\$552,995	\$552,995	47.4%
\$0	\$8,929	\$42,600	Communication Hardware	01-70-01-7591	\$42,000	\$42,000	\$42,000	-1.4%
\$0	\$1,584,809	\$2,040,500	Division Totals		\$2,842,650	\$2,842,650	\$2,842,650	39.3%

Information Technology Services Department
General Services Division (70-01) – Staffing

Senior manager: Information Technology Services Director									
Historical Data				Job Title	Adopted Budget 2021-23				Comments
15-17	17-19	19-21	19-21 Grade		21-23 Grade	21-22 Adopted	22-23 Adopted	21-23 Adopted	
0	1	1	13	Information Technology Services Director	13	1	1	1	
0	1	1	9	Information Technology Architect	9	1	1	1	
0	1	1	9	Development Coordinator/Programmer	9	1	1	1	
0	1	1	8	Data Analyst/ETL Developer	8	1	1	1	
0	1	1	8	Programmer System Analyst	8	1	1	1	
0	1	1	8	Senior Network Administrator	8	1	1	1	
0	1	1	8	Senior Systems Administrator	8	1	1	1	
0	0	1	7	Business Analyst	7	1	1	1	
0	1	1	6	Systems Administrator	6	1	1	1	
0	1	1	5	Computer Support & Systems Technician	5	1	1	1	
0	1	0	9	Senior Systems Administrator (Limited Duration)	9	0	0	0	
0	10	10		Total Staff		10	10	10	

Functions:

- Provide IT strategic planning and facilitate IT governance.
- Coordinate information and telecommunications systems.
- Provide deployment support and integration services for major applications (e.g. Logos, CIS, GIS, Cityworks).
- Provide planning and stewardship for district software purchases and software licensing; coordinate software contract reviews.
- Support end-user, desktop and mobile computing needs throughout the District.
- Support and enhance the network and server infrastructure to meet the district's computing needs and reliability expectations.
- Manage information security across all networks.
- Manage databases and data storage needs, including database integrity and system recoverability.

Personnel Services Hours:

Hours, by grade, required for each type of staffing need.

Historical Data				Description	Grade	Adopted Budget 2021-23			Comments
15-17	17-19	19-21 thru 12/20	19-21 Budget			21-22 Adopted	22-23 Adopted	21-23 Adopted	
0	0	0	0	After-Hours Duty		0	0	0	Not in current model
0	0	0	0			0	0	0	
0	334	315	330	Overtime		165	165	330	Carry forward
0	38	25	80		9	40	40	80	
0	117	125	120		8	60	60	120	
0	0	0	0		7	0	0	0	
0	114	67	50		6	25	25	50	
0	65	99	80		5	40	40	80	
0	4	0	20	Callback		10	10	20	Carry forward
0	4	0	20		8	10	10	20	
0	0	0	0	Part-Time		0	0	0	
0	0	0	0			0	0	0	

Information Technology Services Department
 General Services Division
Adopted Capital Outlay for 2021-23
 01-70-01

			Biennial Total	21-22	22-23
			\$271,950	\$115,100	\$156,850
Division/ Program	Qty	Item / Description	Total Amount	Est. Month Needed	Est. Year Needed
		IT: Infrastructure Hardware Refresh	\$15,000	Periodic	Both
		IT: FX Server Chassis Refresh	\$25,200	Periodic	Both
		IT: Network Equipment Refresh	\$20,000	Periodic	Both
		IT: Unplanned IT Investments	\$50,000	Periodic	Both
		Add Pkg 1 – Server and storage for data warehouse.	\$53,550		FY 22-23
		Add Pkg 2 – Dashboarding/BI software to implement dashboarding.	\$48,200		FY 22-23
		Add Pkg 4 – Data migration tooling to decommission on-premise SharePoint.	\$60,000		FY 21-22
			\$0		
			\$0		
			\$0		
			\$0		
			\$0		

CIP Overview

Each biennium the District updates its capital improvement plan, which includes expenditures for the Willamette Water Supply Program, Joint Water Commission, and in-District projects.

The WWSP was established to develop and deliver the Willamette Intake Facilities (WIF), Willamette Water Supply System (WWSS), and Metzger Pipeline East (MPE) to the District and its partners by July 2026. Once complete, the WWSS will be a seismically hardened water supply system designed to meet the long-term needs of the District's residential, commercial, and industrial customers. The District serves as managing agency to both the WIF and WWSS, which are set up as commissions governed by TVWD and its partners. More information on the WWSP and its projects is provided in Section 16 *Willamette Water Supply System* and Section 17 *Willamette Intake Facilities*.

The JWC is a partnership including the District and the cities of Hillsboro, Beaverton, and Forest Grove. The JWC operates a treatment plant and related storage and transmission facilities. As a member of the Joint Water Commission, the District owns capacity rights in JWC facilities. TVWD's capacity share of the JWC water treatment plant is 14.5 MGD, and the District owns rights to approximately 7,000 acre-feet of storage¹ at Barney Reservoir, one of the two primary impoundments that provide stored raw surface water supply to the JWC (the other is Hagg Lake).

For capital asset accounting and financial reporting purposes, the JWC and Barney Reservoir operate as joint ventures with assets being held by the JWC, and each member entity reflecting their respective ownership shares as investments in joint ventures. JWC members share actual operating and maintenance costs in proportion to their water usage and ownership shares. As a member of the JWC, the District also participates in the development of its budget.

For in-District projects, status updates on current projects and new project requests are prepared by the Engineering and Operations Department. The Adopted 2021-23 Budget and six-year CIP include in-District capital projects and the District's share of the WIF, WWSS, and JWC projects, all appropriated as capital outlay in the Capital Improvement Fund.

As managing agency, TVWD also incorporates the budgets adopted by the WWSS and WIF Board of Commissioners into the District's biennial budget, which are recorded as investment in joint ventures.

The District budgets for minor capital outlay items such as security and field equipment, heating/cooling/air conditioning, and certain information technology hardware and software in the General Fund. In accordance with its policies, the District uses a capitalization threshold² for machinery, furniture, and equipment. CIP projects in the Capital Improvement Fund are generally reserved for water system infrastructure, fleet, large facilities projects, and large information technology projects that require a significant amount of internal labor and overhead that can be capitalized with the projects.

The in-District CIP may also include WWSP-related water supply and major conveyance projects. One such project is Metzger Pipeline East, which will deliver WWSS water to the District's Metzger service area by 2026.

¹ 7,000 acre-feet is equivalent to approximately 14.5 MGD for 157 days.

² An asset will be capitalized if the expenditure exceeds \$7,500 and it has a useful life greater than one year.

CIP Projected Expenditures, Categories, and Sources of Funding

The table below presents a summary of the six-year CIP for the Adopted 2021-23 Budget.³

SIX YEAR CIP FY2022-2027							
(in \$ millions)							
Project Category	Adopted Budget		Projected				Totals
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	
Source (TVWD)	\$7.5	\$0.3	\$0.5	\$0.2	\$1.5	-	\$10.0
Storage	2.3	6.1	6.1	0.5	-	1.4	16.4
Pump Stations	1.0	1.0	3.1	4.8	0.4	3.3	13.6
Pipeline	45.3	56.4	31.0	18.1	11.7	16.0	178.4
Facilities	0.9	0.9	-	-	-	-	1.8
Fleet Replacements	0.7	0.8	0.7	0.7	0.7	0.7	4.3
Information Technology	6.6	-	-	-	-	-	6.6
Meters & Services	1.8	1.9	1.9	2.0	2.1	2.1	11.7
Joint Venture: WIF	2.2	1.0	-	-	-	-	3.1
Joint Venture: WWSS	71.2	170.7	130.5	56.8	35.7	3.6	468.5
Joint Venture: JWC	0.9	0.1	0.6	0.7	1.0	0.6	3.9
Totals	\$140.4	\$239.2	\$174.2	\$83.8	\$53.1	\$27.6	\$718.3

The District categorizes capital improvement projects into the eleven categories listed above. These project categories improve the tracking and transparency of CIP projects. Each is described below:

- A. Source (TVWD):** Includes the development, upgrade or expansion of infrastructure related to water supply resources.
- B. Storage:** Upgrades, expansion, replacement, and repairs of reservoirs and related infrastructure.
- C. Pump Stations:** Upgrades, expansion, replacement, and repairs of pump stations and related equipment (e.g., motors and monitoring systems).
- D. Pipeline:** Upgrades, expansion, replacement, and repairs of water transmission mains and distribution lines.
- E. Facilities:** Includes equipment replacements and improvements at District facilities for seismic upgrades, space planning, and safety/security.
- F. Fleet Replacements:** Scheduled replacements and new vehicles serving District operating, maintenance and capital construction needs.
- G. Information Technology:** Typically, this category includes upgrades, expansion, and replacement of computer hardware and software requiring a significant amount of internal staff labor and overhead. For the Adopted 2021-23 Budget, only the Customer Information System (CIS) project is included.⁴ All other information technology expenditures are budgeted in Section 14 *Information Technology Services Department* as either capital outlay or materials & services, depending on whether the expenditure will be capitalized or expensed.
- H. Meters and Services:** Includes new and replacement water meters and service installations. New services are paid from separate fees and developer contributions.
- I. Joint Venture: WIF** – Includes the District’s share of a raw water intake facility located at the current Willamette River Water Treatment Plant in Wilsonville, Oregon.

³ All costs presented in this section (Section 15) include assumed inflation or construction cost escalation.

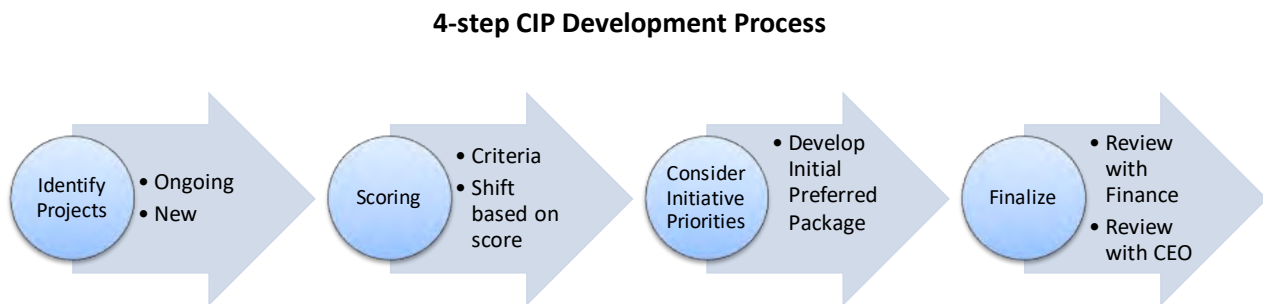
⁴ The new CIS is being developed in partnership with Clean Water Services. For more information, see page 15-89.

- J. **Joint Venture: WWSS** – Includes District’s share of Willamette Water Supply System resources, including supply facilities that convey raw water from the WIF, treat the raw water to potable standards, and convey the potable water to each partner’s distribution systems.
- K. **Joint Venture: JWC** – Includes the District’s share of developments, upgrades, and expansions of water supply resources funded through TVWD’s joint venture partnership in the JWC.

Funding for the District’s CIP generally comes from water rates, system development charges (SDCs), separate fees paid by customers and developers, and available fund balance. However, the District will issue significant amounts of outside debt financing over the next several years to help fund its CIP, particularly its investments in the WWSP. For more discussion on the District’s CIP and financing plans (including WIFIA and revenue bonds), see Section 5 – *The Multi-Year Financial Outlook*.

CIP Development Process, Prioritization, and Individual Project Pages

As investments in the District’s water system infrastructure and future water supply take on increasing importance in terms of their financial requirements, the District continues to refine and enhance its CIP development process. The Engineering and Operations Department leads a cross-departmental team to develop the CIP using a deliberate approach to select and prioritize projects and confirm the financial feasibility of the CIP with available and projected resources. The following graphic illustrates the basics of the District’s CIP development process.



1. Identify Projects

Project identification involved selecting both:

- Ongoing CIP projects funded but not completed during the 2019-21 biennium, and
- New projects determined as critical to the District’s water system.

Project identification also considered the seismic vulnerability and reliability of other critical water system assets, mains replacement needs, and projects performed by in-house District staff such as smaller pipeline projects, meter installations based on projected customer growth.

Balancing in-District capital improvements with WWSP requirements was key financial consideration for the development of the District’s six-year CIP. Details on the District’s financial planning assumptions for the capital needs of the WWSP are outlined in Section 5 – *The Multi-Year Financial Outlook*.

2. Scoring and Ranking Criteria

Each CIP project was scored and ranked in accordance with the criteria shown below. Higher scored projects were prioritized as either critical or near-term, mid-term, or long-term. All projects were placed on a long-term CIP schedule with cost estimates corresponding to their place on the schedule.

	Criteria	Ranking Considerations
1.	Customer Criticality	Service to critical customers such as hospitals & industries, projects that affect large portions of customer base.
2.	Water Quality	Current and anticipated water quality regulatory requirements.
3.	Asset Condition	Replacement of aging infrastructure including known deficiencies, and the installation pipelines with improved soil corrosion control protection.
4.	Reliability	Seismic resiliency, reliability of service, redundancy in water system distribution operations.
5.	Safety & Security	Public and private fire protection, facility security enhancements, worker safety (e.g., confined spaces).
6.	Cost Effectiveness/ Community Benefit	Distribution system improvements to reduce pumping requirements; horizontal directional drilling to reduce surface street repair and repaving.
7.	Environment	Consideration of impacts to natural environment, mitigate construction impacts to public, incorporate environmentally preferable sustainability elements in projects.

Three *Key Drivers* were identified for each project included in the Adopted six-year CIP. Of the seven evaluation criteria listed above, the Key Drivers represent the three criteria most relevant in the consideration of each project. Beginning on page 15-16, the project information sheets list each project's Key Drivers along with brief descriptions of the rationale for their selection.

3. Consider District Initiatives and Ongoing Programs

This step involved developing a prioritized CIP that considered the District's Initiatives and ongoing programs that pertain to capital projects:

- **2021-23 District Initiative: Modernization** – The District will embrace technology to reduce costs, enhance service levels, or both. One of the three main areas of focus in this initiative is project management, including implementation of a project management center to provide leadership in managing projects within the District. There are two main goals for the project management center:
 - Standardize the District's methodology for managing projects.
 - Manage capital project delivery.
- **Ongoing program: Maintain Critical Infrastructure** – This is an ongoing effort that is key to meeting the needs of the District and its customers. While this program has a lower profile than other ongoing programs and projects like the WWSS and CIS project, it is no less

important in delivering on the District's mission: "To Provide Our Community Quality Water and Customer Service".

These programs and underlying goals are not new to the District. TVWD has actively sought to modernize many of its processes and procedures in recent biennia, and critical infrastructure has been identified as an initiative and key project in at least the last two budget cycles (i.e., since the District's 2017-19 Biennial Budget). The preferred CIP package included in this Adopted 2021-23 Budget was developed, in part, with these programs in mind.

4. Internal Review and Adopted CIP

Finance staff and the CEO also reviewed the preferred CIP using the following means:

- Analysis in the District's financial model while considering other requirements including:
 - Projected WWSP cash flow requirements, and
 - Preliminary 2021-23 operating budget estimates.
- Updates and revisions in accordance with direction provided by the CEO.

Finally, the CIP was then reviewed by the Budget Committee and Board of Commissioners as part of the regular budget development and public review process.⁵

All projects in the Adopted 2021-23 Budget and Six-Year CIP are presented later in this section, beginning on page 15-9. Each project information sheet includes a map or picture, key drivers, a detailed project description,⁶ additional information including category and project manager, funding sources, an assessment of future operating cost impacts, and budget information. Project budget information is listed for the 2019-21 biennium, the Adopted 2021-23 Budget, the following four-year timeframe, and future year requirements if needed for projects that extend beyond the six-year CIP.

Six-Year CIP

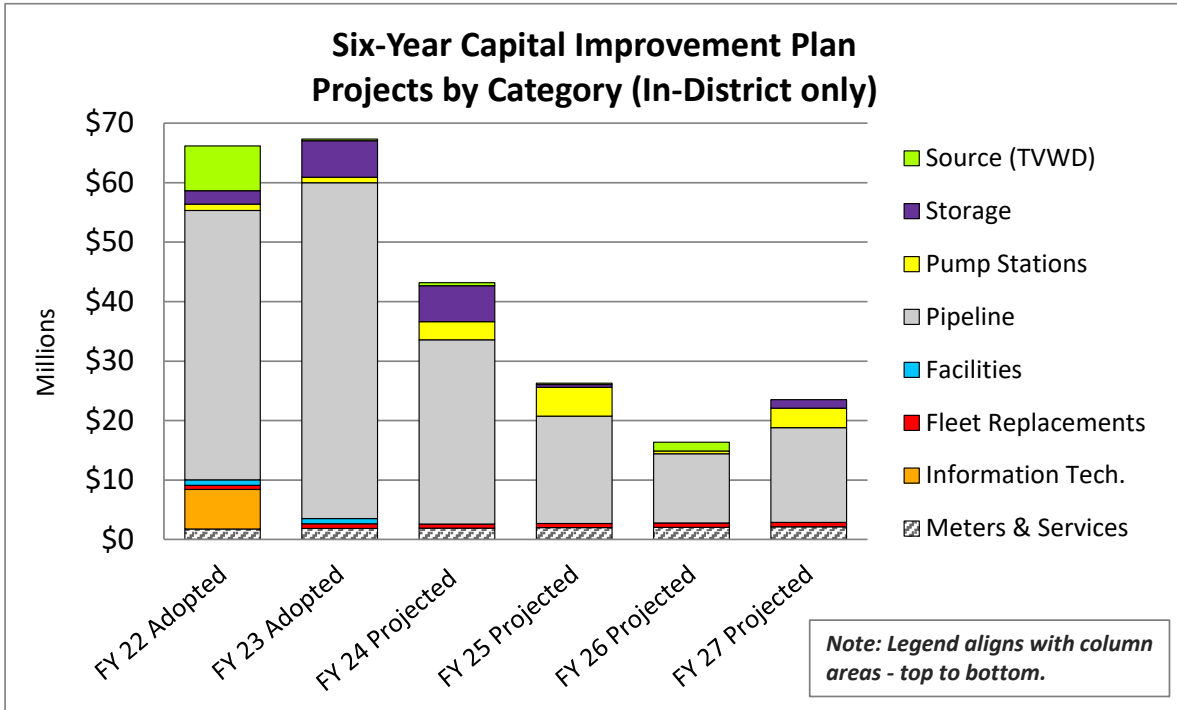
The projected total cost of the six-year CIP is \$718.3 million. The largest components of TVWD's capital program over the next several years include infrastructure improvements to replace aging infrastructure, enhance service reliability, protect critical facilities, and implement the WWSS.

The largest group of *in-District* CIP expenditures is in the pipeline category (\$178.4 million), including the District's ongoing mains replacement program (\$35.4 million), agency-driven upgrades and renewals (\$13.1 million), and Metzger Pipeline East (\$115.1 million). Other significant expenditures in the six-year CIP include the new CIS (\$6.6 million), source improvements (\$10 million), storage projects (\$16.4 million), and pump stations (\$13.6 million).

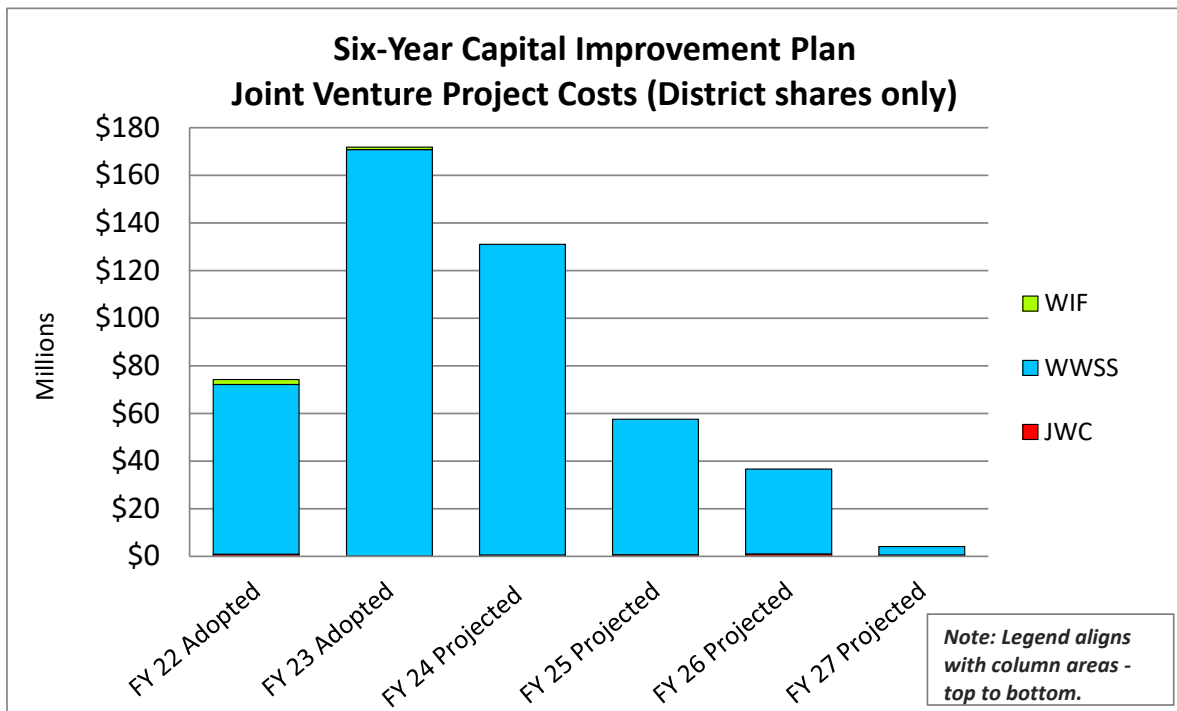
⁵ The CIP was presented for review at the second 2021-23 Budget Committee Workshop on April 8, 2021.

⁶ As applicable, project descriptions also include a discussion on environmental/sustainability elements that will be incorporated into design and construction.

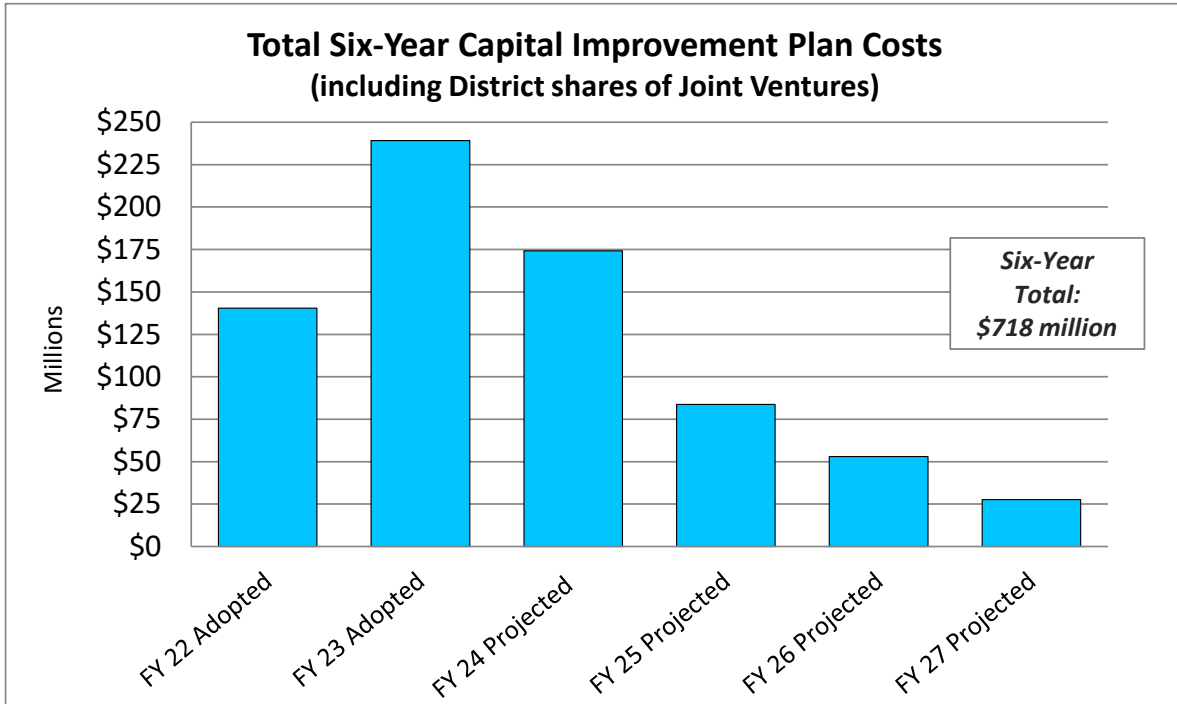
The graph below presents projected six-year costs for *in-District* projects by category.



Joint Venture costs represent the bulk of the District’s six-year CIP, particularly those related to the WWSP, which is responsible for \$471.6 million. This includes the District’s share of project costs for the WIF (\$3.1 million) and WWSS (\$468.5 million). The JWC has also requested approximately \$4.9 million for the District’s share of project costs through FY2027. The next graph shows the District’s share of projected six-year costs for *joint venture* projects.



This graph presents *total projected costs* for the six-year CIP.



CIP Appropriations in the Adopted 2021-23 Budget

Appropriations for the first two years of the CIP (including in-District projects and the District’s share of joint ventures) are incorporated in the Adopted 2021-23 Budget as capital outlay in the Capital Improvement Fund. The budget includes expenditures of \$133.5 million for the District’s capital improvements (including fleet and IT projects) and \$246.1 million to fund joint venture capital improvements at the WWSS, WIF, and JWC.

Key projects for this upcoming biennium include the following, listed by category:

A. Source (TVWD)

- \$6.1MM – Farmington Fluoride & Flow Control Facility

B. Storage

- \$6.9MM – Taylors Ferry Reservoir Replacements

C. Pump Stations

- \$841K – SCADA / PLC / Shakealert Upgrades

D. Pipeline

- Mains Replacement Program
 - \$1.5MM – Todd St & Linda Ln - Mainline replacement & upgrade:
 - \$3.6MM – Other Mains Replacement Program projects (2021-23 portion of ongoing program)
- Agency-Driven Upgrades and Renewals
 - \$3.5MM – Murray & Walker 42-inch Relocation
 - \$1.1MM – TV Hwy at 209th Main Relocation

➤ Other Pipeline

- \$1.5MM – Kemmer Rd 24-inch Connection to Beaverton
- \$83 MM – Metzger Pipeline East (2021-23 portion of \$115 million six-year cost; \$125 million total project cost)

E. Facilities

- \$632K – Safety and Security Improvements
- \$515K – Headquarters Yard Modifications

F. Fleet Replacements

- \$1.47MM – 2021-23 portion of ongoing replacements program

G. Information Technology (Computer Hardware/Software)

- \$6.64MM – Customer Information System (2021-23 portion of \$9.7 million total)

H. Meters and Services

- \$3.1MM – 2021-23 portion of ongoing program for service installations for new and existing residential and commercial customers

I. Joint Venture: WIF

- \$3.1MM – District’s share of WIF improvements. From inception to completion, WIF-related expenditures include new fish screens, air burst system improvements, and seismic improvements to the expanded intake within the raw water facility at the Willamette River Water Treatment Plant. It is important to note that some WIF expenditures have already occurred and that the \$3.1 million is the District’s share in the 2021-23 biennium.

J. Joint Venture: WWSS

- \$242MM – District’s share of WWSS costs for design and construction of the WWSS projects, real estate and easements, permitting and mitigation, legal expenses, program management services, and management reserves. (2021-23 portion of \$468.5 million total District share in six-year CIP)

K. Joint Venture: JWC

- \$1.04MM – District’s share of JWC costs for treatment plant improvements, Fern Hill reservoir repairs, and other capital projects, repairs, and replacements. (2021-23 portion of \$3.9 million total District share in six-year CIP)

The remainder of this section provides both summary information and the individual project pages on the District’s Adopted 2021-23 Budget and six-year Capital Improvement Plan.

TUALATIN VALLEY WATER DISTRICT
 2021-2023 BIENNIAL BUDGET
 Adopted Capital Improvement Plan by Project Category
 Capital Improvements Fund (Fund 11)

Category / Project	Value	Page
A. Source		
Metzger Supply Improvements for WWSS	\$53,600	15 - 16
Center St Facility Seismic Roof & Piping Improvements	1,035,000	15 - 17
Cornelius Pass Pipeline Rehabilitation	103,500	15 - 18
Water Quality Integration Projects	463,000	15 - 19
Farmington Fluoride & Flow Control Facility	<u>6,130,000</u>	15 - 22
Total Source	<u>\$7,785,100</u>	
B. Storage		
ST-3 Goyak Reservoir Upgrades	\$439,000	15 - 23
Taylor's Ferry Reservoir Replacements	6,875,000	15 - 24
North Road Reservoir Mixing	82,800	15 - 25
Florence Lane Reservoir Coatings & Cathodic Improvements	714,000	15 - 27
Somerset Reservoir Modifications	<u>301,500</u>	15 - 29
Total Storage	<u>\$8,412,300</u>	
C. Pump Stations		
Barnes Road Pump Station	\$290,000	15 - 31
Sunset Pump Station MCC Replacement	259,000	15 - 33
Goyak Pump Station Upgrades	32,100	15 - 35
Taylor's Ferry Booster Pump Station	276,100	15 - 37
SCADA / PLC / Shakealert Upgrades	841,000	15 - 38
189th Pump Station Upgrades	32,100	15 - 39
Pump Replacement Program	<u>270,500</u>	15 - 40
Total Pump Stations	<u>\$2,000,800</u>	

TUALATIN VALLEY WATER DISTRICT
 2021-2023 BIENNIAL BUDGET
 Adopted Capital Improvement Plan by Project Category
 Capital Improvements Fund (Fund 11)

Category / Project	Value	Page
D. Pipeline		
Mains Replacement Program - Unidentified Projects	\$3,580,000	15 - 41
NW Oak Hills Dr - Bonneville Lp to 145th	329,000	15 - 44
Alfred St Main Replacement and Upgrade	430,500	15 - 45
Todd St & Linda Ln - Mainline Replacement & Upgrade	1,510,000	15 - 50
Pipeline Upgrades and Renewals - Agency Driven		
Unidentified Agency-Driven Pipeline Upgrade & Renewal Projects	691,000	15 - 53
Walker Rd 12" Replacement - 185th to 174th	673,000	15 - 54
Murray & Walker 42-inch Relocation	3,485,000	15 - 55
Cornell 102nd to 114th Main Relocation	828,000	15 - 56
TV Hwy at 209th Main Relocation	1,076,500	15 - 57
Hall Blvd over Hwy 217	248,500	15 - 58
Unidentified Water Quality Upgrades & Renewals	210,500	15 - 59
Development Opportunity & Reimbursement Projects		
Unidentified Development Opportunity & Reimbursement Projects	564,000	15 - 60
Fire Flow Improvements		
P-80 - Viewmont Dr south of Barnes	298,000	15 - 61
NW Westlawn Ter. Waterline & PRV	428,500	15 - 65
Other Pipeline		
Barnes & Viewmont Piping Improvements	596,000	15 - 68
Minor System Improvements	226,000	15 - 69
Metzger Pipeline East	78,758,446	15 - 70
Metzger Pipeline East Real Estate	869,980	15 - 71
Metzger Pipeline East System-wide Costs	3,119,435	15 - 72
Hydrant Replacements	316,000	15 - 73
Kemmer Rd 24-inch Connection to Beaverton	1,500,000	15 - 74
PRV / Vault Replacements & Upgrades: Unidentified Projects	846,000	15 - 75
Transmission Mains CARV Rehabilitation	225,000	15 - 76
Walker and Meadow PRV & Vault Replacement	776,500	15 - 77
Goyak PRV - 800 to 550 PZ	160,500	15 - 78
Total Pipeline	<u>\$101,746,361</u>	

TUALATIN VALLEY WATER DISTRICT
 2021-2023 BIENNIAL BUDGET
 Adopted Capital Improvement Plan by Project Category
 Capital Improvements Fund (Fund 11)

Category / Project	Value	Page
E. Facilities		
Replace Garage Doors/Install Snow Guards (Fleet Shop)	\$87,600	15 - 80
Headquarters Yard Modifications	515,000	15 - 81
Safety and Security Improvements	632,000	15 - 82
Board Room/Conference Room Audio Visual Improvements	260,600	15 - 83
District Wide Signage Replacement	105,400	15 - 84
Vault - Dewatering Facility	21,400	15 - 85
Goyak and Cooper Mtn. Driveway Replacement	105,400	15 - 86
Fuel Dispenser Replacement	68,000	15 - 87
Total Facilities	<u>\$1,795,400</u>	
F. Fleet		
Fleet Replacements (per schedule)	\$1,469,000	15 - 88
Total Fleet	<u>\$1,469,000</u>	
G. Information Technology (Computer Hardware/Software)		
Expected Uses of Funds:		
Customer Information System	\$6,640,000	15 - 89
Total Computer Hardware/Software	<u>\$6,640,000</u>	
H. Meter and Service Installations		
Service Installations	\$3,135,000	15 - 90
Customer Service: Meter Installations	502,500	15 - 91
Total Meter & Service Installations	<u>\$3,637,500</u>	
I. Joint Venture (TVWD Share of Total Project Costs)		
Joint Venture: WIF	\$3,131,620	15 - 92
Joint Venture: WWSS	241,923,889	15 - 93
JWC Plans, Assessments, and Safety Upgrades	134,500	15 - 94
JWC Misc. Repairs/Replacements, & Minor/Non-CIP	184,800	15 - 95
JWC Water Line Cathodic Protection	52,100	15 - 97
JWC Spring Hill Pumping Plant Mitigation Project	106,100	15 - 98
JWC Land Purchase	136,500	15 - 100
BRJOC Capital & Improvements	85,500	15 - 101
JWC Equipment Replacement	341,200	15 - 102
Total Joint Venture	<u>\$246,096,208</u>	
Total 2021-23 Construction Fund Expenditures and Transfers	<u>\$133,486,461</u>	
Total 2021-23 Expenditures and Transfers including Joint Ventures	<u>\$379,582,670</u>	

Tualatin Valley Water District Six-Year CIP Planned Expenditures (FY2022-27)

Category / Project Description	Page	2019-21 Projected	2021-2023 Biennial Budget 6-Year CIP						Totals	
			FY2022 Requested	FY2023 Requested	FY2024 Projected	FY2025 Projected	FY2026 Projected	FY2027 Projected	Eight-Year FY2020-27	Six-Year FY2022-27
SOURCE										
Metzger Supply Improvements for WWSS	15 - 16	\$ -	\$ -	\$ 53,600	\$ 499,000	\$ -	\$ -	\$ -	\$ 552,600	\$ 552,600
Center St Facility Seismic Roof & Piping Improvements	15 - 17	55,000	1,035,000	-	-	-	-	-	1,090,000	1,035,000
Cornelius Pass Pipeline Rehabilitation	15 - 18	-	103,500	-	-	-	-	-	103,500	103,500
Water Quality Integration Projects	15 - 19	-	227,500	235,500	-	-	-	-	463,000	463,000
Center St Backup Generator	15 - 20	-	-	-	-	-	297,000	-	297,000	297,000
Booster Chlorination	15 - 21	-	-	-	-	229,500	1,190,000	-	1,419,500	1,419,500
Farmington Fluoride & Flow Control Facility	15 - 22	-	6,130,000	-	-	-	-	-	6,130,000	6,130,000
TOTAL SOURCE		\$ 55,000	\$ 7,496,000	\$ 289,100	\$ 499,000	\$ 229,500	\$ 1,487,000	\$ -	\$ 10,055,600	\$ 10,000,600
STORAGE										
ST-3 Goyak Reservoir Upgrades	15 - 23	\$ -	\$ -	\$ 439,000	\$ 454,500	\$ -	\$ -	\$ -	\$ 893,500	\$ 893,500
Taylor's Ferry Reservoir Replacements	15 - 24	500,000	1,185,000	5,690,000	5,580,000	59,700	-	-	13,014,700	12,514,700
North Road Reservoir Mixing	15 - 25	-	82,800	-	-	-	-	-	82,800	82,800
ST-1 Rosander 2 Reservoir	15 - 26	-	-	-	-	-	-	1,420,000	1,420,000	1,420,000
Florence Lane Reservoir Coatings & Cathodic Improvements	15 - 27	-	714,000	-	-	-	-	-	714,000	714,000
Steel Reservoir Gutters and Downspouts	15 - 28	-	-	-	22,200	-	-	-	22,200	22,200
Somerset Reservoir Modifications	15 - 29	30,000	301,500	-	-	-	-	-	331,500	301,500
189th & Schell Roof Membrane Replacements	15 - 30	-	-	-	-	401,500	-	-	401,500	401,500
TOTAL STORAGE		\$ 530,000	\$ 2,283,300	\$ 6,129,000	\$ 6,056,700	\$ 461,200	\$ -	\$ 1,420,000	\$ 16,880,200	\$ 16,350,200
PUMP STATIONS										
Barnes Road Pump Station	15 - 31	\$ 130,000	\$ 290,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 420,000	\$ 290,000
BP-1 Cooper Mountain Booster Pump Station Expansion	15 - 32	-	-	-	356,000	2,960,000	-	-	3,316,000	3,316,000
Sunset Pump Station MCC Replacement	15 - 33	-	259,000	-	-	-	-	-	259,000	259,000
Inglewood Pump Station Repairs	15 - 34	-	-	-	388,000	-	-	-	388,000	388,000
Goyak Pump Station Upgrades	15 - 35	-	-	32,100	-	-	297,000	1,845,000	2,174,100	2,174,100
BP-6 Rosander Booster Pump Station	15 - 36	-	-	-	-	-	-	1,260,000	1,260,000	1,260,000
Taylor's Ferry Booster Pump Station	15 - 37	75,000	62,100	214,000	781,500	-	-	-	1,132,600	1,057,600
SCADA / PLC / Shakealert Upgrades	15 - 38	-	305,500	535,500	1,110,000	-	-	-	1,951,000	1,951,000
189th Pump Station Upgrades	15 - 39	-	-	32,100	277,000	1,720,000	-	-	2,029,100	2,029,100
Pump Replacement Program	15 - 40	50,000	133,000	137,500	142,500	147,500	152,500	158,000	921,000	871,000
TOTAL PUMP STATIONS		\$ 255,000	\$ 1,049,600	\$ 951,200	\$ 3,055,000	\$ 4,827,500	\$ 449,500	\$ 3,263,000	\$ 13,850,800	\$ 13,595,800

Tualatin Valley Water District Six-Year CIP Planned Expenditures (FY2022-27)

Category / Project Description	Page	2019-21 Projected	2021-2023 Biennial Budget 6-Year CIP						Totals	
			FY2022 Requested	FY2023 Requested	FY2024 Projected	FY2025 Projected	FY2026 Projected	FY2027 Projected	Eight-Year FY2020-27	Six-Year FY2022-27
PIPELINE										
Mains Replacement Program - Unidentified Projects	15 - 41	\$ 2,000,000	\$ 1,760,000	\$ 1,820,000	\$ 1,885,000	\$ 1,950,000	\$ 2,020,000	\$ 2,090,000	\$ 13,525,000	\$ 11,525,000
SW Barcelona Way Main Replacement	15 - 42	-	-	-	-	-	822,500	-	822,500	822,500
SW Cascade Ave / Greenburg / Moore Furniture	15 - 43	-	-	-	-	2,480,000	-	-	2,480,000	2,480,000
NW Oak Hills Dr - Bonneville Lp to 145th	15 - 44	-	-	329,000	-	-	-	-	329,000	329,000
Alfred St Main Replacement and Upgrade	15 - 45	-	430,500	-	-	-	-	-	430,500	430,500
Multnomah Blvd 12-inch Connection	15 - 46	-	-	-	658,500	-	-	-	658,500	658,500
Williams - Rita - Mains replacement	15 - 47	-	-	-	-	3,800,000	-	-	3,800,000	3,800,000
Tremont & Huntington - Mains replacement	15 - 48	-	-	-	1,665,000	1,720,000	2,375,000	4,915,000	10,675,000	10,675,000
SW Tualatin Valley Hwy - 185th to Elliott Pl	15 - 49	-	-	-	-	-	-	1,215,000	1,215,000	1,215,000
Todd St & Linda Ln - Mainline Replacement & Upgrade	15 - 50	-	-	1,510,000	-	-	-	-	1,510,000	1,510,000
Murray Blvd Main Replacement - Downing to Mill Creek	15 - 51	-	-	-	-	-	1,495,000	-	1,495,000	1,495,000
Ridgewood View - Inglewood to Melnore Main Improvement	15 - 52	-	-	-	-	-	-	452,500	452,500	452,500
Pipeline Upgrades and Renewals - Agency Driven										
Unidentified Agency-Driven Pipeline Upgrade & Renewal Projects	15 - 53	-	155,500	535,500	1,275,000	1,320,000	1,365,000	1,415,000	6,066,000	6,066,000
Walker Rd 12" Replacement - 185th to 174th	15 - 54	-	673,000	-	-	-	-	-	673,000	673,000
Murray & Walker 42-inch Relocation	15 - 55	1,954,592	1,555,000	1,930,000	-	-	-	-	5,439,592	3,485,000
Cornell 102nd to 114th Main Relocation	15 - 56	30,000	828,000	-	-	-	-	-	858,000	828,000
TV Hwy at 209th Main Relocation	15 - 57	-	621,000	455,500	-	-	-	-	1,076,500	1,076,500
Hall Blvd over Hwy 217	15 - 58	20,000	248,500	-	-	-	-	-	268,500	248,500
Unidentified Water Quality Upgrades & Renewals	15 - 59	-	103,500	107,000	111,000	115,000	119,000	123,000	678,500	678,500
Development Opportunity & Reimbursement Projects										
Unidentified Development Opportunity & Reimbursement Project	15 - 60	268,000	277,000	287,000	297,000	307,500	318,000	329,000	2,083,500	1,815,500

Tualatin Valley Water District Six-Year CIP Planned Expenditures (FY2022-27)

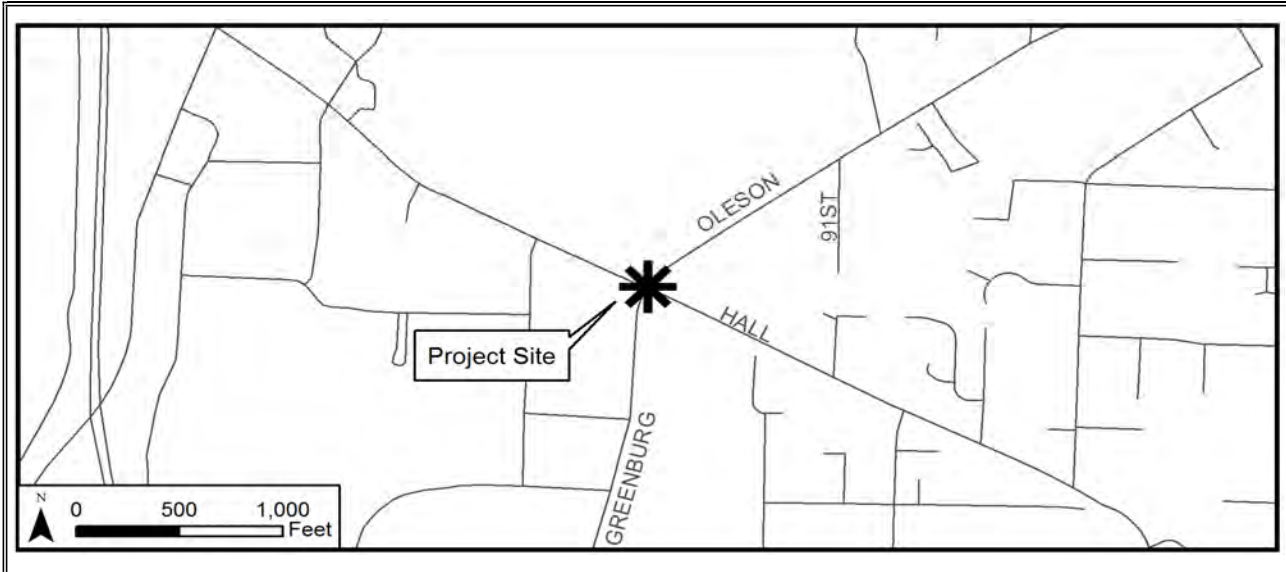
Category / Project Description	Page	2019-21 Projected	2021-2023 Biennial Budget 6-Year CIP						Totals		
			FY2022 Requested	FY2023 Requested	FY2024 Projected	FY2025 Projected	FY2026 Projected	FY2027 Projected	Eight-Year FY2020-27	Six-Year FY2022-27	
PIPELINE (continued)											
Fire Flow Improvements											
P-80 - Viewmont Dr south of Barnes	15 - 61	\$ -	\$ 298,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 298,000	\$ 298,000
P-99 - Polsky Rd / Hawthorne Ln / to Scenic Dr	15 - 62	-	-	-	-	-	382,000	3,105,000		3,487,000	3,487,000
Fire Flow P-125 (Hart Dr - 182nd to 179th)	15 - 63	-	-	-	-	-	89,100	213,500		302,600	302,600
P-21 185th Crossing Hwy 26	15 - 64	-	-	-	-	-	241,500	584,500		826,000	826,000
NW Westlawn Ter. Waterline & PRV	15 - 65	-	-	428,500	-	-	-	-		428,500	428,500
Future Fire Flow Improvements	15 - 66										
Other Pipeline											
Thompson 575 connection	15 - 67	-	-	-	-	-	57,000	-		57,000	57,000
Barnes & Viewmont Piping Improvements	15 - 68	20,000	596,000	-	-	-	-	-		616,000	596,000
Minor System Improvements	15 - 69	107,000	111,000	115,000	119,000	123,000	119,000	123,000		817,000	710,000
Metzger Pipeline East	15 - 70	6,428,770	32,314,037	46,444,409	22,678,208	4,257,788	-	-		112,123,213	105,694,443
Metzger Pipeline East Real Estate	15 - 71	545,570	869,980	-	-	-	-	-		1,415,550	869,980
Metzger Pipeline East System-wide Costs	15 - 72	3,185,464	1,606,441	1,512,994	1,453,265	1,536,426	1,675,302	714,099		11,683,990	8,498,527
Hydrant Replacements	15 - 73	-	155,500	160,500	166,500	172,000	178,000	184,500		1,017,000	1,017,000
Kemmer Rd 24-inch Connection to Beaverton	15 - 74	-	1,500,000	-	-	-	-	-		1,500,000	1,500,000
PRV / Vault Replacements & Upgrades: Unidentified Projects	15 - 75	-	310,500	535,500	554,500	172,000	272,000	369,000		2,213,500	2,213,500
Transmission Mains CARV Rehabilitation	15 - 76	107,000	110,500	114,500	118,500	123,000	127,000	131,500		832,000	725,000
Walker and Meadow PRV & Vault Replacement	15 - 77	75,000	776,500	-	-	-	-	-		851,500	776,500
Goyak PRV - 800 to 550 PZ	15 - 78	-	-	160,500	-	-	-	-		160,500	160,500
TOTAL PIPELINE		\$ 14,741,396	\$ 45,300,458	\$ 56,445,903	\$ 30,981,473	\$ 18,076,714	\$ 11,655,402	\$ 15,964,599		\$ 193,165,945	\$ 178,424,549

Tualatin Valley Water District Six-Year CIP Planned Expenditures (FY2022-27)

Category / Project Description	Page	2019-21 Projected	2021-2023 Biennial Budget 6-Year CIP						Totals		
			FY2022 Requested	FY2023 Requested	FY2024 Projected	FY2025 Projected	FY2026 Projected	FY2027 Projected	Eight-Year FY2020-27	Six-Year FY2022-27	
FACILITIES											
Seismic Upgrades District Headquarters	15 - 79	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Replace Garage Doors/Install Snow Guards (Fleet Shop)	15 - 80	-	36,200	51,400	-	-	-	-	-	87,600	87,600
Headquarters Yard Modifications	15 - 81	50,000	247,000	268,000	-	-	-	-	-	565,000	515,000
Safety and Security Improvements	15 - 82	50,000	310,500	321,500	-	-	-	-	-	682,000	632,000
Board Room/Conference Room Audio Visual Improvements	15 - 83	-	207,000	53,600	-	-	-	-	-	260,600	260,600
District Wide Signage Replacement	15 - 84	-	51,800	53,600	-	-	-	-	-	105,400	105,400
Vault - Dewatering Facility	15 - 85	15,000	-	21,400	-	-	-	-	-	36,400	21,400
Goyak and Cooper Mtn. Driveway Replacement	15 - 86	-	51,800	53,600	-	-	-	-	-	105,400	105,400
Fuel Dispenser Replacement	15 - 87	-	-	68,000	-	-	-	-	-	68,000	68,000
TOTAL FACILITIES		\$ 115,000	\$ 904,300	\$ 891,100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,910,400	\$ 1,795,400
FLEET											
Fleet Replacements (per schedule)	15 - 88	\$ 170,000	\$ 689,000	\$ 780,000	\$ 665,000	\$ 688,500	\$ 712,500	\$ 737,500	\$ 737,500	\$ 4,442,500	\$ 4,272,500
TOTAL FLEET		\$ 170,000	\$ 689,000	\$ 780,000	\$ 665,000	\$ 688,500	\$ 712,500	\$ 737,500	\$ 737,500	\$ 4,442,500	\$ 4,272,500
INFORMATION TECHNOLOGY											
Customer Information System	15 - 89	\$ 3,081,377	\$ 6,640,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,721,377	\$ 6,640,000
TOTAL INFORMATION TECHNOLOGY		\$ 3,081,377	\$ 6,640,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,721,377	\$ 6,640,000
METERS AND SERVICES											
Service Installations	15 - 90	\$ 2,455,700	\$ 1,540,000	\$ 1,595,000	\$ 1,650,000	\$ 1,710,000	\$ 1,770,000	\$ 1,830,000	\$ 1,830,000	\$ 12,550,700	\$ 10,095,000
Customer Service: Meter Installations	15 - 91	336,062	247,000	255,500	264,500	273,500	283,500	293,000	293,000	1,953,062	1,617,000
TOTAL METERS AND SERVICES		\$ 3,266,762	\$ 1,787,000	\$ 1,850,500	\$ 1,914,500	\$ 1,983,500	\$ 2,053,500	\$ 2,123,000	\$ 2,123,000	\$ 14,978,762	\$ 11,712,000
JOINT VENTURES											
Joint Venture: WIF	15 - 92	\$ 1,876,143	\$ 2,158,754	\$ 972,865	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,007,762	\$ 3,131,620
Joint Venture: WWSS	15 - 93	88,225,342	71,227,035	170,696,854	130,472,179	56,812,648	35,704,561	3,557,506	3,557,506	556,696,125	468,470,783
JWC Plans, Assessments, and Safety Upgrades	15 - 94	147,983	134,500	-	-	29,100	27,400	101,500	101,500	440,483	292,500
JWC Misc. Repairs/Replacements, & Minor/Non-CIP	15 - 95	110,464	119,500	65,300	128,000	208,000	137,000	263,500	263,500	1,031,764	921,300
JWC Other Capital Repairs	15 - 96	-	-	-	-	-	-	121,500	121,500	121,500	121,500
JWC Water Line Cathodic Protection	15 - 97	25,590	25,600	26,500	27,400	28,400	29,400	30,400	30,400	193,290	167,700
JWC Spring Hill Pumping Plant Mitigation Project	15 - 98	52,204	95,500	10,600	-	-	-	-	-	158,304	106,100
JWC Disinfection Facility (Gaseous Chlorine Replacement)	15 - 99	-	-	-	59,400	394,000	408,000	-	-	861,400	861,400
JWC Land Purchase	15 - 100	-	136,500	-	-	-	-	-	-	136,500	136,500
BRJOC Capital & Improvements	15 - 101	-	42,000	43,500	45,000	46,600	48,200	49,900	49,900	275,200	275,200
JWC Equipment Replacement	15 - 102	-	341,200	-	341,200	-	341,200	-	-	1,023,600	1,023,600
TOTAL JOINT VENTURES		\$ 90,437,724	\$ 74,280,589	\$171,815,619	\$131,073,179	\$57,518,748	\$36,695,761	\$ 4,124,306	\$ 4,124,306	\$565,945,927	\$475,508,203
TOTAL CIP		\$112,652,258	\$140,430,248	\$239,152,422	\$174,244,852	\$83,785,662	\$53,053,663	\$27,632,405	\$27,632,405	\$830,951,510	\$718,299,252
TOTAL CIP less JOINT VENTURES		\$ 22,214,534	\$ 66,149,658	\$ 67,336,803	\$ 43,171,673	\$26,266,914	\$16,357,902	\$23,508,099	\$23,508,099	\$265,005,584	\$242,791,049

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Metzger Supply Improvements for WWSS



KEY DRIVERS FOR CIP PROJECT

1.	Timing	Associated improvements required to take water from the Willamette Water Supply System, and required to be done by 2026.
2.	Asset Condition	Improvement will address condition of the existing pumping facility at Florence Lane.
3.	Reliability	The WWSS will be designed and constructed to current seismic resiliency standards. These improvements will allow for reliable service to the 498 pressure zone. Additional seismic improvements may be needed in the future.

PROJECT DESCRIPTION

These improvements will include operational and any other changes necessary to operate the new supply from the WWSS. The goal of this project is to move water from the WWSS turnout at Hall Blvd & Oleson Road to the Florence Lane tanks with the goal of maintaining low water age. This also includes improvements necessary to move water to the 498 pressure zone, and could include MCC upgrades and other pumping upgrades at Florence Lane. The above-ground flow control facility, meter vault, and valving will be budgeted and delivered by the WWSP.

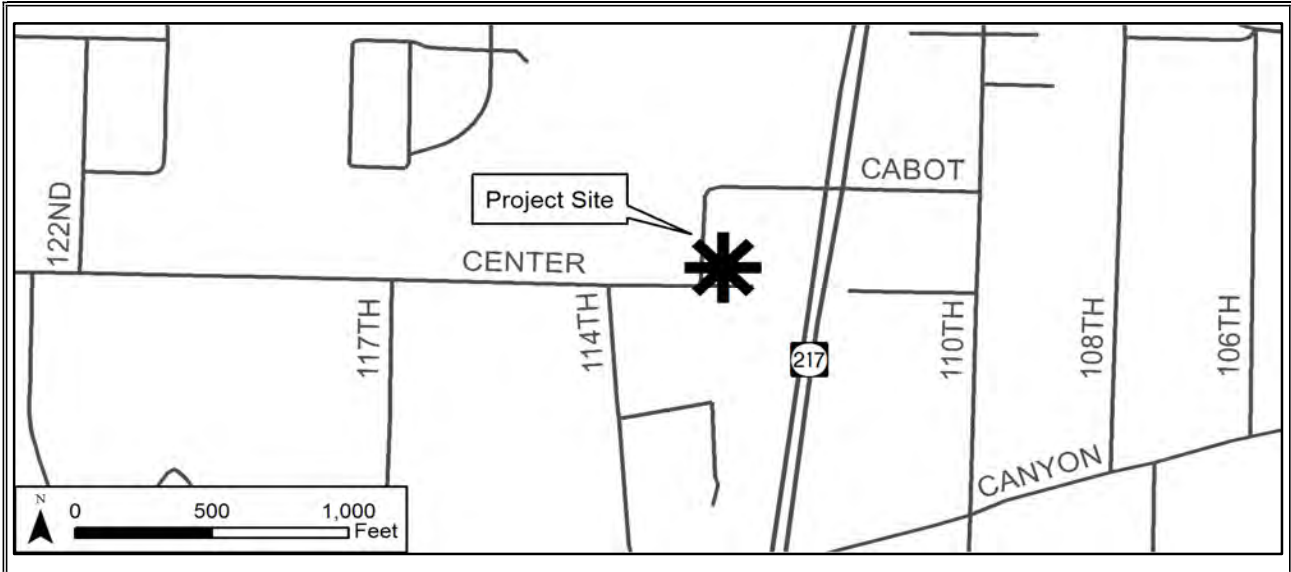
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Source	Water Rates:	Yes	There will be some minor increases to District operating costs for running the pumps more frequently.	
Project Manager:	Nick Augustus	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%		
Total Priority Score:	19	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	53,600	499,000	-	-	-	552,600	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Center St Facility Seismic Roof & Piping Improvements



KEY DRIVERS FOR CIP PROJECT

1.	Timing	Associated improvements will allow for reliable service from the WWSS, and the hydraulic improvements will be done while the WCSL is offline due to other WWSS construction activities. Project is needed prior to 2026.
2.	Asset Condition	Improvements will replace the aging roof, and control valves due to their poor condition.
3.	Reliability	The roof and building will be replaced and upgraded to be more seismically resilient. Additional seismic supports will be added to the mechanical piping and equipment.

PROJECT DESCRIPTION

These improvements include replacement of the existing roof which is over 40-yrs old. It includes seismic improvements for the above-grade structure, mechanical piping seismic improvements, and replacement of certain control valves in anticipation of the WWSS.

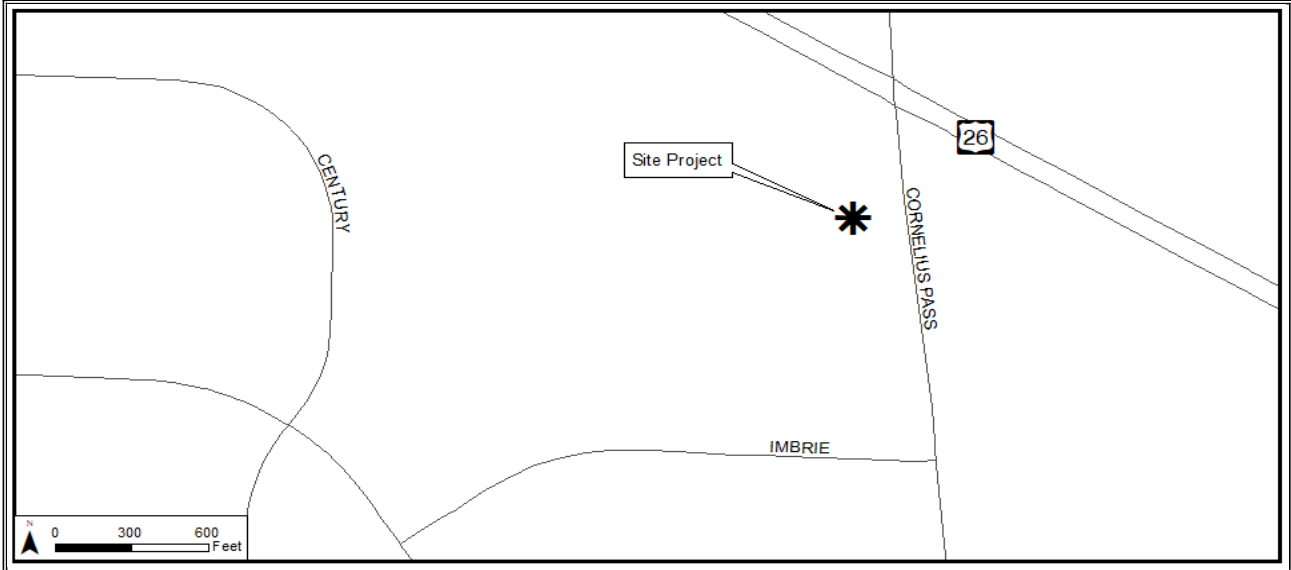
PROJECT INFORMATION		FUNDING SOURCES	FUTURE OPERATING COST IMPACT
Project Category:	Source	Water Rates: Yes	No anticipated impact on District operating costs.
		Service Fees: No	
Project Manager:	Sarah Alton	SDC Improvemt. Fee Elg.:	
Work Performed By:	Outside Contract	0%	
Total Priority Score:	19	Partner Cost Percentage:	0%

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	55,000	1,035,000	-	-	-	-	-	1,035,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Cornelius Pass Pipeline Rehabilitation



KEY DRIVERS FOR CIP PROJECT

1.	Timing	The existing piping was leaking and in need of replacement.
2.	Asset Condition	Part of the existing manifold began leaking due to corrosion in 2020. Condition assessments were performed and it was determined that piping and internal linings were in need of rehabilitation and replacement.
3.	Reliability	This facility is a key supply point for the District and is essential to the District's summer supply strategy.

PROJECT DESCRIPTION

Improvements are needed at the fluoride and flow control facility due to the condition of the existing piping. Other improvements are anticipated when the WWSS connects at this location.

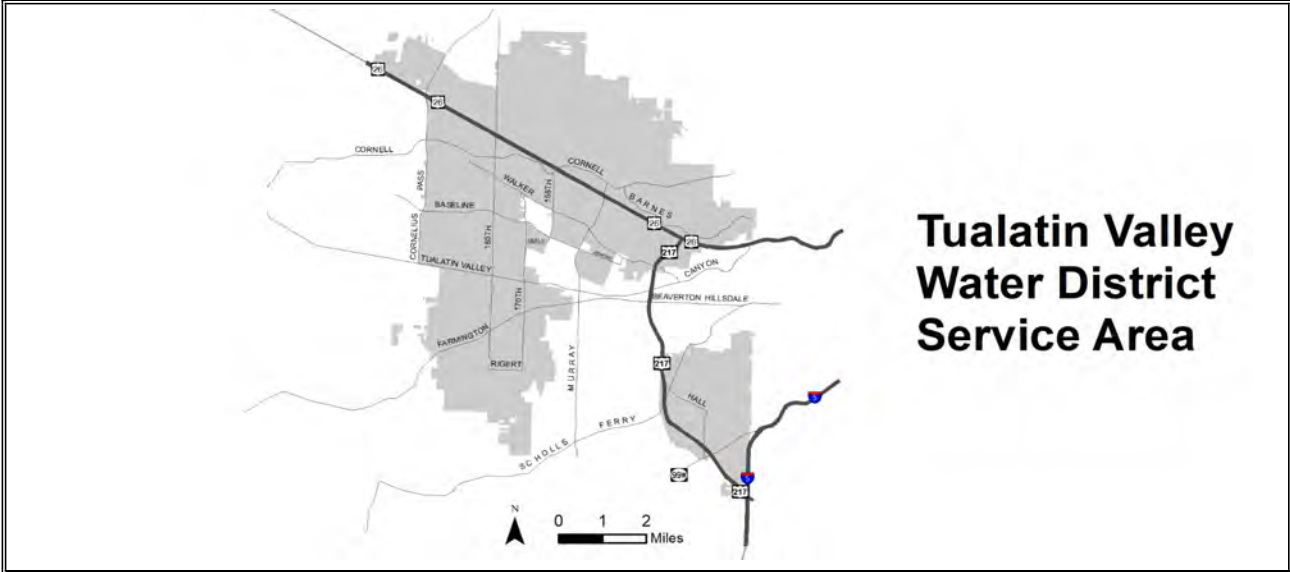
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Source	Water Rates:	Yes	No additional operating costs are anticipated.	
Project Manager:	Ryan Smith	Service Fees:	No		
Work Performed By:	Contract & District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	25	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	103,500	-	-	-	-	-	103,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Water Quality Integration Projects



**Tualatin Valley
 Water District
 Service Area**

KEY DRIVERS FOR CIP PROJECT

1.	Water Quality	This project is to address water quality considerations prior to the WWSS being tested and implemented as a source of supply.
2.	Timing	Projects associated with the WWSS allows / supports additional growth and offsets reduction in Portland water.
3.	Customer Criticality	This work impacts the majority of water customers in the District.

PROJECT DESCRIPTION

These projects will be done in collaboration with the water system integration study and recommendations proposed as part of the WWSS. A Water Quality Integration firm has been hired as part of the WWSS and will be developing recommendations in collaboration with District personnel. Projects identified as part of that study will be implemented under this line item. These projects could include removing existing piping and other activities to study the future impact of changing water sources.

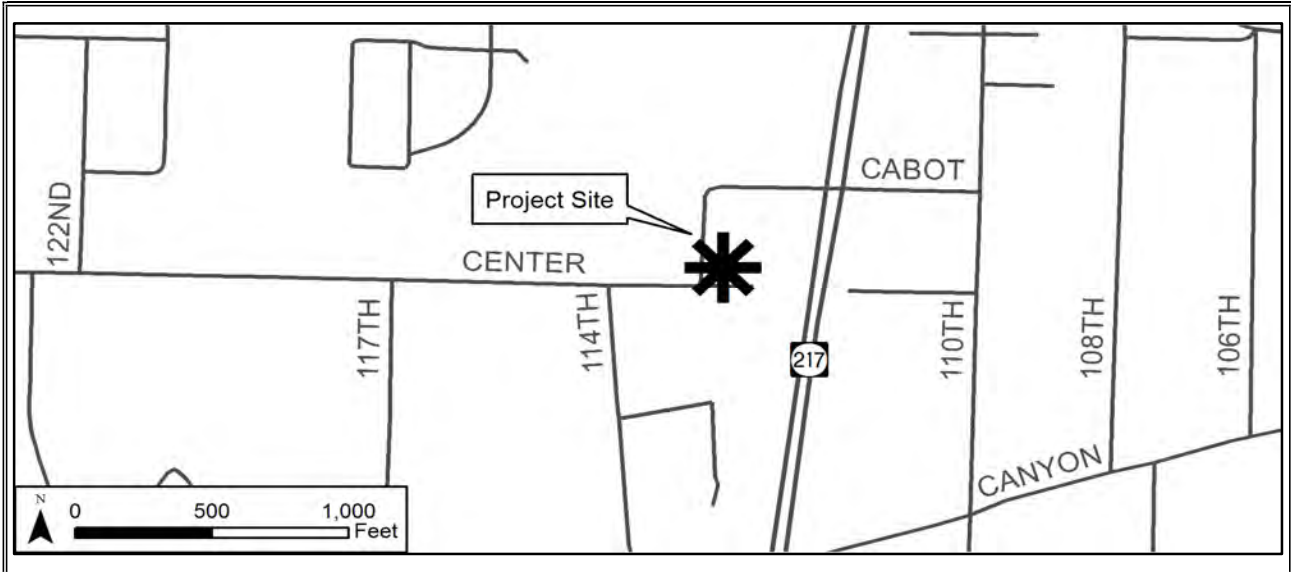
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Source	Water Rates:	Yes	No anticipated impact on District operating costs.	
Project Manager:	Joel Cary	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%		
Total Priority Score:	22	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	227,500	235,500	-	-	-	-	463,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Center St Backup Generator



KEY DRIVERS FOR CIP PROJECT

1.	Reliability	This project will add backup power to the Center St flow control facility, allowing the District to have better control of the incoming supply during a power outage.
2.	Customer Criticality	This project will impact a large customer base.
3.	Safety / Security	Adding a generator will provide safety with operators able to view equipment remotely.

PROJECT DESCRIPTION

There is currently no backup power at the Center St flow control and fluoride facility. This project would add a backup power generator which will allow for more reliable control over incoming supply sources.

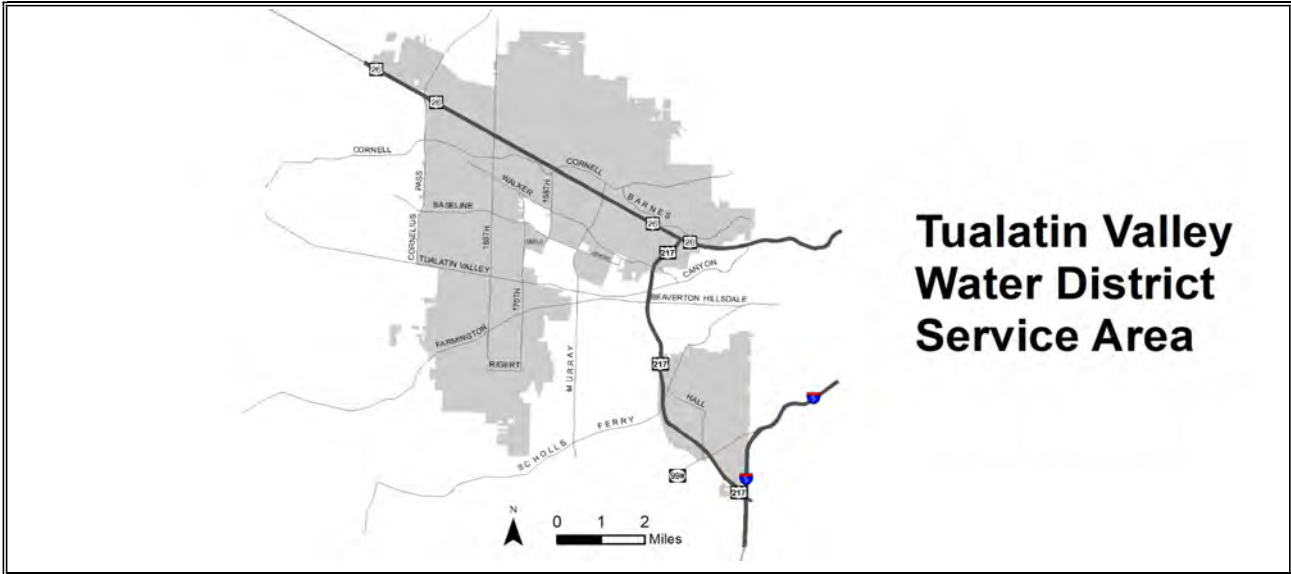
PROJECT INFORMATION		FUNDING SOURCES	FUTURE OPERATING COST IMPACT
Project Category:	Source	Water Rates: Yes	A slight increase in operating cost to maintain the new generator will be necessary.
		Service Fees: No	
Project Manager:	Zach Lemberg	SDC Improvemt. Fee Elg.:	
Work Performed By:	Contract & District Staff	0%	
Total Priority Score:	15	Partner Cost Percentage:	0%

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	-	297,000	-	297,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: **Booster Chlorination**



KEY DRIVERS FOR CIP PROJECT

1.	Water Quality	Due to the switch from chloramines to free chlorine, the District may need a booster chlorination system to help manage residual chlorine and control water quality.
2.	Customer Criticality	This project will provide benefits to a large portion of the District.
3.	Cost Effectiveness / Community Benefit	Significant benefits to the community as a whole are anticipated through the proper management of chlorine residual throughout the system.

PROJECT DESCRIPTION

This project (including evaluation and implementation) is for a booster chlorination system that is planned to be online when the District switches to the WWSS.

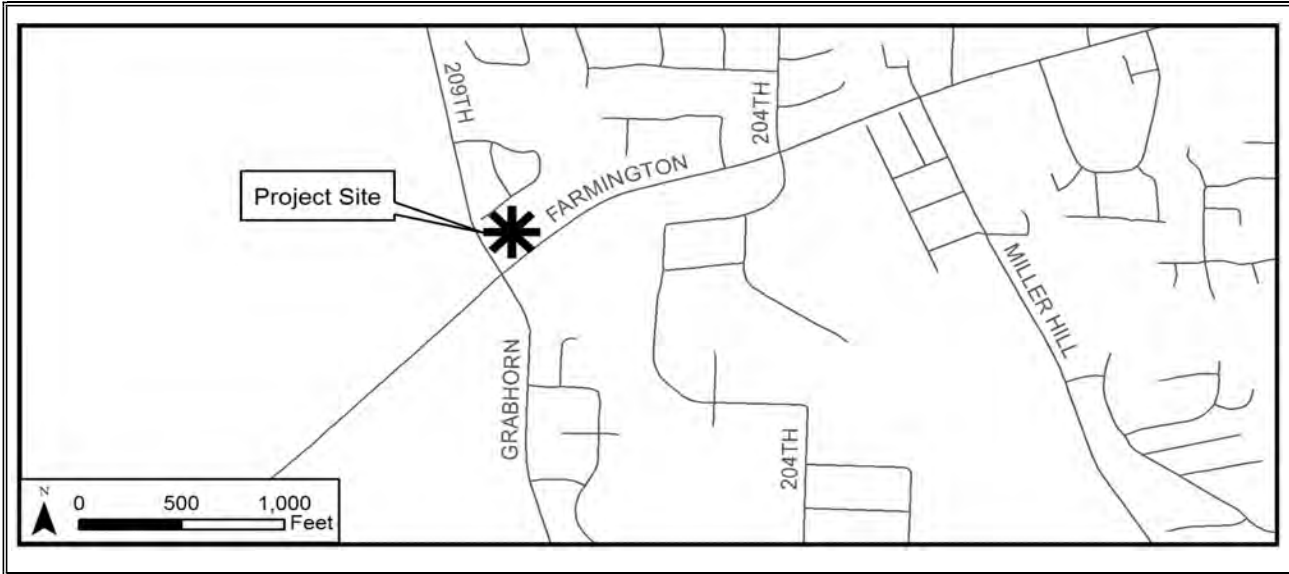
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Source	Water Rates:	Yes	A slight increase in operating cost to maintain the new booster chlorination system will be necessary.	
Project Manager:	Joel Cary	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%		
Total Priority Score:	21	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	229,500	1,190,000	-	1,419,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Farmington Fluoride & Flow Control Facility



KEY DRIVERS FOR CIP PROJECT

1.	Timing	The Farmington facility is necessary to be online once the WWSS is online in 2026. Prior to 2026 the facility will be able to draw water from JWC to maintain the new piping.
2.	Customer Criticality	The project will impact the majority of the Cooper Mountain area and the 385 PZ.
3.	Reliability	The project will allow for reliable connection to the WWSS.

PROJECT DESCRIPTION

The Farmington Fluoride and PRV Facility will control flows from the WWSS and add fluoride to the incoming supply. The facility will be designed to accommodate future expansion of the facility, and will allow the District to utilize the WWSS to recharge the ASR well at Grabhorn with water from WWSS. The facility will be designed initially for 6.5 mgd flow capacity, expandable to 17 mgd in future years.

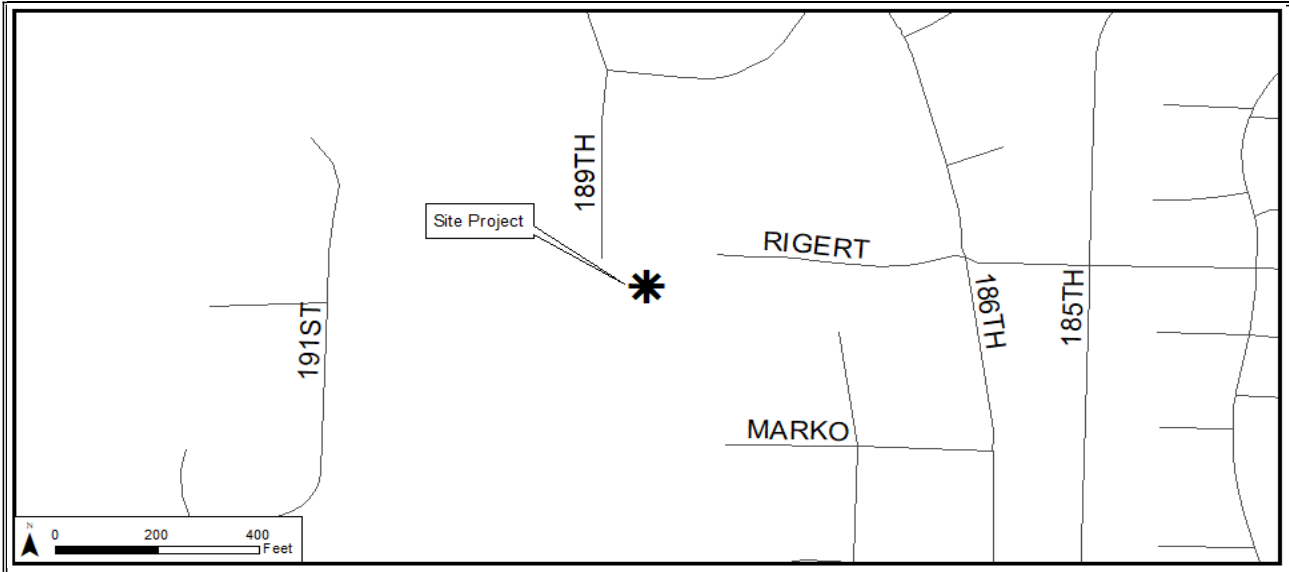
PROJECT INFORMATION		FUNDING SOURCES	FUTURE OPERATING COST IMPACT
Project Category:	Source	Water Rates: Yes	An increase in operating costs will be required to maintain the new facility.
Project Manager:	Andrew Barrett	Service Fees: No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.: 61%	
Total Priority Score:	29	Partner Cost Percentage: 0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	6,130,000	-	-	-	-	-	6,130,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: ST-3 Goyak Reservoir Upgrades



KEY DRIVERS FOR CIP PROJECT

1.	Timing	The existing facility is in need of roof maintenance and seismic improvements. The reservoir upgrades cannot be completed until a second source of supply to the Cooper Mountain area is complete.
2.	Asset Condition	The facility was constructed in 1974 and is in need of maintenance in order to keep the reservoir functioning as intended.
3.	Reliability	This will bring the reservoir into compliance with seismic standards.

PROJECT DESCRIPTION

Structural upgrades are recommended for the Goyak Reservoir to improve seismic resilience at the facility. These upgrades were first recommended in the Concrete Water Reservoir Seismic Rehabilitation Project (2002, CH2MHILL) with a construction cost of \$340,000. In addition, the updated project includes repairs to fix leaking in the reservoir floor, which was estimated at \$20/square-foot. A connection to a second source atop Cooper Mtn is needed prior to taking this facility off-line for repairs and upgrades.

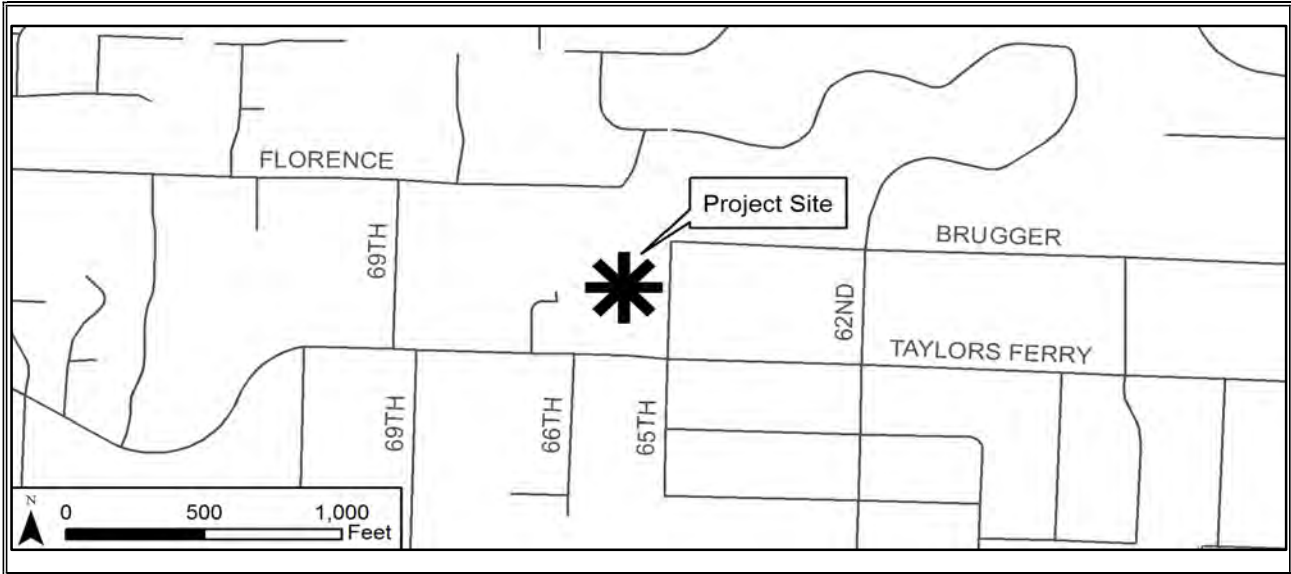
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Storage	Water Rates:	Yes	This project will reduce immediate maintenance costs, and will bring the tank up to current seismic standards. On-going maintenance is anticipated.	
Project Manager:	Ryan Smith	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	26	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	439,000	454,500	-	-	-	893,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Taylors Ferry Reservoir Replacements



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	The existing concrete and steel reservoirs are approaching the end of their useful life. The concrete walls are cracked and an internal liner is being used to maintain a leak free reservoir. The steel tank is not seismically resilient, and the roof is in poor condition.
2.	Customer Criticality	This project impacts a number of large businesses and a significant portion of the Metzger service area.
3.	Reliability	Improvements are required to provide a seismically resilient, reliable supply to the Metzger 498 pressure zone.

PROJECT DESCRIPTION

The existing reservoirs are at the end of their useful life and in need of replacement. It is recommended that the District replace the existing 1.0-MG Taylors Ferry South Reservoir, and the 2.3 MG steel tank with 2-1.75 MG pre-stressed concrete reservoirs. Land Use approvals were obtained in 2019 for these new reservoirs. As part of this project, the existing office space is planned to be demolished, and a new storage facility for equipment and materials is planned for the site.

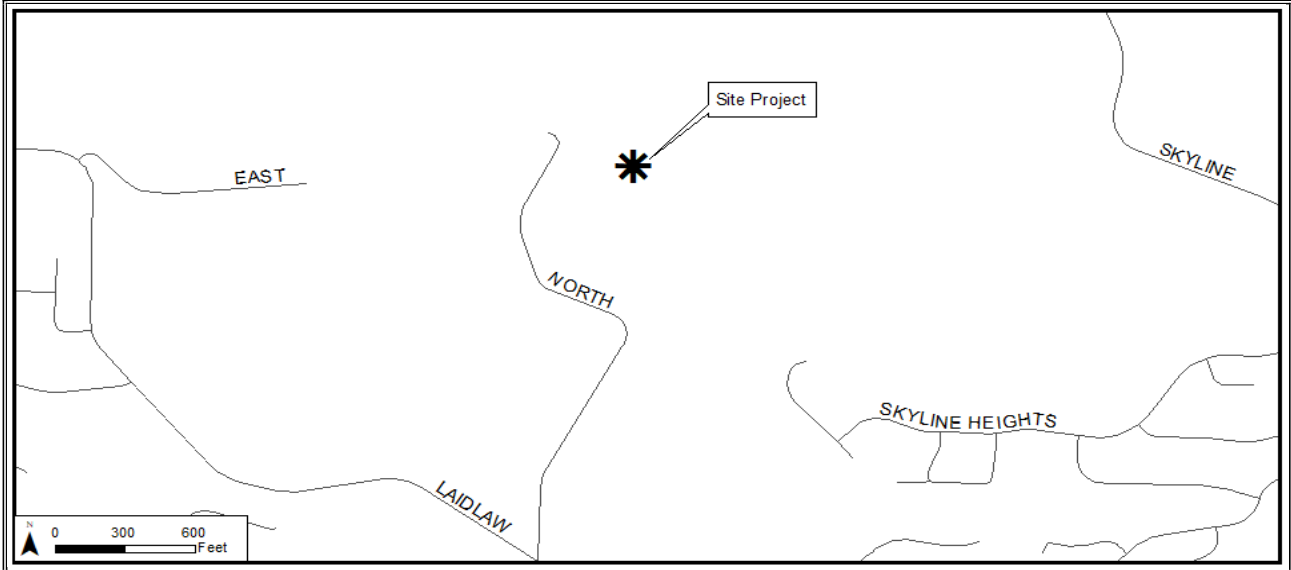
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Storage	Water Rates:	Yes	Operating costs will be reduced near term by removing the existing reservoirs and constructing new pre-stressed concrete reservoirs.	
Project Manager:	Andrew Barrett	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	31%		
Total Priority Score:	25	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
1,030,000	500,000	1,185,000	5,690,000	5,580,000	59,700	-	-	12,514,700	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: North Road Reservoir Mixing



KEY DRIVERS FOR CIP PROJECT

1.	Water Quality	The project is being done to improve water quality in the reservoir.
2.	Customer Criticality	The project will impact a significant number of customers.
3.	Cost Effectiveness / Community Benefit	Improvements will add benefits to the community.

PROJECT DESCRIPTION

The existing reservoir does not mix well, making it difficult to maintain chlorine residual in that portion of the system. This project will add a mechanical mixer to the reservoir to force mixing with incoming water.

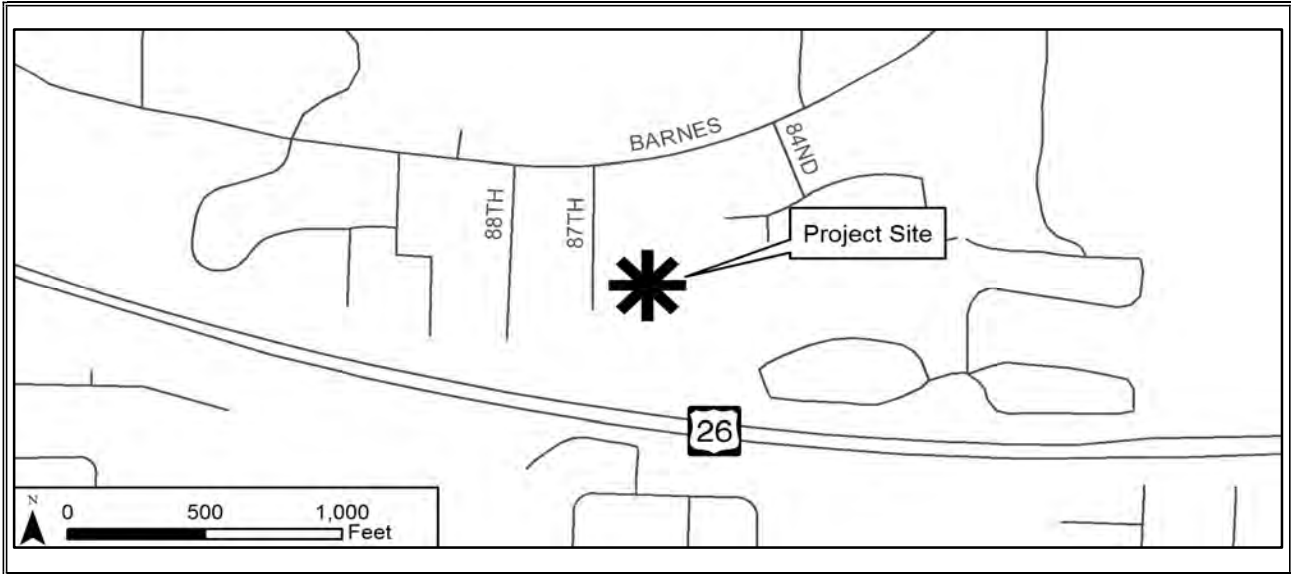
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Storage	Water Rates:	Yes	A slight increase in operating expenses for power and maintenance of the mixer will be necessary.	
Project Manager:	Pete Boone	Service Fees:	No		
Work Performed By:	Contract & District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	20	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	82,800	-	-	-	-	-	82,800	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: ST-1 Rosander 2 Reservoir



KEY DRIVERS FOR CIP PROJECT

1.	Timing	This project will add additional storage to the 575 pressure zone and is expected to be completed at the end of the 6-yr budget horizon.
2.	Growth / Future Demands	The reservoir will address storage deficiencies due to increased growth in the 575 pressure zone.
3.	Reliability	The new facility will be designed to meet current seismic standards.

PROJECT DESCRIPTION

The Rosander 2 Reservoir project is recommended to address long-term storage deficiencies in the West Hills 575 Zone and to provide seismically resilient storage. It is assumed that the existing reservoir will remain in service while a new 1.0-MG reservoir is constructed along with the Rosander Pump Station Project (BP-6).

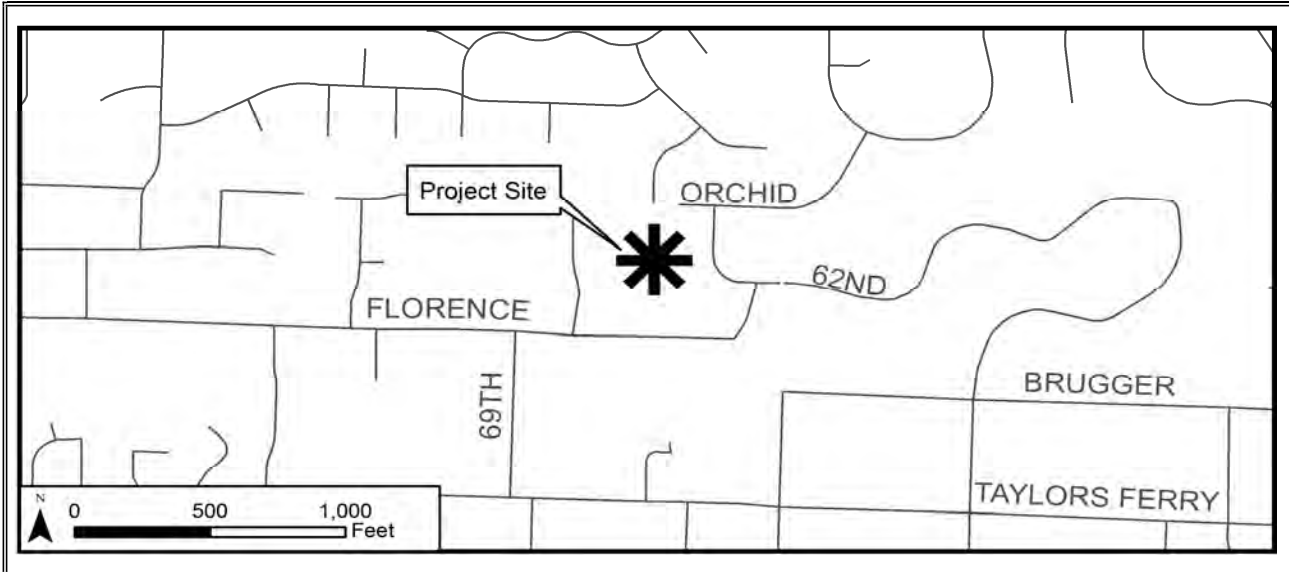
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Storage	Water Rates:	Yes	There will be a minor increase in operating expenses by adding a new facility.	
Project Manager:	Andrew Barrett	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	50%		
Total Priority Score:	15	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	-	-	1,420,000	1,420,000	2,200,000

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Florence Lane Reservoir Coatings & Cathodic Improvements



KEY DRIVERS FOR CIP PROJECT

1.	Timing	This maintenance project should be completed near-term.
2.	Asset Condition	The existing reservoir roof is corroding and in need of repair. This project is anticipated to extend the life of the asset.
3.	Reliability	This project is necessary to maintain reliable service. No seismic improvements are anticipated with this project.

PROJECT DESCRIPTION

The reservoir coatings are in poor condition and are in need of replacement. In addition, gutters and downspouts will reduce algae growth that is common on exterior tank walls, and will extend the life of the new coatings. This project involves sandblasting and recoating areas of coating failures. Containment is required to reduce impact to surrounding properties.

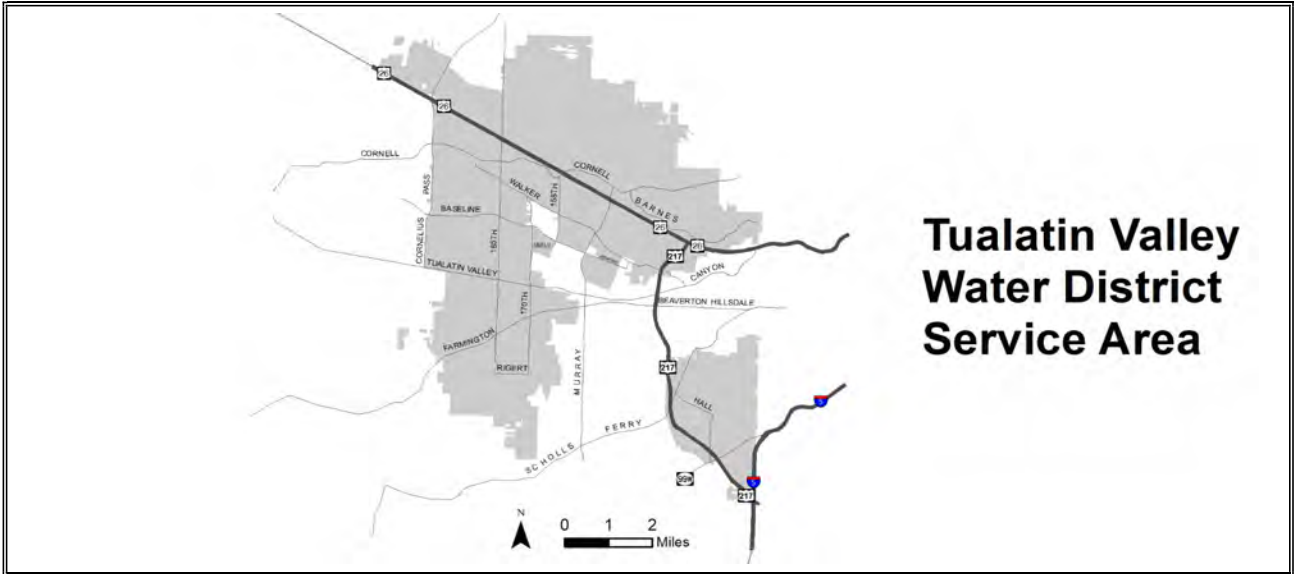
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Storage	Water Rates:	Yes	No anticipated impact on District operating costs.	
Project Manager:	Pete Boone	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	21	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
696,500	-	714,000	-	-	-	-	-	714,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Steel Reservoir Gutters and Downspouts



KEY DRIVERS FOR CIP PROJECT

1.	Timing	This maintenance project should be completed near-term.
2.	Asset Condition	The existing reservoir roof experiences algae growth and issues associated with that growth, reducing the life expectancy of coatings. This project is anticipated to extend the life of the asset.
3.	Reliability	This project is necessary to maintain reliable service.

PROJECT DESCRIPTION

This project would add gutters and downspouts to steel tanks. This will reduce the algae growth that is common on exterior tank walls which will extend the life of the coatings.

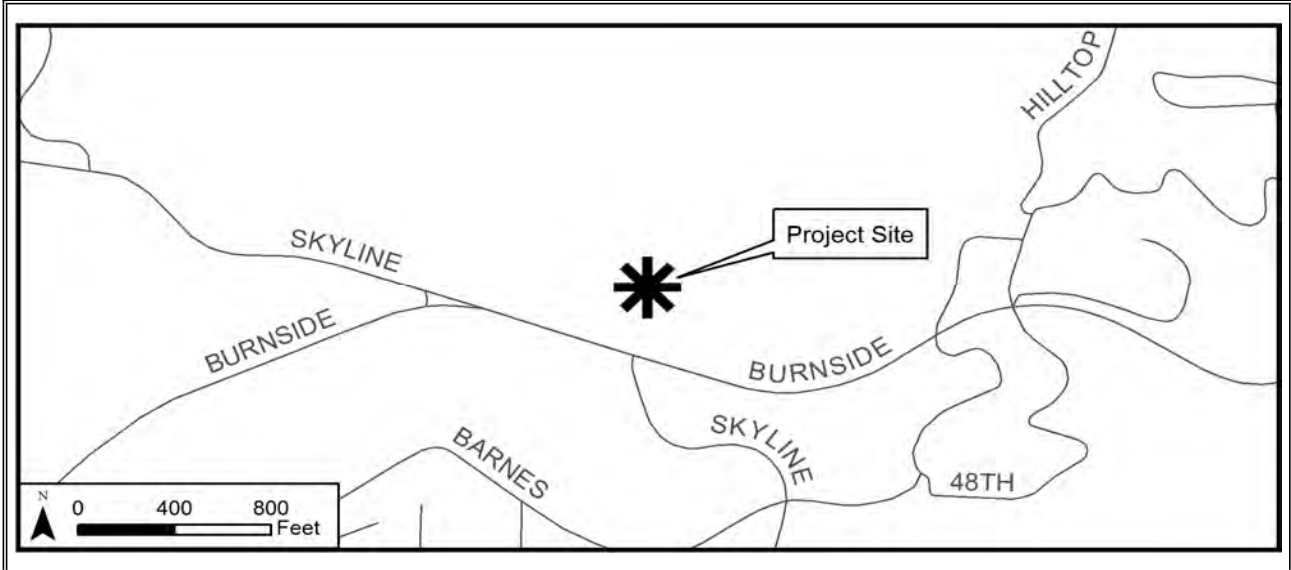
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Storage	Water Rates:	Yes	No anticipated impact on District operating costs.	
Project Manager:	Pete Boone	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	18	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
42,100	-	-	-	22,200	-	-	-	22,200	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Somerset Reservoir Modifications



KEY DRIVERS FOR CIP PROJECT

1.	Timing	This maintenance project should be completed near-term.
2.	Asset Condition	The existing reservoir is showing signs of corrosion and is in need of repair. This project is anticipated to extend the life of the asset.
3.	Safety / Security	The project will reduce risks associated with the outdated entry and access points.

PROJECT DESCRIPTION

This project includes replacing the existing hatch, removing the ladder cage to comply with OSHA standards, and fix exterior coatings on the reservoir.

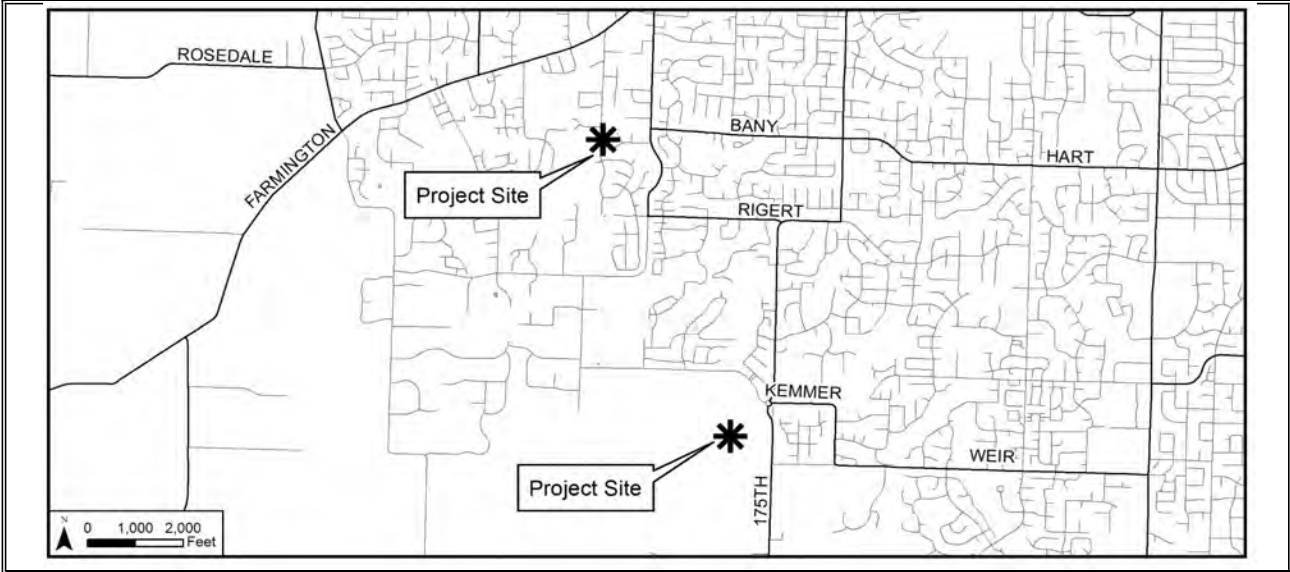
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Storage	Water Rates:	Yes	No anticipated impact on District operating costs.	
Project Manager:	Sarah Alton	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	30	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
321,500	30,000	301,500	-	-	-	-	-	301,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: 189th & Schell Roof Membrane Replacements



KEY DRIVERS FOR CIP PROJECT

1.	Timing	The roof membranes will need to be fixed once a second source of supply is available on Cooper Mountain.
2.	Asset Condition	The existing reservoirs are aging and in need of maintenance.
3.	Customer Criticality	These reservoirs impact a large number of customers.

PROJECT DESCRIPTION

The existing roof membranes are in need of maintenance and replacement to continue to keep the reservoirs fully sealed from rainwater intrusion.

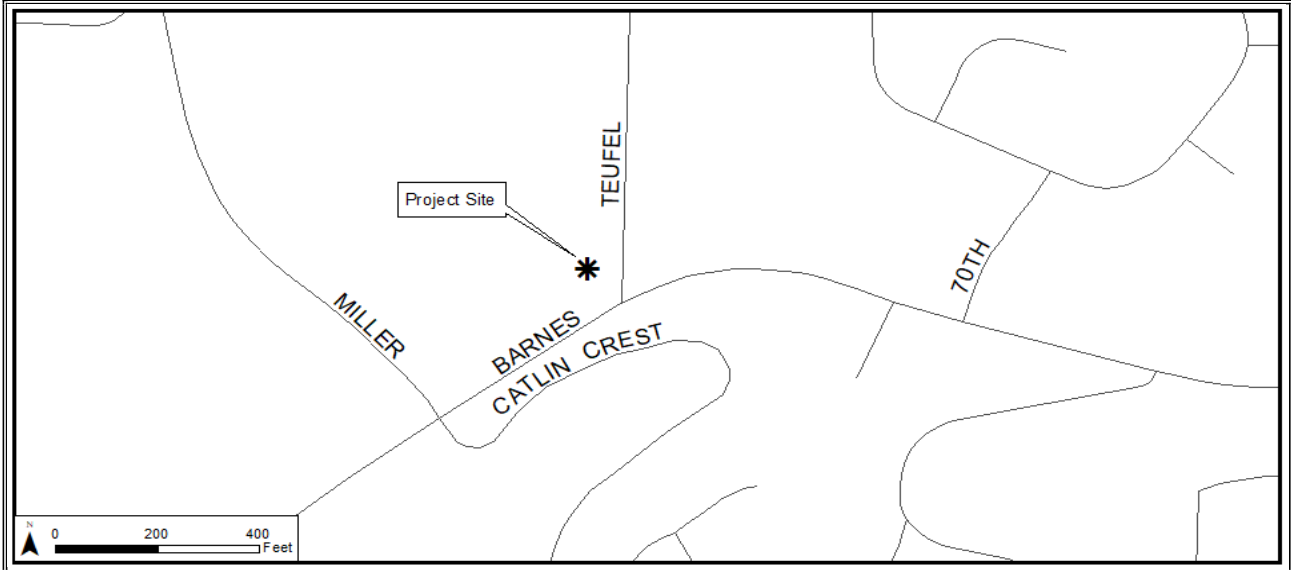
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Storage	Water Rates:	Yes	No anticipated impact on District operating costs.	
Project Manager:	Ryan Smith	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	21	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	401,500	-	-	401,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Barnes Road Pump Station



KEY DRIVERS FOR CIP PROJECT

1.	Timing	Project was budgeted the previous biennium, and was delayed.
2.	Asset Condition	The existing facilities are aging and in need of replacement.
3.	Safety / Security	Confined access will be eliminated with the construction of the new pump station. The new pump station will also have backup power through the Teufel Pump Station.

PROJECT DESCRIPTION

The Catlin Crest and Viewmont pump stations provide water service to a portion of the West Hills. The pump stations are nearing end of life, and require additional fire flow capacity. Existing pumps are located within vaults with difficult access. The two stations will be replaced with a single pump station. Piping connections to the zones are budgeted separately.

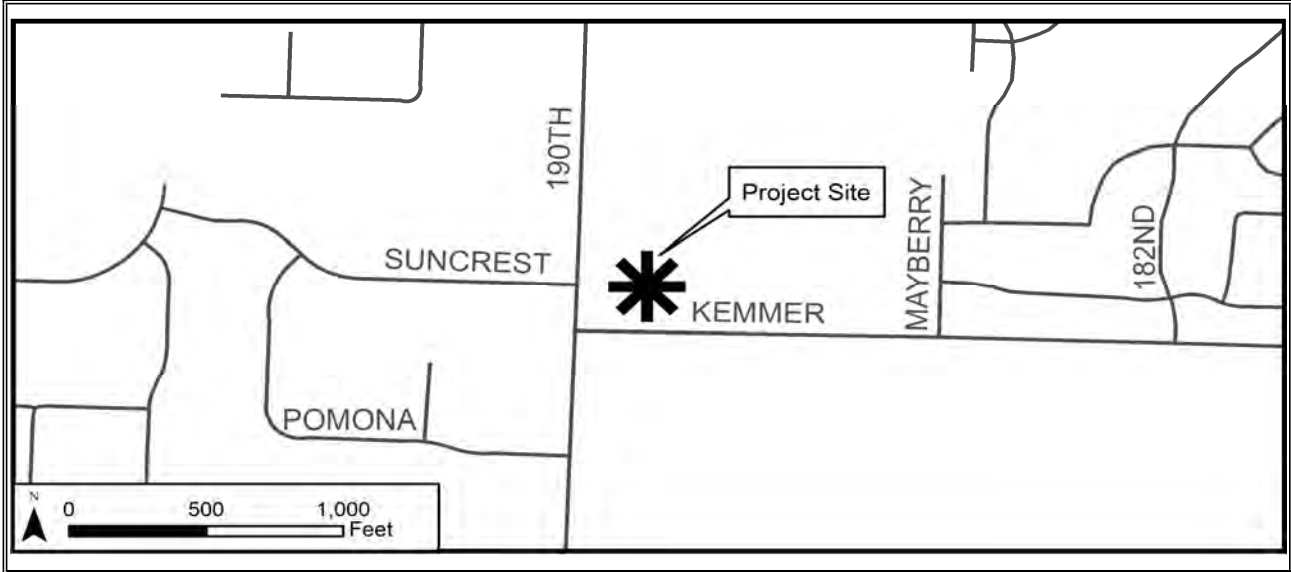
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pump Station	Water Rates:	Yes	A slight decrease in operating costs is anticipated by combining two pump stations into a single pump station.	
Project Manager:	Zach Lemberg	Service Fees:	No		
Work Performed By:	Contract & District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	30	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	130,000	290,000	-	-	-	-	-	290,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: BP-1 Cooper Mountain Booster Pump Station Expansion



KEY DRIVERS FOR CIP PROJECT

1.	Safety & Security	This project will help offset fire flow deficiencies in the pressure zones served by the Cooper Mountain Pump Station. The 2015 Master Plan recommended a full replacement of the existing pump station.
2.	Customer Criticality	The Cooper Mountain Pump Station serves a significant portion of the Cooper Mountain area of the District.
3.	Timing	This project will provide additional capacity to accommodate growth and future demands.

PROJECT DESCRIPTION

The Zone Supply Analysis determined that the existing Cooper Mountain Booster Pump Station (BPS) is deficient under firm and peak supply criteria. It is recommended that the District construct a new pump station or expand the existing Cooper Mountain BPS to provide an additional 0.5 mgd of firm capacity and 4 mgd of peak capacity for the 920 Operating Area.

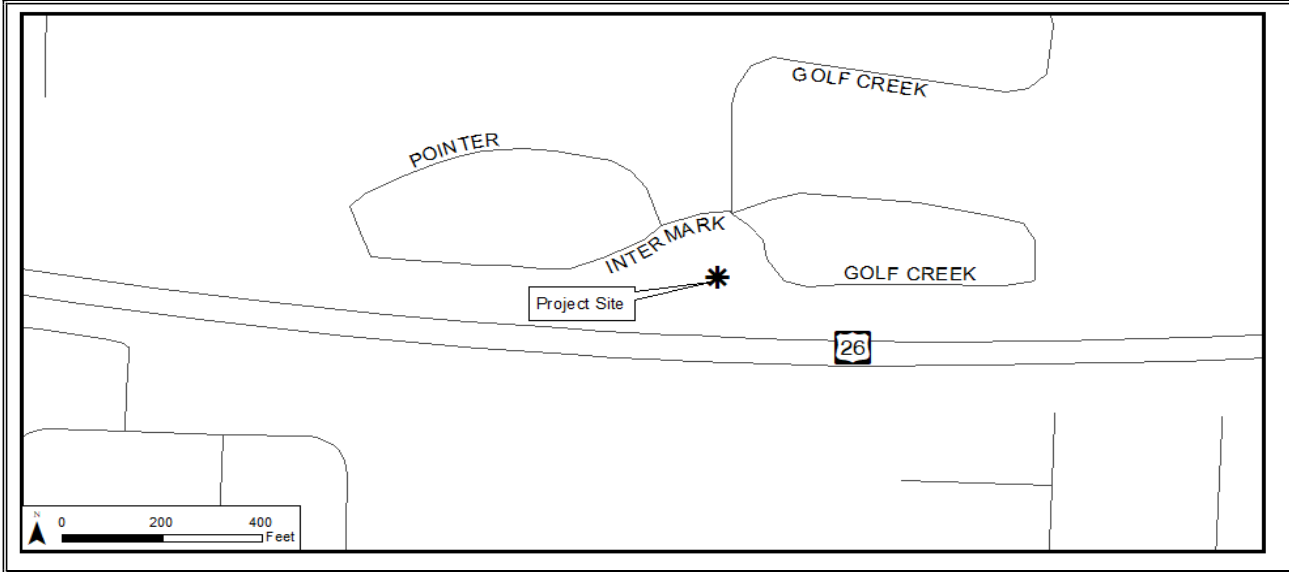
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pump Station	Water Rates:	Yes	This new pump station would replace the existing Cooper Mountain Pump Station resulting in a net no material impact to operating costs. Power costs may decrease slightly due to increased pumping efficiency.
Project Manager:	TBD	Service Fees:	No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	100%	
Total Priority Score:	20	Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	356,000	2,960,000	-	-	3,316,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Sunset Pump Station MCC Replacement



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	The existing MCC is in need of replacement.
2.	Cost Effectiveness / Community Benefit	Replacing the MCC allows for additional confidence that the Rosander Pump Station can be pushed out a year or two.
3.	Reliability	Replacing the MCC will allow this pump station to continue to be reliable.

PROJECT DESCRIPTION

This project will replace the Motor Control Center (MCC) in the existing pump station. This will keep the pump station online and operational until the Rosander Pump Station is completed.

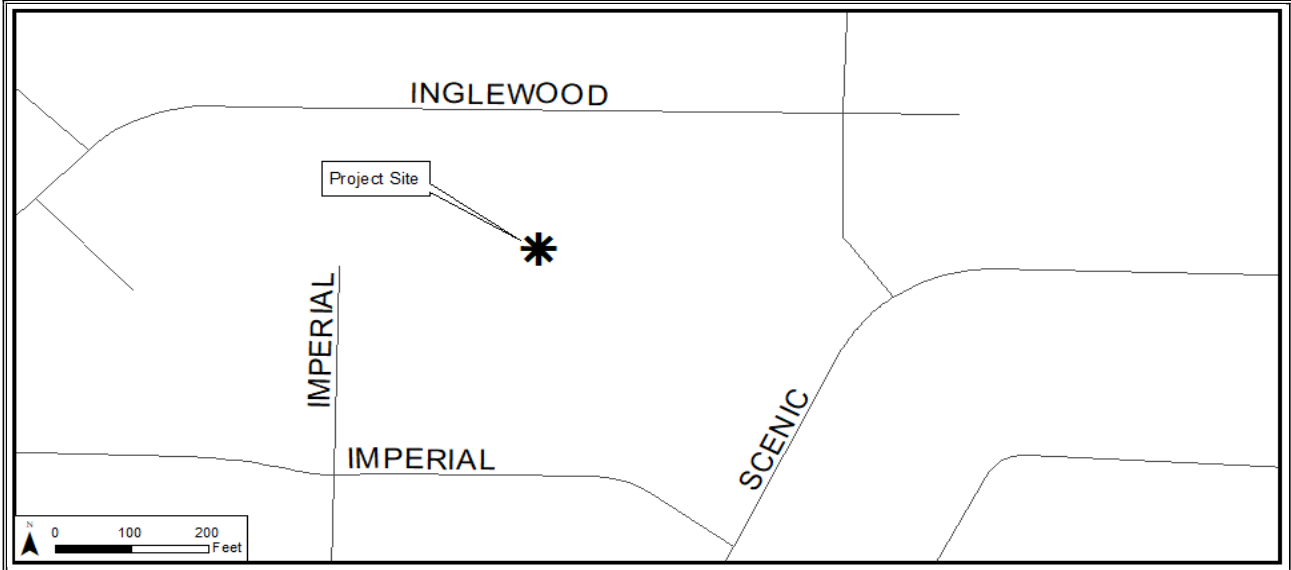
PROJECT INFORMATION		FUNDING SOURCES	FUTURE OPERATING COST IMPACT
Project Category:	Pump Station	Water Rates: Yes	No impact to operating costs is anticipated.
		Service Fees: No	
Project Manager:	Zach Lemberg	SDC Improvemt. Fee Elg.:	
Work Performed By:	Contract & District Staff	0%	
Total Priority Score:	28	Partner Cost Percentage:	0%

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	259,000	-	-	-	-	-	259,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Inglewood Pump Station Repairs



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	The existing piping and components are in need of rehabilitation.
2.	Cost Effectiveness / Community Benefit	This project will allow the District to continue to save pumping costs.
3.	Reliability	Repairs will keep the pump station functioning properly.

PROJECT DESCRIPTION

The pump station is in need of internal repairs including replacement of pipeline coatings, sealing the floor in the fluoride injection room and others.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pump Station	Water Rates:	Yes	No impact to operating costs is anticipated.	
Project Manager:	Eric George	Service Fees:	No		
Work Performed By:	Contract & District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	19	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	388,000	-	-	-	388,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Goyak Pump Station Upgrades



KEY DRIVERS FOR CIP PROJECT

1.	Timing	The project cannot be done until a second option to pump to Cooper Mountain is completed.
2.	Customer Criticality	This pump station serves a large portion of the District on Cooper Mountain.
3.	Reliability	The upgrades will increase the reliability of the pump station.

PROJECT DESCRIPTION

The Goyak Pump Station is aging and in need of rehabilitation and upgrade to updated seismic standards. In addition, installation of an automatic transfer switch, upgrade of the backup power generator, and fixing leaking piping have all been identified as part of this project.

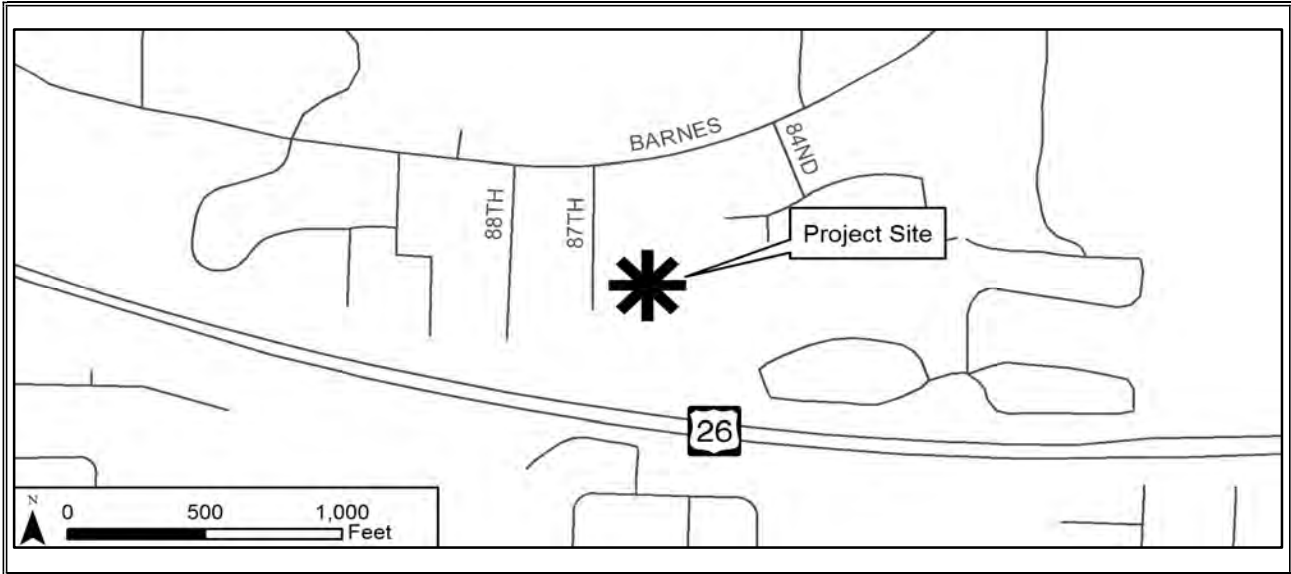
PROJECT INFORMATION		FUNDING SOURCES	FUTURE OPERATING COST IMPACT
Project Category:	Pump Station	Water Rates: Yes	No impact to operating costs is anticipated.
Project Manager:	Zach Lemberg	Service Fees: No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.: 0%	
Total Priority Score:	18	Partner Cost Percentage: 0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	32,100	-	-	297,000	1,845,000	2,174,100	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: BP-6 Rosander Booster Pump Station



KEY DRIVERS FOR CIP PROJECT

1.	Reliability	Adds additional reliability and resiliency to the West Hills pumping system.
2.	Timing	Provides pumping capacity to meet the demands of the projected growth in the West Hills area.
3.	Asset Condition	The pump station will replace the existing Sunset Pump Station which is aging.

PROJECT DESCRIPTION

Design, and construction of new Rosander Pump Station and 1,400 ft. of 24" discharge line to connect to existing 12" and 16" transmission lines near SW 84th. This project has been postponed until after 2024. It is intended to be constructed at the same time as the 2nd Rosander Reservoir.

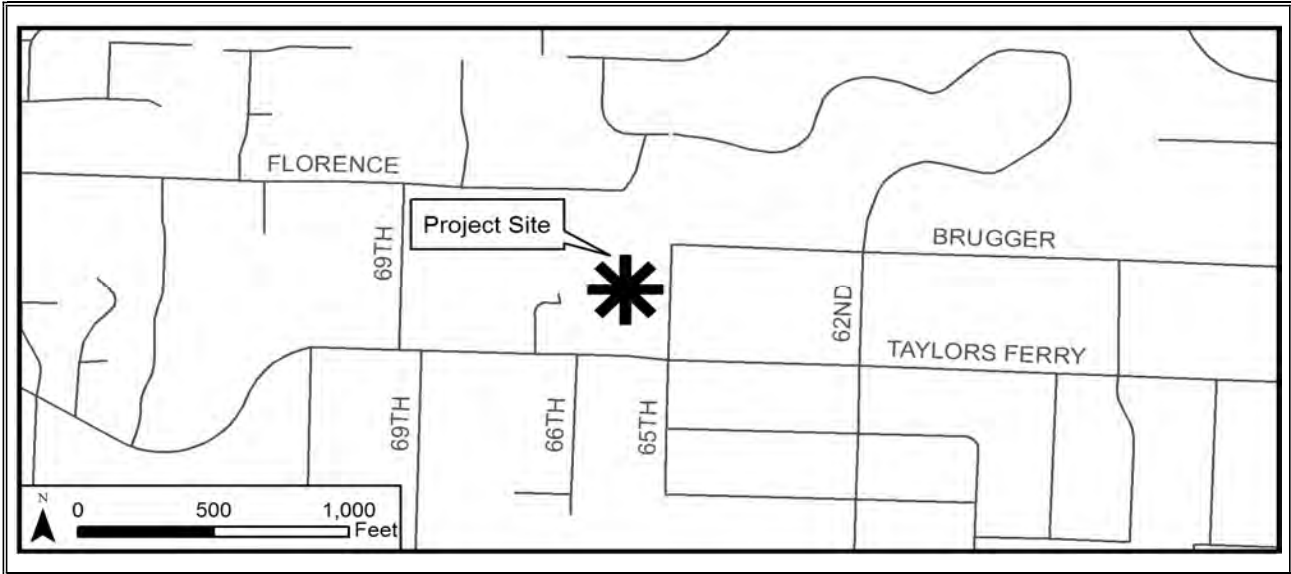
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pump Station	Water Rates:	Yes	The new pump station will replace the Sunset Pump Station and slightly lower the District's maintenance costs in the near-term.
Project Manager:	Andrew Barrett	Service Fees:	No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%	
Total Priority Score:	28	Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	-	-	1,260,000	1,260,000	1,960,000

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Taylors Ferry Booster Pump Station



KEY DRIVERS FOR CIP PROJECT

1.	Timing	These improvements need to be done prior to 2026 in order to receive water from the WWSS.
2.	Reliability	The improvements will allow for reliable, seismically resilient supply to the 643 PZ.
3.	Customer Criticality	This project serves the 643 pressure zone.

PROJECT DESCRIPTION

Pump station and improvements on the Taylor's Ferry site to pump from the 498 zone to the 643 zone. This will allow the entire Metzger system to be served from the WWSS in 2026.

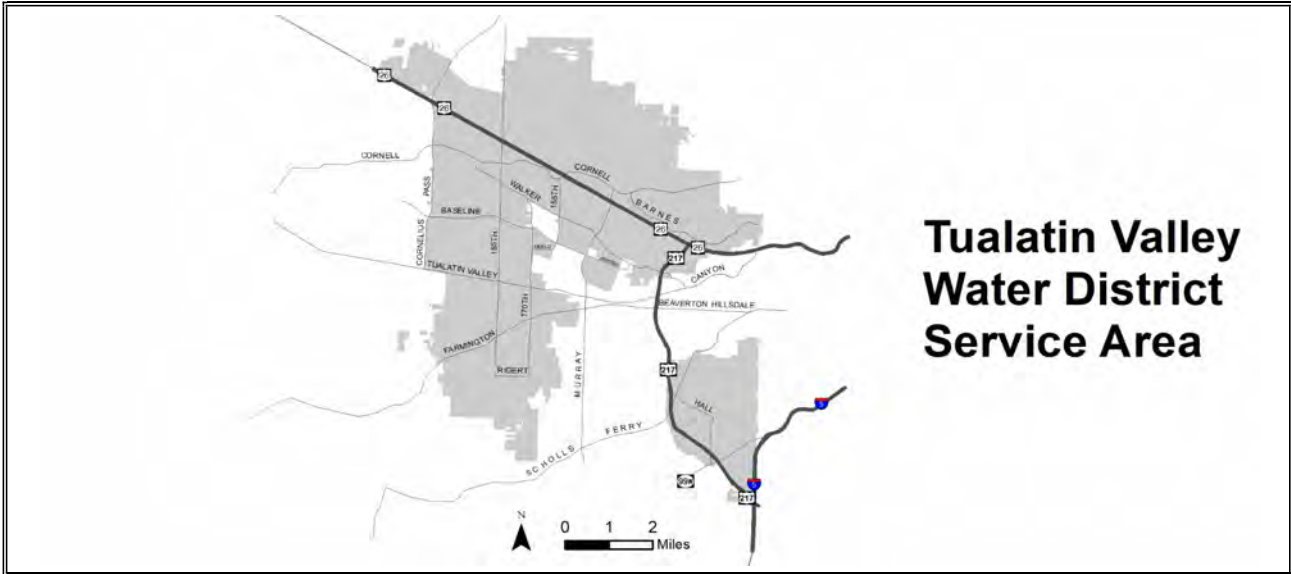
PROJECT INFORMATION		FUNDING SOURCES	FUTURE OPERATING COST IMPACT
Project Category:	Pump Station	Water Rates: Yes	Operating costs for pumping to the 643 pressure zone will increase, but will be offset by the District supplying the zone.
Project Manager:	Andrew Barrett	Service Fees: No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.: 0%	
Total Priority Score:	18	Partner Cost Percentage: 0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
75,000	75,000	62,100	214,000	781,500	-	-	-	1,057,600	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: SCADA / PLC / Shakealert Upgrades



**Tualatin Valley
 Water District
 Service Area**

KEY DRIVERS FOR CIP PROJECT

1.	Reliability	The updated SCADA system, coupled with the upgrades for Shakealert will protect the District in the event of an earthquake and will maintain reliable service.
2.	Safety / Security	The safety and security of the district relies on up to date SCADA software.
3.	Asset Condition	It is important to maintain the controls system up to date with technology.

PROJECT DESCRIPTION

The SCADA Master Plan is being done to upgrade and improve the SCADA system which allows operators to control the water system. Included in this are upgrades to programming and implementation of the Shakealert earthquake early warning system.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pump Station	Water Rates:	Yes	No anticipated impact to operating costs.	
Project Manager:	Pete Boone	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	21	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	305,500	535,500	1,110,000	-	-	-	1,951,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: 189th Pump Station Upgrades



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	The existing pump station is aging and in need of upgrades.
2.	Reliability	The existing pump station is the main source of supply for all of the Cooper Mountain customers and is essential to maintain.
3.	Timing	The project cannot be done until a second source is available for the Cooper Mountain area. Any major shutdown is expected in the winter months only.

PROJECT DESCRIPTION

The 189th pump station is aging and is in need of upgrades to the pump station, including backup power upgrades. Further evaluation of the pump station will occur in the coming biennium, followed by design and construction.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pump Station	Water Rates:	Yes	No anticipated impact to operating costs.	
Project Manager:	Zach Lemberg	Service Fees:	No		
Work Performed By:	Contract & District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	23	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	32,100	277,000	1,720,000	-	-	2,029,100	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Pump Replacement Program



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	The District has pumps that are in need of replacement due to their deteriorating condition.
2.	Cost Effectiveness / Community Benefit	These replacements will allow the District to maintain the pump stations in proper working order.
3.	Reliability	This will allow for reliable service.

PROJECT DESCRIPTION

This program is intended to replace aging existing pumps as they approach the end of their useful life. The budget assumes replacing 2 pumps per year and an average asset life of 30 years.

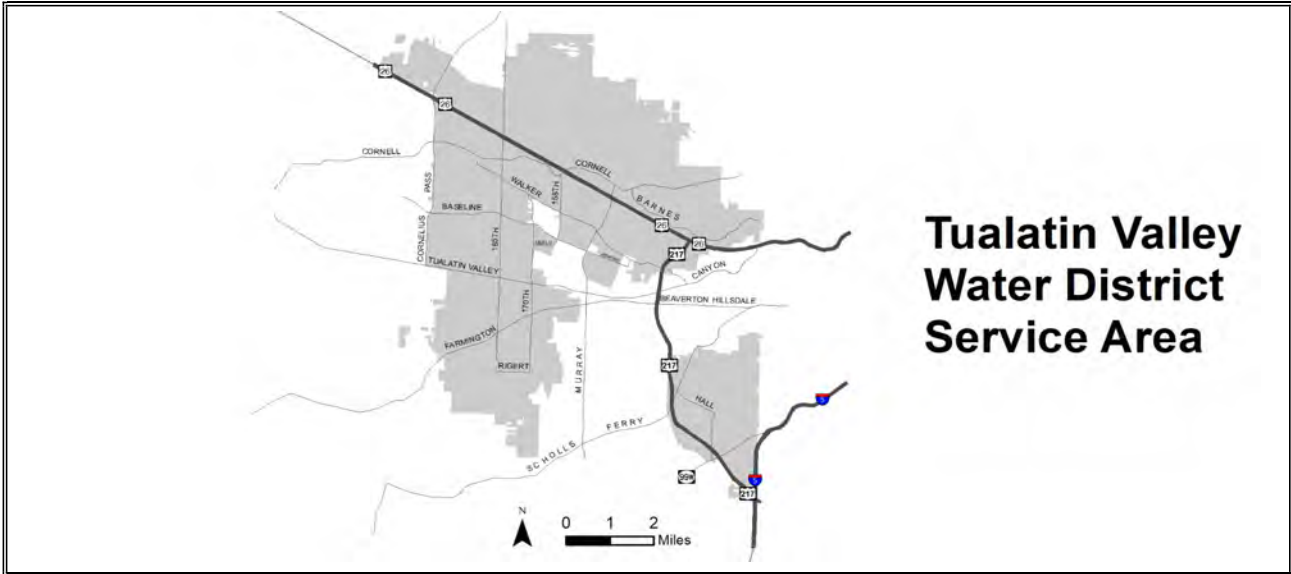
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pump Station	Water Rates:	Yes	Potential for a slight decrease in operating costs due to newer, more efficient pumps.	
Project Manager:	Ryan Smith	Service Fees:	No		
Work Performed By:	District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	21	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
252,500	50,000	133,000	137,500	142,500	147,500	152,500	158,000	871,000	5,633,500

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Mains Replacement Program - Unidentified Projects



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Replacement of aging infrastructure to provide new resilient pipelines capable of providing long-term, reliable service.
2.	Reliability	Improvements required to maintain reliable and seismically resilient facilities.
3.	Safety / Security	Enhances safety by improving level of service for customers and providing safe, reliable drinking water.

PROJECT DESCRIPTION

This work includes projects that are completed as part of the District's Mains Replacement Program. This program is a focused effort to identify, prioritize, design, and replace pipelines based on asset management priorities and recommendations to replace existing failing infrastructure. These projects are water main replacements that are required due to corrosion, or other identified aging condition of the existing water mains. Improvements will result in improved reliability and water quality as well as reduced liability associated with premature pipe failures and leaks.

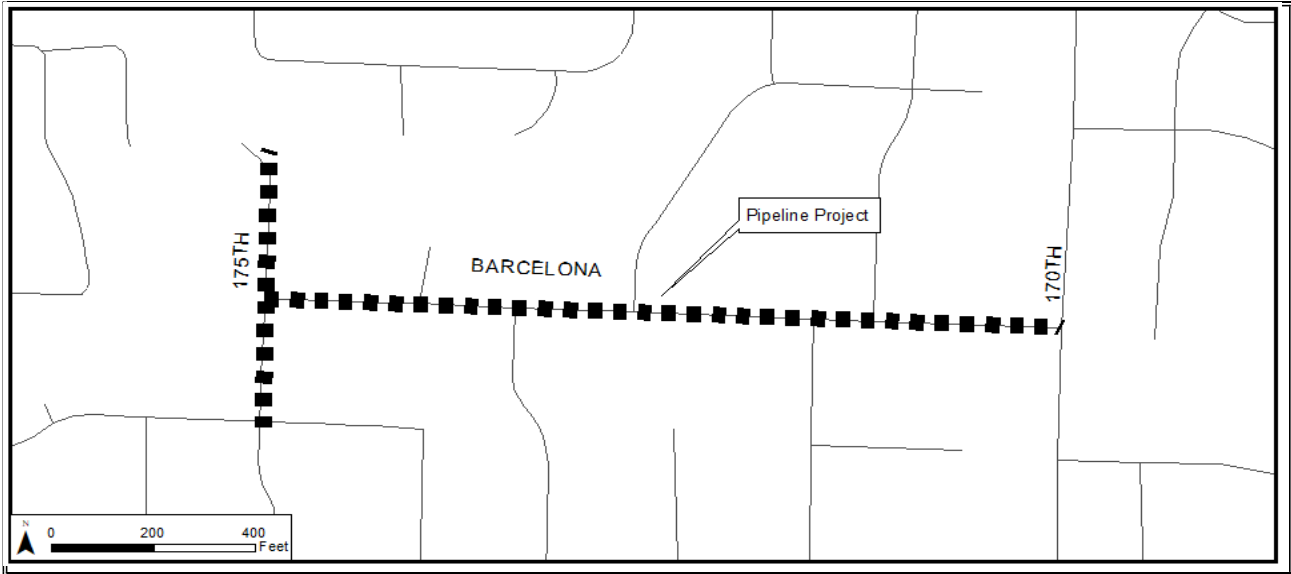
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	There may be a slight reduction in operating costs due to reduced main breaks. Updated standards require a higher level of cathodic protection than previous standards. Site specific corrosion conditions are also evaluated with the intent of extending the life of the new pipeline.	
Project Manager:	Various	Service Fees:	No		
Work Performed By:	Contract & District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	25	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
3,765,000	2,000,000	1,760,000	1,820,000	1,885,000	1,950,000	2,020,000	2,090,000	11,525,000	368,670,000

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: SW Barcelona Way Main Replacement



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Replacement of aging infrastructure to provide new resilient pipelines capable of providing long-term, reliable service.
2.	Reliability	Improvements required to maintain reliable and seismically resilient facilities.
3.	Safety / Security	Enhances safety by improving level of service for customers and providing safe, reliable drinking water.

PROJECT DESCRIPTION

This pipe was identified for replacement as part of the mains replacement program. The pipe was installed in 1977 as Cast Iron pipe with leaks noting rotten pipe, and shear breaks.

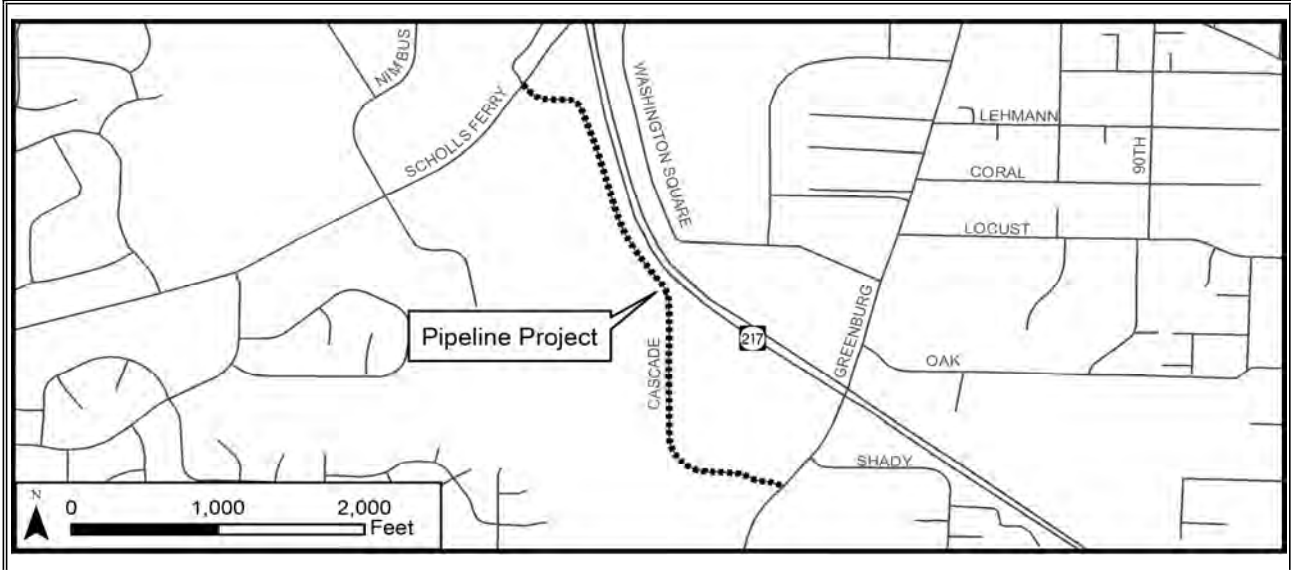
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	Potential for a slight decrease in operating costs due to fewer leak repairs.	
Project Manager:	Mohammad Ahmad	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvem. Fee Elg.:	0%		
Total Priority Score:	18	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	-	822,500	-	822,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: SW Cascade Ave / Greenburg / Moore Furniture



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Replacement of aging infrastructure to provide new resilient pipelines capable of providing long-term, reliable service.
2.	Reliability	Improvements required to maintain reliable and seismically resilient facilities.
3.	Safety / Security	Enhances safety by improving level of service for customers and providing safe, reliable drinking water.

PROJECT DESCRIPTION

This project consists of approximately 4,000 feet of 12-inch pipe. It is ranked high on the priority list due to corrosion leaks observed, and the impact it has in a high traffic, commercial area.

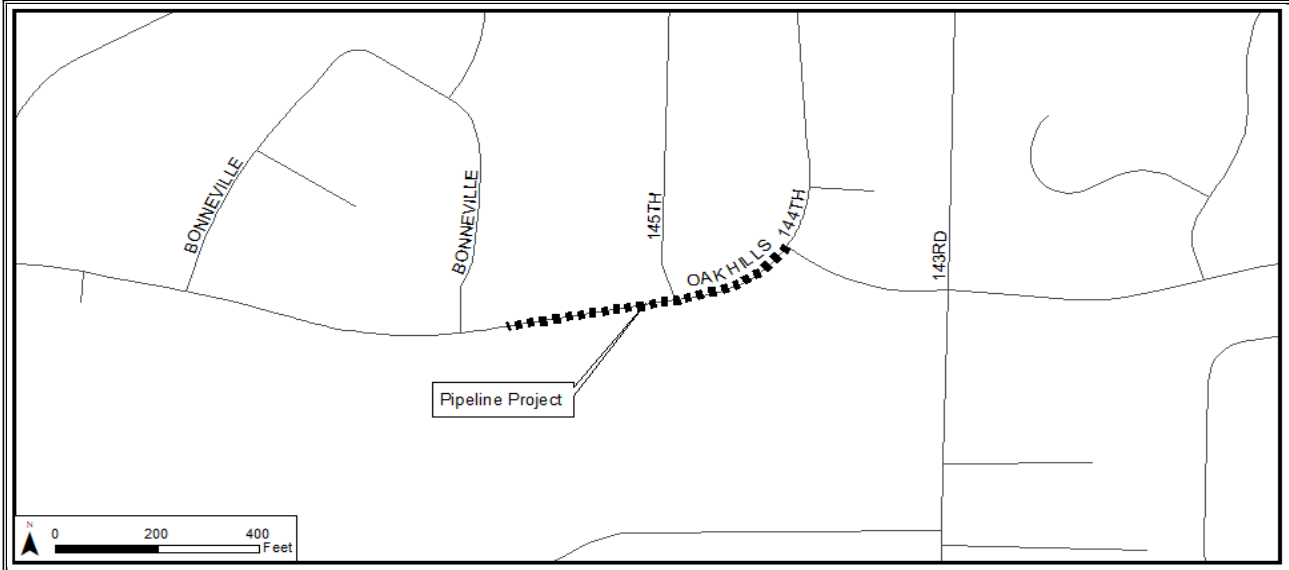
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	Potential for a slight decrease in operating costs due to fewer leak repairs.	
Project Manager:	Eric George	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	24	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	2,480,000	-	-	2,480,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: NW Oak Hills Dr - Bonneville Lp to 145th



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Replacement of aging infrastructure to provide new resilient pipelines capable of providing long-term, reliable service.
2.	Reliability	Improvements required to maintain reliable and seismically resilient facilities.
3.	Safety / Security	Enhances safety by improving level of service for customers and providing safe, reliable drinking water.

PROJECT DESCRIPTION

This main replacement project was identified as part of the Oak Hills neighborhood which has seen a number of large corrosion related main breaks in recent years. In 2020 a large portion of the adjacent main was replaced. This portion will complete the replacement along Oak Hills Dr to 145th.

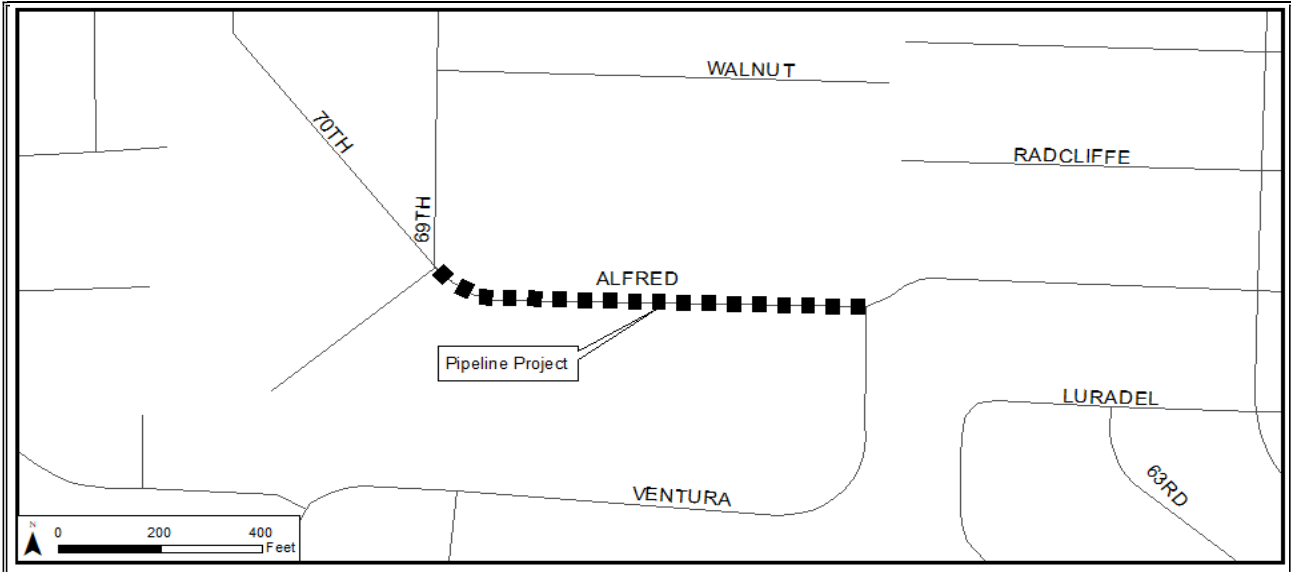
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	Potential for a slight decrease in operating costs due to fewer leak repairs.	
Project Manager:	Mohammad Ahmad	Service Fees:	No		
Work Performed By:	District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	25	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	329,000	-	-	-	-	329,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Alfred St Main Replacement and Upgrade



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Replacement of aging infrastructure to provide new resilient pipelines capable of providing long-term, reliable service.
2.	Reliability	Improvements required to maintain reliable and seismically resilient facilities.
3.	Safety / Security	Enhances safety by improving level of service for customers and providing safe, reliable drinking water.

PROJECT DESCRIPTION

This main replacement project was identified as part of the fireflow upgrades being done in the Metzger service area. The original intent was to complete this project as part of the Metzger N-S improvements, however, the alignment for that project was evaluated and was moved to the west, making this project less desirable to construct as part of that project. The area along Alfred St currently has lower than desired fireflow. This main replacement is planned to increase the line size to meet current fireflow standards.

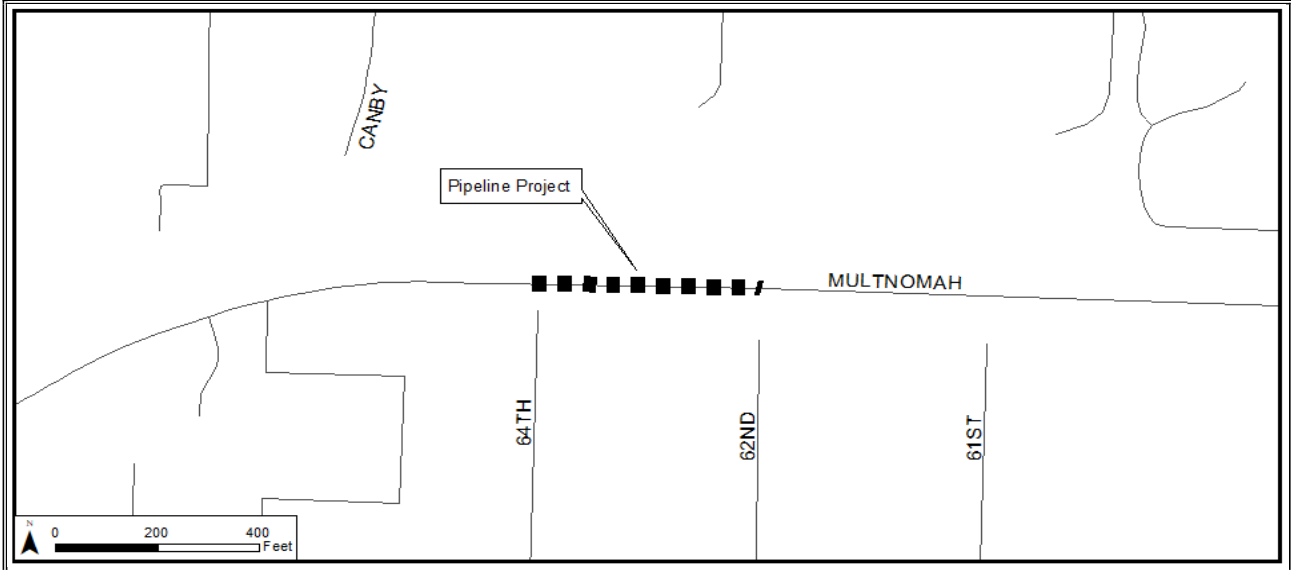
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	Operating costs will be slightly reduced due to new piping and less potential for leak repairs.	
Project Manager:	Sarah Alton	Service Fees:	No		
Work Performed By:	District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	25	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	430,500	-	-	-	-	-	430,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Multnomah Blvd 12-inch Connection



KEY DRIVERS FOR CIP PROJECT

1.	Water Quality	The Garden Home Reservoir struggles to maintain chlorine residual in the reservoir and is difficult to have water turnover. This project will force fresh water into the reservoir, allowing the District to maintain high water quality in the northern end of the Metzger system.
2.	Customer Criticality	There are a large number of customers served from the reservoir and would be impacted by improved water quality.
3.	Reliability	This project will increase the reliability of the new WWSS entering the Metzger system.

PROJECT DESCRIPTION

This project is being done in order to move water from the WWSS directly to Garden Home Reservoir to be able to cycle the reservoir with fresh water. The reservoir currently requires a connection to Portland to push water into the reservoir to force turnover. Once the WWSS is online, the District desires to maintain this type of arrangement with WWSS water, and this project will allow for that connection. The project includes pipeline and may require an additional control valve and vault.

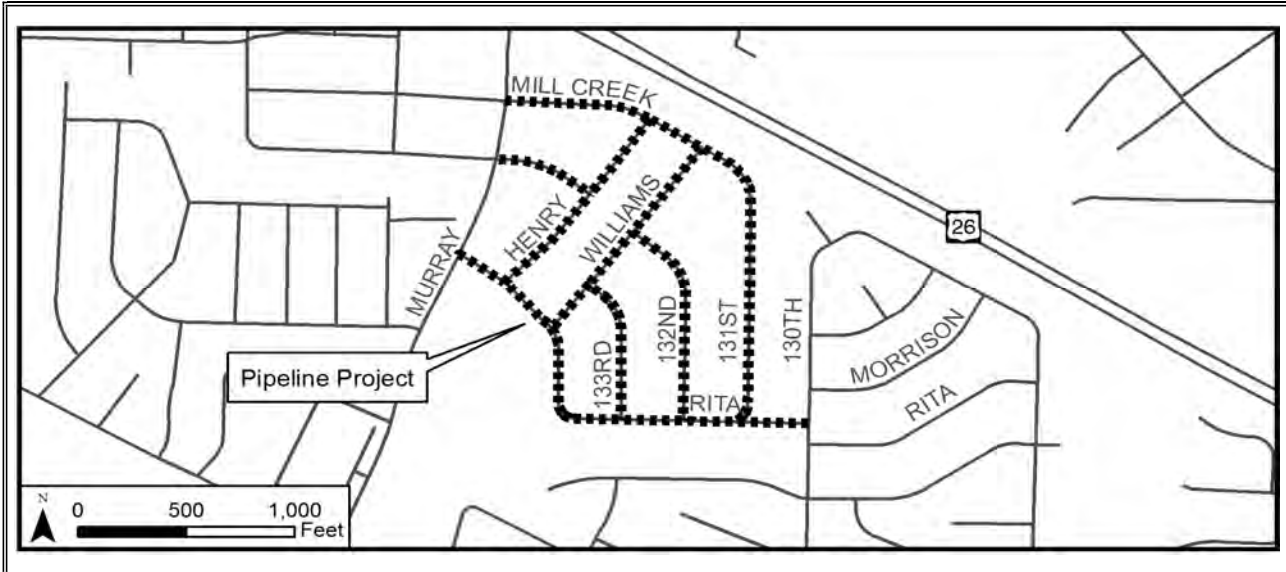
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	Adding piping to the system will slightly increase the operating costs of the system.	
Project Manager:	Zach Lemberg	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	20	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	658,500	-	-	-	658,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Williams - Rita - Mains replacement



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Pipelines in the area have had multiple leaks. Though the majority have been shear breaks, the main is also old, and requires some additional capacity due to fire flow.
2.	Reliability	Lead-joints are not a good restraint for seismic events. They need to be replaced with pipelines which account for the seismic vulnerabilities.
3.	Water Quality	Areas with lead joints have been identified as potential replacement projects. Further research is being done to determine if the lead joints have potential to be a water quality concern.

PROJECT DESCRIPTION

The existing pipe is aging, has lead-joints, and has had several breaks. The existing pipe was installed in 1949. This project consists of a total of approximately 9,200 LF of 8-inch main being upgraded from 6-inch pipe in accordance with updated District standards.

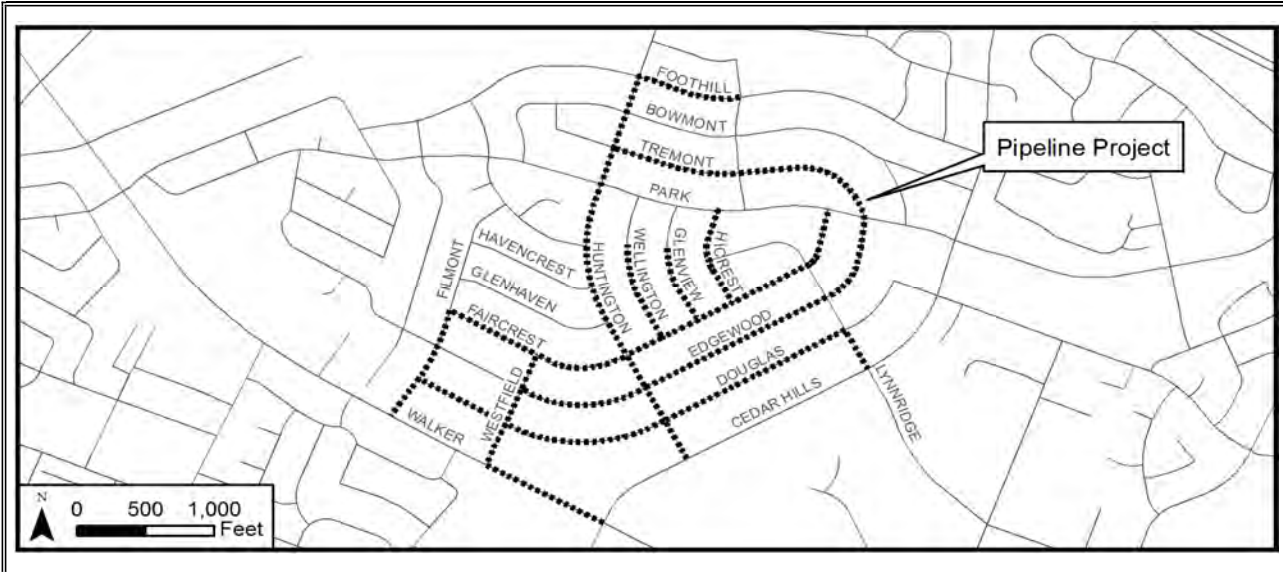
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No material impact. Perhaps a slight decrease in operating expenses due to reduced main breaks.	
Project Manager:	Nick Augustus	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	22	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	3,800,000	-	-	3,800,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Tremont & Huntington - Mains replacement



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Pipelines in the area have had multiple leaks. Though the majority have been shear breaks, the main is also old, and requires some additional capacity due to fire flow.
2.	Project Urgency	Lead-joints are not a good restraint for seismic events. They need to be replaced with pipelines which account for the seismic vulnerabilities.
3.	Water Quality	Areas with lead joints have been identified as potential replacement projects. Further research is being done to determine if the lead joints have potential to be a water quality concern.

PROJECT DESCRIPTION

The existing pipe is aging, has lead-joints, and has had several breaks. The existing pipe was installed between 1946 and 1950. This project consists of a total of approximately 3,120 LF of 4-inch main, 38,625 LF of 8-inch main to replace existing 6-inch and 8-inch pipe, and 3,430 LF of 12-inch main to replace existing 10-inch and 12-inch pipe in accordance with District standards.

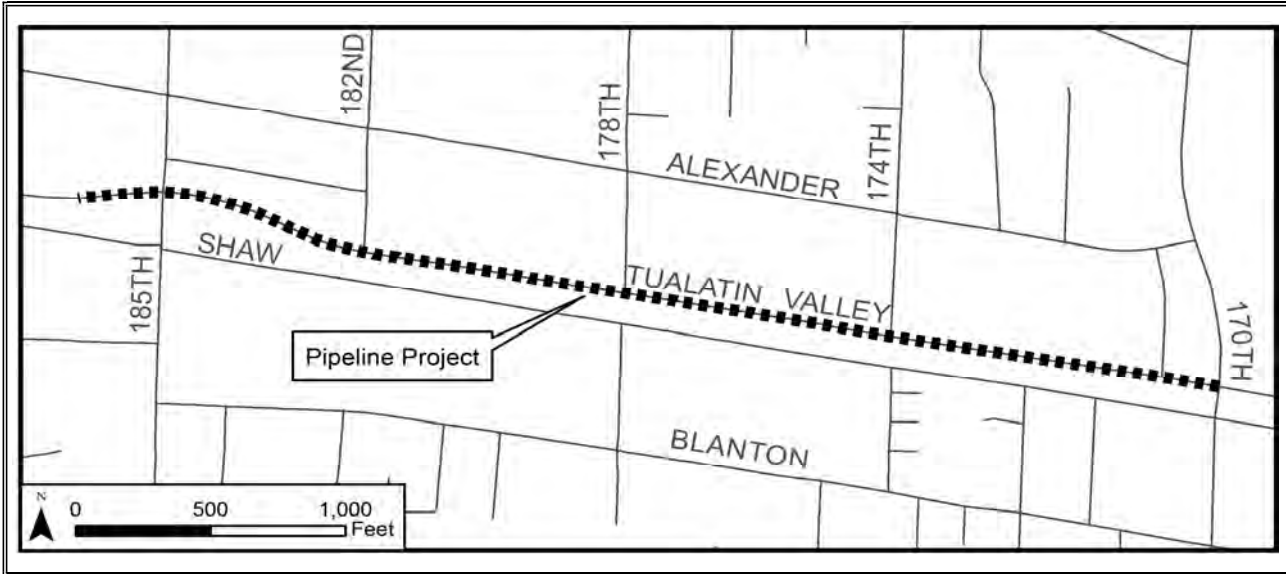
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No material impact. Perhaps a slight decrease in operating expenses due to an anticipated reduction in main breaks.	
Project Manager:	Nick Augustus	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	22	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	1,665,000	1,720,000	2,375,000	4,915,000	10,675,000	7,065,000

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: SW Tualatin Valley Hwy - 185th to Elliott Pl



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	The pipeline was observed to be in poor condition and in need of replacement.
2.	Reliability	The replacement piping will add resiliency to the District system in that area.
3.	Customer Criticality	The pipeline serves a signification number of customers including several commercial customers.

PROJECT DESCRIPTION

This project ranks high in the mains replacement program due to the condition observed at various locations during service installations. It is also in a high traffic corridor with a high consequence of failure.

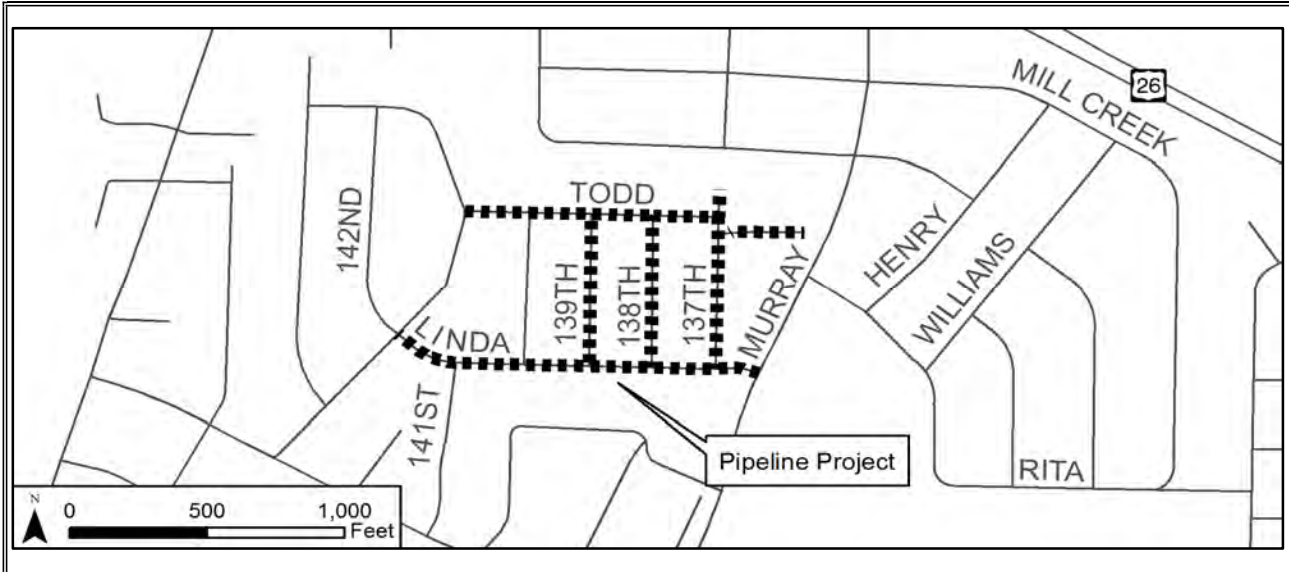
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No material impact. Perhaps a slight decrease in operating expenses due to an anticipated reduction in main breaks.	
Project Manager:	TBD	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	24	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
988,500	-	-	-	-	-	-	1,215,000	1,215,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Todd St & Linda Ln - Mainline Replacement & Upgrade



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Pipelines in the area have had multiple leaks. Though the majority have been shear breaks, the main is also old, and requires some additional capacity due to fire flow.
2.	Reliability	Lead-joints are not a good restraint for seismic events. They need to be replaced with pipelines which account for the seismic vulnerabilities.
3.	Water Quality	Areas with lead joints have been identified as potential replacement projects. Further research is being done to determine if the lead joints have potential to be a water quality concern.

PROJECT DESCRIPTION

The existing pipe is lead-jointed, has had several breaks, and is deficient for fire flow. This project consists of a total of approximately 4,400 LF of 8-inch main, 1,650 of which is being upgraded from 4-inch, and the remaining 2,750 being upgraded from 6-inch.

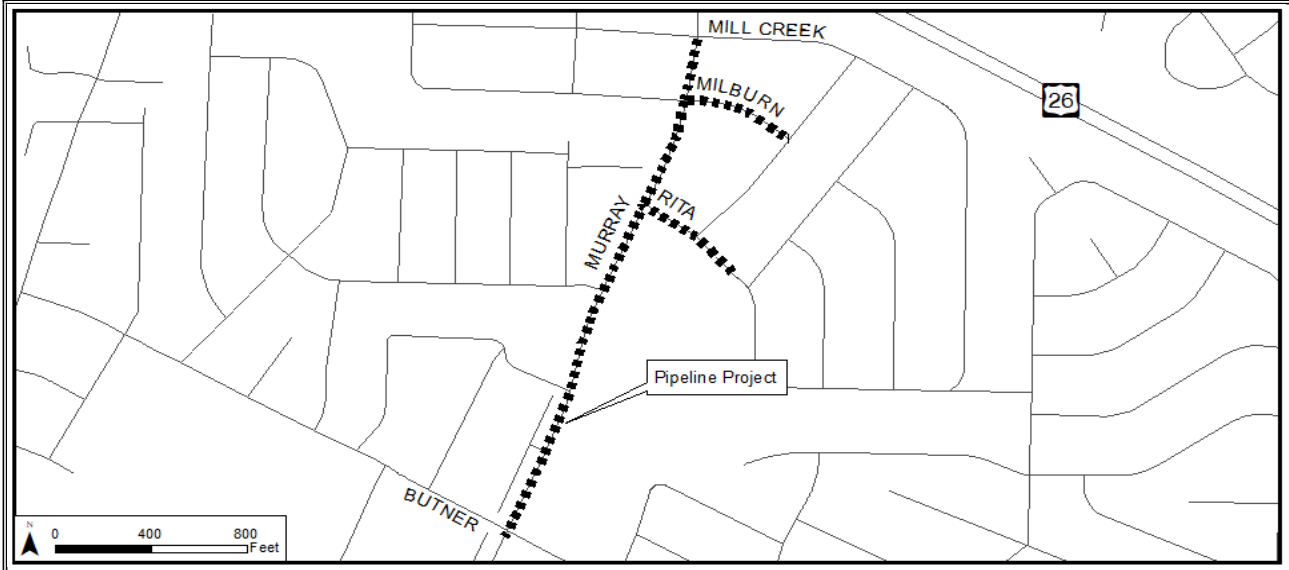
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No material impact. Perhaps a slight decrease in operating expenses due to reduced main breaks.	
Project Manager:	Nick Augustus	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	24	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
1,145,000	-	-	1,510,000	-	-	-	-	1,510,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Murray Blvd Main Replacement - Downing to Mill Creek



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Pipelines in the area have had multiple leaks. Though the majority have been shear breaks, the main is also old, and requires some additional capacity due to fire flow.
2.	Reliability	Lead-joints are not a good restraint for seismic events. They need to be replaced with pipelines which account for the seismic vulnerabilities.
3.	Water Quality	Areas with lead joints have been identified as potential replacement projects. Further research is being done to determine if the lead joints have potential to be a water quality concern.

PROJECT DESCRIPTION

The existing pipe is lead-jointed and was installed in 1949. This project consists of a total of approximately 3,500 LF of 8-inch main to be replaced.

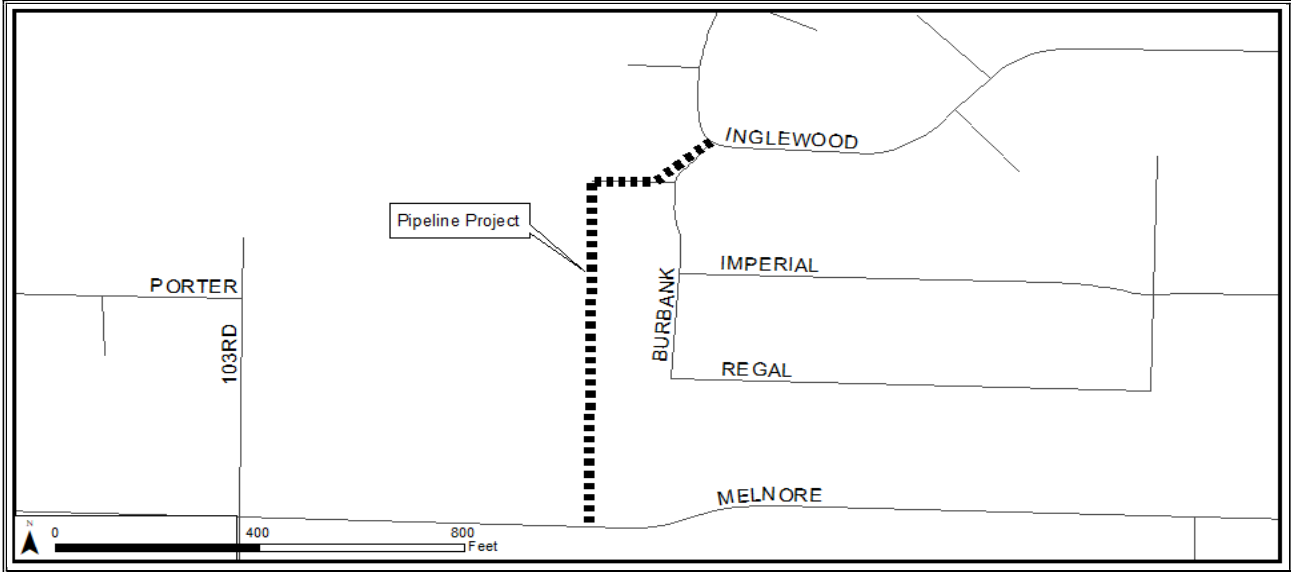
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No material impact. Perhaps a slight decrease in operating expenses due to reduced main breaks.	
Project Manager:	Nick Augustus	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	22	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	-	1,495,000	-	1,495,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Ridgewood View - Inglewood to Melnore Main Improvement



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Pipelines in the area have had multiple leaks, and there is risk that a single point of failure would disrupt service to roughly 400 homes.
2.	Timing	Lead-joints are not a good restraint for seismic events, which adds to the risk of a potential failure. This project should occur near term to reduce the risk for this area.
3.	Reliability	This project will greatly benefit the reliability of service to customers to include a 2nd reliable connection.

PROJECT DESCRIPTION

The neighborhood along Melnore and to the south is served by a single pipeline in Scenic Drive that was installed in 1960 and serves over 400 parcels. This project adds 1,150 - LF of 8-inch piping as a second feed to that neighborhood, thus adding resilience. Currently a second feed exists, however, it is off due to the fact that it is located beneath a home and would be of greater risk to operate.

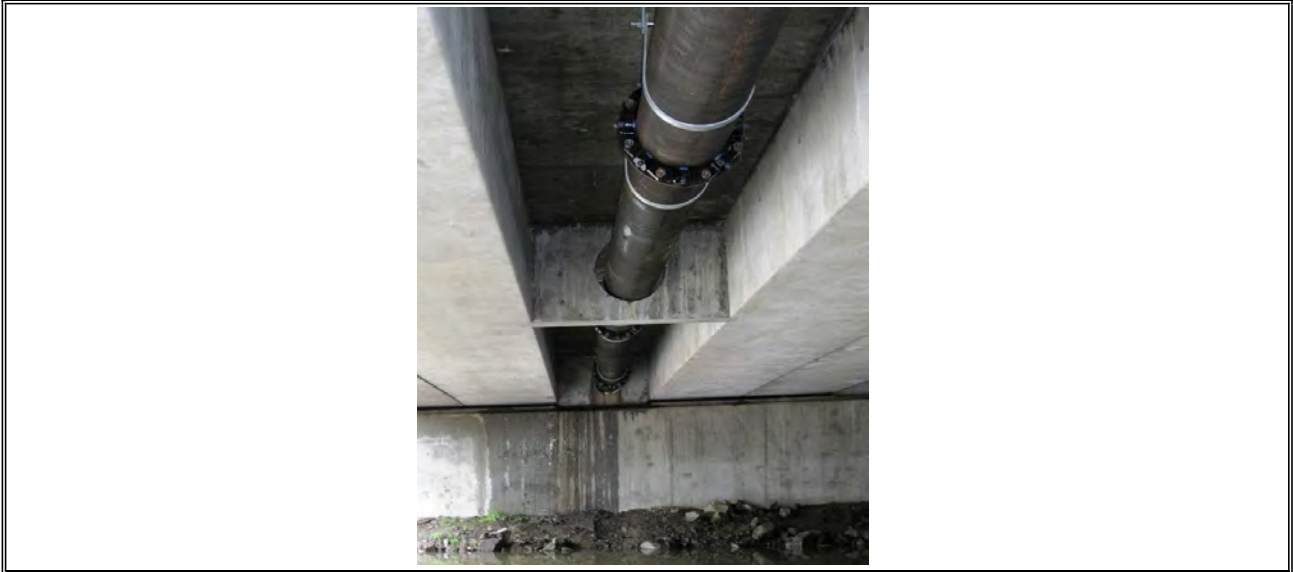
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No material impact. Perhaps a slight decrease in operating expenses due to reduced main breaks.	
Project Manager:	Nick Augustus	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	20	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	-	-	452,500	452,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Unidentified Agency-Driven Pipeline Upgrade & Renewal Projects



KEY DRIVERS FOR CIP PROJECT

1.	Timing	Upgrades or renewal work to the District's system that develop in response to new projects by Washington County, other public agencies, developers, or based on other needs.
2.	Asset Condition	Replacement of aging infrastructure to provide new resilient structures capability of providing long-term, reliable service.
3.	Reliability	Improvements required to maintain reliable and seismically resilient facilities.

PROJECT DESCRIPTION

This is a general category that allows for various pipeline upgrades and replacements typically associated with miscellaneous Washington County, other public agency projects, development, or other needs.

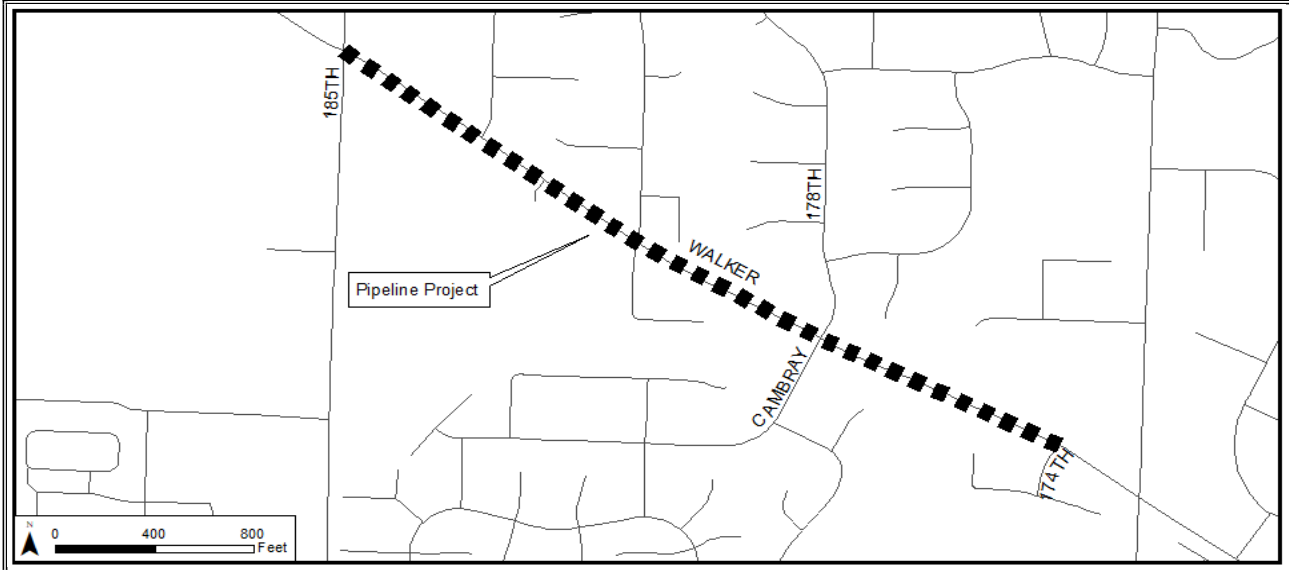
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No material impact. New installations designed for site specific corrosion conditions resulting in longer expected design life of pipeline and reduced leakage for system.	
Project Manager:	Eric George	Service Fees:	No		
Work Performed By:	Contract & District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	15	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
812,300	-	155,500	535,500	1,275,000	1,320,000	1,365,000	1,415,000	6,066,000	50,425,000

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Walker Rd 12" Replacement - 185th to 174th



KEY DRIVERS FOR CIP PROJECT

1.	Timing	The county is performing road work requiring relocations be done by the District to avoid conflicts with the road design. Timing is dependent on the county's overall schedule.
2.	Asset Condition	Replacement of aging infrastructure will provide new resilient structures capable of providing long-term, reliable service.
3.	Reliability	Relocations will be designed to maintain reliable and seismically resilient facilities.

PROJECT DESCRIPTION

This project is driven by a Washington County project to widen and improve this stretch of roadway. The county's work includes significant lowering of a portion of the roadway, and improvements to an existing culvert where the existing grade will be raised. The waterline relocation is being done as part of the overall road project in order to avoid conflicts with the adjusted roadway grade. Approximately 1,560 LF of 12-inch pipe is being replaced.

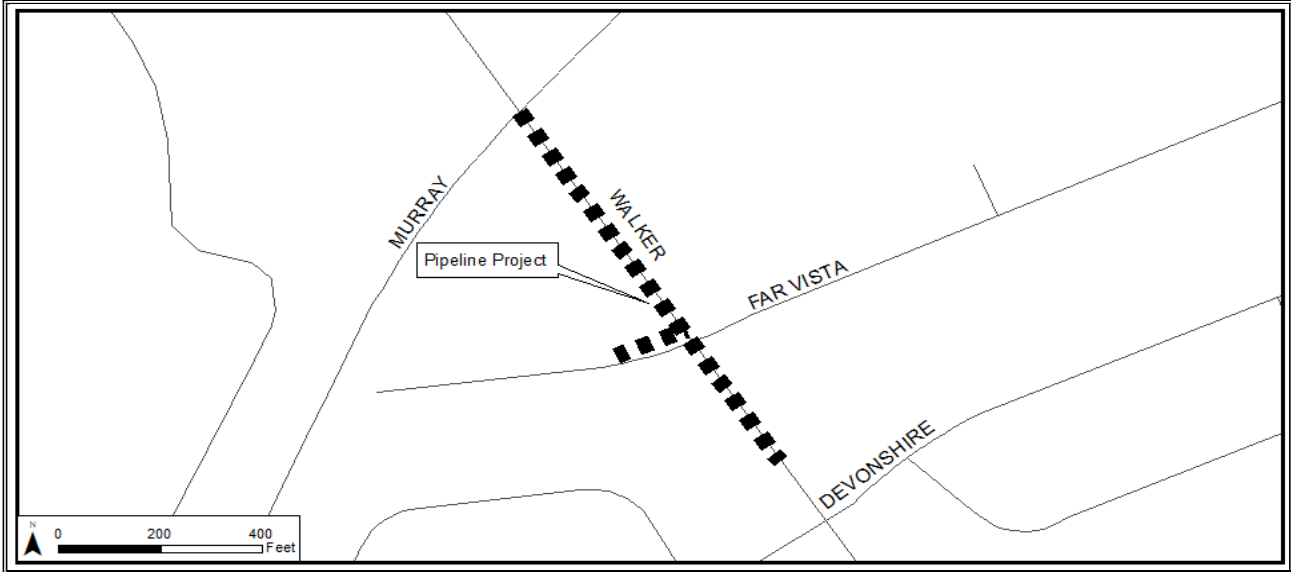
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No material impact. New installations designed for site specific corrosion conditions resulting in longer expected design life of pipeline and reduced leakage for system.	
Project Manager:	Eric George	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	17	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
385,500	-	673,000	-	-	-	-	-	673,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Murray & Walker 42-inch Relocation



KEY DRIVERS FOR CIP PROJECT

1.	Timing	The county is performing road work requiring relocations be done by the District to avoid conflicts with the road design. Timing is dependent on the county's overall schedule.
2.	Asset Condition	Replacement of aging infrastructure will provide new resilient structures capable of providing long-term, reliable service.
3.	Reliability	Relocations will be designed to maintain reliable and seismically resilient facilities.

PROJECT DESCRIPTION

This project is driven by a Washington County project to widen and improve SW Walker Road, east of Murray. The County is replacing a bridge and multiple culverts which requires relocation of multiple pipelines including 8-inch, 12-inch, and 48-inch pipelines. Once complete, this stretch of the District's 48-inch transmission pipeline will be fully resilient and more easily accessible for future maintenance. The length of pipe being relocated includes approximately 295-feet of 8-inch, 845-feet of 12-inch, and 1,177-feet of 42-inch piping. The installation will generally be installed via open-trench methods, but also includes 3 small trenchless sections.

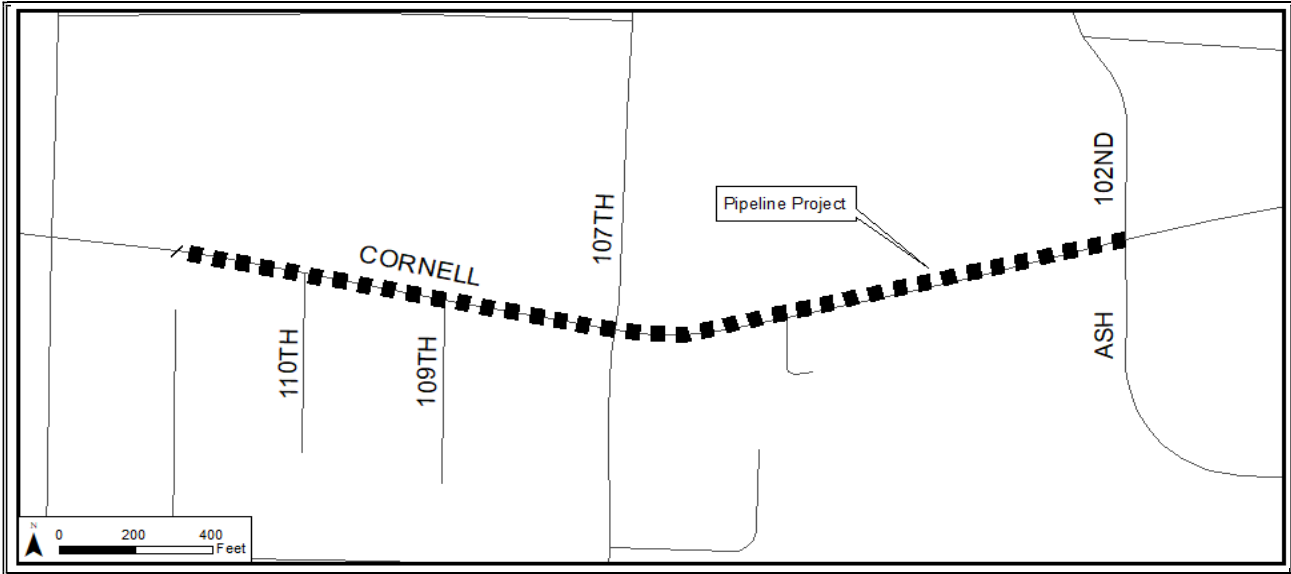
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No material impact. New installations designed for site specific corrosion conditions will result in longer expected design life of pipeline and reduced leakage for system.	
Project Manager:	Eric George	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	25	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	1,954,592	1,555,000	1,930,000	-	-	-	-	3,485,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Cornell 102nd to 114th Main Relocation



KEY DRIVERS FOR CIP PROJECT

1.	Timing	The county is performing road work requiring relocations be done by the District to avoid conflicts with the road design. Timing is dependent on the county's overall schedule.
2.	Asset Condition	Replacement of aging infrastructure will provide new resilient structures capable of providing long-term, reliable service.
3.	Reliability	Relocations will be designed to maintain reliable and seismically resilient facilities. Fireflow is also being improved.

PROJECT DESCRIPTION

This project is driven by a Washington County project to widen and improve SW Cornell Road between 102nd Ave and 114th Ave. The District's work includes relocation and replacement of approximately 2,320-feet of 8-inch piping along NW Cornell Road including various connections. Improvements are also being made to the fireflow to take advantage of the relocation work.

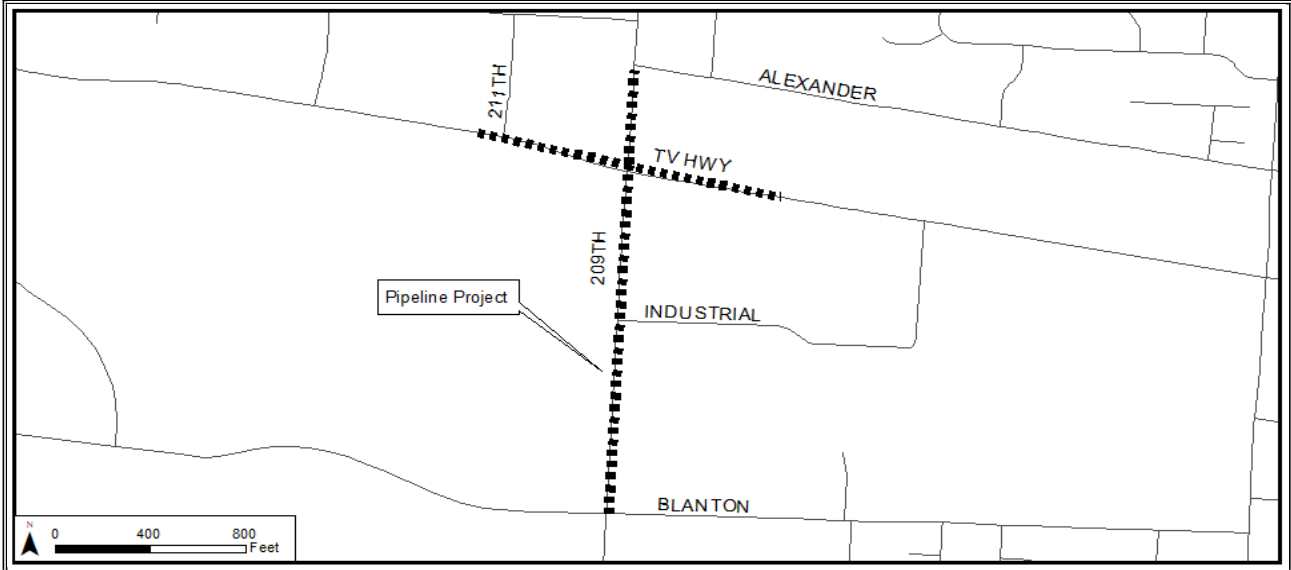
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No material impact. New installations designed for site specific corrosion conditions resulting in longer expected design life of pipeline and reduced leakage for system.	
Project Manager:	Eric George	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	19	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	30,000	828,000	-	-	-	-	-	828,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: TV Hwy at 209th Main Relocation



KEY DRIVERS FOR CIP PROJECT

1.	Timing	The county is performing road work requiring relocations be done by the District to avoid conflicts with the road design. Timing is dependent on the county's overall schedule.
2.	Asset Condition	Replacement of aging infrastructure will provide new resilient structures capable of providing long-term, reliable service.
3.	Reliability	Relocations will be designed to maintain reliable and seismically resilient facilities.

PROJECT DESCRIPTION

This project is driven by a Washington County project to widen and improve TV Highway and SW 209th Ave. The District's work includes relocation and replacement of an aging 10-inch main along TV Highway and relocation of 12-inch, 18-inch, and 30-inch piping along SW 209th Ave required due to the storm drain improvements. The total length of piping being replaced or relocated is approximately 3,200-feet.

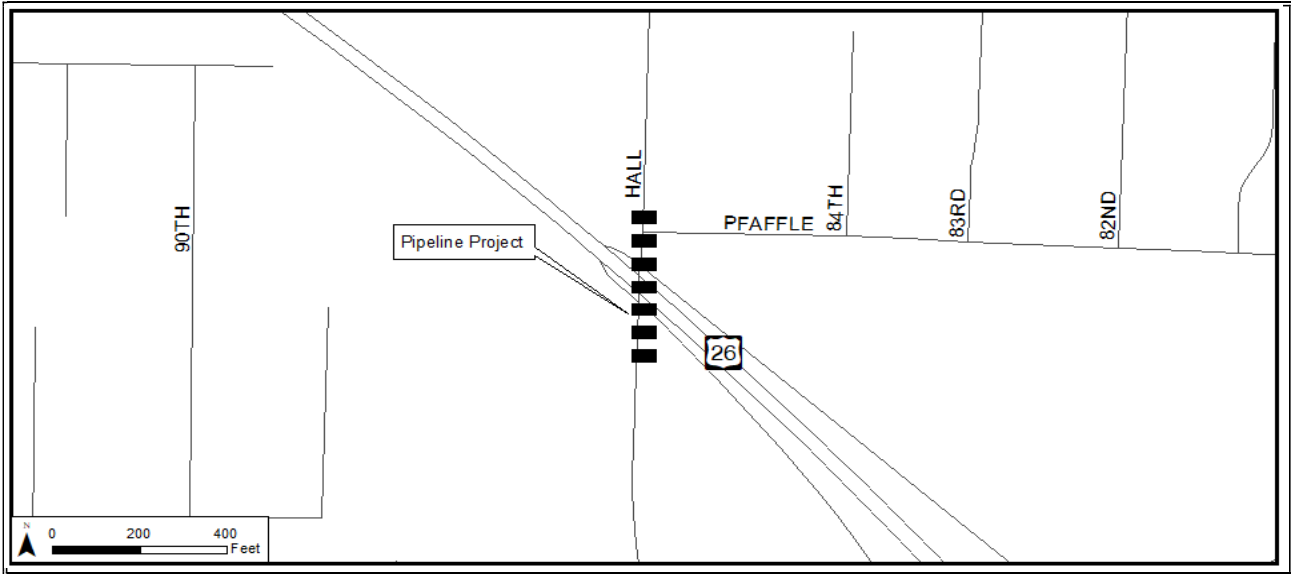
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No material impact. New installations designed for site specific corrosion conditions resulting in longer expected design life of pipeline and reduced leakage for system.	
Project Manager:	Eric George	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	19	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	621,000	455,500	-	-	-	-	1,076,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Hall Blvd over Hwy 217



KEY DRIVERS FOR CIP PROJECT

1.	Timing	ODOT is replacing the southern Hall Blvd bridge crossing over Hwy 217, requiring relocations be done by the District to allow the bridge to be removed and replaced. Timing is dependent on ODOT's overall schedule.
2.	Asset Condition	Replacement of aging infrastructure will provide new resilient structures capable of providing long-term, reliable service.
3.	Reliability	Relocations will be designed to maintain reliable and seismically resilient facilities.

PROJECT DESCRIPTION

This project is driven by ODOT which will be replacing the southern Hall Blvd bridge over Hwy 217. The District's work includes replacing the existing approximately 400-feet of 12-inch waterline across the bridge. This work will be done as part of the bridge work near the end of the upcoming Hwy 217 widening.

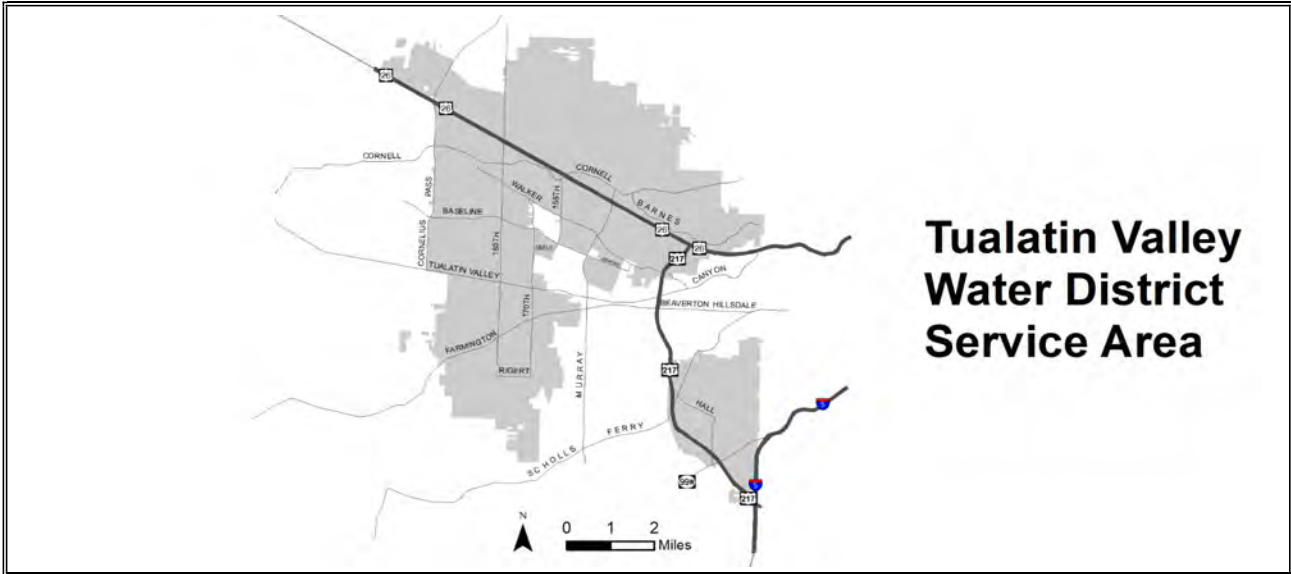
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No material impact. New installations designed for site specific corrosion conditions resulting in longer expected design life of pipeline and reduced leakage for system.	
Project Manager:	Mohammad Ahmad	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	19	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	20,000	248,500	-	-	-	-	-	248,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Unidentified Water Quality Upgrades & Renewals



**Tualatin Valley
 Water District
 Service Area**

KEY DRIVERS FOR CIP PROJECT

1.	Water Quality	Projects are anticipated to improve chlorine residual or other water quality related measures.
2.	Customer Criticality	Projects could potentially impact a large portion of the District.
3.	Cost Effectiveness / Community Benefit	Projects are anticipated to be low-cost measures with significant added benefit to reduce the potential for water quality related events.

PROJECT DESCRIPTION

This is a general project category to implement Water Quality Upgrades as identified by the Water Quality task force. These projects could include jumpers, auto-flushers, sample stations, or other items that will continue to improve and maintain water quality in the District.

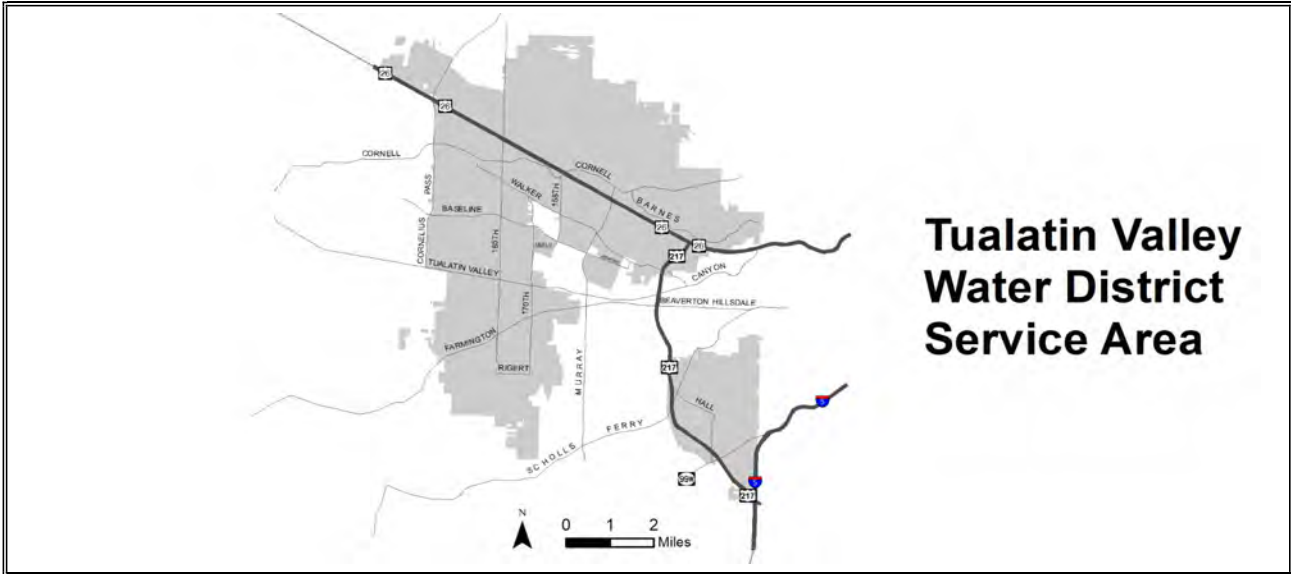
PROJECT INFORMATION		FUNDING SOURCES	FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates: 0	No material impact on operating costs is anticipated.
Project Manager:	Joel Cary	Service Fees: 0	
Work Performed By:	Contract & District Staff	SDC Improvemt. Fee Elg.: 0%	
Total Priority Score:	21	Partner Cost Percentage: 0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	103,500	107,000	111,000	115,000	119,000	123,000	678,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Unidentified Development Opportunity & Reimbursement Projects



**Tualatin Valley
 Water District
 Service Area**

KEY DRIVERS FOR CIP PROJECT

1.	Cost Effectiveness / Community Benefit	The District has benefitted from significant cost savings by partnering with development projects to upgrade, replace, or install new pipelines that have been identified as recommended improvements in the 2018 Master Plan Update.
2.	Reliability	Having funding available to participate in opportunity projects will allow the District to construct resilient backbone pipelines and other recommended improvements such as fireflow.
3.	Asset Condition	Having funding available to participate in opportunity projects will allow the District to replace failing pipelines.

PROJECT DESCRIPTION

This is a general project category to implement the 2018 Water Master Plan Update. Specifically, the project will be used to partner with other agencies and developers to install or replace pipelines and other infrastructure as identified in the 2018 Water Master Plan Update or other planning studies to provide fire flow improvements, replace aging infrastructure, or provide resilient backbone piping. By partnering with other projects, significant cost saving can be realized.

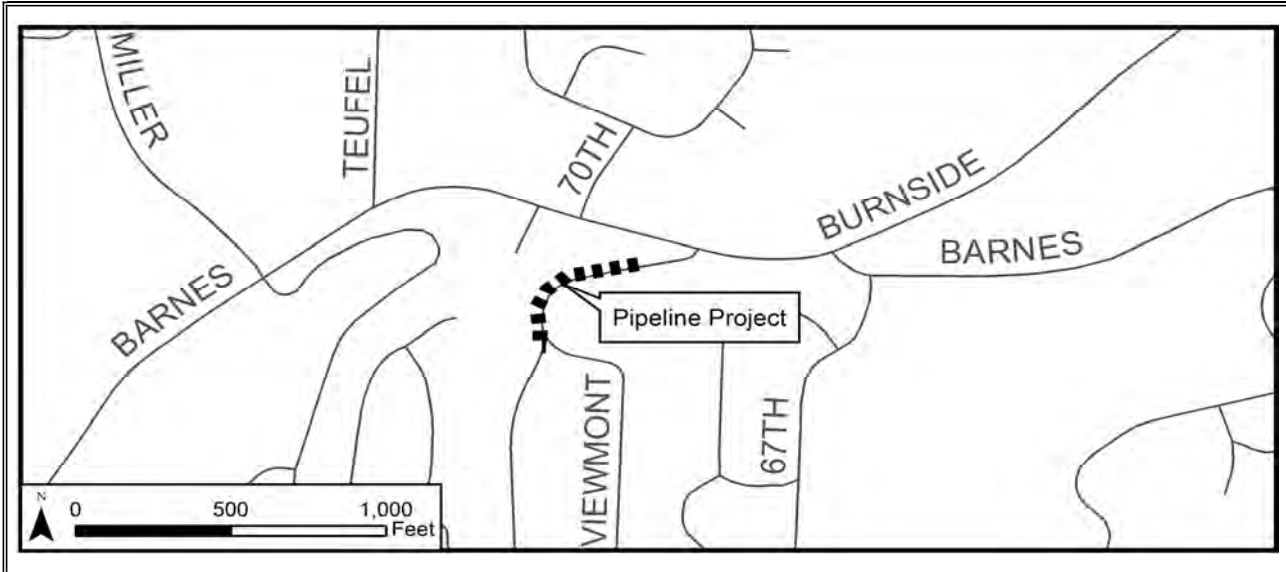
PROJECT INFORMATION		FUNDING SOURCES	FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates: Yes Service Fees: No	No anticipated impact on District operating costs.
Project Manager:	Sarah Alton	SDC Improvemt. Fee Elg.: Various	
Work Performed By:	Outside Contract	Partner Cost Percentage: 0%	
Total Priority Score:	26		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
527,000	268,000	277,000	287,000	297,000	307,500	318,000	329,000	1,815,500	11,741,500

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: P-80 - Viewmont Dr south of Barnes



KEY DRIVERS FOR CIP PROJECT

1.	Safety and Security	These improvements address fire flow deficiencies that have been identified through the Master Planning process.
2.	Timing	These were prioritized during the Master Planning process and need to be completed in a timely manner.
3.	Reliability	Fire flow projects will address both current and anticipated fire flow demands.

PROJECT DESCRIPTION

This project consists of replacing existing pipe at Viewmont Dr just south of Barnes Rd for fire flow only. This includes approximately 530 LF of 6-inch upgraded to 8-inch piping.

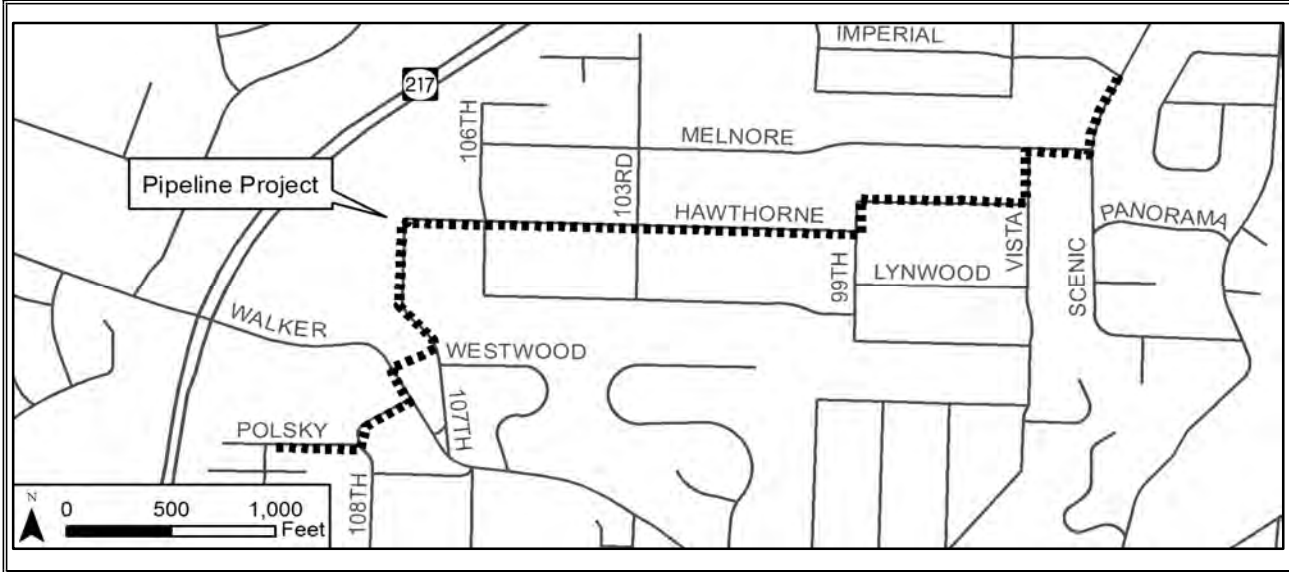
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	As improvements for deficiencies, operating cost impacts are not anticipated. For new pipes and extensions, the District estimates additional operating costs at approx. 0.06% of total capital cost (i.e., \$600 per \$1 million in new pipe segments/extensions) for exercising valves and materials for valve maintenance. Marginal costs for mapping and locating new pipes may also be expected.	
Project Manager:	Zach Lemberg	Service Fees:	No		
Work Performed By:	District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	20	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	298,000	-	-	-	-	-	298,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: P-99 - Polsky Rd / Hawthorne Ln / to Scenic Dr



KEY DRIVERS FOR CIP PROJECT

1.	Safety and Security	These improvements address fire flow deficiencies that have been identified through the Master Planning process.
2.	Timing	These were prioritized during the Master Planning process and need to be completed in a timely manner. In addition, the existing piping was constructed in 1945 and is at the end of its useful life.
3.	Reliability	Fire flow projects will address both current and anticipated fire flow demands.

PROJECT DESCRIPTION

This project addresses fire flow deficiencies as identified in the master plan and consists of replacing existing pipe at Polsky Rd/110th Ave to 107th Ave, north to Hawthorne Ln, east to SW Scenic Dr for fire flow only. This includes approximately 6,100 LF of 8 and 12-inch piping.

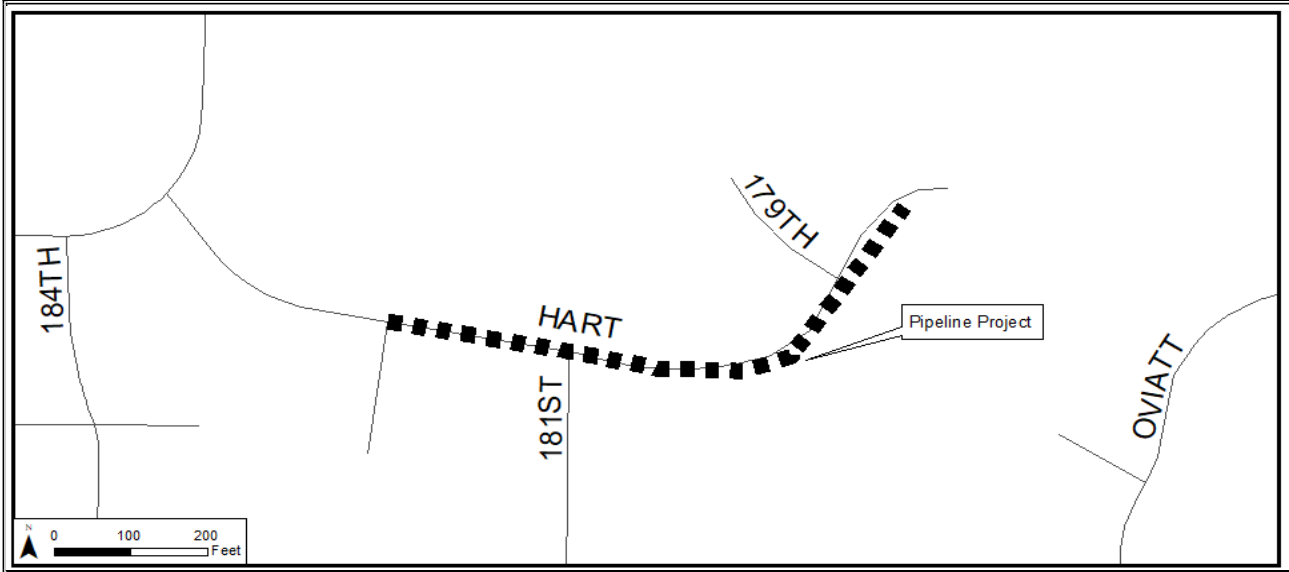
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	As improvements for deficiencies, operating cost impacts are not anticipated. For new pipes and extensions, the District estimates additional operating costs at approx. 0.06% of total capital cost (i.e., \$600 per \$1 million in new pipe segments/extensions) for exercising valves and materials for valve maintenance. Marginal costs for mapping and locating new pipes may also be expected.
Project Manager:	Zach Lemberg	Service Fees:	No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	8%	
Total Priority Score:	25	Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	-	382,000	3,105,000	3,487,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Fire Flow P-125 (Hart Dr - 182nd to 179th)



KEY DRIVERS FOR CIP PROJECT

1.	Safety and Security	These improvements address fire flow deficiencies that have been identified through the Master Planning process.
2.	Timing	These were prioritized during the Master Planning process and need to be completed in a timely manner.
3.	Reliability	Fire flow projects will address both current and anticipated fire flow demands.

PROJECT DESCRIPTION

Replace approximately 675-feet of existing pipe at Hart Dr from 182nd PI to 179th PI for fire flow only.

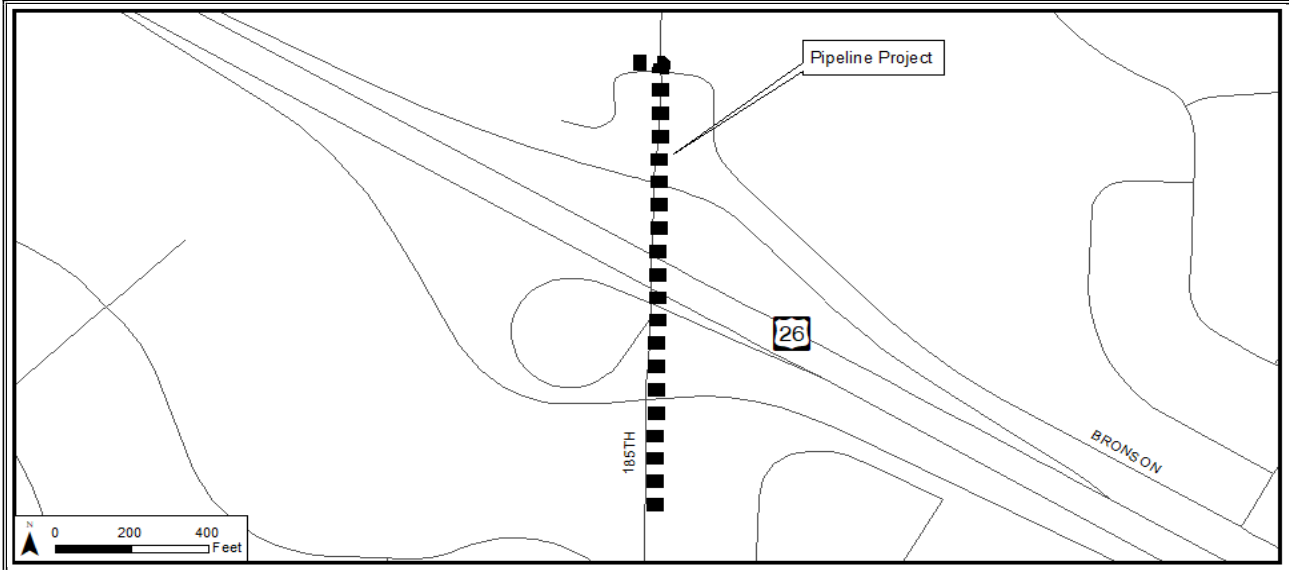
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	As improvements for deficiencies, operating cost impacts are not anticipated. For new pipes and extensions, the District estimates additional operating costs at approx. 0.06% of total capital cost (i.e., \$600 per \$1 million in new pipe segments/extensions) for exercising valves and materials for valve maintenance. Marginal costs for mapping and locating new pipes may also be expected.	
Project Manager:	Zach Lemberg	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	9%		
Total Priority Score:	14	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	-	89,100	213,500	302,600	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: P-21 185th Crossing Hwy 26



KEY DRIVERS FOR CIP PROJECT

1.	Safety and Security	These improvements address fire flow deficiencies that have been identified through the Master Planning process.
2.	Timing	These were prioritized during the Master Planning process and need to be completed in a timely manner.
3.	Reliability	Fire flow projects will address both current and anticipated fire flow demands.

PROJECT DESCRIPTION

Add approximately 1,400-feet of new pipe at 185th Ave from Tanasbourne Dr to Sunset-185th Ramp for fire flow only. This involves a crossing of Hwy 26. Additional planning will need to occur to determine the best option for the crossing.

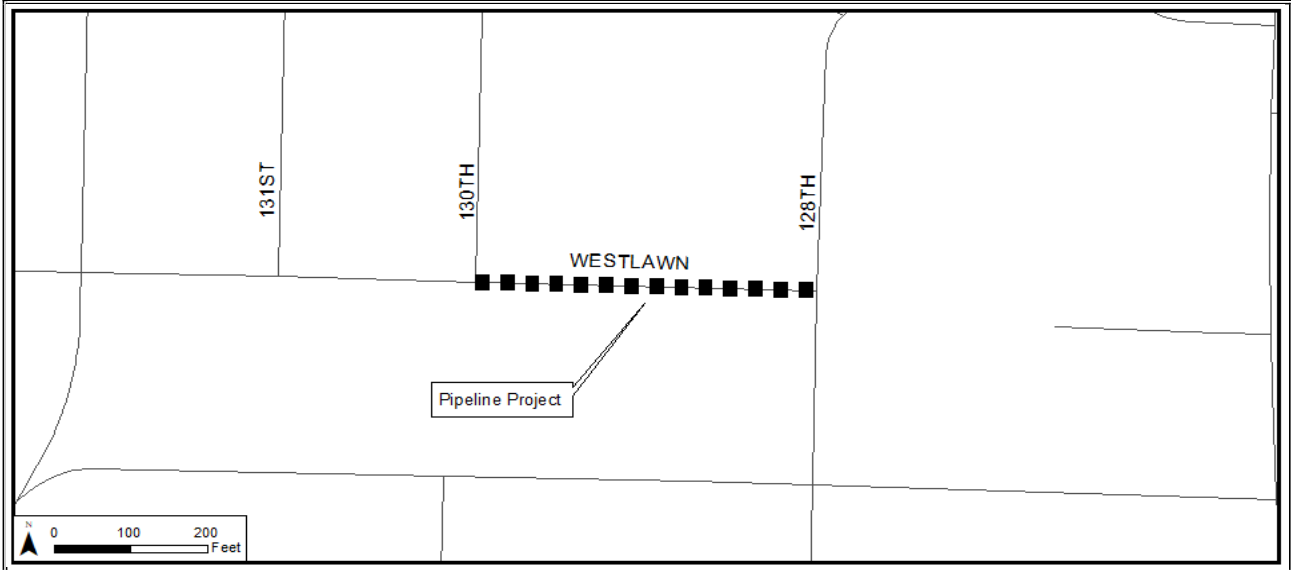
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	As improvements for deficiencies, operating cost impacts are not anticipated. For new pipes and extensions, the District estimates additional operating costs at approx. 0.06% of total capital cost (i.e., \$600 per \$1 million in new pipe segments/extensions) for exercising valves and materials for valve maintenance. Marginal costs for mapping and locating new pipes may also be expected.
Project Manager:	Eric George	Service Fees:	No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	47%	
Total Priority Score:	11	Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	-	241,500	584,500	826,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: NW Westlawn Ter. Waterline & PRV



KEY DRIVERS FOR CIP PROJECT

1.	Water Quality	Improvements were identified and recommended by the Water Quality Task Force to help increase the chlorine residual in the 513 pressure zone. This project will complete those improvements.
2.	Reliability	These improvements not only will help the chlorine residual in the 513 zone, but it will also address fire flow deficiencies that have been identified through the Master Planning process.
3.	Cost Effectiveness / Community Benefit	This project addresses multiple priorities through an innovative solution.

PROJECT DESCRIPTION

Replace approximately 450-feet of existing 2-inch and 6-inch pipe with new 8-inch pipe, and install a PRV from the 575 pressure zone to the 513 pressure zone. There have been multiple breaks on the existing piping requiring replacement of the existing pipelines. In addition, by adding a PRV, the District is better able to control the chlorine residual in the area. By adding a PRV in this area, approximately 2,000 feet of 12-inch piping was eliminated from the planned fireflow improvements identified in the Master Plan.

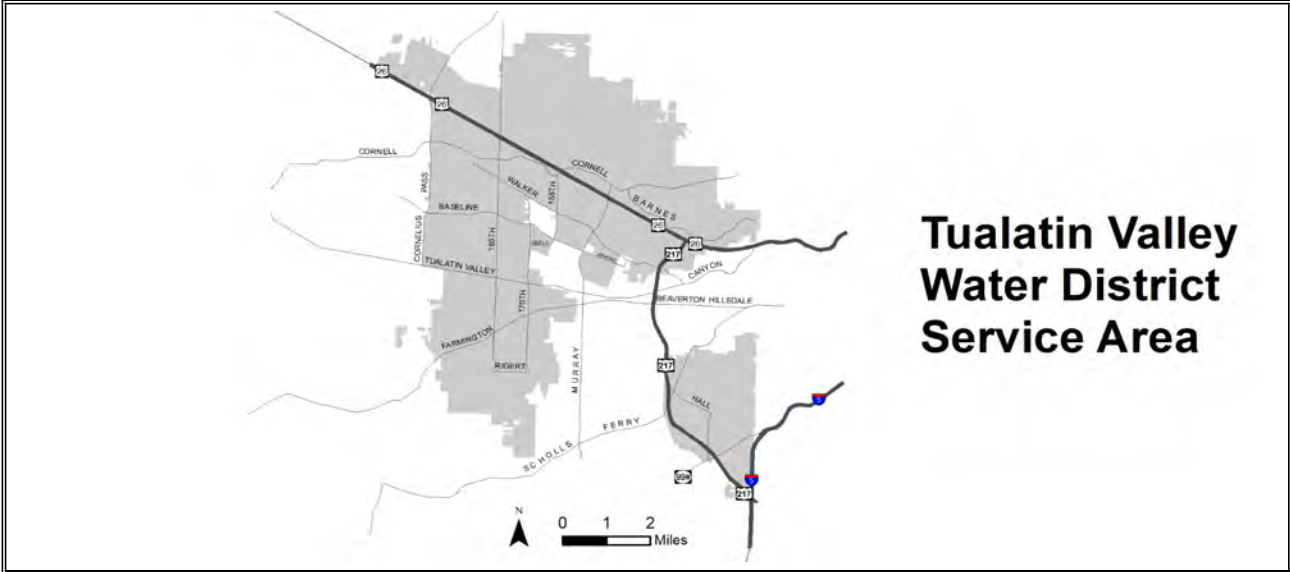
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	A slight increase in operating costs will be necessary to maintain the new PRV.	
Project Manager:	Zach Lemberg	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	23	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	428,500	-	-	-	-	428,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Future Fire Flow Improvements



KEY DRIVERS FOR CIP PROJECT

1.	Safety and Security	These improvements address fire flow deficiencies that have been identified through the Master Planning process.
2.	Timing	These were prioritized during the Master Planning process and need to be completed in a timely manner.
3.	Reliability	Fire flow projects will address both current and anticipated fire flow demands to be consistent with Master Planning reliability criteria.

PROJECT DESCRIPTION

The Fire Flow Improvement Program includes recommended pipe improvements that are recommended to address specific fire flow criteria deficiencies. Appendix M of the District’s Master Plan (Carollo 2018) provides a detailed list for these projects. The projects in this item are planned for completion in the mid-term time frame.

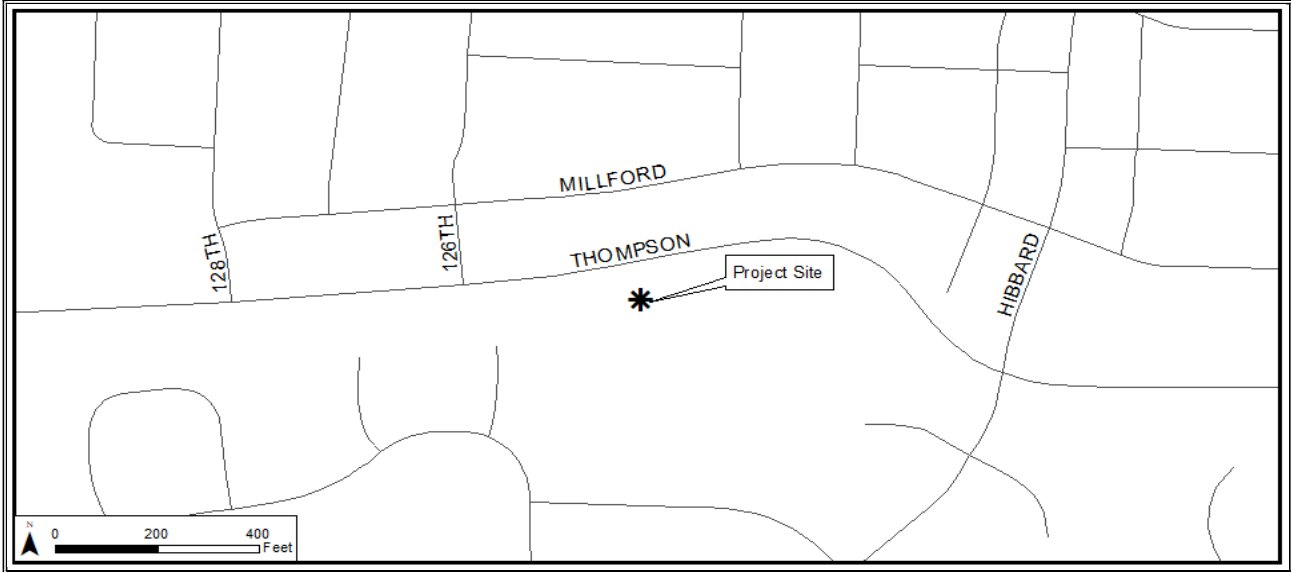
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	As improvements for deficiencies, operating cost impacts are not anticipated. For new pipes and extensions, the District estimates additional operating costs at approx. 0.06% of total capital cost (i.e., \$600 per \$1 million in new pipe segments/extensions) for exercising valves and materials for valve maintenance. Marginal costs for mapping and locating new pipes may also be expected.
Project Manager:	Nick Augustus	Service Fees:	No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	Various	
Total Priority Score:	10	Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	-	-	-	-	72,151,500

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Thompson 575 connection



KEY DRIVERS FOR CIP PROJECT

1.	Reliability	This project would take advantage of controls and piping in place to provide a connection from the 820 pressure zone to the 575 pressure zone.
2.	Customer Criticality	In an emergency, this project would potentially impact a large number of customers.
3.	Cost Effectiveness / Community Benefit	This small project would add significant benefits in an emergency.

PROJECT DESCRIPTION

This project will connect the 820 pressure zone PRV to the 575 pressure zone as a backup feed in the event of an emergency.

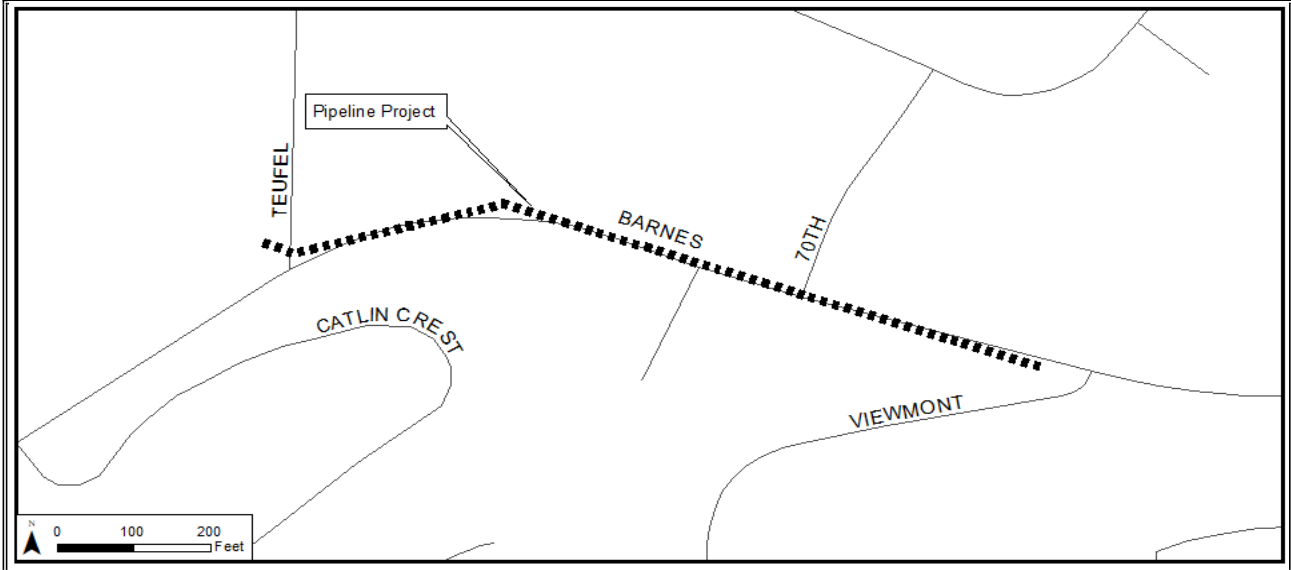
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No additional operating costs are anticipated.	
Project Manager:	Sarah Alton	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemnt. Fee Elg.:	0%		
Total Priority Score:	16	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	-	57,000	-	57,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Barnes & Viewmont Piping Improvements



KEY DRIVERS FOR CIP PROJECT

1.	Timing	The installation of this piping is necessary to connect the new Barnes Rd Pump Station to the piping on Viewmont. This will allow the District to abandon the old Viewmont Pump Station.
2.	Reliability	Fireflow improvements are needed to meet current requirements. A new resilient connection to the new pump station will provide additional reliability.
3.	Cost Effectiveness / Community Benefit	Doing this fireflow improvement at the same time as other piping improvements in the area will help reduce overall impact to customers.

PROJECT DESCRIPTION

These fireflow improvements will complete the fireflow improvements to the Viewmont neighborhood and consists of approximately 550-LF of 8-inch piping installed in 1961.

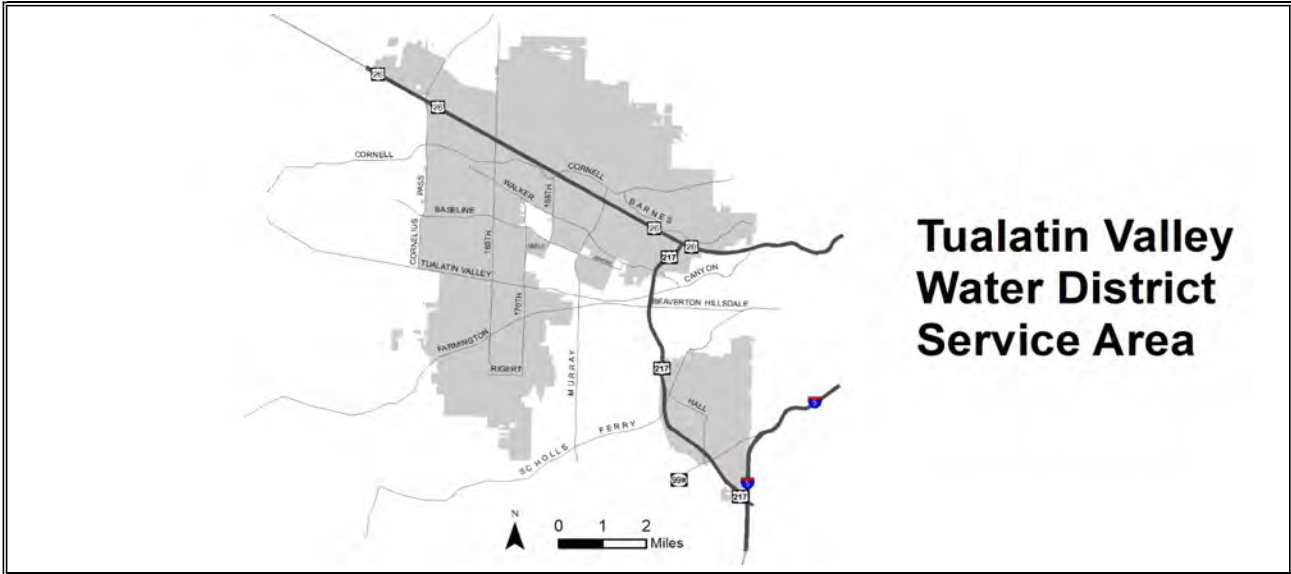
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No additional operating costs are anticipated.	
Project Manager:	Zach Lemberg	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	17	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	20,000	596,000	-	-	-	-	-	596,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Minor System Improvements



**Tualatin Valley
 Water District
 Service Area**

KEY DRIVERS FOR CIP PROJECT

1.	Reliability	These minor projects will increase the reliability of the system.
2.	Asset Condition	As piping and other components of the water system age, they need to be replaced. These improvements will improve the longevity of the system.
3.	Timing	As development or other assessments are done, these projects will need to be done on a short timeline.

PROJECT DESCRIPTION

Minor system improvements are necessary to maintain and improve the operations of the system as development and other projects occur. The projects in this line item could include installing new connections (jumpers), cutting in new valves, or other realignments of pipelines. This work has historically been done as part of General System Maintenance, however, where new infrastructure is being added, it will be tracked as a capital project.

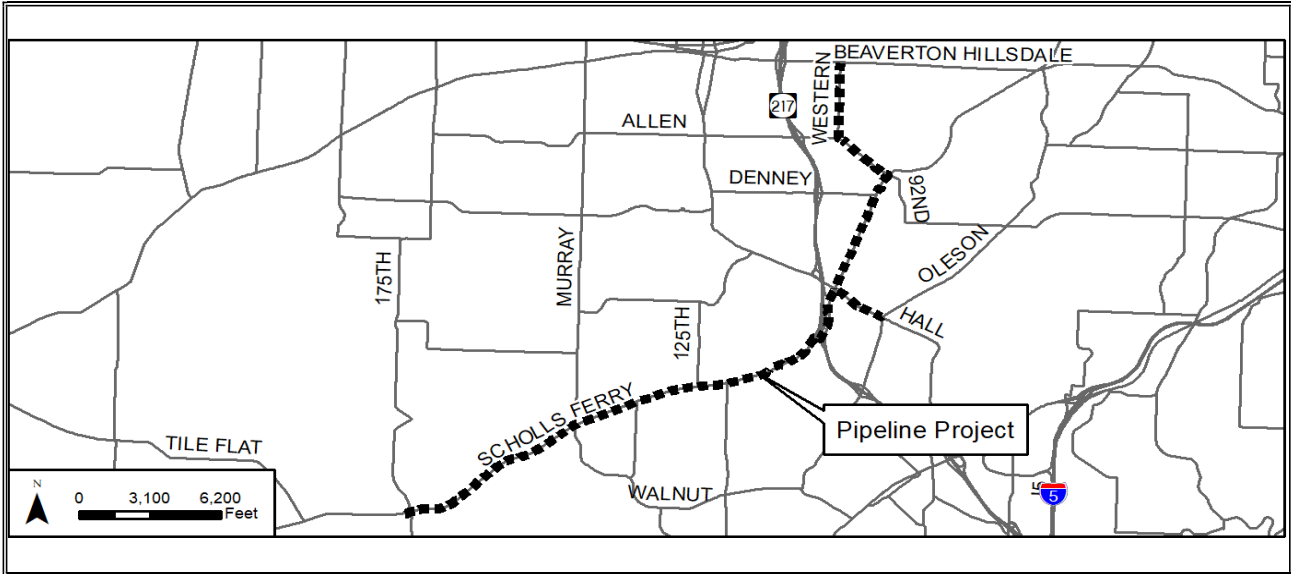
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	Operational costs are negligible with this line item, though there may be some slight decrease as aging components are replaced.	
Project Manager:	Pete Boone	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	14	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
210,500	107,000	111,000	115,000	119,000	123,000	119,000	123,000	710,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Metzger Pipeline East



KEY DRIVERS FOR CIP PROJECT

1.	Customer Criticality	This pipeline will deliver water to the entire District, and will serve as the main source of supply for both the Metzger and Wolf Creek areas.
2.	Timing	The project must be complete prior to the WWSS coming online in 2026.
3.	Reliability	The new pipeline will be a reliable, seismically resilient source of supply.

PROJECT DESCRIPTION

The Metzger Pipeline East Project (MPE_1.0) is a conveyance pipeline for finished water that consists of 36,000 linear feet (6.8 miles) of 48-inch pipe that will connect to the Washington County Supply Line at SW Beaverton-Hillsdale Highway. This project also includes 2,600 linear feet of 24-inch welded steel pipe and an above grade pressure/flow control facility on SW Hall Blvd. that will serve the existing Metzger service area. Subject to further design and regulatory approvals, MPE_1.0 will replace PLE_1.0. MPE_1.0 is divided into three bid phases (MPE_1.1, MPE_1.2, and MPE_1.3). MPE_1.1 and MPE_1.2 will be constructed with COB_1.0 (COB_1.1 and 1.2, respectively).

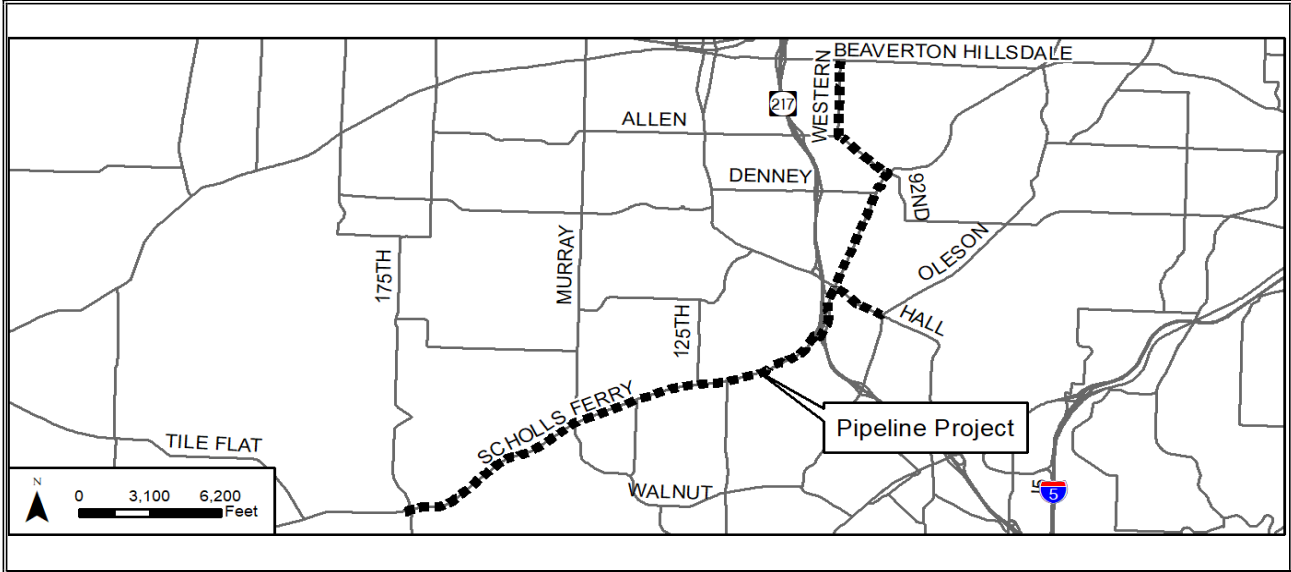
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	This new waterline will add costs for mapping, locating, and operating valves. Based on a WWSS operations cost forecast completed in 2018 and current appurtenance estimates, District staff estimated that the annual cost of exercising valves plus materials for valve maintenance would be approximately \$87,500 in today's dollars.
Project Manager:	WWSP	Service Fees:	No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%	
Total Priority Score:	21	Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
10,184,004	6,428,770	32,314,037	46,444,409	22,678,208	4,257,788	-	-	105,694,443	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Metzger Pipeline East Real Estate



KEY DRIVERS FOR CIP PROJECT

1.	Customer Criticality	This pipeline will deliver water to the entire District, and will serve as the main source of supply for both the Metzger and Wolf Creek areas.
2.	Timing	The project must be complete prior to the WWSS coming online in 2026.
3.	Reliability	The new pipeline will be a reliable, seismically resilient source of supply.

PROJECT DESCRIPTION

The costs shown below represent the current projections for real estate related to Metzger Pipeline East.

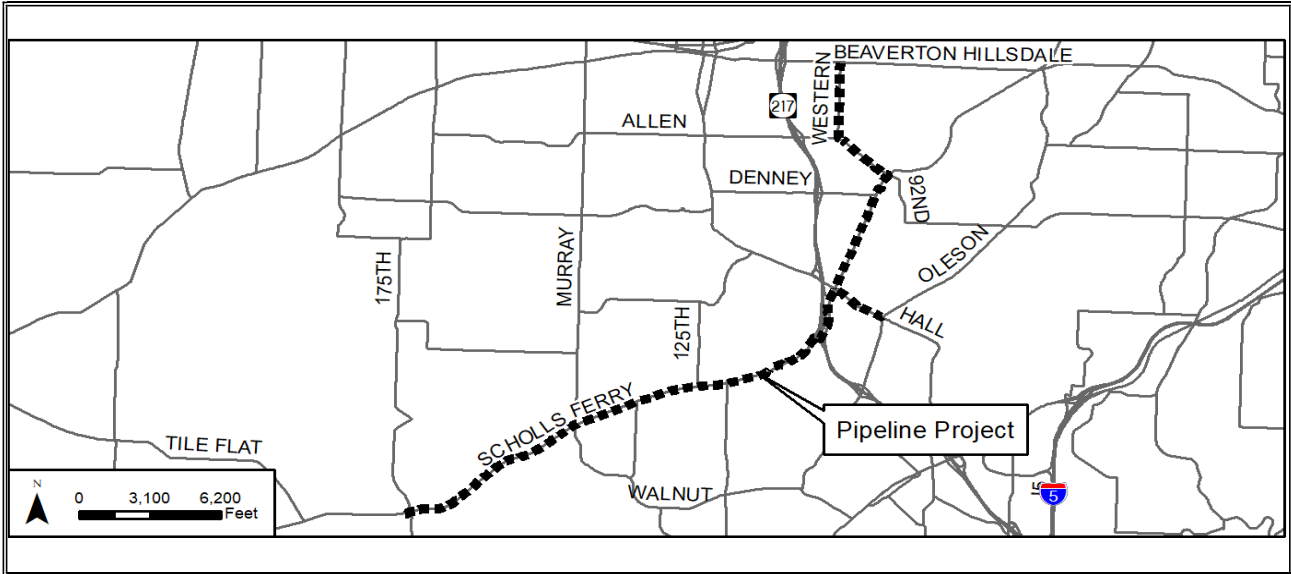
PROJECT INFORMATION		FUNDING SOURCES	FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates: Yes	There is no anticipated change in operating costs associated with the land for the pipeline.
Project Manager:	WWSP	Service Fees: No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.: 61%	
Total Priority Score:	21	Partner Cost Percentage: 0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
1,053,110	545,570	869,980	-	-	-	-	-	869,980	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Metzger Pipeline East System-wide Costs



KEY DRIVERS FOR CIP PROJECT

1.	Customer Criticality	This pipeline will deliver water to the entire District, and will serve as the main source of supply for both the Metzger and Wolf Creek areas.
2.	Timing	The project must be complete prior to the WWSS coming online in 2026.
3.	Reliability	The new pipeline will be a reliable, seismically resilient source of supply.

PROJECT DESCRIPTION

The costs shown below represent the current projections for WWSP system-wide costs related to Metzger Pipeline East. These program-level costs support the design and construction of the Metzger Pipeline East, including costs for permitting and mitigation, legal expenses, and program management services.

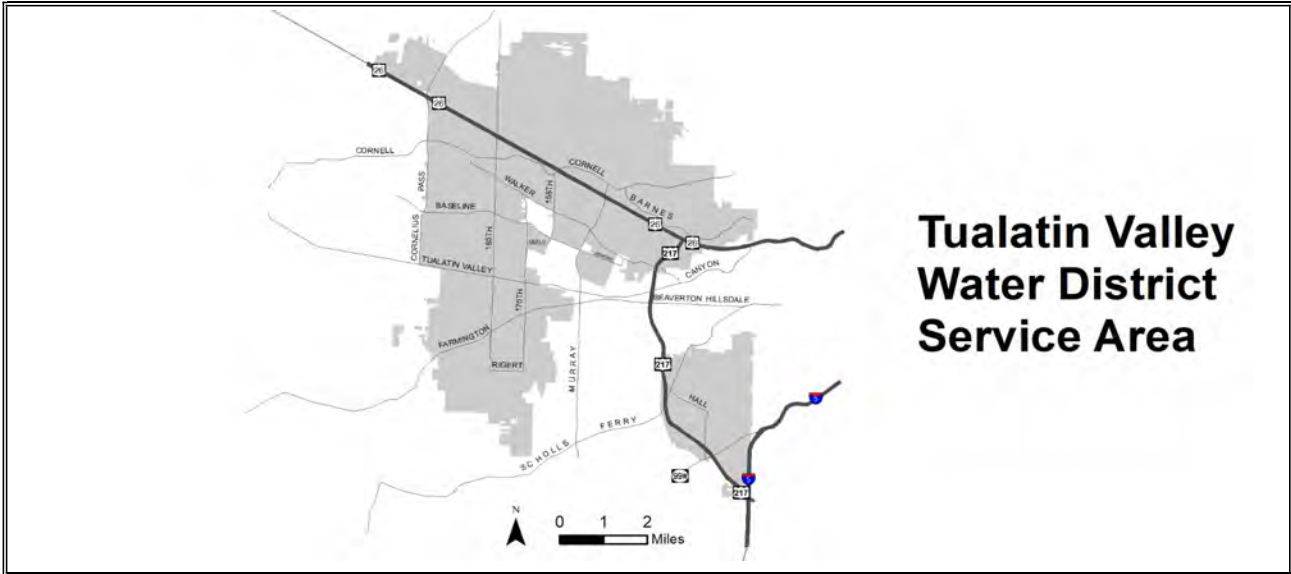
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	There is no anticipated change in operating costs associated with the system-wide costs required for the pipeline.	
Project Manager:	WWSP	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%		
Total Priority Score:	21	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
2,938,520	3,185,464	1,606,441	1,512,994	1,453,265	1,536,426	1,675,302	714,099	8,498,527	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Hydrant Replacements



KEY DRIVERS FOR CIP PROJECT

1.	Reliability	It is imperative to have working hydrants when they are needed for fires. This project will replace those hydrants that are aging and in need of replacement.
2.	Asset Condition	Hydrants to be replaced are aging and in need of replacement to meet current District standards.
3.	Safety & Security	This project will add to the safety of customers within the District.

PROJECT DESCRIPTION

The District has many hydrants that are outdated and in need of upgrading to current standards. These replacements will be prioritized and completed as part of an overall hydrant replacement program.

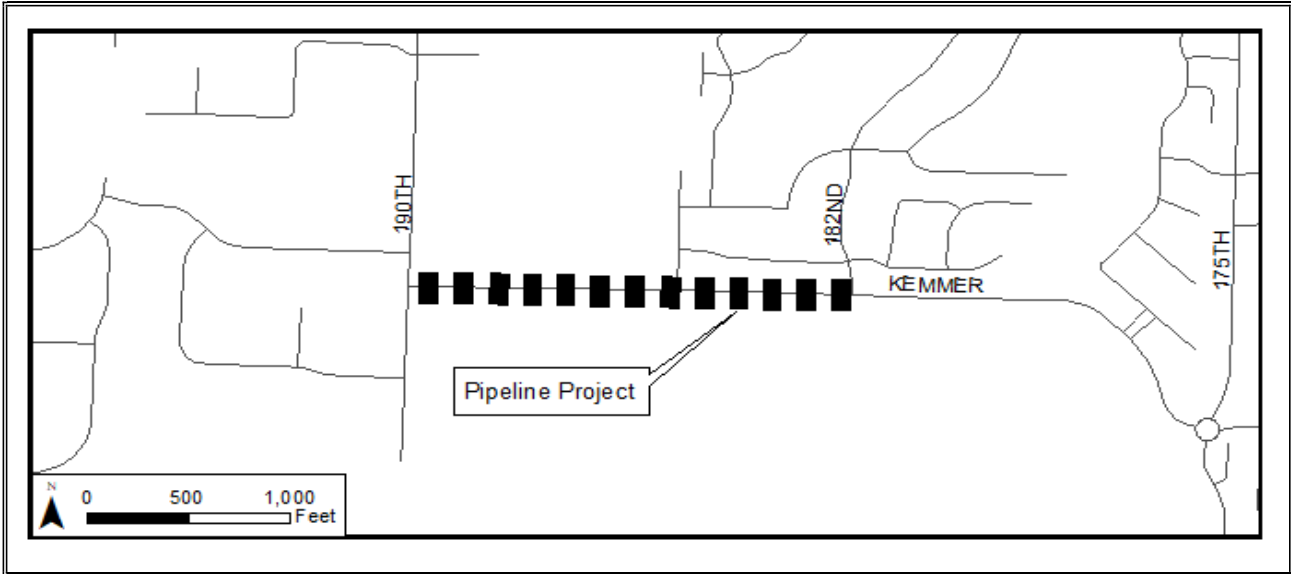
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No anticipated change in operating costs.	
Project Manager:	Pete Boone	Service Fees:	No		
Work Performed By:	District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	28	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	155,500	160,500	166,500	172,000	178,000	184,500	1,017,000	388,500

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Kemmer Rd 24-inch Connection to Beaverton



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	This project will allow the District to maintain and replace elements in the system that are aging and in poor condition.
2.	Reliability	This will allow an additional connection to a secondary source for a reliable water supply in the Cooper Mountain area.
3.	Cost Effectiveness / Community Benefit	Project costs are anticipated to be shared with the City of Beaverton, and will allow both systems to benefit from the installation of the new piping.

PROJECT DESCRIPTION

This project is being done to provide an additional source of supply to the top of Cooper Mountain. This project is being done in collaboration with the City of Beaverton, and will allow both entities to benefit from the project in the event of an emergency. The project includes a flow meter vault, and 24-inch piping to connect Beaverton's 794 pressure zone to the District's 800 pressure zone. This project will allow the District to delay construction of an additional pump station, and will allow the District to perform needed repairs and upgrades on the Goyak and 189th facilities during low demand periods.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	Minor additional operating costs are anticipated with the new 24-inch piping.	
Project Manager:	Andrew Barrett	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	23	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	1,500,000	-	-	-	-	-	1,500,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: PRV / Vault Replacements & Upgrades: Unidentified Projects



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Several of the District's Pressure Regulating Valves and associated vaults are at the end of their useful life and have experienced failures.
2.	Safety & Security	Operator safety will be improved by replacing or upgrading vaults and improving access.
3.	Customer Criticality	These facilities provide water to significant portions of the District's service area.

PROJECT DESCRIPTION

This line item will include replacements, upgrades, and safety improvements of pressure regulating valve vaults. Included in this line item is the 175th Ave. vault, which needs the piping replaced due to corrosion and the valves resized to fit the pressure zone's needs. Other representative projects include the Siler ridge and Oak street vaults, which also need new piping due to corrosion, and a way to keep the vaults dry so the District can increase the service life of the existing valves.

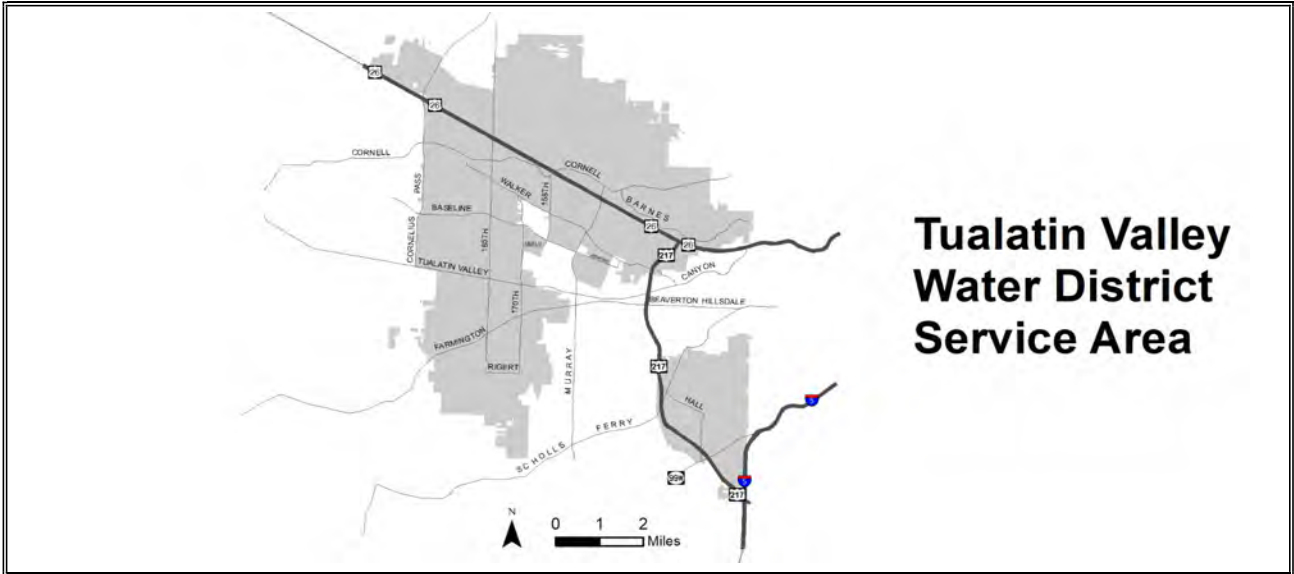
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	The operating costs in general will be the same since valves are being replaced rather than added to the system.	
Project Manager:	TBD	Service Fees:	No		
Work Performed By:	District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	22	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
450,500	-	310,500	535,500	554,500	172,000	272,000	369,000	2,213,500	13,153,000

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Transmission Mains CARV Rehabilitation



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	The district needs to maintain the existing CARVs and bring them up to current standards.
2.	Water Quality	These minor rehabilitation projects will address water quality concerns associated with the old CARVs.
3.	Safety and Security	There is a risk if the CARVs are not maintained, for there to be issues with the transmission pipelines along with potential water quality concerns.

PROJECT DESCRIPTION

This line item will include replacements, upgrades, and safety improvements of CARV valves and vaults. Rehabilitation and proper operation of the CARVs in the system is essential to maintaining pipelines, and avoiding damage to the pipelines.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No material impact to operating expenses.	
Project Manager:	Pete Boone	Service Fees:	No		
Work Performed By:	District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	24	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
210,500	107,000	110,500	114,500	118,500	123,000	127,000	131,500	725,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Walker and Meadow PRV & Vault Replacement



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	The district needs to replace and relocate the existing vault due to its existing condition.
2.	Reliability	Relocation of the existing vault will allow the District to better maintain these critical valves.
3.	Timing	Washington County is working on roadway improvements next to the vault. The vault relocation is anticipated to be complete prior to final paving.

PROJECT DESCRIPTION

The existing vault is located near Walker Road, near the right turn lane which makes traffic control difficult for entering the vault. In addition, access is very challenging, being a confined space with restricted access. A temporary ladder must be used for entering the vault and the existing valves are difficult to maintain. This project will relocate the existing vault and pressure reducing valves to a different space with proper ladders and access for maintenance.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	No material impact to operating expenses.	
Project Manager:	Zach Lemberg	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvem. Fee Elg.:	0%		
Total Priority Score:	26	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	75,000	776,500	-	-	-	-	-	776,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Goyak PRV - 800 to 550 PZ



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	The existing pump stations are in need of improvements and this project will allow those facilities to be taken off-line.
2.	Reliability	This will allow for further reliability in the Cooper Mountain portion of the District's system.
3.	Timing	This project needs to be done ahead of other improvements planned for Cooper Mountain facilities.

PROJECT DESCRIPTION

This project will allow for a direct connection from the 800 pressure zone to the 550 pressure zone, allowing the District to move water back down the hill. While Goyak or 189th pump stations are offline for maintenance it will allow the District to take water from the City of Beaverton and maintain supply to customers.

PROJECT INFORMATION		FUNDING SOURCES	FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates: Yes	A slight increase in operating costs are anticipated for maintaining the new valve.
		Service Fees: No	
Project Manager:	Mohammad Ahmad	SDC Improvem. Fee Elg.:	
Work Performed By:	Outside Contract	0%	
Total Priority Score:	26	Partner Cost Percentage:	0%

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	160,500	-	-	-	-	160,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Seismic Upgrades District Headquarters



KEY DRIVERS FOR CIP PROJECT

1.	Reliability	Upgrades facility to be more likely to withstand a seismic/security event.
2.	Asset Condition	Structural improvements to make the facility capable of providing long-term, reliable service. Opportunity projects such as painting, and carpet replacement will be done at the same time to capitalize on the project.
3.	Safety/Security	Structural improvements will improve safety/life safety/security for District Staff.

PROJECT DESCRIPTION

Planning, design, permitting, and construction of seismic, security, and work process improvements of multiple interior and/or exterior areas at the TVWD Headquarters. The improvements will increase life safety, security, and resilience. FY 2022 project will focus improvements for building seismic upgrade.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Facilities	Water Rates:	Yes	No material impact. No expansion is planned and is already part of the routine maintenance performed by the Facility staff. No long term operating cost impact.	
Project Manager:	Matt Oglesby	Service Fees:	No		
Work Performed By:	Contract & District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	13	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	-	-	-	-	1,455,000

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Replace Garage Doors/Install Snow Guards (Fleet Shop)



KEY DRIVERS FOR CIP PROJECT

1.	Safety & Security	Doors lack proper safety features to prevent possible injury. Doors block ceiling mounted lights. Falling ice is a hazard and has caused damage to multiple vehicles.
2.	Asset Condition	Doors have reached the end of their life and need to be updated. Multiple repairs have been made recently and parts are becoming scarce.
3.	Reliability	Doors are becoming more unreliable for the shop with multiple repairs needed.

PROJECT DESCRIPTION

Replacement of the existing Fleet Shop doors to increase Safety and Reliability. Install Snow Guards to prevent falling ice on staff, public, and vehicles.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Facilities	Water Rates:	Yes	Decrease in operating cost is expected due to less repair cost on the doors and damaged vehicles.	
Project Manager:	Collin Fleming	Service Fees:	No		
Work Performed By:	Contract & District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	15	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	36,200	51,400	-	-	-	-	87,600	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Headquarters Yard Modifications



KEY DRIVERS FOR CIP PROJECT

1.	Timing	Expanding covered storage area to increase the life of multiple assets such as fleet, inventory, and tools/equipment. This should be done soon to preserve the condition of the items listed.
2.	Safety & Security	Increase the safety of pedestrians and vehicle traffic by making dedicated walking and driving paths. Possibly add an additional entry/exit for employees in the south parking lot.
3.	Reliability	Creating more storage by adding racking and additional covered areas will increase the amount of inventory we can store to be able to respond quicker to emergency situations.

PROJECT DESCRIPTION

Planning, design, permitting, and construction of multiple improvement projects to increase pedestrian/vehicle flow, storage, and covered parking for TVWD fleet. Evaluate and study an additional entry/exit from south parking lot to Merlo Rd.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Facilities	Water Rates:	Yes	Small maintenance impact due to expanded building footprint. Some impact of utilities due to increase in enclosed and heated building. Building will have a low maintenance requirement on the Facility staff due to space being unoccupied.	
Project Manager:	Matt Oglesby	Service Fees:	No		
Work Performed By:	Contract & District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	15	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
289,000	50,000	247,000	268,000	-	-	-	-	515,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Safety and Security Improvements



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Many of the safety and security hardware is at or near its end of life and is counted on to work daily. Replacing/upgrading the systems will make TVWD better equipped to be able to expand in the future.
2.	Safety & Security	Facility safety and security are essential to the operations at TVWD and these systems are critical for that to happen. The safety railing is needed to meet OSHA codes.
3.	Cost Effectiveness / Community Benefit	These systems are more cost effective if replaced before the end of life. Many systems would need to be replaced ASAP if they failed which would be done at a premium cost.

PROJECT DESCRIPTION

Planning, design, purchasing, and installation of critical safety and security hardware. Safety railing needs to be added to many areas on the roof to protect staff from fall hazards per OSHA. The electronic security equipment is in need of replacement due to equipment being at the end of its life. The new equipment and software may be easily expanded in the future. Examples: Alarm Panel Replacement, CyberLock Phase 2, modernization of the Access Control System, Fire Panel, Security Cameras.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Facilities	Water Rates:	Yes	Operating cost should decrease due to the new hardware taking less maintenance and time for reprogramming. Less vendor involvement is anticipated. Safety Improvement: Staff will not have to tie off when on the roof to do maintenance activities which will save them time.	
Project Manager:	Collin Fleming	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	19	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
421,000	50,000	310,500	321,500	-	-	-	-	632,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Board Room/Conference Room Audio Visual Improvements



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	The AV equipment continues to have hardware and software issues that cannot be remedied.
2.	Cost Effectiveness / Community Benefit	Time would be saved with each meeting setup due to the multiple issues that arise with each setup. As the meeting frequency increases the cost savings are amplified.
3.	Reliability	The new equipment would be more reliable and easily scalable to meet the ever growing needs of the Board Room.

PROJECT DESCRIPTION

Replacement of existing audio and visual equipment in the Board Room is necessary due to issues that cannot be fixed. Project includes planning, design, purchase and installation of audio and visual equipment with the option to live stream/record meetings. The existing equipment is beyond its useful life and is increasingly costlier to maintain and set up for various meeting configurations (e.g., TVWD Board, WIF, WWSS, Joint agency boards). The new system would streamline the setup and save time. This project will be closely coordinated with potential building seismic upgrades.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Facilities	Water Rates:	Yes	Operating cost would decrease due to less maintenance need by the vendor (which has increased the last couple years) as well as less labor used to setup and troubleshoot issues.	
Project Manager:	Collin Fleming	Service Fees:	No		
Work Performed By:	Contract & District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	17	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
186,500	-	207,000	53,600	-	-	-	-	260,600	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: District Wide Signage Replacement



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	New signage is needed in multiple areas to continue the District's logo update. Some signage is needed to be replaced due to the poor condition of the signs that have reached end of their life. New signage has been identified in additional areas.
2.	Cost Effectiveness / Community Benefit	The community will benefit by having consistent signs and logos that are recognizable, and by replacing old signs that are fading and in disrepair, aesthetics of the community will be improved.
3.	Timing	The District's logo has been updated and it is important to have a consistent appearance to the public.

PROJECT DESCRIPTION

New signage is needed in multiple areas to continue the District's logo update. Some signage is needed to be replaced due to the poor condition of the signs that have reached end of their life. New signage has been identified in additional areas.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Facilities	Water Rates:	Yes	Project will not have an effect on operating costs.	
Project Manager:	Collin Fleming	Service Fees:	No		
Work Performed By:	Contract & District Staff	SDC Improvemnt. Fee Elg.:	0%		
Total Priority Score:	21	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	51,800	53,600	-	-	-	-	105,400	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Vault - Dewatering Facility



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Undersized facility that needs to be upsized to decrease storm swale maintenance.
2.	Timing	Improving the dewatering facility in the near-term will help to reduce maintenance costs long-term.
3.	Cost Effectiveness / Community Benefit	These improvements will help reduce long-term costs and impact to the neighboring lots by reducing storm swale maintenance.

PROJECT DESCRIPTION

Need to upsize the vault south of the dewater facility to hold more sediment to reduce maintenance in storm swale.

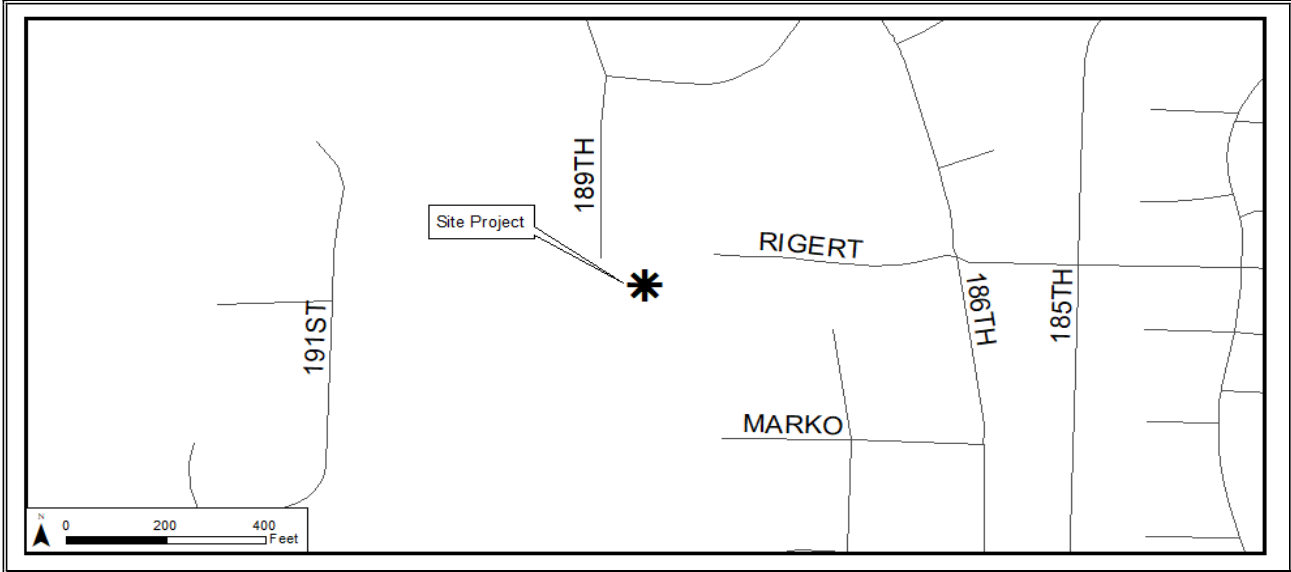
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Facilities	Water Rates:	Yes	Project will decrease operating cost by reducing maintenance on storm swale.	
Project Manager:	Collin Fleming	Service Fees:	No		
Work Performed By:	District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	15	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	15,000	-	21,400	-	-	-	-	21,400	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Goyak and Cooper Mtn. Driveway Replacement



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Asphalt surfaces are in need of repair/replacement due to age and usage.
2.	Timing	The asphalt surfaces are failing and in need of replacement.
3.	Cost Effectiveness / Community Benefit	Replacing the asphalt surface will improve the aesthetics, providing community benefits.

PROJECT DESCRIPTION

The driveways need to be resurfaced/replaced per agreement with neighbors. The asphalt surface is at the end of its life.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Facilities	Water Rates:	Yes	No operating cost increase.	
Project Manager:	Collin Fleming	Service Fees:	No		
Work Performed By:	Contract & District Staff	SDC Improvemnt. Fee Elg.:	0%		
Total Priority Score:	20	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	51,800	53,600	-	-	-	-	105,400	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Fuel Dispenser Replacement



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Dispensing pumps and related hardware/software have reached their end of operation life and need to be replaced.
2.	Reliability	Due to the criticality of the TRFF, these pumps need to be highly reliable to meet the goal of this facility to be a regional facility available for the partners 24/7 with minimal downtime.
3.	Cost Effectiveness /Community Benefit	The pumps are at the end of their life the repair costs are increasing exponentially. After the replacement, the pump repair costs and downtime will be reduced to normal maintenance costs.

PROJECT DESCRIPTION

This project will replace four (4) fuel dispensing pumps and related hardware/software on the TVWD operated Tualatin Regional Fueling Facility (TRFF) in partnership with THPRD. The TRFF has been in operation for over 20 years. Some components need to be replaced due to the availability of parts and support.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Facilities	Water Rates:	Yes	Operating cost will decrease due to the pump repairs will be negated and revert back to normal maintenance schedule.	
Project Manager:	Jeremy Kind	Service Fees:	No		
Work Performed By:	Contract & District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	13	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	68,000	-	-	-	-	68,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 FLEET REPLACEMENT SCHEDULE

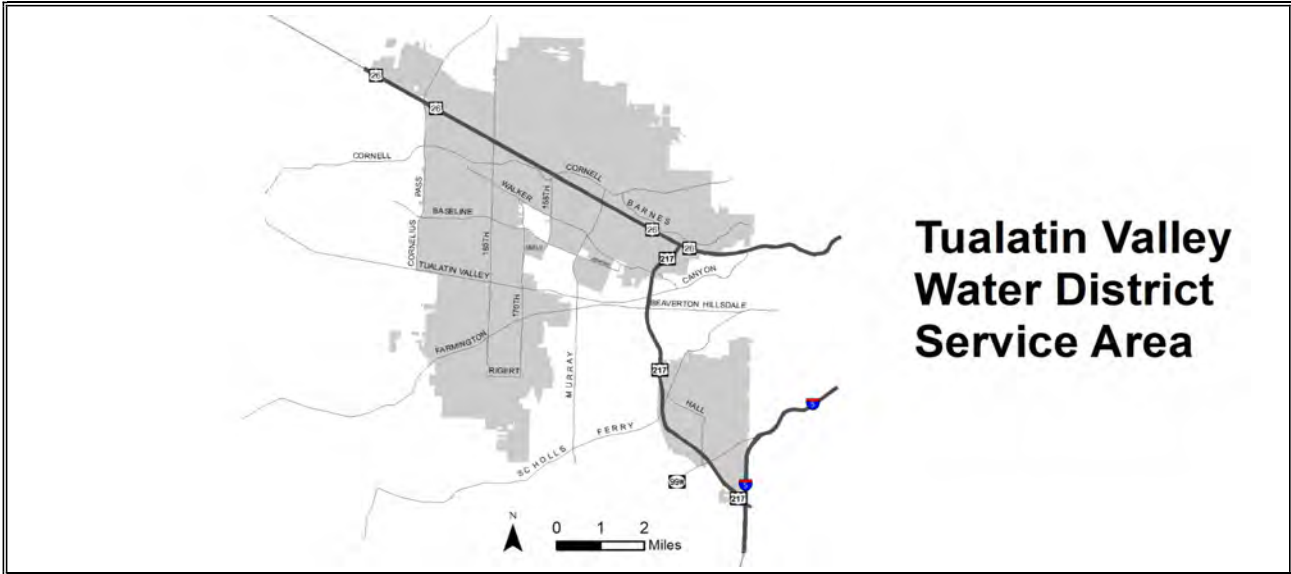
GL 11-40-01-8831

	FY 21-22	FY 22-23	Total
2021-2023 Fleet Costs	\$ 689,000	\$ 780,000	\$ 1,469,000

DIVISION OR PROGRAM	ITEM	QTY	DESCRIPTIONS & RATIONALE	TOTAL AMT	EST. MONTH NEEDED	EST. YEAR NEEDED
Water Quality-Water Resources Specialist	SUV	1	New Vehicle	\$ 50,000	8	2021
FCS- Meter Reader	Meter Reading Vehicle Unit 36 & 37	2	Age Replacement	\$ 74,000	12	2021
System Ops-Locators	Locating Cargo Minivan Unit 78	1	Age Replacement	\$ 35,000	5	2023
Field Customer Service	Mid-Size Pickup Unit 4 and 6	2	Age Replacement	\$ 80,000	10	2021
DISTRICT - Shared	One Ton Flatbed truck, Unit 22	1	Age Replacement	\$ 80,000	10	2022
DISTRICT - Shared	Potable Hose Trailer	1	New Trailer	\$ 25,000	10	2022
Water Ops-Const/Maint	Back Hoe and Compactor Unit 119	1	Age Replacement	\$ 160,000	12	2021
Water Ops-Const/Maint	Medium Duty Box Truck, Unit 113	1	Age Replacement	\$ 100,000	12	2021
System Ops	One-Ton Service Truck, Unit 80 and 142	2	Age Replacement	\$ 170,000	6	2022
DISTRICT - Shared	Passenger Vehicle, Unit 19	1	Age Replacement	\$ 50,000	8	2021
System Ops	Full Size Pickup Unit 148 and 146	2	Age Replacement	\$ 110,000	5	2022
System Ops-Locators (Add Package)	Locating Cargo Minivan	1	New Vehicle	\$ 35,000		
Water Ops-Const/Maint	Vacuum Excavator Truck Unit 130	1	Poor Performance	\$ 500,000	3	2023
				\$ -		
				\$ -		
				\$ -		

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Customer Information System



KEY DRIVERS FOR CIP PROJECT

1.	Timing	The District's legacy utility billing system is outdated, requires significant internal support and lacks functionality necessary to meet District objectives such as improving the customer experience.
2.	Customer Criticality	The Customer Information System (CIS) impacts District customers as well as billing partners. Newer CIS technologies are expected to address customer satisfaction by expanding secure customer self-service options.
3.	Reliability	The CIS is a mission-critical system that must be reliable and flexible in order to meet current and future District needs, including potential affordability measures. The new CIS is expected to provide improved system reliability as compared to the legacy utility billing system.

PROJECT DESCRIPTION

This project, a joint venture with billing partner Clean Water Services, focuses on selecting and implementing a commercial Customer Information System (CIS) to replace the District's legacy utility billing system. The District and Clean Water Services will share costs for the project. CIS project phases will be: selection; implementation; and beginning ongoing operations under the new system. The CIS project timeline through cutover and new system stabilization is anticipated to take approximately three years. The District will continue to refine project cost estimates and staffing requirements throughout the project cycles and provide ongoing reporting to the Board of Commissioners and management. The project will involve extensive customer communications prior to cutover.

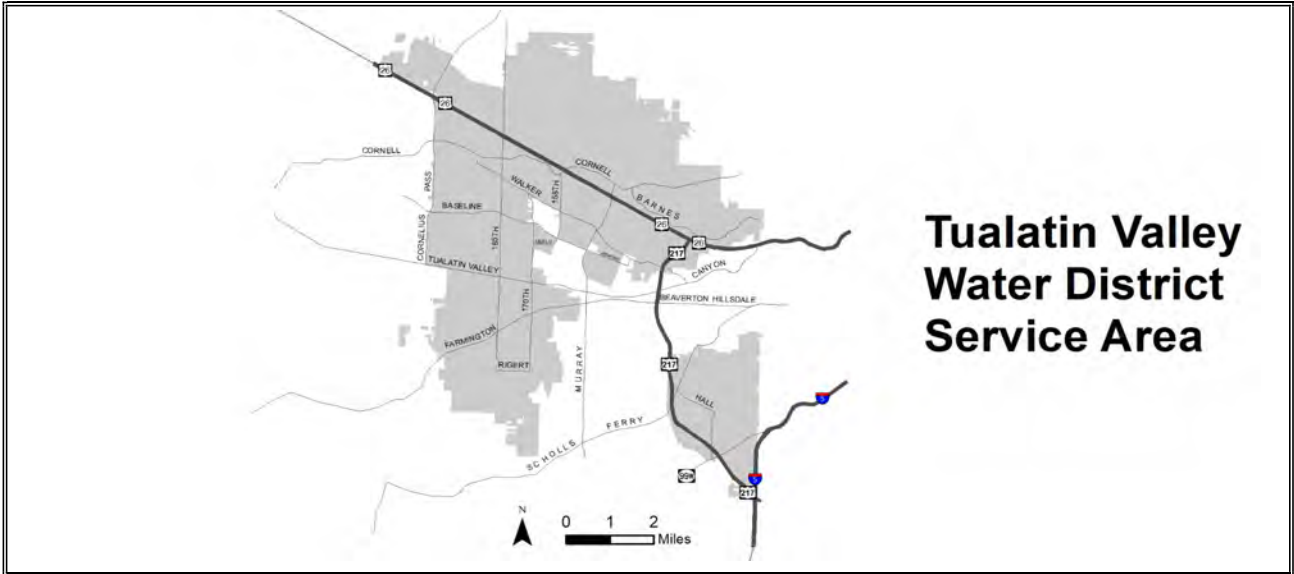
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Information Technology	Water Rates:	Yes	TVWD estimates that internal IT support will be reduced. Annual software licensing and maintenance costs will be incurred. Expanded on-line and mobile payment options may reduce costs for bill printing/presentation, but increase merchant and bank transactions fees. \$105,000 will be incurred for one-time training and software needs in FY2021 and FY2022, with \$50,000 in FY2022 (2021-2023 biennium).	
Project Manager:	Andrew Carlstrom	Service Fees:	No		
Work Performed By:	Contract & District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	18	Partner Cost Percentage:	50%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
8,180,000	3,081,377	6,640,000	-	-	-	-	-	6,640,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Service Installations



KEY DRIVERS FOR CIP PROJECT

1.	Timing	Serves new customers as they are added to the District's service area, and replaces aging meters and services as-needed to provide reliable service.
2.	Reliability	Improvements required to maintain reliable water service to customers.
3.	Customer Criticality	Enhances safety by improving level of service for customers and providing safe, reliable drinking water.

PROJECT DESCRIPTION

This category of work involves the various ongoing installation and replacement of service installations and large meters by District crews in support of new development and customer base growth, and to replace aging infrastructure on an as-needed basis. The service and large meter installation work is completed by TVWD Field Operations. Costs for new service installations are paid by separate development fees.

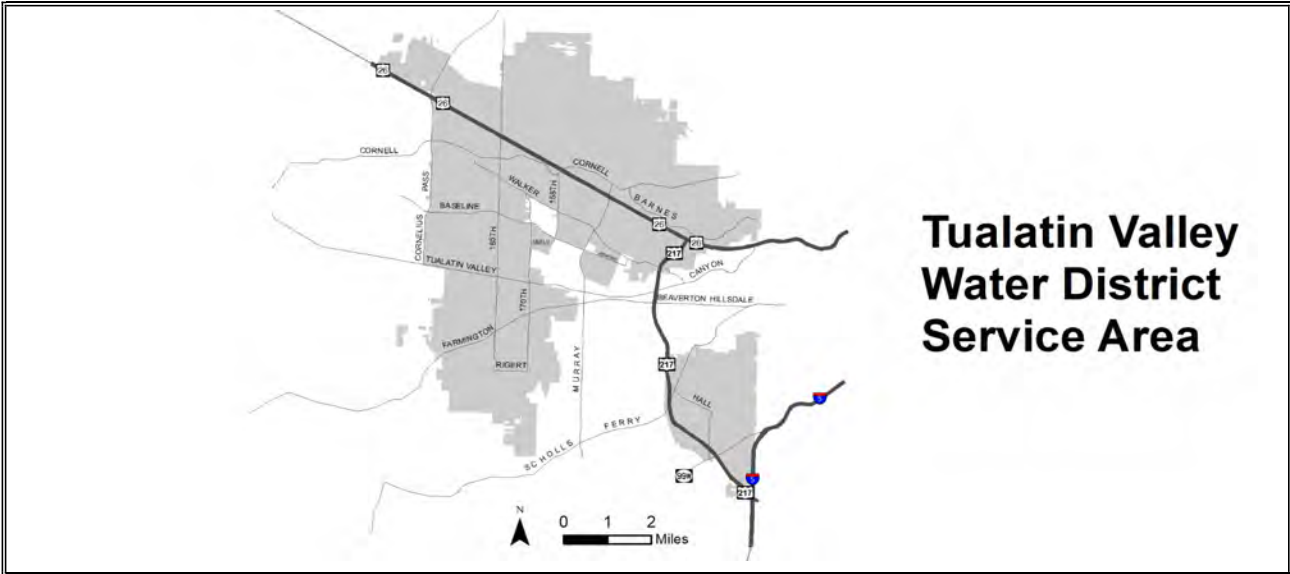
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Meters & Services	Water Rates:	Yes	Meter and service maintenance is an ongoing and routine District activity. Meters and services for new customers are recovered through separate fees.	
Project Manager:	Field Operations	Service Fees:	Yes		
Work Performed By:	District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	16	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
2,825,000	2,455,700	1,540,000	1,595,000	1,650,000	1,710,000	1,770,000	1,830,000	10,095,000	65,315,000

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Customer Service: Meter Installations



KEY DRIVERS FOR CIP PROJECT

1.	Timing	Serves new customers as they are added to the District's service area, and replacement of aging meters and services as needed to provide reliable service.
2.	Reliability	Improvements required to maintain reliable water service to customers.
3.	Customer Criticality	Enhances safety by improving level of service for customers and providing safe, reliable drinking water.

PROJECT DESCRIPTION

This category of work involves the various ongoing installation and replacement primarily residential meters and services by District crews in support of new development and customer base growth, and to replace aging infrastructure on an as needed basis. The meter installation work is completed by TVWD Field Customer Service. Costs for new meters installations are paid by separate development fees.

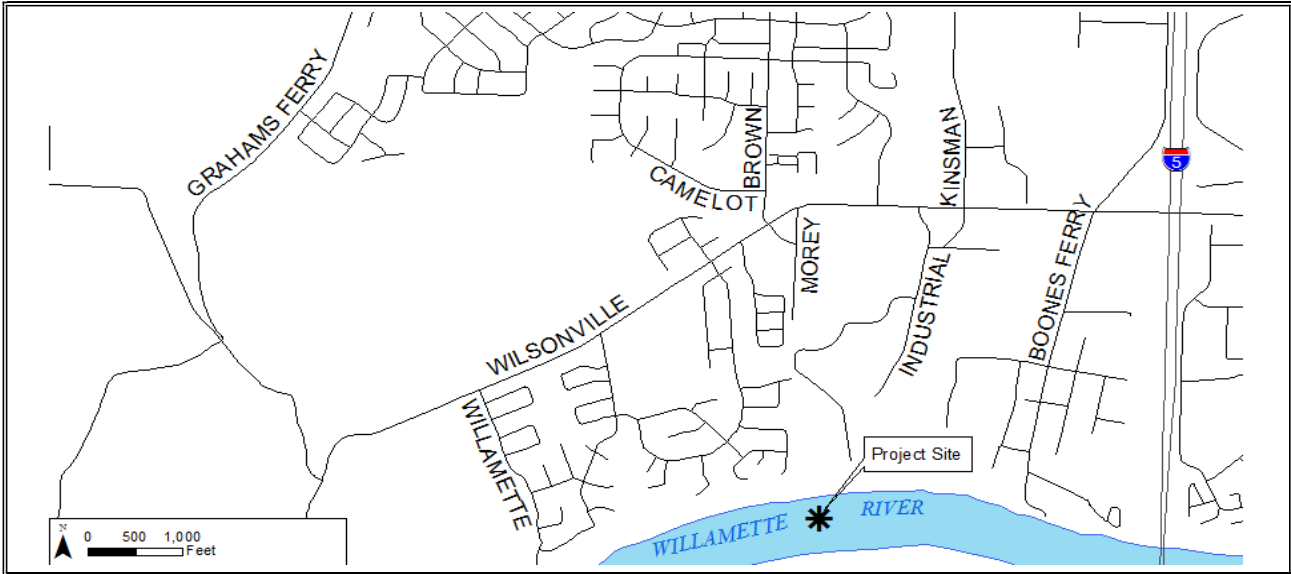
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Meters & Services	Water Rates:	Yes	Meter and service maintenance is an ongoing and routine District activity. Meters and services for new customers are recovered through separate fees.	
Project Manager:	Field Customer Service	Service Fees:	Yes		
Work Performed By:	District Staff	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	16	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
509,000	336,062	247,000	255,500	264,500	273,500	283,500	293,000	1,617,000	11,859,000

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Joint Venture: WIF



KEY DRIVERS FOR CIP PROJECT

1.	Customer Criticality	First piece of the Willamette Water Supply System (WWSS), which will provide reliable and safe drinking water to all of the District's customers.
2.	Timing	Project is a key element of the District's new long-term supply source that will meet current and future demands.
3.	Reliability	WWSS will increase overall reliability by providing a new, seismically hardened source for the District.

PROJECT DESCRIPTION

Program level costs associated with the Willamette Intake Facilities (WIF) Commission, including new fish screens, air burst system improvements, and seismic improvements to the expanded intake within the raw water facility at the Willamette River Water Treatment Plant (WRWTP). For more details on the WWSS raw water facility project (RWF 1.0), please see page F-2 in your budget workbook.

Costs shown below are TVWD's share of projected total project costs. Therefore, under Funding Sources, the partner cost percentage (of the costs shown) is zero (0%).

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Joint Venture	Water Rates:	Yes	The water intake improvements are either replacements or static in nature, and should not drive material net impacts on future operating costs. For details on the estimated cost impact of the future raw water facility (RWF 1.0), please see page F-2 in your budget workbook.	
Project Manager:	David Kraska	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%		
Total Priority Score:	20	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
3,622,465	1,876,143	2,158,754	972,865	-	-	-	-	3,131,620	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: Joint Venture: WWSS



KEY DRIVERS FOR CIP PROJECT

1.	Customer Criticality	Willamette Water Supply System (WWSS) will provide reliable and safe drinking water to all of the District's customers.
2.	Timing	WWSS will be a new long-term supply source to meet current and future demands.
3.	Reliability	WWSS will increase overall reliability by providing a new, seismically hardened source for the District.

PROJECT DESCRIPTION

Program level costs associated with supporting the development and implementation of the Willamette Water Supply System (WWSS), including design and construction of the WWSS projects, costs for real estate and easements, permitting and mitigation, legal expenses, program management services, and management reserves. For more details on individual WWSS projects, please see pages F-1 through F-12 in your budget workbook.

Costs shown below are TVWD's share of projected total project costs. Therefore, under Funding Sources, the partner cost percentage (of the costs shown) is zero (0%).

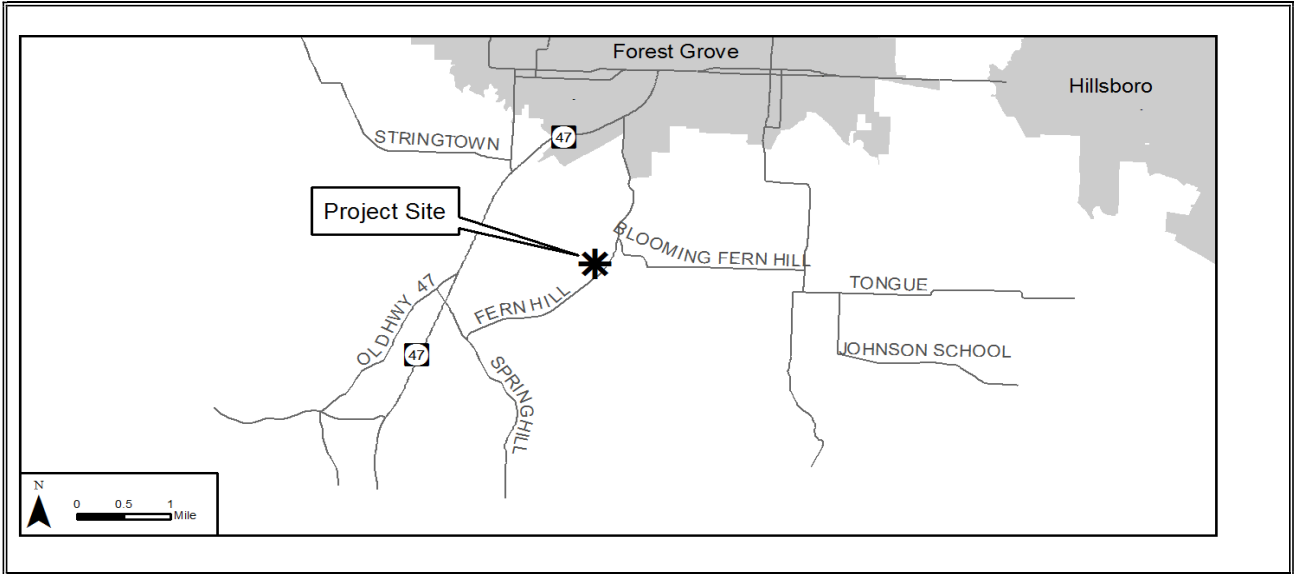
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Joint Venture	Water Rates:	Yes	Overall, the WWSS will result in significant savings by eliminating purchased water costs from Portland. The District is projecting net savings of approximately \$5 million in FY2027 (i.e., a 36% decrease from FY2026), after shifting from 100% purchased water costs to a new balance of JWC water purchases plus the costs of WWSS treatment and pumping power.
Project Manager:	David Kraska	Service Fees:	No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%	
Total Priority Score:	20	Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future (FY2028-36)
109,780,923	88,225,342	71,227,035	170,696,854	130,472,179	56,812,648	35,704,561	3,557,506	468,470,783	77,083,807

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: JWC Plans, Assessments, and Safety Upgrades



KEY DRIVERS FOR CIP PROJECT

1.	Timing	Maintains supply for multiple water supply partners, and is needed near-term.
2.	Customer Criticality	Reserves funds to ensure continuity of service in the event of unanticipated maintenance or equipment repair needs.
3.	Reliability	Improvements required to maintain reliable supply.

PROJECT DESCRIPTION

The last JWC Master plan was published in 2009. Master Plan documents help identify shortcomings and expected needs for infrastructure as well as the organization. This plan will provide the basis for the next 5-yr planning horizon. Master plan will provide year-by-year recommendations for capital improvement projects. The total original engineering estimate was \$630,000 for the Master Plan. The fee estimate from consultant is around \$700,000. Additionally JWC staff time is estimated \$70,000 and the management reserve consideration is \$55,000. The total estimated cost is now \$825K.

This budget also includes potential additional costs for safety upgrades and funding a study to test and assess the South Transmission Line and provide recommendations for repairs, upgrades, and seismic improvements.

Costs shown below are TVWD's share of projected total project costs. Therefore, under Funding Sources, the partner cost percentage (of the costs shown) is zero (0%).

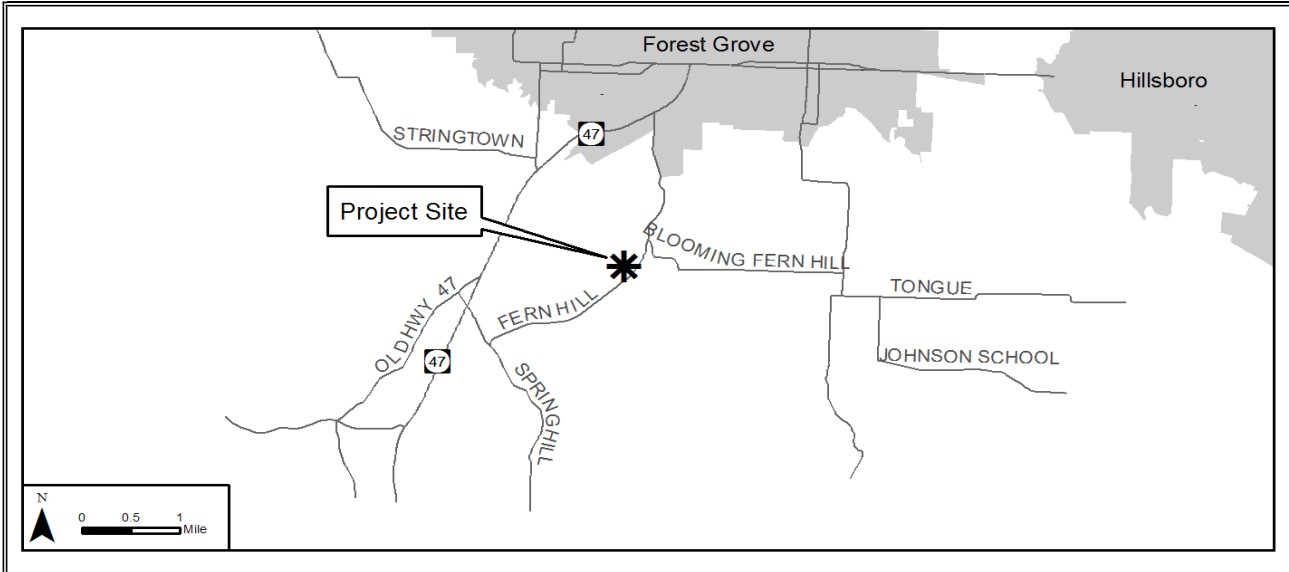
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	JWC	Water Rates:	Yes	No material impact anticipated.	
Project Manager:	Pete Boone	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	This is a partnership project, agreed to by the JWC.	Partner Cost Percentage:	TBD		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
147,983	147,983	134,500	-	-	29,100	27,400	101,500	292,500	992,200

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: JWC Misc. Repairs/Replacements, & Minor/Non-CIP



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Some pumps are from the 1970's, so they are unreliable, energy inefficient, and there are no spare parts available.
2.	Cost Effectiveness / Community Benefit	In order to maximize savings in engineering and installation, the future replacement of two pumps was accelerated to be concurrent with the end-of-life replacement of two other pumps.
3.	Safety / Security	Some of these projects will repair facility roofs, while another will replace chemical storage buildings.

PROJECT DESCRIPTION

This collection of projects consists of minor capital repairs, replacements, updates, and unplanned miscellaneous expenses. Included are replacements of finished water and backwash pumps and motors, electrical assessments and improvements, a new FW 10 pump with a variable frequency drive, concrete in sedimentation basins (basins A, B, and C), roof repairs, replacement of the operations and chemical storage buildings, and future annual capital repairs.

Costs shown below are TVWD's share of projected total project costs. Therefore, under Funding Sources, the partner cost percentage (of the costs shown) is zero (0%).

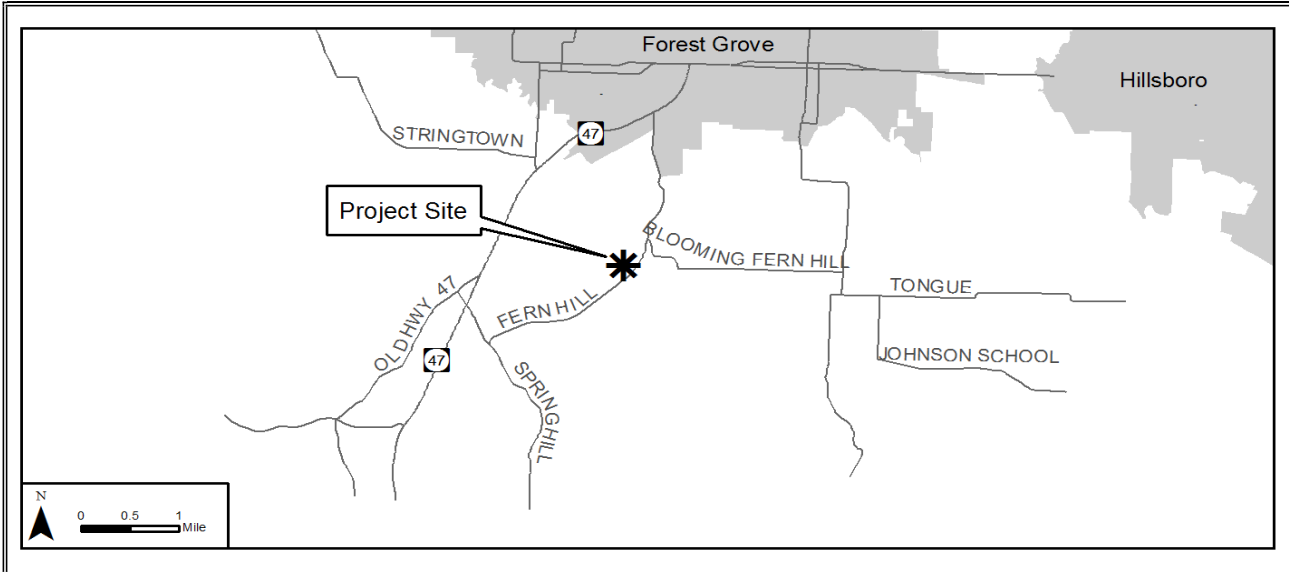
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	JWC	Water Rates:	Yes	Costs for JWC operations are passed through to JWC partners based on ownership shares and water purchases. Most of these capital projects are minor equipment upgrades and replacements, which will not have a significant operating cost impact.	
Project Manager:	Pete Boone	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	This is a partnership project, agreed to by the JWC.	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
375,517	110,464	119,500	65,300	128,000	208,000	137,000	263,500	921,300	6,129,900

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: JWC Other Capital Repairs



KEY DRIVERS FOR CIP PROJECT

1.	Timing	Maintains supply for multiple water supply partners.
2.	Customer Criticality	Reserves funds to ensure continuity of service in the event of unanticipated maintenance or equipment repair needs.
3.	Reliability	Improvements required to maintain reliable supply.

PROJECT DESCRIPTION

This is a placeholder for future capital project costs. Annual JWC cost estimates begin in FY2027.

Costs shown below are TVWD's share of projected total project costs. Therefore, under Funding Sources, the partner cost percentage (of the costs shown) is zero (0%).

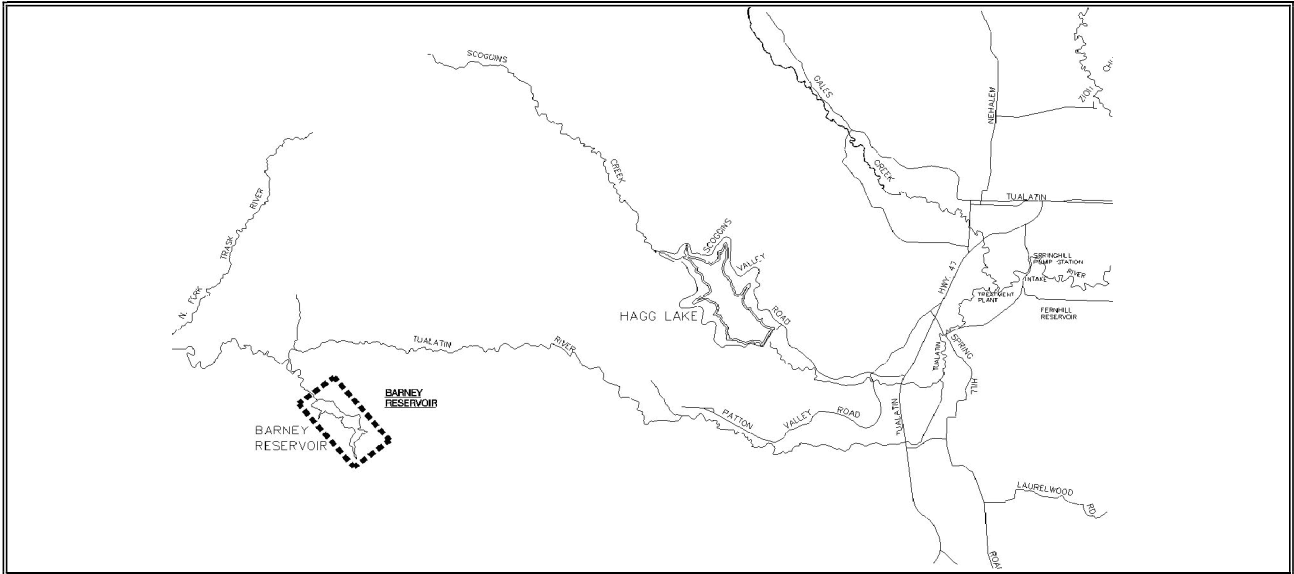
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	JWC	Water Rates:	Yes	No material impact anticipated.
Project Manager:	Pete Boone	Service Fees:	No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%	
Total Priority Score:	This is a partnership project, agreed to by the JWC.	Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
-	-	-	-	-	-	-	121,500	121,500	8,549,000

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: JWC Water Line Cathodic Protection



KEY DRIVERS FOR CIP PROJECT

1.	Asset Condition	Project will reduce corrosion in water transmission lines.
2.	Cost Effectiveness / Community Benefit	Project will increase the useful lives of water transmission lines.
3.	Reliability	Cathodic protection reduces the risk of service interruption due to leaks caused by corrosion.

PROJECT DESCRIPTION

Multiyear project to install cathodic protection devices to water transmission lines. FY 19-20 budget is for a study to identify optimal placement. Inspection will assess soil conditions and other factors to identify specific locations to install anodes. Thereafter, the budget is for installation of cathodic protection devices on identified sections of pipelines until project completion. Will increase the useful life of assets by reducing corrosion.

Costs shown below are TVWD's share of projected total project costs. Therefore, under Funding Sources, the partner cost percentage (of the costs shown) is zero (0%).

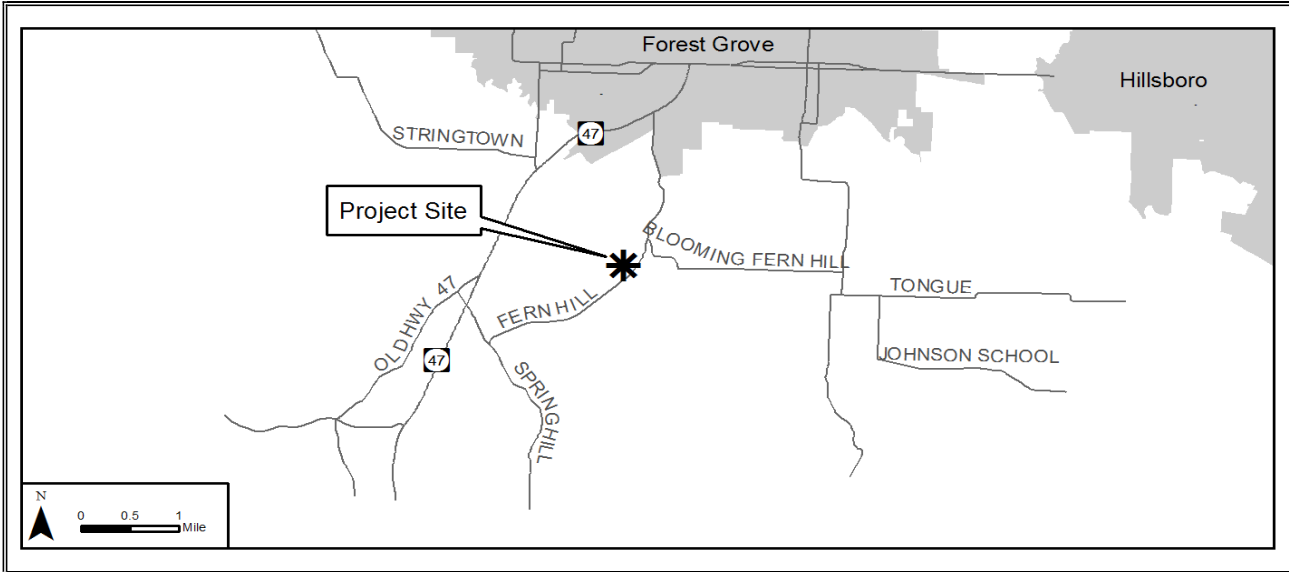
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	JWC	Water Rates:	Yes	Cathodic protection is anticipated to mitigate premature transmission line failure due to corrosive soils, thereby reducing future maintenance and repair costs.
Project Manager:	Pete Boone	Service Fees:	No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%	
Total Priority Score:	This is a partnership project, agreed to by the JWC.	Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
66,900	25,590	25,600	26,500	27,400	28,400	29,400	30,400	167,700	52,400

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: JWC Spring Hill Pumping Plant Mitigation Project



KEY DRIVERS FOR CIP PROJECT

1.	Timing	Existing fish screen does not meet criteria set by National Marine Fisheries Service (NMFS) and the Oregon Department of Fish and Wildlife (ODFW).
2.	Cost Effectiveness / Community Benefit	Mitigation, potentially in the form of a small culvert replacement, aims to avoid costs associated with the entire Spring Hill Pump Plant.
3.	Environment	Culvert replacement satisfies NMFS and ODFW criteria for providing safer fish passage.

PROJECT DESCRIPTION

The fish screen at the Spring Hill Pump Plant (SHPP) does not meet criteria set by NMFS and ODFW. When JWC submitted a new supplemental water right application on the Tualatin River for non-peak season flows, ODFW let us know that they will not approve the water right without a fish screen that meets their criteria (including approach velocities, sweeping velocities, and slot size). NMFS has signed off on the fish screen due to the small number of endangered and threatened fish that are present, so the Bureau of Reclamation and Tualatin Valley Irrigation District do not have any motivation or requirement to update the fish screen of the facility. In order to avoid paying costs associated with the entire SHPP, JWC proposed mitigation in lieu of fish screen or intake replacement. JWC completed a fish passage and impingement study over the last year that indicates that a mitigation project will be required for the JWC portion of the intake. JWC is investigating a small culvert replacement for the mitigation project.

Costs shown below are TVWD's share of projected total project costs. Therefore, under Funding Sources, the partner cost percentage (of the costs shown) is zero (0%).

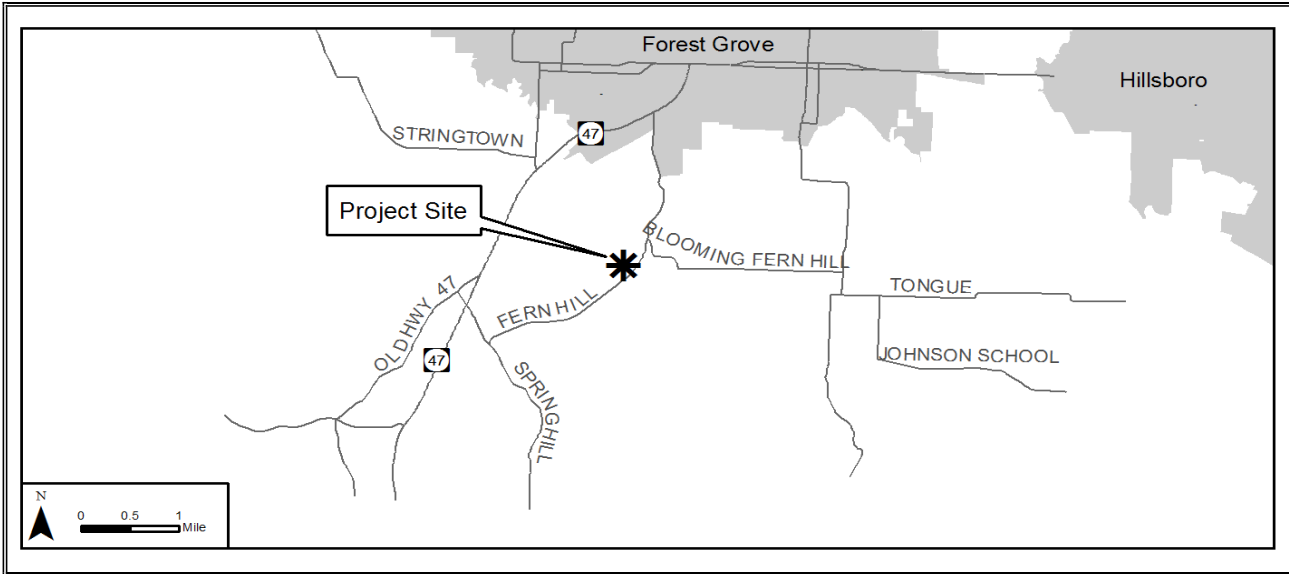
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	JWC	Water Rates:	Yes	No material impact anticipated. Avoids capital cost of replacing fish screen at the Spring Hill Pump Plant.	
Project Manager:	Pete Boone	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	This is a partnership project, agreed to by the JWC.	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
140,200	52,204	95,500	10,600	-	-	-	-	106,100	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: JWC Disinfection Facility (Gaseous Chlorine Replacement)



KEY DRIVERS FOR CIP PROJECT

1.	Reliability	Improvements required to maintain reliable supply.
2.	Safety / Security	Producing chlorine on an as-needed basis will reduce chemical storage requirements.
3.	Asset Condition	This project will modernize operations at the JWC treatment facility.

PROJECT DESCRIPTION

The disinfection facility is a replacement to the existing chlorine gas system. Generating chlorine on-site will reduce the need to store large amounts of chlorine gas.

Costs shown below are TVWD's share of projected total project costs. Therefore, under Funding Sources, the partner cost percentage (of the costs shown) is zero (0%).

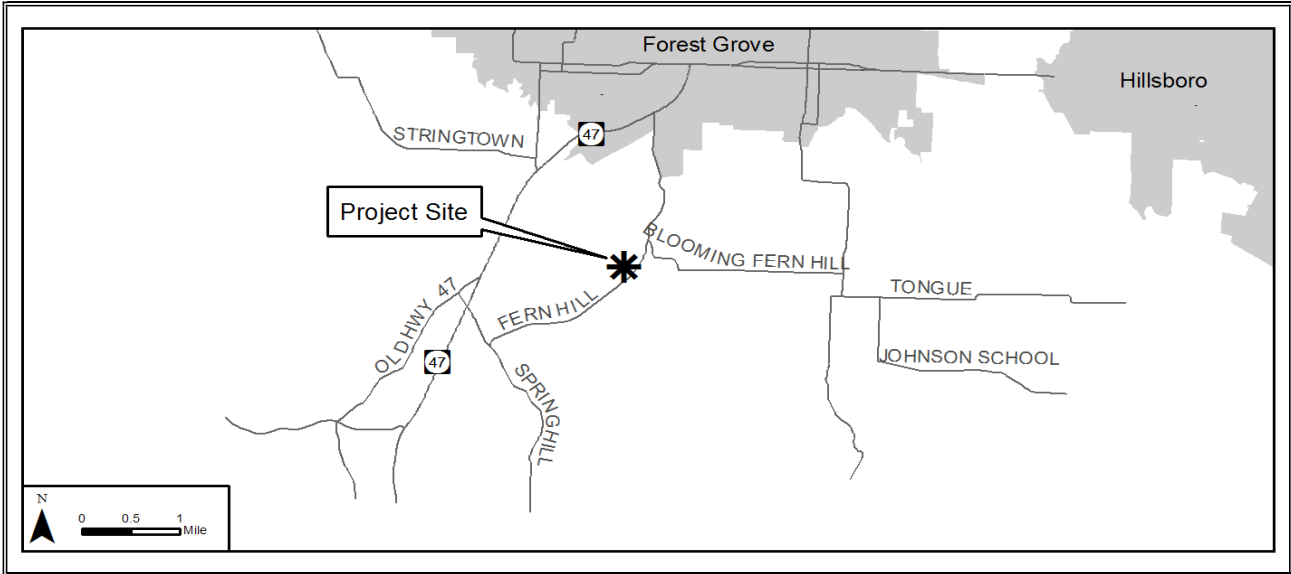
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	JWC	Water Rates:	Yes	No material net impact is anticipated. There will be new operating costs associated with the facility, however, these costs will be offset by the reduction in costs from safely transporting and storing chlorine gas.
Project Manager:	Pete Boone	Service Fees:	No	
Work Performed By:	Outside Contract	SDC Improvment. Fee Elg.:	0%	
Total Priority Score:	This is a partnership project, agreed to by the JWC.	Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
18,300	-	-	-	59,400	394,000	408,000	-	861,400	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: JWC Land Purchase



KEY DRIVERS FOR CIP PROJECT

1.	Customer Criticality	The future larger intake will provide additional capacity for the JWC partners and their customers.
2.	Timing	Additional site space is required to expand the intake facility to meet growing demands cost effectively.
3.	Reliability	Improvements required to maintain reliable supply.

PROJECT DESCRIPTION

Purchase land to site a new intake facility in the future. This will replace the existing intake facility with a larger intake. The JWC would like this to be complete by the end of FY20-21, but it is not clear whether the property owners are willing to sell. Due to the uncertainty of the purchase, the JWC will continue to roll forward the cost balance until it is able to purchase land.

Costs shown below are TVWD's share of projected total project costs. Therefore, under Funding Sources, the partner cost percentage (of the costs shown) is zero (0%).

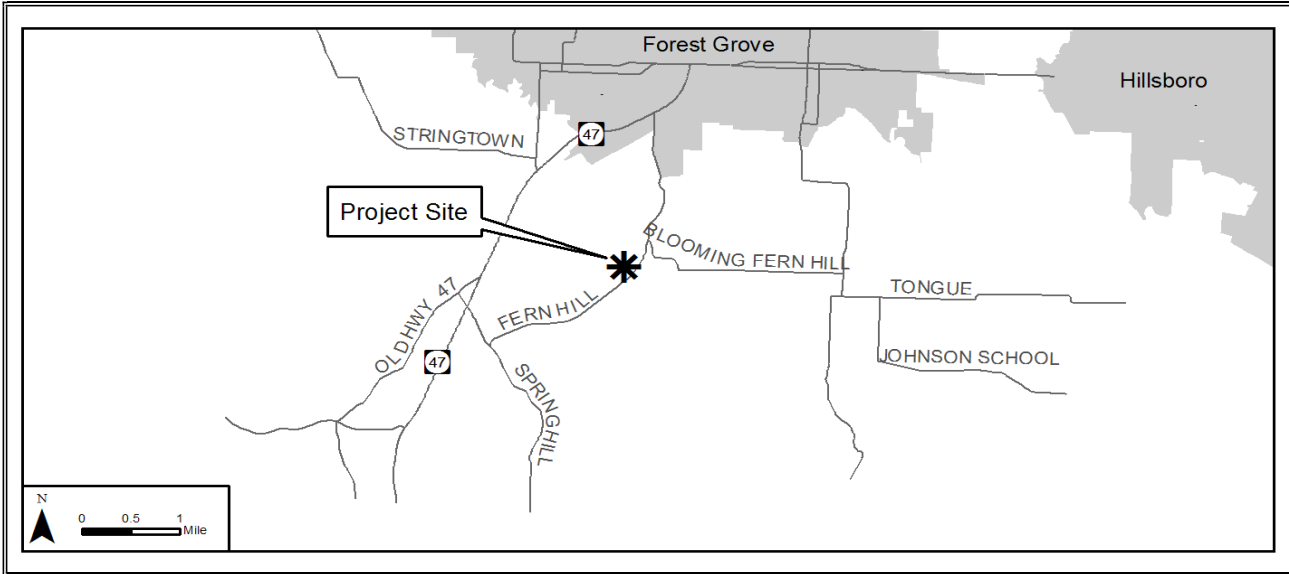
PROJECT INFORMATION		FUNDING SOURCES	FUTURE OPERATING COST IMPACT
Project Category:	JWC	Water Rates: Yes	There is no anticipated change in operating costs associated with the land for the expansion site.
Project Manager:	Pete Boone	Service Fees: No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.: 0%	
Total Priority Score:	This is a partnership project, agreed to by the JWC.	Partner Cost Percentage: 0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
136,480	-	136,500	-	-	-	-	-	136,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: BRJOC Capital & Improvements



KEY DRIVERS FOR CIP PROJECT

1.	Timing	Maintains supply for multiple water supply partners.
2.	Customer Criticality	Reserves funds to ensure continuity of service in the event of unanticipated maintenance or equipment repair needs.
3.	Reliability	Improvements required to maintain reliable supply.

PROJECT DESCRIPTION

This project funds a reserve for unanticipated capital expenses for the Barney Reservoir Joint Ownership Commission (BRJOC) partners. Reserve funds are allocated based on ownership shares of the reservoir facilities, of which the District is a 35% owner. Establishment of the reserve provides resources to the BRJOC in the event of unplanned capital expenditure needs. Use of the reserve requires approval by all BRJOC partners including the District.

Costs shown below are TVWD's share of projected total project costs. Therefore, under Funding Sources, the partner cost percentage (of the costs shown) is zero (0%).

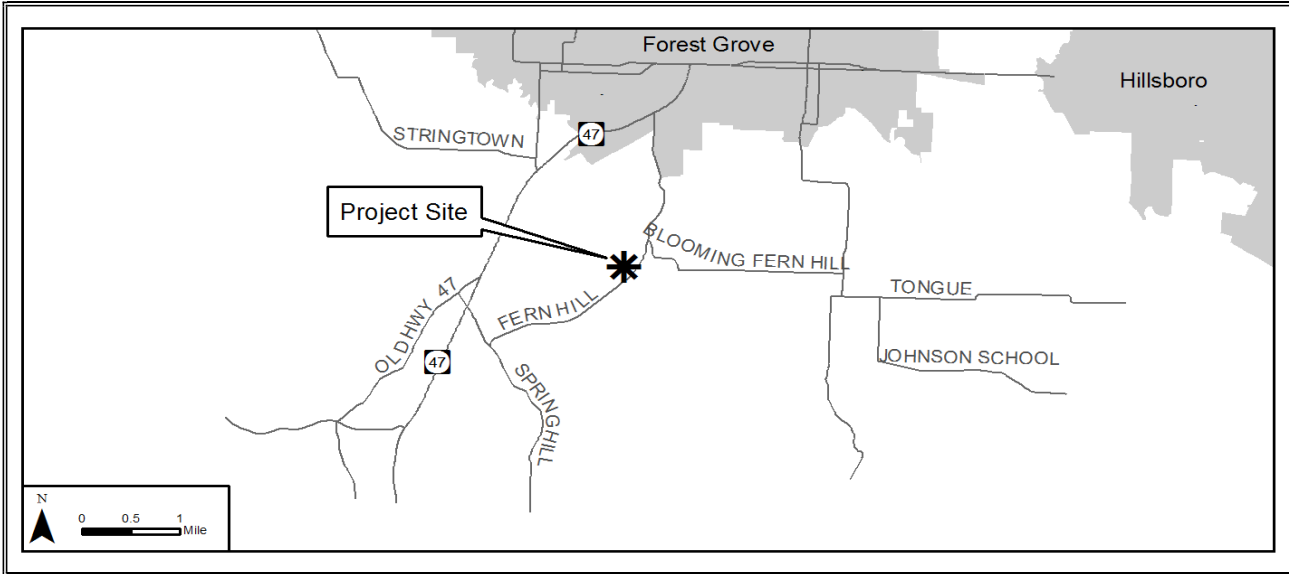
PROJECT INFORMATION		FUNDING SOURCES	FUTURE OPERATING COST IMPACT
Project Category:	JWC	Water Rates: Yes	No material impact anticipated.
Project Manager:	Pete Boone	Service Fees: No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.: TBD	
Total Priority Score:	This is a partnership project, agreed to by the JWC.	Partner Cost Percentage: 0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
128,200	-	42,000	43,500	45,000	46,600	48,200	49,900	275,200	1,779,000

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: JWC Equipment Replacement



KEY DRIVERS FOR CIP PROJECT

1.	Timing	Maintains supply for multiple water supply partners.
2.	Customer Criticality	Reserves funds to ensure continuity of service in the event of unanticipated maintenance or equipment repair needs.
3.	Reliability	Improvements required to maintain reliable supply.

PROJECT DESCRIPTION

This project funds a reserve for unanticipated capital expenses for the Joint Water Commission partners. Reserve funds are allocated based on ownership shares of Joint Water Commission facilities, of which the District is a 16.67% owner. Establishment of the reserve provides resources to the JWC in the event of unplanned capital expenditure needs. Use of the reserve requires approval by all JWC partners including the District.

Costs shown below are TVWD's share of projected total project costs. Therefore, under Funding Sources, the partner cost percentage (of the costs shown) is zero (0%).

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	JWC	Water Rates:	Yes	No material impact anticipated.	
Project Manager:	Pete Boone	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	0%		
Total Priority Score:	NA	Partner Cost Percentage:	0%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Budget	FY 22-23 Budget	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-50)
341,200	-	341,200	-	341,200	-	341,200	-	1,023,600	3,753,200

Willamette Water Supply System (WWSS) (Fund 45)

No Staff

As part of the Willamette Water Supply Program (WWSP) the Willamette Water Supply System (WWSS) Fund accounts for the activities of the WWSS Commission; an intergovernmental agreement among the cities of Beaverton, Hillsboro, and TVWD. The WWSS Commission was established to design and construct the Willamette Water Supply System by 2026, and will own, operate, and maintain the assets that make up the system for the benefit of the partners. As the managing agency, TVWD incorporates the budget adopted by the WWSS Commission into the District's biennial budget. Resources for the fund include member dues and contributions for capital outlay. The WWSS is audited separately and the fund is not included as part of TVWD's audited financial statements.

Major Budget Changes for 2021-23

- The WWSS Fund was established in the 2019-21 Biennium and replaced the District's Willamette Water Supply Program Fund (15) which was established in 2014. The Fund is used to track the costs associated with planning, design, and construction of the WWSS.
- Materials and Services appropriations are for general administration, insurance, and auditing fees.
- Capital Outlay appropriations are for the permitting, design, construction and related costs for the WWSS which is scheduled for completion in December 2026. When complete, the WWSS will be one of Oregon's most seismically-resilient waters systems, built to better withstand natural disasters, protect public health and speed regional economic recovery through restoring critical services quickly.
- A summary of the 2021-23 projects, six-year CIP, WWSP schedule and individual project pages begin on page 16-4. Total expenditures include both the District cost shares and those of the WWSS partners, the cities of Hillsboro and Beaverton.

Willamette Water Supply System (WWSS) – Fund Budget Summary

Historical Data			TOTAL FUND 45 BUDGET	Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Appropriations Category	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$0	\$0	\$1,714,154	Materials & Services	\$2,343,405	\$2,343,405	\$2,343,405	36.7%
\$0	\$0	\$217,296,865	Capital Outlay	\$452,289,650	\$452,289,650	\$452,289,650	108.1%
\$0	\$0	\$0	Transfers	\$0	\$0	\$0	N/A
\$0	\$0	\$173,000	General Operating Contingency	\$235,000	\$235,000	\$235,000	35.8%
-----	-----	-----		-----	-----	-----	-----
\$0	\$0	\$219,184,019	Total Expenditures – Fund 45	\$454,868,055	\$454,868,055	\$454,868,055	107.5%

General Services Division (45-60-01) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$0	\$0	\$1,138,154	Operating Expenses	45-60-01-7000	\$1,001,020	\$1,001,020	\$1,001,020	-12.0%
\$0	\$0	\$270,000	Professional Services	45-60-01-7310	\$1,108,555	\$1,108,555	\$1,108,555	310.6%
\$0	\$0	\$220,000	Insurance Expense	45-60-01-7320	\$69,085	\$69,085	\$69,085	-68.6%
\$0	\$0	\$8,400	Business Expense	45-60-01-7330	\$10,395	\$10,395	\$10,395	23.8%
\$0	\$0	\$17,000	Property Maintenance	45-60-01-7400	\$71,750	\$71,750	\$71,750	322.1%
\$0	\$0	\$6,000	Public Information	45-60-01-7450	\$0	\$0	\$0	-100.0%
\$0	\$0	\$30,600	Audit Fees	45-60-01-7490	\$21,100	\$21,100	\$21,100	-31.0%
\$0	\$0	\$24,000	Locates	45-60-01-7678	\$61,500	\$61,500	\$61,500	156.3%
-----	-----	-----			-----	-----	-----	-----
\$0	\$0	\$1,714,154	Total Materials & Services		\$2,343,405	\$2,343,405	\$2,343,405	36.7%

Tualatin Valley Water District
2021-2023 Biennial Budget
Capital Improvement Plan

Willamette Water Supply Program

Project	Value	Page
WTP 1.0 Willamette Water Treatment Plant	\$89,013,400	16 - 6
RWF 1.0 Raw Water Facility	35,833,275	16 - 7*
PLM 1.0 WTP to Day Road	28,685,184	16 - 8
PLM 4.0 124th to Beef Bend Road	106,619,445	16 - 9
PLM 5.0 Beef Bend to Farmington	42,719,134	16 - 10
RES 1.0 Storage Reservoirs	29,835,875	16 - 11
PLW 1.0 Farmington to Frances	28,895,671	16 - 12
PLW 2.0 Frances to Hwy 26	13,176,460	16 - 13
MPE 1.0 Metzger Pipeline East	82,747,861	NA**
DCS 1.0 Distribution Control System	1,587,513	16 - 14
System-Wide Costs	68,400,751	16 - 15
COB_1.0 City of Beaverton	14,056,679	NA***
Total 2021-23 WWSP Expenditures and Transfers	<u>\$541,571,247</u>	
Less: Willamette Intake Facilities (WIF) incl. in RWF 1.0*	\$6,533,736	
Less: MPE 1.0 Metzger Pipeline East**	82,747,861	
Net 2021-23 WWSS Expenditures and Transfers	<u><u>\$452,289,650</u></u>	

* Total project costs include Willamette Intake Facilities (WIF) Commission Shares.

See Section 17 – Willamette Intake Facilities.

** The project pages for MPE 1.0 are included as 15-69 through 15-71 in Section 15 – Capital Improvement Plan.

*** COB 1.0 is a project being executed by the WWSP on behalf of the City of Beaverton.

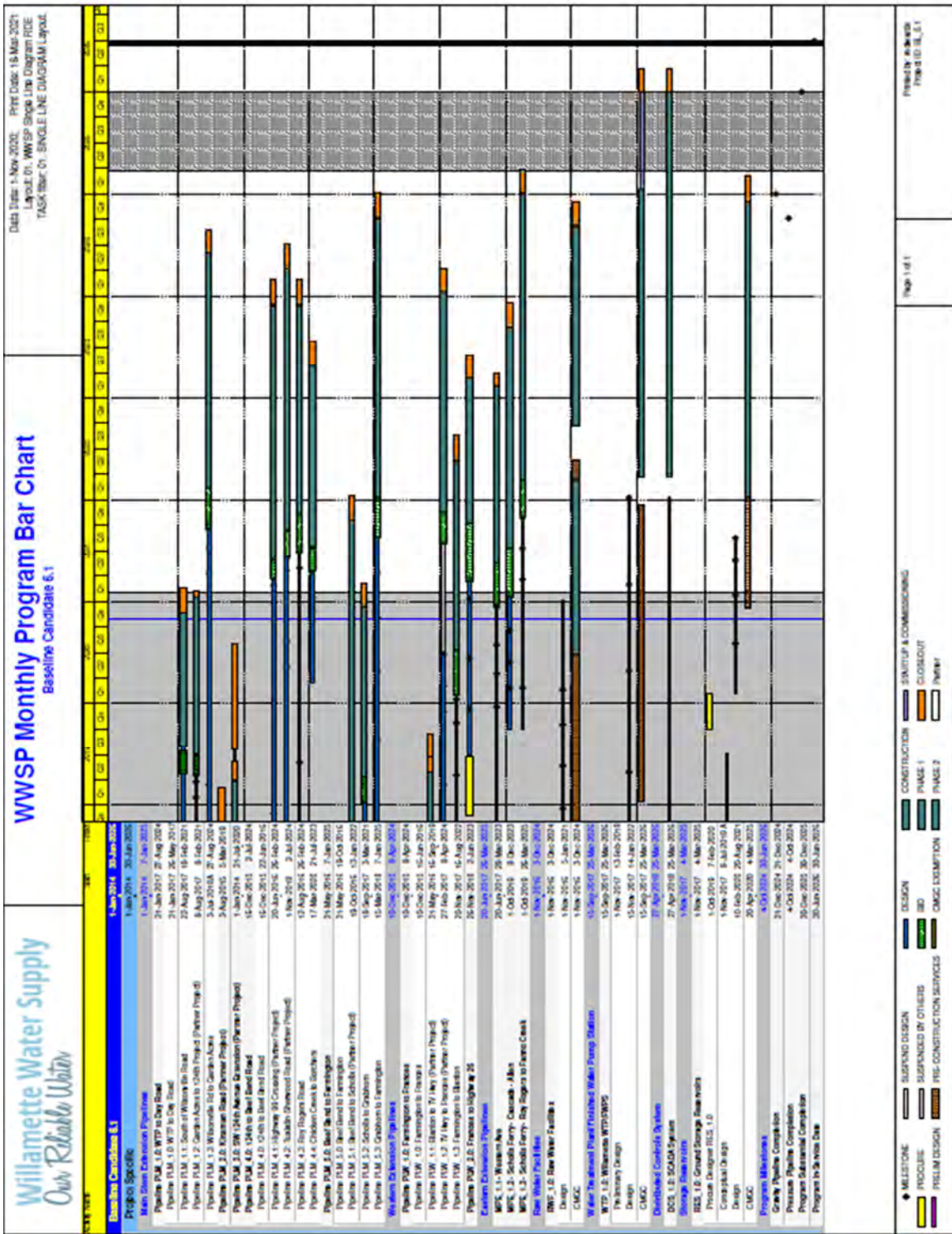
Willamette Water Supply Program Six-Year CIP Planned Expenditures (FY2022-27)

Project	Page	2019-21 Projected	2021-2023 Biennial Budget 6-Year CIP						Totals	
			FY2022 Adopted	FY2023 Adopted	FY2024 Projected	FY2025 Projected	FY2026 Projected	FY2027 Projected	Eight-Year FY2020-27	Six-Year FY2022-27
Willamette Water Supply Program (WWSP)										
WTP 1.0 Willamette Water Treatment Plant	16 - 6	\$ 13,824,687	\$ 7,224,290	\$ 81,789,110	\$104,169,623	\$ 64,548,601	\$ 28,899,163	\$ -	\$ 300,455,474	\$ 286,630,787
RWF 1.0 Raw Water Facility	16 - 7*	31,036,525	20,157,154	15,676,121	27,462,770	1,824,150	-	-	96,156,720	65,120,195
PLM 1.0 WTP to Day Road	16 - 8	16,902,657	3,741,771	24,943,413	12,838,081	869,994	-	-	59,295,916	42,393,259
PLM 2.0 Kinsman Road	NA	110	-	-	-	-	-	-	110	-
PLM 3.0 SW 124th Avenue Extension	NA	410,611	-	-	-	-	-	-	410,611	-
PLM 4.0 124th to Beef Bend Road	16 - 9	3,152,494	26,966,540	79,652,905	9,836,806	12,182	-	-	119,620,927	116,468,433
PLM 5.0 Beef Bend to Farmington	16 - 10	40,265,537	7,714,345	35,004,789	26,967,819	4,388,868	-	-	114,341,358	74,075,821
RES 1.0 Storage Reservoirs	16 - 11	5,554,626	6,333,822	23,502,053	22,706,772	5,786,038	-	-	63,883,311	58,328,685
PLW 1.0 Farmington to Frances	16 - 12	20,219,216	17,897,448	10,998,222	2,015,682	-	-	-	51,130,569	30,911,353
PLW 2.0 Frances to Hwy 26	16 - 13	5,324,903	7,022,900	6,153,559	-	-	-	-	18,501,363	13,176,460
MPE 1.0 Metzger Pipeline East	NA**	6,428,770	34,790,458	47,957,403	24,131,473	5,794,214	1,675,302	714,099	121,491,719	115,062,949
DCS 1.0 Distribution Control System	16 - 14	1,098,831	641,858	945,655	1,671,701	1,073,170	486,408	-	5,917,623	4,818,792
System-Wide Costs	16 - 15	38,331,025	40,640,065	27,760,686	20,762,606	16,730,458	31,010,289	6,403,488	181,638,617	143,307,592
COH_1.0 Hillsboro	NA***	105,900	-	-	-	-	-	-	105,900	-
COB_1.0 City of Beaverton	NA***	2,008,384	6,777,639	7,279,040	734,645	-	-	-	16,799,708	14,791,324
Total Willamette Water Supply Program		\$184,664,276	\$179,908,292	\$361,662,955	\$253,297,978	\$101,027,675	\$ 62,071,162	\$ 7,117,588	\$1,149,749,927	\$ 965,085,651

* Total project costs include Willamette Intake Facilities (WIF) Commission Shares. See Section 17 – Willamette Intake Facilities.

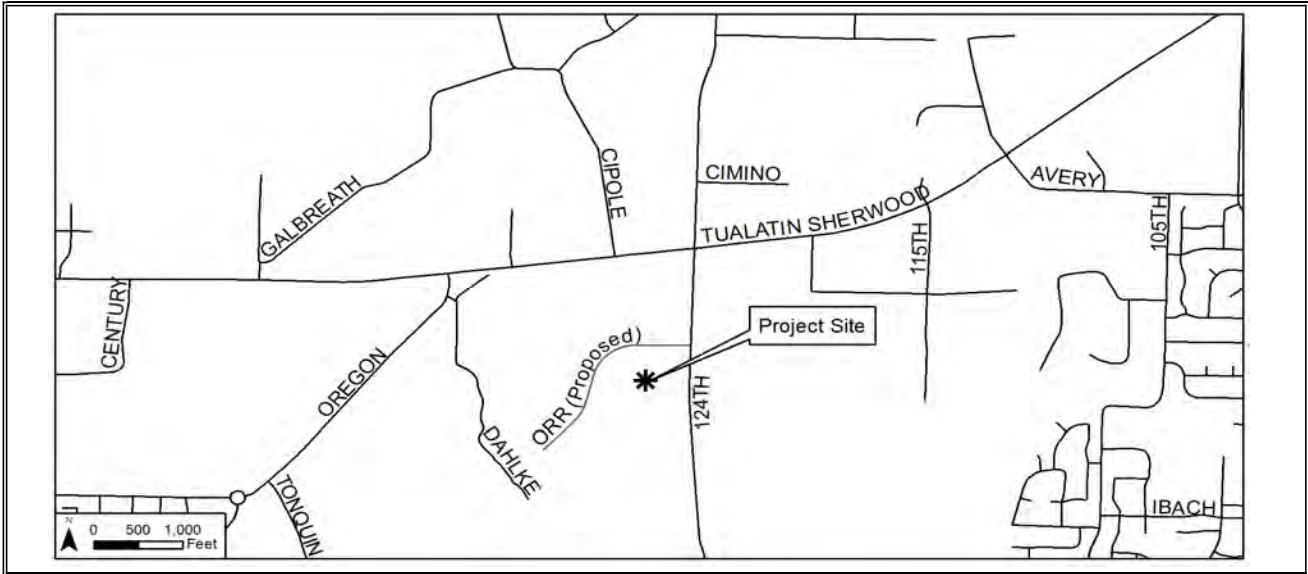
** MPE 1.0 values include share of system-wide costs. The project pages for MPE 1.0 are included as 15-69 through 15-71 in Section 15 – Capital Improvement Plan.

*** COH 1.0 and COB 1.0 are projects being executed by the WWSP on behalf the City of Hillsboro and the City of Beaverton, respectively.



Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: WTP 1.0 Willamette Water Treatment Plant



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Willamette Water Supply System (WWSS) will provide reliable and safe drinking water to the District's customers.
2.	Growth/Future Demands	Project is a key element of the District's long-term supply portfolio that will meet current and future demands.
3.	Reliability	WWSS will increase overall reliability by providing a new, seismically resilient source for the District.

PROJECT DESCRIPTION

The Water Treatment Plant project includes a new water treatment plant in the City of Sherwood with an initial capacity of 60 mgd with a future re-rate capacity of 72 mgd and a build-out capacity of 120 mgd to provide seismically resilient supply to TVWD and its WWSS Partners. The plant includes construction of new treatment facilities including primary processes (ballasted flocculation, intermediate ozonation, granular activated carbon filters, UV disinfection, chlorine disinfection), residuals handling systems, chemical feed, treated water storage and pumping, and other ancillary facilities.

Anticipated construction activities in FY2028-36 will complete ancillary components of the plant deferred during initial construction.

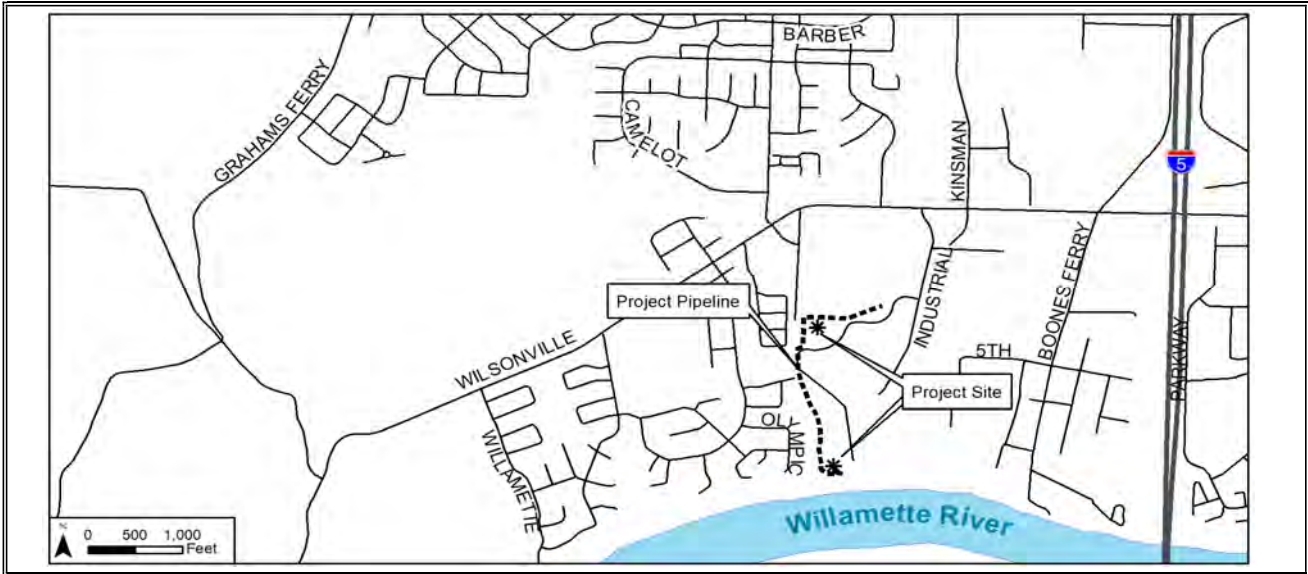
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Facilities	Water Rates:	Yes	Overall, the WWSS will result in significant savings by eliminating purchase water costs from Portland. The District is projecting net savings of approximately \$5.6 million in FY2027 (i.e., a 40% decrease from FY2026), after shifting from 100% purchased water costs to a new balance of JWC water purchases plus the costs of WWSS treatment and pumping power.
Project Manager:	Mike Britch	Service Fees:	No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%	
Total Priority Score:	NA	Partner Cost Percentage:	38%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Projected	FY 22-23 Projected	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-36)
11,131,263	13,824,687	7,224,290	81,789,110	104,169,623	64,548,601	28,899,163	-	286,630,787	9,803,826

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: RWF 1.0 Raw Water Facility



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Willamette Water Supply System (WWSS) will provide reliable and safe drinking water to the District's customers.
2.	Growth/Future Demands	Project is a key element of the District's long-term supply portfolio that will meet current and future demands.
3.	Reliability	WWSS will increase overall reliability by providing a new, seismically resilient source for the District.

PROJECT DESCRIPTION

The Raw Water Facilities Project is an expansion of the existing raw water pump station and intake infrastructure at the Willamette River Water Treatment Plant. The expansion will result in an initial WWSS capacity of 60 mgd. Major project elements include new vertical turbine pumps with variable frequency drives, electrical facilities, water surge protection, backup power, raw water pipeline at the WRWTP site, and seismic improvements.

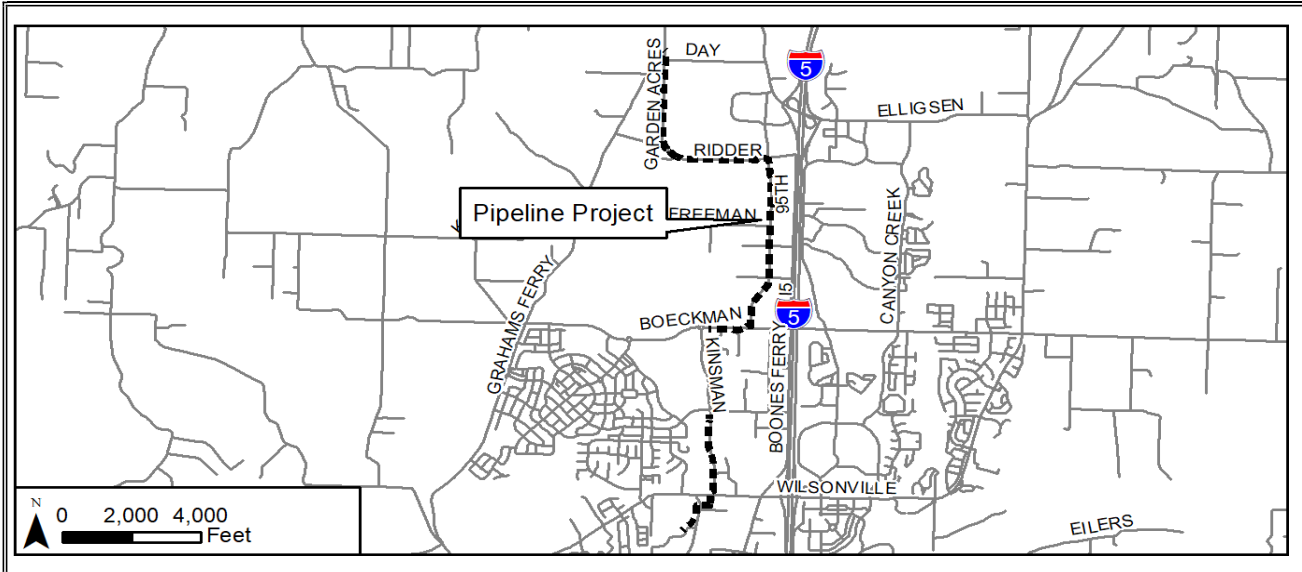
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Facilities	Water Rates:	Yes	Annual O&M costs for RWF 1.0 will be approx. \$20,000 (today's dollars). Overall, the WWSS will result in significant savings by eliminating purchased water costs from Portland. Projected net savings are \$5.6 million in FY2027 (i.e., a 40% decrease from FY2026), after the shift from 100% purchased water to a mix of JWC purchases plus the costs of WWSS treatment and pumping power.	
Project Manager:	Mike Britch	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%		
Total Priority Score:	NA	Partner Cost Percentage:	45%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Projected	FY 22-23 Projected	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-36)
32,334,588	31,036,525	20,157,154	15,676,121	27,462,770	1,824,150	-	-	65,120,195	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: PLM 1.0 WTP to Day Road



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Willamette Water Supply System (WWSS) will provide reliable and safe drinking water to the District's customers.
2.	Growth/Future Demands	Project is a key element of the District's long-term supply portfolio that will meet current and future demands.
3.	Reliability	WWSS will increase overall reliability by providing a new, seismically resilient source for the District.

PROJECT DESCRIPTION

The Wilsonville Area Pipeline Project is a conveyance pipeline for raw water from the Willamette River WTP site located in Wilsonville to the intersection of SW Garden Acres Road and Day Road. However, this pipeline package does not include PLM_2.0 Kinsman Road Pipeline package. This project includes 16,800 linear feet of 66-inch diameter welded steel pipeline. The project is currently split into three construction bid packages, of which the first two are constructed: PLM_1.1, PLM_1.2, and PLM_1.3.

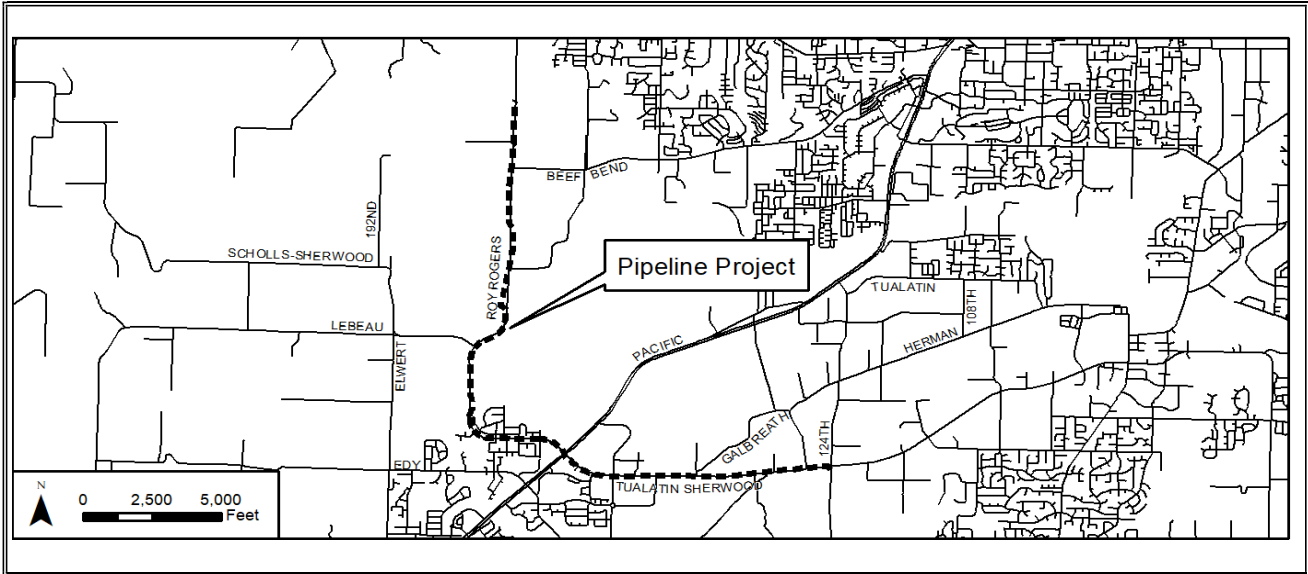
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	Annual O&M costs of valves on PLM 1.0 will be approx. \$27,000 (today's dollars). Overall, the WWSS will result in significant savings by eliminating purchased water costs from Portland. Projected net savings are \$5.6 million in FY2027 (i.e., a 40% decrease from FY2026), after the shift from 100% purchased water to a mix of JWC purchases plus the costs of WWSS treatment and pumping power.	
Project Manager:	Mike Britch	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%		
Total Priority Score:	NA	Partner Cost Percentage:	41%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Projected	FY 22-23 Projected	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-36)
33,849,256	16,902,657	3,741,771	24,943,413	12,838,081	869,994	-	-	42,393,259	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: PLM 4.0 124th to Beef Bend Road



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Willamette Water Supply System (WWSS) will provide reliable and safe drinking water to the District's customers.
2.	Growth/Future Demands	Project is a key element of the District's long-term supply portfolio that will meet current and future demands.
3.	Reliability	WWSS will increase overall reliability by providing a new, seismically resilient source for the District.

PROJECT DESCRIPTION

The Tualatin-Sherwood Area Pipeline Project is a conveyance pipeline for finished water that includes 27,984 linear feet (5.3 miles) of 66-inch diameter welded steel pipeline. The project is split into four construction bid packages: PLM_4.1, PLM_4.2, PLM_4.3, and PLM_4.4. All packages except PLM_4.3 are partnership projects with Washington County. PLM_4.3 contains the Tualatin River trenchless crossing.

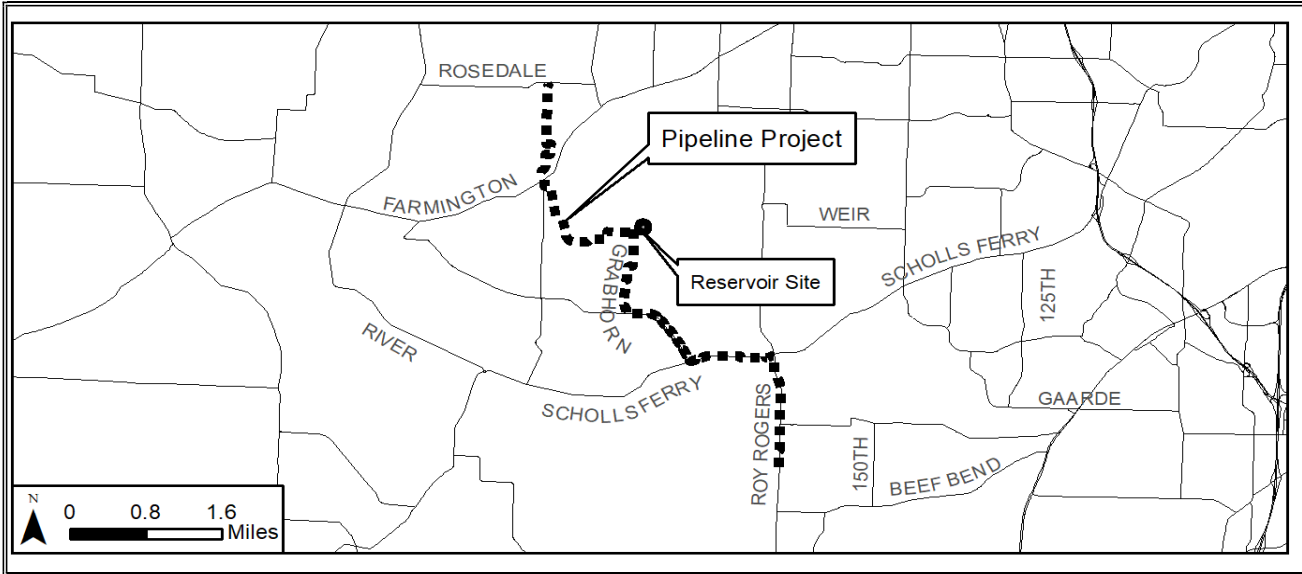
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	Annual O&M costs of valves on PLM 4.0 will be approx. \$54,000 (today's dollars). Overall, the WWSS will result in significant savings by eliminating purchased water costs from Portland. Projected net savings are \$5.6 million in FY2027 (i.e., a 40% decrease from FY2026), after the shift from 100% purchased water to a mix of JWC purchases plus the costs of WWSS treatment and pumping power.	
Project Manager:	Mike Britch	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%		
Total Priority Score:	NA	Partner Cost Percentage:	41%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Projected	FY 22-23 Projected	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-36)
12,887,154	3,152,494	26,966,540	79,652,905	9,836,806	12,182	-	-	116,468,433	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: PLM 5.0 Beef Bend to Farmington



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Willamette Water Supply System (WWSS) will provide reliable and safe drinking water to the District's customers.
2.	Growth/Future Demands	Project is a key element of the District's long-term supply portfolio that will meet current and future demands.
3.	Reliability	WWSS will increase overall reliability by providing a new, seismically resilient source for the District.

PROJECT DESCRIPTION

The Scholls Area Pipeline Project is a conveyance pipeline for finished water that includes 37,838 linear feet (7.2 miles) of 66-inch diameter welded steel pipeline. The project is currently split into three construction bid packages: PLM_5.1, PLM_5.2, and PLM_5.3. The first two packages are completed. The PLM_5.3 package includes the inlet and outlet piping for the reservoirs and PLM_5.3 is planned for construction with RES_1.0.

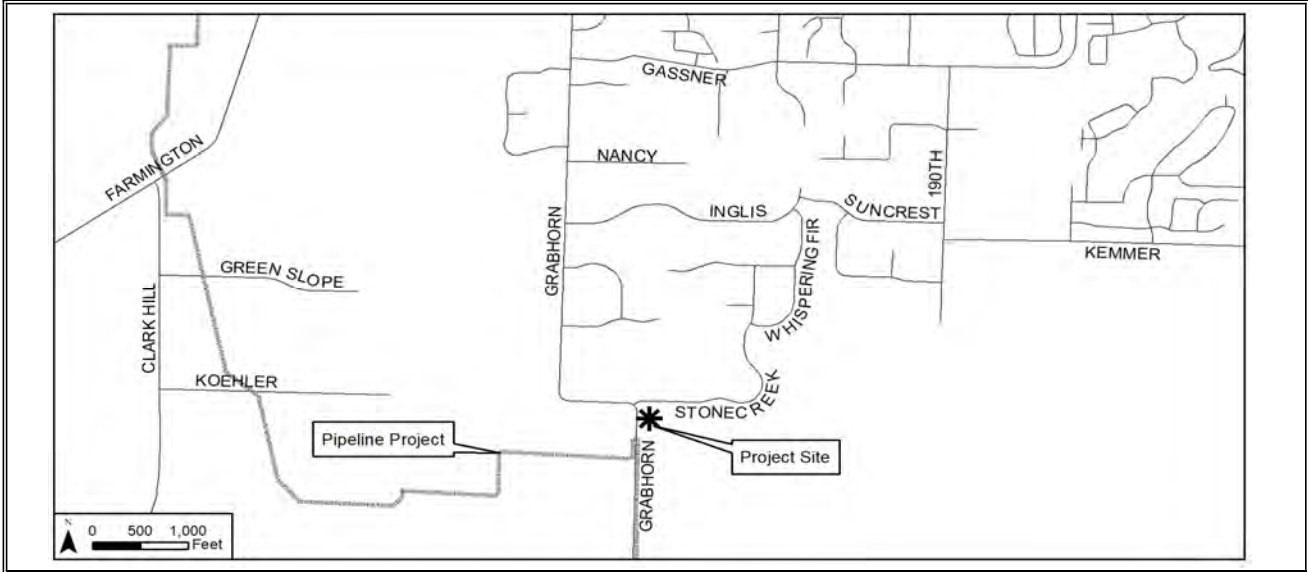
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Pipeline	Water Rates:	Yes	Annual O&M costs of valves on PLM 5.0 will be approx. \$63,000 (today's dollars). Overall, the WWSS will result in significant savings by eliminating purchased water costs from Portland. Projected net savings are \$5.6 million in FY2027 (i.e., a 40% decrease from FY2026), after the shift from 100% purchased water to a mix of JWC purchases plus the costs of WWSS treatment and pumping power.	
Project Manager:	Mike Britch	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%		
Total Priority Score:	NA	Partner Cost Percentage:	56%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Projected	FY 22-23 Projected	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-36)
44,571,729	40,265,537	7,714,345	35,004,789	26,967,819	4,388,868	-	-	74,075,821	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: RES 1.0 Storage Reservoirs



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Willamette Water Supply System (WWSS) will provide reliable and safe drinking water to the District's customers.
2.	Growth/Future Demands	Project is a key element of the District's long-term supply portfolio that will meet current and future demands.
3.	Reliability	WWSS will increase overall reliability by providing a new, seismically resilient source for the District.

PROJECT DESCRIPTION

The reservoir site consists of two new pre-stressed concrete water reservoirs, each with capacity of 15 million gallons (MG), located on the parcel east of the intersection of SW Grabhorn Road and SW Stonecreek Drive on Cooper Mountain, near the western edge of the City of Beaverton. The PLM_5.3 pipeline is planned for construction with RES_1.0.

Construction of the second tank is anticipated to occur in FY2035 and FY2036.

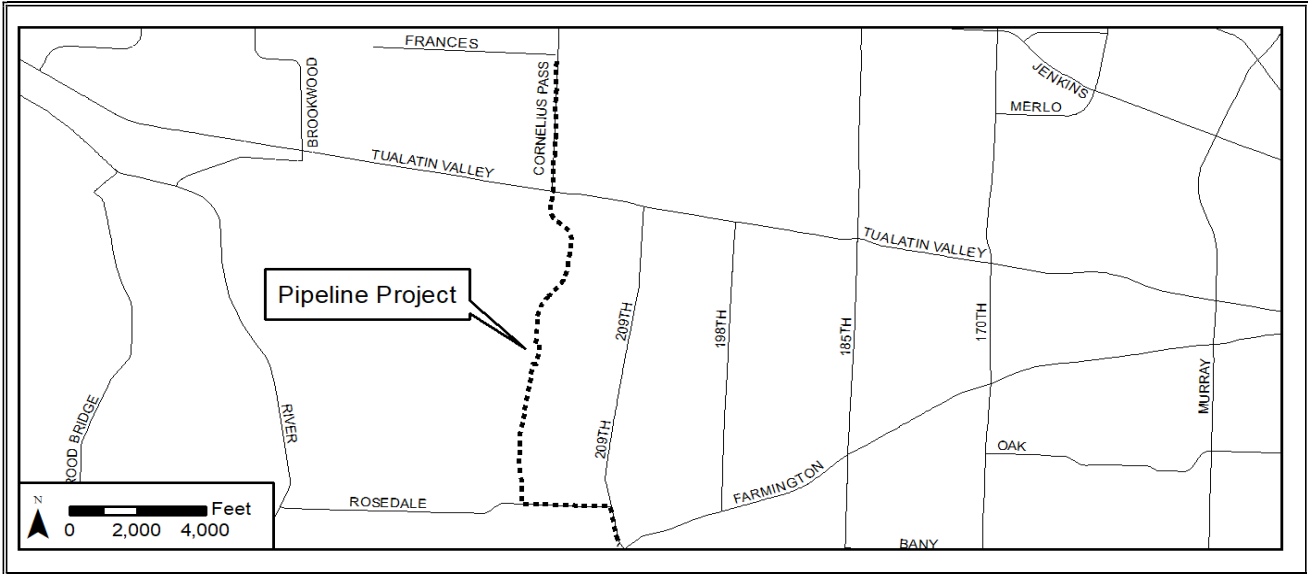
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	Storage	Water Rates:	Yes	Annual O&M costs for RES 1.0 will be approx. \$28,500 (today's dollars). Overall, the WWSS will result in significant savings by eliminating purchased water costs from Portland. Projected net savings are \$5.6 million in FY2027 (i.e., a 40% decrease from FY2026), after the shift from 100% purchased water to a mix of JWC purchases plus the costs of WWSS treatment and pumping power.	
Project Manager:	Mike Britch	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%		
Total Priority Score:	NA	Partner Cost Percentage:	45%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Projected	FY 22-23 Projected	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-36)
3,666,094	5,554,626	6,333,822	23,502,053	22,706,772	5,786,038	-	-	58,328,685	45,666,583

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: PLW 1.0 Farmington to Frances



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Willamette Water Supply System (WWSS) will provide reliable and safe drinking water to the District's customers.
2.	Growth/Future Demands	Project is a key element of the District's long-term supply portfolio that will meet current and future demands.
3.	Reliability	WWSS will increase overall reliability by providing a new, seismically resilient source for the District.

PROJECT DESCRIPTION

The South Hillsboro Area Pipeline Project is a conveyance pipeline for finished water that includes 20,952 linear feet (3.9 miles) of welded steel pipe ranging from 48-inch to 66-inches in diameter. This project is divided into three construction bid packages: PLW_1.1, PLW_1.2, and PLW_1.3. The first two packages are constructed.

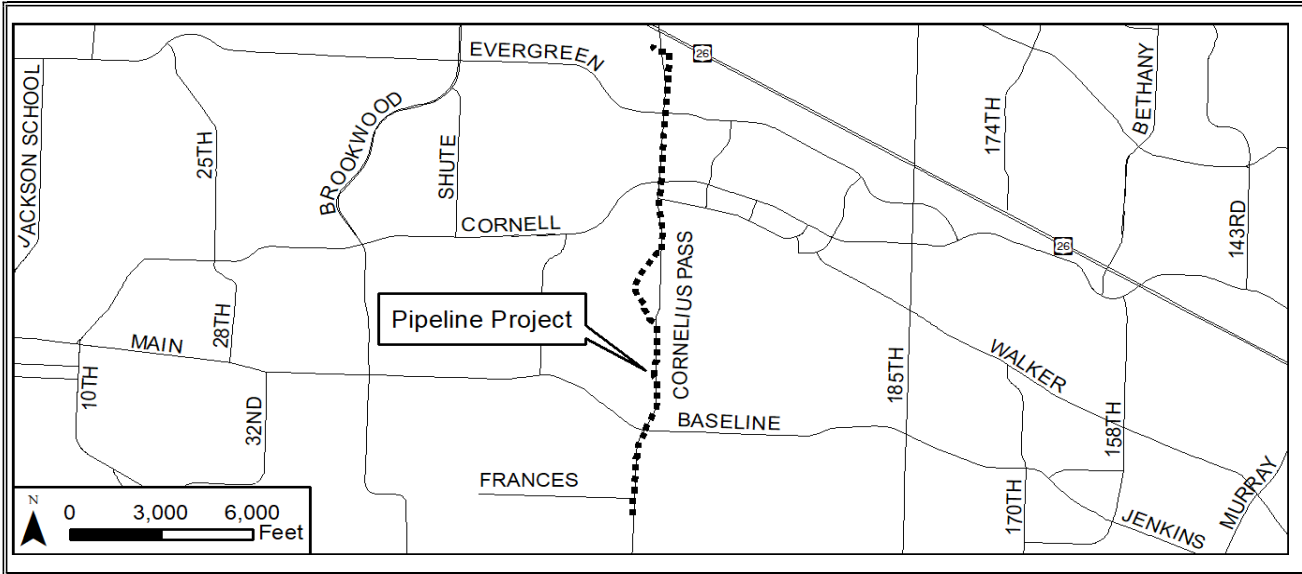
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	Annual O&M costs of valves on PLW 1.0 will be approx. \$48,000 (today's dollars). Overall, the WWSS will result in significant savings by eliminating purchased water costs from Portland. Projected net savings are \$5.6 million in FY2027 (i.e., a 40% decrease from FY2026), after the shift from 100% purchased water to a mix of JWC purchases plus the costs of WWSS treatment and pumping power.
Project Manager:	Mike Britch	Service Fees:	No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%	
Total Priority Score:	NA	Partner Cost Percentage:	61%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Projected	FY 22-23 Projected	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-36)
29,320,160	20,219,216	17,897,448	10,998,222	2,015,682	-	-	-	30,911,353	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: PLW 2.0 Frances to Hwy 26



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Willamette Water Supply System (WWSS) will provide reliable and safe drinking water to the District's customers.
2.	Growth/Future Demands	Project is a key element of the District's long-term supply portfolio that will meet current and future demands.
3.	Reliability	WWSS will increase overall reliability by providing a new, seismically resilient source for the District.

PROJECT DESCRIPTION

The Cornelius Pass Pipeline Project is a 17,500 linear feet (3.3-mile) of water pipeline along Cornelius Pass Road from SE Frances Street to Highway 26. It connects to existing supply lines for the City of Hillsboro and Tualatin Valley Water District.

Construction of 3,400 LF anticipated during FY2021-23; remainder anticipated to be constructed in FY2029-32.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	Annual O&M costs of valves on PLW 2.0 will be approx. \$40,000 (today's dollars). Overall, the WWSS will result in significant savings by eliminating purchased water costs from Portland. Projected net savings are \$5.6 million in FY2027 (i.e., a 40% decrease from FY2026), after the shift from 100% purchased water to a mix of JWC purchases plus the costs of WWSS treatment and pumping power.
Project Manager:	Mike Britch	Service Fees:	No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%	
Total Priority Score:	NA	Partner Cost Percentage:	56%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Projected	FY 22-23 Projected	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-36)
4,092,997	5,324,903	7,022,900	6,153,559	-	-	-	-	13,176,460	89,719,857

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: DCS 1.0 Distribution Control System



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Willamette Water Supply System (WWSS) will provide reliable and safe drinking water to the District's customers.
2.	Growth/Future Demands	Project is a key element of the District's long-term supply portfolio that will meet current and future demands.
3.	Reliability	WWSS will increase overall reliability by providing a new, seismically resilient source for the District.

PROJECT DESCRIPTION

Fiber optic conduit installation for pipelines that have not yet been constructed. Installation of remaining conduit and system-wide fiber optic communication is anticipated to be constructed in FY2028-36.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT	
Project Category:	SCADA	Water Rates:	Yes	Annual O&M costs for DCS 1.0 will be approx. \$137,000 (today's dollars). Overall, the WWSS will result in significant savings by eliminating purchased water costs from Portland. Projected net savings are \$5.6 million in FY2027 (i.e., a 40% decrease from FY2026), after the shift from 100% purchased water to a mix of JWC purchases plus the costs of WWSS treatment and pumping power.	
Project Manager:	Mike Britch	Service Fees:	No		
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.:	61%		
Total Priority Score:	NA	Partner Cost Percentage:	41%		

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Projected	FY 22-23 Projected	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-36)
749,225	1,098,831	641,858	945,655	1,671,701	1,073,170	486,408	-	4,818,792	10,398,767

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2021-23
 (Six-Year Projection)

PROJECT TITLE: System-Wide Costs



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Willamette Water Supply System (WWSS) will provide reliable and safe drinking water to the District's customers.
2.	Growth/Future Demands	System will be a new long-term supply source to meet current and future demands.
3.	Reliability	WWSS will increase overall reliability by providing a new, seismically resilient source for the District.

PROJECT DESCRIPTION

Program level costs associated with supporting the design and construction of the WWSS including costs for real estate and easements, permitting and mitigation, legal expenses, program management services, and management reserves

PROJECT INFORMATION		FUNDING SOURCES	FUTURE OPERATING COST IMPACT
Project Category:	NA	Water Rates: Yes	Overall, the WWSS will result in significant savings by eliminating purchased water costs from Portland. The District is projecting net savings of approximately \$5.6 million in FY2027 (i.e., a 40% decrease from FY2026), after shifting from 100% purchased water costs to a new balance of JWC water purchases plus the costs of WWSS treatment and pumping power.
Project Manager:	David Kraska	Service Fees: No	
Work Performed By:	Outside Contract	SDC Improvemt. Fee Elg.: 61%	
Total Priority Score:	NA	Partner Cost Percentage: 50%	

BUDGET INFORMATION & PROJECTED COSTS

FY 19-21 Budget	FY 19-21 Projected	FY 21-22 Projected	FY 22-23 Projected	FY 23-24 Projected	FY 24-25 Projected	FY 25-26 Projected	FY 26-27 Projected	Six-Year (FY2022-27)	Future Years (FY2028-36)
52,252,224	38,331,025	40,640,065	27,760,686	20,762,606	16,730,458	31,010,289	6,403,488	143,307,592	-



TUALATIN VALLEY
WATER DISTRICT

Willamette Intake Facilities (WIF)

(Fund 44)

No Staff

Also as part of the Willamette Water Supply Program (WWSP), the Willamette Intake Facilities (WIF) Fund accounts for the activities of the WIF Commission; an intergovernmental agreement whose members include the cities of Beaverton, Hillsboro, Sherwood, Tigard, Tualatin, Wilsonville, and TVWD. The WIF owns, operates, and maintains the intake facilities at the Willamette River Water Treatment Plant in Wilsonville for the benefit of its members. As the managing agency, TVWD incorporates the budget adopted by the WIF Commissioner into the District's biennial budget. Resources for the fund include member dues and contributions for capital outlay. The WIF is audited separately and the fund is not included as part of TVWD's audited financial statements.

Major Budget Changes for 2021-23

- The WIF Commission was established in April of 2018 and TVWD became the managing agency at that time.
- Materials and Services appropriations are for general administration, insurance, auditing fees, and water quality monitoring.
- Capital Outlay appropriations are for the replacement of the intake screens and related airburst system necessary to expand the capacity of the intake to serve the future Willamette Water Supply System, as well as seismic improvements intended to reduce the risk of failure in the event of a large-scale earthquake.
- The WIF Commission budgetary appropriations support the RWF 1.0 Raw Water Facility project is listed on page 16-8 of Section 16 - Willamette Water Supply System. Since the WIF is only part of the larger RWF 1.0 Raw Water Facility project and involve different partners, the WIF share of the assets are expended and recorded separately the WIF Fund.

Willamette Intake Facilities (WIF) – Fund Budget Summary

Historical Data			TOTAL FUND 44 BUDGET	Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Appropriations Category	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$0	\$63,434	\$346,615	Materials & Services	\$1,056,920	\$1,056,920	\$1,056,920	204.9%
\$0	\$2,372,148	\$7,557,825	Capital Outlay	\$6,533,736	\$6,533,736	\$6,533,736	-13.6%
\$0	\$0	\$0	Transfers	\$0	\$0	\$0	N/A
\$0	\$0	\$36,000	General Operating Contingency	\$107,000	\$107,000	\$107,000	197.2%
-----	-----	-----		-----	-----	-----	-----
\$0	\$2,435,582	\$7,940,440	Total Expenditures – Fund 44	\$7,697,656	\$7,697,656	\$7,697,656	-3.1%

General Services Division (44-60-01) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$0	\$38,149	\$249,165	Operating Expenses	44-60-01-7000	\$496,424	\$496,424	\$496,424	99.2%
\$0	\$0	\$22,550	Professional Services	44-60-01-7310	\$498,587	\$498,587	\$498,587	2111.0%
\$0	\$19,392	\$46,000	Insurance Expense	44-60-01-7320	\$47,355	\$47,355	\$47,355	2.9%
\$0	\$1,893	\$3,600	Business Expense	44-60-01-7330	\$3,690	\$3,690	\$3,690	2.5%
\$0	\$4,000	\$25,300	Audit Fees	44-60-01-7490	\$10,865	\$10,865	\$10,865	-57.1%
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\$0	\$63,434	\$346,615	Total Materials & Services		\$1,056,920	\$1,056,920	\$1,056,920	204.9%

Willamette River Water Coalition (Fund 41)



No Staff

The Willamette River Water Coalition (WRWC) Fund is used to account for the WRWC budget. WRWC's primary purpose is to maintain water rights on the Willamette River for the member agencies. Budget appropriations are approved annually by the WRWC Board, and incorporated into the District's budget. TVWD has been designated as the managing agency for the WRWC. Resources for the WRWC Fund come from dues paid by member agencies, which include TVWD, and the cities of Tigard, Tualatin and Sherwood. The WRWC Fund is audited separately as coordinated by the WRWC Board and District staff. This fund is not included in TVWD's audited financial statements.

Major Budget Changes for 2021-23

- TVWD remains the designated managing agency.
- Materials & Services appropriations primarily support WRWC activities including administration, water rights, governance, public outreach and interagency support.
- Professional Services expenditures includes WRWC's continued participation in the Willamette Basis Reallocation Study.

Willamette River Water Coalition – Fund Budget Summary

Historical Data			TOTAL FUND 41 BUDGET	Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Appropriations Category	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$324,435	\$107,364	\$167,000	Materials & Services	\$114,300	\$114,300	\$114,300	-31.6%
\$0	\$0	\$0	Capital Outlay	\$0	\$0	\$0	N/A
\$0	\$0	\$0	Transfers	\$0	\$0	\$0	N/A
\$0	\$12,900	\$0	General Operating Contingency	\$11,650	\$11,650	\$11,650	N/A
<u>\$324,435</u>	<u>\$120,264</u>	<u>\$167,000</u>	Total Expenditures – Fund 41	<u>\$125,950</u>	<u>\$125,950</u>	<u>\$125,950</u>	<u>-24.6%</u>

General Services Division (41-60-01) – Materials & Services Summary

Historical Data			MATERIALS & SERVICES		Total Budget for 2021-23			
Actual 15-17	Actual 17-19	Budget 19-21	Description	GL #	Proposed Budget	Approved Budget	Adopted Budget	% Change 19-21
\$84,000	\$48,000	\$50,000	Operating Expenses	41-60-01-7000	\$48,000	\$48,000	\$48,000	-4.0%
\$218,044	\$52,301	\$100,000	Professional Services	41-60-01-7310	\$51,000	\$51,000	\$51,000	-49.0%
\$20,339	\$2,928	\$5,000	Business Expense	41-60-01-7330	\$5,100	\$5,100	\$5,100	2.0%
\$0	\$1,135	\$0	Other Sundry	41-60-01-7360	\$0	\$0	\$0	N/A
\$2,053	\$0	\$4,000	Public Information	41-60-01-7450	\$2,000	\$2,000	\$2,000	-50.0%
\$0	\$3,000	\$8,000	Audit Fees	41-60-01-7490	\$8,200	\$8,200	\$8,200	2.5%
<u>\$324,435</u>	<u>\$107,364</u>	<u>\$167,000</u>	Total Materials & Services		<u>\$114,300</u>	<u>\$114,300</u>	<u>\$114,300</u>	<u>-31.6%</u>

DESCRIPTION OF THE TUALATIN VALLEY WATER DISTRICT

Website: www.tvwd.org

Finance Department: <https://www.tvwd.org/finance>

Tualatin Valley Water District (TVWD or District) is a domestic water supply district operating as authorized by Oregon Revised Statutes (ORS), chapter 264. It is governed by a five-member Board of Commissioners (Board), who are elected to overlapping four-year terms. The Board sets policy and appoints a Chief Executive Officer, who is charged with management of the District.

TVWD is organized into six departments. The six departments are Administrative Services, Customer Service, Engineering & Operations, Finance, Water Supply Program, and Information Technology Services. The Proposed 2021-2023 Budget includes a total of 142 full-time employee positions, a net decrease of two positions from the 2019-2021 biennium.

TVWD BOARD OF COMMISSIONERS AS OF JUNE 30, 2020

NAME, BOARD POSITION	FOUR YEAR TERMS ENDING
Bernice Bagnall, President	June 30, 2021
Dick Schmidt, Vice President	June 30, 2021
James Duggan, P.E., Treasurer	June 30, 2021
Todd Sanders, PhD, Secretary	June 30, 2023
Jim Doane, P.E., Acting Secretary	June 30, 2023

CHIEF EXECUTIVE OFFICER

Tom Hickmann, P.E.

TVWD is located west of the City of Portland, in suburban Washington County, Oregon. Currently, TVWD has approximately 60,000 service connections and serves about 217,200 people in portions of the cities of Beaverton, Hillsboro, Tigard, and unincorporated Washington County. While local population growth has been approximately 1.4% over the past ten years, customer growth within the District has averaged about 1.0% annually during the same period.

Located in northwestern Oregon, Washington County is one of the counties that comprise the Portland Metropolitan Statistical Area. The early economy of the Washington County area grew because of fertile agricultural and timberlands, and its access to the Willamette and Columbia rivers. The area began developing as a suburb of Portland, but has since developed its own economic base, which includes high technology, retail trade, and distribution. Large employers include Intel, Nike, Maxim Integrated Products, Reser's Fine Foods, and Providence Health Systems.

WATER SYSTEM



TVWD currently purchases all its water supply from two sources: The City of Portland and the Joint Water Commission (JWC). Together, these two sources provide the District with 7.82 billion gallons of water annually.

The City of Portland water system consists of the Bull Run watershed and Columbia South Shore wellfield. In 2006, TVWD entered into an Intergovernmental Agreement with Portland that provides water supplies for an initial 10-year term. The contract is renewable for additional terms. During FY2020, the District purchased an average of 77% of its supply from Portland through this agreement.

The Joint Water Commission (JWC) source obtains supplies from the Tualatin and Trask River watersheds with impoundments at Hagg Lake/Scoggins Dam and Barney Reservoir. The JWC is a partnership of TVWD and the cities of Hillsboro, Forest Grove, and Beaverton. The JWC partnership owns and operates water supply, treatment, and transmission facilities. TVWD currently owns 14.5 million gallons per day (MGD) of capacity in the JWC treatment plant and similar capacity in the other JWC assets. The District also has a 35% ownership position in Barney Reservoir. In FY2020, about 23% of the District's water supply came from the JWC.

In addition to these two primary sources, TVWD has an aquifer storage and recovery (ASR) well at its Grabhorn reservoir site. The Grabhorn ASR facility provides approximately 300 million gallons of treated water storage and can deliver up to 2.5 MGD of water for summer peak-season supply and emergency use

Finally, the WRWC, in which TVWD is a member, has a 130 MGD permitted water right on the Willamette River as a future source. TVWD also owns a portion of the Willamette River Water Treatment Plant (WRWTP) located in Wilsonville. In 2007, TVWD assigned its water right to the WRWC, and the Oregon Water Resources Department issued the Final Order extending WRWC's Willamette River Water Right Permit until October 1, 2047.

These water rights will be used in conjunction with the District's development of the Willamette Water Supply Program (WWSP) over the next decade. The WWSP is a key theme for this Adopted 2021-23 Budget and future budgets. (See Section 2 - Budget Message, Section 13, and Sections 15-18 for more information.) The WWSP website www.ourreliablewater.org provides additional detail.

The District’s transmission and distribution system totals 752 miles in length, with pipelines ranging from 2 to 60 inches in diameter. The District has a total of 23 reservoirs (covered tanks) in service with a combined storage capacity of 67 million gallons (MG) as well as 13 pump stations. All major pump stations and reservoirs are equipped with Supervisory Control and Data Acquisition (SCADA) equipment to monitor and control system operations.

CUSTOMER BASE AND ECONOMIC PROFILE

Substantially all TVWD operating revenues are derived from the sale of water to residential, commercial, and industrial customers. The District is 95% residential & multifamily, with the remaining 5% of customers classified as commercial, production and irrigation customers. Water is sold wholesale to other neighboring water providers through wheeling arrangements. As shown below, on an annual basis, water sales by volume are about 72% residential/multifamily, and 28% commercial and other non-residential customer classes. Revenue from residential customers comprises about 56% of total water sales revenue, with the remainder of revenue generated from other customer classes. The table below provides water consumption and sales by customer class for FY 2021.

Customer Class	Consumption/ CCF(1)	Percent Water Sales	Annual Revenue (Fixed & Volume Charges)	Percent Water Sales Revenue
Residential	4,867,481	50.8%	\$39,219,580	55.9%
Multifamily	1,991,529	20.8%	11,843,296	16.9%
Commercial	1,228,855	12.8%	7,784,074	11.1%
Production	945,214	9.9%	5,282,680	7.5%
Fireline	1,571	0.0%	2,604,232	3.7%
Irrigation	504,006	5.3%	3,336,887	4.8%
Temp Irrigation	6,951	0.1%	47,262	0.1%
Wholesale	40,189	0.4%	24,435	0.0%
Total	9,585,796	100.0%	\$70,142,446	100.0%

(1) - CCF = 100 cubic feet. 1 CCF = 748 gallons
 Source: Tualatin Valley Water District Records, June 30, 2021 (Unaudited)

The table below provides a listing of the District’s ten largest customers in FY2020, their water usage in CCF during FY2020 and their water usage as a percent of total customer usage in the District. The District is proud to be home to the Nike World Headquarters, two large high technology manufacturing facilities, a food processing firm, and a major regional hospital.

LARGEST TVWD CUSTOMERS

CUSTOMER	Consumption CCF	Percent of Total District
Intel	353,607	3.89%
Maxim Integrated Products	325,590	3.58%
Nike	176,463	1.94%
Resers Fine Foods	121,190	1.33%
Providence Health Systems	69,571	0.77%
Panzer Nursery Inc	56,915	0.63%
Heritage Village Mobile Park	53,965	0.59%
Tualatin Hills Park & Recreation District	53,900	0.59%
Simpson Property Group	49,749	0.55%
OHSU West Campus	45,477	0.50%
	1,306,427	14.38%

Source: Tualatin Valley Water District records (unaudited)

The region the District serves continues to fare better as a whole than the state of Oregon for employment and income, although all sectors were drastically affected by the COVID-19 Crises. Unemployment statistics are unavailable for the District, however, as of March 2021, the unemployment rate for Washington County stood at 5.2% compared to 6.0% for the state. Business services, manufacturing, trade, and transportation showed the most growth during the past year. Employment in construction and leisure/hospitality services also have seen improvements while government and education have remained relatively flat.

Washington County also enjoys the highest median household income in Oregon. Based on the most recent data available (2019), the county’s per capita income ranked first at \$64,043 and is about 23% higher the state-wide per capita income of \$53,191. The District is fortunate to serve one of the most economically viable areas of the state.

WATER RATES AND TYPICAL BILLS

The District’s water rate structure is based on a two-tier inclining block, which is common in the industry. Single-family residential customers are charged the higher block two rate after the first 14 CCF within a billing cycle. (1 CCF or hundred cubic feet = 748 gallons). All other customers classes, including multifamily and commercial, are assessed the higher block two rate for any water use more than 140% of their water volume based on a 12-month moving average calculated for each customer.

The District’s Board of Commissioners adjusts water annually following a public notification process and after conducting a public hearing. More recently, the Board has adopted annual rate increases for a two-year period to match its biennial budget cycle. Revised water rates go into effect each November 1st following the summer watering season. More information on the District’s water rates – including current rates in effect can be found on the District’s website:

- Single-Family Residential rates: <https://www.tvwd.org/customer-services/residential-water-rates.aspx>
- Commercial rates and all other customer classes: <https://www.tvwd.org/district/page/commercial-water-rates>

The table below illustrates a typical monthly bill over the past eight years for a single-family residential customer, which represent about 93% of the District’s customer base. All water purchased in the table below is billed at the block one rate. Seasonal summer bills may be higher based on the water use for each customer.

Typical Single Family Residential Customer Bill (1)					
Effective Nov 1	Fixed Charge	Volume Charge	Total Monthly Bill	Monthly Increase	
2019	\$ 16.40	\$ 37.94	\$ 54.34	\$ 1.90	
2018	15.83	36.61	52.44	6.22	
2017	13.95	32.27	46.22	5.51	
2016	12.29	28.42	40.71	5.13	
2015	10.73	24.85	35.58	5.01	
2014	9.22	21.35	30.57	2.96	
2013	8.43	19.18	27.61	1.42	
2012	7.64	18.55	26.19	-	

Note 1: Based on 5/8-inch meter and 7 CCF of water volume per month. Most District customers are billed on a bimonthly basis. The charges are shown as a monthly cost for ease of comparison to other utility services.

More information on the District’s financial reporting can be found on the District’s website:

1. **Biennial Budget** <https://www.tvwd.org/finance/page/budget>
2. **Annual Comprehensive Financial Reports** <https://www.tvwd.org/finance/page/annual-comprehensive-financial-report>
3. **Long-Term Financial Plan** <https://www.tvwd.org/finance/page/financial-plan-0>
4. **Financial Policies** https://www.tvwd.org/sites/default/files/fileattachments/finance/page/92/2021-06-02_tvwd_financial_management_policies.pdf

GLOSSARY

Adopted Budget: See Budget Phases.

Appropriation: The legal authorization to spend funds. The Board of Commissioners adopts a Resolution setting budget appropriation for the ensuing biennium. Expenditures cannot legally exceed appropriations, and appropriations lapse at the end of the biennium.

Approved Budget: See Budget Phases.

Aquifer Storage and Recovery (ASR): Pumping of winter water into an aquifer for recovery during summer peak season.

Assessed Value (AV): The value of a property, as determined by the Department of Assessment and Taxation. AV is used to compute the rate per \$1,000 needed to pay the District's General Obligation Debt. (Note: TVWD has no General Obligation Debt outstanding)

Asset Management: Maintaining data about equipment and property including maintenance activities, specifications, purchase date, expected lifetime, warranty information, service contracts, service history, spare parts, criticality (risk of failure), life cycle costs, and other information.

Average Daily Flow: The average flow in a system during a 24-hour period, expressed in million gallons per day (MGD), and determined for a multiple day period (i.e., month, quarter, year).

Audit: The annual review and report of the financial status and procedures of the District, performed by an outside auditor. The report addresses the financial condition of each fund and compares actual expenditure and revenues to budgeted amounts. The audit also reviews procedures for compliance with statutes.

Balanced Budget: Under Oregon Local Budget Law to be in balance, the resources in each fund must be equal to the expenditures and other requirements in that fund. OAR 150-294.352(1)(B).

Benchmarking: A systematic process of searching for best practices, innovative ideas, and highly effective operating procedures that leads to superior performance – and then adapting those practices, ideas, and procedures to improve the performance of one's own organization.

Biennial Budget Period: A two-year budget period. For this budget, the period begins at 12:01 am July 1, 2021 and ends at midnight June 30, 2023.

Board of Commissioners: The five-member policy board for the District, elected by the District's residents to staggered four-year terms.

Bond Coverage: Bond covenant to maintain coverage of 1.25 times Annual Debt Service of Net Revenues after payment of Revenue Bond Debt Service.

Bonded Debt: Debt that is in the form of Revenue Bonds. Repayment is made by operating revenues and/or capital contributions.

Bond Rating: A rating based on the issuer's perceived ability to repay a bond debt. The District is currently debt freed, however, has an indicative bond rating with Standard and Poor's (S&P) of AA+ as part of the application process for the District's Water Infrastructure Financing & Innovation Act (WIFIA) loan. The District will be required to obtain bond ratings from two nationally recognized rating agencies prior to closing the WIFIA loan.

Budget: A written report showing the local government's comprehensive financial plan for one budget period. It must include a balanced statement of actual revenues and expenditures during each of the last two budget periods, and estimated revenues and expenditures for the current and upcoming budget periods.

GLOSSARY (Continued)

Budget Committee: The Board of Commissioners and five citizens (appointed by the Board to two and four-year terms), who review the Proposed Budget. Their action on the Proposed Budget results in the Approved Budget.

Budget Message: Explanation of the budget and the District’s financial priorities prepared by the Budget Officer.

Budget Officer: The person appointed by the Board of Directors to assemble budget material and information and to prepare the proposed budget.

Budget Period: A budget may be prepared for 12 months (a fiscal year) or 24 months. TVWD budgets over a 24-month (biennial budget) period.

Budget Phases: Local budget law and District procedures require that the adopted budget for each fiscal year or biennium be the result of a process that requires input by the Board of Commissioners, management, and citizens before final appropriations are authorized. These steps include:

- **Requested Budget** – The initial “in-house” development of the budget components. The requested budget is usually presented to the budget committee in workshops to solicit their input in the process.
- **Proposed Budget** – The document developed by District management based on the results of the internal review process and input from the budget committee members. The Proposed Budget is reviewed by the Budget Committee in a public hearing, where they take testimony, deliberate, and make amendments if necessary. When deliberations and amendments are complete, the committee votes to approve the budget and recommend it to the Board for adoption.
- **Approved Budget** – Once the budget has moved to approved status it can only be amended by the Board. A financial summary is published, and the Approved Budget is submitted to the Board of Commissioners for adoption.
- **Adopted Budget** – In this final phase of the budget process the Board holds a public hearing to take testimony and hold deliberations. Amendments at this point are limited to \$10,000 or 10 percent (whichever is greater) per fund. The Board adopts a budget resolution to authorize appropriations.

Budget Resolution: The Resolution adopted by the Board of Commissioners that sets appropriations for the ensuing biennium. Expenditures cannot legally exceed appropriations, and appropriations lapse at the end of the biennium.

CCF: One hundred cubic feet. Equal to 748 gallons. A measure of volume commonly used by the water industry.

Capital Improvement Plan (CIP): Detailed description of projects and capital expenditures used to plan for financial requirements and construction needs over a six-year period. The District’s CIP includes projects needed for additional source development, expanded storage facilities, distribution systems, & capital replacement projects.

Capitalization: The accumulation of costs to acquire or construct a fixed asset.

Capital Outlay (Capital Expenditure): Items that generally have a useful life of one or more years, such as machinery, land, furniture, equipment, or buildings. Items must exceed the District’s capitalization threshold of \$7,500 and a life exceeding one year.

Chart of Accounts: A coding structure that defines all financial transactions of the District. The Chart is sufficiently detailed to track individual revenues and expenditures for any given program, department, or fund.

Commodity Charge: The portion of a customer’s water bill based on their usage and measured by each account’s water meter.

GLOSSARY (Continued)

Computerized Maintenance Management System (CMMS): A CMMS software package maintains a database of information about an organization's maintenance operations. Typical functionality includes a work order system, asset management, and inventory control. Overall goals of CMMS are to improve efficiency and asset lives. The District's CMMS will be integrated with other systems including GIS, utility billing and the financial system.

Contingency: An appropriated amount in a fund that can be used for the purchase of Personnel Services, Materials and Services, Special Payments, Capital Outlay, Interfund Transfers, and/or Debt Service. Contingencies do not require a supplemental budget or public hearing but do require Board action to transfer the contingency to a line-item appropriation.

Coverage Ratios: See Bond Coverage.

Customer Information System (CIS): An application providing utilities an integrated environment to perform functions of the meter to cash cycle, (i.e., manage customer account information, generate billings, track consumption information, provide call center support, and handle customer inquiries.

Department: An administrative subdivision of the District charged with carrying on one or more major services or functions. TVWD's departments include Office of the Chief Executive, the Office of Community and Intergovernmental Relations, Finance and Information Technology, Engineering Services, Field Operations, and Customer and Support Services.

Division: An area of District activity organized as an administrative or functional unit. Each TVWD department includes a general services division, which includes overall department management and administrative support, departmental-wide material & services such as travel/training and business expense, and capital outlay. Most TVWD departments also have one or more additional divisions to track specific functional activities within the department.

Enterprise Fund: A fund established to account for operations that are financed and operated in a manner like private business enterprises. Enterprise utilities are usually self-supporting.

Environmental Protection Agency (EPA): An independent agency in the Executive branch of the federal government charged with protecting the natural environment. Primary functions are to abate and control pollution, conduct research, monitor, set standards and enforce pollution control, and support research and antipollution activities by other governmental, private, and public entities. The EPA also manages the Water Infrastructure Finance & Innovation Act (WIFIA).

Equivalent Residential Unit (ERU): A 5/8" x 3/4" meter used as the basis for calculating the greater demand from larger meter sizes.

Fiscal Year: The period from 12:01 am July 1 to midnight the following June 30.

Fixed Charge: The portion of a customer's bill that is constant each month, based on meter size.

Fund: An independent budgetary, fiscal, and accounting entity used to track the expenditure and collection of appropriations for a specific purpose. The District has six budgetary funds for operations, reserves, debt management and construction.

Fund Balance: In the case of funds subject to budgetary accounting (which is the case for all the District's funds) "Fund Balance" represents the excess of the fund's assets and estimated revenues for the period over its liabilities, reserves, and appropriations for the period.

GLOSSARY (Continued)

General Obligation Debt: Long-term debt backed by the full faith and credit of the District's ratepayers based on assessed value of real property. The District has not issued any G.O. debt since 1993 and has paid off all outstanding issues.

Geographic Information System (GIS): is a system that captures, stores, analyzes, manages, and presents data with reference to geographic location data.

Gravity Flow: Water flowing by gravity from a higher to a lower elevation.

Line-item budget: The traditional form of budgeting, where proposed expenditures are based on individual objects of expense within a department.

Master Plan: The Water Master Plan adopted December 2018 to evaluate the District's water system and capital improvement needs on a long-term basis.

Oregon Administrative Rule (OAR): Written to clarify Oregon law, and has the authority of law.

Oregon Local Budget Law (ORS 294.305 – 294.565): State statutory provisions that require local governments and most special districts, including the District, to prepare and adopt annual or biennial budgets following a very specific process. Establishes standardized procedures for budget preparation and public notices; encourages citizen involvement before formal adoption including use of Budget Committees; and specifies procedures for amending a budget after adoption (Supplemental Budgets). Requirements of Oregon Local Budget Law are further specified in OAR 150-294.

Oregon Revised Statute (ORS): Oregon laws established by the legislature.

Oregon Department of Human Service's Drinking Water Program: A state department that administers and enforces drinking water quality standards for public water systems in the State of Oregon.

Peaking Rate: The rate charged for water used more than the normal allowable bi-monthly amount.

Project: A budget unit relating to a defined set of improvements or a study.

Property taxes: Ad valorem property tax imposed by a local government. In the past, TVWD levied ad valorem property taxes to repay General Obligation bonded debt. TVWD came off the tax rolls in 2005.

Proposed Budget: See Budget Phases.

Pump Station: A pumping facility that lifts water flow to a high enough elevation that it can flow by gravity.

Rate Stabilization Account: Account established for Revenue Bond Debt Service coverage purposes. Transfers to or from this account may be used to maintain bond covenant coverage ratios.

Requested Budget: See Budget Phases.

Reserve Fund: Established to accumulate money from one budget period to another for a specific purpose.

Resolution: An order of the Board of Commissioners. A resolution is required to formally adopt the budget.

Resources: Estimated beginning fund balances on hand at the beginning of the budget period, plus all anticipated revenues during the budget period.

Revenues: Revenues of the District available for expenditure in programs and projects.

GLOSSARY (Continued)

Revenue Bond: Long-term debt paid by revenues generated from water rates, system development charges and other available and authorized enterprise resources.

Safe Drinking Water Act (SDWA): The Act is the main federal law that ensures the quality of Americans' drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards.

Service connections: The physical connection of plumbing appurtenances, connecting the water main to the property line of the account being served.

Supplemental budget: Prepared to meet unexpected needs or to spend revenues not anticipated at the time the regular budget was adopted.

System Development Charge (SDC): A one-time fee charged by the District for new connections to the water system to cover the cost of developing new sources of supply, and storage and transmission facilities. This fee is charged to new customers to help mitigate the cost of financing new facilities, and to buy into the excess capacity paid for by existing ratepayers.

Transfers: Amounts distributed from one fund to finance activities in another fund. Shown as a requirement in the originating fund and a resource in the receiving fund.

Unappropriated Ending Fund Balance: Amount set aside in the budget to be used as a cash carryover to the next period's budget, to provide the local government with a needed cash flow until other money is received. This amount cannot be transferred by resolution or used through a supplemental budget during the period in which it is budgeted unless there is a significant calamity or natural disaster.

Water Infrastructure Finance & Innovation Act (WIFIA): A federal loan program administered by Environmental Protection Agency. Provides long-term, low-cost supplemental credit assistance under customized terms to creditworthy water and wastewater projects of national and regional significance. The District and City of Hillsboro successfully applied for a WIFIA loan for the Willamette Water Supply System.

Willamette Intake Facilities (WIF): an intergovernmental agreement whose members include the cities of Beaverton, Hillsboro, Sherwood, Tigard, Tualatin, Wilsonville, and TVWD. The WIF owns, operates, and maintains the intake facilities at the Willamette River Water Treatment Plant in Wilsonville for the benefit of its members. As the managing agency, TVWD incorporates the budget adopted by the WIF Board of Commissioners into the District's biennial budget.

Willamette Water Supply System (WWSS): an intergovernmental agreement among the cities of Beaverton, Hillsboro, and TVWD. The WWSS Commission was established to design and construct the Willamette Water Supply System by 2026, and will own, operate, and maintain the assets that make up the system for the benefit of the partners. As the managing agency, TVWD incorporates the budget adopted by the WWSS Board of Commissioners into the District's biennial budget.

ACRONYMS AND ABBREVIATIONS

Acre-ft	Acre feet
ACFR	Annual Comprehensive Financial Report
APWA	American Public Works Association
AMR	Automated Meter Reading
ASCE	American Society of Civil Engineers
ASR	Aquifer Storage and Recovery
AWWA	American Water Works Association
BMP	Best Management Practice
BRJOC	Barney Reservoir Joint Ownership Commission
CARV	Combination Air Vacuum Relief Valve
CCF	One hundred cubic feet (one CCF equals 748 gallons of water)
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CIMP	Capital Improvement Plan (acronym used by the Joint Water Commission)
CIP	Capital Improvement Plan
CMMS	Computerized Maintenance Management System
CPI	Consumer Price Index (Inflationary Measurement)
CWA	(Federal) Clean Water Act
CWS	Clean Water Services
ENG	Engineering and Operations Department
EPA	(United States) Environmental Protection Agency
ERU	Equivalent Residential Unit
FIN	Finance and Information Technology Department
FTE	Full Time Equivalent
FY	Fiscal Year
GASB	Governmental Accounting Standards Board
GF	General Fund
GFOA	Government Finance Officers Association
OGFOA	Oregon Government Finance Officers Association
GIS	Geographic Information System
GO	General Obligation (as in General Obligation Bonds)
GPD	Gallons per Day (unit of flow measurement)
GPCPD	Gallons per Capita per Day
GPM	Gallons per Minute (unit of flow measurement)
HRA	Health Reimbursement Account
HVAC	Heating, Ventilation, Air Conditioning

ACRONYMS AND ABBREVIATIONS (Continued)

IAP	Individual Account Program (part of Public Employees Retirement System)
IGA	Intergovernmental Agreement
IT	Information Technology
JWC	Joint Water Commission
M&S	Materials and Services
MG	Million Gallons
MGD	Million Gallons per Day
N/A	Not available or does not apply
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
OSHA	Occupational Safety & Health Administration
PCI	Purchasing Card Industry
PERS	Public Employee Retirement System
PPO	Preferred Provider Organization
PRV	Pressure Reducing (or Relief or Regulating) Valve
PSWCC	Partners for a Sustainable Washington County Community
PWB	(City of) Portland Water Bureau
S&P	Standard & Poor's
SAS	Statement of Auditing Standards
SCADA	Supervisory Control and Data Acquisition
SDC	System Development Charge
SWM	Surface Water Management
TBWSP	Tualatin Basin Water Supply Project
THPRD	Tualatin Hills Park and Recreation District
TVID	Tualatin Valley Irrigation District
TVWD	Tualatin Valley Water District
UGB	Urban Growth Boundary
VFD	Variable Frequency Drive
WIFIA	Water Infrastructure Finance & Innovation Act
WCSL	Washington County Supply Line
WIF	Willamette Intake Facilities
WRWC	Willamette River Water Coalition
WWSP	Willamette Water Supply Program
WWSS	Willamette Water Supply System



TUALATIN VALLEY
WATER DISTRICT



TUALATIN VALLEY

WATER DISTRICT

This is the second publication in a biennial series of financial communication tools:

2021-2023 Financial Plan (Issued May 2021)

2021-2023 Adopted Budget (Issued June 2021)

Annual Comprehensive Financial Report for the fiscal year ended June 30, 2021 (Planned for Fall 2021)

Annual Comprehensive Financial Report for the fiscal year ended June 30, 2022 (Planned for Fall 2022)

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