

Adopted Budget 2017 - 2019

Tualatin Valley Water District



Delivering the Best Water 💧 Service 💧 Value



TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET

Tualatin Valley Water District



Delivering the Best Water 💧 Service 💧 Value

Pictured on the front

Top Left: Installation of the first pipe segment at Kinsman Rd. in Wilsonville as part of the Willamette Water Supply System.

Top Right: TVWD's water is regularly tested for approximately 200 contaminants. The District consistently delivers water that complies with all applicable federal and state water quality standards.

Bottom Left: TVWD's Ridgewood View Park Reservoir and Pump Station's partnership with the Tualatin Hills Park and Recreation District was a win-win for both districts and the local community. Photo courtesy of Shannon & Wilson, Inc.

Bottom Right: TVWD's mission is to provide quality water and customer service.

Tualatin Valley Water District



Washington County, Oregon

1850 SW 170th Ave, Beaverton, OR 97003

503-848-3000 www.tvwd.org

OUR MISSION:

To Provide Our Community Quality Water and Customer Service

BUDGET COMMITTEE MEMBERS

District Representatives

Craig Hopkins
Marilyn McWilliams
Dr. Todd Sanders
John Velehradsky P.E. (Retired)
Mike Whiteley P.E.

Board of Commissioners

Dick Schmidt, Board President
Bernice Bagnall
Richard Burke
Jim Doane P.E.
Jim Duggan P.E.

MANAGEMENT STAFF

Chief Executive Officer

Mark Knudson P.E.

Chief Financial Officer

Paul Matthews

Department Managers

Carrie Pak P.E., Chief Engineer
David Kraska P.E., Water Supply Program
Andrew Carlstrom, Customer Service
Matt Oglesby (Interim), Field Operations

General Counsel


Clark Balfour

Human Resources

Amy Heinlen, Human Resources Director

Budget Officer

Tod Burton, Financial Planning & Debt Project Manager

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Scan our QR code for more information about TVWD's budget.

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 current boundaries of the District were formed in 1991 by the merger of two separate, non-contiguous water districts – Wolf Creek and Metzger. The District is organized as a domestic water supply district authorized under Oregon Revised Statutes 264, and governed by a five-member Board of Commissioners, elected to four-year terms by District voters. The Board of Commissioners, with help from our staff, sets our policies and procedures. Listed below are some key District statistics:

General Statistics

- Service territory: 45 square miles
- District population: 222,000
- Service connections: 62,377
- Customer base: 94.4% residential & multifamily; 5.6% commercial/industrial/government
- Water sales (volume): 68.2% residential & multifamily; 29.9% commercial/industrial/government; 1.9% wholesale/wheeled water
- Percent of total water sales (volume) by ten largest customers: 11.9%
- Number of District employees: 135 (2017-19 Adopted Budget)

Water System

- Average daily demand: 21.88 million gallons/day; 8.2 billion gallons/year
- Peak consumption: 44.1 million gallons/day
- 23 reservoirs (covered tanks)
- 67 million gallons stored in reservoirs
- 14 pump stations
- Miles of pipeline: 787
- Sources 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; 3 million gallons/day for peak summer use

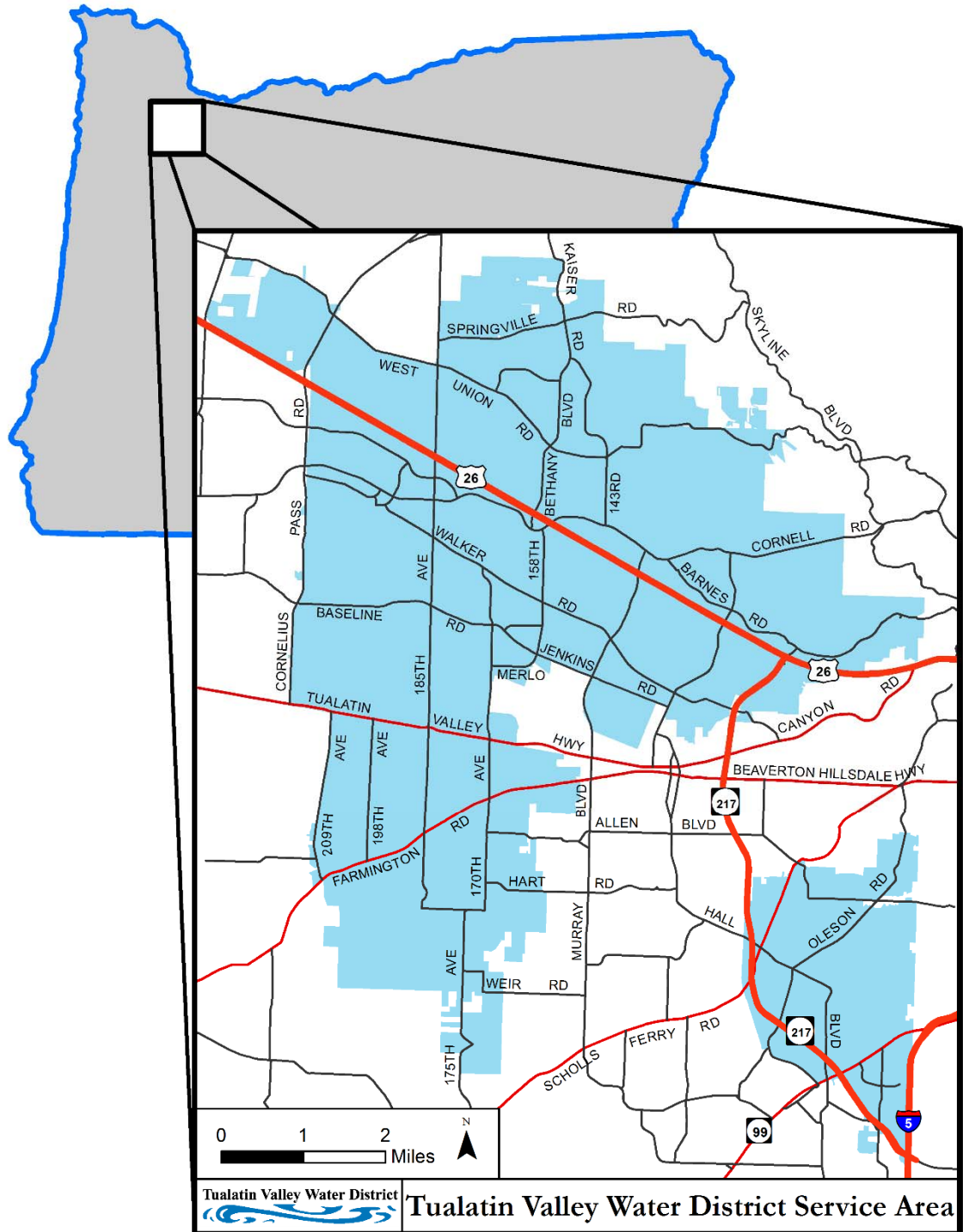
TVWD also:

- Provides billing services to Clean Water Services, including sewer-only accounts (68,720 accounts)
- Provides meter reading and billing services to the City of Beaverton (22,690 accounts)
- Provides management, maintenance, meter reading and billing services to the Valley View Water District (412 accounts)

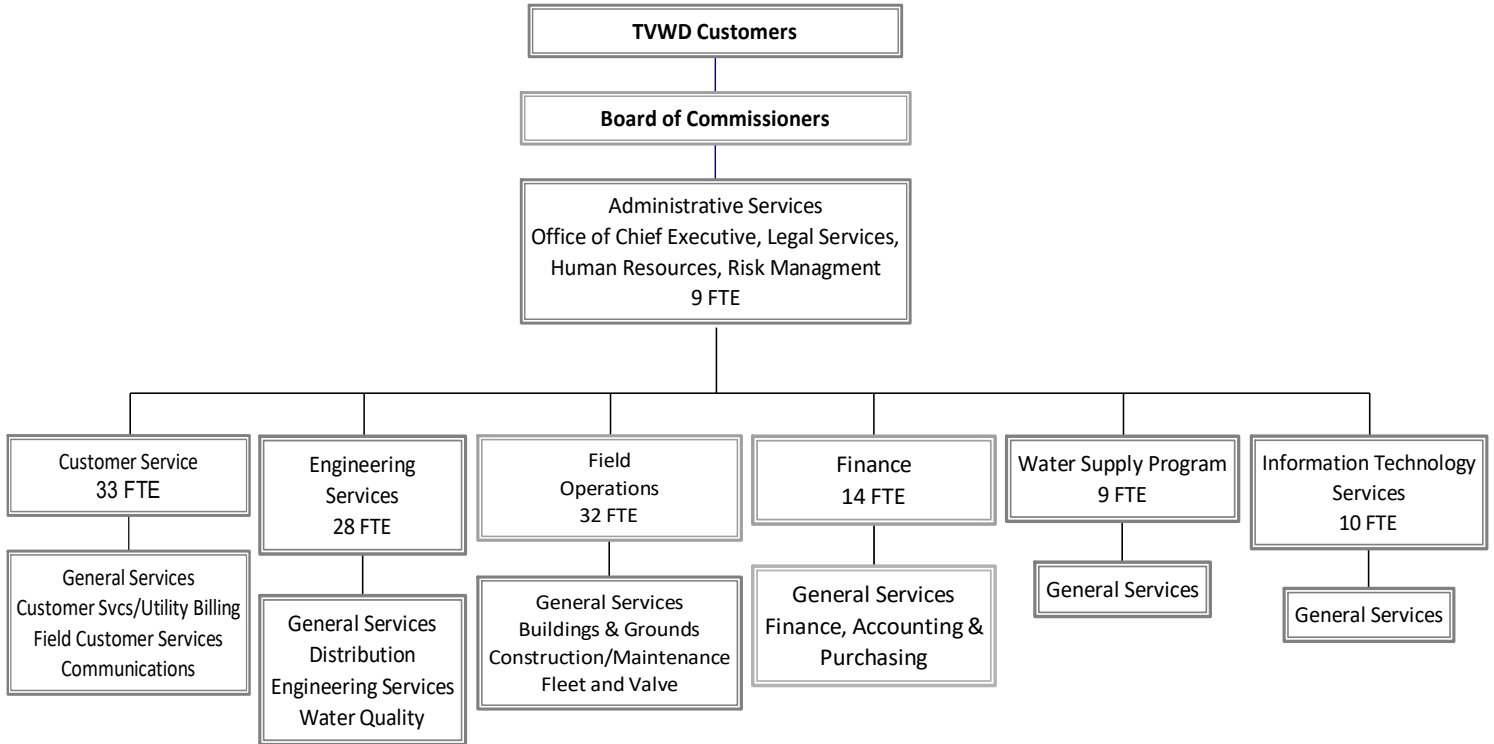
District Profile:

The District is within and serves a significant portion of Washington County, Oregon. The county is the second largest in the state with an estimated 2016 population of 585,400, which represents an increase of 1.4% annually over the past ten years. Customer growth (meter installations) for the District has grown by about 1.0% annually over the same ten-year period. Washington County also has the highest median household income in the state – \$66,754, compared to \$55,200 for Oregon and \$55,800 nationally. The District's service area is largely single-family residential and multifamily, and is home to several large electronics and food processing businesses, which have contributed significantly to the economy of the county. Other principle 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 Intel. A light rail corridor running through the District (from Hillsboro to the Portland airport and Gresham) 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 2017-19 Budget)**



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, 2015.**

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, 2015

A handwritten signature in cursive script, reading "Jeffrey R. Egan".

Executive Director

Tualatin Valley Water District



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<https://www.tvwd.org/about-us/budget-information.aspx>

This on-line document can be downloaded as a PDF. The Table of Contents includes bookmarks and links for ease of navigation

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July 1, 2017

Members of the Board of Commissioners:

Dick Schmidt, Board President

Bernice Bagnall

Richard Burke

Jim Doane, P.E.

Jim Duggan, P.E.

BUDGET MESSAGE

We are pleased to present the Tualatin Valley Water District (District or TVWD) Adopted Biennial Budget for 2017-19. The budget was unanimously adopted by the Board of Commissioners on June 21, 2017 following a public hearing. The budget was also unanimously approved by the District's Budget Committee on May 31, 2017 following 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
- Board Goals and Key Initiatives
- Financial Policies
- 2017-19 Biennium Budget Summary
- Future Water Supply Development & the Six-Year In-District Capital Improvement Plan
- 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 Adopted Budget reflects alignment to the District's strategic planning efforts and the District's priority to build a long-term water supply to meet the projected water demands of both existing and future TVWD customers.

No single water source is sufficiently robust to meet this challenge. The District's Board of Commissioners (Board) has long recognized the need to balance water supplies among multiple sources. As TVWD's most important long-term priority, this Adopted 2017-19 Budget includes significant resources to continue implementation of the Board's 2013 decision to develop the District's next increment of water supply on the Willamette River. The Willamette Water Supply Program (WWSP) continues to be a key theme for this and future budgets.

Consistent with the District's values, it is critically important that the District provide quality water and customer service to our community in a cost-efficient manner, while incorporating reliability, resiliency, and sustainability into the mission of the District.

In recognition of these efforts, the District was honored to receive the Institute for Sustainable Infrastructure's (ISI) Envision™ rating system's Gold Award for its newly constructed Ridgewood View Park Reservoir and Pump Station project, which is featured on the cover of this budget document. The Ridgewood View Park Reservoir and Pump Station project was the first Envision™ Gold Award given for a project in Oregon. ISI recognized the District for the reuse of materials as backfill, sustainable landscaping and the use of native plants, the rehabilitation of a joint park facility, and strong public outreach/communication effort.

The District also received the 2016 Outstanding Leadership and Support by an Organization Award from the Pacific Northwest Section of the American Water Works Association (PNWS AWWA). District management and staff were recognized for their sharing of expertise, professionalism, and support for the advancement of the goals of AWWA and the Section.

For the 12th consecutive year, the District was included in the Leadership Club of the Environmental Protection Agency's Green Power Partnership for its distinction in offsetting 100% of District electricity usage with Renewable Energy Certificates and carbon offset purchases.

The underlying objective of this Adopted 2017-19 Budget is to continue to build on the success of operating an innovative and effectively managed utility.

BUDGET PROCESS, FORMAT, AND BASIS

Management and staff prepare the District's budget guided by the Board's policy direction. Seven individual departmental budgets are prepared by the Chief Executive Officer (CEO) and department managers. These operating budgets are combined with the fund level budgets, the WWSP, and the in-District six-year Capital Improvement Plan (CIP) to create a consolidated budget request. The consolidated budget request is then analyzed for financial sufficiency using the District's 30-year financial plan and reviewed by the CEO, Chief Financial Officer, and Budget Officer.

The District prepares a biennial budget as allowed by Oregon Local Budget Law (Oregon Revised Statutes, Chapter 294). This Adopted Budget covers the period from July 1, 2017 to June 30, 2019. The general presentation format is to show the actual history for the last two completed periods, the revised budget for the previous biennium, and the Adopted 2017-19 Budget for the upcoming biennium.

The Adopted 2017-19 Budget has the same fund structure as the Adopted 2015-17 budget. That is, the Adopted 2017-19 Budget consists of seven funds including:

- General Fund
- Capital Improvement Fund
- Willamette Water Supply Program Fund
- Capital Reserve Fund
- Revenue Bond Debt Service Fund
- Willamette River Water Coalition Fund
- Customer Emergency Assistance Fund

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

The formal public review process begins when a consolidated “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 second public hearing, makes revisions if necessary, and adopts the budget by resolution.

In accordance to 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, contingency, special payments, and transfers.

A copy of the Adopted 2017-19 Budget Resolution can be reviewed on page 2-27 of this *Budget Message*. 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 they are 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 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.

Under the definition of Oregon Local Budget Law, the Adopted 2017-19 Budget is balanced, meaning the resources in each fund are equal to the expenditures and other requirements in that fund.

BUDGETING FOR FUTURE DEBT ISSUANCE

At the beginning of the 2017-19 budget period, the District will have no outstanding debt. Under its current capital expenditure plans for both the WWSP and the in-District CIP, the District does not anticipate the issuance of debt in the 2017-19 budget period. However, the District will continue to build its debt issuance program in the biennium to support the issuance of debt for WWSP and in-District CIP after fiscal year 2019.

The planned capital expenditures of the WWSP can be influenced by opportunity projects. These projects typically result in building pipe infrastructure in partnership with road projects by other jurisdictions. To the extent these opportunity projects arise, the District may accelerate its plan to issue revenue bonds. Should this occur, the Board will be required to adopt a Supplemental 2017-19 Budget as allowed under Oregon Budget Law. Future debt service will be budgeted on a cash basis to provide the reader complete information pertaining to the District’s outstanding long-term debt obligations.

ORGANIZATIONAL STRATEGIC PLANNING AND KEY INITIATIVES

The District's vision, mission and values are shown in the figure 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 analogous to what other organizations may 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 District Board and staff seeks to accomplish through policies and programmatic efforts.

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, a Strategic Core Team consisting of Board members and staff meet prior to the kick-off for each budget process to discuss industry trends, regional issues, District needs, and organizational strengths and challenges. The 16-member Core Team includes two Commissioners, the Chief Executive Officer, the District's department managers, Human Resources Director, Information Technology Officer, Strategic Planning Coordinator, Risk Management Coordinator, and Communications and Public Affairs Supervisor. This strategic planning process forms the basis for setting the District upcoming biennium budget priorities and recommended resource allocations.

In November 2016, the Board of Commissioners approved seven District Initiatives and directed staff to develop the 2017-19 biennial budget prioritizing these efforts. These initiatives are in addition to the development of the WWSP long-term water supply, which the District considers an integral part of its core mission. The table on the next page lists the approved 2017-19 District Initiatives.

2017-19 District Initiatives

THE WATER SUPPLY MEETS COMMUNITY NEEDS AND EXPECTATIONS
<p>Develop Management and Operating Resources for Willamette Water Supply System</p> <ul style="list-style-type: none">➤ Develop resource requirements for the administration, management, operation and maintenance of the Willamette Water Supply System➤ Develop implementation strategy for resource integration to TVWD➤ Coordinate with Willamette Water Supply System program partners <p>Asset Management / Maintenance Management Strategy</p> <ul style="list-style-type: none">➤ Plan, execute, and document the maintenance activities and inspections performed on the District's infrastructure➤ Address Aging Infrastructure issues facing the District
THE COMMUNITY IS CONFIDENT IN OUR WATER, SERVICE AND EMPLOYEES
<p>Resource and Implement Strategic Communications Plan</p> <ul style="list-style-type: none">➤ Develop work plans and resource requirements for budgeting and implementing the District's Strategic Communications Plan➤ Better utilize contemporary branding, graphics, video, online communications, and customer engagement outreach efforts <p>Ratepayer Communication Strategy</p> <ul style="list-style-type: none">➤ Develop a long-term revenue strategy/plan that will specify messaging and activities for the District to undertake throughout the year➤ Inform and educate District customers about TVWD initiatives, the need for additional revenues, and the value of water
WE ARE GOOD STEWARDS OF OUR NATURAL RESOURCES
<p>Develop & Implement District Resiliency Policy & Program</p> <ul style="list-style-type: none">➤ Meet the performance standards and Level of Service Goals established by the Oregon Resilience Plan➤ Cover all aspects of the District, including Finance, IT, water system infrastructure, and human resources
WE ARE GOOD STEWARDS OF OWN ASSETS AND RESOURCES (PEOPLE & PHYSICAL ASSETS)
<p>Review of Organizational Staffing Requirements & Effectiveness</p> <ul style="list-style-type: none">➤ Review District staffing needs including current structure, operational functions, staffing levels, efficiency, effectiveness, and skill-mix➤ Better distribute staff skills and time in accordance with District needs <p>Development and Start Implementation of Customer Information System (CIS) Strategy</p> <ul style="list-style-type: none">➤ Modernize the District's utility billing operations➤ Analyze all related policies and business rules, workflows, customer needs/expectations, customer engagement opportunities, and organizational readiness

In addition to the District Initiatives, the Core Team identified eight Key Projects to continue or undertake in 2017-19. Key projects were defined as efforts necessary to maintain the District’s current service levels. The table below lists the Key Projects paired with the Desired Result each supports.

2017-19 Key Projects

THE COMMUNITY IS CONFIDENT IN OUR WATER, SERVICE AND EMPLOYEES
<p>Implement Results of Rate Study</p> <ul style="list-style-type: none"> ➤ Align the District's rate design and practices with community needs
WE ARE GOOD STEWARDS OF OUR FINANCIAL RESOURCES
<p>Finalize Urban Service Agreement</p> <ul style="list-style-type: none"> ➤ Negotiate a long-term urban service agreement with the City of Beaverton <p>Legal/Legislative Strategy for Right-of-Way (ROW) Fees</p> <ul style="list-style-type: none"> ➤ Develop a coherent, fair policy statement to apply when these issues arise ➤ Cooperate and assist SDAO in development of legislative solutions to provide a consistent statewide approach to fees and charges for use of ROW <p>Improve Project Management</p> <ul style="list-style-type: none"> ➤ Using project management standards developed during 2015-2017 initiative, provide training using existing accounting system <p>Revenue Bond Debt Program</p> <ul style="list-style-type: none"> ➤ Execute a long-term debt program and its ongoing requirements ➤ Maintain continuity with other partners in financing the WWSP
WE ARE GOOD STEWARDS OF OWN ASSETS AND RESOURCES (PEOPLE & PHYSICAL ASSETS)
<p>Establish District-wide Records Management Program</p> <ul style="list-style-type: none"> ➤ Comply with existing and emerging records management state statutes and rules and to enhance organizational efficiency <p>Evaluate Regional Land Mobile Radio System</p> <ul style="list-style-type: none"> ➤ Explore the feasibility of a regional public agency mobile radio system ➤ If feasible, develop appropriate IGAs, enhance infrastructure, and deploy system <p>Implement Key Findings from IT Master Plan</p> <ul style="list-style-type: none"> ➤ Build a stable, maintainable computing environment that meets the Districts long-term needs

More detail on the District Initiatives and Key Projects, including initiatives completed during the 2015-17 biennium, can be found in Section 4 *Strategic Planning & Performance Measures*.

Development of a future long-term water supply through the District’s participation in the Willamette Water Supply Program, as well as many of the District Initiatives represent major, multi-year initiatives that provide overall direction to management and staff. District Initiatives include incremental improvements to the day-to-day operations of the District. Examples of both goals are provided in the section below, which highlights the WWSP and some of the District’s Initiatives in the upcoming biennium.

Willamette Water Supply Program

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 Willamette Water Supply Program (WWSP). The sole purpose of the program is to develop and deliver the Willamette Water Supply System (WWSS) to the District and its partners. The WWSS is scheduled to be on line in 2026. The WWSP provides the opportunity for the District to construct and own a seismically hardened water supply system to meet the long-term needs of its residential, commercial, and industrial customers.

Throughout this Budget Message and the Adopted 2017-19 Budget, numerous references are made to the WWSP as a central theme in financial planning, allocation of staff and capital resources, and overall focus of the District. The WWSP has expanded the District's capacity in project management, project implementation, information technology, and public engagement.

The WWSP is a regional effort which will result in long-term regional benefits. The WWSP is being implemented as a regional partnership, with TVWD serving as the managing agency. The City of Hillsboro (Hillsboro) is partnering with TVWD on the WWSP to provide added reliability, meet future demands, and to complement its current water supply. An intergovernmental agreement between the District and Hillsboro specifies cost shares between the two agencies, with approximately 60% of the expenditures paid by the District and 40% paid by Hillsboro.

As the managing agency, TVWD's Adopted 2017-19 Budget includes all WWSP expenditures. Hillsboro's share is recognized as contributed capital and contract reimbursements, depending on the type of expenditure. In total, the Adopted Budget includes \$139.4 million in operating and capital appropriation for the WWSP, with Hillsboro's share of that amount being \$55.3 million.

Other partners may be added to the WWSP. The cities of Beaverton, Sherwood, Tigard, and Wilsonville are participating with TVWD and Hillsboro in six-party talks, with the goal of establishing a long-term agreement for participation in and governance of the WWSS. The partnership has targeted completion of a new governance agreement for the summer or fall of 2017. Until then, TVWD and Hillsboro will continue to work together and with potential partners as the new 2017-19 biennium gets underway.

The 2015-17 biennium was a formative period to complete the mobilization of the WWSP. Highlights from the 2015-17 biennium included:

1. Developed a baseline schedule and budget
2. Established a program management office (PMO) and deployed systems and tools
3. Implemented a robust safety program
4. Prepared Program permit application
5. Obtained 227 rights-of-entry
6. Negotiated several memorandums of understanding (MOUs) and intergovernmental agreements (IGAs)

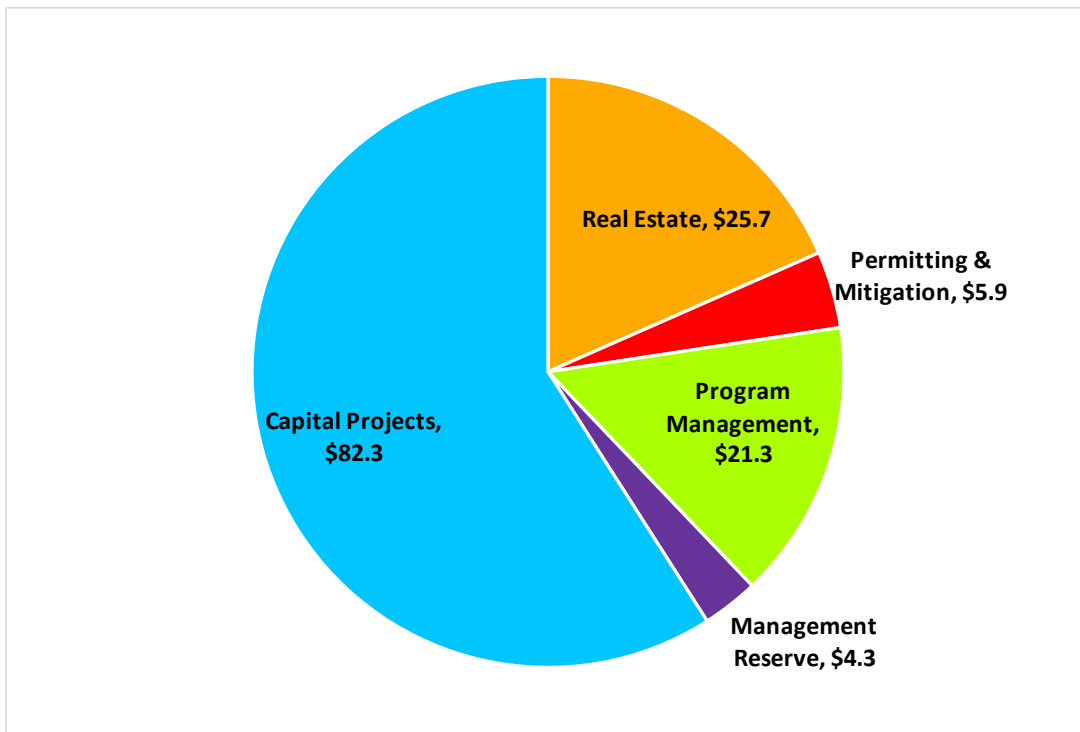
- 7. Design activities included:
 - a. Developed facilities layouts
 - b. Completed four alignment studies
 - c. Finished pipeline preliminary design and water treatment plant master plan
 - d. Advanced or completed four pipeline design packages
- 8. Construction activities included:
 - a. Prequalified contractors
 - b. Began construction of two pipelines
 - c. Procured pipe materials and contractor for a third pipeline

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.

District staffing for the program is budgeted in the General Fund within the Water Supply Program Department found in Section 14. Labor and overhead expenditures are reimbursed to the General Fund as staff charges time to WWSP operating and capital projects. No new staff positions were requested in the Adopted 2017-19 Budget in support of the WWSP.

The chart below provides a broad overview of the spending for WWSP in the Adopted 2017-19 Budget summarized by program area.

Adopted 2017-19 WWSP Budget
\$139.4 (in millions)



The WWSP has developed specific work packages for the spending by program areas. The WWSP staff developed deliberate schedules for the work packages within each program area to:

- Manage cashflow
- Benefit from collaborating on road construction projects
- Account for local disruption that construction projects create
- Accommodate permitting requirements
- Create “bite-sized” pieces of work that are consistent with sensible boundaries, economic factors, and environmental and technical issues.

Section 17 *Willamette Water Supply Program* includes detailed descriptions of the various WWSP projects. Listed below are descriptions of the program areas and some of the major activities during the 2017-19 biennium.

1. Capital Projects \$82.3 million
 - Design, bid, construction and/or close-out of segments for the following pipelines:
 - ✓ South Hillsboro Area, Pipeline
 - ✓ Beaverton Area Pipeline
 - ✓ Scholls Area Pipeline
 - ✓ Tualatin-Sherwood Area Pipeline
 - ✓ 124th Avenue Partnership Pipeline
 - ✓ Wilsonville Area Pipeline
 - Design and pre-construction services for the Raw Water Facilities
2. Real Estate \$25.7 million
 - Acquire easements for pipeline projects
 - Acquire properties for water treatment plant and alternative terminal reservoir sites
 - Acquire properties for turnout facilities (i.e., those facilities that connect the WWSS to the partners’ transmission systems)
3. Permitting and Mitigation Activities \$5.9 million
 - Complete major federal and state permitting
 - Begin establishment of mitigation bank to fulfill permitting requirements
 - Progress on land-use permits for selected work packages
 - Continue compliance assurance for ongoing construction work
4. Program Management \$21.3 million
 - Manage the overall program
 - Provide program-wide design and construction management services
 - Provide procurement and contract administration
 - Maintain financial and schedule controls
 - Conduct public outreach
 - Provide legal services
 - Develop program governance
5. Management Reserve \$4.3 million
 - Account for costs associated with risks the program will encounter
 - Consistent with program management industry best practices

OTHER DISTRICT INITIATIVES

Information Technology Strategic Planning

During the 2013-15 biennium, the District updated its Information Technology (IT) Master Plan, which made findings and recommendations in four categories: IT infrastructure, applications, governance, and staffing. Development of the plan was a District-wide effort involving

Supports: Desired Result 5 – We Are Good Stewards of Our Own Assets and Resources (People & Physical Assets)

participation of over 60 staff and a comprehensive cybersecurity assessment of key IT infrastructure including customer payment systems and the supervisory control and data acquisition system (SCADA), which monitors the water distribution system.

The overall goal of the IT Master Plan is to build a solid foundation on which to maintain continuity of service, implement appropriate security measures to preserve the integrity of customer and District data, comply with ever-increasing security requirements, and support the evolving technology needs of the District and WWSP.

The need to evolve the governance of IT within the District was identified as a project within the IT Master Plan. During the 2015-17 biennium, the District conducted a study of its IT governance and implemented specific recommendations. The study recommended transforming the District's IT delivery model to a service-oriented delivery model. The District revised its IT governance to eliminate its IT Steering Committee and replace it with an Information Management Oversight Committee (IMOC) that consists of the District's management team and Information Technology Officer. The goal of the newly created IMOC was to engage the management team in setting high-level objectives for the delivery of IT services to the District.

In addition to the creation of the IMOC, the 2017-19 biennium budget moves IT from the Finance Department and creates a new IT Services Department. Having IT as its own department, reporting directly to the CEO, will allow the District to increase its focus on transforming IT to the new service delivery model. As a department manager, the new IT Services Director will participate more directly in the management of the District.

In addition to the IT governance project, the District continues to execute other high-priority projects identified in the IT master plan. Key projects from the IT Master Plan for the 2017-19 biennium include upgrading the District's network environment and virtual servers. The technical details of these upgrades are being developed in the closing months of the current biennium. These projects are critical prerequisites to upgrading the District's utility billing system discussed below.

Development and Start Implementation of Customer Information System (CIS) Strategy

The District uses a custom utility billing system, developed in-house, to prepare and manage bills sent to customers. The District performed the last major upgrade to this system in 2007. In addition to billing for water services, the District uses this system for billing sanitary sewer and surface water management services under intergovernmental agreements with Clean Water Services and the City of Beaverton.

The IT Master Plan identified the current utility billing 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,

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

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 utility billing system provides with the additional functionality of a customer-centered information system, and an improved ability to integrate with the District’s financial management and computerized maintenance management systems.

The 2015-17 biennium budget included funding for developing a CIS replacement strategy. That work was delayed to allow the District to develop a new third-party payment gateway to improve customer experience over the current solution. Additionally, the three cities within the District’s service area imposed right-of-way fees (ROW Fees) on the utility bills the District issues within each city’s boundaries. To maintain the transparency of the fees, and the fairness to all customers, the Board of Commissioners directed the District to develop a strategy of including the ROW Fees on the bills of the District’s customers within the cities imposing the fees. This work concluded in May when the last ROW Fee (for the City of Tigard) was imposed.

The Adopted 2017-19 Budget includes appropriation of \$100,000 in the Customer Service Department for a comprehensive meter-to-cash audit of the District’s customer service functions. The audit will review the District’s “meter-to-cash” business processes, systems, and internal controls, as well as compare District practices to utility industry best practices.

Development of business needs and strategy for a new CIS will begin with the audit and continue into the first phase of the CIS project, the development of functional and technical requirements for a new system. The District has budgeted a total of \$4.8 million for the CIS project in the CIP, including \$3.6 million in the 2017-19 Biennium. These costs, which will be shared by District billing partner Clean Water Services, include items such as: CIS software licenses; purchase of vendor-provided system maintenance; hardware; utility consultant costs; and interfaces with other District/partner systems.

As shown on the table below, the District expects to complete the audit, select a vendor, and begin system implementation during the 2017-2019 Biennium; full implementation of the core CIS is expected to be completed in the 2019-21 Biennium. In addition, to properly resource the CIS project, the District has included a new business analyst position in the Adopted 2017-19 Biennium Budget for the Customer Service Department.

CIS Phase	2017-2018				2018-2019				2019-2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Meter-to-Cash Audit												
Develop Requirements												
Select Vendor; Contract												
Implementation and Integration												

Strategic Communications Plan and Ratepayer Communication

The District's 30-year financial plan anticipates continued upward pressure on water rates to fund the investment in the WWSP. The need for future rate increases, as well as best business practices, led the District to develop a Strategic Communications Plan and a specific strategy for Ratepayer Communications.

The Strategic Communications Plan provides a foundation to guide District communications with customers, stakeholders, partners, the media and TVWD staff. As part of the plan, the District launched social media accounts on Twitter and Facebook in the past year. Additionally, the District is updating its graphics and expanding its community outreach program. The Strategic Communications Plan also includes an organizational re-branding effort with a new brand strategy and visual identity as well as replacing the District's website and content management system.

During the 2015-17 Biennium, the District assembled a Rate Advisory Committee (RAC) to make specific policy recommendations to the Board of Commissioners. Among other recommendations, the RAC recommended the District increase its communications regarding changes in water rates. This recommendation is consistent with the District's Strategic Communications Plans. As a result, during the 2017-19 Biennium, the District will conduct additional customer outreach and three open houses to invite customers to participate in the rate setting process. The dedication of staff and professional resources to this and other Strategic Communications Plan activities are included in the Customer Service Department, Communications Division in the Adopted 2017-19 Budget.

Review Organizational Staffing Requirements and Effectiveness

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

Staffing at the District has changed significantly during the past few years due to retirements and the realignment of duties to reflect changing work methods brought on by new technology and commitments such as the

WWSP. To address these challenges, reviewing organizational staffing requirements remains a District priority.

During the 2015-17 Biennium, the District retained a consulting firm to provide recommendations on the District's organization and its staffing requirements. This study is scheduled to conclude in June, 2017. The recommendations of the consultant will be reviewed by the management team and final decisions on the recommendations will be implemented in the coming biennium.

In addition to potential reorganizations, 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 operations and identify information gaps where institutional knowledge can be preserved. The Human Resources Division will continue to take the lead on this District-wide effort during the next biennium.

Also included within this effort is the continuation of the District's intern programs to attract new employees to the District and the industry in general. The Adopted 2017-19 Biennium Budget continues the District's existing program of four internships assigned to the Engineering and Water Supply Departments. In addition, the Adopted Budget continues with the existing seasonal worker program in Field Operations by funding seven positions in the Building & Grounds and Valve divisions.

Partnerships

The District's partnerships in the WWSP and the Joint Water Commission (JWC) 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 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 both share its leadership and knowledge, while learning from others on matters important to the industry. The Adopted 2017-19 Budget in the Administrative Services Department includes \$298,000 in regional partnerships 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; the Tualatin Hills Park and Recreation District for joint fueling operations; and, management services to Valley View Water District. These partnerships improve service quality for customers in common and enhance economies of scale for delivery of these services.

The District also 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 services. During 2017-19, projected revenue from these partnerships include \$3.3 million, which represents about 4.4% of the General Fund operating budget.

FINANCIAL POLICIES AND LONG-TERM PLANNING

The District maintains a set of financial policies. These policies complement existing investment and accounting policies, and were developed specifically to guide the forecasting and budgeting activities of the District as a water utility enterprise. The complete text of these policies can be found in Section 3 *User's Guide*. The policies articulate the financial goals of the District and provide operating and management guidance in four categories: financial planning, capital planning, debt management, and reserve and contingency planning.

In early 2017-19, staff will undertake a comprehensive review and update of the District's financial policies, particularly in respect to debt management and continuing disclosure. This will be part of the foundation the District is building to support its commitment to the WWSP.

In addition, a 30-year financial forecasting model is used as the framework within which revenue, reserves, operating costs, capital costs and debt financing are planned. This long-term timeframe is necessary because the forecast is used to model and plan for the financial effects on a wide range of factors including:

- Multi-year budgets and contractual obligations, such a purchased water
- A decade long capital investment cycle for the Willamette Water Supply System (WWSS)
- Six-year CIP priorities
- 30-year bonded debt requirements
- 50-year master plan and population growth estimates
- 50-year water supply planning and demand considerations

An important goal of the planning effort is to match cash inflows and outflows, thereby smoothing rate changes over time such that capital expenditures are appropriately funded by cash or spread to future beneficiaries using debt. To meet this goal, several of the District's financial policies, practices, and targets inform the financial forecasting process.

Long-Term Urban Service Agreement Negotiations with the City of Beaverton

The City of Beaverton has expressed an interest in expanding its water service area to include customers that are within the District. Oregon law provides a framework for cities to work with special districts to develop economical strategies to provide services like water. Cities and special districts commonly enter into urban services agreements (USAs) to clarify responsibilities to serve customers and avoid unnecessary investment in redundant infrastructure. The District has USAs with the other two cities located within the District.

The District and the City of Beaverton are currently negotiating a USA but the ultimate details are still being developed. The District analyzed the financial effects of having a portion of its service area withdrawn by the City. Depending on the specific details of the eventual USA, the District may lose some customers to Beaverton, or enter into an agreement whereby TVWD may provide less than full retail water services to these customers. The number of customers that may be affected by withdrawal is currently uncertain. The effects on the District's revenues are therefore also uncertain. Section 5 presents the District's long-term financial plan and relies on a "reasonable case" scenario that assumes Beaverton withdraws a block of customers in FY2020 resulting in a 5% decrease in water rate revenue.

More detailed information on the District's long-term forecasting can be found in Section 5 *Multi-Year Financial Outlook*.

Balanced Water Supply Options and Water Purchases

The District intends to expand its ownership position of its primary water sources through participation in the Willamette Water Supply Program and its existing share of the Joint Water Commission source. By making capital investments in these two sources, TVWD will have more control over ongoing operating costs, capitalize its share of assets, and recover the portion of growth-related costs through system development charges (SDCs). The District also can debt finance a significant portion of the future capital costs for these sources.

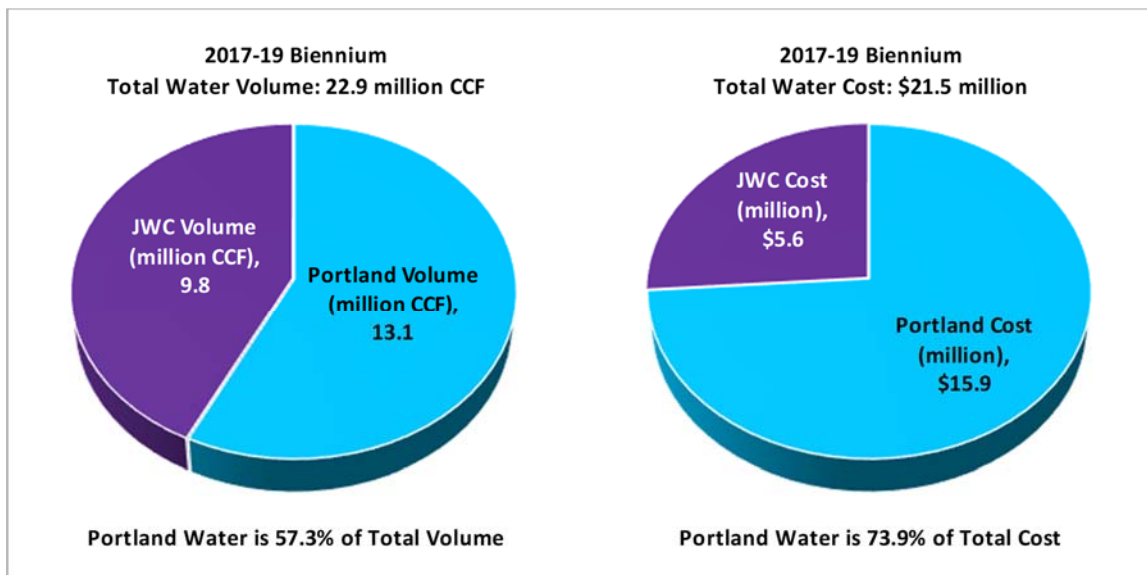
Until the WWSS is brought into service in 2026, the District will continue to purchase most of its water through a wholesale contract with the City of Portland. The remainder of the water needed by the District will continue to come from the JWC and aquifer storage and recovery facilities (ASR).

Since purchased water and associated pumping costs represents a large proportion (about 29%) of TVWD's total operating expenditures and over 60% of its materials & services costs, the District seeks to manage these costs by optimizing purchases among its sources.

TVWD purchases water from Portland under an existing regional water sales agreement. TVWD has no equity share in the Portland supply and, under the terms of the agreement, is required to pay for a minimum average of 13.16 million gallons per day (MGD) even if the District uses less. If the District uses more it will pay for the additional costs. Water is billed at a pre-determined rate including a rate of return to Portland, with significant rate increases tied to high usage during summer months. The District begins the 2017-19 Biennium with an increase in purchased water costs from Portland of 4.9%. This smaller increase follows 16.9% and 10.2% rate increases in

purchased water from Portland during the 2015-17 Biennium. TVWD can purchase up to 42.3 MGD from Portland, however, there are significant incentives to manage the existing supply system to limit the financial impacts of the existing Portland water sales agreement.

As a member of the Joint Water Commission, the District owns capacity rights in JWC facilities. The District’s capacity share of the JWC water treatment plant is 12.5 MGD, and TVWD currently owns rights to approximately 7,000 acre-feet of storage (equivalent to approximately 12.5 MGD over a 180-day peak season) at Barney Reservoir, which supplies additional source water to the JWC. JWC members share actual operating and maintenance costs in proportion to their water usage and ownership shares. For 2017-19 JWC rate is increasing 13.6% for the first year and projected to increase 3.5% in year two. JWC water is billed to the District at actual water production cost with no rate of return element. Despite the higher FY 2018 JWC wholesale water rate increase, purchased water costs from the JWC remain significantly lower than the cost of Portland water. Therefore, the District maximizes its purchases from the JWC source while concurrently making the required minimum purchases from Portland.



CCF = one hundred cubic feet or 748 gallons

The District also uses its existing Grabhorn ASR well to supplement supply during peak-summer periods. The Grabhorn ASR facility can store up to 300 million gallons of water, and deliver up to 3 MGD of supply over a 100-day period.

To reduce the higher costs of purchasing water for peak-summer use, the District forecasts its projected demand on a regular basis. This short-term demand forecasting helps the District meet the minimum purchase requirement of the Portland agreement while efficiently using the JWC and ASR sources to help meet higher demands during summer months.

Capital Requirements are Funded with a Blend of Cash and Future Debt Issuance

As articulated in TVWD’s capital planning policies, the District uses a blend of cash and debt to fund capital improvements. District policies require that normal ongoing repairs and replacements be funded with cash. The District will use long-term debt as a principal funding mechanism for the WWSP. As part of the in-District CIP development process, staff analyzes capital expenditures to verify the improvements are funded from an appropriate revenue source including system development charges, which can be used for capital projects intended to serve

new growth. This analysis identifies the appropriate level of re-investment in the system each year to maintain the public's investment in infrastructure.

In June 2015, the District redeemed all remaining maturities of its only outstanding bonds – Water Revenue Refunding Bonds, Series 2005. This cash redemption of the District's remaining outstanding debt resulted in net savings of about \$330,000 and created a unique opportunity for the District to develop a new bond indenture and debt policies that reflect up-to-date best practices for debt management and disclosure.

At the time of this Adopted 2017-19 Budget, the District has not determined the size and timing of its next revenue bond issue. However, the District's long-term financial plan identified a need for significant debt issuance for the WWSP and potentially in-District CIP projects beginning in the 2019-21 biennium. It is possible the District may issue debt during the 2017-19 biennium to take advantage of favorable market conditions and help reduce long-term costs for District customers. Should this occur, the 2017-19 Budget will be amended through a supplemental budget process, as allowed by Oregon Local Budget Law, to provide appropriation authority for debt issuance.

Rate Increases Planned Over Multiple Years

Rate increases are linked to the overall level of revenue requirements, and must keep pace with the District's projected operating and capital needs. Multi-year planning is essential to keep rate increases as smooth and predictable as possible. It is also critical information needed by the Board of Commissioners to make informed decisions on current and future investments.

Contingencies and Reserves

The Adopted 2017-19 Budget includes a General Fund operating contingency of \$15.0 million. The District's policy is to appropriate at least 10% of General Fund operating expenditures for contingency. This appropriation provides flexibility for the Board to address operating and/or regulatory changes that arise during the biennium. There is no statutory limit of the amount that may be appropriated for general operating contingency; however, Oregon Local Budget Law limits the Board's ability to transfer from contingency to no more than 15% of fund appropriation without going through a supplemental budget process. If there is an unforeseen but well-defined need, the transfer of contingency funds to the appropriate expenditure category is allowed through Board action by resolution.

In addition, the District maintains other reserves that are available for specific purposes:

- Working Capital Reserve
- Capital Reserve Fund

The Working Capital Reserve follows a recommended utility industry practice of maintaining the equivalent of two months of operating expenditures as working capital. The District informally restricts a portion of the cash in the general operating contingency as working capital in recognition of the fact that a portion of water service charge revenue is seasonal in nature, and some portion represents accounts receivable and inventory rather than actual cash on hand.

The Capital Reserve Fund is used to hold current and future reserves for in-District CIP and WWSP projects. The Adopted 2017-19 Budget includes a General Fund transfer of \$67.3 million to the Capital Reserve Fund. This fund also holds District resources such as system development charge revenue, meter installation fees, interest earnings, and a beginning fund balance projected at \$69.5 million. During the 2017-19 Biennium, transfers out from the Capital Reserve Fund,

budgeted in the amount of \$122.7 million, will be made to both the Capital Improvement and Willamette Water Supply Program Funds to pay capital expenditures for both in-District and WWSS projects.

In addition to these reserves, the District is required by Oregon law to restrict a portion of its SDC revenue for specific purposes. Funds collected through SDCs for improvements may only be spent on the growth-related portions of capital projects identified in an adopted capital improvement plan or the debt service on bonds that financed these projects. The average balance of these restricted funds varies greatly, depending on SDC receipts and the pace of construction financed by SDCs. The District produces an annual report demonstrating its compliance with the Oregon statute.

2017-19 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 2017-19 Budget to the Adopted 2015-17 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 increase from 133 to 135 FTEs over the 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

	2015-17 Biennial Revised Budget	2017-19 Biennial Adopted Budget	% Change from Revised 2015-17 Biennial
SOURCES OF FUNDS			
Operating Revenue			
Water Service Charges and Fees	\$ 86,321,456	\$ 122,275,000	41.7%
Right of way fee collections	173,000	1,560,350	N/A
Contract Reimbursements	5,538,400	2,760,600	-50.2%
Other Fees & Revenues	4,816,840	4,307,353	-10.6%
Construction Revenue from Other Funds	10,501,975	6,462,090	N/A
Non-Operating Revenue			
System Development Charges	10,136,000	10,741,700	6.0%
Contrib. & Assessments	22,780,200	55,034,651	141.6%
Interest Earnings	1,062,623	2,961,673	178.7%
Total Revenues:	\$141,330,494	\$206,103,417	45.8%
Transfers In From Other Funds	184,352,300	195,494,340	6.0%
Combined Beginning Fund Balance:	83,383,033	102,816,660	23.3%
TOTAL RESOURCES & TRANSFERS	\$ 409,065,827	\$ 504,414,417	23.3%
USES OF FUNDS			
Operating Expenses			
Personnel Services	\$ 33,988,944	\$ 39,156,089	15.2%
Materials and Services	40,684,916	37,248,212	-8.4%
Total Operating Budget	74,673,860	76,404,301	2.3%
Capital Budget			
Capital Outlay	83,547,537	172,415,227	106.4%
Debt Service	-	-	0.0%
Total Capital Budget	83,547,537	172,415,227	106.4%
Special Payments	274,000	1,560,350	469.5%
Total Expenditures:	158,495,397	250,379,878	58.0%
Contingency	18,652,880	15,012,900	-19.5%
Rate Stabilization Account	-	-	N/A
Total Expenditures & Contingency:	177,148,277	265,392,778	49.8%
Transfers Out To Other Funds	184,352,300	195,494,340	6.0%
Total Budget Appropriations:	361,500,577	460,887,118	27.5%
Ending Fund Balance *	47,565,250	43,527,299	-8.5%
TOTAL USES, TRANSFERS, CONTING.	\$ 409,065,827	\$ 504,414,417	23.3%
TOTAL FTE's	132.0	135.0	2.3%

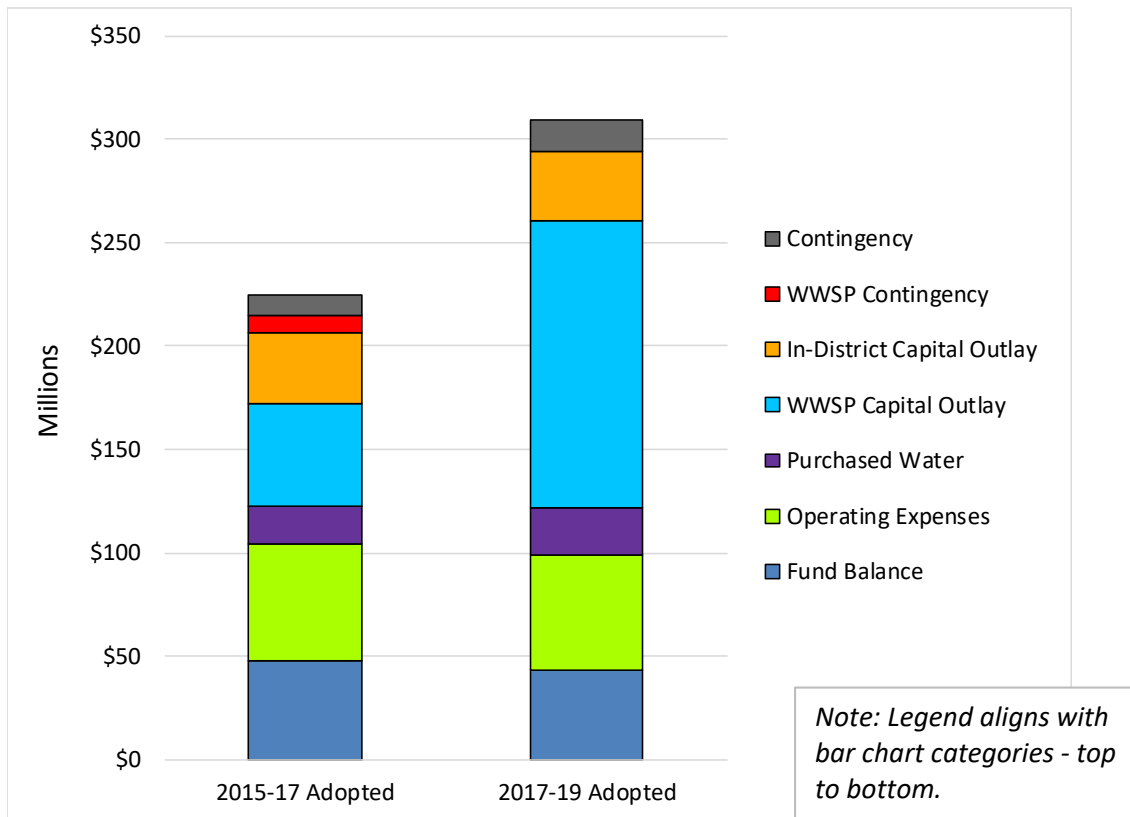
*Unappropriated Ending Fund Balance include District resources available for future use.

In accordance with Oregon budget law, total budget appropriations must include interfund transfers and exclude ending fund balances. Total appropriations for the Adopted 2017-19 Budget are \$460.9 million, a 27.5% or \$99.4 million increase from the current biennium budget. The key appropriation category that contributes to this increase is capital outlay, particularly for projects in the WWSP. The projected unappropriated ending fund balance of \$43.5 million will be available for future use.

This fund balance represents the combined assets in excess of the projected 2017-19 revenues less all appropriations, including contingency, which can be moved to an expenditure category upon approval by 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 2017-19 Budget continues this work as illustrated on the chart below.



It is important to note the City of Hillsboro, the District’s primary partner in the WWSP, is paying about 40% of the 2017-19 budgeted WWSP expenditures as highlighted later in District Resources.

Operating Expenditures

- The Adopted 2017-19 Budget operating expenditures for all funds (including personnel services, and materials & services) increase 2.3% for the biennium. The primary reason the budget for operations is showing a lower increase is a reduction of materials & services expenses in the Willamette Water Supply Program Fund. A significant majority of those expenditures are now capitalized.

- In looking at the General Fund alone, the Adopted 2017-19 Budget for Personnel Services is up \$5.2 million, a 15.2% increase over the prior biennium or 7.6% on an annualized basis. Two new positions are budgeted this biennium; a business analyst in the Customer Service Department who will primarily support the Customer Service Information System Project, and one limited-term senior systems administrator in the IT Services Department who will primarily support IT Master Plan projects. This results in total full-time positions increasing from 133 to 135 FTE.

All District staff positions are budgeted in the General Fund. Capitalized labor and overhead for staff working on in-District CIP and WWSP projects are reimbursed to the General Fund. In addition, Hillsboro is invoiced for its share of District labor and overhead for WWSP projects.

Medical premiums are estimated to increase about 18% annually during the 2017-19 period. 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 2017-19 personnel services budget also includes the District's ongoing participation in the Oregon Public Employees Retirement System (PERS). The District will make an average 14.1% employer contribution to PERS in the biennium. District employees continue to pay their mandatory 6.0% contribution.

- Net of purchased water, the General Fund materials & services expenditures are down 1.8% as the District has held the line on expenditures without sacrificing the level of service TVWD customers have come to expect.
- Purchased water, and associated power for pumping, is the largest materials & services expenditure representing about 29% of the District's total General Fund operating budget. Based on projected water demand, the District has budgeted purchased water and power at \$22.4 million, a 21% increase from 2015-17.

The City of Portland wholesale water rate is increasing 4.9% for the first year and 3.7% in year two. The JWC rate is increasing 13.6% for the first year and 3.5% in year two. The District is also planning for an \$82,000 cost increase over the biennium for electrical power to pump water within the distribution system. Projected rate increases for electricity and projected water demand, along with the pumping requirements the Ridgewood View Park Pump Station facilities put in service in 2016 account for this budgeted increase.

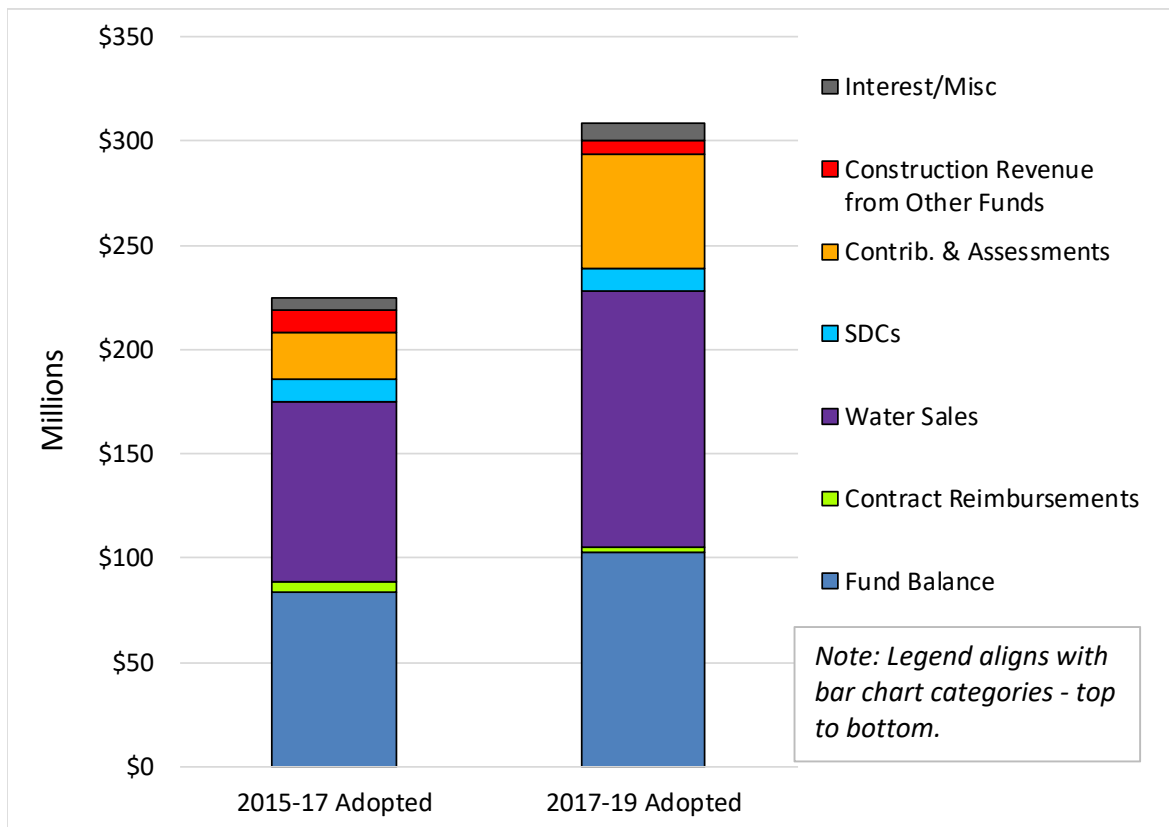
Capital Expenditures, Contingency, Debt Service

- Appropriation in the Adopted 2017-19 Budget for in-District capital construction is \$38.6 million, 12% higher than 2015-17. As detailed in Section 16 *Capital Improvement Plan*, the District continues to make investments in its infrastructure. In addition, the District must balance these capital investments with the capital requirements of the WWSP, which is budgeted at \$138.7 million as detailed in Section 17 *Willamette Water Supply Program Fund*.

- General Fund equipment Capital outlay varies each budget period based on scheduled replacements. The Adopted 2017-19 Budget for capital outlay of \$602,000 represents a 24% decrease from 2015-17. Budgeted equipment costs include security, facility needs such as heating/cooling, tools, and information technology hardware/software that meet the District’s capitalization threshold of \$7,500 and a life in excess of one year.
- The Adopted 2017-19 Budget includes a General Fund general operating contingency of \$15 million, and the Willamette River Water Coalition (WRWC) Fund includes a small contingency of \$12,900. Contingency resources can only be accessed for expenditure or appropriated as a fund transfer with approval by the TVWD Board. Use of WRWC contingency must also be approved by their governing board.
- No debt service is budgeted for 2017-19 at this time.

District Resources Excluding Transfers

Resources for District operations and capital investment come primarily from sales of water to TVWD customers. These revenue are supplemented by SDCs, interest earnings, and fund balances. As the chart below shows, overall District resources (net of transfers) are projected to increase about 37.5% for the upcoming biennium.



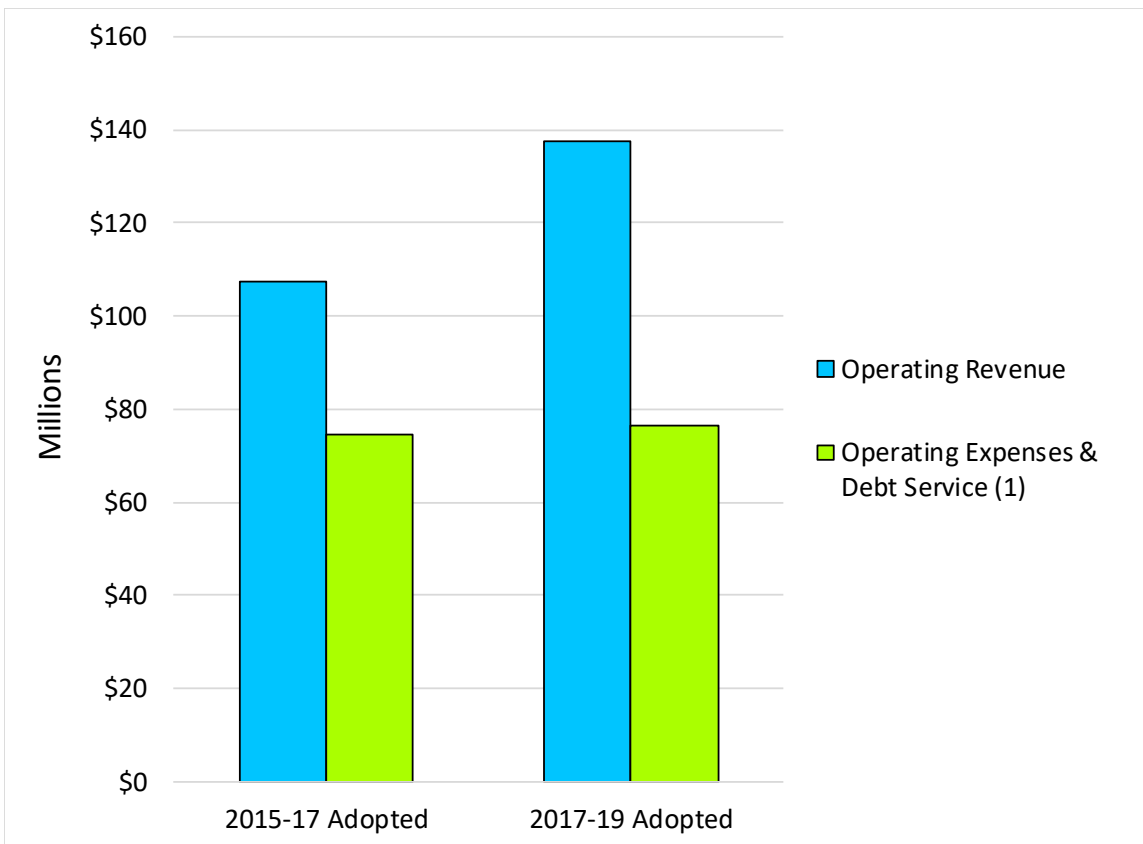
The combined fund balance includes the District’s General, Capital Reserve, WRWC, and Customer Emergency Assistance funds. In the 2017-19 biennium, the Capital Reserve Fund will serve as the primary fund for holding of the District’s current reserves and unappropriated fund balance for future use. It is anticipated the District will set up additional reserve funds depending on the timing of the next revenue bond debt issuance.

Operating Revenue

- Adopted 2017-19 water service revenue and fees are projected at \$122.3 million, 41.7% higher than 2015-17. The District continues to experience moderate growth at a pace of about 1% annually and the Board has been consistent with adopting annual water rate increases. Water sales revenue for the current biennium is projected at about \$102.3 million, about 18.5% higher than the 2015-17 budget of \$86.3 million. A warmer summer of 2015 lead to higher than projected demand and water sales.

For 2017-19, the District is planning for annual rate increases necessary to support the WWSP. TVWD will continue with its financial planning discipline articulated by the District's financial policies: maintaining its 30-year 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 City of Hillsboro payments for its share of WWSP operating expenditures. Hillsboro's WWSP payment represent the largest source of revenue budgeted at \$55.3 million in 2017-19. Contract reimbursements are projected at \$2.76 million. These are for utility billing and meter reading services provided to Clean Water Services and the City of Beaverton; and management and maintenance services for a neighboring water district. Miscellaneous revenue of \$4.3 million include meter installations paid by separate fees, other water service fees, and backflow device testing.
- Overhead charged to other funds at \$6.5 million represents reimbursements to the General Fund for capitalized labor, equipment and overhead for in-District CIP projects and work on the WWSP.
- As illustrated on the graph on the following page, water service charge revenue, along with other operating revenue, continue to cover all 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.



Non-Operating Revenue

- In anticipation of continued steady growth, SDC revenue is projected to be about \$10.7 million. The past two years have been outstanding for new development within the District. By the end of the 2015-17 biennium SDCs collections are estimated to be \$16.9 million, 67% higher than budget. Revenue from SDCs are based on projected future growth from the District’s 2015 Water System Master Plan and updated financial plans, as well as annual increases to SDC fees indexed to inflationary changes of construction costs. The Adopted 2017-19 Budget includes resources to update the District’s SDCs in conjunction with the recently completed Master Plan, and projected growth-related capital investments in the WWSP.
- Interest earnings are expected to increase 179% to \$3.0 million. The District anticipates yields will begin to return to historic norms in future years, but is conservatively projecting a slow growth in yields averaging 1.4% for the 2017-19 biennium.

FUTURE WATER SUPPLY PLANNING & THE SIX-YEAR IN-DISTRRICT CAPITAL IMPROVEMENT PLAN

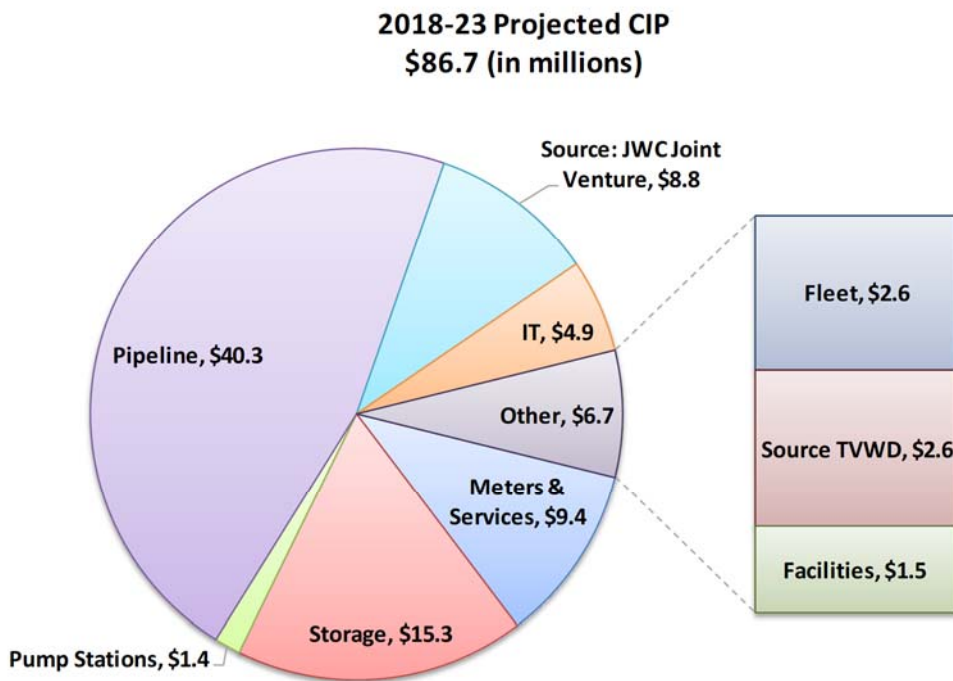
The District’s participation in the WWSP will be a primary driver for TVWD’s capital requirements during the 2017-19 biennium and beyond. For more information, see Section 17 *Willamette Water Supply Program Fund*. During 2017-19, the WWSP will work on numerous permitting, design and construction, real estate and easement, and program management activities as detailed on pages 2-7 to 2-9 of this *Budget Message*.

In addition, each biennium the District updates its six-year Capital Improvement Plan (CIP) for in-District projects, which is presented in detail in Section 16. New project requests and status

updates on existing projects, including those under construction, are prepared by the Engineering Services Department and presented for review by the Chief Executive Officer, Chief Financial Officer and Budget Officer prior to being included in the budget. The in-District CIP planned for the next six years will emphasize upgrading or replacing critical storage, pumping, and water distribution system infrastructure that strengthen seismic resiliency and provide improved reliability of service.

Fleet replacements, the District’s Customer Information System (CIS) project, and a software upgrade to the District’s Supervisory Control and Data Acquisition System (SCADA) are also included in the Adopted 2017-19 CIP. Finally, the District’s participation in JWC projects, including a share of its water treatment plant expansion project is reflected in the CIP.

The pie chart below summarizes the District’s six-year CIP included in the Adopted 2017-19 Budget.



Capital Improvement Plan and Relationship to the Adopted 2017-19 Budget

Appropriations for the first two years of the in-District CIP are incorporated in the Adopted 2017-19 Budget and, with the exception of JWC, are reflected as capital outlay in the Capital Improvement Fund. JWC Source projects are budgeted as a transfer to the General Fund, and recognized as investments in joint ventures.

The Adopted 2017-19 Budget includes appropriation of \$38.6 million. Key projects for the biennium include:

A. Source Category

- JWC Facility Plan & 75 MGD projects: \$2.0MM
- JWC Treatment Plant Expansion: \$3.0MM

B. Storage Category

- Grabhorn Reservoir Replacement: \$11.5MM
- Taylors Ferry Reservoir Replacement (2017-19 portion): \$1.1MM

C. Pump Station Category

- Cooper Mtn. Pump Station Fire Flow Improvements: \$520K
- Catlin Crest/Viewmont Pump Station Replacement/Relocation: \$800K

D. Pipeline Category

- 185th and Springville (Washington County Project): \$550K
- Metzger North-South Fire Flow Improvement: \$4.2MM
- Pipeline Upgrades and Renewals: \$1.3MM
- Mains Replacement Program: \$3.2MM

E. Facilities Category

- Radio Equipment Building and Generator Replacement: \$50K

F. Fleet Replacements

- Scheduled Replacements and new vehicles (see page 17-47): \$801K

G. Computer Hardware/Software

- Customer Information System (2017-19 portion): \$3.6MM
- Upgrade to District's Supervisory Control & Data Acquisition System (SCADA) \$100K

H. Meters and Services Category

- Ongoing program for the installation of water meters and services for new and existing residential and commercial customers: \$3.0MM

CONCLUDING THOUGHTS AND FUTURE PLANNING

The District's financial status is strong and is projected to remain strong over the long term. TVWD presents an Adopted 2017-19 Budget that reflects the direction provided by the Board of Commissioners, aligns with District strategic priorities and financial policies, and continues work on 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 prior revenue bond ratings from Moody's and Standard & Poor's of Aa2 and AA+, respectively, serve as an indication of the strong financial position of the District and its capable management. TVWD will continue to use its long-term planning models to prepare for future opportunities, trends, and challenges. As the District continues developing an additional water supply through participation in the Willamette Water Supply Program and continued investment in the Joint Water Commission, management will monitor capital and operating expenditures, debt levels, and investment balances to minimize purchase water costs and limit unexpected 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 are able to face challenges and maintain a strong financial position.

We hereby respectfully present this Tualatin Valley Water District Adopted Budget for the 2017-19 Biennium.



Mark Knudson, P.E.
Chief Executive Officer





Paul L. Matthews
Chief Financial Officer



Tod A. Burton
Budget Officer

Tualatin Valley Water District



Delivering the Best Water  Service  Value

RESOLUTION NO. 23-17

A RESOLUTION ADOPTING THE BUDGET AND MAKING APPROPRIATIONS FOR TUALATIN VALLEY WATER DISTRICT FOR THE 2017-2019 BIENNIUM

WHEREAS, pursuant to the requirements of ORS Chapter 294, the Board of Commissioners of the Tualatin Valley Water District is required to adopt the budget and make appropriations for the District for the 2017-19 biennium;

WHEREAS, on May 31, 2017, following public notice and hearing thereon, the duly appointed and authorized Budget Committee unanimously approved the biennial budget proposed for 2017-19, now on file at the District office, and recommended adoption by the Board of Commissioners; and being fully advised,

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 31, 2017 by the Budget Committee of Tualatin Valley Water District.

Section 2: That the amounts for the biennium beginning July 1, 2017 and for the purposes shown are hereby appropriated as follows:

GENERAL FUND

Appropriations:

Personnel Services	\$39,156,089
Materials and Services	36,348,023
Capital Outlay	602,300
Special Payments	1,560,350
General Operating Contingency	15,000,000
Transfer to Other Funds	<u>67,334,000</u>
Appropriations Total (General Fund)	\$160,000,762

CAPITAL IMPROVEMENT FUND

Appropriations:

Capital Outlay	\$33,151,675
Transfer to Other Funds	<u>5,460,289</u>
Appropriations Total (Capital Improvement Fund)	\$38,611,964

WILLAMETTE WATER SUPPLY PROGRAM FUND

Appropriations:

Materials and Services	\$765,189
Capital Outlay	<u>138,661,252</u>
Appropriations Total (Willamette Water Supply Program Fund)	\$139,426,441

CAPITAL RESERVE FUND

Appropriations:

Transfer to Other Funds	<u>\$122,700,051</u>
Appropriations Total (Capital Reserve Fund)	\$122,700,051

WILLAMETTE RIVER WATER COALITION FUND

Appropriations:

Materials and Services	\$86,000
Operating Contingency	<u>12,900</u>
Appropriations Total (Willamette River Water Coalition Fund)	\$98,900

CUSTOMER EMERGENCY ASSISTANCE

Appropriations:

Materials and Services	<u>\$49,000</u>
Appropriations Total (Customer Emergency Assistance Fund)	\$49,000

TOTAL APPROPRIATIONS: \$460,887,118

Section 4: 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 21st day of June 2017.

*Original signatures on file
Not included for security purposes*

Dick Schmidt, President

*Original signatures on file
Not included for security purposes*

Jim Doane, Secretary

FORM LB-1

NOTICE OF BUDGET HEARING

A public meeting of the Tualatin Valley Water District will be held on June 21, 2017 at 7:00 pm at 1850 SW 170th Avenue, Beaverton, Oregon, 97003. The purpose of this meeting is to discuss the budget for the fiscal year beginning July 1, 2017 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 8:00 a.m. and 4:30 p.m. or online at www.tvwd.org/budget. This budget is for a biennial budget period 2017-19.

Contact: Tod Burton, Financial Planning & Debt Project Mgr. Ph: (503) 848-3040 Email: tod.burton@tvwd.org

FINANCIAL SUMMARY - RESOURCES			
TOTAL OF ALL FUNDS	Actual Amount	Revised Budget	Approved Budget
	Biennium 2013-15	This Biennium 2015-17	Next Biennium 2017-19
Beginning Fund Balance/Net Working Capital	91,188,584	83,383,033	102,816,660
Fees, Licenses, Permits, Fines, Assessments & Other Service Charges	76,038,340	86,321,456	122,275,000
Federal, State and All Other Grants, Gifts, Allocations and Donations	0	0	0
Revenue from Bonds and Other Debt	0	0	0
Interfund Transfers / Internal Service Reimbursements	45,683,373	194,854,275	201,956,430
All Other Resources Except Current Year Property Taxes	23,104,694	44,507,063	77,366,327
Current Year Property Taxes Estimated to be Received		0	0
Total Resources	236,014,991	409,065,827	504,414,417

FINANCIAL SUMMARY - REQUIREMENTS BY OBJECT CLASSIFICATION			
Personnel Services	28,258,491	33,988,944	39,156,089
Materials and Services	30,429,887	40,684,916	37,248,212
Capital Outlay	44,660,429	83,547,537	172,415,227
Debt Service	7,246,350	0	0
Special Payments	0	274,000	1,560,350
Interfund Transfers	39,733,964	184,352,300	195,494,340
Contingencies	0	18,652,880	15,012,900
Unappropriated Ending Balance and Reserved for Future Expenditure	85,685,871	47,565,250	43,527,299
Total Requirements	236,014,991	409,065,827	504,414,417

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	2,812,476	5,709,754	5,267,143
FTE	8.00	11.00	9.00
Customer Service Department	8,299,948	8,361,244	10,771,644
FTE	31.00	31.00	33.00
Engineering Services Department	9,303,164	10,450,913	10,819,185
FTE	29.00	27.00	28.00
Field Operations Department	10,749,016	11,101,358	12,057,346
FTE	32.00	32.00	32.00
Finance Department	7,959,166	10,984,199	7,973,340
FTE	20.00	23.00	14.00
Water Supply Program	1,499,137	2,698,287	3,053,419
FTE	4.00	9.00	9.00
Information Technology Services Department	0	0	5,373,349
FTE	0	0	10
Water Purchases (General Fund)	15,175,539	18,479,624	22,351,335
FTE	0	0	0
Capital Improvements Fund	61,266,932	57,757,335	38,611,964
FTE	0	0	0
Willamette Water Supply Program Fund	7,051,537	65,803,170	139,426,441
FTE	0	0	0
Capital Reserve Fund	0	121,875,318	151,120,797
FTE	0	0	0
Bond Construction Fund	0	0	0
FTE	0	0	0
Revenue Bond Debt Service Fund	7,246,724	0	0
FTE	0	0	0

Willamette River Water Coalition Fund	305,636	566,836	107,716
FTE	0	0	0
Customer Emergency Assistance	0	61,840	56,782
FTE	0	0	0
Non-Departmental / Non-Program	104,345,716	95,215,949	97,423,955
FTE	0	0	0
Total Requirements	236,014,991	409,065,827	504,414,417
Total FTE	124	133	135

STATEMENT OF CHANGES IN ACTIVITIES and SOURCES OF FINANCING

Total Proposed 2017-19 Budget operating budget expenditures increase 14.6% for the two-year period. The budgetary increases support personnel services costs increases, including one proposed staff position and one limited-term staff position in the District's Customer Service and Information Technology Services Departments; a 21% increase in purchased water and pumping power costs, including wholesale water purchased from the City of Portland Water Bureau and purchases from the District's participation in the Joint Water Commission; and a new appropriation category for Special Payments, which represent pass-through right-of-way fee payments to the cities of Hillsboro, Beaverton and Tigard. Total capital outlay expenditures increase 106%, driven by the timing and scope of the District's participation in the Willamette River Water Supply Program (WWSP). The District paid off all its outstanding revenue bonded debt as it prepares for a new debt issuance program to support the WWSP beginning in the 2019-21 biennium.

Transfers to other funds, although not an expenditure category, represents the largest appropriation item in the Proposed 2017-19 Budget at \$195.5 million. The District uses a Capital Reserve Fund to hold substantially all current and future District reserves. General Fund operating contingency is budgeted at \$15 million and a contingency of \$12,900 is proposed for the Willamette River Water Coalition Fund (WRWC). Contingency can only be accessed through approval by resolution by the District Board of Commissioners.

Total Proposed 2017-19 Budget resources, including reserves and fund balance, increase 23.3%. Primary revenues to support operating, WWSP and in-District CIP expenditures include water rates and service fees, WWSP payments from 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 41.7% based on projected rates and fees for services, projected water demand, and customer growth. System development charges are projected to increase 6.0% based on development trends. WWSP partners pay their portion of WWSP expenditures. The Proposed 2017-19 Budget includes \$55.3 million in contributed capital and reimbursements by WWSP 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

The Tualatin Valley Water District (TVWD) budget document contains a wide variety of information in narrative, table, and graphic form. A guide describing the general layout of the budget is offered here 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 264, TVWD is subject to Oregon Local Budget Law (ORS 294). This Users Guide contains a description of the budget process to maintain compliance with the law and provide District customers with opportunities for input. TVWD's Financial Goals and Policies are included, as well as a discussion of the District's 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 Budget Committee highlighting key elements of the budget and identifying any significant changes from prior years. At its core, the Budget Message is simply a written explanation of the budget and its priorities. It is prepared by the Chief Executive Officer, Chief Financial Officer and Budget Officer, and presented in public hearing to the Budget Committee.

Section 4 outlines **District's Strategic Planning** efforts and details a few **Performance Measures** designed to track progress towards key initiatives adopted by the Board of Commissioners. More data regarding each performance measure may also be found in individual department sections (Sections 9 – 14):

- Section 9 – Administrative Services Department
- Section 10 – Customer Service Department
- Section 11 – Engineering Services Department
- Section 12 – Field Operations Department
- Section 13 – Finance Department
- Section 14 – Water Supply Program Department
- Section 15 – Information Technology Services Department

Section 5 provides information on the District's **Multi-Year Financial Plan**. Long range planning is essential for a water utility, as system improvements often require many years of design and permitting activities before construction can begin. The Multi-Year Financial Plan also considers projected revenue streams, fund balance resources, debt considerations, and economic and demographic trends to provide the District a long-term road map as it considers budgetary planning and financing needs particularly for its long-term capital improvement projects.

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. The majority 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 here. The other six funds exist to account for capital improvements, TVWD's Willamette Water Supply Program (WWSP) partnership, capital reserves, bonded debt, intergovernmental activities and customer emergency assistance.

For the Adopted 2017-19 Budget, the District remains debt free. It is anticipated debt issuance, principally in support of the WWSP, will begin again during the 2019-21 biennium. The District anticipates using similar revenue bond construction and debt service funds as it has managed in the past.

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 - 15 highlighting TVWD's largest single operating expense – Purchased Water, and staffing and expenditure activity of the seven **individual departments** housed within the General Fund.

Section 16 covers TVWD's 6-year In-District **Capital Improvement Plan (CIP)**. 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 two sections address two of the District's funds that pertain to future water supply in more detail. The **Willamette Water Supply Program Fund** in Section 17 was established by the Board of Commissioners during the 2013-15 biennium. This fund accounts for all resource and expenditure activity associated with the development of the District's and its partners planned future water supply, the Willamette River. TVWD serves as the managing agency on the WWSP, consequently appropriations for the WWSP are included in the District's budget.

Section 18 **Willamette River Water Coalition Fund** (WRWC) accounts for the activities of the four member agencies including TVWD, who 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.

The Planning and Budgeting Process

Overview

Each year the District's Board of Commissioners holds 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 key 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 and Performance Measures is shown in Section 4. This goal-setting session provides overall direction to management and staff, and the long range financial and capital plans are the expressions of that direction over a 5 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.

Long Range Planning

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 advance planning and permitting before construction can begin. The District formally updates its 50-year facilities master plan every five to seven years, and the six-year Capital Improvement Plan (CIP) is updated biennially to identify needed additions, improvements, and replacements to the water system in response to anticipated demand, changes in federal regulations, and ongoing maintenance needs. In addition, the District is involved with planning its future water supply through its participation in the Willamette Water Supply Program.

A 30-year financial forecasting model is used as the framework within which revenues, reserves, operating costs, and capital costs are combined. The forecast is updated about every three to six months, and is used to run alternative scenarios projecting 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.

Biennial Budget Process

The budget process the District follows is consistent with Oregon Local Budget Law requirements. Further detail about requirements can be found in ORS 294. The phases of the process are:

Requested (December-March): The initial “in-house” development of departmental budgets formally begins, and the financial forecast is updated to reflect preliminary estimates for resources and expenditures. Development of the District’s capital improvement plan and participation in the WWSP starts earlier in the fall with its planned expenditures and timing also included in the update of the long-term forecast.

Both the District’s operating and capital plans receive extensive internal management review and analysis prior to preparing information for the Budget Committee. The requested operating budget, capital improvement plan and WWSP is 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 forecast, including assumptions and risks, are also presented to the committee. A key objective of this phase of budget development is to solicit input by the budget committee early in the process.

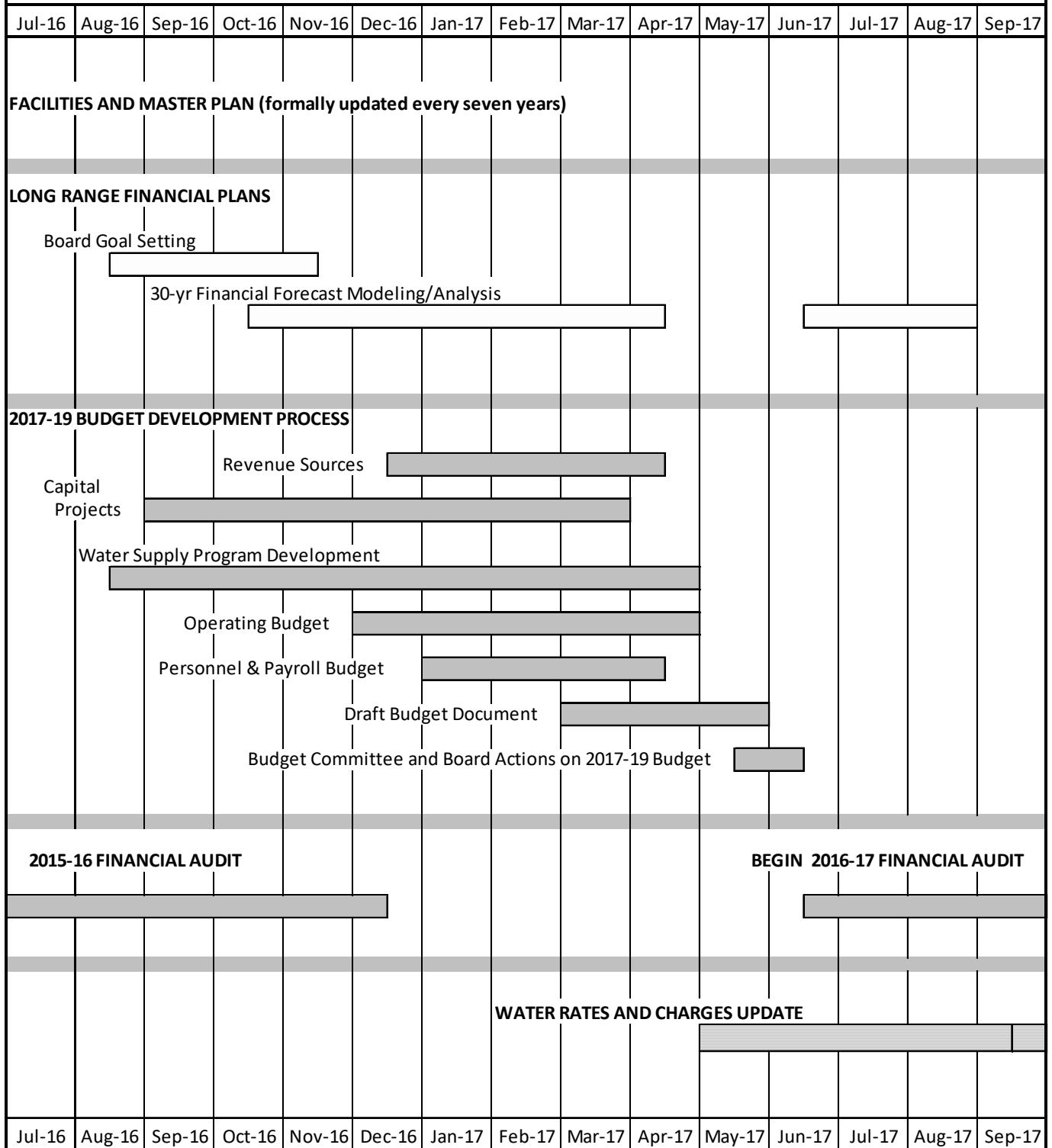
Proposed (April/May): The Proposed Budget is prepared and published by the Budget Officer using the results from the District’s internal review process and input from Budget Committee workshops. This document includes the budget message, which explains the budget and discloses any significant changes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

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.

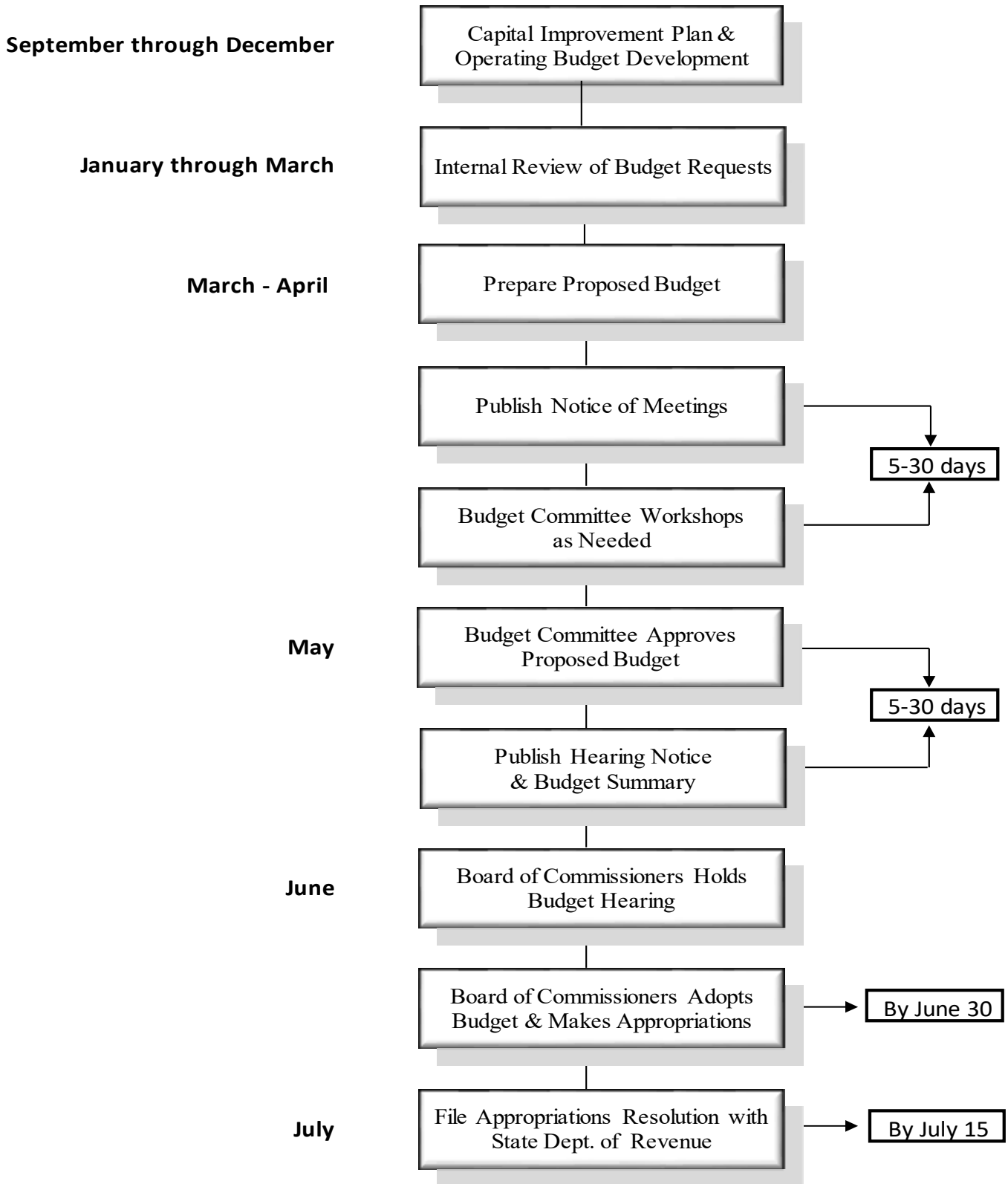
Adopted (June): In this final phase of the budget process a financial summary of the approved budget is published. The Board holds a public hearing to take testimony, make amendments as necessary, and formally adopt the budget. The appropriations resolution then is filed with the Oregon Department of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

**TUALATIN VALLEY WATER DISTRICT
LONG RANGE PLANNING AND BUDGET PROCESS SCHEDULE**



TUALATIN VALLEY WATER DISTRICT BUDGET PROCESS/SCHEDULE IN SUMMARY



**TUALATIN VALLEY WATER DISTRICT
2017-19 BUDGET CALENDAR**

FIRST YEAR	EVENT
DATE	EVENT
9/7/16	Engineering and Finance (invited as needed) - Capital Improvement Plan CIP project tracking. Weekly. CIP tracking monthly.
10/19/16	BOARD OF COMMISSIONERS MEETING - Budget Committee Appointments
11/16/16	BOARD OF COMMISSIONERS MEETING - CAFR Report/Acceptance
12/13/16	Start Operating Budget Preparation Activity - Budget Workbooks and Decision package forms to Management Team.
12/13/16	Leadership Team Meeting CEO Budget direction
12/15/16	Draft WWSP (Fund 15) Operating and CIP Budget Due from Water Supply Program (Requires coordination with Hillsboro)
12/15/16	Draft District CIP Due to Finance from Engineering, Field Operations, Customer Service - meters, facilities, fleet, IT
12/21/16	BOARD OF COMMISSIONERS MEETING - No Budget Topics
12/30/16	System Development Charge Accounting Complete (for prior fiscal year)
1/3/17	BOARD OF COMMISSIONERS WORK SESSION - Budget Schedule Update
1/9/17	WWSP Financial Coordination Meeting with Hillsboro. FY 18 Budget and Baseline 2.0
1/18/17	BOARD OF COMMISSIONERS MEETING - Annual Investment Policy Adoption
1/23/17	Capital Improvement Plan and WWSP CEO Review ((Engineering, Water Supply Field Ops, Field Customer Service)
1/18/17	BOARD OF COMMISSIONERS MEETING - Annual Investment Policy Adoption
1/30/17	Complete Capital Improvement Plan and WWSP CEO Review
2/7/17	BOARD OF COMMISSIONERS WORK SESSION 2017-19 Add Packages. Confirm Priorities (CEO)
2/2/17	Departmental Operating and Capital Outlay Requests due to Finance
2/15/17	BOARD OF COMMISSIONERS MEETING - System Development Charge Update. No Budget Topics
Week of 2/20	Operating Budget Reviews CEO, Department Managers, Finance
3/1/17	Intergovernmental deliverables - Utility Billing and Meter Reading FY 2017-18 to Clean Water Services & City of Beaverton
3/2/17	CEO OPERATING BUDGET REVIEWS (Continued) Add package decisions IT, other issues as needed.
3/7/17	Board Work Session - CEO overview, 2015-17 financial update 2017-19 Budget assumptions, Financial Forecast
3/15/17	BOARD OF COMMISSIONERS MEETING - No Budget Topics
3/17/17	Revised Operating Budget with Add Packages and CIP to CEO and CFO for final review
3/17/17	District Tour for Commissioners & Citizen Budget Committee Members
3/24/17	Publish Notice of March 28th Budget Committee Workshop #1 - Oregonian
3/28/17	BUDGET COMMITTEE WORKSHOP #1 (6:00 P.M.)
	CEO Update, Budget Process Review, 2015-17 In Review, Financial Forecast Update, Willamette Water Supply Program Budget
4/3/17	CEO OPERATING BUDGET - Review and punch list of final needs.
4/4/17	Board Work Session - Supplemental Budget - WRWC, Right-of-Way Fees. Est. Special Payments as new appropriation category
4/13/17	CEO - Create separate IT Dept. Complete "Pencils Up" Version of Budget
4/19/17	Board Meeting - Supplemental Budget - WRWC, Special Payments Appropriation
4/21/17	Publish Notice of April 25th Budget Committee Workshop #2 - Oregonian
4/25/17	BUDGET COMMITTEE WORKSHOP #2 (6:00 P.M.)
	District Initiatives, Departmental Operating Plans, CIP, 2017-19 Requested Budget Summary
5/10/17	TVWD Proposed Budget on Washington County TSCC Website (No Less than 10 days prior to meeting)
5/12/17	Public Notice of TVWD Budget Committee Meeting published in Oregonian and Oregon Live, ORS 294.426(5)
5/15/17	Notice of Budget Committee Meeting Published on Website
5/16/17	BOARD OF COMMISSIONERS MEETING No Budget Items Scheduled
5/16/17	Mail CIP Report TO Bureau of Labor & Industries (ORS 279C.305) - 30 days prior to adoption if possible.
5/19/17	Proposed Delivered to Budget Committee (FCS)
5/19/17	Proposed Budget available for inspection. Posted on website including meeting agenda
5/31/17	BUDGET COMMITTEE MEETING (6:00 P.M.) PRESENTATION OF PROPOSED BUDGET, COMMITTEE DELIBERATIONS, CONSIDER APPROVAL

**TUALATIN VALLEY WATER DISTRICT
2017-19 BUDGET CALENDAR**

FIRST YEAR	
DATE	EVENT
6/5/17	Submit Notice of Budget Hearing and Financial Summary (LB1) Oregonian. Publish on 6/9/17
6/6/17	Board Work Session - Water Rates Update and Schedule
6/9/17	Public Notice of Budget Hearing in Oregonian and Oregon Live (ORS 294.416). Publish on Website NOTICE OF BUDGET HEARING & FINANCIAL SUMMARY - Form LB1
6/21/17	BOARD OF COMMISSIONERS MEETING - Budget Hearing, Adopt Budget, Make Appropriations
7/14/17	DEADLINE TO SUBMIT TVWD BUDGET RESOLUTION TO STATE DEPT OF REVENUE
7/19/17	Board Meeting - Water Rates Process and Schedule
Week of 7/24/17	Mail Public Notice for TVWD Rate Hearing (OR 264.312)
8/2/17	Water Rates Open House #1
8/12/17	Water Rates Open House #
8/16/17	BOARD OF COMMISSIONERS MEETING - Public Hearing on Water Rates. No Board action
8/22/17	Water Rates Open House #3
8/31/17	Submit GFOA Budget Award Submission - due 90 days after adoption
9/5/17	Board Work Session -Water Rates and Public Comments
9/20/17	BOARD OF COMMISSIONERS MEETING - Water Rates & Fees Resolution Adoption (Water rate increases effective 11/1/17 and 11./1/18)

SECOND YEAR	
DATE	EVENT
12/31/17	System Development Charge Accounting Complete (for prior fiscal year)
5/1/18	Deadline to Mail CIP Report to Bureau of Labor and Industries ORS 279.023C (if amended)
TBD	Supplemental Budget actions, if needed
TBD	Misc. Water Fee Updates. No Planned Board action on water rate increases. Board approved rates effective 11/1/18 in September 2017



Tualatin Valley Water District

Financial Goals and Policies

1. Financial Goals

- a. Services provided by the District shall be managed to maximize service level quality and quantity within available financial resources. District Managers are expected to ensure that services are provided in efficient and cost-effective manner.
- b. The District shall explore alternative means of providing services wherever such alternatives could significantly reduce cost or improve services.
- c. The District shall coordinate financing and the delivery of service with other public agencies and the private sector in order to lower the overall cost burden on customers and to provide the optimum service level from available resources.
- d. The District shall provide appropriate financial capacity for current and future needs through a fully self-sustaining and equitable system of rates and charges.
- e. The District shall promote sound financial management by providing accurate and timely information about the District's financial operations.
- f. The District shall maintain its good credit rating and prevent default on any debts in order to continue access to the credit markets enabling the District to finance capital projects in an efficient and cost-effective manner.
- g. The District shall adopt Financial Policies that provide guidance to the Board and the District's Management on decisions that have significant impact. These policies will set forth operating principles for effective management of financial risk and cost containment.

2. Financial Planning Policies

- a. The District shall review and update its 30-Year Financial Plan at least biennially. The review and update should consider new and changed information contained in other planning documents such as the District's Water Master Plan, Capital Improvement Plan, and the Budget.
- b. The District shall adopt a Two-Year (Biennial) Budget in order to affect an appropriate short-term planning horizon and promote efficiencies. The Budget shall be prepared and adopted in accordance with State Statutes and conform to standards consistent with nationally recognized practice.
- c. The District shall conduct its financial planning and rate setting in a manner that avoids unexpected and sudden rate increases/decreases and promotes predictable and stable (non-volatile) rates.
- d. The District shall purchase water for distribution in a manner that balances the need to minimize cost and maximize water quality and reliability for its customers.

Tualatin Valley Water District Financial Goals and Policies (cont'd.)

- e. The District shall pursue the purchase of water supply facilities in order to increase control over and reliability of water supplies, effect efficiencies and minimize operating costs, provide the ability to share investment cost with new customers (through System Development Charges) and provide opportunities for debt financing of infrastructure.
- f. The District shall ensure that operating revenues are always sufficient to cover operating expenses, and that net revenues are sufficient to comply with current bond covenant requirements each year. The District shall ensure that it complies with other current bond covenants specifically addressed in Sections 3, Capital Planning Policies and Section 5, Reserve and Contingency Policies.

3. Capital Planning Policies

- a. The District shall periodically review and update its Water Master Plan and Water Management Plan to satisfy the requirements for these plans outlined by the Oregon Health Division and the Oregon Water Resources Department. The review and update should consider information contained in other planning documents and provide the District with a coordinated capital plan for system development and an overview of source options to meet growth needs.
- b. The District shall biennially develop and adopt a Six-Year Capital Improvement Plan (CIP) that details capital projects and fixed asset acquisitions for the District consistent with its Water Master Plan, Financial Plan, and capital plans prepared by other Agencies with whom the District has a contractual or other legal obligations. Projects in the CIP should be prioritized according to need, and the District should identify any significant operating costs associated the project.
- c. The District shall utilize a blend of cash and debt financing for capital infrastructure. Normal ongoing repair and replacement projects will always be financed with cash. Debt will be considered as an optional financing mechanism for long-lived improvements and expansions or one-time major system component replacements. As part of the CIP process, analysis shall be conducted to ensure that capital expenditures are funded from an appropriate revenue source, and that sufficient cash is being re-invested in the system each year to maintain the public's investment in infrastructure.
- d. The District shall comply with current bond covenants to assess the repair and replacement needs of its capital facilities through a Facility Renewal and Replacement Study every six years. Based on this study, the District shall include forecasted repair and replacement costs in its Financial Plan and include repair and replacement costs in its Six-Year CIP. These forecasted costs shall be funded with current revenues from the financial operation of the District.

4. Debt Management Policies

- a. The District may issue debt for the purpose of providing financing of capital facilities with long-term useful lives and where such debt financing will help to maintain stable water rates and spread the cost of the facilities to be financed to future users benefiting from the facility.

Tualatin Valley Water District Financial Goals and Policies (cont'd.)

- b. The District shall issue revenue bonds in preference to general obligation (GO) bonds as a financing instrument. This policy allows the District to issue debt on a schedule that accommodates capital system needs without waiting for a general election (required in Oregon for GO debt) and ensures that debt is serviced with water rates and charges (consistent with the “user pays” philosophy) rather than through property tax assessments.
- c. The District shall ensure that it complies with current bond covenants such that in any year, operating revenues from its financial operations are sufficient to equal the District’s operating expense and that the net operating revenues in any year are sufficient to meet or exceed the revenue bond debt service coverage tests identified in the bond covenants. Debt service coverage should be calculated both including and excluding System Development Charge (SDC) revenues to ensure coverage requirements and targets are met.
- d. The District shall periodically review its outstanding debt and debt market conditions to identify opportunities to reduce interest cost through refinancing. In refinancing its debt, the District shall comply with applicable provision of law including meeting the requirement that interest savings resulting from the refinancing equal 3% or greater.
- e. When issuing debt, the District shall evaluate the use of bond insurance and debt service reserve equivalents as a means of minimizing net interest cost of the financing.
- f. When issuing debt, the District shall comply with Internal Revenue Services’ Arbitrage rules requiring 95% of the bond proceeds be spent for their intended purpose within 24 months from the issuance date of the bonds.

5. Reserve and Contingency Policies

- a. The District shall maintain reserves at the levels and for the purposes indicated below. These levels and purposes represent the minimum amounts that should be maintained. Reserves may be restricted or unrestricted, and may not be expended except as allowed by local budget law.
 - i. Operating Reserve (working capital). The level of Operating Reserves is maintained at the industry standard level of 45-60 days’ worth of operating expenses. This practice allows for fluctuations of cash receipts due to weather and billing cycle variability. Within the biennial budget process, the District will appropriate at least 10% of operating expenditures as “Contingency” so that the funds can be accessed through Board action for revenue or expenditure fluctuations when necessary. Any depleted funds shall be replaced in the following budget period.

Tualatin Valley Water District Financial Goals and Policies (cont'd.)

- ii. **Capital Renewal and Replacement Reserve.** The funding level of this reserve is determined by a Facility Renewal and Replacement Study conducted every six years by a qualified expert consulting firm as required by bond covenants. Monies are transferred from this reserve to the Construction Fund to be used for necessary repair and renewal of the District's facilities each year. Depleted reserve funds shall be replaced by a transfer of cash from the General Fund.
 - iii. **Rate Stabilization Reserve.** This reserve is required by bond covenants. The intent is to provide additional revenues to meet debt service coverage requirements in years when cash receipts from customers are below expectations. This reserve is typically funded at 5-8% of operating revenues, and may be accessed by Board action when needed. A higher level of rate stabilization reserve may be funded in anticipation of unusually large or frequent bond sales. When the reserve is depleted to a level below \$2 million, funds are replaced in the following budget period.
- b. In addition to the required reserves listed above, the District shall maintain discretionary reserves when special circumstances warrant such a course of action.

District Debt Limitation

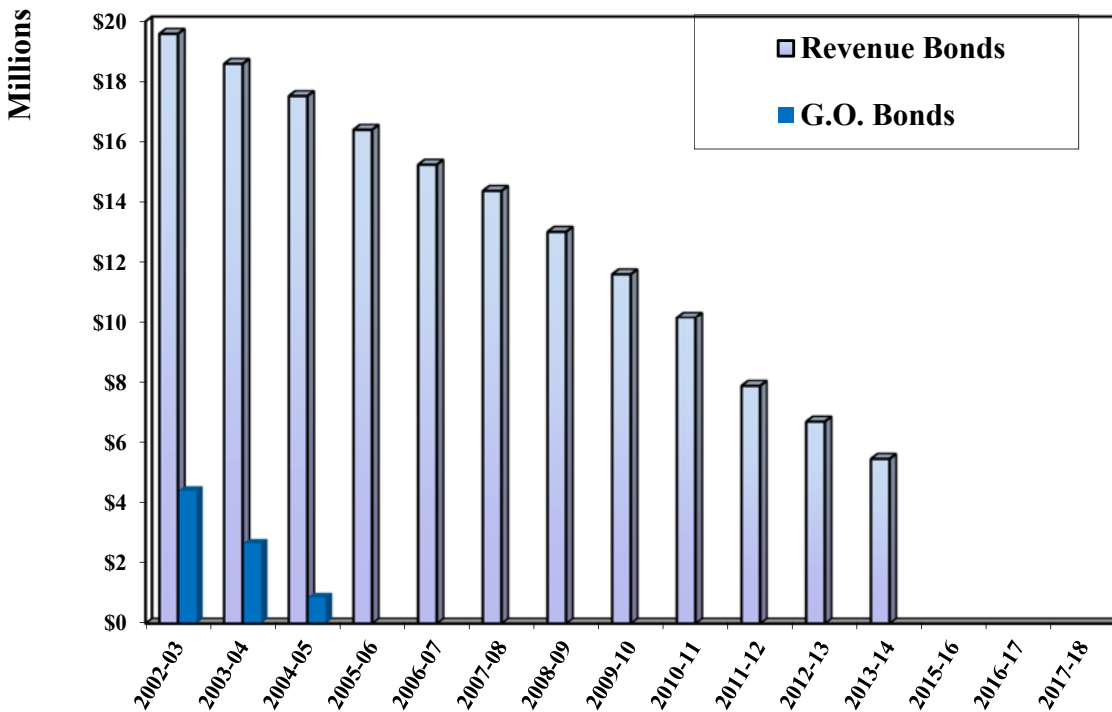
Oregon Revised Statute 264.250(3) limits general obligation (GO) indebtedness of water supply districts with a population of 300 or more to ten percent of true cash value of all taxable property. The real market value of the taxable property within the Tualatin Valley Water District boundaries is \$33.5 billion according to information provided by the Washington County Assessor's Office. That value would allow the District to issue up to \$3.35 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 \$3.35 billion.

The District has no current or future plans to issue general obligation indebtedness.

The District's adopted debt management policies state that revenue bonds are issued in preference to GO bonds as a financing instrument. This policy allows the District to issue debt on a schedule that accommodates capital system needs without waiting for a general election (required in Oregon for GO debt) and ensures that debt is serviced with water rates and charges revenue rather than through property tax assessments. By repaying debt through user fees the District follows the "user pays" principle, and by staying off the property tax rolls to preserve headroom for other governmental entities that are not able to charge user fees. 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.

In June 2015, the District exercised its option to redeem all remaining series of its only outstanding bonds – 2005 Water Revenue Refunding Bonds in the principal amount of \$4,190,000. Like the prior biennium, the District’s 2017-19 biennium begins debt free. However, the District is planning to begin a new debt issuance program at the beginning of the 2019-21 biennium, or sooner, for Willamette Water Supply Program and/or other District capital improvements. Should the District begin debt issuance during the 2017-19 biennium, it will bring to the Board a recommended budget amendment as allowed under Oregon Local Budget Law for debt issuance appropriation authority.

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



TVWD Strategic Planning

Tualatin Valley Water District’s strategic planning efforts continue to evolve and reflect a more comprehensive understanding of the District’s vision, mission, and values, and the planning and actions that stem from those. These efforts enable TVWD to better respond to future trends and challenges as it serves its customers.

As in past years, a Strategic Core Team made up of staff and members of the Board of Commissioners continue to discuss and address industry trends, regional issues, District needs, and organizational strengths and challenges. The 16-member Core Team includes two Commissioners, the Chief Executive Officer, the department managers, and coordinators for the District’s Information Technology, Strategic Planning, Risk Management, and Communications programs. This team’s work then becomes a basis for setting the District upcoming biennium budget priorities and recommended resource allocations.

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

<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>

Significant District-wide, departmental and employee results and measures are tracked and reported monthly to management and the Board of Commissioners. District Desired Results and Key Initiatives are incorporated into important District plans such as Willamette Water Supply Program, water system master and facilities plans, biennial budget, in-District six-year capital improvement plan, and long-term financial plan.

TVWD’s Desired Results are what other organizations may call organizational goals. They are referred to as Desired Results to emphasize the District’s focus on the results of actions more than the actions themselves. These Desired Results stem from the District’s Vision, Mission and Values and summarize what District staff, programs and policies seek to accomplish. The following set of Desired Results was adopted by the Board of Commissioners in December 2012.

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)

The figure below provides an overview of the District’s strategic planning steps and timeline:

Tualatin Valley Water District	
Strategic Planning Process Schedule for the 2017-19 Biennium	
The Strategic Planning process to establish Desired Results and Key Initiatives for the upcoming biennium starts several months before budget development begins.	
<u>2016</u>	
August	Review 2015-17 initiatives and identify potential carry-overs to 2017-19
August	Refine “long list” of possible initiatives including current and carry-overs
September	Consolidate “long list” into a focused list of initiatives
September	Assess focused list of initiatives with District workloads
October	Resource planning around focused list of initiatives
October	Select final recommendations for presentation to the Board
November	Initiatives and Key Projects presented to Board in Work Session
November	Board adopts District Initiatives and Key Projects
<u>Dec. 2016 Through</u>	
<u>June 2017</u>	
	Initiatives and priorities utilized in budgetary process
Ongoing	Managers review progress of key initiatives at Management Team meetings
Ongoing	Semi-annual progress reports to Board of Commissioners

UPDATE ON 2015-17 DISTRICT INITIATIVES

Much progress was made during the 2015-17 biennium, with 16 of the identified initiatives classified as complete - meaning the initiative has been concluded in full, or will conclude by June 30, 2017, or has resulted in a program or process that will continue as business as usual within the District and no longer considered an initiative.

Completed 2015-17 District Initiatives are shown on the next page.

2015-17 Completed District Initiatives

	INITIATIVE	OWNER
✓	Review & Revise Employee Benefits Package	HR
✓	Develop & Implement Aging Infrastructure Strategy	Engineering
✓	Review and Revise Board Policies & Provide Policy Training	Admin
✓	Portland Dispute Resolution	Admin
✓	Mains Replacement Program	Engineering
✓	Service Agreement – South Hillsboro	Finance-IT
✓	Unaccounted For Water	Engineering
✓	Enterprise GIS Work Plan	Engineering
✓	New Communication Tools	Admin
✓	CMMS Implementation	Finance-IT
✓	New Bond Indenture	Finance-IT
✓	401(k) Modernization	HR
✓	Emergency Plan Update	HR
✓	Rebate Program Review & Update	Customer Services
✓	Field Mobile Communications Update	HR
✓	Right-of-Way License Fees	Finance-IT

The most recent round of strategic planning was held by the Core Team during the fall of 2016. Initiatives for the 2017-19 biennium were pared down to seven District-wide efforts that represent the following:

- Are transitional or transformational for the District, and/or
- Require significant resources, and/or
- Require participation from throughout the District, and/or
- Require significant coordination for success.

The seven initiatives were approved by the Board at their November 2016 regular meeting. The table below and on page 4-4 lists the seven 2017-19 initiatives paired with the Desired Result each supports. These initiatives are over and above the essential day-to-day work already being accomplished by the District.

2017-19 District Initiatives

THE WATER SUPPLY MEETS COMMUNITY NEEDS AND EXPECTATIONS
<p>Develop Management and Operating Resources for Willamette Water Supply System</p> <ul style="list-style-type: none"> ➤ Develop resource requirements for the administration, management, operation and maintenance of the Willamette Water Supply System ➤ Develop implementation strategy for resource integration to TVWD ➤ Coordinate with Willamette Water Supply System program partners

2017-19 District Initiatives

THE WATER SUPPLY MEETS COMMUNITY NEEDS AND EXPECTATIONS (continued)
<p>Asset Management / Maintenance Management Strategy</p> <ul style="list-style-type: none"> ➤ Plan, execute, and document the maintenance activities and inspections performed on the District's infrastructure ➤ Address Aging Infrastructure issues facing the District
THE COMMUNITY IS CONFIDENT IN OUR WATER, SERVICE AND EMPLOYEES
<p>Resource and Implement Strategic Communications Plan</p> <ul style="list-style-type: none"> ➤ Develop work plans and resource requirements for budgeting and implementing the District's Strategic Communications Plan ➤ Better utilize contemporary branding, graphics, video, online communications, and customer engagement outreach efforts <p>Ratepayer Communication Strategy</p> <ul style="list-style-type: none"> ➤ Develop a long-term revenue strategy/plan that will specify messaging and activities for the District to undertake throughout the year ➤ Inform and educate District customers about TVWD initiatives, the need for additional revenues, and the value of water
WE ARE GOOD STEWARDS OF OUR NATURAL RESOURCES
<p>Develop & Implement District Resiliency Policy & Program</p> <ul style="list-style-type: none"> ➤ Meet the performance standards and Level of Service Goals established by the Oregon Resilience Plan ➤ Cover all aspects of the District, including Finance, IT, water system infrastructure, and human resources
WE ARE GOOD STEWARDS OF OWN ASSETS AND RESOURCES (PEOPLE & PHYSICAL ASSETS)
<p>Review of Organizational Staffing Requirements & Effectiveness</p> <ul style="list-style-type: none"> ➤ Review District staffing needs including current structure, operational functions, staffing levels, efficiency, effectiveness, and skill-mix ➤ Better distribute staff skills and time in accordance with District needs <p>Development and Start Implementation of Customer Information System (CIS) Strategy</p> <ul style="list-style-type: none"> ➤ Modernize the District's utility billing operations ➤ Analyze all related policies and business rules, workflows, customer needs/expectations, customer engagement opportunities, and organizational readiness

In addition to the District Initiatives, the Core Team identified eight Key Projects to undertake in 2017-19. Key projects were defined as smaller efforts necessary to maintain the District's current service levels. These projects are non-discretionary. The next table lists the Key Projects paired with the Desired Result each supports.

2017-19 Key Projects

THE COMMUNITY IS CONFIDENT IN OUR WATER, SERVICE AND EMPLOYEES
<p>Implement Results of Rate Study</p> <ul style="list-style-type: none"> ➤ Align the District's rate design and practices with community needs
WE ARE GOOD STEWARDS OF OUR FINANCIAL RESOURCES
<p>Finalize Urban Service Agreement</p> <ul style="list-style-type: none"> ➤ Negotiate a long-term urban service agreement with the City of Beaverton <p>Legal/Legislative Strategy for Right-of-Way (ROW) Fees</p> <ul style="list-style-type: none"> ➤ Develop a coherent, fair policy statement to apply when these issues arise ➤ Cooperate and assist SDAO in development of legislative solutions to provide a consistent statewide approach to fees and charges for use of ROW <p>Improve Project Management</p> <ul style="list-style-type: none"> ➤ Using project management standards developed during 2015-2017 initiative, provide training using existing accounting system <p>Revenue Bond Debt Program</p> <ul style="list-style-type: none"> ➤ Execute a long-term debt program and its ongoing requirements ➤ Maintain continuity with other partners in financing the WWSP
WE ARE GOOD STEWARDS OF OWN ASSETS AND RESOURCES (PEOPLE & PHYSICAL ASSETS)
<p>Establish District-wide Records Management Program</p> <ul style="list-style-type: none"> ➤ Comply with existing and emerging records management state statutes and rules and to enhance organizational efficiency <p>Evaluate Regional Land Mobile Radio System</p> <ul style="list-style-type: none"> ➤ Explore the feasibility of a regional public agency mobile radio system ➤ If feasible, develop appropriate IGAs, enhance infrastructure, and deploy system <p>Implement Key Findings from IT Master Plan</p> <ul style="list-style-type: none"> ➤ Build a stable, maintainable computing environment that meets the Districts long-term needs

As shown in the table on the next page, each District Initiative and Key Project is assigned a lead department and, as applicable, supporting departments have been identified to contribute to development and delivery. Many of the District Initiatives and Key Projects are included in the 2017-19 budget and six-year Capital Improvement Plan, and represent priorities for resource allocation.

It is anticipated the District's strategic initiatives will be reviewed and updated in conjunction with each biennium cycle. In the interim, staff will provide semi-annual progress updates to the District's Board of Commissioners, customers, and stakeholders.

Department Involvement in District Initiatives and Key Projects for 2017-19

District Initiative	CEO	HR	CS	ENG	FIN	OPS	WSP	IT
Develop Management and Operating Resources for WWSS	X			O	O		O	O
Review of Organizational Staffing Requirements & Effectiveness	O	X	O	O	O	O	O	O
Development and Start Implementation of CIS Strategy			X					O
Resource and Implement Strategic Communications Plan			X				O	
Ratepayer Communication Strategy			X		O			
Asset Management / Maintenance Management Strategy				X	O			
Develop & Implement District Resiliency Policy & Program				X	O			

Key Project	CEO	HR	CS	ENG	FIN	OPS	WSP	IT
Finalize Urban Service Agreement	X							
Legal/Legislative Strategy for ROW Fees	X							
Establish District-wide Records Management Program	X	O						
Improve Project Management				X	O			
Revenue Bond Debt Program					X			
Implement Results of Rate Study					X			
Evaluate Regional Land Mobile Radio System						X		
Implement Key Findings from IT Master Plan								X

Table Key	
CEO:	Administrative Services
HR:	Human Resources
CS:	Customer Service
ENG:	Engineering Services
FIN:	Finance
OPS:	Field Operations
WSP:	Water Supply Program
IT:	Information Technology
Lead Department = X	
Other significant department involvement = O	

Performance Measure Development

TVWD continues to use measures to track performance in areas that move the organization closer to its vision, mission and values. The revised strategic planning process builds upon the same District goals as in the past, but puts an emphasis on the results of staff actions and District policies. Performance measures, as well, exist to measure 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 15-16. Met 16-17.	Engineering
≥ 90% of unplanned outages responded to within 4 hours Not met 15-16. Met 16-17.	Field Ops

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 15-16. Met 16-17.	Admin
≥15% of District employees actively participate in water industry related organizations Target met 15-16. Met 16-17.	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 met 15-16. Met 16-17.	Field Ops
District bond rating (S&P) is AA+ or better N/A 15-16. N/A 16-17 (TVWD had no outstanding debt during these periods)	Finance
Regular hours worked per workable hours available is ≥ 85% Target met 15-16 (85.1%). Met 16-17 (86.3%).	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 15-16. Met 16-17.	Customer Service
Average water usage in gallons per capita per day (GPCD) for single- and multi-family accounts is 100 GPCD or less Target not met 15-16. Met 16-17.	Engineering
Number of water efficiency fixture rebates provided is $\geq 1,200$. Target met 15-16. Met 16-17.	Customer Service
Near zero percent annual change in GHG emissions based on EPA Climate Leaders protocol (in light of District growth and infrastructure investments). Target met 15-16. Met 16-17.	Field Operations

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 (\$1000) Target met 15-16. Met 16-17.	Admin
90%+ of our #1 hiring choices accept a position offer Target met 15-16 (15 of 16 accepted). Target met 16-17 (17 out of 18 accepted).	Admin
90%+ of employees with last performance review of 3.0 or better (excluding retirements) stay at the District Target met 15-16 (94%). Target met 16-17 (96%).	Admin
85% safety corrective actions completed on schedule (with Safety Committee recommendations) Target not met 15-16 (81%). Target met 16-17 (88%).	Admin

The District uses a 30-year financial forecasting model to analyze alternative scenarios related to future revenue needs, cash reserves, operating expenditures, and capital expenditures. The 30-year timeframe allows the District to plan for the financial impacts of the Willamette Water Supply Program (WWSP), in-District capital expenditures, potential changes in customers and their demands, and other important factors.

Although the 30-year financial 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 responsibility of the Board and undertaken separately as part of the District's rate setting process.

In 2013, following several years of evaluation and a public outreach process, the Mid-Willamette was selected by the Board of Commissioners as the preferred future water supply. With this selection, the District instituted the WWSP. The District anticipates sharing the costs of the WWSP with partners. Based on the District's current partnership with the City of Hillsboro, TVWD's share of the remaining¹ WWSP cost is estimated to be about \$682 million (including estimated effects of inflation), and will be financed with a mix of cash and revenue bond debt. This cost share estimate is preliminary and derived partly from current engineering analyses. As the engineering analyses proceed, more certain cost estimates will be available and incorporated into future financial planning scenarios.

The first phase of the WWSP is assumed to be complete with the supply on-line and operating in 2026. Additional explicit treatment costs are added to the forecast when new water treatment facilities come on-line and the source becomes operational. The financial forecast also reflects savings from decreases in purchased water costs.

Key Policies Guiding the Forecast

- Water purchases will continue to be balanced between the Portland and Joint Water Commission (JWC) sources, with an average of 13.16 MGD purchased from Portland through fiscal year ending June 30, 2026 (FY2026)
- The District's aquifer storage and recovery (ASR) wells will be used to supplement summer water supplies to mitigate the effects of peak-season and peak-day demands on the cost of purchased water from Portland
- Capital costs will be funded with a blend of cash and revenue bond debt
- A debt service reserve will be established and funded from each bond issue rather than assuming bond insurance will be available
- Cash for capital comes from water rate revenue, system development charges (SDCs), and capital reserve fund balances
- The combined year-end fund balance will not be allowed to drop below 120 days of operating expenditures

¹ Remaining WWSP cost calculated from July 1, 2017 through fiscal year ending June 30, 2027 (FY2027). Currently, the District's share of total WWSP costs is estimated at \$741 million.

Demographic Assumptions Underlying the Revenue Forecast

- As part of ongoing negotiations for an urban services agreement with the City of Beaverton, the District analyzed the financial effects of having a portion of its service area withdrawn by the City. In the coming years, the District may lose some customers to Beaverton or enter into an agreement whereby TVWD may provide less than full retail water services to these customers. What is not certain at this point is the number of customers that may be affected by withdrawal and the associated impact on the District's revenues. For the purpose of presenting a "reasonable case" scenario, the District's financial plan assumes that Beaverton will withdraw a block of customers in FY2020 resulting in a 5% decrease in water rate revenue.

It is uncertain that the impact of Beaverton withdrawal will occur all at once, as is currently modeled. Rather, it is possible that a series of withdrawals over multiple years may affect the District's finances in a more gradual way. As negotiations of the urban services agreement moves forward and potential affects become more certain, the District will adjust the assumed revenue affects in the forecast model.

- Growth in the number of customers is assumed to be 0.75% annually in the biennium. This growth rate is assumed to hold at that level until FY2022 when growth is assumed to drop to 0.70%. The forecast assumes the growth rate declines by 0.05% for each year thereafter until it hits zero in FY2036. These reductions in growth recognize the slowing of development as the District approaches its build-out capacity. Expansions of the region's urban growth boundary may increase the District's service area and alter these growth rates.
- Water usage per customer has remained relatively stable over the past several years. A typical single-family residential customer uses about 7 CCF per month. The water savings per customer is conservatively assumed to continue throughout the forecast, essentially "capping" water sales at today's level. This cap on sales is related to a combination of factors including mild weather and a successful conservation program that have depressed summer water sales, and the District's similar experience to the nation-wide trends towards smaller family sizes and widespread assimilation of water-efficient appliances. Conservation is assumed to result in no additional water sales and that water demand generated by growth will be offset by future conservation.
- The combination of the previous two bullet points results in an internal revenue growth rate of 0.15% annually in the first four years of the forecast. Given the assumed decline in customer growth beginning in FY2022 and the assumed cap on water sales for the duration of the planning period, this internal revenue growth rate then declines annually until it reaches zero in FY2036.

Economic Assumptions Included in the Forecast

- Over the forecast period, annual SDC revenue is projected to align with the District growth projections noted above. The District will continue to review and adjust SDCs annually in accordance to the District's methodology, capital requirements for new growth, and compliance with Oregon law governing SDCs.
- Interest earnings rates on the District's fund balances are projected at 1.30% in FY2018, 1.50% in FY2019, and rising by 0.25% per year to 3.75% by 2028. The District assumes that annual interest earnings rates will remain at that level throughout the rest of the 30-year forecast.
- The interest rate for revenue bonded debt is assumed at 5.0% for the projected bond issue in FY2021 and 5.5% for bond issues in FY2022 and beyond. New issues will use a 30-year term and include 2.0% issuance costs and a debt service reserve requirement between 6.5% and 6.9%.
- Personnel services and materials and services costs escalate approximately 5% annually.

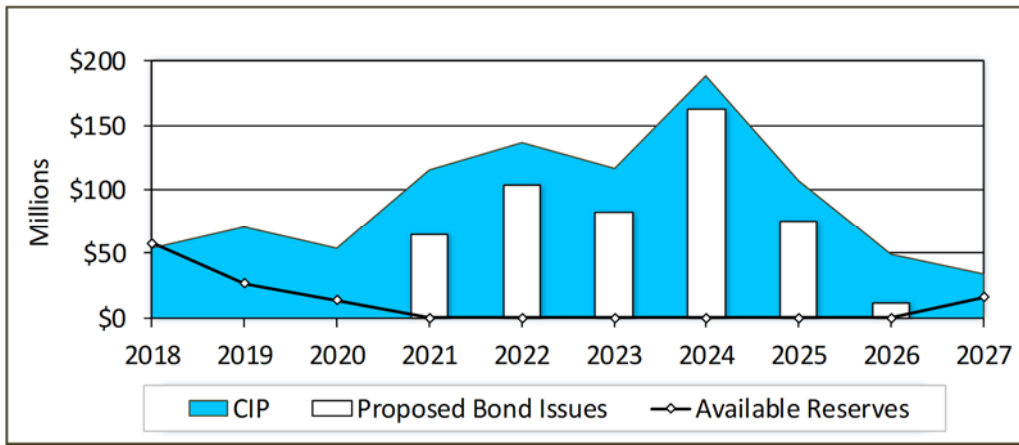
- The Portland Water Bureau (PWB) wholesale contract rate will increase 3.7% in the second year of the biennium (2018-19). Future rate increases are assumed at 4.85% per year in based on average increases between 2008 and 2014. However, actual wholesale water rate increases can vary widely from year-to-year. Staff will closely monitor PWB wholesale rate increases and adjust the financial forecast accordingly.
- Joint Water Commission rates are estimated to rise by 3.5% in FY2019 and 4.5% per year thereafter based on recent trends.

Planned Capital Expenditures, Financing, and District Reserves

Over the next ten years, the forecast results are driven by anticipated capital spending on the WWSP. For design and construction of the WWSP, the District will require a series of revenue bond sales spaced over the construction period. The first bond sale may be required as early as FY2021. However, the District may accelerate its bonding strategy should WWSP cashflow requirements change or if other conditions exist that makes entering the debt market sooner the most favorable option. In any event, the exact amount and timing of bond sales will be determined as the WWSP costs and cash flow requirements are refined.

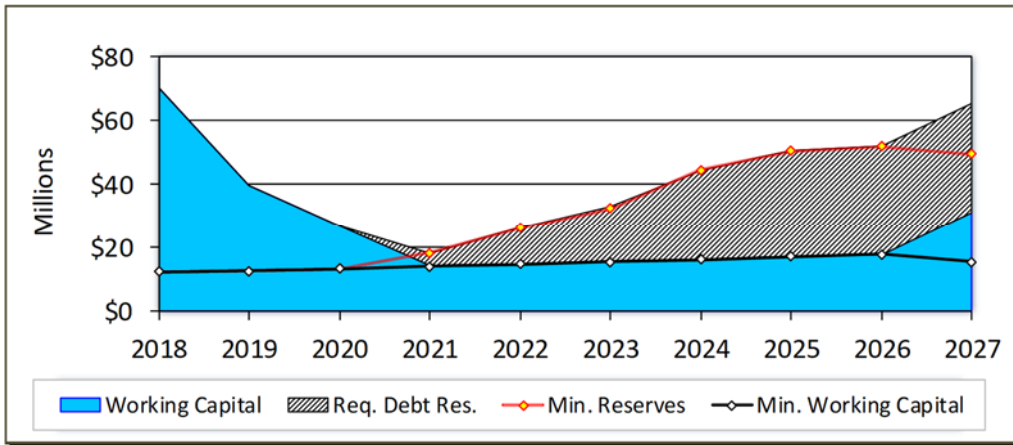
Investments in future supply projects and the financing considerations for those projects dominate TVWD’s cash-flow forecast through FY2027 as shown in the CIP and Financing graph below.

CIP and Financing



Note that the available reserves shown above do not represent the District’s projected total reserves. The black line represents the amount over minimum fund balances that is available to the District to offset capital costs. Based on the assumptions of this analysis, the forecast model projects that the District will meet or exceed its minimum fund balances in each year during the planning period, as shown on the chart on the next page.

Reserve Funds Projection

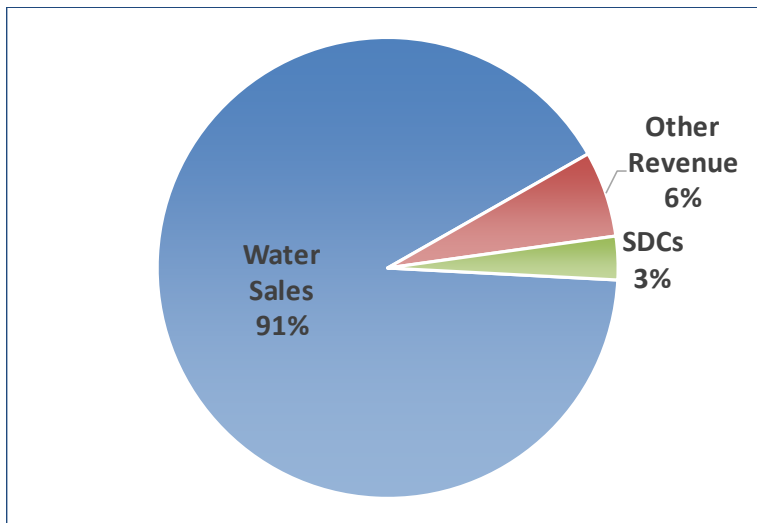


The Reserve Funds graph above presents ending fund balances by fiscal year. Working Capital includes General Fund and Capital Reserve Fund balances. The Required Debt Service Reserve includes funds from bond proceeds that are required to be held in lieu of bond insurance. The Minimum Total Reserves and Minimum Working Capital targets are included for reference.

Major Revenue Sources

Water sales and SDC revenue will continue to dominate the District’s revenue picture.

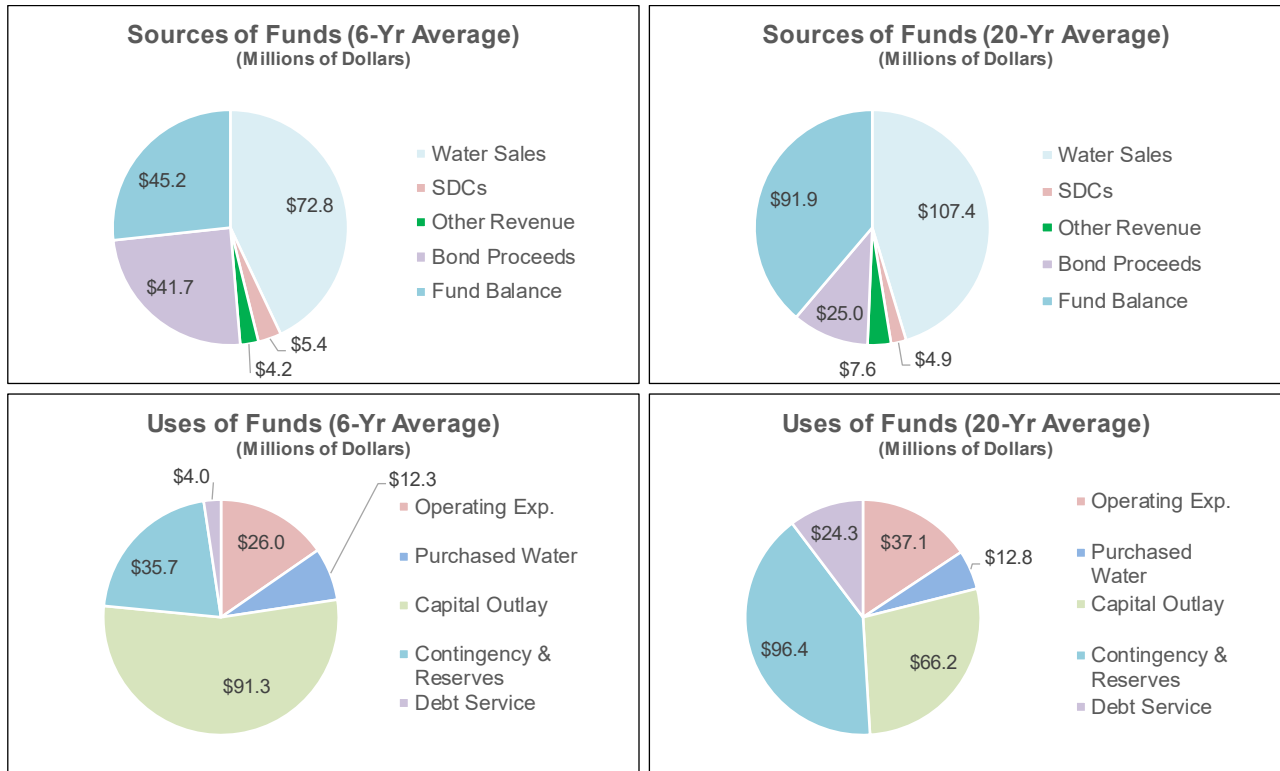
30-Year Forecast of Major Revenue Sources



The 30-year forecast period is particularly useful for capital investments and debt planning. However, most day-to-day analysis and budgetary decisions are based on a 6- to 20-year time horizon.

Summary of District Sources and Uses of Funds

The pie charts below present the District’s average Sources and Uses of Funds over six-year and 20-year timeframes to summarize and highlight key financial data. The data is averaged for ease of presentation.



Long-Term Sources of Funds

- The scenario presented here assumes rate increases of 13.5% in FY2018 and FY2019, and a series of 8.8% rate increases in the following six years, which covers the period that the WWSP will have most its expenditures. These increases are lower than forecasts in past years due to better-than-projected water sales revenue and SDC collections in recent years. The District anticipates refining these projections as WWSP cost estimates are refined and the District moves closer to the beginning of its revenue bond debt program.

Setting water rates involves a series of policy decisions that the Board will develop over time. Historically, the Board has considered these policies and specific water rate adjustments each July and August, with the effective date of new water rates in November after the summer watering season. Beginning with the 2017 rate adoption process, the Board is expected to consider policies and water rate adjustments for a two-year period. New water rates would still be effective each November.

- The District anticipates water sales revenue will average \$73 million per year over the first six years of the forecast period. Water sales revenue average approximately \$107 million per year over the first 20 years. The District projects that the level of operating revenue provided by water sales will fully cover operating costs, cash-financed capital costs, and revenue bonded debt service requirements.
- Over years one to six, SDCs are anticipated to provide \$5.4 million per year on average. Over the first 20 years of the forecast period, SDC revenue are expected to reduce to an average \$4.9 million

per year. The reduction in growth is partially mitigated by anticipated increases in the SDC rates and the addition of supply capacity to the District's fixed asset base. The magnitude and timing of SDC revenue are difficult to forecast because of the uncertainty of future economic development.

- Other revenue, including interest and miscellaneous receipts, will provide \$7.6 million per year over the first 20 years of the forecast period.
- In total, the financial forecast estimates \$500 million in bond sales through FY2026. This amount will help to fund a construction program totaling \$1.24 billion over the next 20 years.
- Combined fund balances represent an average of \$45.2 million per year towards sources of funds in the first six years of the forecast, and \$91.9 million per year over the first 20 years.

Long-Term Uses of Funds

- Operating expenses excluding purchased water and pumping power expenses is projected to average \$26.0 million per year in years one through six, and \$37.1 million per year over 20 years. This reflects modest staffing increases and an annual escalation rate estimates of 4.5% and 6.0% for benefits. In 2026, when new treatment facilities come online, additional operating costs are offset by reductions in the cost of purchased water. The forecast reflects engineering estimates of the cost of operating the new facility and are explicitly added to the forecast.
- Purchased water and pumping power expenses are projected to average \$12.3 million per year over the six-year period, reflecting expected purchased water increases of 4.85% annually for Portland and 4.5% for the JWC and pumping power. Growth in purchased water expense is anticipated to drop when the water supply project is complete, reflecting a decrease in Portland purchases from 13.16 MGD to an estimated 3 to 5 MGD. Purchased water costs are expected to average \$12.8 million over the first 20 years of the forecast period.
- Capital expenditures average \$91.3 million per year for the first six years (including the effects of inflation). The capital budget averages \$66.2 million per year over the 20-year period. These unusually high levels are driven by the inclusion of the WWSP in the forecast. The WWSP will be substantially completed in 2026, after which capital spending drops off sharply. The capital program will be financed with cash and revenue bonds. Cash is supplied for construction and debt service payments through a combination of fund balance drawdowns, interest earnings, SDC and miscellaneous revenue, and water service revenue.
- The scenario presented here assumes that the District will have no debt during the first three years of the forecast period. The 20-year average for debt service is \$24.3 million, reflecting the sharp rise that occurs as bonds are issued to finance the WWSP.

Risks to the Forecast

Many assumptions are employed in an analysis like this. For this 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 time passes and projections become reality. 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
- WWSP
 - Timing of program expenditures
 - Project definition
 - Fluctuations in construction costs
 - Loss of a partner
- Others
 - Economic downturn
 - Changes in water demands
 - Annexations with withdrawals
 - Curtailment of water sales

Although we tend to think of risks as negative, the District may also realize positive risks (opportunities) as it pushes ahead with the WWSP, begins a debt program, and works towards partnerships with neighboring cities. Specific opportunities that the District will be monitoring include:

- WWSP
 - Value engineering
 - Project definition
 - Favorable construction costs
 - Gaining partners
- Others
 - Economic growth
 - Urban services agreement
 -
 - Favorable financing programs
 - Other unplanned savings

Conclusion

Based on the assumptions and results of this analysis, the District determined that it could meet near-term financial targets with rate revenue adjustments of 13.5% annually in FY2018 and FY2019, and 8.8% annually thereafter through FY2025. However, the District will continue to take great care to mitigate risk by following prudent management practices. This includes frequent updates to the 30-year financial forecast, and reviewing rates and revenues annually to see if additional adjustments are necessary. Establishing those rate strategies remains the responsibility of the Board and is undertaken as a separate process.

Tualatin Valley Water District



The Tualatin Valley Water District is a water utility enterprise currently made up of seven funds. No new funds are included in the Adopted 2017-19 Budget. The District has established new funds during the prior two budget cycles.

In FY 2014, the District established the Willamette Water Supply Program (WWSP) Fund as part of a supplemental budget that was adopted by the Board of Commissioners. The purpose of the WWSP Fund is to track resources and expenditures pertaining to the District’s new water supply being developed in partnership with the City of Hillsboro and other potential partners.

The Adopted 2015-17 Budget included two new funds: The Capital Reserve Fund and the Customer Emergency Assistance Fund. The Capital Reserve Fund was established to identify resources held to meet the District’s current and future capital needs. The Customer Emergency Assistance Fund is used to account for the District’s program that provides financial assistance on water bills for qualified low-income customers

More information on these three funds is provided later in this section.

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. The Revenue Bond Debt Service Fund accounts for the District’s debt service obligations. The District fully cash redeemed its last outstanding revenue bonds in June 2015, and while there are no appropriations in this fund in the Adopted 2017-19 Budget, it will be maintained for future use. Lastly, the District is a member of, and provides management services for, the Willamette River Water Coalition (WRWC), and accounts for these activities in a separate fund.

Five Funds Directly Support the Water Utility	
General Fund (01)	Administration, operations, and maintenance activity. 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 not funded by bond proceeds.
Capital Reserve Fund (18)	Holds resources for current and future capital improvement and water supply projects. This is a new fund in the 2015-17 Biennial Budget.
Revenue Bond Debt Service Fund (31)	Repayment of principal and interest on the District's revenue bonds
Customer Emergency Assistance Fund (43)	Accounts for the resources, administration and customer payments for those who qualify for emergency assistance
Two Funds Manage Partnerships	
Willamette Water Supply Program (15)	Accounts for resources and expenditures associated with the Willamette Water Supply Program being developed in partnership with the City of Hillsboro.
Willamette River Water Coalition Fund - WRWC (41)	An ORS chapter 190 Joint Venture with the cities of Sherwood, Tigard, and Tualatin. The District is a member and provides accounting services to WRWC.

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 for appropriation. All operating departments and District staff are accounted for in the General Fund. Beginning with the Adopted 2017-19 Budget, there are seven departments, ranging in size from 9 to 33 staff members. The departments are:

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

Additionally, the Purchased Water budget 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 Services, and Finance play a role in its management and administration. Detailed information on Purchased Water and each of the departmental budgets is contained in Sections 8 through 15 of this document.

The major source of revenue for the General Fund is water sales. Approximately 80% of water sales revenue is based on a volume rate 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, significant fluctuations are possible in end-of-year fund balances.

Personnel Services: The Adopted 2017-19 Budget for Personnel Services is up \$5.2 million, a 15.2% increase over the prior biennium or 7.6% on an annualized basis. Two new positions are budgeted this biennium; a business analyst in the Customer Service Department who will primarily support the Customer Service Information System Project, and one limited-term senior systems administrator in the IT Services Department who will primarily support IT Master Plan projects.

Budgeted personnel services provide resources for the new staff positions, merit-based salary increases estimated to average 4.5% per year, and increases in medical benefit costs averaging about 18% annually. The District continues to seek ways to reduce the financial challenges of increasing medical premiums through loss prevention and wellness efforts, review of the insurance markets for more competitive rates, and management/staff engagement to seek ways to control costs.

Pension costs are up from 11.1% of payroll to an average of 14.1% of payroll. The Oregon Public Employees Retirement System (PERS) Board adopts its required contribution rates for employers on the same biennial period as the District's budget; therefore, the District's rates are in effect for the entirety of the biennium. District staff continue pay for their six percent Individual Account Plan (IAP) contributions as part of the employee portion of PERS.

The District continues to closely monitor legislative and legal developments concerning PERS. It is anticipated that even higher PERS rates may be reflected in required employer contribution rates effective with the 2019-21 biennium.

Materials and Services (M&S): Adopted 2017-19 General Fund M&S expenditures are up 11.0% or \$3.6 million. This increase is driven fully by expenditures for purchased water (Section 8 *Purchased Water*), which represents 61.5% of the District's General Fund M&S budget. Net of purchased water General Fund M&S is down 1.8%.

Purchased water costs are \$3.9 million higher over the current biennium, primarily due to increased wholesale water rates. The Purchased Water Program budget reflects wholesale rate increases from the City of Portland and the Joint Water Commission of 4.9% and 13.6%, respectively, for the first year of the biennium. Second year increases are estimated at 4.6% and 3.5%, respectively. Purchased water expenditures also include leased water and interruptible supplies, the District's operational costs based on its 35% ownership share in Barney Reservoir, and pumping power costs. The offset to these higher costs to purchased water are higher projected water sales revenue.

This second-year wholesale water rate increase from Portland is subject to change based on new capital assets that may be added to the wholesale rate calculation. Staff will continue to monitor these items for potential budgetary impacts during the biennium.

Capital Outlay for Equipment: The District capitalizes all equipment acquisitions that meet a threshold of \$7,500 and estimated useful life in excess of one year. Requests for capital equipment purchases have decreased by approximately \$189,000, or 24%, from the prior biennium.

Beginning with the 2015-17 biennium, fleet replacements were budgeted in the Capital Improvement Fund, rather than the General Fund as was done historically. This change has allowed the District to efficiently capitalize internal labor costs associated with the required customizations for vehicles to be placed into service. The 2017-19 Capital Improvement Fund budget contains \$800,900 for scheduled fleet replacements.

A listing of Capital Outlay items included in the Adopted 2017-19 Budget can be found at the end of each of the departmental sections. A schedule of fleet replacements can be found on page 16-48.

Transfers: At \$67.3 million, transfers to other funds are \$17.5 million lower than the 2015-17 biennium. Nearly all of this appropriation will be transferred to the Capital Reserve Fund for current and future capital related expenditures. The Adopted 2017-19 Budget also includes \$34,000 transfer the Customer Emergency Assistance Fund.

Contingency: The General Operating Contingency is reserved for any unanticipated but well defined needs. The Adopted 2017-19 Budget includes \$15.0 million in contingency, representing 20% of the General Fund operating budget excluding Capital Outlay and Special Payments. Use of General Operating Contingency requires approval 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

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. The sole resource for the Capital Improvement Fund is transfers from the Capital Reserve Fund budgeted at 38.6 million matching the requirements listed below.

The Adopted 2017-19 Budget includes expenditures of \$33.1 million for the District's capital improvements and transfers out of \$5.5 million to fund joint venture capital improvements at the Joint Water Commission. These appropriations are exclusive of the expenditures associated with developing the Willamette Water Supply System, which are budgeted in the Willamette Water Supply Program Fund.

For a complete listing of in-District capital projects in the Adopted 2017-19 Budget please see Section 16 *Capital Improvement Plan*.

C. WILLAMETTE WATER SUPPLY PROGRAM FUND

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. This future source of water for the District is being designed and constructed in partnership with City of Hillsboro and other potential partners, and anticipated to be operational in 2026. As the managing agency for the WWSP, the District appropriates for the total amount of planned expenditures for the biennium, and is reimbursed by the partners for their proportional share of costs monthly. The District's share of resources for the WWSP Fund are transferred from the Capital Reserve Fund.

Appropriations for the WWSP Fund include \$765,000 in M&S and \$138.7 million in capital outlay. As with the Capital Improvement Fund, the WWSP Fund maintains a zero-fund balance and transfers resources in as needed, so that reserves can be maintained in the Capital Reserve Fund. Additional information on the WWSP Fund can be found in Section 17 *Willamette Water Supply Program Fund*.

D. CAPITAL RESERVE FUND

Established as part of the 2015-17 Biennial Budget, the Capital Reserve Fund is used to hold resources available for current and future capital investments for the District. Historically, 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 transparent manner consistent with budgeting best practices. In anticipation of the significant costs associated with WWSP, the District has increased its reserves deliberately. These reserves are easily monitored in a single fund.

Resources for the fund include transfers of fund balances from the General Fund in the amount of \$67.3 million as well as system development charges, meter install fees, and interest earnings totaling an additional \$14.3 million. Capital Reserve Fund requirements include transfers out to the Capital Improvement Fund and the WWSP Fund in the amounts of \$38.6 million and \$84.1 million, respectively.

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 revenue bonds during the 2017-19 biennium. However, the fund will be maintained for future use.

F. WILLAMETTE RIVER WATER COALITION

This partnership fund is used to account for 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 access to the Willamette River as a potential future municipal and industrial water source. The budget is set 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 an intergovernmental agreement. The balance at July 1, 2017 is projected at \$21,243. The Adopted 2017-19 Budget includes M&S expenditures of \$86,000. The anticipated ending fund balance at June 30, 2019 is \$8,816. The WRWC Fund includes \$12,900 in contingency for unanticipated expenses subject to WRWC and TVWD Board approval. Additional information on the WRWC Fund is in Section 18 *Willamette River Water Coalition*.

G. 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 limited emergency 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 are transferred in from the General Fund and come from voluntary contributions from customers, District staff, and the Board. The 2017-19 Adopted Budget includes resources for the CEA Fund totaling \$56,782, which includes a July 1, 2017 balance of \$8,062. The Adopted 2017-19 Budget appropriates \$49,000 for customer assistance and administrative costs. A projected amount of \$7,782 remaining unspent at the end of the 2017-19 biennium will remain in the CEA Fund to meet future customer assistance needs.

H. FINANCIAL POSITION AND FUND BALANCES

The District is beginning the 2017-19 biennium in a strong financial position. Combined beginning fund balances total \$100.2 million, which is about \$50.8 million higher than the projected ending fund balance budgeted for 2015-17. 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.

Factors contributing to this positive variance include strong collections in water sales – trending more than \$14 million above 2015-17 budget; system development charges – trending \$6.8 million above budget; and lower overall operating and capital spending. Capital expenditures, in particular, can vary based on the timing and final scope/design of projects.

The combined 2017-19 ending fund balance primarily held in the General and Capital Reserve Funds is estimated to be \$47.6 million. These resources will be reserved for future capital expenditures.

The following pages provide summary information on all the District funds. The tables on pages 6 and 7 of this section display a combined summary of all funds for the Adopted 2017-19 Budget in comparison to the current Adopted 2015-17 Budget and the actual results for the 2011-13 biennium. Pages 8 and 9 provide fund by fund detail for the Adopted 2017-19 Budget. Beginning on page 10, additional historical information and appropriation detail for all the District's funds is provided.

ALL FUNDS SUMMARY

RESOURCES	1st Preceding Biennium	Prior Adopted	Biennial
	Actual	Revised Biennial	Adopted
	<u>2013-2015</u>	<u>2015-2017</u>	<u>2017-2019</u>
Beginning Fund Balance	91,188,584	83,383,033	100,227,872
Management Reserve	-	-	2,588,788
Tot. Beg. Fund Bal & Reserves:	91,188,584	83,383,033	102,816,660
Water Service Charges	76,038,340	86,321,456	122,275,000
Right of way fee collections	-	173,000	1,560,350
Admin. Fees	988,460	911,500	1,210,530
Other Revenues	994,320	1,016,340	863,823
Contract Reimbursements	5,791,828	5,538,400	2,760,600
Overhead charges to other funds	5,949,409	10,501,975	6,462,090
Total Misc. Revenues:	13,724,017	18,141,215	12,857,393
Meter/Service Installations	1,894,126	2,889,000	2,233,000
System Development Charges	11,679,670	10,136,000	10,741,700
Contributed Capital	608,440	22,780,200	55,034,651
Interest Earnings	1,147,850	1,062,623	2,961,673
Tot. Operating Resources	105,092,443	141,330,494	206,103,417
Tot. Resources before trans.	196,281,027	224,713,527	308,920,077
TRANSFERS IN FROM:			
General Fund	39,733,590	84,870,750	67,334,000
Capital Improvement Fund	-	24,811,528	5,460,289
Water Supply Fund	-	-	-
Revenue Bond Fund	374	-	-
Capital Reserve Fund	-	74,670,022	122,700,051
WRWC	-	-	-
Cust. Emergency Asst. Fund	-	-	-
Total Transfers In:	39,733,964	184,352,300	195,494,340
TOTAL RESOURCES	236,014,991	409,065,827	504,414,417

ALL FUNDS SUMMARY

REQUIREMENTS	1st Preceding Biennium	Prior Adopted	Biennial
	Actual	Revised Biennial	Adopted
	<u>2013-2015</u>	<u>2015-2017</u>	<u>2017-2019</u>
Operating Expenditures:			
Personnel Services	28,258,491	33,988,944	39,156,089
Materials & Services	30,429,887	40,684,915	37,248,212
Total Operating Expenditures:	58,688,378	74,673,859	76,404,301
Capital Expenditures:			
Capital Outlay	44,660,429	83,547,537	172,415,227
Debt Service	7,246,350	-	-
Total Capital Expenditures:	51,906,779	83,547,537	172,415,227
Special Payments			
Special Payments	-	274,000	1,560,350
Tot. Expend. before trans.	110,595,157	158,495,396	250,379,878
TRANSFERS OUT TO:			
General Fund	374	1,584,345	5,460,289
Capital Improvements Fund	-	34,530,152	38,611,964
Water Supply Fund	4,003,919	40,139,870	84,088,087
Revenue Bond Fund	7,136,408	-	-
Capital Reserve Fund	28,593,263	108,057,933	67,300,000
WRWC	-	-	-
Customer Emergency Assistance Fund	-	40,000	34,000
Total Transfers Out:	39,733,964	184,352,300	195,494,340
Contingency	-	18,652,880	15,012,900
TOTAL APPROPRIATIONS	150,329,121	361,500,576	460,887,118
(Expend.+Trans+Conting.)			
Program Reserve		-	-
Ending Fund Balance:	85,685,871	47,565,251	43,527,299
TOTAL REQUIREMENTS	236,014,991	409,065,827	504,414,417

ALL FUNDS SUMMARY BY FUND: 2017-2019

RESOURCES

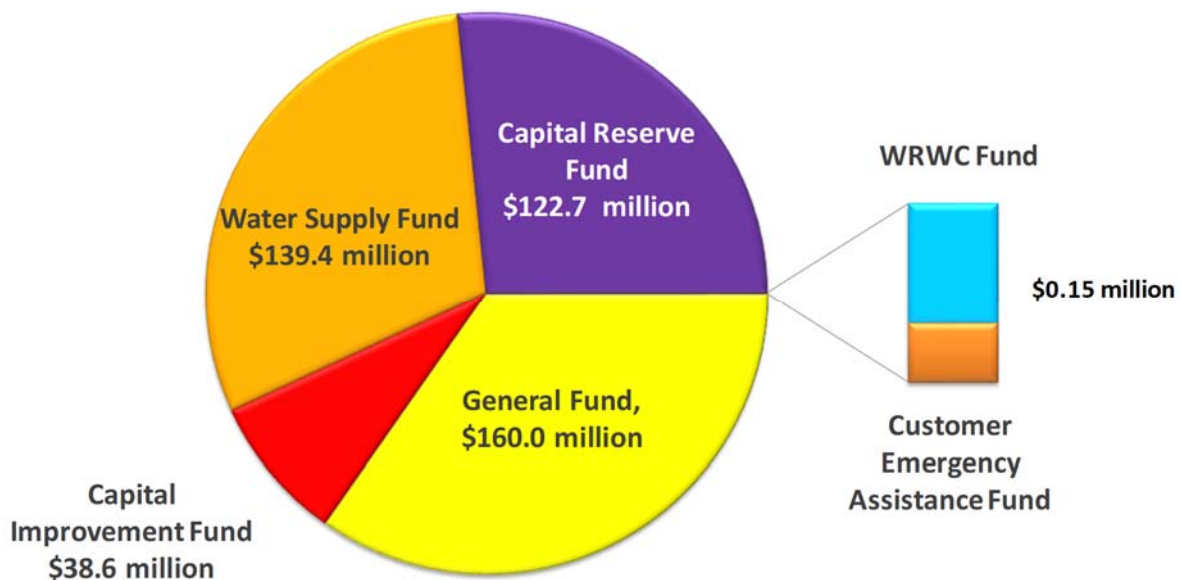
	<u>General Fund</u>	<u>Capital Improvements</u>	<u>Water Supply</u>	<u>Capital Reserve</u>	<u>Revenue Bonds</u>	<u>WRWC</u>	<u>Cust. Emerg Asst</u>	<u>TOTAL ALL FUNDS</u>
Beginning Fund Balance	33,270,658	-	-	66,927,909	-	21,243	8,062	100,227,872
Management Reserve	-	-	-	2,588,788	-	-	-	2,588,788
Tot. Beg. Fd. Bal & Reserv:	33,270,658	-	-	69,516,697	-	21,243	8,062	102,816,660
Water Service Charges	122,275,000	-	-	-	-	-	-	122,275,000
Right of way fee collections	1,560,350	-	-	-	-	-	-	1,560,350
Admin. Fees	1,210,530	-	-	-	-	-	-	1,210,530
Other Revenues	459,400	-	303,703	-	-	86,000	14,720	863,823
Contract Reimbursements	2,760,600	-	-	-	-	-	-	2,760,600
Overhead charges to other funds	6,462,090	-	-	-	-	-	-	6,462,090
Total Misc. Revenues:	12,452,970	-	303,703	-	-	86,000	14,720	12,857,393
Meter/Service Installations	-	-	-	2,233,000	-	-	-	2,233,000
System Development Charges	-	-	-	10,741,700	-	-	-	10,741,700
Contributed Capital	-	-	55,034,651	-	-	-	-	55,034,651
Interest Earnings	1,631,800	-	-	1,329,400	-	473	-	2,961,673
Tot. Operating Resources	136,359,770	-	55,338,354	14,304,100	-	86,473	14,720	206,103,417
Tot. Resources before trans.	169,630,428	-	55,338,354	83,820,797	-	107,716	22,782	308,920,077
TRANSFERS IN FROM:								
General Fund	-	-	-	67,300,000	-	-	34,000	67,334,000
Capital Improvement Fund	5,460,289	-	-	-	-	-	-	5,460,289
Water Supply Fund	-	-	-	-	-	-	-	-
Revenue Bond Fund	-	-	-	-	-	-	-	-
Capital Reserve Fund	-	38,611,964	84,088,087	-	-	-	-	122,700,051
WRWC	-	-	-	-	-	-	-	-
Cust. Emergency Asst. Fund	-	-	-	-	-	-	-	-
Total Transfers In:	5,460,289	38,611,964	84,088,087	67,300,000	-	-	34,000	195,494,340
TOTAL RESOURCES	175,090,717	38,611,964	139,426,441	151,120,797	-	107,716	56,782	504,414,417

ALL FUNDS SUMMARY BY FUND: 2017-2019

REQUIREMENTS

	General Fund	Capital Improvements	Water Supply	Capital Reserve	Revenue Bonds	WRWC	Cust. Emerg Asst	TOTAL ALL FUNDS
Operating Expenditures:								
Personnel Services	39,156,089							39,156,089
Materials & Services	36,348,023	-	765,189	-	-	86,000	49,000	37,248,212
Total Operating Expenditures:	75,504,112	-	765,189	-	-	86,000	49,000	76,404,301
Capital Expenditures:								
Capital Outlay	602,300	33,151,675	138,661,252	-	-	-	-	172,415,227
Debt Service								-
Total Capital Expenditures:	602,300	33,151,675	138,661,252	-	-	-	-	172,415,227
Special Payments:								
Special Payments:	1,560,350							1,560,350
Tot. Expend. before trans.	77,666,762	33,151,675	139,426,441	-	-	86,000	49,000	250,379,878
TRANSFERS OUT TO:								
General Fund	-	5,460,289	-	-	-	-	-	5,460,289
Capital Improvement Fund	-	-	-	38,611,964	-	-	-	38,611,964
Water Supply Fund	-	-	-	84,088,087	-	-	-	84,088,087
Revenue Bond Fund	-	-	-	-	-	-	-	-
Capital Reserve Fund	67,300,000	-	-	-	-	-	-	67,300,000
WRWC	-	-	-	-	-	-	-	-
Customer Emergency Assistance Fund	34,000	-	-	-	-	-	-	34,000
Total Transfers Out:	67,334,000	5,460,289	-	122,700,051	-	-	-	195,494,340
Contingency	15,000,000	-	-	-	-	12,900	-	15,012,900
	-	-	-	-	-	-	-	-
TOTAL APPROPRIATIONS (Expend.+Trans+Conting.)	160,000,762	38,611,964	139,426,441	122,700,051	-	98,900	49,000	460,887,118
Program Reserve	-	-	-	-	-	-	-	-
Ending Fund Balance:	15,089,955	-	-	28,420,746	-	8,816	7,782	43,527,299
TOTAL REQUIREMENTS	175,090,717	38,611,964	139,426,441	151,120,797	-	107,716	56,782	504,414,417

Adopted 2017-19 Budget Appropriations by Fund



RESOURCES SUMMARY

GENERAL FUND
Fund 01

TUALATIN VALLEY WATER DISTRICT

FORM LB-20

HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2017-2019		
ACTUAL 11-13	ACTUAL 13-15	AMENDED BUDGET 15-17		2017-19 PROPOSED	2017-19 APPROVED	2017-19 ADOPTED
			BEGINNING FUND BALANCE			
\$48,784,121	\$60,532,011	\$60,044,843	NET WORKING CAPITAL	\$33,270,658	\$33,270,658	\$33,270,658
				\$0	\$0	\$0
			OTHER RESOURCES			
\$64,836,187	\$76,038,340	\$86,321,456	WATER SALES	\$122,275,000	\$122,275,000	\$122,275,000
		\$173,000	RIGHT OF WAY FEE COLLECTIONS	\$1,560,350	\$1,560,350	\$1,560,350
\$1,012,410	\$988,460	\$911,500	ADMINISTRATIVE FEES	\$1,210,530	\$1,210,530	\$1,210,530
\$8,231,593	\$11,679,670	\$0	SYSTEM DEVELOPMENT CHARGES	\$0	\$0	\$0
(\$33,393)	\$500,969	\$2,279,645	OTHER RESOURCES	\$459,400	\$459,400	\$459,400
\$691,242	\$808,228	\$268,728	INTEREST EARNINGS	\$1,631,800	\$1,631,800	\$1,631,800
\$2,588,493	\$3,352,650	\$2,655,300	CONTRACT REIMBURSEMENTS	\$2,760,600	\$2,760,600	\$2,760,600
\$3,957,390	\$5,949,409	\$10,501,975	OVERHEAD CHARGES TO CONSTRUCTION	\$6,462,090	\$6,462,090	\$6,462,090
		\$1,584,345	TRANSFER IN FROM CAP IMP FUND - CAPITAL INV. IN JOINT VENTURE	\$5,460,289	\$5,460,289	\$5,460,289
(\$759,992)	(\$542,450)		LOSS IN JOINT VENTURES			
	\$374		Residual Equity Transfer			
	\$836,501		Deposits returned from other entities			
\$129,308,051	\$160,144,162	\$164,740,792	TOTAL RESOURCES	\$175,090,717	\$175,090,717	\$175,090,717

REQUIREMENTS SUMMARY

FORM LB-30			GENERAL FUND Fund 01		TUALATIN VALLEY WATER DISTRICT		
HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2017-2019			
ACTUAL 11-13	ACTUAL 13-15	AMENDED BUDGET 15-17		2017-19 PROPOSED	2017-19 APPROVED	2017-19 ADOPTED	
\$24,995,495	\$28,258,491	\$33,988,944	PERSONNEL SERVICES	\$39,156,089	\$39,156,089	\$39,156,089	
\$25,292,872	\$25,928,250	\$32,731,336	MATERIALS & SERVICES	\$36,348,023	\$36,348,023	\$36,348,023	
\$1,328,693	\$1,611,705	\$791,100	CAPITAL OUTLAY	\$602,300	\$602,300	\$602,300	
		\$274,000	SPECIAL PAYMENTS	\$1,560,350	\$1,560,350	\$1,560,350	
			TRANSFERS TO OTHER FUNDS				
			TO CAPITAL IMPROVEMENT/RESERVE FUNDS				
\$0	\$28,593,263	\$84,870,750	SOURCE/CAPITAL PROJECTS	\$67,300,000	\$67,300,000	\$67,300,000	
\$0	\$0	\$0	MISCELLANEOUS	\$0	\$0	\$0	
\$5,750,000	\$0	\$0	EXPANSION, SYSTEM DEV. CHARGES	\$0	\$0	\$0	
\$3,208,576	\$0	\$0	SYSTEM UPGRADES AND RENEWALS	\$0	\$0	\$0	
\$3,870,000	\$0	\$0	REPLACEMENTS	\$0	\$0	\$0	
\$12,828,576	\$28,593,263	\$84,870,750	TOTAL TO CAPITAL IMPROVEMENT/RESERVE FUNDS	\$67,300,000	\$67,300,000	\$67,300,000	
	\$4,003,919	\$0	TO WILLAMETTE WATER SUPPLY FUND	-	-	-	
		\$0	TO CUSTOMER EMERGENCY ASSISTANCE FUND	34,000	34,000	34,000	
\$4,330,400	\$7,136,408	\$0	TO REVENUE BOND DEBT SERVICE FUND	\$0	\$0	\$0	
\$17,158,976	\$39,733,590	\$84,870,750	TOTAL TRANSFERS	\$67,334,000	\$67,334,000	\$67,334,000	
		\$9,907,000	GENERAL OPERATING CONTINGENCY	\$15,000,000	\$15,000,000	\$15,000,000	
\$17,158,976	\$39,733,590	\$95,051,750	TOTAL SPECIAL PAYMENTS, TRANSFERS & CONTINGENCY	\$83,894,350	\$83,894,350	\$83,894,350	
\$68,776,035	\$95,532,036	\$162,563,130	TOTAL EXPENDITURES	\$160,000,762	\$160,000,762	\$160,000,762	
		\$0	RATE STABILIZATION	\$0	\$0	\$0	
\$60,532,017	\$64,612,126	\$2,177,662	UNAPPROPRIATED FUND BALANCE	\$15,089,955	\$15,089,955	\$15,089,955	
\$129,308,052	\$160,144,162	\$164,740,792	TOTAL REQUIREMENTS	\$175,090,717	\$175,090,717	\$175,090,717	

PERSONNEL SERVICES

GENERAL FUND
Fund 01

TUALATIN VALLEY WATER DISTRICT

FORM LB-31

HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2017-2019		
ACTUAL 11-13	ACTUAL 13-15	AMENDED BUDGET 15-17		2017-19 PROPOSED	2017-19 APPROVED	2017-19 ADOPTED
			PERSONNEL SERVICES			
			ADMINISTRATIVE SERVICES DEPARTMENT			
\$1,928,097	\$1,883,927	\$1,705,558	GENERAL SERVICES	\$1,450,330	\$1,450,330	\$1,450,330
\$0	\$0	\$1,149,566	HUMAN RESOURCES	\$1,269,186	\$1,269,186	\$1,269,186
\$0	\$0	\$628,557	RISK MANAGEMENT	\$705,006	\$705,006	\$705,006
\$1,928,097	\$1,883,927	\$3,483,681	ADMINISTRATIVE SERVICES DEPARTMENT SUBTOTAL	\$3,424,522	\$3,424,522	\$3,424,522
			CUSTOMER SERVICE DEPARTMENT			
\$638,896	\$1,242,405	\$882,295	General Services	\$938,562	\$938,562	\$938,562
\$1,840,604	\$2,163,521	\$2,342,153	Customer Service & Utility Billing	\$2,743,791	\$2,743,791	\$2,743,791
\$2,325,335	\$2,730,565	\$3,109,181	Field Customer Service	\$3,500,644	\$3,500,644	\$3,500,644
\$0	\$0	\$0	Communications	\$905,971	\$905,971	\$905,971
\$4,804,835	\$6,136,491	\$6,333,629	CUSTOMER SERVICE DEPT. SUBTOTAL	\$8,088,968	\$8,088,968	\$8,088,968
			ENGINEERING DEPARTMENT			
\$577,667	\$476,346	\$580,142	General Services	\$721,585	\$721,585	\$721,585
\$2,087,221	\$2,355,794	\$2,621,223	Distribution	\$2,887,604	\$2,887,604	\$2,887,604
\$2,429,183	\$2,989,124	\$3,055,517	Engineering	\$3,313,141	\$3,313,141	\$3,313,141
<u>\$1,088,733</u>	<u>\$1,142,773</u>	<u>\$1,211,777</u>	Water Quality	<u>\$1,497,455</u>	<u>\$1,497,455</u>	<u>\$1,497,455</u>
\$6,182,804	\$6,964,037	\$7,468,659	ENGINEERING DEPARTMENT SUBTOTAL	\$8,419,785	\$8,419,785	\$8,419,785
			FIELD OPERATIONS DEPARTMENT			
\$890,985	\$804,720	\$860,028	General Services	\$910,477	\$910,477	\$910,477
\$574,169	\$622,802	\$742,029	Building & Grounds	\$825,706	\$825,706	\$825,706
\$2,574,965	\$2,632,922	\$2,978,114	Construction & Maintenance	\$3,276,322	\$3,276,322	\$3,276,322
\$462,017	\$424,107	\$524,415	Fleet	\$594,426	\$594,426	\$594,426
<u>\$1,925,414</u>	<u>\$2,657,126</u>	<u>\$3,024,072</u>	Valve Crew	<u>\$3,321,180</u>	<u>\$3,321,180</u>	<u>\$3,321,180</u>
\$6,427,551	\$7,141,677	\$8,128,658	FIELD OPERATIONS DEPT. SUBTOTAL	\$8,928,111	\$8,928,111	\$8,928,111
			FINANCE & INFORMATION TECHNOLOGY DEPARTMENT			
\$449,131	\$771,295	\$506,308	General Services	\$765,994	\$765,994	\$765,994
\$2,038,902	\$2,245,862	\$3,026,895	Finance And Accounting	\$3,337,436	<u>\$3,337,436</u>	<u>\$3,337,436</u>
\$1,806,086	\$1,902,713	\$2,405,697	Information Technology			
\$4,294,119	\$4,919,870	\$5,938,900	FINANCE SUBTOTAL	\$4,103,430	\$4,103,430	\$4,103,430
\$1,358,090	\$1,212,489	\$2,635,417	WATER SUPPLY PROGRAM SUBTOTAL	\$3,002,713	\$3,002,713	\$3,002,713
			INFORMATION TECHNOLOGY DEPARTMENT SUBTOTAL	\$3,188,560	\$3,188,560	\$3,188,560
\$24,995,495	\$28,258,491	\$33,988,944	TOTAL PERSONNEL SERVICES	\$39,156,089	\$39,156,089	\$39,156,089

MATERIALS & SERVICES

GENERAL FUND
Fund 01

FORM LB-31

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2017-2019		
ACTUAL 11-13	ACTUAL 13-15	AMENDED BUDGET 15-17		2017-19 PROPOSED	2017-19 APPROVED	2017-19 ADOPTED
\$15,021,261	\$15,175,539	\$18,479,624	MATERIALS & SERVICES			
			OTHER GENERAL FUND M&S: WATER PURCHASES	\$22,351,335	\$22,351,335	\$22,351,335
			ADMINISTRATIVE SERVICES DEPARTMENT			
\$933,364	\$928,549	\$1,293,725	General Services	\$830,354	\$830,354	\$830,354
\$0	\$0	\$248,331	Human Resources	\$239,447	\$239,447	\$239,447
\$0	\$0	\$684,017	Risk Management	\$747,820	\$747,820	\$747,820
\$933,364	\$928,549	\$2,226,073	ADMINISTRATIVE SERVICES DEPT. SUBTOTAL	\$1,817,621	\$1,817,621	\$1,817,621
			CUSTOMER SERVICE DEPARTMENT			
\$150,350	\$770,601	\$490,467	General Services	\$551,810	\$551,810	\$551,810
\$986,872	\$1,128,347	\$1,228,711	Customer Service	\$1,519,193	\$1,519,193	\$1,519,193
\$770,219	\$139,663	\$258,437	Field Customer Service	\$226,533	\$226,533	\$226,533
\$0	\$0	\$0	Communications	\$385,140	\$385,140	\$385,140
\$1,907,441	\$2,038,611	\$1,977,615	CUSTOMER SERVICE DEPT. SUBTOTAL	\$2,682,676	\$2,682,676	\$2,682,676
			ENGINEERING DEPARTMENT			
\$526,211	\$1,120,609	\$846,435	General Services	\$853,935	\$853,935	\$853,935
\$515,112	\$479,249	\$1,270,100	Distribution	\$674,240	\$674,240	\$674,240
\$14,401	\$13,514	\$9,600	Engineering	\$27,500	\$27,500	\$27,500
\$425,609	\$614,388	\$765,119	Water Quality	\$843,725	\$843,725	\$843,725
\$1,481,333	\$2,227,760	\$2,891,254	ENGINEERING DEPARTMENT SUBTOTAL	\$2,399,400	\$2,399,400	\$2,399,400
			FIELD OPERATIONS DEPARTMENT			
\$1,019,762	\$448,536	\$234,100	General Services	\$390,685	\$390,685	\$390,685
\$598,659	\$706,794	\$823,300	Buildings And Grounds	\$987,900	\$987,900	\$987,900
\$713,386	\$781,121	\$768,500	Construction & Maintenance	\$657,000	\$657,000	\$657,000
\$857,561	\$796,950	\$906,500	Fleet	\$774,950	\$774,950	\$774,950
\$162,223	\$188,247	\$195,200	Valve Crew	\$204,900	\$204,900	\$204,900
\$3,351,591	\$2,921,648	\$2,927,600	FIELD OPERATIONS DEPARTMENT SUBTOTAL	\$3,015,435	\$3,015,435	\$3,015,435
			FINANCE & INFORMATION TECHNOLOGY DEPARTMENT			
\$726,649	\$426,933	\$1,422,817	General Services	\$418,540	\$418,540	\$418,540
\$627,223	\$1,278,108	\$1,515,302	Finance And Accounting	\$1,891,020	\$1,891,020	\$1,891,020
\$600,305	\$644,454	\$1,228,180	Information Technology			
\$1,954,177	\$2,349,495	\$4,166,299	FINANCE & INFORMATION TECH SUBTOTAL	\$2,309,560	\$2,309,560	\$2,309,560
\$643,705	\$286,648	\$62,870	WATER SUPPLY PROGRAM SUBTOTAL	\$50,706	\$50,706	\$50,706
\$0	\$0	\$0	INFORMATION TECHNOLOGY SERVICES DEPARTMENT SUBTOTAL	\$1,721,289	\$1,721,289	\$1,721,289
\$25,292,872	\$25,928,250	\$32,731,335	TOTAL MATERIALS & SERVICES	\$36,348,023	\$36,348,023	\$36,348,023

CAPITAL OUTLAY
CAPITAL OUTLAY, TRANSFERS & CONTINGENCY
GENERAL FUND

FORM LB-31

Fund 01

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2017-2019		
ACTUAL 11-13	ACTUAL 13-15	AMENDED BUDGET 15-17		2017-19 PROPOSED	2017-19 APPROVED	2017-19 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
\$1,328,693	\$1,611,705	\$791,100	EQUIPMENT	\$602,300	\$602,300	\$602,300
\$1,328,693	\$1,611,705	\$791,100	TOTAL CAPITAL OUTLAY	\$602,300	\$602,300	\$602,300
		\$274,000	SPECIAL PAYMENTS	\$1,560,350	\$1,560,350	\$1,560,350
			TRANSFERS TO OTHER FUNDS			
			TO CAPITAL IMPROVEMENT/RESERVE FUNDS	\$67,300,000	\$67,300,000	\$67,300,000
-	\$28,593,263	\$84,830,750	SOURCE/CAPITAL PROJECTS			\$0
-	\$0	\$0	MISCELLANEOUS			\$0
5,750,000	\$0	\$0	EXPANSION, SYSTEM DEV. CHARGES			\$0
3,208,576	\$0	\$0	SYSTEM UPGRADES AND RENEWALS			\$0
3,870,000	\$0	\$0	REPLACEMENTS			\$0
\$12,828,576	\$28,593,263	\$84,830,750	TOTAL TO CAPITAL IMPROVEMENT/RESERVE FUNDS	\$67,300,000	\$67,300,000	\$67,300,000
	\$4,003,919	\$0	TO WILLAMETTE WATER SUPPLY FUND	\$0	\$0	\$0
		\$40,000	TO CUSTOMER EMERGENCY ASSISTANCE FUND	\$34,000	\$34,000	\$34,000
<u>\$4,330,400</u>	<u>\$7,136,408</u>	<u>\$0</u>	TO REVENUE BOND DEBT SERVICE FUND	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
\$17,158,976	\$39,733,590	\$84,870,750	TOTAL TRANSFERS	\$67,334,000	\$67,334,000	\$67,334,000
		<u>\$9,907,000</u>	<u>OPERATING CONTINGENCY</u>	<u>\$15,000,000</u>	<u>\$15,000,000</u>	<u>\$15,000,000</u>
\$68,776,036	\$95,532,035	\$162,563,130	TOTAL EXPENDITURES	\$160,000,762	\$160,000,762	\$160,000,762
<u>\$60,532,015</u>	<u>\$64,612,127</u>	<u>\$2,177,662</u>	UNAPPROPRIATED ENDING FUND BALANCE	<u>\$15,089,955</u>	<u>\$15,089,955</u>	<u>\$15,089,955</u>
\$129,308,051	\$160,144,162	\$164,740,792	TOTAL REQUIREMENTS	\$175,090,717	\$175,090,717	\$175,090,717

CAPITAL PROJECT FUND
RESOURCES AND EXPENDITURES
CAPITAL IMPROVEMENT FUND

FORM LB-10

Fund 11

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2017-2019		
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17		2017-19 PROPOSED	2017-19 APPROVED	2017-19 ADOPTED
			RESOURCES			
\$36,656,387	\$30,441,838	\$23,227,183	BEGINNING FUND BALANCE	\$0	\$0	\$0
\$450,762	\$337,705	\$0	INTEREST INCOME	\$0	\$0	\$0
\$53,694	\$0	\$0	CONTRIBUTED CAPITAL	\$0	\$0	\$0
\$832,802	\$1,894,126	\$0	METER & SERVICE INSTALLATIONS	\$0	\$0	\$0
			TRANSFERS:			
		\$32,945,807	FROM CAPITAL RESERVE FUND	\$38,611,964	\$38,611,964	\$38,611,964
		\$1,584,345	TRANSFERS TO FUND JWC PROJECTS FROM CAPITAL RESERVE	\$0	\$0	\$0
\$0	\$28,593,263		SOURCE, TVWD PROJECTS	\$0	\$0	\$0
\$0	\$0	\$0	MISCELLANEOUS			
\$5,750,000	\$0	\$0	EXPANSION, SYSTEM DEVELOPMENT CHARGES			
\$3,208,576	\$0	\$0	SYSTEM UPGRADES AND RENEWALS			
\$3,870,000	\$0	\$0	REPLACEMENTS			
\$50,822,222	\$61,266,932	\$57,757,335	TOTAL RESOURCES	\$38,611,964	\$38,611,964	\$38,611,964
			EXPENDITURES			
			CAPITAL OUTLAY:			
\$523,436	\$0	\$0	BUILDING & IMPROVEMENTS	\$0	\$0	\$0
\$18,297,271	\$40,272,439	\$32,945,807	PIPE & OTHER CONSTRUCTION	\$33,151,675	\$33,151,675	\$33,151,675
\$1,559,677	\$0	\$0	LAND & EASEMENTS	\$0	\$0	\$0
\$20,380,384	\$40,272,439	\$32,945,807	TOTAL CAPITAL OUTLAY	\$33,151,675	\$33,151,675	\$33,151,675
		\$1,584,345	TRANSFERS FOR INVESTMENT IN JOINT VENTURE	\$5,460,289	\$5,460,289	\$5,460,289
		\$23,227,183	EQUITY TRANSFER TO CAPITAL RESERVE FUND	\$0	\$0	\$0
\$20,380,384	\$40,272,439	\$57,757,335	TOTAL EXPENDITURES	\$38,611,964	\$38,611,964	\$38,611,964
			UNAPPROPRIATED ENDING BALANCE:			
\$30,441,838	\$20,994,493	\$0	RESERVED FOR FUTURE CAPITAL	\$0	\$0	\$0
\$30,441,838	\$20,994,493	\$0	TOTAL ENDING BALANCE	\$0	\$0	\$0
\$50,822,222	\$61,266,932	\$57,757,335	TOTAL REQUIREMENTS	\$38,611,964	\$38,611,964	\$38,611,964

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 2017-2019		
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17		2017-19 PROPOSED	2017-19 APPROVED	2017-19 ADOPTED
			RESOURCES			
\$0	\$0	\$0	BEGINNING FUND BALANCE	\$0	\$0	\$0
\$0	\$2,439,178	\$2,883,100	CONTRACT REIMBURSEMENTS	\$0	\$0	\$0
\$0	\$608,440	\$22,780,200	CONTRIBUTED CAPITAL	\$55,034,651	\$55,034,651	\$55,034,651
	\$4,003,919	\$40,139,870	INTERFUND TRANSFERS	\$84,088,087	\$84,088,087	\$84,088,087
			MISCELLANEOUS INCOME	\$303,703	\$303,703	\$303,703
\$0	\$7,051,537	\$65,803,170	TOTAL RESOURCES	\$139,426,441	\$139,426,441	\$139,426,441
			EXPENDITURES			
\$0	\$0	\$0	TOTAL PERSONNEL SERVICES	\$0	\$0	\$0
\$0	\$4,275,252	\$7,392,540	TOTAL MATERIALS & SERVICES	\$765,189	\$765,189	\$765,189
\$0	\$2,776,285	\$49,810,630	TOTAL CAPITAL OUTLAY	\$138,661,252	\$138,661,252	\$138,661,252
		\$8,600,000	OPERATING CONTINGENCY	\$0	\$0	\$0
	\$7,051,537	\$65,803,170	TOTAL EXPENDITURES	\$139,426,441	\$139,426,441	\$139,426,441
\$0	\$0	\$0	UNAPPROPRIATED ENDING BALANCE	\$0	\$0	\$0
\$0	\$7,051,537	\$65,803,170	TOTAL REQUIREMENTS	\$139,426,441	\$139,426,441	\$139,426,441

SPECIAL REVENUE FUND
CAPITAL RESERVE FUND

FORM LB-10

Fund 18

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2017-2019		
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17		2017-19 PROPOSED	2017-19 APPROVED	2017-19 ADOPTED
			RESOURCES			
		\$0	BEGINNING FUND BALANCE	\$66,927,909	66,927,909	66,927,909
		\$0	MANAGEMENT RESERVE	\$2,588,788	2,588,788	2,588,788
		\$23,227,183	EQUITY TRANSFER FROM CONSTRUCTION FUND	\$0	0	0
		\$792,386	INTEREST INCOME	\$1,329,400	1,329,400	1,329,400
		\$2,889,000	CONTRIBUTED CAPITAL (I.E. METERS & SERVICES)	\$2,233,000	2,233,000	2,233,000
		\$10,136,000	SYSTEM DEVELOPMENT CHARGES	\$10,741,700	10,741,700	10,741,700
		\$84,830,750	TRANSFERS IN: FROM GENERAL FUND FOR CAPITAL	\$67,300,000	67,300,000	67,300,000
\$0	\$0	\$121,875,319	TOTAL RESOURCES	\$151,120,797	151,120,797	151,120,797
			EXPENDITURES			
		\$34,530,152	TRANSFERS OUT OF FUND: TRANSFERS TO CAPITAL IMPROVEMENT FUND	\$38,611,964	38,611,964	38,611,964
		\$40,139,870	TRANSFERS TO WATER SUPPLY FUND	\$84,088,087	84,088,087	84,088,087
		\$0	TRANSFERS TO REVENUE DEBT FUNDS	\$0	0	0
		\$74,670,022	TOTAL TRANSFERS OUT OF FUND	\$122,700,051	122,700,051	122,700,051
			MANAGEMENT RESERVE	\$0	0	0
\$0	\$0	\$47,205,297	TOTAL ENDING BALANCE	\$28,420,746	28,420,746	28,420,746
\$0	\$0	\$121,875,319	T O T A L	\$151,120,797	151,120,797	151,120,797

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 2017-2019		
ACTUAL 11-13	ACTUAL 13-15	Revised BUDGET 15-17		2017-19 PROPOSED	2017-19 APPROVED	2017-19 ADOPTED
			RESOURCES			
\$9,417	\$109,582	\$0	CASH ON HAND FOR REVENUE BONDS	\$0	\$0	\$0
\$4,330,400	\$7,136,408	\$0	TRANSFERS FROM GENERAL FUND	\$0	\$0	\$0
\$0	\$0	\$0	MISCELLANEOUS REVENUE - REV. BONDS	\$0	\$0	\$0
\$938	\$734	\$0	INTEREST ON INVESTMENTS	\$0	\$0	\$0
\$0	\$0	\$0	PROCEEDS FROM BOND SALE	\$0	\$0	\$0
			CONTINGENCY TRANSFER IN			
\$4,340,755	\$7,246,724	\$0	TOTAL RESOURCES	\$0	\$0	\$0
			REQUIREMENTS			
\$3,465,000	\$6,705,000	\$0	EXPENDITURE FOR BOND PRINCIPAL	\$0	\$0	\$0
\$766,173	\$541,350	\$0	EXPENDITURES FOR INTEREST	\$0	\$0	\$0
\$4,231,173	\$7,246,350	\$0	TOTAL EXPENDITURES - REVENUE BONDS	\$0	\$0	\$0
\$0	\$0	\$0	REVENUE BOND RESERVE	\$0	\$0	\$0
\$0	\$374	\$0	RESIDUAL EQUITY TRANSFER	\$0	\$0	\$0
\$109,582	\$0	\$0	ENDING BALANCE FOR REVENUE BONDS	\$0	\$0	\$0
\$4,340,755	\$7,246,724	\$0	TOTAL REQUIREMENTS	\$0	\$0	\$0

REVENUE BOND DEBT SERVICE FUND

Fund 31

TUALATIN VALLEY WATER DISTRICT

FORM LB-36

HISTORICAL DATA			SCHEDULE OF PAYMENTS ISSUE DATE PAYMENT DATES	BIENNIAL BUDGET FOR 2017-2019		
ACTUAL 11-13	ACTUAL 13-15	Revised BUDGET 15-17		2017-19 PROPOSED	2017-19 APPROVED	2017-19 ADOPTED
			-- PRINCIPAL PAYMENTS --			
			ISSUE DATE PAYMENT DATES -----			
\$1,140,000	\$0	\$0	12/01/02 06/01/14, 06/01/15	\$0	\$0	\$0
\$2,325,000	\$2,515,000	\$0	08/01/05 06/01/14, 06/01/15	\$0	\$0	\$0
	\$4,190,000	\$0	Full Refunding of 2005 Bonds	\$0	\$0	\$0
\$3,465,000	\$6,705,000	\$0	TOTAL PRINCIPAL PAYMENTS	\$0	\$0	\$0
			-- INTEREST PAYMENTS --			
			ISSUE DATE PAYMENT DATES -----			
\$37,873	\$0	\$0	12/01/02 12/01/13, 06/01/14, 12/01/14, 06/01/15	\$0	\$0	\$0
\$728,300	\$541,350	\$0	08/01/05 12/01/13, 06/01/14, 12/01/14, 06/01/15	\$0	\$0	\$0
\$766,173	\$541,350	\$0	TOTAL INTEREST PAYMENTS	\$0	\$0	\$0

AGENCY FUND
RESOURCES & EXPENDITURES
WILLAMETTE RIVER WATER COALITION INTERNAL SERVICE FUND

FORM LB-10

Fund 41

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA			I T E M	BIENNIAL BUDGET FOR 2017-2019		
ACTUAL 11-13	ACTUAL 13-15	Amended BUDGET 15-17		2017-19 PROPOSED	2017-19 APPROVED	2017-19 ADOPTED
			RESOURCES			
\$108,820	\$105,153	\$111,007	BEGINNING FUND BALANCE			
			NET WORKING CAPITAL (ACCRUAL)	\$21,243	\$21,243	\$21,243
\$1,434	\$1,183	\$1,509	EARNINGS FROM TEMP INVESTMENTS	\$473	\$473	\$473
\$149,300	\$199,300	\$454,320	CONTRIBUTIONS	\$86,000	\$86,000	\$86,000
			CAPITAL OUTLAY RECEIPTS			
			OTHER RESOURCES			
			TRANSFERS FROM GENERAL FUND			
\$259,554	\$305,636	\$566,836	TOTAL RESOURCES	\$107,716	\$107,716	\$107,716
			EXPENDITURES			
\$154,401	\$226,385	\$499,200	MATERIALS & SERVICES	\$86,000	\$86,000	\$86,000
\$0	\$0	\$0	CAPITAL OUTLAY	\$0	\$0	\$0
\$154,401	\$226,385	\$499,200	TOTAL EXPENDITURES	\$86,000	\$86,000	\$86,000
			EQUITY ACCOUNTS (Est'd % for Budget/dues)			
68,949	51,965	\$44,640	TUALATIN VALLEY WATER DISTRICT (66.0%)	\$7,214	\$7,214	\$7,214
6,845	5,159	\$4,227	CITY OF SHERWOOD (6.25%)	\$2,199	\$2,199	\$2,199
7,960	5,999	\$4,850	CITY OF TUALATIN (7.17%)	\$2,304	\$2,304	\$2,304
21,399	16,128	\$13,919	CITY OF TIGARD (20.58%)	\$3,399	\$3,399	\$3,399
						\$0
0	0	\$0	TRANSFERS	\$0	\$0	\$0
		\$0	OPERATING CONTINGENCY	\$12,900	\$12,900	\$12,900
\$105,153	\$79,251	\$67,636	UNAPPROPRIATED ENDING BALANCE	\$8,816	\$8,816	\$8,816
\$259,554	\$305,636	\$566,836	TOTAL REQUIREMENTS	\$107,716	\$107,716	\$107,716

INTERNAL SERVICE FUND
RESOURCES & EXPENDITURES
CUSTOMER EMERGENCY ASSISTANCE FUND

FORM LB-10

Fund 43

TUALATIN VALLEY WATER DISTRICT

HISTORICAL DATA			ITEM	BIENNIAL BUDGET FOR 2017-2019		
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17		2017-19 PROPOSED	2017-19 APPROVED	2017-19 ADOPTED
			RESOURCES			
		\$0	BEGINNING FUND BALANCE	\$8,062	\$8,062	\$8,062
		\$21,840	CONTRIBUTIONS FROM CUSTOMERS	\$14,000	\$14,000	\$14,000
		\$0	INTEREST EARNINGS	\$0	\$0	\$0
		\$0	OTHER RESOURCES (CWS employee contributions)	\$720	\$720	\$720
		\$40,000	TRANSFERS FROM GENERAL FUND	\$34,000	\$34,000	\$34,000
\$0	\$0	\$61,840	TOTAL RESOURCES	\$56,782	\$56,782	\$56,782
			EXPENDITURES			
			MATERIALS & SERVICES			
		\$16,200	Payments to servicing agent	\$7,800	\$7,800	\$7,800
		\$45,640	Payments to customers	\$41,200	\$41,200	\$41,200
\$0	\$0	\$61,840	TOTAL EXPENDITURES	\$49,000	\$49,000	\$49,000
		\$0	OPERATING CONTINGENCY	\$0	\$0	\$0
\$0	\$0	\$0	UNAPPROPRIATED ENDING BALANCE	\$7,782	\$7,782	\$7,782
\$0	\$0	\$61,840	TOTAL REQUIREMENTS	\$56,782	\$56,782	\$56,782

Tualatin Valley Water District



SECTION 7

GENERAL FUND RESOURCES AND EXPENDITURES

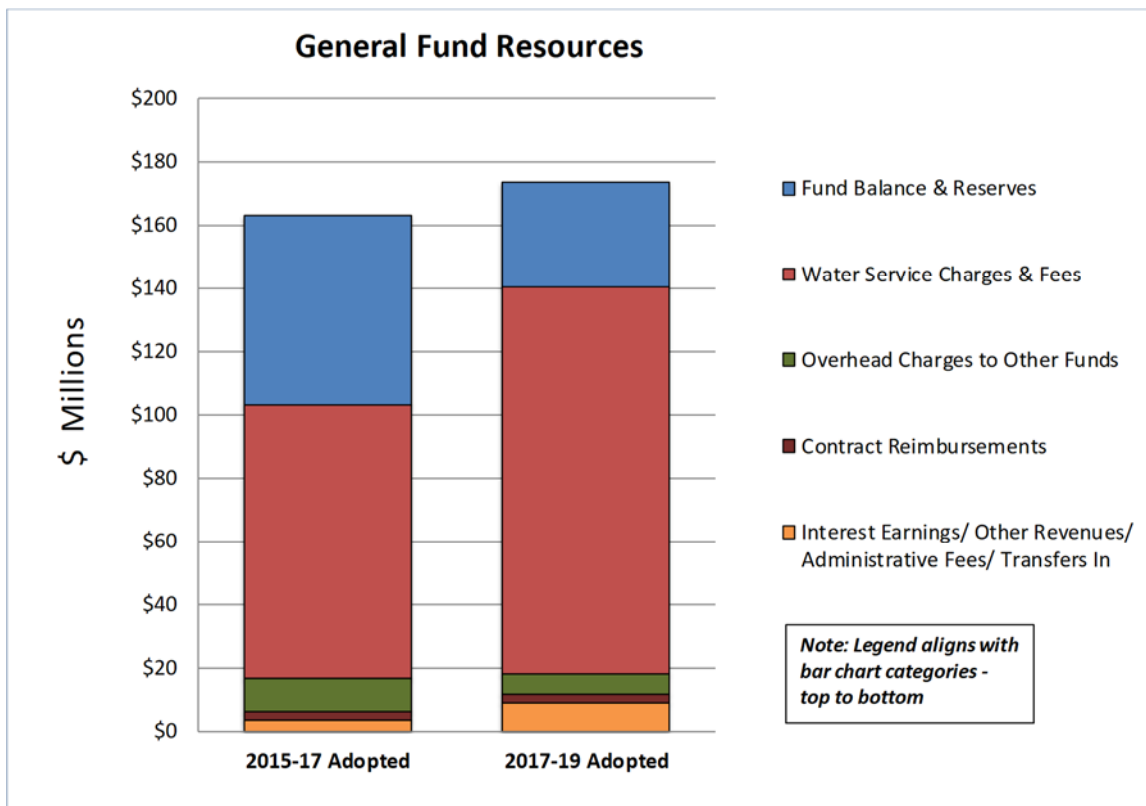
The General Fund is the largest fund the District manages, accounting for \$175 million, or 35% of all District budgetary requirements. On a day-to-day basis, all administration, operations, and maintenance activity is accounted for in the General Fund.

Resources for the General Fund include fund balances, contract reimbursements from partner agencies interest earnings, and most significantly water sales and related fees. Budgeted 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 2017-19 Budget are based on rate revenue adjustments of 13.5% in each year of the biennium.

The General Fund also receives resources from the other funds. Overhead charges to other funds represent reimbursements made to the General Fund from the Capital Improvement Fund and Willamette Water Supply Fund for capitalized labor, overhead, and the use of District equipment constructing capital assets. These resources are estimated to be \$6.5 million in the Adopted 2017-19 Budget.

Additionally, transfers into the General Fund in the amount of \$5.5 million represent resources used for capital projects related to the District's investment in the Joint Water Commission (JWC) joint venture. These projects are shown as part of the CIP, but the expenditures do not occur in the Capital Improvement Fund because the District will not own the assets being constructed. Rather the value of District's investment in the JWC joint venture will be adjusted accordingly. The \$5.5 million Capital Improvement Fund transfer creates appropriation authority for the District to allocate resources for JWC Capital projects.

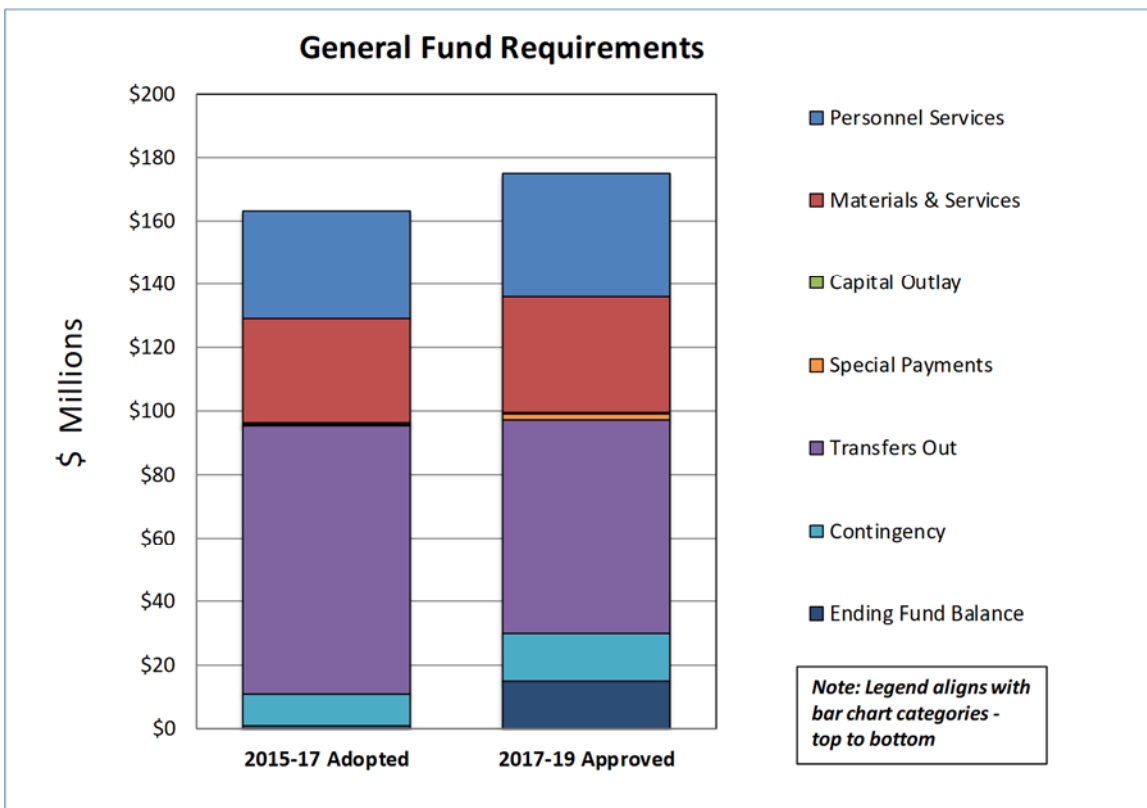
As the graphic below shows, water sales revenue continues to be the District's key resource.



The requirements for the General Fund include Personnel Services for the District’s labor-related costs; Materials and Services for purchased water and general operations and maintenance; Capital Outlays for equipment; 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. The remaining amount is unappropriated ending fund balance reserved for future use.

Of note for the Adopted 2017-19 Budget is the addition of Special Payments, which is an appropriation category under Oregon Local Budget Law to reflect pass-through payments paid to another entity. Special Payment appropriation in the General Fund is being used for 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. The District’s Board adopted a 2015-17 supplemental budget for \$274,000 in appropriation authority. In the Adopted 2017-19 Budget, these fees are fully budgeted at \$1.56 million.

The Adopted 2017-19 Budget for transfer is \$67.33 representing the largest appropriation category in the General Fund. \$67.3 million will be transferred to the Capital Reserve Fund for current and future capital construction requirements and \$34,000 will be transferred to the Customer Emergency Assistance Fund representing the District share of support to this program. General Operating Contingency is increased from \$10 million to \$15 million. Under Oregon Local Budget Law General Operating Contingency may be appropriate for unanticipated expenditures, which requires prior Board approval. Unappropriated ending fund balance in the General Fund is estimated in the Adopted 2017-19 Budget at \$15.1 million for future use.



GENERAL FUND DEPARTMENTS AND DIVISIONS

More General Fund expenditures are distributed among the District’s seven departments and Purchased Water fund 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 as a whole 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 fund level expenditure, and is not part of any specific departmental budget (See Section 8 *Purchased Water*).

Below is the list of the District's departments and divisions:

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 Services

Develops and implements Capital Improvement Plan; determines and monitors compliance with systems specifications; reviews developer and construction projects; manages Geographic Information System; operates and maintains storage, transmission, and distribution of water throughout the District; controls compliance with backflow regulations; manages preventive maintenance for distribution system; performs locates to protect system from damage; ensures compliance with State and Federal water quality regulations.

- Divisions: General Services: 30-01
- Distribution: 30-31
- Engineering: 30-32
- Water Quality: 30-33

Field Operations

Conducts installations, relocates, repair, and maintenance for District mainlines, hydrants, valves, services, and vaults; performs preventive maintenance for District facilities; manages mainline flushing program; provides field mapping and asset documentation; manages District vehicle fleet and fueling facility; maintains buildings and grounds.

- Divisions: General Services: 40-01
- Building & Grounds: 40-41
- Construction & Maintenance: 40-42
- Fleet: 40-43
- Valve Program: 40-44

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 for the Willamette Water Supply Program (WSSP) partnership; oversees planning, design, and construction of assets associated with WWSP; provides financial oversight and reporting for the WWSP partnership.

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, and data and voice communications 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. Note that this is a new District department in the Adopted 2017-19 Budget. Previously, IT Services was a division within the Finance and IT Department. The IT Services Department will be led by a director reporting to the CEO. Establishing IT Services as a separate department serves as an important step to transitioning the District's IT function to a service-oriented governance model.

Divisions: General Services: 70-01

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.

Divisions: N/A

The table on the next page provides a summary of all the General Fund expenditures and appropriations for the Adopted 2017-19 Budget.

**TOTAL DISTRICT EXPENDITURES AND OTHER APPROPRIATIONS
GENERAL FUND**

HISTORICAL DATA			TUALATIN VALLEY WATER DISTRICT PERSONNEL SERVICES EXPENDITURE TOTALS BY DEPARTMENT	BUDGET FOR 2017-19			% CHG
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DEPARTMENT	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	15-17
\$1,928,097	\$1,883,927	\$3,483,681	ADMINISTRATIVE SERVICES	\$3,424,522	\$3,424,522	\$3,424,522	-1.7%
\$4,804,835	\$6,136,491	\$6,333,629	CUSTOMER SERVICES	\$8,088,968	\$8,088,968	\$8,088,968	27.7%
\$6,182,804	\$6,964,037	\$7,468,659	ENGINEERING	\$8,419,785	\$8,419,785	\$8,419,785	12.7%
\$6,427,551	\$7,141,677	\$8,128,658	FIELD OPERATIONS	\$8,928,111	\$8,928,111	\$8,928,111	9.8%
\$4,294,119	\$4,919,870	\$5,938,900	FINANCE	\$4,103,430	\$4,103,430	\$4,103,430	-30.9%
\$1,358,090	\$1,212,489	\$2,635,417	WATER SUPPLY PROGRAM	\$3,002,713	\$3,002,713	\$3,002,713	13.9%
\$0	\$0	\$0	INFORMATION TECHNOLOGY SERVICES	\$3,188,560	\$3,188,560	\$3,188,560	0.0%
\$24,995,495	\$28,258,491	\$33,988,944	TOTALS	\$39,156,089	\$39,156,089	\$39,156,089	15.2%

HISTORICAL DATA			TUALATIN VALLEY WATER DISTRICT MATERIALS & SERVICES EXPENDITURE TOTALS BY DEPARTMENT	BUDGET FOR 2017-19			% CHG
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DEPARTMENT/PROGRAM	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	15-17
\$933,364	\$928,549	\$2,226,073	ADMINISTRATIVE SERVICES	\$1,817,621	\$1,817,621	\$1,817,621	-18.3%
\$1,907,441	\$2,038,611	\$1,977,615	CUSTOMER SERVICES	\$2,682,676	\$2,682,676	\$2,682,676	35.7%
\$1,481,333	\$2,227,760	\$2,891,254	ENGINEERING	\$2,399,400	\$2,399,400	\$2,399,400	-17.0%
\$3,351,591	\$2,921,648	\$2,927,600	FIELD OPERATIONS	\$3,015,435	\$3,015,435	\$3,015,435	3.0%
\$1,954,177	\$2,349,495	\$4,166,299	FINANCE	\$2,309,560	\$2,309,560	\$2,309,560	-44.6%
\$643,701	\$286,648	\$62,870	WATER SUPPLY PROGRAM	\$50,706	\$50,706	\$50,706	-19.3%
\$0	\$0	\$0	INFORMATION TECHNOLOGY SERVICES	\$1,721,289	\$1,721,289	\$1,721,289	0.0%
\$15,021,261	\$15,175,539	\$18,479,624	WATER PURCHASES PROGRAM	\$22,351,335	\$22,351,335	\$22,351,335	21.0%
\$25,292,868	\$25,928,250	\$32,731,335	TOTALS	\$36,348,023	\$36,348,023	\$36,348,023	11.0%

HISTORICAL DATA			TUALATIN VALLEY WATER DISTRICT CAPITAL OUTLAY EXPENDITURE TOTALS BY DEPARTMENT	BUDGET FOR 2017-19			% CHG
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DEPARTMENT	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	15-17
\$0	\$0	\$0	ADMINISTRATIVE SERVICES	\$25,000	\$25,000	\$25,000	0.0%
\$0	\$124,846	\$50,000	CUSTOMER SERVICES	\$0	\$0	\$0	-100.0%
\$154,290	\$111,367	\$91,000	ENGINEERING	\$0	\$0	\$0	-100.0%
\$693,795	\$685,691	\$45,100	FIELD OPERATIONS	\$113,800	\$113,800	\$113,800	152.3%
\$480,608	\$689,801	\$605,000	FINANCE	\$0	\$0	\$0	-100.0%
\$0	\$0	\$0	WATER SUPPLY PROGRAM	\$0	\$0	\$0	0.0%
\$0	\$0	\$0	INFORMATION TECHNOLOGY SERVICES	\$463,500	\$463,500	\$463,500	0.0%
\$1,328,693	\$1,611,705	\$791,100	TOTALS	\$602,300	\$602,300	\$602,300	-23.9%

GENERAL FUND SPECIAL PAYMENTS, TRANSFERS, AND CONTINGENCY

HISTORICAL DATA			SPECIAL PAYMENTS, TRANSFERS, CONTINGENCY & RESERVES	BUDGET FOR 2017-19			% CHG
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17		PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	15-17
\$0	\$0	\$274,000	SPECIAL PAYMENTS	\$1,560,350	\$1,560,350	\$1,560,350	N/A
\$17,158,976	\$39,733,590	\$84,870,750	TRANSFERS	\$67,334,000	\$67,334,000	\$67,334,000	-20.7%
\$0	\$0	\$9,907,000	GENERAL OPERATING CONTINGENCY	\$15,000,000	\$15,000,000	\$15,000,000	51.4%
\$17,158,976	\$39,733,590	\$95,051,750	TOTALS	\$82,334,000	\$82,334,000	\$82,334,000	-13.4%

TOTAL GENERAL FUND BUDGET APPROPRIATION

HISTORICAL DATA				BUDGET FOR 2017-19			% CHG
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17		PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	15-17
\$68,776,032	\$95,532,035	\$162,563,130	TOTALS	\$160,000,762	\$160,000,762	\$160,000,762	-1.6%

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 2017-19		
ACTUAL (AT JUNE 30)		BUDGET				CLASS RANGE		ADOPTED TOTAL
2015	2016	16-17	17-18	18-19		FROM	TO	
					BY CONTRACT	N/A	N/A	447,098
1	1	1	1	1	CHIEF EXECUTIVE OFFICER			
					GRADE 13	121,168	187,569	1,735,123
	1	1	1	1	CHIEF ENGINEER			
1	1	1	1	1	CHIEF FINANCIAL OFFICER			
	1	1	1	1	GENERAL COUNSEL			
1	1	1	1	1	WATER SUPPLY PROGRAM DIRECTOR			
				1	PROPOSED INFORMATION SERVICES DIRECTOR			
					GRADE 12	108,955	168,662	278,616
1	1	1			MANAGER OF SUPPORT SERVICES			
1	1	1	1	1	MANAGER OF FIELD OPERATIONS			
1		1			WATER SUPPLY GOVERNMENT AFFAIRS			
					GRADE 11	97,995	151,696	1,132,541
1	1	1	1	1	HUMAN RESOURCES DIRECTOR			
1	1	1			INFORMATION TECHNOLOGY OFFICER			
2	2	2	2	2	PRINCIPAL ENGINEER			
				1	MANAGER, CUSTOMER SERVICES DEPARTMENT			
					GRADE 10	90,921	136,383	703,042
1	1	1	1	1	SENIOR ENGINEER			
1	1	1	1	1	FINANCE AND ACCOUNTING SUPERVISOR			
				1	SENIOR BUSINESS ANALYST			
					GRADE 9	81,761	122,642	2,977,227
1	1	1	1	1	CONSTRUCTION/MAINTENANCE SUPERVISOR			
1	1	1	1	1	DISTRIBUTION SUPERVISOR			
1	1	1	1	1	BUILDING & GROUNDS SUPERVISOR			
1	1	1	1	1	VALVE CREW SUPERVISOR			
1	1	1	1	1	FIELD CUSTOMER SERVICE SUPERVISOR			
1	1	1	1	1	PURCHASING AGENT/CONTRACTS COORDINATOR			
1	1	1	1	1	IT DEVELOPMENT COORD & PROGRAMMER			
19	20	21	21	21	SUBTOTAL FORWARD TO PAGE 2			7,273,647

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 2017-19 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 2017-19		
ACTUAL (AT JUNE 30)		BUDGET				CLASS RANGE		ADOPTED TOTAL
2015	2016	16-17	17-18	18-19		FROM	TO	
19	20	21	21	21	BALANCE FORWARD			7,273,647
					GRADE 9 CONTINUED			
1	1	1	1	1	1 FINANCIAL PLANNING DEBT PROJ MGR			
1	1	1	1	1	1 EMERGENCY PLANNING,RISK & SECURITY COORD			
1	1	1	1	1	1 RISK MANAGEMENT COORDINATOR			
1	1	1	1	1	1 PROJECT ENGINEER			
	1	1	1	1	1 COMMUNICATIONS & PUBLIC AFFAIRS SUPERVISOR			
		1	1	1	1 WATER QUALITY PROGRAM SUPERVISOR			
	1	1	1	1	1 WWSP FINANCE & ADMIN SUPERVISOR			
			1	1	1 PROPOSED SNR SYST ADMIN (LIMIT'D DUR)			
					GRADE 8	73,545	110,318	3,439,883
1	1	1	1	1	1 CONSTRUCTION CREW LEAD			
1	1	1	1	1	1 MAINTENANCE CREW LEAD			
1	1	1	1	1	1 VALVE CREW LEAD			
1	1	1	1	1	1 FIELD CUSTOMER SERVICE LEAD			
2	2	2	2	2	2 CONSTRUCTION INSPECTOR			
1	1	1	1	1	1 CROSS CONNECTION SPECIALIST			
2	1	2	1	1	1 CUSTOMER SERVICE & BILLING SUPERVISOR			
1	1	1	1	1	1 FLEET COORDINATOR			
2	3	3	3	3	3 ENGINEER ASSOCIATE			
	1	1	1	1	1 SENIOR MANAGEMENT ANALYST			
1	1	1	2	2	2 GIS ANALYST			
1	1	1	1	1	1 SENIOR NETWORK ADMINISTRATOR			
1	1	1	1	1	1 SENIOR SYSTEMS ADMINISTRATOR			
1	1	1	1	1	1 DATA ANALYST/ETL DEVELOPER			
1	1	1	1	1	1 SCADA TECHNICIAN			
1		1	1	1	1 PROGRAMMER SYSTEM ANALYST			
					GRADE 7	66,151	99,225	2,331,011
1		1			1 RESOURCE COORDINATOR			
1	1	1	1	1	1 COMMUNICATIONS /YOUTH EDUCATION COORDINATOR			
1	1	1	1	1	1 CONSERVATION TECHNICIAN			
1	1	1			1 WATER QUALITY ANALYST			
1	1			1	1 SENIOR WQ INSPECTOR			
				1	1 SENIOR WQ SPECIALIST			
		1			1 FINANCIAL ANALYST			
1	1	1	1	1	1 INVENTORY CONTROLLER & INDUSTRIAL BUYER			
47	49	54	53	53	SUBTOTAL FORWARD TO PAGE 3			13,044,541

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 2017-19 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 2017-19		
ACTUAL (AT JUNE 30)		BUDGET				CLASS RANGE FROM TO	ADOPTED TOTAL	
2015	2016	16-17	17-18	18-19				
					BALANCE FORWARD			13,044,541
					GRADE 7 CONTINUED			
					NETWORK & SYSTEMS ANALYST			
					DEVELOPER, APPLICATION SUPPORT			
					FLD SVC OPERATION SPECIALIST			
					ENGINEERING TECHNICIAN II			
					FLEET MECHANIC			
					PROPOSED BUSINESS ANALYST			
					TECHNICAL SERVICES ACCOUNTANT			
					FIELD OPERATIONS ANALYST			
					COMMUNITY AFFAIRS COORDINATOR			
					PROJECT DELIVERY COORDINATOR			
					GRADE 6	59,472	89,209	5,327,897
					FIELD SERVICE REPRESENTATIVE			
					WATER WORKS CREW-DISTRIBUTION			
					WATER WORKS CREW-CONST/MAINT			
					WATER WORKS CREW-VALVE			
					WATER QUALITY TECHNICIAN			
					ACCOUNTANT			
					HUMAN RESOURCES ANALYST			
					PROJECT ACCOUNTANT			
					DISTRICT RECORDER			
					SYSTEMS ADMINISTRATOR			
					GRADE 5	53,476	80,214	1,362,524
					DESKTOP AND SYSTEMS SUPPORT			
					PAYROLL SPECIALIST			
					BUILDING & GROUNDS MAINTENANCE II			
					HUMAN RESOURCE BENEFIT SPECIALIST			
					DISTRICT RECORDER			
					OUTREACH & ENGAGEMENT COORD			
					GIS TECHNICIAN			
					CUSTOMER SERVICE & BILLING LEAD			
					WATER QUALITY INSPECTOR			
					WATER QUALITY SPECIALIST FOR LEAD			
97	98	106	110	110	SUBTOTAL FORWARD TO PAGE 4			19,734,962

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 2017-19 Budget at the bottom of the table on page 7-9.

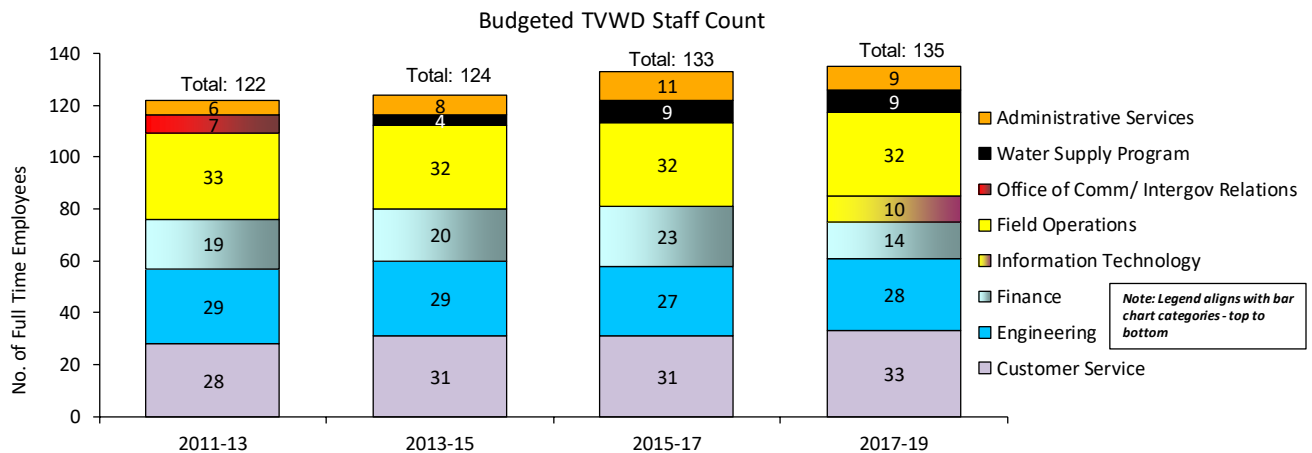
GENERAL FUND

TUALATIN VALLEY WATER DISTRICT

--- HISTORICAL DATA ---					CLASSIFICATION TITLE	BIENNIUM BUDGET FOR 2017-19		
ACTUAL (AT JUNE 30)		BUDGET				CLASS RANGE FROM TO	ADOPTED TOTAL	
2015	2016	16-17	17-18	18-19				
97	98	106	110	110	BALANCE FORWARD		19,734,962	
					GRADE 4	48,092	789,805	
6	6	6	6	6	METER READERS			
1			1	1	CROSS CONNECTION ASSISTANT			
		1	1	1	DOCUMENT & CONTROLS SPECIALIST			
		1	1	1	EXECUTIVE ASSISTANT			
					GRADE 3	43,250	1,781,104	
1					ADMINISTRATION CLERICAL SUPPORT			
	4	4	4	4	ADMINISTRATIVE ASSISTANT			
1	1	1			DISTRICT SUPPORT			
1		1			CONSERVATION ASSISTANT			
7	8	10	10	10	CUSTOMER SERVICE REPRESENTATIVE			
3	3				BILLING SPECIALIST			
1					ENGINEERING CLERICAL SUPPORT			
1	1	1	1	1	CROSS CONNECTION SUPPORT			
1					FIELD OPERATIONS CLERICAL SUPPORT			
2	2	2	2	2	ACCOUNTING TECHNICIAN			
					GRADE 2	38,896	0	
					GRADE 1	34,981	0	
					TOTAL SALARY & WAGES		22,305,871	
					ALLOWANCE FOR PART-TIME, OVERTIME, WEEKEND DUTY, CELL PHONE STIPENDS AND COMPENSATION ADJUSTMENTS		2,173,410	
					PAYROLL TAXES AND BENEFITS		14,676,809	
122	123	133	135	135	TOTAL PERSONNEL SERVICES		39,156,090	

Notes: Personnel services by position include salary ranges only, and exclude other allowances, payroll taxes and benefits. Total Adopted 2017-19 Budget allowance, payroll and benefit related costs shown separately at the bottom of the table above.

A new Business Analyst in Customer Service (Section 10) and one addition to Engineering's Water Quality Division (Section 11) are approved. This results in total full-time positions increasing from 133 to 135 FTE.



Tualatin Valley Water District



Purchased Water

No Staff

Purchased water is a fund level expenditure appropriated in the General Fund (01) The Engineering Services Department manages water purchases from the City of Portland and the Joint Water Commission (JWC).

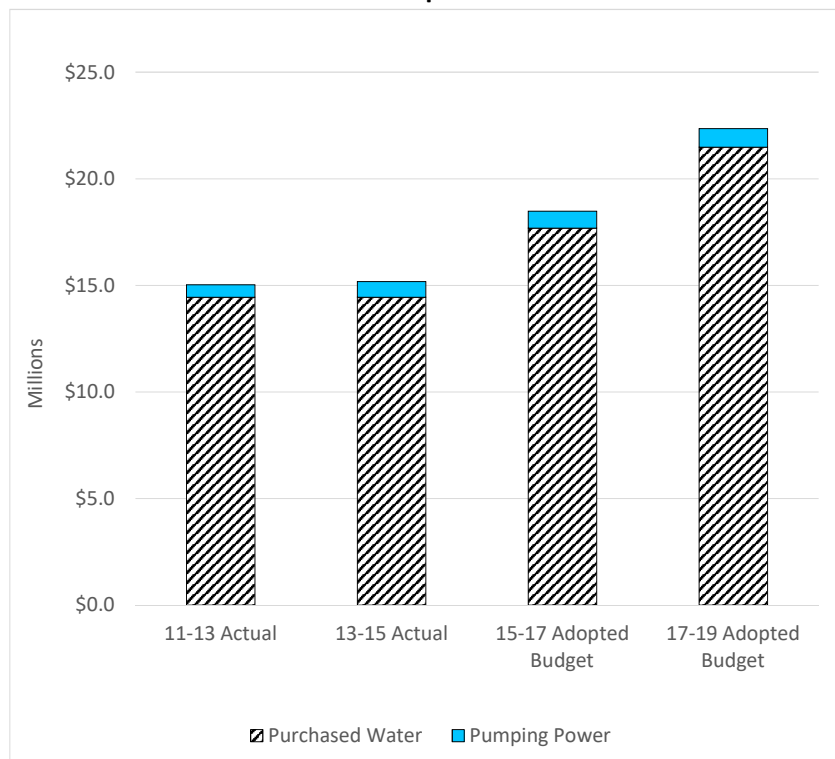
Major Budget Changes for 2017-19

- For FY 2017-19, both the City of Portland Water Bureau (PWB) and Joint Water Commission (JWC) have informed the District to anticipate increases in rates for purchased water of 4.9% and 13.6% respectively. Through its wholesale agreement TVWD is contracted with the PWB to purchase an average of 13.16 million gallons per day. The JWC is passing through across-the-board increases in staffing and material & services costs. The JWC budget includes reallocation of staff resources, cathodic protection study, pipeline condition assessment of South Transmission Line, and water rights to meet fish screen requirements for operations. TVWD only pays actual costs for its JWC water source. For the second year of the biennium, the District is projecting purchased water increases of 4.6% and 3.5% from its Portland and JWC sources.
- Purchased Water budgeted expenditures include resources for purchasing interruptible water from PWB in the amount of 105 million gallons annually, and leased water from the JWC in the amount of two millions gallons per day. Interruptible and leased water along with TVWD aquifer storage and recovery facilities (ASR) are used to supplement peak day water demands as needed. Balancing these water supplies provides an effective means for the District to manage its purchased water costs.
- The Purchased Water budget also includes resources to support the District's share of operating costs for the Barney Reservoir Joint Operating Commission which is managed in conjunction with the JWC.
- Pumping power costs to reflect a 1% project increase in utility rates, growth in demand and pumping requirements for ASR and the new Ridgewood View Pump Station.

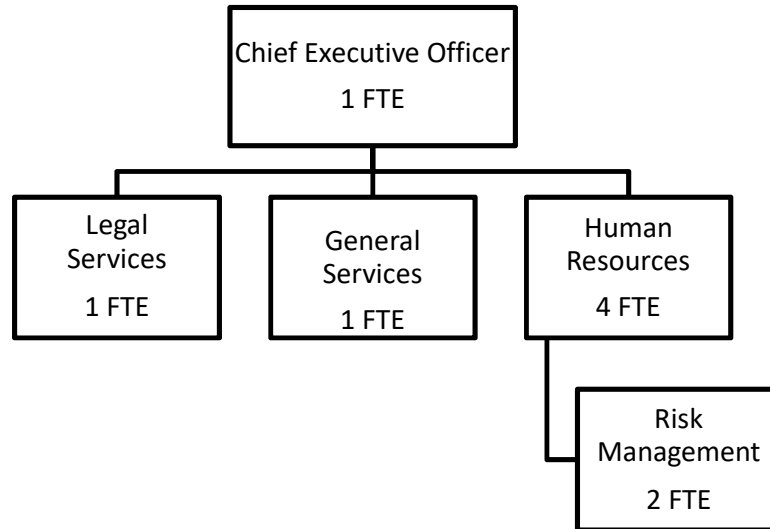
TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET

WATER PURCHASES AND PUMPING POWER (GENERAL FUND)								
HISTORICAL DATA			WATER PURCHASES SUMMARY MATERIALS & SERVICES		BUDGET FOR 2017-19			% CHG 15-17
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	WATER PURCHASES DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	
\$14,437,787	\$14,444,652	\$17,692,125	WATER PURCHASED	01-7470, 01-7471, 01-7472	\$21,481,392	\$21,481,392	\$21,481,392	21.4%
\$583,473	\$730,887	\$787,499	PUMPING POWER	01-7480	\$869,943	\$869,943	\$869,943	10.5%
\$15,021,261	\$15,175,539	\$18,479,624	WATER PURCHASES TOTALS		\$22,351,335	\$22,351,335	\$22,351,335	21.0%

**Purchased Water
2017-19 Expenditures**



Administrative Services

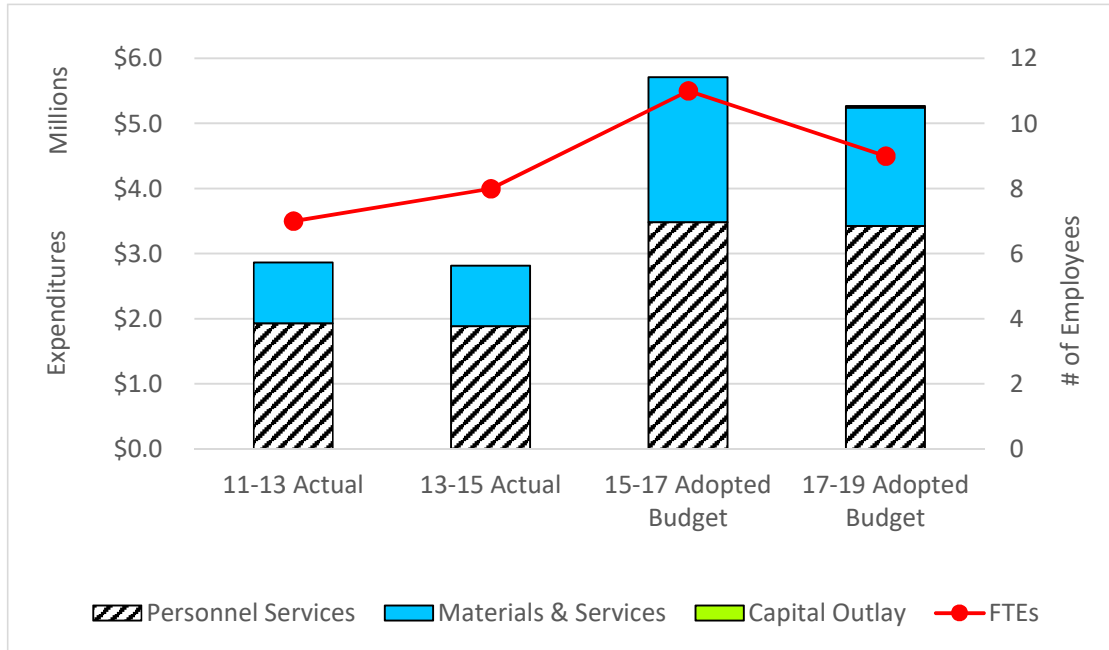


The Administrative Services Department is responsible for the overall administration of the District including direct support to the Board of Commissioners. In addition, this department is responsible for District legal services, human resources and risk management. During the next two years, Administrative Services will lead District initiatives pertaining to governance relationships with District partners, District-wide records management and continued workforce development.

Major Budget Changes for 2017-19

- A separate division within Administrative Services has been established for Risk Management under the direction of the Human Resources Director.
- Communications has been moved to a separate division in the Customer Service Department.
- The District Support position that had been in the Human Resources Division has been transferred to the Finance Department.
- The decrease in Materials & Services expenditures in the General Services Division is primarily driven by the reduction in contracted legal services and bringing general counsel in-house. The need for District legal services has grown significantly due to water supply development and governance efforts, as well increasing contracting activity. Materials & Services in the Human Resources Division includes funding for District-wide training, staff recruitments and continuation of the District workforce planning effort. Materials & Services in Risk Management cover a range of needs including District-wide insurance, safety and loss prevention, facility security and emergency planning.

Administrative Services 2017-19 Expenditures



Administrative Services Performance Measures

	Actual 12-13	Actual 13-14	Actual 14-15	Actual 15-16	Actual 16-17	Target 17-18	Target 18-19
% of our #1 hiring choices that accept a position offer	100%	71%	100%	94%	95%	90+%	90+%
% of employees with last performance review (excluding retirements) of 3.0 or better that stay at the District	100%	99%	100%	94%	96%	90+%	90+%
% of IGAs, partnerships, etc. in which TVWD maintains a leadership role	54%	51%	51%	51%	55%	≥50%	≥50%
# of incidents of vandalism reported that exceed insurance deductible (\$1000)	0	1	0	0	0	0	0
% of safety corrective actions completed on schedule (Safety Committee recommendations)	89%	96%	98%	81%	88%	85%	85%

All-Department Measures

% of employees actively participating in water industry related organizations	14%	14%	17%	16%	15%	≥15%	≥15%
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ADMINISTRATIVE SERVICES

HISTORICAL DATA			PERSONNEL SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$1,928,097	\$1,883,927	\$1,705,558	DIVISION TOTAL-GENERAL SERVICES	\$1,450,330	\$1,450,330	\$1,450,330	-15.0%
\$0	\$0	\$1,149,566	DIVISION TOTAL-HUMAN RESOURCES	\$1,269,186	\$1,269,186	\$1,269,186	10.4%
\$0	\$0	\$628,557	DIVISION TOTAL-RISK MANAGEMENT	\$705,006	\$705,006	\$705,006	12.2%
\$1,928,097	\$1,883,927	\$3,483,681	DEPARTMENT TOTALS	\$3,424,522	\$3,424,522	\$3,424,522	-1.7%

HISTORICAL DATA			MATERIALS & SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$933,364	\$928,549	\$1,293,725	DIVISION TOTAL-GENERAL SERVICES	\$830,354	\$830,354	\$830,354	-35.8%
\$0	\$0	\$248,331	DIVISION TOTAL-HUMAN RESOURCES	\$239,447	\$239,447	\$239,447	-3.6%
\$0	\$0	\$684,017	DIVISION TOTAL-RISK MANAGEMENT	\$747,820	\$747,820	\$747,820	9.3%
\$933,364	\$928,549	\$2,226,073	DEPARTMENT TOTALS	\$1,817,621	\$1,817,621	\$1,817,621	-18.3%

HISTORICAL DATA			CAPITAL OUTLAY	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$0	\$0	\$0	DIVISION TOTAL-GENERAL SERVICES	\$25,000	\$25,000	\$25,000	N/A
\$0	\$0	\$0	DEPARTMENT TOTALS	\$25,000	\$25,000	\$25,000	N/A

HISTORICAL DATA			TOTAL DEPARTMENT BUDGET	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$2,861,460	\$2,812,476	\$2,999,283	DIVISION TOTAL-GENERAL SERVICES	\$2,305,684	\$2,305,684	\$2,305,684	-23.1%
\$0	\$0	\$1,397,897	DIVISION TOTAL-HUMAN RESOURCES	\$1,508,633	\$1,508,633	\$1,508,633	7.9%
\$0	\$0	\$1,312,574	DIVISION TOTAL-RISK MANAGEMENT	\$1,452,826	\$1,477,826	\$1,452,826	10.7%
\$2,861,460	\$2,812,476	\$5,709,754	DEPARTMENT TOTALS	\$5,267,143	\$5,292,143	\$5,267,143	-7.8%

GENERAL SERVICES DIVISION (10-01)

HISTORICAL DATA			ADMINISTRATIVE SERVICES DEPARTMENT SUMMARY MATERIALS & SERVICES GENERAL SERVICES DIVISION		BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$257,108	\$312,036	\$280,000	LEGAL FEES	01-10-01-7300	\$100,000	\$100,000	\$100,000	-64.3%
\$149,570	\$59,641	\$139,800	PROFESSIONAL SERVICES	01-10-01-7310	\$107,000	\$107,000	\$107,000	-23.5%
\$60,954	\$65,732	\$60,100	BUSINESS EXPENSE	01-10-01-7330	\$46,125	\$46,125	\$46,125	-23.3%
\$53,295	\$84,681	\$141,330	EMPLOYEE TRAINING & ED	01-10-01-7340	\$120,090	\$120,090	\$120,090	-15.0%
\$274,201	\$48,688	\$48,695	DUES & SUBSCRIPTIONS	01-10-01-7350	\$60,130	\$60,130	\$60,130	23.5%
\$35,440	\$28,203	\$4,600	OTHER SUNDRY	01-10-01-7360	\$4,100	\$4,100	\$4,100	-10.9%
\$16,500	\$22,000	\$22,000	COMMISSIONER FEES	01-10-01-7370	\$24,000	\$24,000	\$24,000	9.1%
\$55,327	\$33,149	\$30,000	ELECTION EXPENSE	01-10-01-7390	\$42,400	\$42,400	\$42,400	41.3%
\$12,398	\$15,619	\$0	MISCELLANEOUS	01-10-01-7410	\$0	\$0	\$0	0.0%
\$0	\$237,562	\$377,500	REGIONAL PARTNERSHIPS	01-10-01-7425	\$298,134	\$298,134	\$298,134	-21.0%
\$0	\$2,020	\$157,890	PUBLIC INFORMATION	01-10-01-7450	\$0			-100.0%
\$0	\$0	\$10,000	TEMPORARY HELP	01-10-01-7525	\$10,000	\$10,000	\$10,000	0.0%
\$18,570	\$19,218	\$21,810	OFFICE EQUIPMENT MAINT	01-10-01-7550	\$18,375	\$18,375	\$18,375	-15.7%
\$933,364	\$928,549	\$1,293,725	DIVISION TOTALS		\$830,354	\$830,354	\$830,354	-35.8%

ADMINISTRATIVE SERVICES - STAFF (10-01)

Senior manager: Chief Executive Officer

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
1	1	1	N/A	Chief Executive Officer	N/A	1	1	1	
0	0	1	13	General Counsel	13	1	1	1	New Position 15-17
1	1	1	3	Executive Assistant	4	1	1	1	
		1	9	Communications & Public Affairs Supervisor	9	0	0	0	Moved to Communications Division 17-19
		1	7	Community & Youth Ed Coordinator	7	0	0	0	Moved to Communications Division 17-19
		1	7	Resources Coordinator	7	0	0	0	Moved to Communications Division 17-19
1	1	0	11	Manager of Human Resources	11	0	0	0	Moved to HR Division in 2015-17
0	1	0	8	Strategic Planning Coordinator	8	0	0	0	Moved to Finance 2015-17
1	1	0	7	Executive Assistant	7	0	0	0	Moved to HR Division in 2015-17
1	1	0	6	Human Resources Analyst	6	0	0	0	Moved to HR Division in 2015-17
0	1	0	5	Human Resource Specialist	5	0	0	0	Moved to HR Division in 2015-17
1	0	0	3	Human Resources Assistant	3	0	0	0	
1	1	0	3	District Support	3	0	0	0	Moved to HR Division in 2015-17
7	8	6		Total Staff		3	3	3	

Functions:

- S Overall administration of the District. Exercises direct control over expenditures of: business, legal, and sundry costs, office equipment maintenance, travel & training, dues and subscriptions, regional partnerships, and general consultants.
- S Items included in this budget outside of Chief Executive's direct control include: commissioners' fees, election expenses, and miscellaneous taxes and licenses.

Personnel Services Hours:

Hours, by grade, your crews will require for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
13	0	0	0	WEEKEND DUTY	7	0	0	0	
312	131	59	160	OVERTIME		48	48	96	
185	38	5	80		7	0	0	0	
39	24	0	0		6	0	0	0	
0	33	0	0		5	0	0	0	
88	36	54	80		4	48	48	96	
16	0	0	0	CALLBACK				0	
16	0	0	0		3	0	0	0	
515	598	0	0	PART-TIME		0	0	0	
515	598	0	0	Sustainability/Strategic Planning Interns		0	0	0	

HUMAN RESOURCES DIVISION (10-11)

HISTORICAL DATA			ADMINISTRATIVE SERVICES DIVISION SUMMARY MATERIALS & SERVICES	BUDGET FOR 2017-19				
HUMAN RESOURCES DIVISION								
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$0	\$0	\$30,000	LEGAL FEES	01-10-11-7300	\$34,000	\$34,000	\$34,000	13.3%
\$0	\$0	\$97,920	PROFESSIONAL SERVICES	01-10-11-7310	\$84,000	\$84,000	\$84,000	-14.2%
\$0	\$0	\$33,380	BUSINESS EXPENSE	01-10-11-7330	\$29,595	\$29,595	\$29,595	-11.3%
\$0	\$0	\$44,405	EMPLOYEE TRAINING & ED	01-10-11-7340	\$44,540	\$44,540	\$44,540	0.3%
\$0	\$0	\$4,686	DUES & SUBSCRIPTIONS	01-10-11-7350	\$8,202	\$8,202	\$8,202	75.0%
\$0	\$0	\$37,940	MISCELLANEOUS	01-10-11-7410	\$39,110	\$39,110	\$39,110	3.1%
\$0	\$0	\$248,331	DIVISION TOTALS		\$239,447	\$239,447	\$239,447	-3.6%

HUMAN RESOURCES DIVISION- STAFF (10-11)

Senior manager: Chief Executive Officer

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	0	1	11	Human Resources Director	11	1	1	1	
0	0	1	6	Human Resources Analyst	6	1	1	1	
0	0	1	5	Human Resource Specialist	5	1	1	1	
0	0	1	5	District Recorder	6	1	1	1	
0	0	1	3	District Support	3	0	0	0	Transferred to Finance 2017-19
0	0	5		Total Staff		4	4	4	

Functions:

S Human resource functions include developing, maintaining and interpreting personnel policies, recruitment, benefits administration, assistance to District managers on personnel issues, and managing District support staff

Personnel Services Hours:

Hours, by grade, your crews will require for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	0	0	0	WEEKEND DUTY		0	0	0	
0	18	106	264	OVERTIME		149	149	298	
0	8	78	168		6	125	125	250	
0	7	6	48		5	24	24	48	
0	3	22	48		3	0	0	0	
0	0	0	0	CALLBACK		0	0	0	
0	0	0	0	PART-TIME		550	550	1100	
				Clerical Support/Records Management		550	550	1100	

RISK MANAGEMENT DIVISION (10-12)

HISTORICAL DATA			ADMINISTRATIVE SERVICES DIVISION SUMMARY MATERIALS & SERVICES		BUDGET FOR 2017-19			
RISK MANAGEMENT DIVISION								
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$0	\$0	\$404,822	INSURANCE EXPENSE	01-10-12-7320	\$494,500	\$494,500	\$494,500	22.2%
\$0	\$0	\$18,000	SELF-INSURANCE	01-10-12-7325	\$25,000	\$25,000	\$25,000	38.9%
\$0	\$0	\$20,600	HEALTH SERVICES	01-10-12-7415	\$41,500	\$41,500	\$41,500	101.5%
\$0	\$0	\$65,600	SAFETY EXPENSE & SUPPLIES	01-10-12-7420	\$81,420	\$81,420	\$81,420	24.1%
\$0	\$0	\$103,345	SECURITY	01-10-12-7455	\$84,400	\$84,400	\$84,400	-18.3%
\$0	\$0	\$20,700	EMERGENCY PLANNING	01-10-12-7460	\$21,000	\$21,000	\$21,000	1.4%
\$0	\$0	\$50,950	MOBILE COMMUNICATIONS	01-10-12-7795	\$0	\$0	\$0	-100.0%
\$0	\$0	\$684,017	DIVISION TOTALS		\$747,820	\$747,820	\$747,820	9.3%

RISK MANAGEMENT DIVISION - STAFF (10-12)

Senior manager: Chief Executive Officer

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
		1	9	Risk Management Coordinator	9	1	1	1	Moved from Customer & Support Services 2015-17
		1	9	Emergency Planning, Risk, & Security Coordinator	9	1	1	1	Moved from Customer & Support Services 2015-17
0	0	2		Total Staff		2	2	2	

Functions:

- S *Provide a safe working environment for District employees. Ensure compliance with State and Federally mandated health and safety laws and regulations.*
- S *Manage District's Worker Compensation Program*
- S *Handles District matters related to emergency planning, security, insurance and risk.*

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	0	0	0	WEEKEND DUTY		0	0	0	
						0	0	0	
0	0	0	0	OVERTIME		0	0	0	
									Both positions exempt
0	0	0	0	CALLBACK		0	0	0	
0	0	0	0	PART-TIME		0	0	0	

ADMINISTRATIVE SERVICES - CAPITAL OUTLAY

GL 01-10-01-8830

FY 2017-18

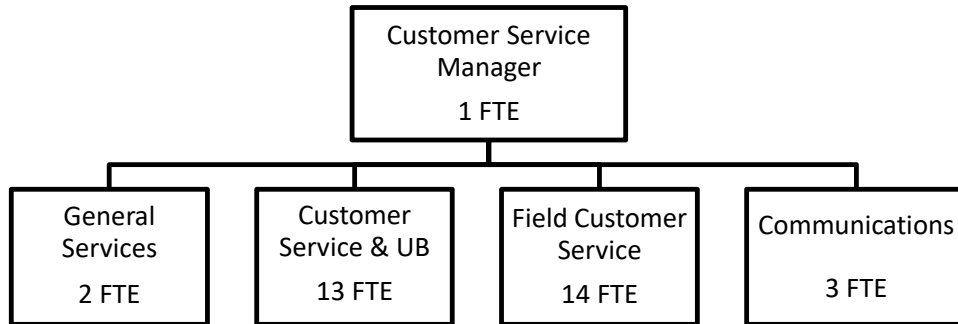
FY 2018-19

**Total Administrative Services
Capital Outlay Request**

\$	25,000	\$	-
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PROGRAM	CATEGORY OF PURCHASE	ITEM	QTY	DESCRIPTIONS AND RATIONALE	TOTAL AMT	EST. YEAR NEEDED
Risk	Equipment	CCTV Equipment Replacement	7	2017-19 Add Package. Replacement of the remaining analog surveillance equipment that is beyond end of life. Legacy analog PTZ (Pan/Tilt/Zoom) equipment will be replaced with digital fixed cameras, increasing coverage, image quality and reliability.	\$ 25,000	FY 2018

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 are the Conservation and the Key Customer Contact Programs. The CS/UB and FCS Divisions provide account maintenance for about 62,500 customer 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 Clean Water Services, City of Beaverton, and Valley View Water District.

The Communications Division leads the District's publications, external communications, social media outreach, and media relations.

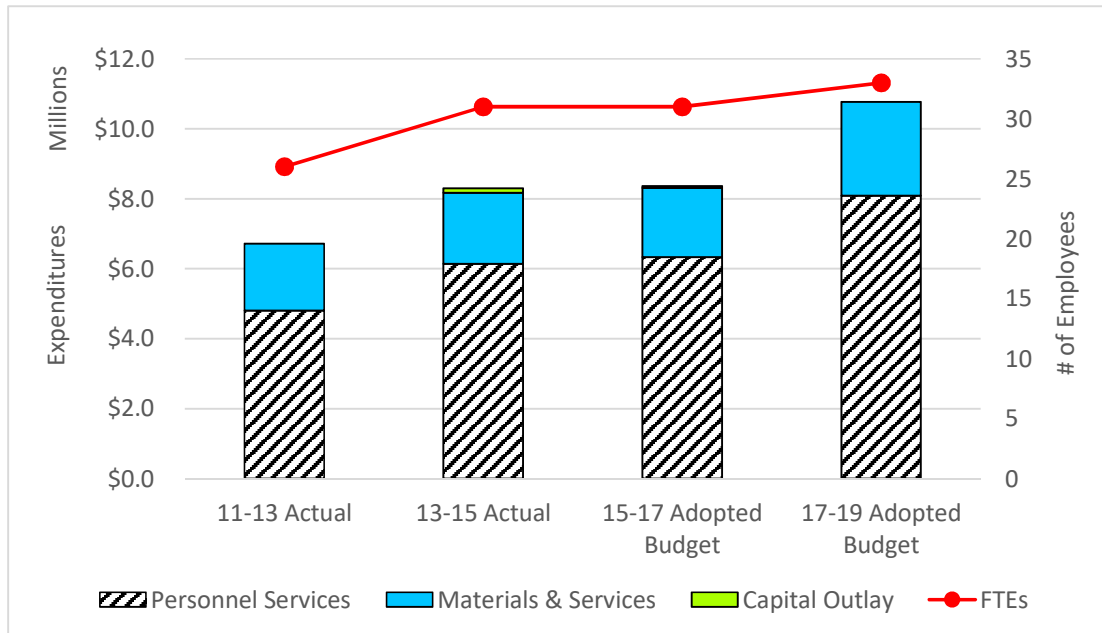
The Conservation Program staff administers the implementation of the District's water conservation programs that are consistent with regional and state requirements.

The focus of the Key Customer Contact Program is to maintain contact with key commercial, industrial and institutional customers and provide information in respect to the District's current operations, rate planning and long-term capital plans.

Major Budget Changes for 2017-19

- Develop and start implementation of Customer Information Strategy.
- Position request for one full-time Business Analyst to support CIS and other departmental projects
- Moved Communications Division from Administrative Services to Customer Service
- Implement strategic communications plan - including TVWD rebranding, updated website, expanded social media presence, and enhanced ratepayer outreach.
- Develop new Advanced Metering System (AMS) strategy

Customer Service 2017-19 Expenditures



Customer Service Performance Measures

	Actual 12-13	Actual 13-14	Actual 14-15	Actual 15-16	Actual 16-17	Target 17-18	Target 18-19
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)	2900	2700	2200	1900	1300	≥ 1200	≥ 1200

All-Department Measures

	Actual 12-13	Actual 13-14	Actual 14-15	Actual 15-16	Actual 16-17	Target 17-18	Target 18-19
% of employees actively participating in water industry related organizations	14	14%	17%	14%	17%	≥15%	≥15%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

CUSTOMER SERVICE DEPARTMENT

HISTORICAL DATA			PERSONNEL SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 0.0%
\$638,896	\$1,242,405	\$882,295	DIVISION TOTAL-GENERAL SERVICES	\$938,562	\$938,562	\$938,562	6.4%
\$1,840,604	\$2,163,521	\$2,342,153	DIVISION TOTAL-CUSTOMER SVCS & UTILITY BILLING	\$2,743,791	\$2,743,791	\$2,743,791	17.1%
\$2,325,335	\$2,730,565	\$3,109,181	DIVISION TOTAL-FIELD CUSTOMER SERVICE	\$3,500,644	\$3,500,644	\$3,500,644	12.6%
\$0	\$0	\$0	DIVISION TOTAL-COMMUNICATIONS	\$905,971	\$905,971	\$905,971	N/A
\$4,804,835	\$6,136,491	\$6,333,629	DEPARTMENT TOTALS	\$8,088,968	\$8,088,968	\$8,088,968	27.7%

HISTORICAL DATA			MATERIALS & SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 0.0%
\$150,350	\$770,601	\$490,467	DIVISION TOTAL-GENERAL SERVICES	\$551,810	\$551,810	\$551,810	12.5%
\$986,872	\$1,128,347	\$1,228,711	DIVISION TOTAL-CUSTOMER SVCS & UTILITY BILLING	\$1,519,193	\$1,519,193	\$1,519,193	23.6%
\$770,219	\$139,663	\$258,437	DIVISION TOTAL-FIELD CUSTOMER SERVICE	\$226,533	\$226,533	\$226,533	-12.3%
\$0	\$0	\$0	DIVISION TOTAL-COMMUNICATIONS	\$385,140	\$385,140	\$385,140	N/A
\$1,907,441	\$2,038,611	\$1,977,615	DEPARTMENT TOTALS	\$2,682,676	\$2,682,676	\$2,682,676	35.7%

HISTORICAL DATA			CAPITAL OUTLAY	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 0.0%
\$0	\$124,846	\$50,000	DIVISION TOTAL-GENERAL SERVICES	\$0	\$0	\$0	N/A
\$0	\$124,846	\$50,000	DEPARTMENT TOTALS	\$0	\$0	\$0	N/A

HISTORICAL DATA			TOTAL DEPARTMENT BUDGET	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 0.0%
\$789,246	\$2,137,852	\$1,422,762	DIVISION TOTAL-GENERAL SERVICES	\$1,490,372	\$1,490,372	\$1,490,372	4.8%
\$2,827,476	\$3,291,868	\$3,570,864	DIVISION TOTAL-CUSTOMER SVCS & UTILITY BILLING	\$4,262,984	\$4,262,984	\$4,262,984	19.4%
\$3,095,554	\$2,870,228	\$3,367,618	DIVISION TOTAL-FIELD CUSTOMER SERVICE	\$3,727,177	\$3,727,177	\$3,727,177	10.7%
\$0	\$0	\$0	DIVISION TOTAL-COMMUNICATIONS	\$1,291,111	\$1,291,111	\$1,291,111	0.0%
\$6,712,276	\$8,299,948	\$8,361,244	DEPARTMENT TOTALS	\$10,771,644	\$10,771,644	\$10,771,644	28.8%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

GENERAL SERVICES DIVISION (20-01)

HISTORICAL DATA			CUSTOMER SERVICE DEPARTMENT DIVISION SUMMARY MATERIALS & SERVICES GENERAL SERVICES DIVISION		BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 0.0%
\$7,979	\$10,086	\$0	PROFESSIONAL SERVICES	01-20-01-7310	\$130,000	\$130,000	\$130,000	0.0%
\$0	\$272,113	\$0	INSURANCE EXPENSE	01-20-01-7320	\$0	\$0	\$0	0.0%
\$0	\$7,055	\$0	SELF-INSURANCE	01-20-01-7325	\$0	\$0	\$0	0.0%
\$12,036	\$9,519	\$16,400	BUSINESS EXPENSE	01-20-01-7330	\$11,550	\$11,550	\$11,550	-29.6%
\$19,335	\$23,544	\$25,810	EMPLOYEE TRAINING & EDUCATION	01-20-01-7340	\$62,230	\$62,230	\$62,230	141.1%
\$2,757	\$12,244	\$5,612	DUES & SUBSCRIPTIONS	01-20-01-7350	\$6,080	\$6,080	\$6,080	8.3%
\$25,101	\$32,641	\$35,500	OTHER SUNDRY	01-20-01-7360	\$26,205	\$26,205	\$26,205	-26.2%
\$83,142	\$80,339	\$0	SAFETY EXPENSE & SUPPLIES	01-20-01-7420	\$0	\$0	\$0	0.0%
\$0	\$82,439	\$0	SECURITY	01-20-01-7455	\$0	\$0	\$0	0.0%
\$0	\$230,953	\$407,145	CONSERVATION	01-20-01-7785	\$315,745	\$315,745	\$315,745	-22.4%
\$0	\$9,668	\$0	MOBILE COMMUNICATIONS	01-20-01-7795	\$0	\$0	\$0	0.0%
\$150,350	\$770,601	\$490,467	DIVISION TOTALS		\$551,810	\$551,810	\$551,810	12.5%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

GENERAL SERVICES DIVISION - STAFF (20-01)

Senior manager: Customer Service Manager

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
1	1	1	12	Customer Service Manager	11	1	1	1	
0	1	1	7	Conservation Technician	7	1	1	1	
0	0	0		Business Analyst	7	1	1	1	
0	1	1	3	Conservation Assistant	3	0	0	0	
1	1	0	9	Safety Coordinator	9	0	0	0	
0	1	0	9	Emergency Planning, Risk, & Security Coordinator	9	0	0	0	
2	5	3		Total Staff		3	3	3	New Position for 2017-19 Position transferred to Customer Service & Billing

Functions:

- S Provide overall Department management
- S Manage district conservation programs.

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	0	0	0	WEEKEND DUTY		0	0	0	
15	32	21	54	OVERTIME		15	15	30	
15	0	0	0		9	0	0	0	
0	30	21	54		7	15	15	30	
0	2	0	0		3	0	0	0	
0	0	0	0	CALLBACK		0	0	0	
0	0	0	0	PART-TIME		0	0	0	

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

CUSTOMER SERVICE & UTILITY BILLING DIVISION (20-21)

HISTORICAL DATA			CUSTOMER SERVICE DEPARTMENT DIVISION SUMMARY MATERIALS & SERVICES		CUSTOMER SVC/UTILITY BILLING DIVISION			BUDGET FOR 2017-	% CHG
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	0	
\$442,505	\$458,836	\$502,958	POSTAGE EXPENSE	01-20-21-7600	\$499,332	\$499,332	\$499,332	-0.7%	
\$6,730	\$25,778	\$1,000	BILLING ADJUSTMENTS	01-20-21-7610	\$10,000	\$10,000	\$10,000	900.0%	
\$338,153	\$414,429	\$440,400	LEAK ADJUSTMENTS	01-20-21-7620	\$696,600	\$696,600	\$696,600	58.2%	
\$74,123	\$64,433	\$73,852	CASH REMITTANCE	01-20-21-7645	\$73,871	\$73,871	\$73,871	0.0%	
\$70	\$51	\$200	CASH SHORT/OVER	01-20-21-7650	\$200	\$200	\$200	0.0%	
\$125,132	\$164,820	\$210,301	BILL PRINTING & MAILING	01-20-21-7665	\$239,190	\$239,190	\$239,190	13.7%	
\$986,713	\$1,128,347	\$1,228,711	DIVISION TOTALS		\$1,519,193	\$1,519,193	\$1,519,193	23.6%	

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

CUSTOMER SERVICE & UTILITY BILLING DIVISION - STAFF (20-21)

Senior manager: Customer Service Manager

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
2	2	1	8	Customer Svc & Billing Supervisor	8	1	1	1	
		2	3	Customer Service Lead	5	2	2	2	
7	7	9	3	Customer Service Representative	3	10	10	10	One position transferred from General Services Division for 17-19 Budget
3	3	0	3	Billing Specialist	3	0	0	0	
12	12	12		Total Staff		13	13	13	

Functions:

- S Customer payment processing.
- S Customer account activity, i.e. Move-Ins and Move-Outs.
- S Visitor reception and telephone call routing.
- S Customer inquiries and issues requiring field customer service dispatch.
- S Utility billing.
- S Processing of customer mail and online account services.
- S Investigation of new technology in response to customer demand for increased payment options and customer expectations

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	0	0	0	WEEKEND DUTY		0	0	0	
201	156	350	160	OVERTIME		125	125	250	To be reevaluated prior to CIS Project
49	0	0	0		8	0	0	0	
0	0	0	0		5	25	25	50	
152	156	350	160		3	100	100	200	
0	0	0	0	CALLBACK		0	0	0	
0	0	0	0		3	0	0	0	
0	24	488	0	PART-TIME		300	300	600	
0	24	488	0		3	300	300	600	To be reevaluated prior to CIS Project

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

FIELD CUSTOMER SERVICE DIVISION(20-22)

HISTORICAL DATA			CUSTOMER SERVICE DEPARTMENT DIVISION SUMMARY MATERIALS & SERVICES		BUDGET FOR 2017-19			
FIELD CUSTOMER SERVICE DIVISION								
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 0.0%
\$764,758	\$139,663	\$258,437	METER MAINTENANCE	01-20-22-7660	\$220,333	\$220,333	\$220,333	-14.7%
\$0	\$0	\$0	SMALL TOOLS AND SUPPLIES	01-20-22-7790	\$6,200	\$6,200	\$6,200	0.0%
\$764,758	\$139,663	\$258,437	DIVISION TOTALS		\$226,533	\$226,533	\$226,533	-12.3%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

FIELD CUSTOMER SERVICE DIVISION - STAFF (20-22)

Senior manager: Customer Service Manager

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
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	
4	6	6	4	Meter Reader	4	6	6	6	
12	14	14		Total Staff		14	14	14	

Functions:

- S Reading and maintenance of meters. Installing meters in pre-set services.
- S Turning on and turning off of accounts.
- S Investigating customer requests and assisting customers with leaks and other needs
- S Installation and implementation of Automated Meter Reading devices.

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
233	126	43	246	WEEKEND DUTY		91	91	182	
25	0	12	24		9	7	7	14	
57	63	25	70		8	7	7	14	
52	30	6	50		7	14	14	28	
99	33	0	90		6	56	56	112	
0	0	0	12		4	7	7	14	
168	170	113	250	OVERTIME		145	145	290	
3	11	9	30		9	10	10	20	
52	34	26	50		8	15	15	30	
13	22	25	30		7	15	15	30	
82	81	6	100		6	75	75	150	
18	23	47	40		4	30	30	60	
255	296	146	390	CALLBACK		160	160	320	
			30	Valley View	6				
22	15	19	30	TVWD	9	15	15	30	
84	90	61	110	TVWD	8	15	15	30	
54	93	53	100	TVWD	7	40	40	80	
95	86	4	100	TVWD	6	80	80	160	
0	13	9	20	TVWD	4	10	10	20	
320	382	454	0	PART-TIME		0	0	0	
320	382	454	0		3				

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

COMMUNICATIONS DIVISION (20-24)

HISTORICAL DATA			CUSTOMER SERVICE DEPARTMENT DIVISION SUMMARY MATERIALS & SERVICES		BUDGET FOR 2017-			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	COMMUNICATIONS DIVISION DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 0
\$0	\$0	\$0	PROFESSIONAL SERVICES	01-20-24-7310	\$217,240	\$217,240	\$217,240	N/A
\$0	\$2,020	\$157,890	PUBLIC INFORMATION	01-20-24-7450	\$167,900	\$167,900	\$167,900	6.3%
\$0	\$2,020	\$157,890	DIVISION TOTALS		\$385,140	\$385,140	\$385,140	143.9%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

COMMUNICATIONS DIVISION - STAFF (20-24)

Senior manager: Customer Service Manager

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	0	0	9	Communications & Public Affairs Supervisor	9	1	1	1	Moved from CEO Gen. Services in 2017-19
0	0	0	7	Community & Youth Ed Coordinator	7	1	1	1	Moved from CEO Gen. Services in 2017-19
0	0	0	5	Outreach & Engagement Coordinator	5	1	1	1	Moved from CEO Gen. Services in 2017-19
0	0	0		Total Staff		3	3	3	

Functions:

- S Prepare District publications, utility bill inserts, internal and external communications
- S Coordinate community/stakeholder outreach and events
- S Manage District website and social media outreach
- S Coordinate media relations
- S Participate in water utility-related industry activities

Personnel Services Hours:

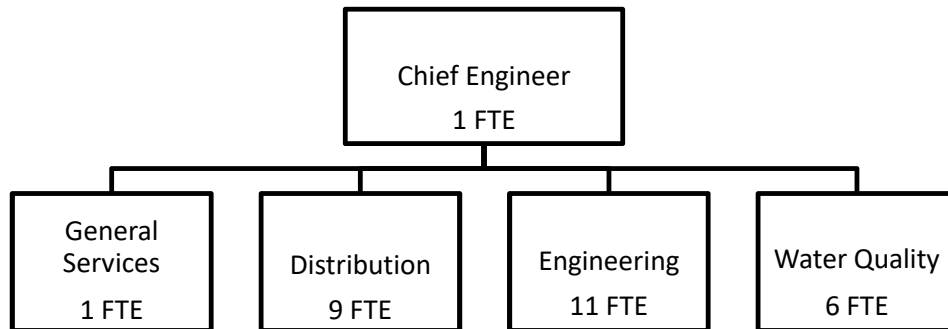
Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	0	0	0	WEEKEND DUTY		0	0	0	
						0	0	0	
32	57	0	0	OVERTIME		0	40	40	
32	24	0	0		7	20	20	40	
0	33	0	0		5	20	20	40	
0	0	0	0	CALLBACK		0	0	0	
0	0	0	0	PART-TIME		0	0	0	

TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET



Engineering Services Department



The Engineering Services Department includes responsibilities for development and implementation of the Capital Improvement Plan (CIP); implementation of the District's water supply improvements required within the District's boundary (external water supply improvements are managed through the Willamette Water Supply Program); development services for water system expansion; maintenance of water system mapping and facilities records; water quality protection; and distribution system operation. Engineering staff provides planning, design and management of water system improvements and capitalized maintenance projects to meet water demands and upgrade system assets. Development services provided by Engineering include system planning, water service/meter sales, fire flow testing, review proposed development work for conformance with water district standards, and project inspection of system expansion projects.

Engineering technicians are also responsible for maintenance of water system maps and facility records such as as-built drawings to help provide reliable access to accurate information about water system assets. The Department is also the home of the District's Water Quality Program, which includes regulatory compliance monitoring and reporting, as well as backflow prevention. The Distribution Division performs day-to-day operation and maintenance of the water distribution system, provides locating services for the District's underground assets, and coordinates water purchases from the Portland Water Bureau and Joint Water Commission.

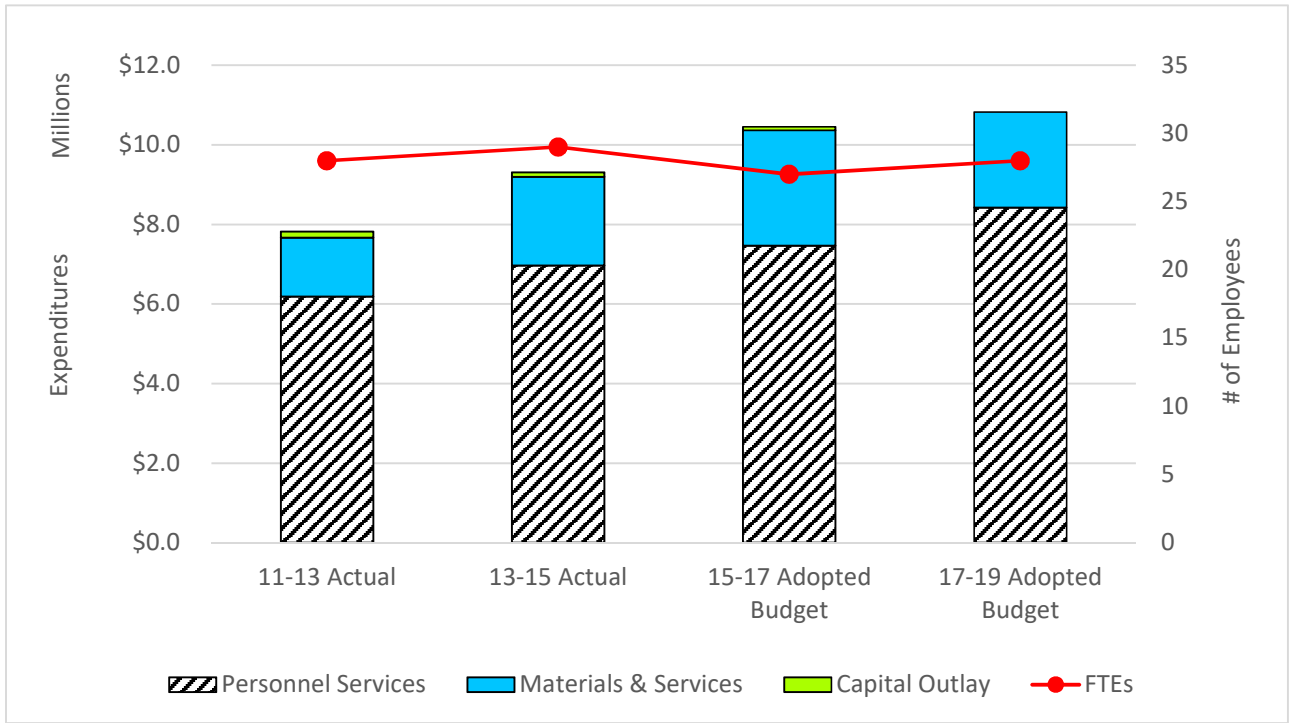
Major Budget Changes and Objectives for 2017-19

- Continue District's asset management strategy - monitor asset conditions, and prioritize improvements and replacement projects.
- Continue resiliency policy development and program - develop strategies for meeting service levels, strengthen relationships with key agencies and promote preparedness.
- Reorganize the Water Quality Division and expand lead and copper monitoring.

The Adopted 2017-19 Budget and Capital Improvement Plan reflects several key projects including:

- Participation in key JWC treatment plant projects including seismic improvements and a 10 million gallon per day (MGD) expansion; the District will own 2 MGD of additional capacity.
- Continued implementation of the Mains Replacement Program to replace aging pipelines in poor condition to be integrated into a District-wide Asset Management Program.
- Installation of various pipelines projects constructed in coordination with public transportation projects and private developers.
- Design and construction of the 5 MG Grabhorn Reservoir replacement which is being implemented as a progressive design-build project.
- Construction of fire flow pipeline improvements identified in the 2015 Water Master Plan, including nearly two-miles of 18-inch pipeline serving the District's Metzger service area.
- Design and construction of the pump station improvements at Cooper Mountain and Catlin Crest/Viewmont to improve overall system reliability and resiliency.

**Engineering Services
2017-19 Expenditures**



Engineering Performance Measures

	Actual 12-13	Actual 13-14	Actual 14-15	Actual 15-16	Actual 16-17	Target 17-18	Target 18-19
Gallons per capita per day demand	89.1	91.2	92.5	101.7	96.0	≤ 100	≤ 100
# of violations of National Primary Drinking Water Regulations	0	0	0	0	0	0	0

All-Department Measures

% of employees actively participating in water industry related organizations	14%	14%	17%	16%	15%	≥15%	≥15%
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TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET

ENGINEERING SERVICES DEPARTMENT

HISTORICAL DATA			PERSONNEL SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$577,667	\$476,346	\$580,142	DIVISION TOTAL - GENERAL SERVICES	\$721,585	\$721,585	\$721,585	24.4%
\$2,087,221	\$2,355,794	\$2,621,223	DIVISION TOTAL-DISTRIBUTION	\$2,887,604	\$2,887,604	\$2,887,604	10.2%
\$2,429,183	\$2,989,124	\$3,055,517	DIVISION TOTAL-ENGINEERING	\$3,313,141	\$3,313,141	\$3,313,141	8.4%
\$1,088,733	\$1,142,773	\$1,211,777	DIVISION TOTAL-WATER QUALITY	\$1,497,455	\$1,497,455	\$1,497,455	23.6%
\$6,182,804	\$6,964,037	\$7,468,659	DEPARTMENT TOTALS	\$8,419,785	\$8,419,785	\$8,419,785	12.7%

HISTORICAL DATA			MATERIALS & SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$526,211	\$1,120,609	\$846,435	DIVISION TOTAL - GENERAL SERVICES	\$853,935	\$853,935	\$853,935	0.9%
\$515,112	\$479,249	\$1,270,100	DIVISION TOTAL-DISTRIBUTION	\$674,240	\$674,240	\$674,240	-46.9%
\$14,401	\$13,514	\$9,600	DIVISION TOTAL-ENGINEERING	\$27,500	\$27,500	\$27,500	186.5%
\$425,609	\$614,388	\$765,119	DIVISION TOTAL-WATER QUALITY	\$843,725	\$843,725	\$843,725	10.3%
\$1,481,333	\$2,227,760	\$2,891,254	DEPARTMENT TOTALS	\$2,399,400	\$2,399,400	\$2,399,400	-17.0%

HISTORICAL DATA			CAPITAL OUTLAY	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$154,290	\$111,367	\$91,000	DIVISION TOTAL - GENERAL SERVICES	\$0	\$0	\$0	-100.0%
\$154,290	\$111,367	\$91,000	DEPARTMENT TOTALS	\$0	\$0	\$0	-100.0%

HISTORICAL DATA			TOTAL DEPARTMENT BUDGET	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$1,258,168	\$1,708,322	\$1,517,577	DIVISION TOTAL - GENERAL SERVICES	\$1,575,520	\$1,575,520	\$1,575,520	N/A
\$2,602,334	\$2,835,043	\$3,891,323	DIVISION TOTAL-DISTRIBUTION	\$3,561,844	\$3,561,844	\$3,561,844	-8.5%
\$2,443,584	\$3,002,638	\$3,065,117	DIVISION TOTAL-ENGINEERING	\$3,340,641	\$3,340,641	\$3,340,641	9.0%
\$1,514,342	\$1,757,161	\$1,976,896	DIVISION TOTAL-WATER QUALITY	\$2,341,180	\$2,341,180	\$2,341,180	18.4%
\$7,818,428	\$9,303,164	\$10,450,913	DEPARTMENT TOTALS	\$10,819,185	\$10,819,185	\$10,819,185	3.5%

GENERAL SERVICES DIVISION (30-01)

HISTORICAL DATA			ENGINEERING DEPARTMENT DIVISION SUMMARY MATERIALS & SERVICES GENERAL SERVICES DIVISION		BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$440,471	\$1,038,426	\$745,000	PROFESSIONAL SERVICES	01-30-01-7310	\$772,000	\$772,000	\$772,000	3.6%
\$17,313	\$14,778	\$15,960	BUSINESS EXPENSE	01-30-01-7330	\$3,000	\$3,000	\$3,000	-81.2%
\$51,117	\$50,400	\$66,145	EMPLOYEE TRAINING & ED	01-30-01-7340	\$59,485	\$59,485	\$59,485	-10.1%
\$17,311	\$17,004	\$19,330	DUES & SUBSCRIPTIONS	01-30-01-7350	\$19,450	\$19,450	\$19,450	0.6%
\$526,211	\$1,120,608	\$846,435	DIVISION TOTALS		\$853,935	\$853,935	\$853,935	0.9%

TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET
GENERAL SERVICES DIVISION - STAFF (30-01)

Senior manager: Chief Engineer

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
1	1	1	13	Chief Engineer	13	1	1	1	
1	1	1	3	Administrative Assistant	3	1	1	1	
2	2	2		Total Staff		2	2	2	

Functions:

- S Overall management and administrative support for the department
- S Overall management of the Capital Improvement Plan
- S Overall management of water system developments
- S Development services including new meter sales and plan review coordination and tracking
- S Hydrant permit administration
- S Illegal water use enforcement administration

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	0	0	0	WEEKEND DUTY		0	0	0	
0	0	0	0			0	0	0	
66	36	29	80	OVERTIME		20	20	40	
66	36	29	80		3	20	20	40	
0	0	0	0	CALLBACK		0	0	0	
0	0	0	0			0	0	0	
0	473	431	0	PART-TIME		0	0	0	
0	473	431	0			0	0	0	

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

DISTRIBUTION DIVISION (30-31)

HISTORICAL DATA			ENGINEERING DEPARTMENT DIVISION SUMMARY MATERIALS & SERVICES		BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DISTRIBUTION DIVISION DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$0	\$0	\$44,000	UTILITIES	01-30-31-7560	\$46,700	\$46,700	\$46,700	6.1%
\$41,215	\$56,408	\$54,000	LOCATES	01-30-31-7678	\$48,000	\$48,000	\$48,000	-11.1%
\$103,555	\$91,719	\$288,600	PUMP STATION MAINTENANCE	01-30-31-7690	\$112,200	\$112,200	\$112,200	-61.1%
\$39,054	\$46,420	\$204,500	RESERVOIR MAINTENANCE	01-30-31-7700	\$27,000	\$27,000	\$27,000	-86.8%
\$48,395	\$18,913	\$299,000	AUTOMATIC VALVES MAINT	01-30-31-7715	\$44,500	\$44,500	\$44,500	-85.1%
\$123,888	\$106,231	\$175,500	SCADA EXPENSE	01-30-31-7720	\$157,840	\$157,840	\$157,840	-10.1%
\$135,295	\$155,112	\$187,000	FLUORIDE & CHLORINE	01-30-31-7730	\$228,000	\$228,000	\$228,000	21.9%
\$22,178	\$3,641	\$10,000	CATHODIC PROTECTION	01-30-31-7735	\$2,000	\$2,000	\$2,000	-80.0%
\$1,531	\$805	\$7,500	SMALL TOOLS & SUPPLIES	01-30-31-7790	\$8,000	\$8,000	\$8,000	6.7%
\$515,112	\$479,249	\$1,270,100	DIVISION TOTALS		\$674,240	\$674,240	\$674,240	-46.9%

TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET
DISTRIBUTION DIVISION - STAFF (30-31)

Senior manager: Chief Engineer

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
1	1	1	9	Distribution Crew Supervisor	9	1	1	1	
7	7	7	6	Water Works Operators (Distribution)	6	7	7	7	
1	1	1	8	SCADA Technician	8	1	1	1	
9	9	9		Total Staff		9	9	9	

Functions:

- S *Effectively control and monitor the storage and distribution of water throughout the District. This includes the operation, monitoring, and maintenance of pumps, reservoirs, wells, valves, generators, additive injection systems, and the associated telemetry and control systems.*
- S *Collect and analyze flow and pressure data in the water system.*
- S *Perform locates to protect the system from excavation activity.*
- S *Monitor cathodic protection stations to evaluate potential system deterioration from electrolysis.*
- S *Maintain fire and intrusion alarm systems.*
- S *Manage preventive maintenance program for District facilities.*

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
1567	1361	1144	1512	WEEKEND DUTY		780	780	1560	
252	165	204	264		9	115	115	230	
27	36	30	80		8	40	40	80	
1288	1160	910	1168		6	625	625	1250	
214	246	138	296	OVERTIME		60	60	120	
7	14	5	40		9	10	10	20	
138	101	70	96		8	10	10	20	
69	131	63	160		6	40	40	80	
973	913	953	1080	CALLBACK		675	675	1350	
100	44	69	80		9	50	50	100	
39	61	73	100		8	40	40	80	
834	809	812	900		6	585	585	1170	
990	498	0	520	PART-TIME		0	0	0	
990	498	0	520		3	0	0	0	

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

ENGINEERING DIVISION (30-32)

HISTORICAL DATA			ENGINEERING DEPARTMENT DIVISION SUMMARY MATERIALS & SERVICES		BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	ENGINEERING DIVISION DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$14,401	\$13,514	\$9,600	ENGINEERING SUPPLIES	01-30-32-7740	\$27,500	\$27,500	\$27,500	186.5%
\$14,401	\$13,514	\$9,600	DIVISION TOTALS		\$27,500	\$27,500	\$27,500	186.5%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

ENGINEERING DIVISION - STAFF (30-32)

Senior manager: Chief Engineer

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
1	1	0	11	Principal Engineer	11	0	0	0	Moved to Water Supply Program 2015-17
2	1	1	10	Senior Engineer	10	1	1	1	
1	1	1	9	Project Engineer	9	1	1	1	
1	3	3	8	Engineer Associate	8	3	3	3	
1	1	1	8	GIS Analyst	8	1	1	1	
2	2	2	8	Construction Inspector	8	2	2	2	
3	2	2	7	Engineering Technician II	7	2	2	2	
0	1	1	5	GIS Technician	5	1	1	1	
11	12	11		Total Staff		11	11	11	

Functions:

- S Determine construction needs. Develop and monitor six-year capital improvement plan.
- S Design construction projects and set bidding specifications. Control contracted construction projects.
- S Provide engineering support to field crews.
- S Determine and monitor compliance with system specifications. Determine water availability.
- S Guide planning for source and development.
- S Review developer and construction projects. Prepare and monitor annexation requests and extra territorial line extension requests.
- S Process service applications and estimate construction costs.
- S Develop and manage Geographic Information System (GIS).

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
112	39	9	48	WEEKEND DUTY		28	28	56	
12	0	0	0		9	0	0	0	
100	27	9	48		8	28	28	56	
0	0	0	0		7	0	0	0	
0	12	0	0		5	0	0	0	
465	296	104	252	OVERTIME		106	106	212	
87	0	0	0		10	0	0	0	
238	34	0	0		9	0	0	0	
113	221	90	180		8	90	90	180	
27	31	1	40		7	0	0	0	
0	9	12	32		5	16	16	32	
142	105	24	96	CALLBACK		44	44	88	
0	0	0	0		10			0	
20	0	0	0		9			0	
122	44	24	72		8	36	36	72	
0	0	0	0		7			0	
0	60	0	24		5	8	8	16	
2941	2324	2180	4160	PART-TIME		2080	2080	4160	
2941	1652	1889	3120	Engineering Intern	3	1560	1560	3120	Includes 2 P/T engr interns - 1@3 mo/yr & 1@6 mo/yr
0	672	291	1040	GIS Intern	3	520	520	1040	Includes 1 P/T GIS intern @ 3 mo/yr

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

WATER QUALITY DIVISION (30-33)

HISTORICAL DATA			ENGINEERING DEPARTMENT PROGRAM SUMMARY MATERIALS & SERVICES WATER QUALITY DIVISION		BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$382,787	\$553,599	\$144,310	WATER QUALITY PROFESSIONAL SVCS	01-30-33-7310	\$145,500	\$145,500	\$145,500	0.8%
\$42,822	\$60,790	\$109,049	WATER QUALITY SUPPLIES & EXP	01-30-33-7430	\$98,605	\$98,605	\$98,605	-9.6%
\$0	\$0	\$511,760	BACKFLOW CONTRACT TESTING	01-30-33-7435	\$599,620	\$599,620	\$599,620	17.2%
\$425,609	\$614,389	\$765,119	DIVISION TOTALS		\$843,725	\$843,725	\$843,725	10.3%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

WATER QUALITY - DIVISION (30-33)

Senior manager: Chief Engineer

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
1	1	0	10	Water Quality Supervisor	9	1	1	1	
1	1	1	7	Sr Water Quality Specialist	7	1	1	1	
1	1	1	6	Water Quality Specialist	5	1	1	1	
1	1	1	8	Sr Water Quality Inspector	7	1	1	1	
1	1	1	4	Water Quality Inspector	5	1	1	1	
1	1	1	3	Water Quality Admin Assistant	3	1	1	1	
6	6	5		Total Staff		6	6	6	

Functions:

- S Ensure high quality water - comply with state and federal water quality rules and regulations.
- S Anticipate and plan for new & future regulations; review proposed rules and regulations.
- S Calibrate and maintain on-line, continuous water quality analyzers and interpret results.
- S Collect and analyze water samples from distribution system.
- S Respond to water quality complaints from customers; collect and analyze samples from customers.
- S Administer backflow program; provide routine notices and enforce program as needed.

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
193	91	63	126	WEEKEND DUTY		0	0	0	
69	91	63	0	WQ	9	0	0	0	
55	0	0	54	WQ	7	0	0	0	
69	0	0	54	WQ	5	0	0	0	
0	0	0	18	WQ	4	0	0	0	
42	39	21	80	OVERTIME		20	20	40	
1	17	11	0	WQ	9	0	0	0	
13	18	0	16	Cross Connection	8	0	0	0	
3	0	0	16	WQ	7	20	20	40	
0	0	0	16	WQ	6	0	0	0	
23	0	0	16	WQ	4	0	0	0	
2	4	10	16	WQ	3	0	0	0	
117	138	60	230	CALLBACK		20	20	40	
0	138	60	0	WQ	9	0	0	0	
51	0	0	90	WQ	7	20	20	40	
66	0	0	100	WQ	6	0	0	0	
0	0	0	40	WQ	4	0	0	0	
0	53	459	520	PART-TIME		0	0	0	
0	53	459	520	WQ Intern	3	0	0	0	

TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET

ENGINEERING - CAPITAL OUTLAY

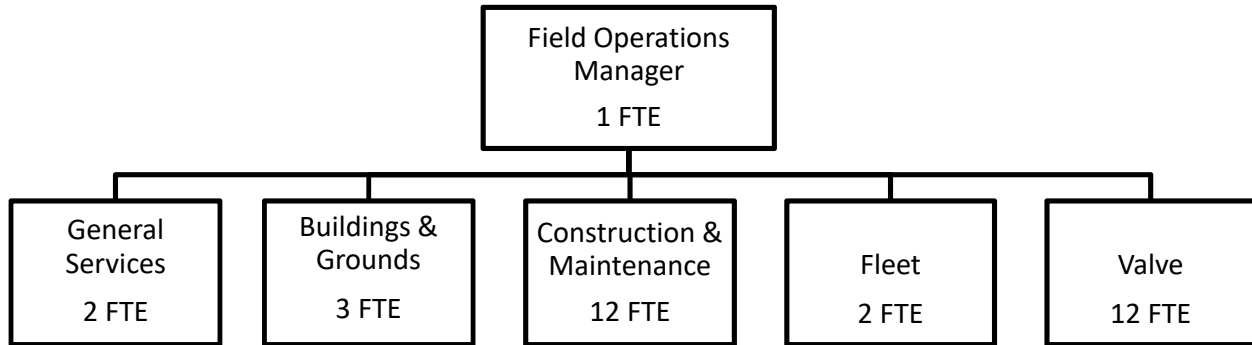
	17-18	18-19	17-19
Total 2017-19 Engineering Services Capital Outlay	\$ -	\$ -	\$ -

DIVISION OR PROGRAM	CAPITAL OUTLAY GL CODE 88XX	ITEM	QTY	DESCRIPTIONS AND RATIONALE	TOTAL AMT	EST. MONTH NEEDED	EST. YEAR NEEDED
Distribution	01-30-01-8832	Upgrade Master Station software to Archestra as recommended in the 2010 SCADA study by Westin.	1	Moved to Fund 11 CIP			

TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET



Field Operations Department

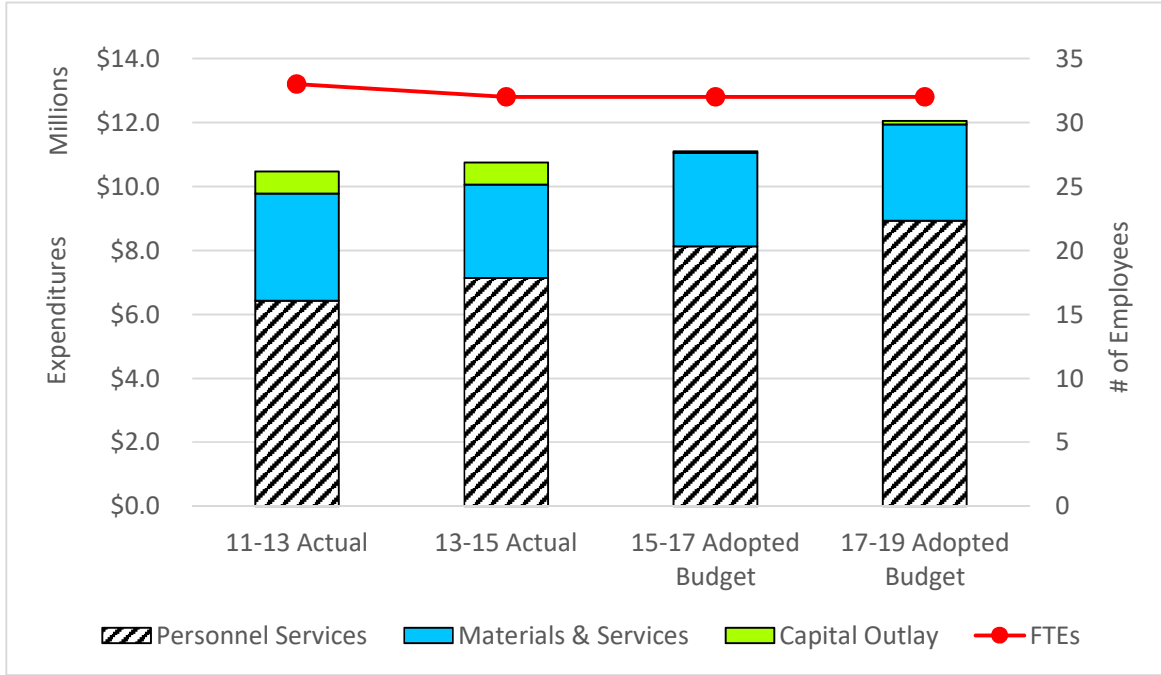


Field Operations conducts the following activities: mainline & service installation, repair and maintenance; mainline valve, hydrant, air-relief-valve, and other distribution system appurtenance maintenance; mainline flushing; field mapping and asset documentation; repair and maintenance of the District buildings and grounds; fleet procurement and maintenance; mobile communications; and overall management of programs and projects in support of these functions.

Major Budget Changes for 2017-19

- Mobile Communications has been consolidated from Information Technology and Risk Management into the Field Operations Department to obtain the efficiencies of these services being coordinated by one District department.
- The Building and Grounds Materials & Services budget increases reflect the expansion of District facilities and recently acquired properties requiring maintenance and minor improvements.
- Budgeted Fleet materials & services costs are reduced due to lower projected costs for fuel, and lower operating/maintenance costs due the replacement of the meter reading fleet with new fully electric vehicles.
- It is anticipated strong growth in new service installations will continue during 2017-19, particularly in the North Bethany Area.

Field Operations Department 2017-19 Expenditures



Field Operations Performance Measures

	Actual 12-13	Actual 13-14	Actual 14-15	Actual 15-16	Actual 16-17	Target 17-18	Target 18-19
Number of unscheduled maintenance events	52	42	45	54	50	≤60	≤60
% of unplanned outages responded to within 4 hours	100%	92%	100%	96%	100%	100%	100%

All-Department Performance Measures

	Actual 12-13	Actual 13-14	Actual 14-15	Actual 15-16	Actual 16-17	Target 17-18	Target 18-19
% of employees actively participating in water industry related organizations	14%	14%	17%	16%	15%	≥15%	≥15%

TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET

FIELD OPERATIONS DEPARTMENT

HISTORICAL DATA			PERSONNEL SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$890,985	\$804,720	\$860,028	DIVISION TOTAL-GENERAL SERVICES	\$910,477	\$910,477	\$910,477	5.9%
\$574,169	\$622,802	\$742,029	DIVISION TOTAL - BUILDING & GROUNDS	\$825,706	\$825,706	\$825,706	11.3%
\$2,574,965	\$2,632,922	\$2,978,114	DIVISION TOTAL-CONSTRUCTION & MAINTENANCE	\$3,276,322	\$3,276,322	\$3,276,322	10.0%
\$462,017	\$424,107	\$524,415	DIVISION TOTAL - FLEET	\$594,426	\$594,426	\$594,426	13.4%
\$1,925,414	\$2,657,126	\$3,024,072	DIVISION TOTAL-VALVE CREW	\$3,321,180	\$3,321,180	\$3,321,180	9.8%
\$6,427,551	\$7,141,677	\$8,128,658	DEPARTMENT TOTALS	\$8,928,111	\$8,928,111	\$8,928,111	9.8%

HISTORICAL DATA			MATERIALS & SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$1,019,762	\$448,536	\$234,100	DIVISION TOTAL-GENERAL SERVICES	\$390,685	\$390,685	\$390,685	66.9%
\$598,659	\$706,794	\$823,300	DIVISION TOTAL - BUILDING & GROUNDS	\$987,900	\$987,900	\$987,900	20.0%
\$713,386	\$781,121	\$768,500	DIVISION TOTAL-CONSTRUCTION & MAINTENANCE	\$657,000	\$657,000	\$657,000	-14.5%
\$857,561	\$796,950	\$906,500	DIVISION TOTAL - FLEET	\$774,950	\$774,950	\$774,950	-14.5%
\$162,223	\$188,247	\$195,200	DIVISION TOTAL-VALVE CREW	\$204,900	\$204,900	\$204,900	5.0%
\$3,351,591	\$2,921,648	\$2,927,600	DEPARTMENT TOTALS	\$3,015,435	\$3,015,435	\$3,015,435	3.0%

HISTORICAL DATA			CAPITAL OUTLAY	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$693,795	\$685,691	\$45,100	DIVISION TOTAL-GENERAL SERVICES	\$113,800	\$113,800	\$113,800	152.3%
\$693,795	\$685,691	\$45,100	DEPARTMENT TOTALS	\$113,800	\$113,800	\$113,800	152.3%

HISTORICAL DATA			TOTAL OPERATING BUDGET	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$2,604,542	\$1,938,947	\$1,139,228	DIVISION TOTAL-GENERAL SERVICES	\$1,414,962	\$1,414,962	\$1,414,962	24.2%
\$1,172,828	\$1,329,596	\$1,565,329	DIVISION TOTAL - BUILDING & GROUNDS	\$1,813,606	\$1,813,606	\$1,813,606	15.9%
\$3,288,352	\$3,414,043	\$3,746,614	DIVISION TOTAL-CONSTRUCTION/MAINTENANCE	\$3,933,322	\$3,933,322	\$3,933,322	5.0%
\$1,319,578	\$1,221,057	\$1,430,915	DIVISION TOTAL - FLEET	\$1,369,376	\$1,369,376	\$1,369,376	-4.3%
\$2,087,638	\$2,845,373	\$3,219,272	DIVISION TOTAL-VALVE CREW	\$3,526,080	\$3,526,080	\$3,526,080	9.5%
\$10,472,936	\$10,749,016	\$11,101,358	DEPARTMENT TOTALS	\$12,057,346	\$12,057,346	\$12,057,346	8.6%

TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET

GENERAL SERVICES DIVISION (40-01)

HISTORICAL DATA			FIELD OPERATIONS DEPARTMENT DIVISION SUMMARY MATERIALS & SERVICES GENERAL SERVICES DIVISION		BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$308,407	\$93,884	\$0	PROFESSIONAL SERVICES	01-40-01-7310	\$7,500	\$7,500	\$7,500	N/A
\$360,077	\$86,902	\$0	INSURANCE EXPENSE	01-40-01-7320	\$0	\$0	\$0	N/A
\$16,278	\$4,806	\$0	SELF INSURANCE	01-40-01-7325	\$0	\$0	\$0	N/A
\$4,044	\$3,230	\$4,000	BUSINESS EXPENSE	01-40-01-7330	\$6,000	\$6,000	\$6,000	50.0%
\$30,501	\$43,244	\$51,030	EMPLOYEE TRAINING & ED	01-40-01-7340	\$47,050	\$47,050	\$47,050	-7.8%
\$8,912	\$6,268	\$11,170	DUES & SUBSCRIPTIONS	01-40-01-7350	\$13,455	\$13,455	\$13,455	20.5%
\$52,597	\$65,480	\$63,000	OTHER SUNDRY	01-40-01-7360	\$64,550	\$64,550	\$64,550	2.5%
\$86,455	\$26,955	\$0	SECURITY & EMERGENCY PLANNING	01-40-01-7455	\$0	\$0	\$0	N/A
\$0	\$0	\$0	COMMUNICATION SERVICES	01-40-01-7590	\$123,800	\$123,800	\$123,800	N/A
\$0	\$0	\$0	COMMUNICATION HARDWARE	01-40-01-7591	\$16,000	\$16,000	\$16,000	N/A
\$125,214	\$105,753	\$104,900	SMALL TOOLS & SHOP SUPPLIES	01-40-01-7790	\$112,330	\$112,330	\$112,330	7.1%
\$27,278	\$12,014	\$0	DISPATCH	01-40-01-7795	\$0	\$0	\$0	N/A
\$1,019,762	\$448,536	\$234,100	DIVISION TOTALS		\$390,685	\$390,685	\$390,685	66.9%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

GENERAL SERVICES - STAFF (40-01)

Senior manager: Field Operations Manager

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
1	1	1	12	Manager of Field Operations	12	1	1	1	
1	1	1	7	Field Operations Analyst	7	1	1	1	
1	1	1	3	Field Operations Clerical Support	3	1	1	1	
1	0	0	9	Emergency Planning, Risk & Security Coordinator	9	0	0	0	
4	3	3		Total Staff		3	3	3	

Functions:

- S *Manage preventive maintenance and force construction program for District facilities.*
- S *Program administration & analysis*

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	0	0	0	WEEKEND DUTY		0	0	0	
99	29	4	56	OVERTIME		17	17	34	
30	0	0	0		9	0	0	0	
69	29	4	56		3	17	17	34	
5	1	0	0	CALLBACK		5	5	10	
3	0	0	0		9	0	0	0	
2	1	0	0		3	5	5	10	
0	0	0	0	PART-TIME		0	0	0	
0	0	0	0			0	0	0	

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

BUILDING & GROUNDS (40-41)

HISTORICAL DATA			FIELD OPERATIONS DEPARTMENT DIVISION SUMMARY MATERIALS & SERVICES		BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	BUILDING & GROUNDS DIVISION DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$0	\$0	\$0	PROPERTY MAINTENANCE	01-40-41-7400	\$99,200	\$99,200	\$99,200	N/A
\$382,465	\$464,548	\$565,300	BUILDING & GROUNDS MAINTENANCE	01-40-41-7405	\$626,600	\$626,600	\$626,600	10.8%
\$216,194	\$242,246	\$258,000	UTILITIES	01-40-41-7560	\$262,100	\$262,100	\$262,100	1.6%
\$598,659	\$706,794	\$823,300	DIVISION TOTALS		\$987,900	\$987,900	\$987,900	20.0%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

BUILDING & GROUNDS - STAFF (40-41)

Senior manager: Field Operations Manager

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
1	1	1	9	Building & Grounds Maint. Supervisor	9	1	1	1	
2	2	2	5	Building & Grounds Maintenance II	5	2	2	2	
3	3	3		Total Staff		3	3	3	

Functions:

- S *Building and grounds maintenance for the District's two dozen properties. Includes responsibility for repair & maintenance, custodial services, landscape maintenance, and building related utilities.*
- S *Project management on building and landscape related improvement projects*
- S *Support restoration of customer landscapes damaged by District activities*
- S *Managing building energy utilization.*

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	24	84	33	WEEKEND DUTY		24	24	48	
0	24	84	33		5	24	24	48	
277	172	145	216	OVERTIME		113	113	226	
154	80	76	128		9	64	64	128	
123	84	69	88		5	44	44	88	
0	8	0	0		4	5	5	10	
9	41	139	40	CALLBACK		20	20	40	
8	11	5	20		9	10	10	20	
1	30	134	20		5	10	10	20	
3455	1983	3103	4480	PART-TIME		2800	2800	5600	
3455	1983	3103	4480		3	2800	2800	5600	Five Seasonal Help, 3.5 months.

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

CONSTRUCTION/MAINTENANCE DIVISION (40-42)

HISTORICAL DATA			FIELD OPERATIONS DEPARTMENT DIVISION SUMMARY MATERIALS & SERVICES		BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	CONSTRUCTION/MAINTENANCE DIVISION DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$713,386	\$781,121	\$768,500	GENERAL SYSTEM MAINTENANCE	01-40-42-7670	\$657,000	\$657,000	\$657,000	-14.5%
\$713,386	\$781,121	\$768,500	DIVISION TOTALS		\$657,000	\$657,000	\$657,000	-14.5%

TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET
CONSTRUCTION/MAINTENANCE DIVISION- STAFF (40-42)

Senior manager: Field Operations Manager

Staffing:

11-13	13-15	15-17	15-17 GRADE	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
1	1	1	9	Supervisor	9	1	1	1	
2	2	2	8	Lead	8	2	2	2	
9	9	9	6	Water Works Operator	6	9	9	9	
12	12	12		Total Staff		12	12	12	

Functions:

S Construction, maintenance, & repair of the water distribution system including: water mains, services, hydrants, valves and related appurtenances.

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
197	169	110	244	WEEKEND DUTY		113	113	226	
114	105	66	126		9	50	50	100	
26	12	0	18		8	10	10	20	
57	52	44	100		6	53	53	106	
355	293	270	606	OVERTIME		217	217	434	
34	15	9	70		9	18	18	36	
71	49	42	100		8	41	41	82	
250	229	220	436		6	158	158	316	
333	440	272	466	CALLBACK		211	211	422	
15	0	0	10		9	5	5	10	
78	80	48	76		8	40	40	80	
240	360	224	380		6	166	166	332	
0	0	0	0	PART-TIME		0	0	0	

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

FLEET DIVISION (40-43)

HISTORICAL DATA			FIELD OPERATIONS DEPARTMENT DIVISION SUMMARY MATERIALS & SERVICES		BUDGET FOR 2017-19			
			FLEET DIVISION					
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$266,959	\$297,770	\$338,500	VEHICLE MAINTENANCE	01-40-43-7760	\$350,200	\$350,200	\$350,200	3.5%
\$588,894	\$499,180	\$568,000	GAS & DIESEL FUEL	01-40-43-7780	\$404,900	\$404,900	\$404,900	-28.7%
\$0	\$0	\$0	OIL PROPANE & MISC FLUIDS	01-40-43-7782	\$19,850	\$19,850	\$19,850	N/A
\$855,853	\$796,950	\$906,500	DIVISION TOTALS		\$774,950	\$774,950	\$774,950	-14.5%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

FLEET - STAFF (40-43)

Senior manager: Field Operations Manager

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
1	1	1	8	Fleet Coordinator	8	1	1	1	
1	1	1	7	Fleet Mechanic	7	1	1	1	
2	2	2		Total Staff		2	2	2	

Functions:

- S Management of the District vehicle fleet, including vehicle, heavy equipment, and power tool maintenance, specification, and replacement.
- S Operation of the joint fueling facility.
- S Fabrication of specialty tools and customization of equipment for District purposes

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	0	0	0	WEEKEND DUTY		0	0	0	
0	0	0	0		8	0	0	0	
0	0	0	0		7	0	0	0	
3	22	46	36	OVERTIME		30	30	60	
0	6	31	18		8	20	20	40	
3	16	15	18		7	10	10	20	
0	9	58	16	CALLBACK		25	25	50	
0	4	58	8		8	20	20	40	
0	5	0	8		7	5	5	10	
0	0	0	0	PART-TIME		0	0	0	

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

VALVE DIVISION (40-44)

HISTORICAL DATA			FIELD OPERATIONS DEPARTMENT DIVISION SUMMARY MATERIALS & SERVICES		BUDGET FOR 2017-19			
VALVE DIVISION								
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$65,455	\$61,376	\$73,000	GENERAL SYSTEM MAINTENANCE	01-40-44-7670	\$76,100	\$76,100	\$76,100	4.2%
\$96,769	\$126,872	\$122,200	MAINLINE VALVE MAINTENANCE	01-40-44-7710	\$128,800	\$128,800	\$128,800	5.4%
\$162,223	\$188,248	\$195,200	DIVISION TOTALS		\$204,900	\$204,900	\$204,900	5.0%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

VALVE PROGRAM - STAFF (40-44)

Senior manager: Field Operations Manager

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
1	1	1	9	Valve Crew Supervisor	9	1	1	1	
1	1	1	8	Valve Crew Lead	8	1	1	1	
10	10	10	6	Water Works Operator - Valve Crew	6	10	10	10	
12	12	12		Total Staff		12	12	12	

Functions:

- S *Operation of the District mainline valve maintenance program which includes valve maintenance and mapping.*
- S *Handles hydrant and air relief valve inspection & repair, and the mainline flushing program.*
- S *Provides support to the Construction and Maintenance crews in their activities.*
- S *Heavily engaged in the field GIS mapping and CMMS field processes.*

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
334	342	327	410	WEEKEND DUTY		208	208	416	
82	117	102	126		9	67	67	134	
40	27	21	36		8	17	17	34	
212	198	204	248		6	124	124	248	
300	314	231	360	OVERTIME		176	176	352	
84	37	24	48		9	22	22	44	
26	13	21	52		8	25	25	50	
190	264	186	260		6	129	129	258	
628	735	670	740	CALLBACK		393	393	786	
172	114	103	100		9	52	52	104	
58	38	40	40		8	23	23	46	
398	583	527	600		6	318	318	636	
3375	905	1295	2240	PART-TIME		1120	1120	2240	
3375	905	1295	2240		3	1120	1120	2240	Two Seasonal Help, 3.5 months

TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET
FIELD OPERATIONS - 2017-19 CAPITAL OUTLAY

GL 01-40-01-8830

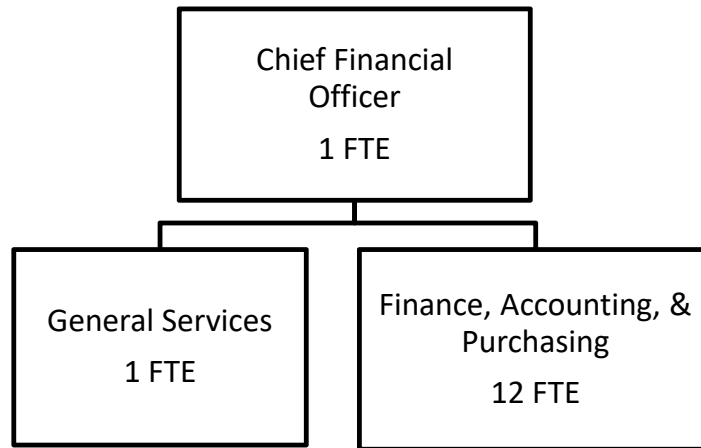
2017-18 2018-19

**Total 2017-2019 Field
Operations Capital Outlay**

\$ 113,800	\$ 96,000	\$ 17,800
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DIVISION OR PROGRAM	ITEM	DESCRIPTIONS AND RATIONALE	TOTAL AMT	EST. MONTH NEEDED	EST. YEAR NEEDED
OPS - Construction/Maint.	Shoring	Hydraulic trench shield with ends	\$ 14,000	9	2017
OPS - Building/Grounds	HVAC	Fleet: replace waste oil burner with natural gas heater	\$ 7,800	7	2018
OPS - Valve	General System Maint.	Leak logger kits for systematic leak detection of the District	\$ 30,000	9	2017
OPS - Fleet	Fleet Equipment	Bulk lubricant storage tanks and pumps w/ additional plumbing to bays.	\$ 18,000	9	2017
OPS - Fleet	Fleet Equipment	Hydraulic hose crimping machine w/ stock of hose and fittings	\$ 9,500	9	2017
OPS - Building/Grounds	Signage	Facilities Signage: Board room, exterior signage. Add Package 2017-19 Rebranding (Owner Communications Division)	\$ 34,500	TBD	2018
OPS - Building/Grounds	Signage	Facilities Signage: Board room, exterior signage. Add Package 2017-19 Rebranding (Owner Communications Division)	\$ 34,501	TBD	2019

Finance Department



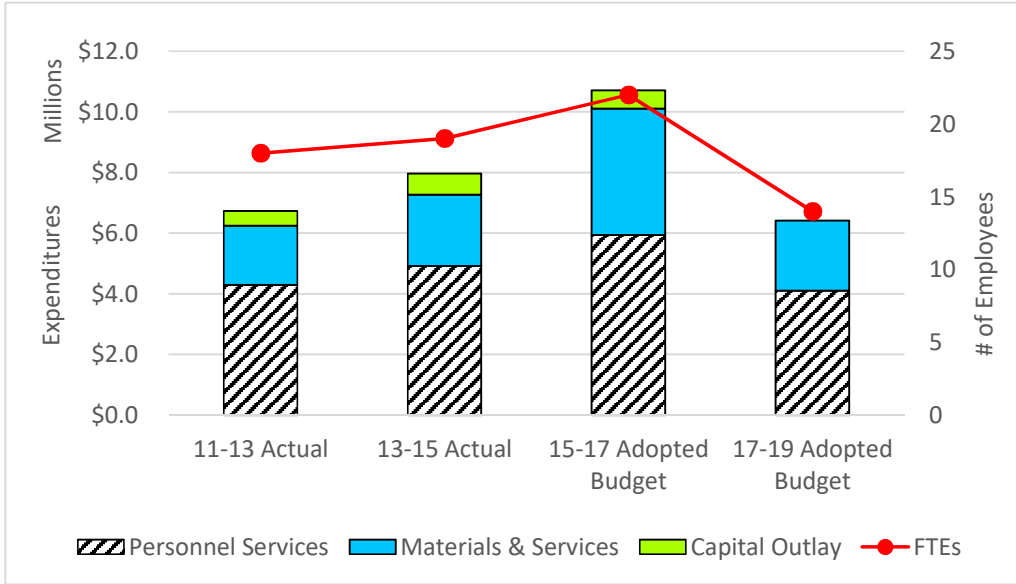
The Finance Department is responsible for all financial operations in the District including treasury; financial planning; budget development; accounting and fiscal administration; debt issuance and management; rates and charges analyses; financial forecasting; and purchasing and contracts coordination.

Major Budget Changes for 2017-19

Major initiatives for the coming two years include preparing the District to fund its long-term water supply strategy and supporting the establishment of the new Willamette Water Supply System.

- One full-time administrative support position is being transferred to Finance from the Administrative Services Department. Personnel Services costs are 30.9% lower than the 2015-17 biennium due to the transfer of personnel to the new Information Technology Services Department. Excluding the effects of the transfer of IT personnel, the Personnel Services costs are 16.1% higher. This increase is driven by the addition of the transferred District administrative staff position and general costs increases for health care and pension funding.
- Materials and Services expenses are almost 44.6% lower than the previous biennium, driven primarily by the transfer of IT expenditures to the new IT Services Department. When the prior IT Division's budget is excluded, the Materials and Services costs increase 12.3% in the adopted budget. The increase in Materials and Services are largely the result in increases in merchant fees for accepting credit cards for customer payments.
- The adopted budget does not have costs for capital outlay within the Finance Department
- Special Payments are a new appropriations category in the Adopted 2017-19 Budget. The Special Payments are for right-of-way fees imposed by cities within the District's service area. The right-of-way fees are included on the bills of customers within the cities that impose the fees.

**Finance
2017-19 Expenditures**



Finance Performance Measures

	Actual 12-13	Actual 13-14	Actual 14-15	Actual 15-16	Actual 16-17	Target 17-18	Target 18-19
Minimum District bond rating (S&P). No outstanding debt since FY 2015	AA+	AA+	AA+	N/A	N/A	N/A	N/A
Regular hours worked per workable hours available (2080 hrs x # of staff)	85%	84%	85%	85%	86%	≥85%	≥85%

All-Department Measures

% of employees actively participating in water industry related organizations	14%	14%	17%	16%	15%	≥15%	≥15%
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TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

FINANCE DEPARTMENT

HISTORICAL DATA			PERSONNEL SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$449,131	\$771,295	\$506,308	DIVISION TOTAL-GENERAL SERVICES	\$765,994	\$765,994	\$765,994	51.3%
\$2,038,902	\$2,245,862	\$3,026,895	DIVISION TOTAL-ACCOUNTING & FINANCE	\$3,337,436	\$3,337,436	\$3,337,436	10.3%
\$1,806,086	\$1,902,713	\$2,405,697	DIVISION TOTAL-INFORMATION TECHNOLOGY	\$0	\$0	\$0	-100.0%
\$4,294,119	\$4,919,870	\$5,938,900	DEPARTMENT TOTALS	\$4,103,430	\$4,103,430	\$4,103,430	-30.9%

HISTORICAL DATA			MATERIALS & SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$726,649	\$426,933	\$1,422,817	DIVISION TOTAL-GENERAL SERVICES	\$418,540	\$418,540	\$418,540	-70.6%
\$627,223	\$1,278,108	\$1,515,302	DIVISION TOTAL-ACCOUNTING & FINANCE	\$1,891,020	\$1,891,020	\$1,891,020	24.8%
\$600,305	\$644,454	\$1,228,180	DIVISION TOTAL-INFORMATION TECHNOLOGY	\$0	\$0	\$0	-100.0%
\$1,954,177	\$2,349,495	\$4,166,299	DEPARTMENT TOTALS	\$2,309,560	\$2,309,560	\$2,309,560	-44.6%

HISTORICAL DATA			CAPITAL OUTLAY	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$480,608	\$689,801	\$605,000	DIVISION TOTAL-GENERAL SERVICES	\$0	\$0	\$0	-100.0%
\$480,608	\$689,801	\$605,000	DEPARTMENT TOTALS	\$0	\$0	\$0	-100.0%

HISTORICAL DATA			SPECIAL PAYMENTS	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$0	\$0	\$0	SPECIAL PAYMENTS CATEGORY TOTAL	\$1,560,350	\$1,560,350	\$1,560,350	N/A
\$0	\$0	\$0	DEPARTMENT TOTALS	\$1,560,350	\$1,560,350	\$1,560,350	N/A

FINANCE DEPARTMENT

HISTORICAL DATA			TOTAL DEPARTMENT BUDGET	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$1,656,387	\$1,888,029	\$2,534,125	DIVISION TOTAL-GENERAL SERVICES	\$1,184,534	\$1,184,534	\$1,184,534	-53.3%
\$2,666,125	\$3,523,970	\$4,542,197	DIVISION TOTAL-ACCOUNTING & FINANCE	\$5,228,456	\$5,228,456	\$5,228,456	15.1%
\$2,406,391	\$2,547,167	\$3,633,877	DIVISION TOTAL-INFORMATION TECHNOLOGY	\$0	\$0	\$0	-100.0%
\$0	\$0	\$0	SPECIAL PAYMENTS	\$1,560,350	\$1,560,350	\$1,560,350	N/A
\$6,728,904	\$7,959,166	\$10,710,199	DEPARTMENT TOTALS	\$7,973,340	\$7,973,340	\$7,973,340	-25.6%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

GENERAL SERVICES DIVISON (50-01)

HISTORICAL DATA			FINANCE DEPARTMENT DIVISION SUMMARY MATERIALS & SERVICES GENERAL SERVICES DIVISION		BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$184,989	\$351,890	\$1,317,850	PROFESSIONAL SERVICES	01-50-01-7310	\$346,730	\$346,730	\$346,730	-73.7%
\$12,191	\$15,466	\$14,430	BUSINESS EXPENSE	01-50-01-7330	\$3,500	\$3,500	\$3,500	-75.7%
\$56,224	\$47,230	\$78,615	TRAINING & EDUCATION	01-50-01-7340	\$50,070	\$50,070	\$50,070	-36.3%
\$9,882	\$11,383	\$11,922	DUES & SUBSCRIPTIONS	01-50-01-7350	\$18,240	\$18,240	\$18,240	53.0%
\$463,363	\$964	\$0	OTHER SUNDRY	01-50-01-7360	\$0	\$0	\$0	N/A
\$726,649	\$426,933	\$1,422,817	DIVISION TOTALS		\$418,540	\$418,540	\$418,540	-70.6%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

GENERAL SERVICES DIVISION - STAFF (50-01)

Senior manager: Chief Financial Officer

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
1	1	1	13	Chief Financial Officer	13	1	1	1	
0	0	0	3	Administrative Assistant	3	1	1	1	Position Transfer from HR Division 2017-19
1	1	0	9	Purchasing Agent/ Contracts Coordinator	9	0	0	0	
2	2	1		Total Staff		2	2	2	

Functions:

- S Provide overall management for department functions, which consist of finance, accounting, information technology, purchasing and inventory.
- S Provide financial planning, demand forecasting, budgeting, analytical, and rate-making services.

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	0	0	0	WEEKEND DUTY		0	0	0	
0	0	0	0			0	0	0	
0	0	0	0	OVERTIME		20	20	40	
0	0	0	0		3	20	20	40	
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

2017 - 2019 BIENNIAL BUDGET

ACCOUNTING & FINANCE DIVISION (50-51)

HISTORICAL DATA			FINANCE DEPARTMENT DIVISION SUMMARY		BUDGET FOR 2017-19			
			MATERIALS & SERVICES ACCOUNTING & FINANCE DIVISION					
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$80,238	\$82,607	\$87,435	AUDIT FEES	01-50-51-7490	\$91,520	\$91,520	\$91,520	4.7%
\$400	\$702,145	\$849,167	BANKING & TREASURY SERVICES	01-50-51-7500	\$1,221,000	\$1,221,000	\$1,221,000	43.8%
\$0	\$0	\$50,000	BOND SALE EXPENSES	01-50-51-7505	\$0	\$0	\$0	-100.0%
\$749	\$1,950	\$5,600	INTEREST EXPENSE	01-50-51-7510	\$9,600	\$9,600	\$9,600	71.4%
\$137,611	\$113,772	\$102,600	OFFICE EXPENSE	01-50-51-7530	\$127,200	\$127,200	\$127,200	24.0%
\$143,464	\$150,541	\$151,500	COLLECTION EXPENSE	01-50-51-7630	\$164,000	\$164,000	\$164,000	8.3%
\$190,745	\$208,200	\$259,000	BAD DEBT EXPENSE	01-50-51-7640	\$267,700	\$267,700	\$267,700	3.4%
\$66,115	\$18,894	\$10,000	INVENTORY ADJUSTMENT	01-50-51-7770	\$10,000	\$10,000	\$10,000	0.0%
\$619,321	\$1,278,109	\$1,515,302	DIVISION TOTALS		\$1,891,020	\$1,891,020	\$1,891,020	24.8%

TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET

ACCOUNTING & FINANCE DIVISION- STAFF (50-51)

Senior manager: Chief Financial Officer

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
1	1	1	10	Finance and Accounting Supervisor	10	1	1	1	
1	1	1	9	Financial Planning and Debt Project Manager	9	1	1	1	
		1	9	Purchasing Agent/ Contracts Coordinator	9	1	1	1	
0	0	1	8	Senior Management Analyst	8	1	1	1	
1	1	1	7	Inventory Controller & Industrial Buyer	7	1	1	1	
		1	7	Technical Services Accountant	7	1	1	1	
1	1	2	6	Accountant	6	2	2	2	
1	1	2	3	Accounting Technician	3	2	2	2	
1	1	1	6	Project Accountant	6	1	1	1	
1	1	1	5	Payroll Specialist	5	1	1	1	
1	1	0	7	Financial Analyst	7	0	0	0	
1	1	0	5	Accounting Specialist	5	0	0	0	
9	9	12		Total Staff		12	12	12	

Functions:

- S Provide overall management for department functions, which consist of finance, accounting, information technology, purchasing and inventory.
- S Manage District investments and debt management program.
- S Participate in capital improvement planning and asset management process.
- S Administer procurement cards.
- S Oversee and maintain internal control systems.
- S Assist with pension, deferred compensation, and salary program administration.
- S Bill and collect miscellaneous accounts receivable; track and monitor contract and intergovernmental agreement costs.
- S Prepare financial statements for annual audit and accounting of joint ventures
- S Provide financial and cost accounting and reporting for internal use and to meet state and federal requirements.
- S Manage payroll process, tax reporting, and maintenance of employee records.
- S Assist with conservation tracking and development of key indicators for water usage and customer sales growth rates.
- S Issues solicitations, negotiate contract terms and conditions, issue contracts and purchase orders and maintain TVWD's Local Contract Review Board Rules.

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	0	0	0	WEEKEND DUTY		0	0	0	
0	0	0	0			0	0	0	
214	142	96	100	OVERTIME		50	50	100	
27	0	0	0		10	0	0	0	
31	0	0	0		9	0	0	0	
0	0	0	0		8	0	0	0	
74	30	15	60		7	10	10	20	
69	27	36	16		6	10	10	20	
1	6	42	8		5	20	20	40	
12	80	3	16		3	10	10	20	
0	399	1766	520	PART-TIME		0	0	0	
0	373	0	520	Finance Intern	2	0	0	0	
0	26	1766	0	Accounting Transition		0	0	0	

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

INFORMATION TECHNOLOGY DIVISION (50-52)

HISTORICAL DATA			FINANCE DEPARTMENT DIVISION SUMMARY		BUDGET FOR 2017-19			
MATERIALS & SERVICES INFORMATION TECHNOLOGY DIVISION			DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17						
\$171,523	\$81,720	\$314,600	HARDWARE & MAINTENANCE	01-50-52-7575	\$0	\$0	\$0	-100.0%
\$339,549	\$433,849	\$443,800	SOFTWARE & MAINTENANCE	01-50-52-7576	\$0	\$0	\$0	-100.0%
\$0	\$0	\$283,780	SUBSCRIPTION SERVICES	01-50-52-7577	\$0	\$0	\$0	-100.0%
\$89,233	\$128,885	\$142,000	COMMUNICATION SERVICES	01-50-52-7590	\$0	\$0	\$0	-100.0%
\$0	\$0	\$44,000	COMMUNICATION HARDWARE	01-50-52-7591	\$0	\$0	\$0	-100.0%
\$600,305	\$644,454	\$1,228,180	DIVISION TOTALS		\$0	\$0	\$0	-100.0%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

INFORMATION TECHNOLOGY DIVISION- STAFF (50-52)

Senior manager: Chief Financial Officer

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
1	1	1	11	Information Technology Officer	11	0	0	0	IT moved to separate Department 2017-19
1	1	1	9	Development Coordinator/Programmer	9	0	0	0	
0	1	1	9	Data Analyst/ETL Developer	8	0	0	0	
1	1	1	8	Programmer System Analyst	8	0	0	0	
1	1	1	8	Senior Network Administrator	8	0	0	0	
1	1	1	8	Senior Systems Administrator	8	0	0	0	
1	1	1	7	Application Developer	7	0	0	0	Position Eliminated 2017-19
1	1	1	5	Computer Support and Systems Technician	5	0	0	0	
0	0	1	5	Systems Administrator	6	0	0	0	
0	0	0	9	Senior Systems Administrator (Limited Duration)	9	0	0	0	Limited Duration Position 2017-19 only
7	8	9		Total Staff		0	0	0	

Functions:

- S Provide IT strategic planning and facilitate IT governance.
- S Coordinate information and telecommunications systems.
- S Provide deployment support and integration services for major applications (Logos, GIS, Cityworks, etc.).
- S Develop, deploy and support custom applications, including Utility Billing, online payments and GIS related tools.
- S Support end-user, desktop and mobile computing needs throughout the district.
- S Support and enhance the network and server infrastructure to meet the district's computing needs and reliability expectations.
- S Manage information security across all networks.
- S Manage district databases and data storage needs, including database integrity and system recoverability.
- S Provide planning and stewardship for district software purchases and software licensing. Coordinate software contract review.

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

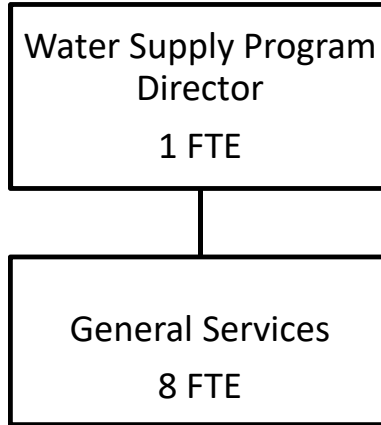
11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	0	0	0	WEEKEND DUTY		0	0	0	
0	0	0	0			0	0	0	
571	232	227	660	OVERTIME		0	0	0	
246	18	0	0		11	0	0	0	
66	59	56	120		9	0	0	0	
161	69	87	300		8	0	0	0	
78	35	19	120		7	0	0	0	
0	0	0	0		6	0	0	0	
20	51	65	120		5	0	0	0	
0	4	11	50	CALLBACK		0	0	0	
0	4	11	50		8	0	0	0	
0	0	0	0	PART-TIME		0	0	0	

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET



Water Supply Program

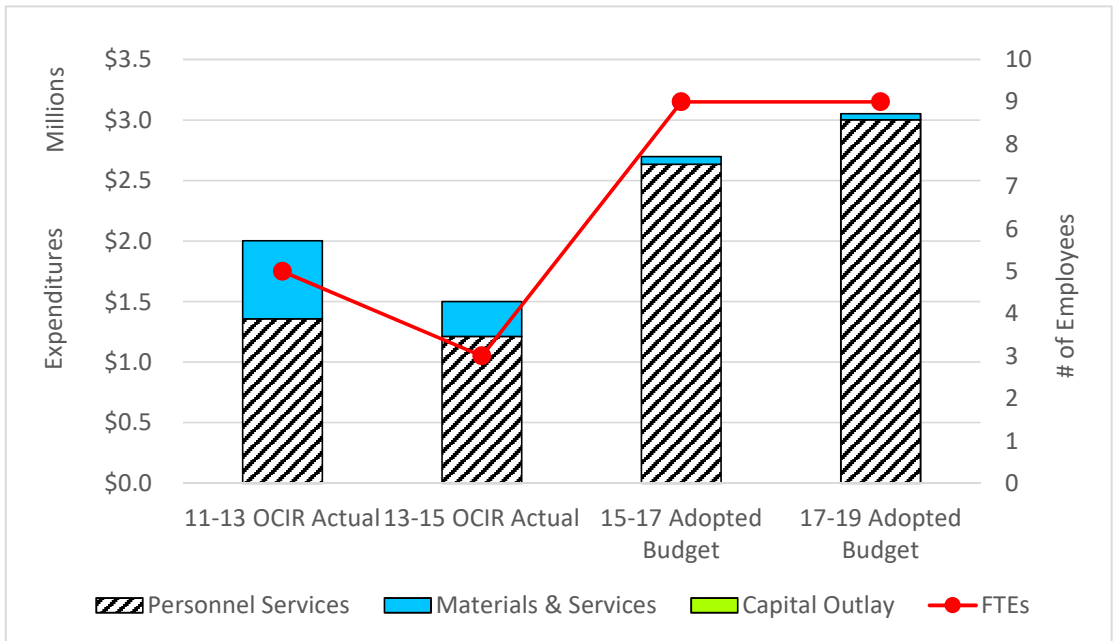


The Water Supply Program Department (WSP) was established during the 2013-15 budget biennium as the result of the District's decision to develop the Willamette River as an additional water supply source for the region. TVWD currently serves as the managing agency of the Willamette Water Supply Program (WWSP) in partnership with the City of Hillsboro. Additional WWSP partners maybe added in the future. The WSP Department houses the TVWD staff responsible for managing the planning, design and construction of Willamette supply system, as well as managing program finance, administration, communication, and coordination with the partners of the WWSP. Budgeted expenditures include Personnel Services for nine staff, and Materials & Services associated with staff support costs. Expenditures directly associated with Willamette Water Supply Program are appropriated in the WWSP Fund (Fund 15). WSP labor and overhead expenditures are reimbursed to the General Fund by the WWSP Fund as staff charges their time to capital and expense projects associated with the WWSP projects.

Major Budget Changes for 2017-19

- Continue water system project activities budgeted in Fund 15 Willamette Water Supply program including permitting, real estate and easement acquisition, and design and construction of pipeline segments.
- Continue system-wide program management work and the value enhancement process, which seeks to save costs by coordinating water system projects with other infrastructure development projects and employing innovative construction techniques and material standards.
- Budgeted Materials & Services Expenditures are for staff support costs such as membership dues for professional associations and training and education. All program related costs are appropriated directly in the Willamette Water Supply Program Fund (Fund 15).

Water Supply Program 2017-19 Expenditures



Note: The Office of Community and Intergovernmental Relations (OCIR) was reorganized to the Water Supply Program (WSP) Department beginning with the 15-17 biennium.

WSP Performance Measures

	Actual 12-13	Actual 13-14	Actual 14-15	Actual 15-16	Actual 16-17	Target 17-18	Target 18-19
Performance measures under development for the next biennial budget period.							

All-Department Measures

% of employees actively participating in water industry related organizations	14%	14%	17%	16%	15%	≥15%	≥15%
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TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

WATER SUPPLY PROGRAM DEPARTMENT

HISTORICAL DATA			PERSONNEL SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 0.0%
\$1,358,090	\$1,212,489	\$2,635,417	DIVISION TOTAL -GENERAL SERVICES	\$3,002,713	\$3,002,713	\$3,002,713	13.9%
\$1,358,090	\$1,212,489	\$2,635,417	DEPARTMENT TOTALS	\$3,002,713	\$3,002,713	\$3,002,713	13.9%

HISTORICAL DATA			MATERIALS & SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 0.0%
\$643,701	\$286,648	\$62,870	DIVISION TOTAL -GENERAL SERVICES	\$50,706	\$50,706	\$50,706	-19.3%
\$643,701	\$286,648	\$62,870	DEPARTMENT TOTALS	\$50,706	\$50,706	\$50,706	-19.3%

HISTORICAL DATA			CAPITAL OUTLAY	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 0.0%
\$0	\$0	\$0	DIVISION TOTAL -GENERAL SERVICES	\$0	\$0	\$0	0.0%
\$0	\$0	\$0	DEPARTMENT TOTALS	\$0	\$0	\$0	0.0%

HISTORICAL DATA			TOTAL DEPARTMENT BUDGET	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 0.0%
\$2,001,791	\$1,499,137	\$2,698,287	DEPARTMENT TOTAL-WSP	\$3,053,419	\$3,053,419	\$4,627,945	13.2%
\$2,001,791	\$1,499,137	\$2,698,287	DEPARTMENT TOTALS	\$3,053,419	\$3,053,419	\$4,627,945	13.2%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

WATER SUPPLY PROGRAM DEPARTMENT (60-01)

HISTORICAL DATA			WATER SUPPLY PROGRAM DEPARTMENT SUMMARY MATERIALS & SERVICES		BUDGET FOR 2017-19			
			GENERAL SERVICES					
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 0.0%
\$13,206	\$31,962	\$0	PROFESSIONAL SERVICES	01-60-01-7310	\$0	\$0	\$0	0.0%
\$5,747	\$10,469	\$17,190	BUSINESS EXPENSE	01-60-01-7330	\$4,250	\$4,250	\$4,250	-75.3%
\$31,714	\$19,369	\$37,795	EMPLOYEE TRAINING & EDUCATION	01-60-01-7340	\$42,020	\$42,020	\$42,020	11.2%
\$6,992	\$4,929	\$7,085	DUES & SUBSCRIPTIONS	01-60-01-7350	\$3,936	\$3,936	\$3,936	-44.4%
\$1,374	\$448	\$800	OTHER SUNDRY	01-60-01-7360	\$500	\$500	\$500	-37.5%
\$138,143	\$124,477	\$0	PUBLIC INFORMATION	01-60-01-7450	\$0	\$0	\$0	0.0%
\$446,524	\$94,994	\$0	CONSERVATION	01-60-01-7785	\$0	\$0	\$0	0.0%
\$643,701	\$286,648	\$62,870	DIVISION TOTALS		\$50,706	\$50,706	\$50,706	-19.3%

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

WATER SUPPLY PROGRAM DEPARTMENT - STAFF (60-01)

Senior manager: Water Supply Program Director

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 APPROVED	18-19 APPROVED	17-19 APPROVED	COMMENTS
0	0	1	13	Water Supply Program Director	13	1	1	1	
0	0	1	11	Principal Engineer	11	1	1	1	
0	0	1	11	Principal Engineer	11	1	1	1	
0	0	1	8	Finance & Administrative Supervisor	9	1	1	1	
0	1	1	7	Community Affairs Coordinator	7	1	1	1	
0	0	1	7	Project Delivery Coordinator	7	1	1	1	
0	0	1	5	Document & Controls Specialist	4	1	1	1	
0	0	1	3	Administrative Assistant	3	1	1	1	
0	0	1	8	GIS Analyst	8	1	1	1	
1	0	0	8	Strategic Planning Coordinator	8	0	0	0	
1	1	0	7	Resource Coordinator	7	0	0	0	
1	1	0	7	Community & Youth Ed Coordinator	7	0	0	0	
1	0	0	7	Conservation Technician	7	0	0	0	
1	0	0	3	Conservation Assistant	3	0	0	0	
5	3	9		Total Staff		9	9	9	

Functions:

- S Oversees the administration of the Willamette Water Supply Program partnership
- S Oversees planning, design, and construction of assets associated with Willamette Water Supply Program
- S Provides financial oversight and reporting for the Willamette Water Supply Program partnership

Personnel Services Hours:

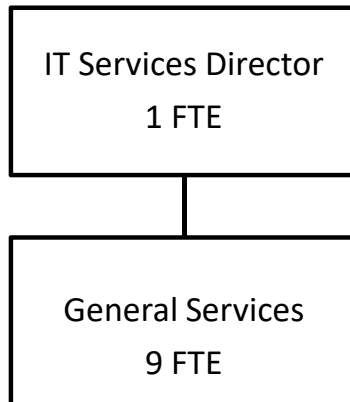
Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 APPROVED	18-19 APPROVED	17-19 APPROVED	COMMENTS
34	24	0	0	WEEKEND DUTY		0	0	0	
34	24	0	0		7	0	0	0	
124	18	180	70	OVERTIME		60	60	120	
16	0	0	0		8	0	0	0	
81	18	0	0		7	10	10	20	
0	0	0	30		4	10	10	20	
27	0	180	40		3	40	40	80	
44	28	0	30	CALLBACK		0	0	0	
44	28	0	30		7	0	0	0	
0	0	0	0	PART-TIME		0	0	0	
0	0	0	0	Engineering Intern	3	1040	1040	2080	Includes one P/T engineering intern six months/yr.

TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET



Information Technology Services Department



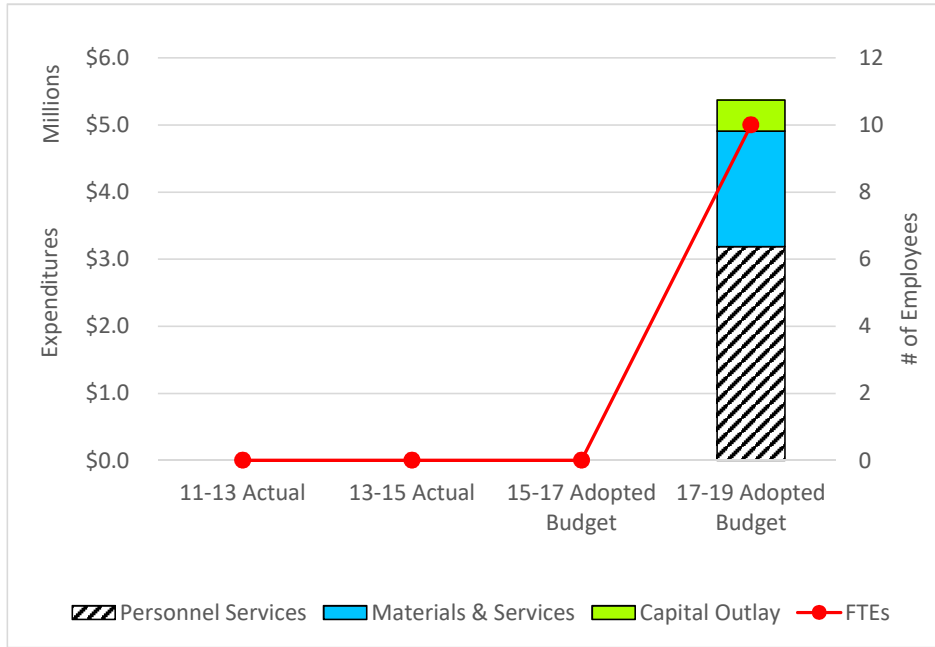
The Information Technology Services Department is responsible for the management and support of all aspects of the District's information technology (IT) systems, including all data and voice communications hardware and software, as well as development of the District's overall IT strategy.

Major Budget Changes for 2017-19

The IT Services Department is a new department for the Adopted 2017-19 Budget. Previously IT was a separate division of the Finance & Information Technology Department. A significant initiative for 2017-19 is the implementation of a new service-oriented IT governance model. Establishing IT as a separate department is an important step in the process. Additionally, the IT Department will implement projects from the District's IT Master Plan and assist with the Customer Information System (CIS) project.

- As a new department, a senior-level manager position has been approved to report directly to the Chief Executive Officer. This position is being created from an existing vacancy within the department. In addition, the adopted budget includes one limited-duration full-time Senior Systems Administrator. As a new department, IT does not have departmental-level expenses from the prior 2015-17 budget. However, as compared to the former IT Division, Personnel Services costs are 32.5% higher than last biennium largely due to the limited-duration Senior Systems Administrator and the higher costs of the new department manager position.
- Materials and Services expenses (when compared to the former IT Division) are 18.4% lower than the previous biennium, driven primarily by reductions in professional services needed to implement the findings of the IT Master Plan. As a division within the Finance/IT Department, the all professional services, business expense, and training were budgeted in the Department General Services Division. The comparisons presented here include accounting for those expenditures.
- The 2017-19 Capital Outlay budget includes hardware and software to implement the findings from the IT Master Plan. Expenditures on Capital Outlays are approximately 23.4% lower in 2017-19 than the last biennium. This reduction in Capital Outlay is largely the result of completing various projects in the IT Master Plan.

**Information Technology Services
2017-19 Expenditures**



Information Technology Performance Measures*

*New Department for 2017-19. Performance measures under development for the next biennial budget period.

All-Department Measures

	Actual 12-13	Actual 13-14	Actual 14-15	Actual 15-16	Actual 16-17	Target 17-18	Target 18-19
% of employees actively participating in water industry related organizations	14%	14%	17%	16%	15%	≥15%	≥15%

TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET

INFORMATION TECHNOLOGY SERVICES DEPARTMENT

HISTORICAL DATA			PERSONNEL SERVICES	BUDGET FOR 2017-19			% CHG 15-17
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17		DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	
\$0	\$0	\$0	DIVISION TOTAL-GENERAL SERVICES	\$3,188,560	\$3,188,560	\$3,188,560	N/A
\$0	\$0	\$0	DEPARTMENT TOTALS	\$3,188,560	\$3,188,560	\$3,188,560	N/A

HISTORICAL DATA			MATERIALS & SERVICES	BUDGET FOR 2017-19			% CHG 15-17
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17		DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	
\$0	\$0	\$0	DIVISION TOTAL-GENERAL SERVICES	\$1,721,289	\$1,721,289	\$1,721,289	N/A
\$0	\$0	\$0	DEPARTMENT TOTALS	\$1,721,289	\$1,721,289	\$1,721,289	N/A

HISTORICAL DATA			CAPITAL OUTLAY	BUDGET FOR 2017-19			% CHG 15-17
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17		DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	
\$0	\$0	\$0	DIVISION TOTAL-GENERAL SERVICES	\$463,500	\$463,500	\$463,500	N/A
\$0	\$0	\$0	DEPARTMENT TOTALS	\$463,500	\$463,500	\$463,500	0.0%

INFORMATION TECHNOLOGY SERVICES DEPARTMENT

HISTORICAL DATA			TOTAL DEPARTMENT BUDGET	BUDGET FOR 2017-19			% CHG 15-17
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17		DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	
\$0	\$0	\$0	DIVISION TOTAL-GENERAL SERVICES	\$5,373,349	\$5,373,349	\$5,373,349	N/A
\$0	\$0	\$0	DEPARTMENT TOTALS	\$5,373,349	\$5,373,349	\$5,373,349	0.0%

TUALATIN VALLEY WATER DISTRICT
2017 - 2019 BIENNIAL BUDGET

GENERAL SERVICES DIVISON (70-01)

HISTORICAL DATA			IT SERVICES DEPARTMENT DIVISION SUMMARY MATERIALS & SERVICES GENERAL SERVICES DIVISION		BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG 15-17
\$0	\$0	\$0	PROFESSIONAL SERVICES	01-70-01-7310	\$289,000	\$289,000	\$289,000	N/A
\$0	\$0	\$0	BUSINESS EXPENSE	01-70-01-7330	\$800	\$800	\$800	N/A
\$0	\$0	\$0	TRAINING & EDUCATION	01-70-01-7340	\$27,930	\$27,930	\$27,930	N/A
\$0	\$0	\$0	DUES & SUBCRIPTIONS	01-70-01-7350	\$2,900	\$2,900	\$2,900	N/A
\$0	\$0	\$0	HARDWARE & MAINTENACE	01-50-52-7575	\$237,500	\$237,500	\$237,500	N/A
\$0	\$0	\$0	SOFTWARE & MAINTENANCE	01-50-52-7576	\$480,089	\$480,089	\$480,089	N/A
\$0	\$0	\$0	SUBSCRIPTION SERVICES	01-50-52-7577	\$528,370	\$528,370	\$528,370	N/A
\$0	\$0	\$0	COMMUNICATION SERVICES	01-50-52-7590	\$106,700	\$106,700	\$106,700	N/A
\$0	\$0	\$0	COMMUNICATION HARDWARE	01-50-52-7591	\$48,000	\$48,000	\$48,000	N/A
\$0	\$0	\$0	DIVISION TOTALS		\$1,721,289	\$1,721,289	\$1,721,289	N/A

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

INFORMATION TECHNOLOGY DIVISION- STAFF (70-01)

Senior manager: Information Technology Services Director

Staffing:

11-13	13-15	15-17	15-17 GRADE	JOB TITLE	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	0	0	N/A	Information Technology Services Director	13	1	1	1	New Department 2017-19
0	0	0	11	Information Technology Officer	N/A	0	0	0	New Position 2017-19
0	0	0	N/A	Senior Business Analyst	10	1	1	1	Position Eliminated 2017-19
0	0	0	9	Development Coordinator/Programmer	9	1	1	1	New Position 2017-19
0	0	0	9	Data Analyst/ETL Developer	8	1	1	1	
0	0	0	8	Programmer System Analyst	8	1	1	1	
0	0	0	8	Senior Network Administrator	8	1	1	1	
0	0	0	8	Senior Systems Administrator	8	1	1	1	
0	0	0	7	Application Developer	7	0	0	0	Position Eliminated 2017-19
0	0	0	5	Computer Support and Systems Technician	5	1	1	1	
0	0	0	5	Systems Administrator	6	1	1	1	
0	0	0	9	Senior Systems Administrator (Limited Duration)	9	1	1	1	Limited Duration Position 2017-19 only
0	0	0		Total Staff		10	10	10	

Functions:

- S Provide IT strategic planning and facilitate IT governance.
- S Coordinate information and telecommunications systems.
- S Provide deployment support and integration services for major applications (Logos, GIS, Cityworks, etc.).
- S Develop, deploy and support custom applications, including Utility Billing, online payments and GIS related tools.
- S Support end-user, desktop and mobile computing needs throughout the district.
- S Support and enhance the network and server infrastructure to meet the district's computing needs and reliability expectations.
- S Manage information security across all networks.
- S Manage district databases and data storage needs, including database integrity and system recoverability.
- S Provide planning and stewardship for district software purchases and software licensing. Coordinate software contract review.

Personnel Services Hours:

Hours, by grade, required for each type of staffing. Some historical data combines all pay grades.

11-13	13-15	15-17 P-T-D	15-17 BUDGET	TYPE OF STAFFING	GRADE	17-18 ADOPTED	18-19 ADOPTED	17-19 ADOPTED	COMMENTS
0	0	0	0	WEEKEND DUTY		0	0	0	
0	0	0	0			0	0	0	
0	0	0	0	OVERTIME		190	190	380	New Department 2017-19
0	0	0	0		11	0	0	0	
0	0	0	0		9	40	40	80	
0	0	0	0		8	60	60	120	
0	0	0	0		7	25	25	50	
0	0	0	0		6	25	25	50	
0	0	0	0		5	40	40	80	
0	0	0	0	CALLBACK		10	10	20	
0	0	0	0		8	10	10	20	
0	0	0	0	PART-TIME		0	0	0	

TUALATIN VALLEY WATER DISTRICT

2017 - 2019 BIENNIAL BUDGET

INFORMATION TECHNOLOGY - 2017-19 CAPITAL OUTLAY

GL 01-50-01-8850

	2017-19	FY 2017-18	FY 2018-19
Total Information Technology Capital Outlay	\$ 463,500	\$ 383,500	\$ 80,000

DIVISION OR PROGRAM	CATEGORY OF PURCHASE	ITEM	DESCRIPTIONS AND RATIONALE	TOTAL AMT	EST. MONTH NEEDED	EST. YEAR NEEDED
IT	Computer Software	Logos Electronic Document Management	Improve efficiency of staff allowing scaling of work without adding additional FTE. Mitigates future challenges for WWSP by capturing records needed to capitalize assets after WWSS is completed	\$ 35,000	July	FY2018
IT	Computer Hardware	Network Equipment Upgrades	SCADA: 1 firewall, 1 switch	\$ 18,500	August	FY2018
IT	Computer Hardware	Equipment - firewalls, switches, WIFI, cellular, Wide Area Network	Initiative Implement Key Findings from IT Master Plan: Execution of the findings of the communication study	\$ 200,000	June	FY2018
IT	Computer Hardware	Equipment - software or hardware to harden District's server environment	Initiative Implement Key Findings from IT Master Plan: Network Security Enhancements	\$ 80,000	June	FY2019
IT	Computer Hardware	Software design and communication tools	Initiative Implement Key Findings from IT Master Plan: Database design, software testing and communication business software tools	\$ 40,000	June	FY2018
	Computer Hardware	Software Administrative tools for servers and network	Initiative Implement Key Findings from IT Master Plan: System Admin and Configuration Management Tool	\$ 60,000	June	FY2018
	Computer Hardware	Replace access control server (badge access) for District headquarter and remote facilities	Server is end of life	\$ 10,000	June	FY2018
	Computer Hardware	Replace Net Video Recorder (NVR) server and software	NVR Server and software are end of life and support has been discontinued by vendor.	\$ 20,000	June	FY2018

CIP Overview

Each biennium the District updates its six-year Capital Improvement Plan (CIP). New project requests and status updates on projects under construction are prepared by the Engineering Services Department. As a member of the Joint Water Commission (JWC), the District also participates in the development of its budget.

The JWC is a partnership of the District and the cities of Hillsboro, Beaverton and Forest Grove.¹ The JWC operates a treatment plant and related storage and transmission facilities. TVWD owns 12.5 million gallons per day (MGD) of capacity in the treatment plant and similar capacity in other JWC assets. TVWD can lease additional water from the other JWC partners if available and needed. The District also has a 35% ownership share in Barney Reservoir, one of the two primary impoundments (the other being Hagg Lake) providing raw surface water supply to the JWC. 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.

The Adopted 2017-19 Budget and six-year CIP include in-District capital projects appropriated as capital outlay in the Capital Improvement Fund. Appropriation for JWC projects is represented by a transfer to the General Fund and shown on the District's balance sheet as investment in joint ventures.

The District budgets for minor capital outlay items such as security and field equipment, heating/cooling/air conditioning (HVAC), and certain information technology hardware and software in the General Fund. For policy guidance, the District uses a capitalization threshold for machinery, furniture, and equipment of expenditures exceeding \$7,500 and a life in excess of one year. CIP projects in the Capital Improvement Fund are generally reserved for water system infrastructure, fleet and larger facility and information technology projects requiring a significant amount of internal labor and overhead that can be capitalized as part of the project.

Related to the Willamette Water Supply Program (WWSP) is a future need to include water supply projects in the in-District CIP. These projects are identified in the District's 2015 Master Plan, but most are outside of the District's Six-Year CIP horizon. However, they will be added in future budgets to take full advantage of the efficiencies anticipated for the WWSP. One such in-District project is a Willamette supply pipeline to serve the District's Metzger service area by 2026. For a description of WWSP project activities that are contained in the Adopted 2017-19 Budget see Section 17 *Willamette Water Supply Program Fund*.

¹ The City of Hillsboro serves as the managing agency of the JWC.

CIP Projected Expenditures, Categories, and Sources of Funding

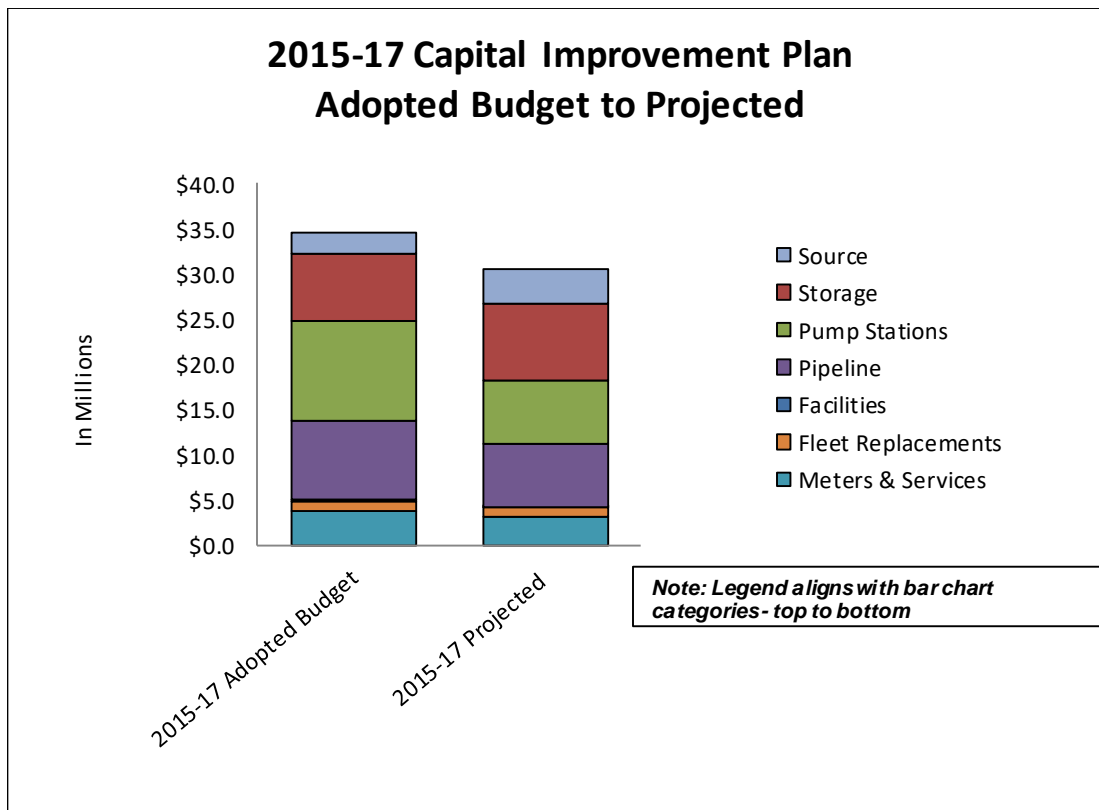
The table below displays the six-year CIP for the Adopted 2017-19 Budget.

SIX YEAR CIP FY2018-2023							
(in \$ millions)							
Project Category	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Totals
	Adopted	Adopted	Projected	Projected	Projected	Projected	
	Budget	Budget					
Source: JWC/Joint Venture	\$3.13	\$2.33	\$0.89	\$0.10	\$1.33	\$1.00	\$8.78
Source: TVWD	0.16	-	-	-	-	2.46	2.61
Storage	6.50	6.13	2.63	-	-	-	15.25
Pump Stations	0.84	0.54	-	-	-	-	1.37
Pipeline	7.63	3.86	6.93	4.50	7.03	10.32	40.28
Facilities	0.09	-	-	-	1.37	-	1.45
Fleet Replacements	0.53	0.27	0.45	0.45	0.45	0.45	2.60
Information Technology	1.26	2.41	1.25	-	-	-	4.92
Meters & Services	1.45	1.50	1.54	1.59	1.63	1.68	9.39
Totals	\$21.58	\$17.04	\$13.69	\$6.63	\$11.82	\$15.91	\$86.67

The District categorizes capital improvement projects into the eight categories listed below. These project categories are used to improve the tracking and transparency of CIP projects.

- A. Source:** Includes the development, upgrade or expansion of water supply resources, treatment, transmission and terminal storage. This category separately lists District source projects and those funded through TVWD's joint venture partnership in the JWC.
- B. Storage:** Upgrades, expansion, replacement, and repairs of reservoirs and related infrastructure.
- C. Pump Stations:** Upgrades, expansion, replacement, and repairs of pump stations, and equipment such as motors, and monitoring systems.
- D. Pipeline:** Upgrades, expansion, replacement, and repairs of water transmission lines and water distribution mains.
- E. Facilities:** Includes security improvements at District facilities, equipment upgrades, and Supervisory Control and Data Acquisition (SCADA) improvements.
- F. Fleet Replacements:** Scheduled replacements and new vehicles serving District operating, maintenance and capital construction needs. The District's fleet purchasing and maintenance is centrally managed by the Field Operations Department.
- G. Computer Hardware/Software (Information Technology):** Upgrades, expansion, and replacement of computer hardware and software requiring a significant amount of internal staff labor and overhead. All other information technology expenditures are budgeted in Section 15 *Information Technology Services Department* as either capital outlay or materials & services depending 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.

The chart on the next page displays the CIP for the Adopted 15-17 Budget and projected biennium-end expenditures. Note that Computer Hardware/Software was not a CIP category during 2015-17. Two information technology projects are included in the 2017-19 CIP.



Funding for the CIP is principally derived from water rates, system development charges (SDCs), separate fees paid by customers and developers, and available fund balance. JWC Source CIP projects reflect the District’s proportionate share of cost based on its ownership share of the project.

Most CIP projects are eligible to be financed with revenue bonded debt. The District has reimbursement authority, as permitted under federal law, to issue revenue bonds to reimburse for certain capital projects. A determination will be made during the 2017-19 biennium on the timing for future revenue bond issues to finance both District-only capital projects and the District’s share of projects for the WWSP.

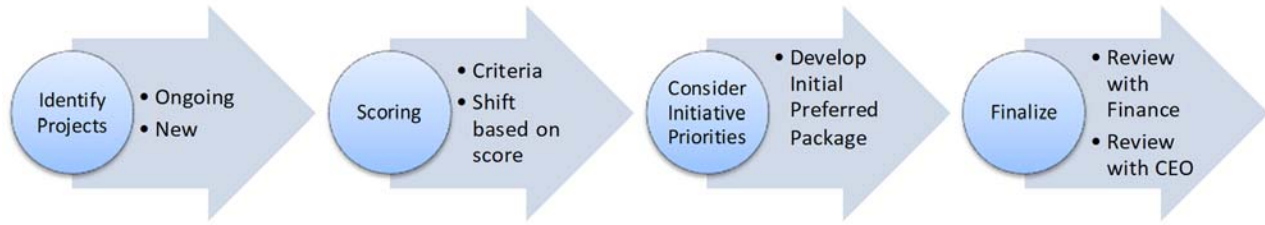
CIP Development Process, Prioritization and Individual Project Pages

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 Services 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.

Key inputs included the District’s 2015 Water Master Plan, JWC capital requirements, and projects identified as necessary for service reliability, seismic resiliency, and replacement of aging infrastructure.

The graphic at the top of the next page illustrates the District’s CIP development process.

Four Step CIP Development Process



1. Identify Projects

Project identification involved selecting both ongoing CIP projects funded but not completed during the 2015-17 biennium, and new projects determined as critical to the District’s water system. One such project currently in design – Grabhorn Reservoir will be completed during the 2017-19 biennium. This five-million gallon (MG) pre-stressed concrete reservoir replaces an aging reservoir at the same location, which is at risk of a structural failure. The project will improve the District’s seismic resiliency and include sustainable design features.

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.

A key financial consideration in developing the CIP for the Adopted 2017-19 Budget is balancing in-District capital improvements with the current and future requirements of the WWSP Program. The District’s financial planning assumptions for the capital needs of the WWSP are covered in more detail in Section 5 – *Multi-Year Financial Outlook*.

2. Scoring and Ranking Criteria

Each CIP project was scored and ranked in accordance to the criteria shown below:

	Criteria	Ranking Considerations
1.	Project Criticality	Mandated projects (e.g. external commitments to partners) time sensitive, ongoing projects
2.	Customers Served	Service to critical customers such as hospitals & industries, projects that affect large portions of customer base
3.	Growth/Future Demands	Expand services and facilities to meet anticipated growth/water demand
4.	Water Quality	Current and anticipated water quality regulatory requirements
5.	Aging Infrastructure	Replacement of aging infrastructure including known deficiencies, and the installation pipelines with improved soil corrosion control protection
6.	Reliability	Seismic resiliency, reliability of service, redundancy in water system distribution operations
7.	Safety & Security	Public and private fire protection, facility security enhancements, worker safety (e.g. confined spaces)
8.	Cost Effectiveness	Improvements to distribution system to reduce pumping requirements, horizontal directional drilling to reduce surface street repair and repaving
9.	Environment	Consideration of impacts to natural environment, mitigate construction impacts to public, incorporate environmentally preferable sustainability elements in projects

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. “Key drivers” representing the top three of the nine evaluation criteria were assigned to the list of projects considered for the six-year CIP.

3. Consider Board Initiatives

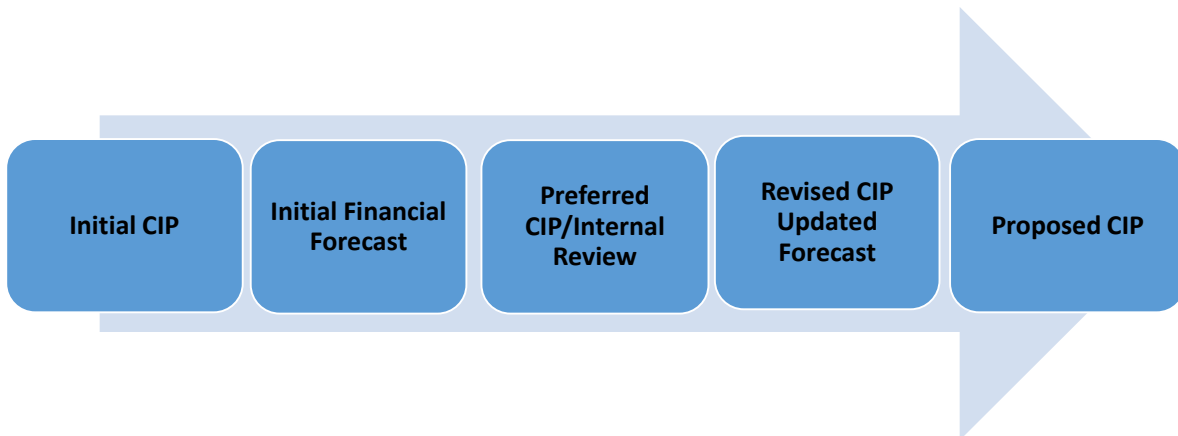
This step involved developing a prioritized in-District CIP considering the Board’s Initiatives that pertain to capital projects. Two initiatives served as the primary focus for the selection of projects.

1. Develop & Implement Aging Infrastructure Strategy
2. Develop & Implement District Resiliency Policy & Program

These initiatives are not new to the District. Upgrades and replacements of aging infrastructure and constructing storage, pumping, and pipeline assets to current standards for seismic resiliency have been an ongoing objective of the District for many years. What is new, however, is with the 2015 Master Plan update, new analysis was used to define existing water system vulnerabilities leading to the inclusion of achieving different level of service goals based on the criticality of the asset. This analysis helps to further prioritize projects.

4. Internal Review and Adopted CIP

The preferred CIP is reviewed internally by Finance and the Chief Executive Officer, analyzed with the financial forecast and other District requirements such as the WWSP and updated in accordance to the direction provided by the CEO. The CIP is then reviewed by the Budget Committee and Board of Commissioners during the regular budget development and public review process.



All projects included in the Adopted Six-Year CIP are presented in detail beginning on page 16-11. Each project sheet includes a map or graphic, the three key drivers based on the highest-ranking criteria, a description, project information including category and project manager, funding sources, and an assessment of the future operating costs impacts. As applicable, the project descriptions also include a discussion on environmental/sustainability elements that will be incorporated into design and construction.

Project budget information is listed for the 2015-17 biennium, the Adopted 2017-19 Budget, the following four-year timeframe, and, if needed for those projects included in the six-year CIP, future year requirements.

Six-Year CIP and 2017-19 Biennium Budget

The FY2018 to FY2023 projected six-year CIP totals an inflation-adjusted \$86.7 million. The largest components of TVWD’s in-District capital program over the next several years include infrastructure improvements to replace aging infrastructure, enhance service reliability, perform seismic upgrades of critical facilities, and install flow control facilities for the WWSP.

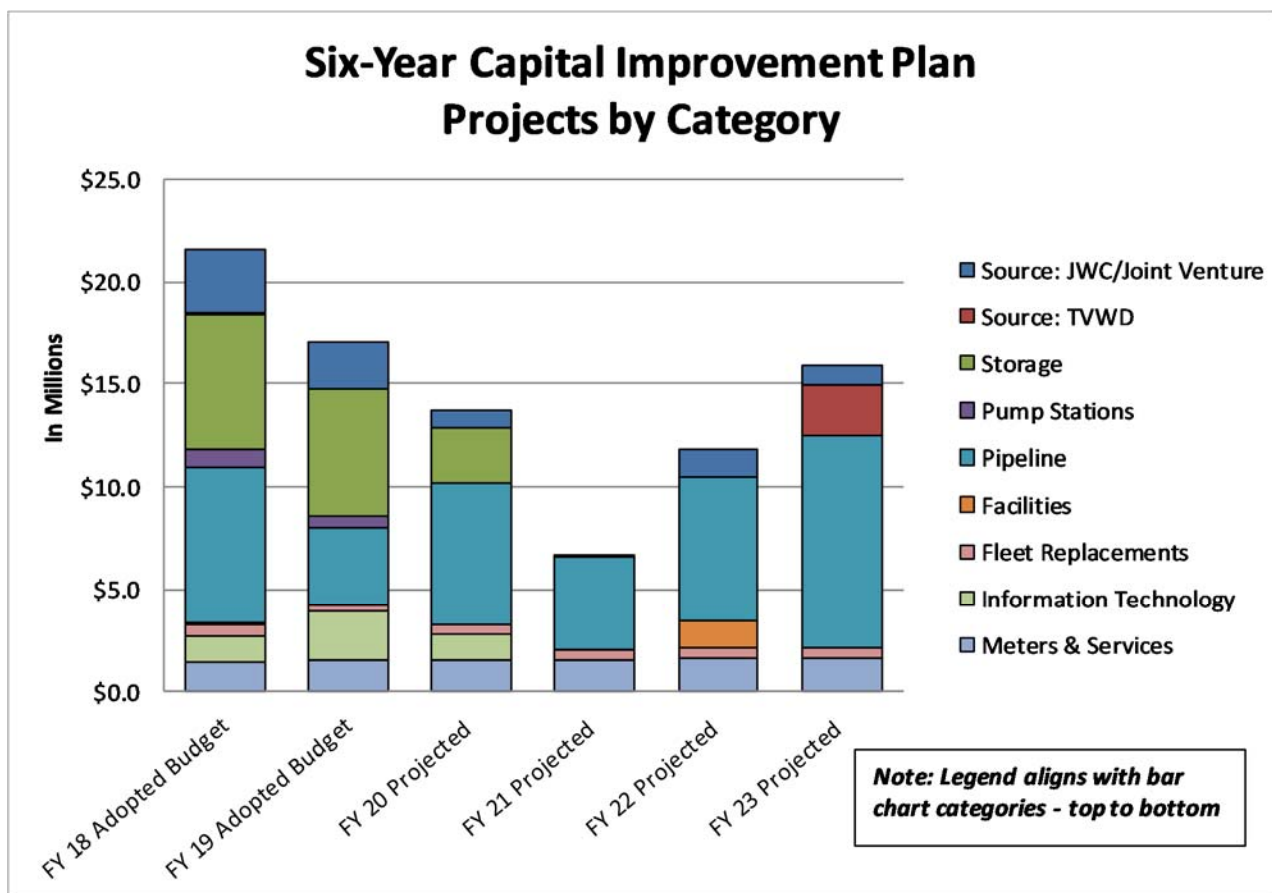
The District’s long-term investment in developing a new water supply on the Willamette River in partnership with the City of Hillsboro is addressed in Section 17 *Willamette Water Supply Program Fund*. While the WWSP is in progress, TVWD will continue to address in-District capital improvement needs.

The largest group of in-District CIP expenditures includes projects in the pipeline category, particularly the District’s ongoing mains replacement program and fire flow improvements identified by the District’s 2015 Master Plan update.

In addition, several storage and pump station projects are identified in the six-year CIP including replacement of Grabhorn and Taylors Ferry reservoirs.

In total, expenditures in the amount of \$56.9 million are identified in the six-year CIP for pipeline, storage, and pump station projects. The remaining appropriations in the CIP principally are for source improvements or upgrades, ongoing meter and service installations paid through separate customer fees, scheduled fleet replacements, and investments in Computer Hardware/Software (listed as Information Technology in the following graph).

The graph below the shows appropriations by project category for the six-year CIP.



CIP Appropriations in the Adopted 2017-19 Budget

Appropriations for the first two years of the CIP are incorporated in the Adopted 2017-19 Budget and with the exception of JWC joint venture projects, are reflected as capital outlay in the Capital Improvement Fund. The budget includes appropriation of \$38,611,964 in total in-District CIP activity, with \$33,151,675 shown as Capital Improvement Fund capital outlay, and \$5,460,289 represented as a transfer from the Capital Improvement Fund to the General Fund for JWC projects.

Key projects for this upcoming biennium include the following:

A. Source Category

- JWC Facility Plan & 75 MGD projects: \$2.0MM
- JWC Treatment Plant Expansion: \$3.0MM

B. Storage Category

- Grabhorn Reservoir Replacement: \$11.5MM
- Taylors Ferry Reservoir Replacement (2017-19 portion): \$1.1MM

C. Pump Station Category

- Cooper Mtn. Pump Station Fire Flow Improvements: \$520K
- Catlin Crest/Viewmont Pump Station Replacement/Relocation: \$800K

D. Pipeline Category

- 185th and Springville (Washington County Project): \$550K
- Metzger North-South Fire Flow Improvement: \$4.2MM
- Pipeline Upgrades and Renewals: \$1.3MM
- Mains Replacement Program: \$3.2MM

E. Facilities Category

- Radio Equipment Building and Generator Replacement: \$50K

F. Fleet Replacements

- Scheduled Replacements and new vehicles (see page 17-47): \$801K

G. Computer Hardware/Software

- Customer Information System (2017-19 portion): \$3.6MM
- Upgrade to District's Supervisory Control & Data Acquisition System (SCADA) \$100K

H. Meters and Services Category

- Ongoing program for the installation of water meters and services for new and existing residential and commercial customers: \$3.0MM

The remainder of this section provides both summary information and the individual project pages on the District's Adopted 2017-19 Budget and six-year Capital Improvement Plan.

TUALATIN VALLEY WATER DISTRICT
 2017-2019 BIENNIAL BUDGET
 ADOPTED CAPITAL IMPROVEMENT PLAN BY PROJECT CATEGORY
 CAPITAL IMPROVEMENTS FUND (Fund 11)

A. Source Category

Expected Uses of Funds Joint Water Commission (JWC) Joint Venture	
JWC Capital Projects	\$115,750
JWC Facility Plan & 75 MGD Projects	1,965,751
JWC Water Treatment Plant Expansion to 85 MGD	3,001,638
JWC Equipment Replacement	333,400
JWC Barney Reservoir Flume Fence Improvements	43,750
Subtotal Joint Water Commission Joint Venture (Note 1)	\$5,460,289
Expected Uses of Funds TVWD Source	
Miller Hill Rd Aquifer Storage & Recovery Well (ASR)	\$51,800
Cornelius Pass Facility Intertie Improvements	103,500
Subtotal TVWD	\$155,300
Total Source	\$5,615,589

B. Storage Category

Expected Uses of Funds:	
Grabhorn Reservoir Replacement - Tank 1 (5 MG)	\$11,467,400
Ridgewood View Park Reservoir	41,400
Taylor's Ferry Reservoir No. 2 Replacement	1,113,700
Total Storage	\$12,622,500

C. Pump Station Category

Expected Uses of Funds:	
Ridgewood View Park Pump Station	\$62,100
Cooper Mountain Pump Station (920 Zone), Fire Flow Improvements	517,500
Catlin Crest/Viewmont pump station replacement/relocation	794,400
Total Pump Stations	\$1,374,000

D. Pipeline Category

Expected Uses of Funds:	
Mains Replacement Program	\$3,159,300
Pipeline Upgrades and Renewals - Agency Driven	1,330,000
Development Opportunity & Reimbursement Projects	500,000
Distribution Water Quality Sample Stations	52,700
185th and Springville (Washington County Project)	548,600
Kemmer Ridge	92,175
Jenkins Road Bridge	93,200
Century Boulevard	331,200
Kemmer Road and SW 175th Roundabout	310,500
P-156 (Metzger 498 North - South Fire Flow Improvement)	4,158,800
Cooper Mtn ASR to 550 Backdown Pressure Reducing Valves (PRV)	258,800
PRV/Vault Replacements & Upgrades	400,000
385 Pressure Relief Valves (209th Ave)	258,800
Total Pipeline	\$11,494,075

TUALATIN VALLEY WATER DISTRICT
 2017-2019 BIENNIAL BUDGET
 ADOPTED CAPITAL IMPROVEMENT PLAN BY PROJECT CATEGORY
 CAPITAL IMPROVEMENTS FUND (Fund 11)

E. Facilities Category

Expected Uses of Funds:

Radio Equipment Building & Generator Replacement	\$50,000
Diesel Exhaust Fluid Dispenser	21,700
Vault - Dewatering Facility	15,500
Total Facilities	\$87,200

F. Fleet Category

Expected Uses of Funds:

Fleet Replacement (Per Schedule)	\$800,900
Total Fleet	\$800,900

G. Computer Hardware/Software

Expected Uses of Funds:

Customer Information System	\$3,574,700
Upgrade Master Station software to ArchestrA	100,000
Total Computer Hardware/Software	\$3,674,700

H. Meter and Service Installations

Expected Uses of Funds

Field Ops: Service Installations	\$2,455,700
Customer Service: Meter Installations	487,300
Total Meter & Service Installations	\$2,943,000

Total 2017-19 Construction Fund Expenditures and Transfers	\$38,611,964
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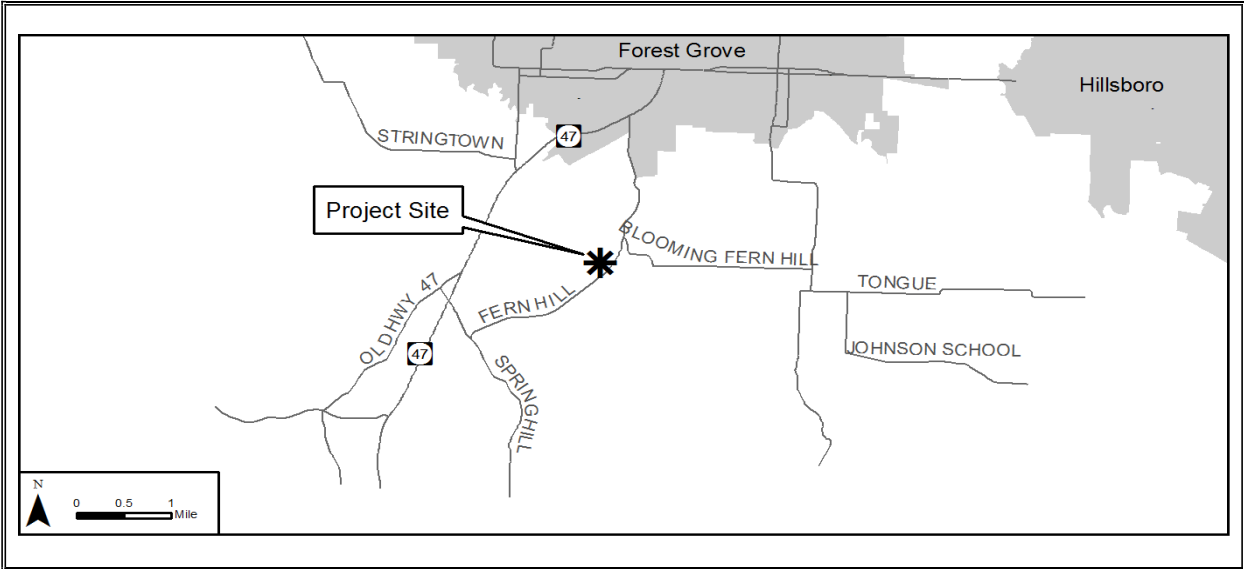
Note 1: JWC Joint Venture Projects shown as a transfer to the General Fund for budgetary purposes

Tualatin Valley Water District Six-Year CIP Planned Expenditures (2018-2023)

PROJECT TITLE	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six Year Total	Future Years
SOURCE: JOINT WATER COMMISSION (JWC)								
JWC Capital Projects	\$ 15,750	\$ 100,000	\$ 100,000	\$ 100,000	\$ 1,000,000	\$ 1,000,000	\$ 2,315,750	\$ -
JWC Facility Plan & 75 MGD Projects	1,081,883	883,868	181,170	-	-	-	2,146,921	-
JWC Water Treatment Plant Expansion to 85 MGD	1,652,000	1,349,638	276,640	-	-	-	3,278,278	-
JWC Equipment Replacement	333,400	-	333,400	-	333,400	-	1,000,200	-
JWC Barney Reservoir Flume Fence Improvements	43,750	-	-	-	-	-	43,750	-
TOTAL SOURCE: JWC	\$ 3,126,783	\$ 2,333,506	\$ 891,210	\$ 100,000	\$ 1,333,400	\$ 1,000,000	\$ 8,784,899	\$ -
SOURCE: TVWD								
Miller Hill Rd Aquifer Storage & Recovery Well (ASR)	\$ 51,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 51,800	\$ -
Cornelius Pass Facility Intertie Improvements	103,500	-	-	-	-	-	103,500	-
Willamette Water Supply System Turnouts	-	-	-	-	-	2,458,500	2,458,500	2,000,000
TOTAL SOURCE: TVWD	\$ 155,300	\$ -	\$ -	\$ -	\$ -	\$ 2,458,500	\$ 2,613,800	\$ 2,000,000
STORAGE: TVWD								
Grabhorn Reservoir Replacement - Tank 1 (5 MG)	\$ 6,456,000	\$ 5,011,400	\$ -	\$ -	\$ -	\$ -	\$ 11,467,400	\$ -
Ridgewood View Park Reservoir	41,400	-	-	-	-	-	41,400	-
Taylor's Ferry Reservoir No. 2 Replacement	-	1,113,700	2,628,000	-	-	-	3,741,700	-
TOTAL STORAGE: TVWD	\$ 6,497,400	\$ 6,125,100	\$ 2,628,000	\$ -	\$ -	\$ -	\$ 15,250,500	\$ -
PUMP STATIONS: TVWD								
Ridgewood View Park Pump Station	\$ 62,100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 62,100	\$ -
Rosander Pump Station	-	-	-	-	-	-	-	5,000,000
Cooper Mountain Pump Station (920 Zone), Fire Flow Improvements	517,500	-	-	-	-	-	517,500	-
Catlin Crest/Viewmont pump station replacement/relocation	258,800	535,600	-	-	-	-	794,400	-
TOTAL PUMP STATIONS: TVWD	\$ 838,400	\$ 535,600	\$ -	\$ -	\$ -	\$ -	\$ 1,374,000	\$ 5,000,000
PIPELINE: TVWD								
Mains Replacement Program	\$ 1,552,500	\$ 1,606,800	\$ 2,217,400	\$ 2,295,000	\$ 3,563,100	\$ 3,687,800	\$ 14,922,600	\$ 24,000,000
Pipeline Upgrades and Renewals - Agency Driven	665,000	665,000	1,000,000	1,000,000	1,000,000	1,000,000	5,330,000	1,520,000
Development Opportunity & Reimbursement Projects	250,000	250,000	1,000,000	1,000,000	1,000,000	1,000,000	4,500,000	5,000,000
Distribution Water Quality Sample Stations	25,900	26,800	-	-	-	-	52,700	-
185th and Springville (Washington County Project)	548,600	-	-	-	-	-	548,600	-
Kemmer Ridge	92,175	-	-	-	-	-	92,175	-
Jenkins Road Bridge	93,200	-	-	-	-	-	93,200	-
Century Boulevard	331,200	-	-	-	-	-	331,200	-
Kemmer Road and SW 175th Roundabout	310,500	-	-	-	-	-	310,500	-
P-156 (Metzger 498 North - South Fire Flow Improvement)	3,045,100	1,113,700	-	-	-	-	4,158,800	-
P-136 (175th Ave - Kemmer to Siler Ridge)	-	-	-	-	-	4,434,500	4,434,500	-
P-164 (69th Ave - Dartmouth to Atlanta)	-	-	-	-	395,100	-	395,100	-
P-161 (HWY 99-217 to 71st Ave)	-	-	2,512,700	-	-	-	2,512,700	-
P-166 (66th Ave., Hampton, 68th Ave.)	-	-	-	-	876,700	-	876,700	-
Cooper Mtn ASR to 550 Backdown Pressure Reducing Valves (PRV)	258,800	-	-	-	-	-	258,800	-
PRV/Vault Replacements & Upgrades	200,000	200,000	200,000	200,000	200,000	200,000	1,200,000	1,000,000
385 Pressure Relief Valves (209th Ave)	258,800	-	-	-	-	-	258,800	-
TOTAL PIPELINE: TVWD	\$ 7,631,775	\$ 3,862,300	\$ 6,930,100	\$ 4,495,000	\$ 7,034,900	\$ 10,322,300	\$ 40,276,375	\$ 31,520,000
FACILITIES: TVWD								
Washington Co. Supply Line Emergency PS Trailer Storage	\$ -	\$ -	\$ -	\$ -	\$ 178,200	\$ -	\$ 178,200	\$ -
Radio Equipment Building & Generator Replacement	50,000	-	-	-	-	-	50,000	-
Diesel Exhaust Fluid Dispenser	21,700	-	-	-	-	-	21,700	-
Vault - Dewatering Facility	15,500	-	-	-	-	-	15,500	-
Seismic Upgrades District Headquarters	-	-	-	-	1,187,700	-	1,187,700	-
TOTAL FACILITIES: TVWD	\$ 87,200	\$ -	\$ -	\$ -	\$ 1,365,900	\$ -	\$ 1,453,100	\$ -
FLEET: TVWD								
Fleet Replacements (per schedule)	\$ 527,700	\$ 273,200	\$ 450,000	\$ 450,000	\$ 450,000	\$ 450,000	\$ 2,600,900	\$ -
TOTAL FLEET: TVWD	\$ 527,700	\$ 273,200	\$ 450,000	\$ 450,000	\$ 450,000	\$ 450,000	\$ 2,600,900	\$ -
COMPUTER HARDWARE/SOFTWARE: TVWD								
Customer Information System	\$ 1,164,400	\$ 2,410,300	\$ 1,247,300	\$ -	\$ -	\$ -	\$ 4,822,000	\$ -
Upgrade Master Station software to ArchestrA	100,000	-	-	-	-	-	100,000	-
TOTAL COMPUTER HARDWARE/SOFTWARE: TVWD	\$ 1,264,400	\$ 2,410,300	\$ 1,247,300	\$ -	\$ -	\$ -	\$ 4,922,000	\$ -
METERS AND SERVICES: TVWD								
Field Ops: Service Installations	\$ 1,209,700	\$ 1,246,000	\$ 1,283,400	\$ 1,321,900	\$ 1,361,500	\$ 1,402,400	\$ 7,824,900	TBD
Customer Service: Meter Installations	237,300	250,000	257,500	265,200	273,200	281,400	1,564,600	TBD
TOTAL METERS AND SERVICES: TVWD	\$ 1,447,000	\$ 1,496,000	\$ 1,540,900	\$ 1,587,100	\$ 1,634,700	\$ 1,683,800	\$ 9,389,500	\$ -
TOTAL CIP	\$ 21,575,958	\$ 17,036,006	\$ 13,687,510	\$ 6,632,100	\$ 11,818,900	\$ 15,914,600	\$ 86,665,074	\$ 38,520,000

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: JWC Capital Projects



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Maintains supply for multiple water supply partners.
2.	Aging Infrastructure	Key equipment and facilities require upgrades or replacement to ensure plant operations.
3.	Reliability	Improvements required to maintain reliable supply.

PROJECT DESCRIPTION

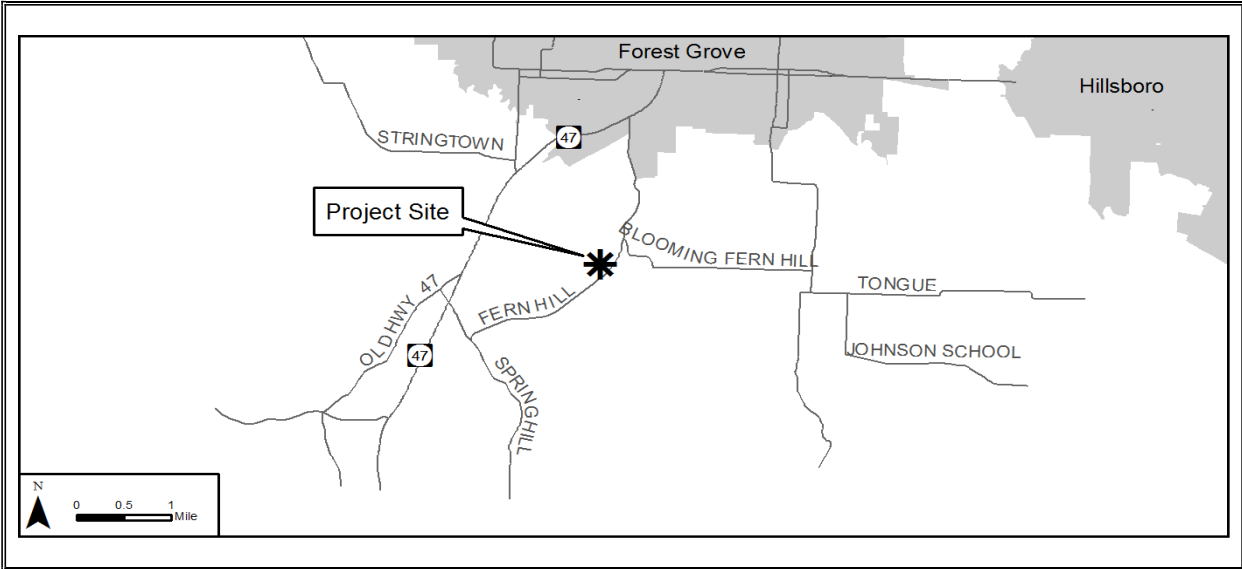
Joint Water Commission (JWC) CIP projects which includes miscellaneous upgrades to water treatment facilities, storage, and transmission. FY17-19 projects include preparing a property adjacent to a section of the South Transmission Line for potential sale or transfer of ownership.

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 capital projects will not have a significant operating cost impact. The District includes projected JWC increases in its Purchased Water budget, estimated to increase about 13.6% in FY 2018 and 3.5% in FY 2019.
General Ledger Account:	Joint Venture	Service Fees:	No	
Project Number:	Joint Venture	SDCs:	No	
Project Manager:	Pete Boone	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	100%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
782,945	94,716	15,750	100,000	100,000	100,000	1,000,000	1,000,000	2,315,750	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: JWC Facility Plan & 75 MGD Projects



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Maintains supply for multiple water supply partners.
2.	Growth/Future Demands	Plant expansion increases production to meet growing demands cost effectively.
3.	Reliability	Improvements required to maintain reliable supply.

PROJECT DESCRIPTION

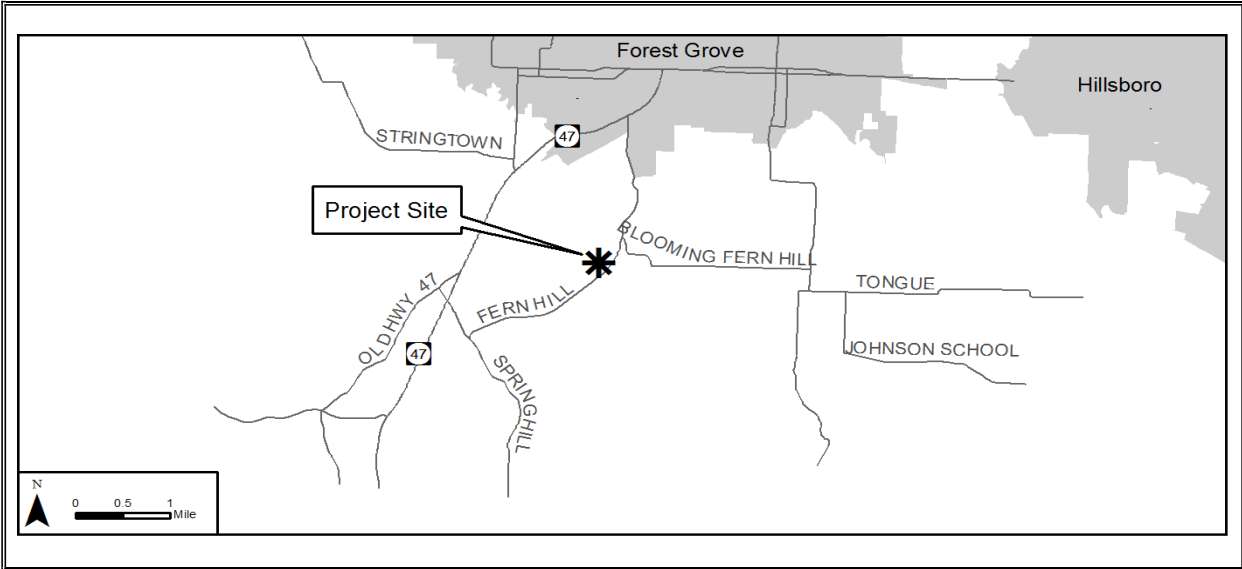
This project will return the Joint Water Commission (JWC) Water Treatment Plant to its rated capacity of 75 MGD. Each JWC partner will have a capacity share responsibility for this. Also included are design life safety improvements as recommended in the 2008 seismic study and further prioritized by Carollo in the Seismic CIP program.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	JWC	Water Rates:	Yes	No material impact anticipated with the exception of routine operational and maintenance costs. Efficiencies gained in plant operations and seismic safety may mitigate future capital replacement and maintenance costs.
General Ledger Account:	Joint Venture	Service Fees:	No	
Project Number:	Joint Venture	SDCs:	No	
Project Manager:	Pete Boone	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	Yes	
		Partner Cost Percentage:	83%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
468,000	562,613	1,081,883	883,868	181,170	-	-	-	2,146,921	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: JWC Water Treatment Plant Expansion to 85 MGD



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Maintains supply for multiple water supply partners.
2.	Customers Served	Provides a redundant power supply to treatment plant to provide greater level of service to customers.
3.	Reliability	Improvements required to maintain reliable supply.

PROJECT DESCRIPTION

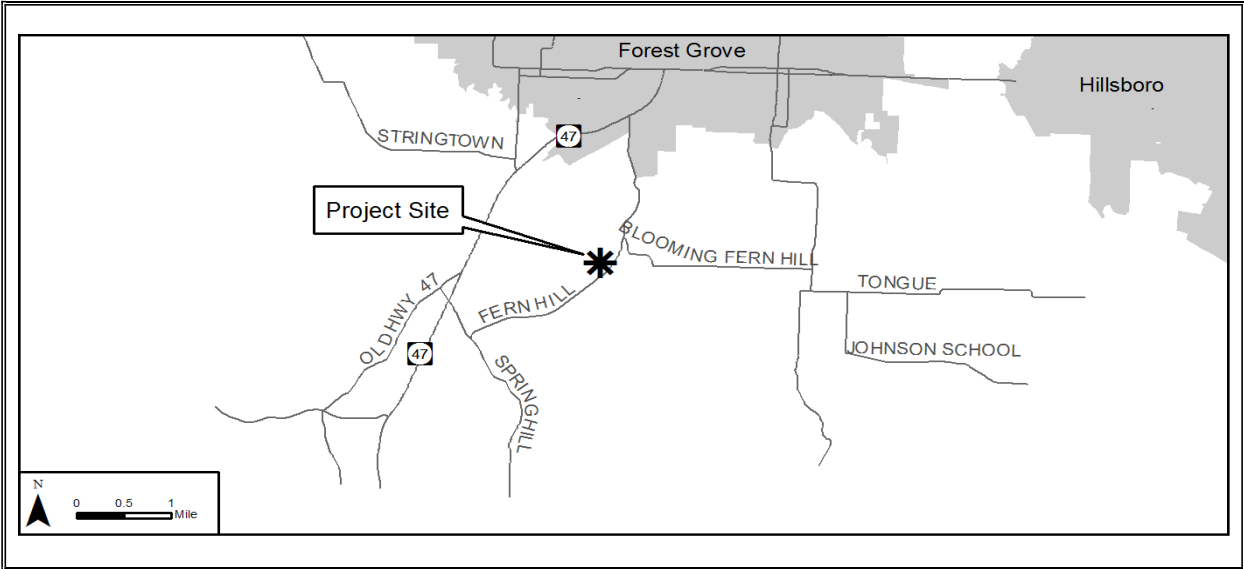
This project will expand the capacity of the Joint Water Commission (JWC) Water Treatment Plant from 75 to 85 MGD. Hillsboro will take 8 MGD of this expansion and TVWD will take 2 MGD of this expansion. Also included is a facility plan for the proposed build-out of the WTP based on the Willamette Supply decision. The facility plan and treatment plant expansion design was awarded to CH2M and started in the second half FY 15-16. Slayden Construction was selected as the CM/GC contractor for the project. Expansion is expected to be complete in summer 2019.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	JWC	Water Rates:	Yes	To be determined. Operating cost impact will depend on outcome of timing and final partnership shares of the expanded plant. Future JWC partner budgets will include any incremental operating and maintenance cost increases.
General Ledger Account:	Joint Venture	Service Fees:	No	
Project Number:	Joint Venture	SDCs:	Yes	
Project Manager:	Pete Boone	Percent Eligible - SDCs:	100%	
Work Performed By:	Outside Contract	Partner Cost Share :	Yes	
		Partner Cost Percentage:	80%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	400,000	1,652,000	1,349,638	276,640	-	-	-	3,278,278	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: JWC Equipment Replacement



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Maintains supply for multiple water supply partners.
2.	Customers Served	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.

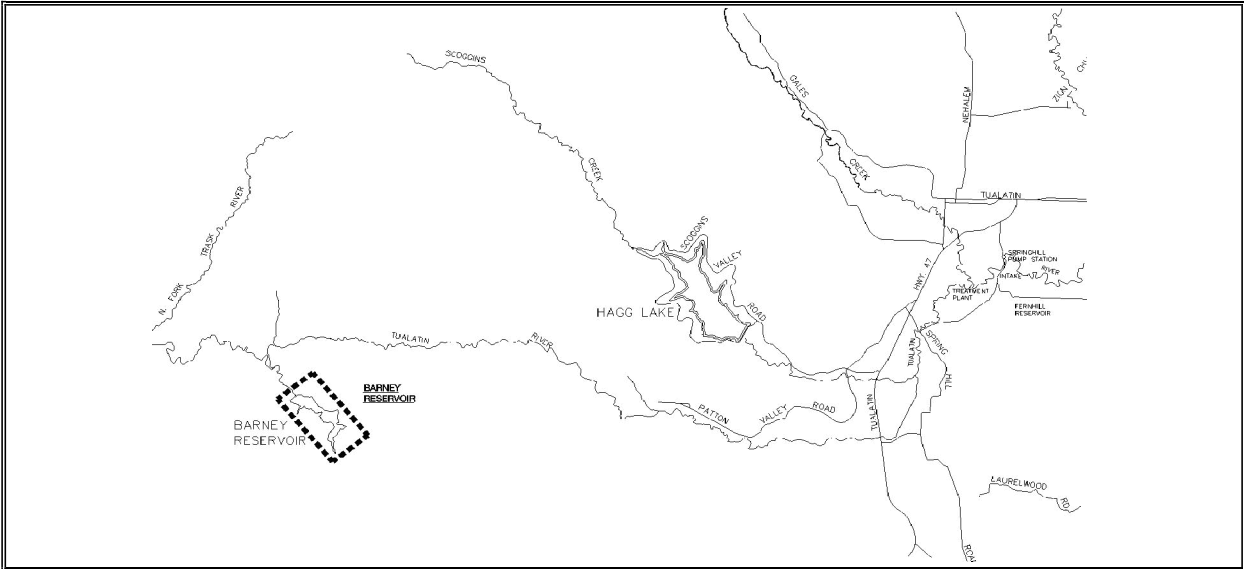
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	JWC	Water Rates:	Yes	No material impact anticipated.
General Ledger Account:	Joint Venture	Service Fees:	No	
Project Number:	Joint Venture	SDCs:	No	
Project Manager:	Pete Boone	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	Yes	
		Partner Cost Percentage:	100%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
333,400	8,335	333,400	-	333,400	-	333,400	-	1,000,200	-

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

PROJECT TITLE: JWC Barney Reservoir Flume Fence Improvements



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Maintains supply for multiple water supply partners.
2.	Customers Served	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

Replacement of security fencing at the reservoir site and spillway.

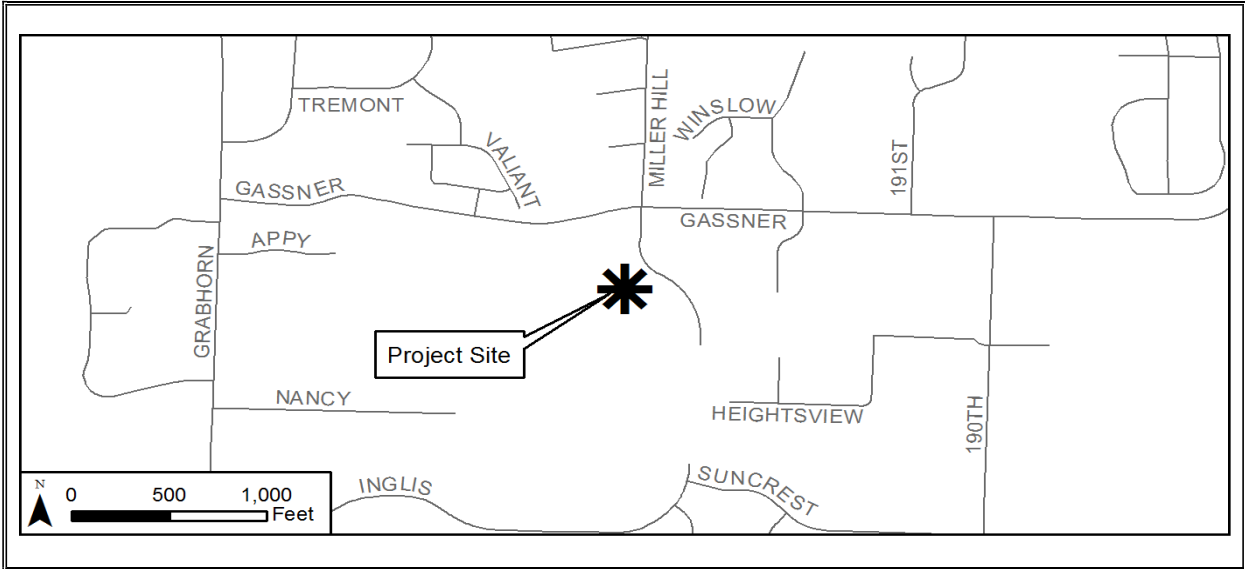
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	JWC	Water Rates:	Yes	No material impact anticipated.
General Ledger Account:	Joint Venture	Service Fees:	No	
Project Number:	Joint Venture	SDCs:	No	
Project Manager:	Pete Boone	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	Yes	
		Partner Cost Percentage:	65%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	43,750	-	-	-	-	-	43,750	-

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

PROJECT TITLE: Miller Hill Rd Aquifer Storage & Recovery Well (ASR)



KEY DRIVERS FOR CIP PROJECT		
1.	Customers Served	Provides a separate, redundant source to customers on Cooper Mountain.
2.	Growth/Future Demands	New ASR increases summer production capacity to meet demands cost effectively.
3.	Reliability	Increases overall reliability by providing a new summer supply source within the District.

PROJECT DESCRIPTION

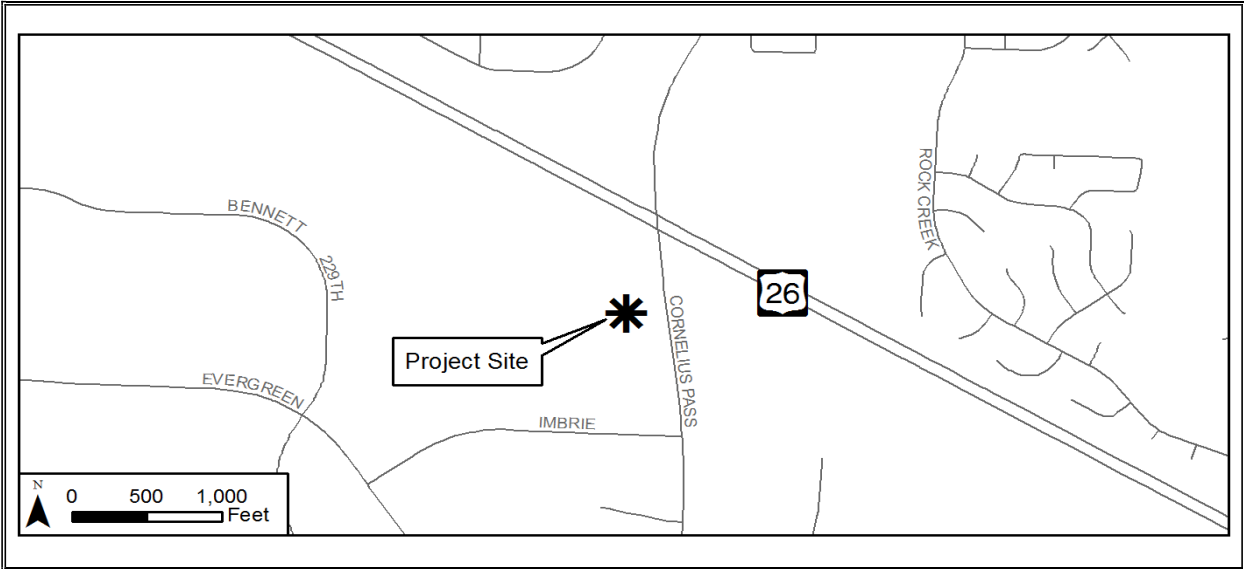
This project includes a new two million gallons-per-day (MGD) ASR facility located on Cooper Mountain to provide additional storage and supply to meet peak summer demands. It is the second TVWD ASR facility, joining the Grabhorn ASR that has been in operation for nine years. The project is completed expected to be placed in service this biennium.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Source	Water Rates:	Yes	This project will result in increases in maintenance and monitoring costs of approximately \$10,000/yr. Power costs may increase \$25,000 to \$50,000 /yr. Offsetting these costs, the District will need to purchase less water from other sources for summer peak demand.
General Ledger Account:	11-30-01-8502	Service Fees:	No	
Project Number:	C12414	SDCs:	Yes	
Project Manager:	Pete Boone	Percent Eligible - SDCs:	85%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
100,000	2,129,000	51,800	-	-	-	-	-	51,800	-

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

PROJECT TITLE: Cornelius Pass Facility Intertie Improvements



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Provides an emergency backup flow source for critical customer.
2.	Growth/Future Demands	Allows / supports additional growth.
3.	Safety/Security	Improves system reliability for Hillsboro system.

PROJECT DESCRIPTION

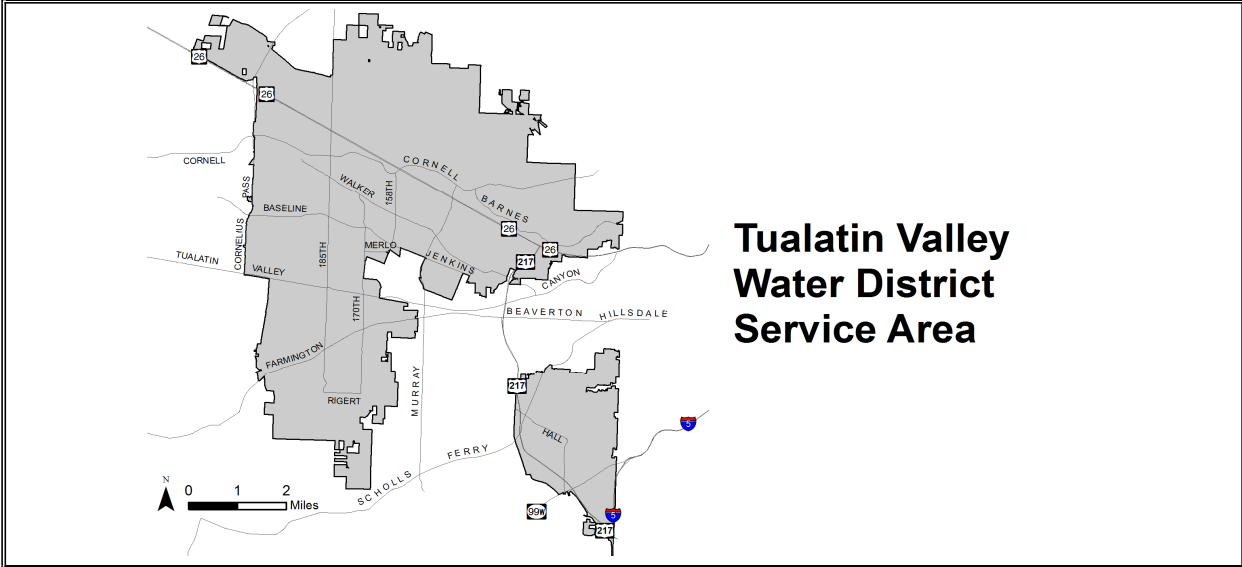
On behalf of the City of Hillsboro this project includes modifications to the District's Cornelius Pass pump station that would allow water to be wheeled from TVWD to Hillsboro through the North Transmission Line. Approximately 10 MGD can be provided to Hillsboro in an emergency. TVWD will budget and construct this project. It will be 100% reimbursable by the City of Hillsboro.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Source	Water Rates:	Yes	No anticipated impact on District operating costs.
General Ledger Account:	11-30-01-8502	Service Fees:	No	
Project Number:	C12467	SDCs:	No	
Project Manager:	Pete Boone	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	Yes	
		Partner Cost Percentage:	100%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
516,000	1,000	103,500	-	-	-	-	-	103,500	-

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

PROJECT TITLE: Willamette Water Supply System Turnouts



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Turnouts are required in order to take water from the Willamette Water Supply System
2.	Growth/Future Demands	Allows / supports additional growth and offsets reduction in Portland water
3.	Reliability	The WWSS will be designed and constructed to current seismic resiliency standards

PROJECT DESCRIPTION

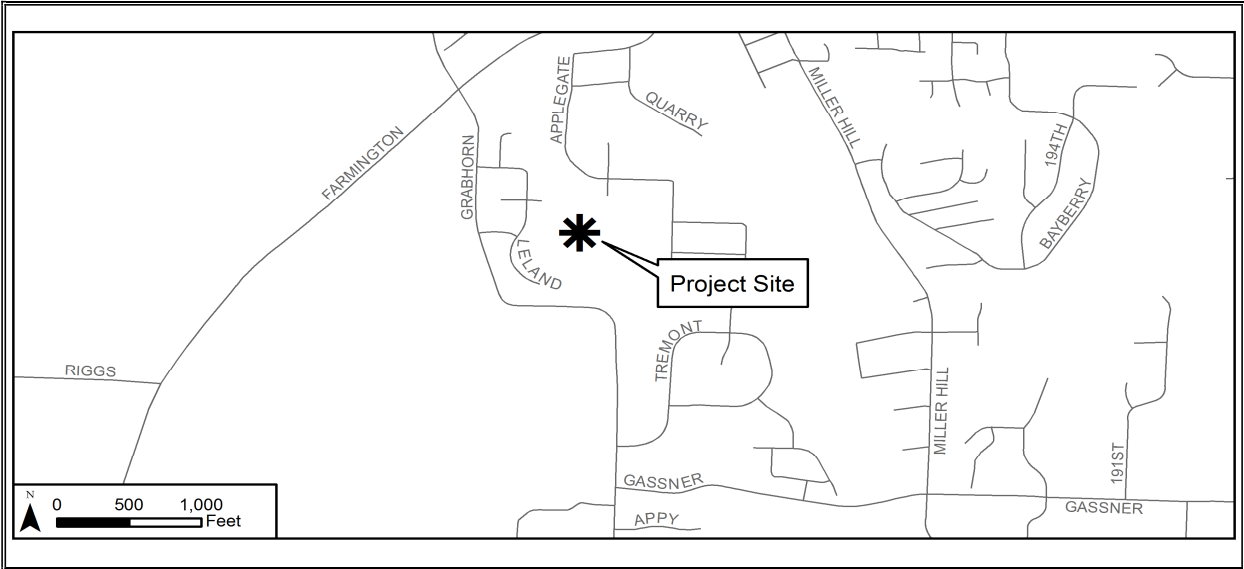
These projects will consist of flow control facilities for WWSP supply turnouts. Planning is still in progress to determine the final quantity, location, and configuration of these facilities. Generally, they will consist of an above grade structure that will house flow control valves and fluoride feed systems.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Source	Water Rates:	Yes	Additional operating budget increases anticipated. Further analysis required.
General Ledger Account:	11-30-01-8502	Service Fees:	No	
Project Number:	TBD	SDCs:	Yes	
Project Manager:	TBD	Percent Eligible - SDCs:	59%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	-	-	-	-	-	2,458,500	2,458,500	2,000,000

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

PROJECT TITLE: Grabhorn Reservoir Replacement - Tank 1 (5 MG)



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Provides storage redundancy for the aging Grabhorn 5 MG reservoir, and adds storage to the 385 pressure zone, which is deficient.
2.	Aging Infrastructure	Addition of new resilient structure capable of providing long-term, reliable service.
3.	Reliability	Improvements required to maintain reliable and seismically resilient facilities.

PROJECT DESCRIPTION

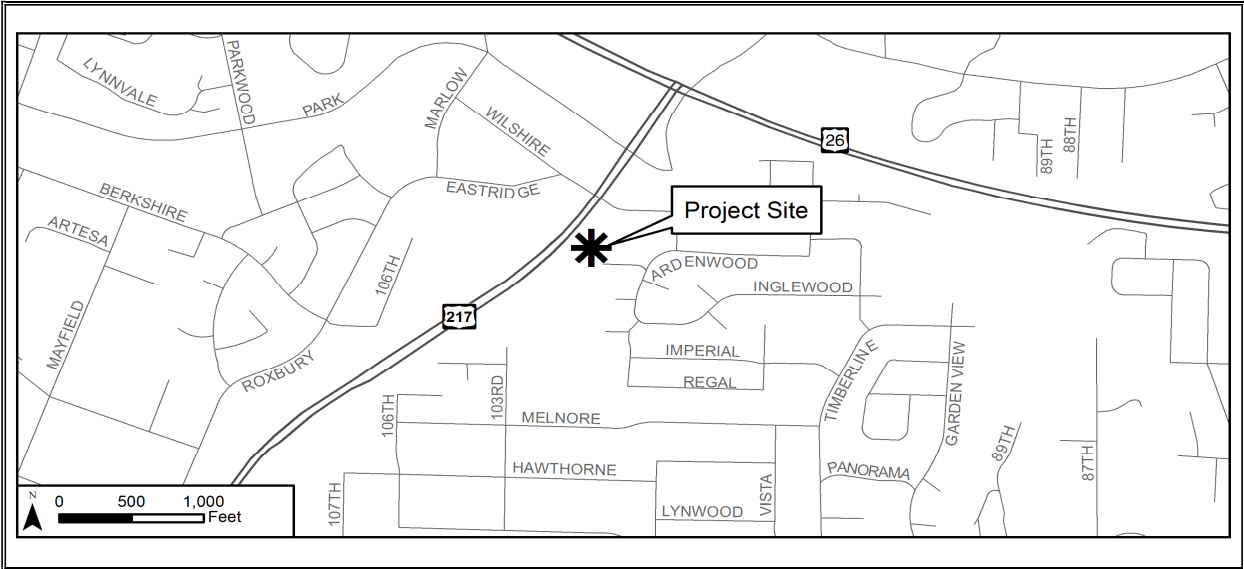
This project involves the demolition of the existing 5 MG concrete reservoir, then design and construction of a 5 MG pre-stressed concrete reservoir within the footprint of the existing reservoir. Onsite piping and valves will also be replaced.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Storage	Water Rates:	Yes	No anticipated impact on District operating costs.
General Ledger Account:	11-30-01-8505	Service Fees:	No	
Project Number:	C12503	SDCs:	No	
Project Manager:	Nick Augustus	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	400,000	6,456,000	5,011,400	-	-	-	-	11,467,400	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Ridgewood View Park Reservoir



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Continued development of replacement infrastructure that provides service to key parts of the District's system and critical customers in the 435 pressure zone.
2.	Aging Infrastructure	Replacement of aging / out-of-service infrastructure to provide new resilient structures capable of providing long-term, reliable service.
3.	Reliability	Improvements required to maintain reliable and seismically resilient facilities.

PROJECT DESCRIPTION

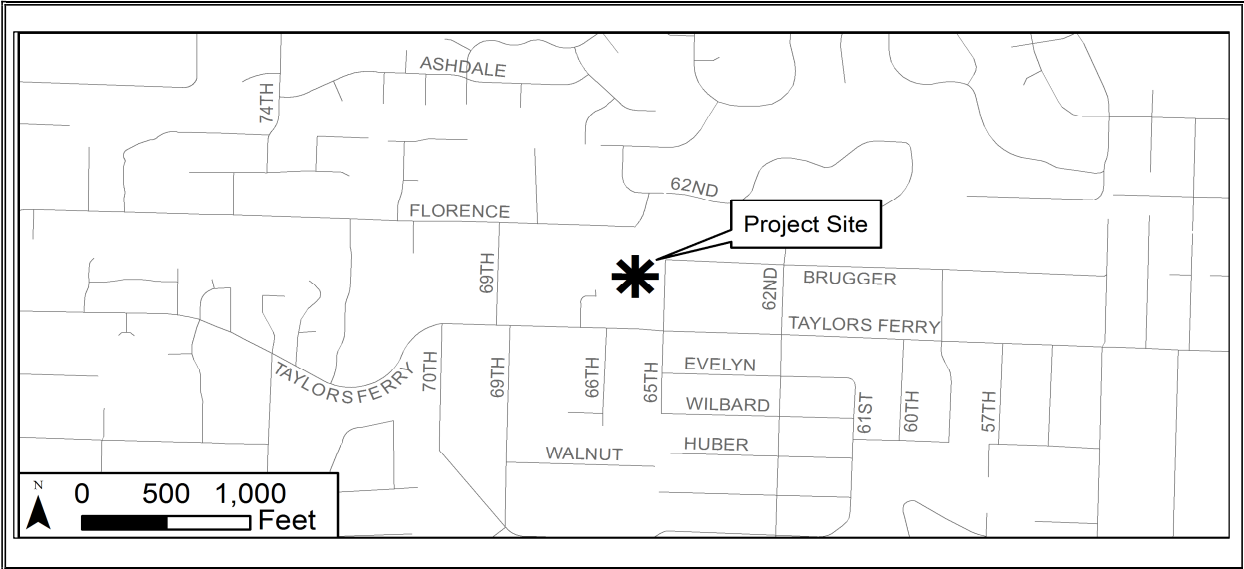
Replacement of the Hyde Park 5 MG Reservoir with new, seismically resilient 8 MG Ridgewood View Park Reservoir. This project involved working closely with the Tualatin Hills Park & Recreation District to refurbish park facilities affected by the reservoir construction. Project included sustainability in the design and development through the use of Envision™ sustainable infrastructure rating system. Project achieved ISI Envision™ Sustainable Infrastructure Gold Award. Project is substantially complete as of September 2016 and the District is finalizing remaining items with contractor.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Storage	Water Rates:	Yes	This replacement reservoir will result in a net 3 million gallon increase in storage with no increase of operating costs.
General Ledger Account:	11-30-01-8505	Service Fees:	No	
Project Number:	C12372	SDCs:	Yes	
Project Manager:	Nick Augustus	Percent Eligible - SDCs:	38%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
7,520,000	7,395,000	41,400	-	-	-	-	-	41,400	-

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

PROJECT TITLE: Taylors Ferry Reservoir No. 2 Replacement



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Will provide seismically resilient storage in Metzger 498 pressure zone.
2.	Growth/Future Demands	Will provide additional storage required to accommodate projected growth in the Metzger service area.
3.	Reliability	Improvements required to maintain reliable supply.

PROJECT DESCRIPTION

Planning, design, permitting, and construction of a new 2.0 MG pre-stressed concrete reservoir at Taylor's Ferry to replace the existing 1.0 MG reservoir.

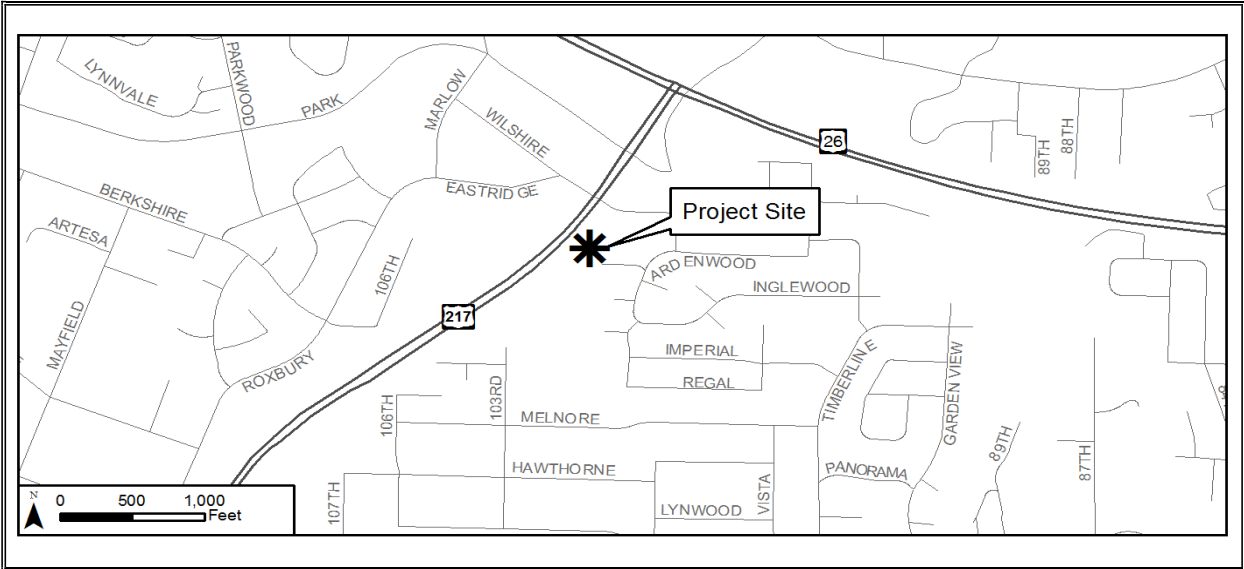
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Storage	Water Rates:	Yes	Replaces existing concrete reservoir with lower maintenance concrete reservoir. By increasing the size and improving the tank, future maintenance costs are expected to remain the same. Grounds maintenance needs are also anticipated to be unchanged.
General Ledger Account:	11-30-01-8505	Service Fees:	No	
Project Number:	TBD	SDCs:	Yes	
Project Manager:	TBD	Percent Eligible - SDCs:	50%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	-	1,113,700	2,628,000	-	-	-	3,741,700	-

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

PROJECT TITLE: Ridgewood View Park Pump Station



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Critical to maintaining seismic resiliency to pump water to the West Hills area and critical customers.
2.	Aging Infrastructure	Replacement of aging infrastructure with new state-of-the-art facilities capable of providing long-term service.
3.	Reliability	Improvements required to maintain reliable and seismically resilient facilities.

PROJECT DESCRIPTION

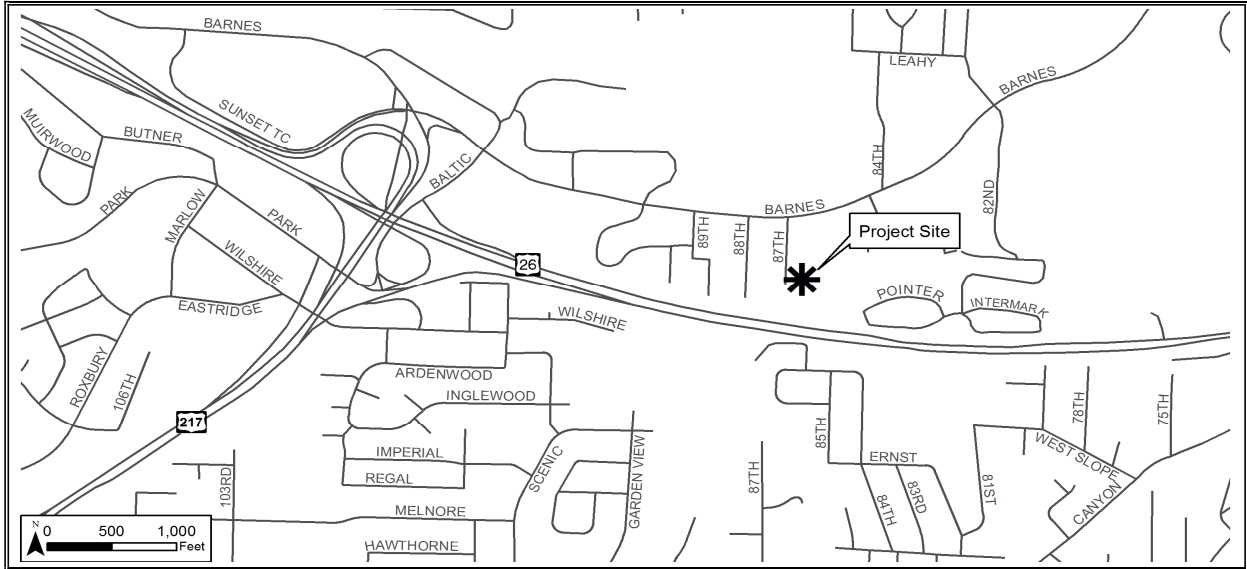
Replacement of the Inglewood Pump Station with new, seismically resilient 11 MGD Ridgewood View Park Pump Station. This pump station is adjacent to the Ridgewood View Park Reservoir. Elements included drilled micropiles for foundation support, below grade concrete structure, above grade masonry, 5 vertical turbine pumps, overhead crane rail, electrical equipment, 550 kW emergency generator, and 7,000 LF of 24" welded steel pipeline. Includes sustainable design features and achieved ISI Envision™ Sustainable Infrastructure Gold Award.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pump Station	Water Rates:	Yes	This new pump station replaces the existing Inglewood Pump Station. Power costs are expected to increase by \$22,000/year due to pumping from a lower elevation.
General Ledger Account:	11-30-01-8506	Service Fees:	No	
Project Number:	C12373	SDCs:	No	
Project Manager:	Nick Augustus	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
6,100,000	6,425,000	62,100	-	-	-	-	-	62,100	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
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PROJECT TITLE: Rosander Pump Station



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Adds redundancy to the West Hills pumping system.
2.	Growth/Future Demands	Provides pumping capacity to meet the demands of the projected growth in the West Hills area.
3.	Safety/Security	Pump Station will have secured access and be a seismically resilient facility.

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.

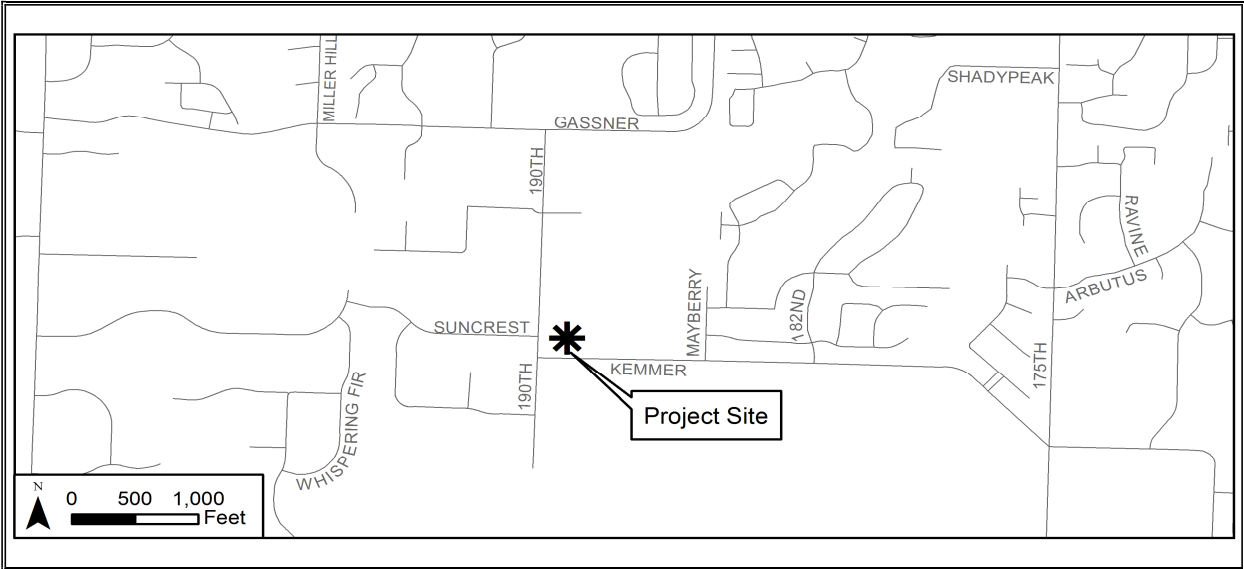
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pump Station	Water Rates:	Yes	This new pump station replaces the existing Sunset Pump Station resulting in a net no material impact to operating costs. Power costs may decrease slightly due to increase pumping efficiency.
General Ledger Account:	11-30-01-8506	Service Fees:	No	
Project Number:	C12358 & C12488	SDCs:	No	
Project Manager:	Pete Boone	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
4,912,000	483,000	-	-	-	-	-	-	-	5,000,000

Tualatin Valley Water District
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PROJECT TITLE: Cooper Mountain Pump Station (920 Zone), Fire Flow Improvements



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. This project will improve the fire flow capacity in this area until funding is available for pump station replacement.
2.	Customers Served	The Cooper Mountain Pump Station serves a significant portion of the District.
3.	Growth/Future Demands	This project will provide additional capacity to accommodate growth and future demands.

PROJECT DESCRIPTION

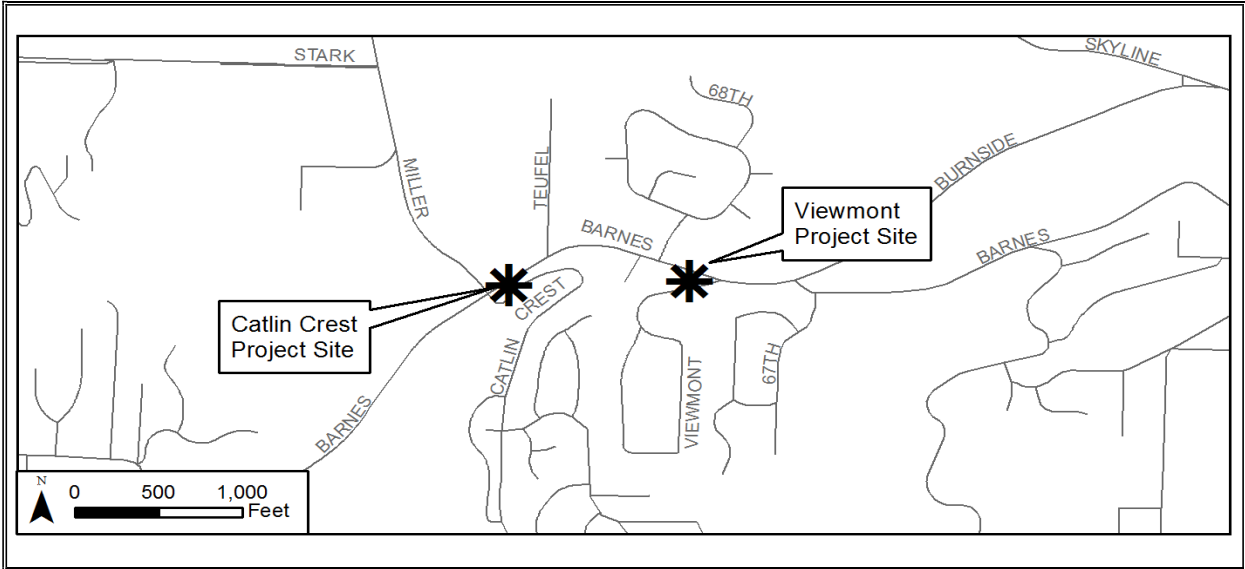
This project will provide increased fire flow for the 920 pressure zone as an interim solution in lieu of full replacement of the pump station as recommended in the 2015 Water Master Plan. Improvement will consist of replacement or one or more pumps and associated modification of the pump station piping and electrical systems.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pump Station	Water Rates:	Yes	This project will increase pump capacity, which may lead to increases in power costs.
General Ledger Account:	11-30-01-8506	Service Fees:	No	
Project Number:	TBD	SDCs:	No	
Project Manager:	Ryan Smith	Percent Eligible - SDCs:	0%	
Work Performed By:	Contract & District Staff	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	517,500	-	-	-	-	-	517,500	-

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

PROJECT TITLE: Catlin Crest/Viewmont pump station replacement/relocation



KEY DRIVERS FOR CIP PROJECT		
1.	Safety & Security	This project will help offset fire flow deficiencies in the pressure zones served by the Catlin Crest and Viewmont pump stations, and it will improve safety for operators.
2.	Aging Infrastructure	The Catlin Crest and Viewmont pump stations are nearing the end of their useful life. Several failures have occurred and maintenance and repair costs have been increasing.
3.	Customers Served	These pump stations pump directly to service in pressure zones without storage or redundant supply, so their reliable operation is critical to providing water service to the areas that they serve.

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, they need additional fire flow capacity, and are located in vaults with difficult access. A feasibility study to determine the preferred location and pipeline routing for the new combined pump station, as well as plan for piping improvements needed to accommodate the future Rosander pump station will be completed in FY16-17. This project will implement recommendations from the feasibility study. The project budget assumes that a "pitless" pump station will be constructed.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pump Station	Water Rates:	Yes	The new combined pump station will lower the District's maintenance costs, but may result in increases of electrical fixed charges.
General Ledger Account:	11-30-01-8506	Service Fees:	No	
Project Number:	TBD	SDCs:	No	
Project Manager:	Ryan Smith	Percent Eligible - SDCs:	0%	
Work Performed By:	Contract & District Staff	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	258,800	535,600	-	-	-	-	794,400	-

Tualatin Valley Water District
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PROJECT TITLE: Mains Replacement Program



KEY DRIVERS FOR CIP PROJECT		
1.	Aging Infrastructure	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

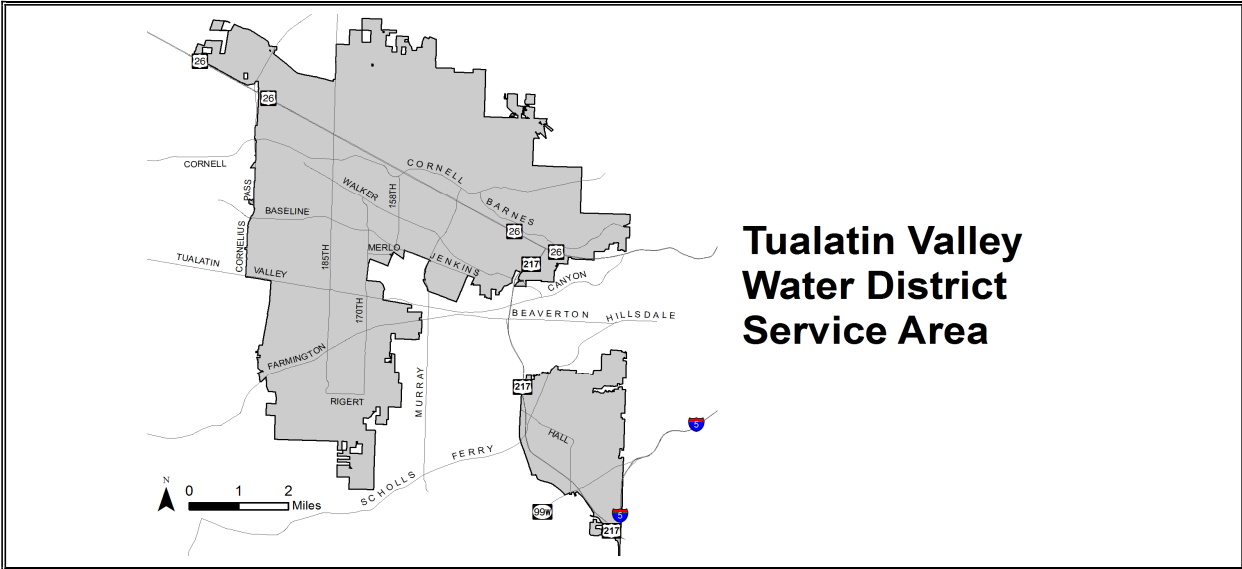
This work includes projects that are completed as part of the District's Mains Replacement Program. This program is a focused effort to identify, prioritize, design and install projects based on asset management principles to replace existing failing infrastructure. The majority of these projects will be water main replacements that are required due to corrosion 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	No material impact. New installations designed for site specific corrosion conditions resulting in longer expected design life of pipeline and reduced leakage for system.
General Ledger Account:	11-30-01-8504, 11-40-42-8504	Service Fees:	No	
Project Number:	Various	SDCs:	No	
Project Manager:	Various	Percent Eligible - SDCs:	0%	
Work Performed By:	Contract & District Staff	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
3,376,000	2,919,205	1,552,500	1,606,800	2,217,400	2,295,000	3,563,100	3,687,800	14,922,600	24,000,000

Tualatin Valley Water District
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PROJECT TITLE: Pipeline Upgrades and Renewals - Agency Driven



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Upgrades or renewal work to the District's system that develop in response to new projects by Washington County, developers, for based on other needs.
2.	Aging Infrastructure	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 projects, projects related to development or other needs.

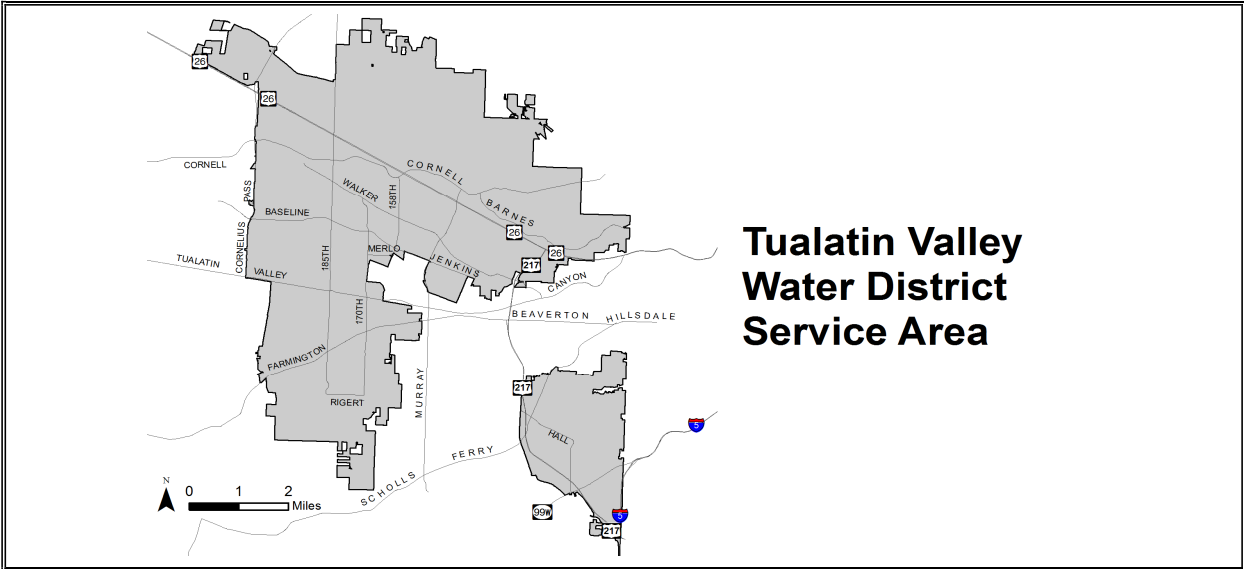
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	No material impact. New installations designed for site specific corrosion conditions resulting in longer expected design life of pipeline and reduced leakage for system.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	Various	SDCs:	No	
Project Manager:	Kevin Schmeltzer	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
976,500	532,000	665,000	665,000	1,000,000	1,000,000	1,000,000	1,000,000	5,330,000	1,520,000

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Development Opportunity & Reimbursement Projects



KEY DRIVERS FOR CIP PROJECT

1.	Cost Effectiveness	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 2015 Master Plan.
2.	Reliability	Having funding available to participate in opportunity projects will allow the District to construct resilient backbone pipelines and other recommended improvements
3.	Aging Infrastructure	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 2015 Water Master Plan. 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 2015 Water Master Plan 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.

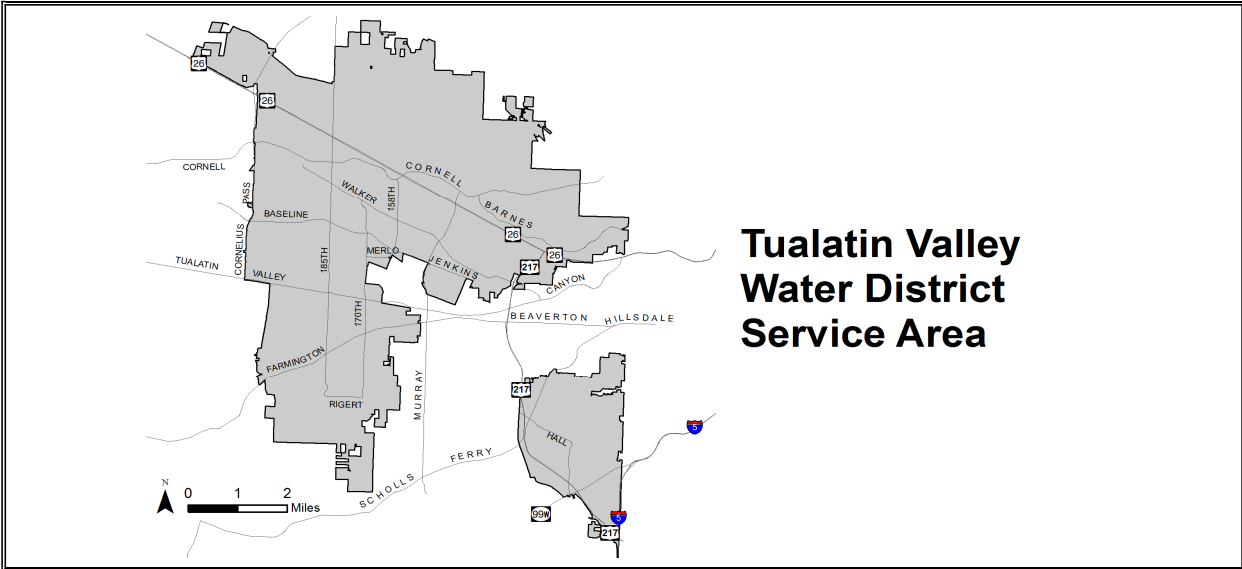
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	No material impact anticipated.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	TBD	SDCs:	Yes	
Project Manager:	Sarah Alton	Percent Eligible - SDCs:	Various	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	250,000	250,000	1,000,000	1,000,000	1,000,000	1,000,000	4,500,000	5,000,000

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Distribution Water Quality Sample Stations



**Tualatin Valley
 Water District
 Service Area**

KEY DRIVERS FOR CIP PROJECT		
1.	Customers Served	Provides greater operational information within the District to be able to maintain a high level of service for the customers.
2.	Water Quality	Enhances ability to monitor water quality within the District and comply with existing and potentially new regulatory requirements.
3.	Safety & Security	Enhances safety by improving level of service for customers and providing safe, reliable drinking water.

PROJECT DESCRIPTION

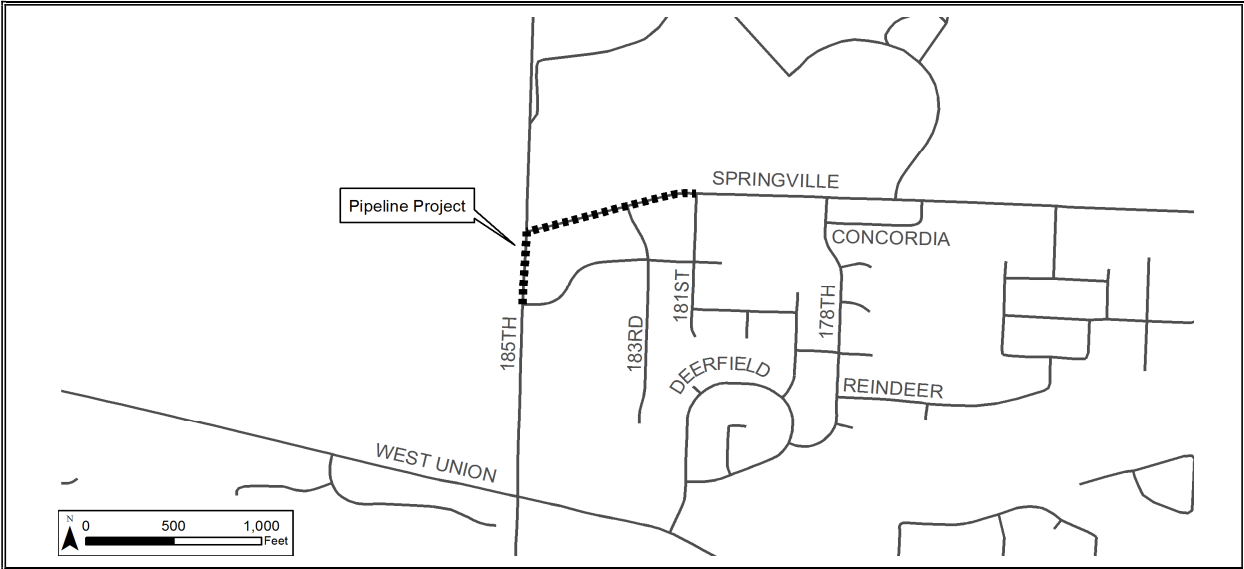
Installation of additional water quality sampling stations. Ten additional sample stations are planned with \$5,000 per sample station adjusted for inflation.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	No material impact anticipated. Water quality monitoring will be performed by existing staff.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	C10230	SDCs:	No	
Project Manager:	Bill Richmond	Percent Eligible - SDCs:	0%	
Work Performed By:	District Staff	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
102,000	36,000	25,900	26,800	-	-	-	-	52,700	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: 185th and Springville (Washington County Project)



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Project required due to County road configuration.
2.	Reliability	Improvements will provide greater seismic resilience.
3.	Safety & Security	Enhances safety by improving level of service for customers and providing safe, reliable drinking water.

PROJECT DESCRIPTION

This is an opportunity project that is being constructed in conjunction with a Washington County road project and will replace approximately 1400 feet of 16" ductile iron. Project is located near NW 185th and NW Springville Rd. The County road project requires the existing pipeline be moved. It is also an opportunity to replace older infrastructure with new pipeline installed with restrained joints for seismic resilience.

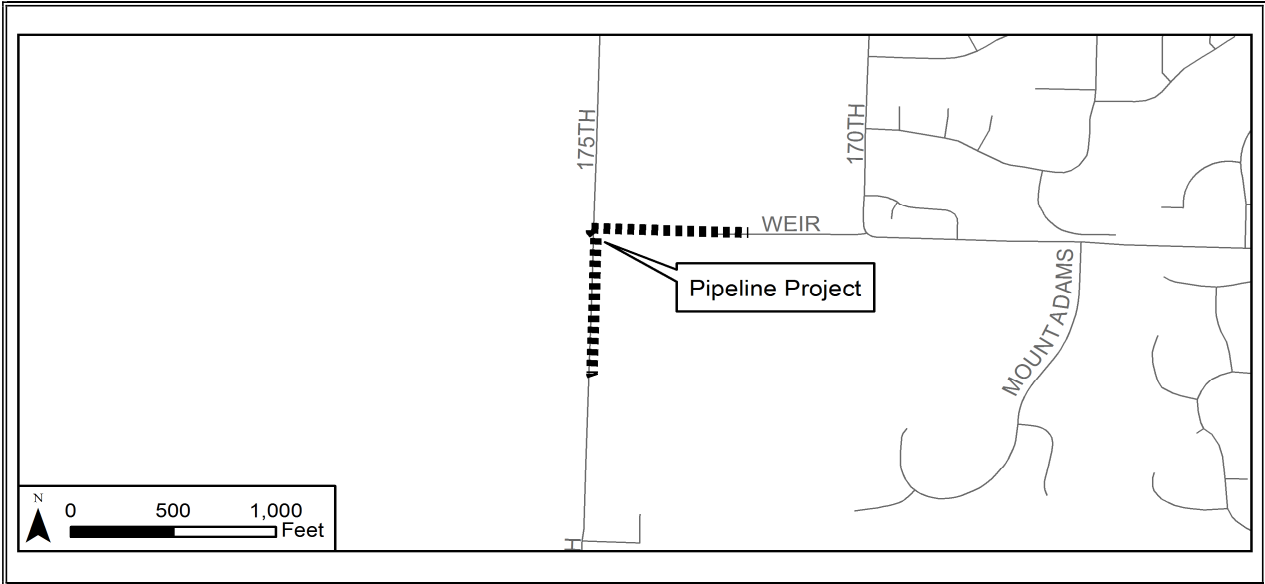
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	No anticipated impact on District operating costs.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	C12470	SDCs:	No	
Project Manager:	Kevin Schmeltzer	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
655,500	147,000	548,600	-	-	-	-	-	548,600	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Kemmer Ridge



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	This is a reimbursement agreement for a private development project that was required to relocate a District main.
2.	Growth/Future Demands	The pipeline was recommended for upsizing, so it will be replaced with a larger diameter main.
3.	Cost Effectiveness	This is an opportunity project that is being constructed in conjunction with a private development project.

PROJECT DESCRIPTION

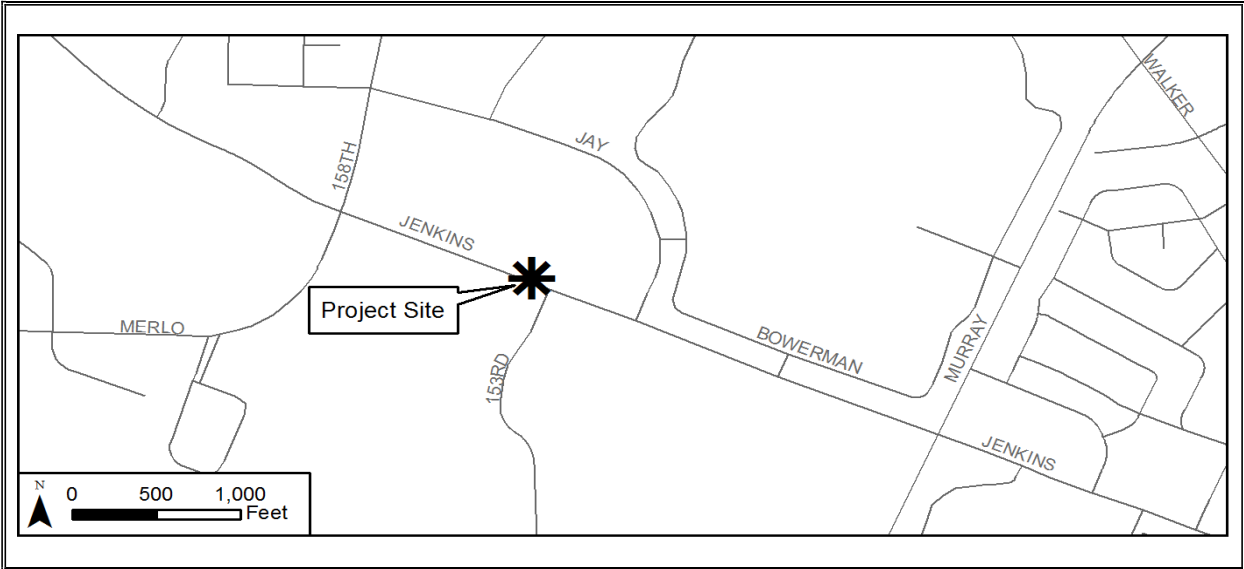
This is an opportunity project that is being constructed in conjunction with a private development project. It consists of 1,425 feet of 12-inch diameter water main located in SW 175th Avenue and SW Weir Road. The Kemmer Ridge development is required to change the vertical alignment of SW 175th Avenue, which would require the existing waterlines to be relocated. The 2015 Water Master Plan recommended a larger pipe in SW 175th Avenue, so this development provides an opportunity to upsize the pipe.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	No anticipated impact on District operating costs.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	C12508	SDCs:	Yes	
Project Manager:	Sarah Alton	Percent Eligible - SDCs:	100%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	92,175	92,175	-	-	-	-	-	92,175	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Jenkins Road Bridge



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Project required due to County bridge replacement
2.	Reliability	Improvements will provide greater seismic resilience.
3.	Safety & Security	Enhances safety by improving level of service for customers and providing safe, reliable drinking water.

PROJECT DESCRIPTION

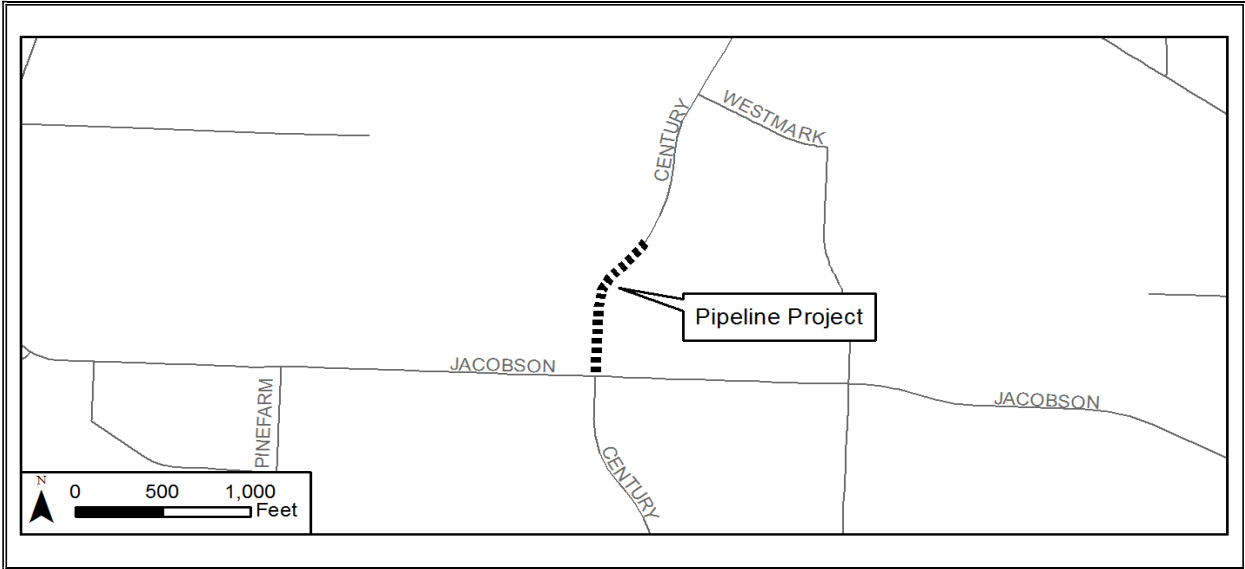
This is a Washington County LUT project to replace the existing bridge on Jenkins Road near SW 153rd Avenue. The District will coordinate with this project to install a new waterline on the bridge.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	No anticipated impact on District operating costs.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	C12492	SDCs:	No	
Project Manager:	Kevin Schmeltzer	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	55,000	93,200	-	-	-	-	-	93,200	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Century Boulevard



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Project required due to City road configuration.
2.	Reliability	Improvements will provide greater seismic resilience.
3.	Safety & Security	Enhances safety by improving level of service for customers and providing safe, reliable drinking water.

PROJECT DESCRIPTION

This is a City of Hillsboro project to extend Century Boulevard. The District will coordinate with this project to install a new waterline in the roadway.

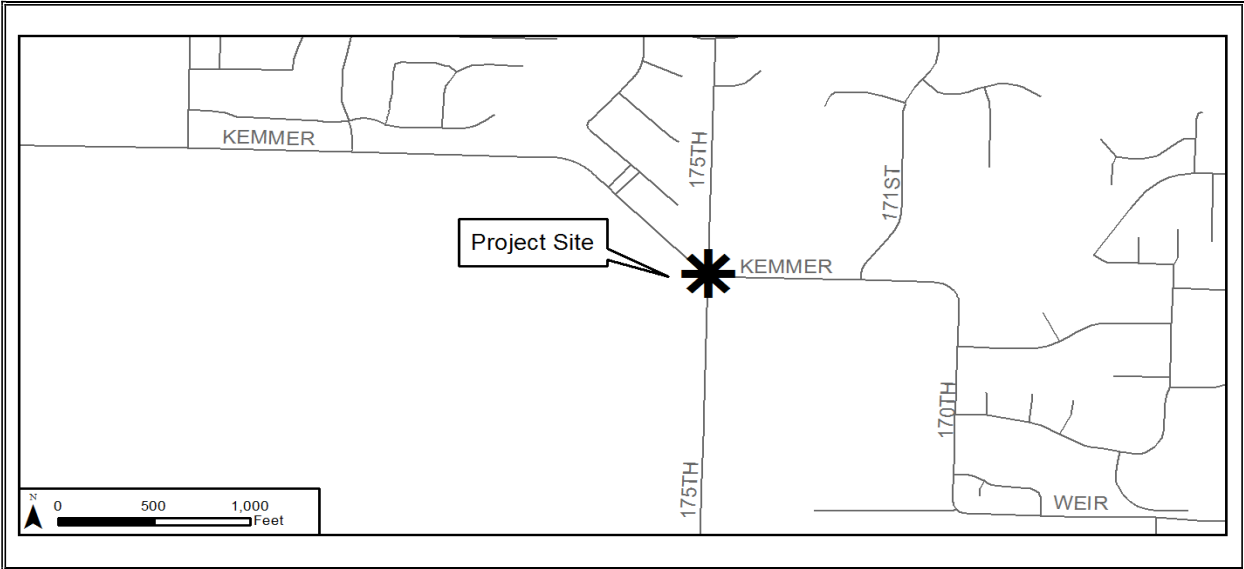
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	No anticipated impact on District operating costs.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	C12469	SDCs:	Yes	
Project Manager:	Kevin Schmeltzer	Percent Eligible - SDCs:	100%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	30,000	331,200	-	-	-	-	-	331,200	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Kemmer Road and SW 175th Roundabout



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Project required due to County road configuration.
2.	Reliability	Improvements will provide greater seismic resilience.
3.	Safety & Security	Enhances safety by improving level of service for customers and providing safe, reliable drinking water.

PROJECT DESCRIPTION

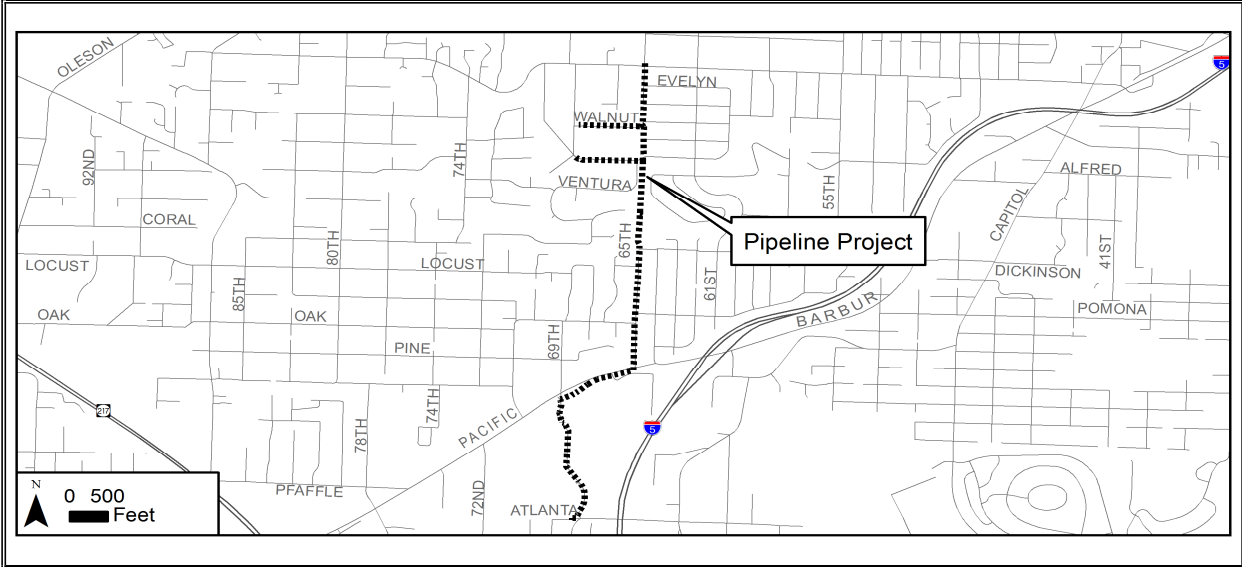
This is a Washington County LUT project to replace the existing intersection of SW 175th Avenue and SW Kemmer Road with a roundabout. The District will coordinate with this project to install new waterlines in this intersection.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	No anticipated impact on District operating costs.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	TBD	SDCs:	No	
Project Manager:	Ryan Smith	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	50,000	310,500	-	-	-	-	-	310,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: P-156 (Metzger 498 North - South Fire Flow Improvement)



KEY DRIVERS FOR CIP PROJECT		
1.	Safety & Security	This project will help offset fire flow deficiencies in the Metzger 498 and 426 pressure zones.
2.	Reliability	Improvements will provide greater seismic resilience.
3.	Aging Infrastructure	Replacement of aging infrastructure to provide new resilient structures capability of providing long-term, reliable service.

PROJECT DESCRIPTION

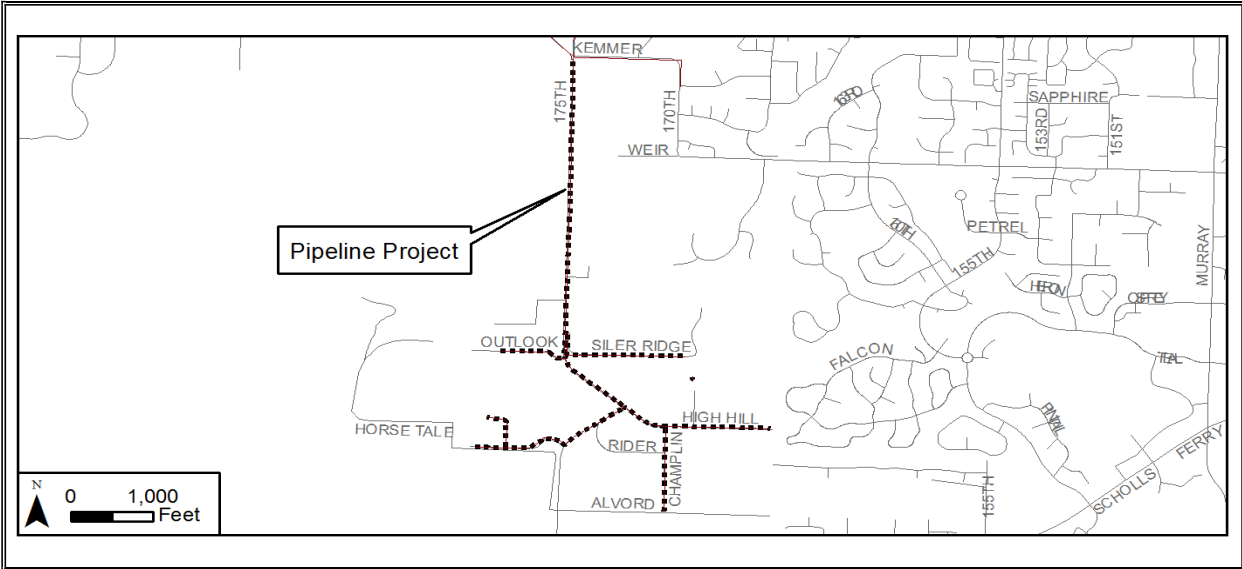
This fire flow improvement project consists of nearly 10,000 feet of 12-inch and 18-inch diameter pipeline along the eastern edge of the 498 pressure zone in the District's Metzger service area. It will provide additional fire flow in the southern portion of the 498 pressure zone, which includes the "Tigard Triangle". This project was recommended in the 2015 Water Master Plan.

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.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	TBD	SDCs:	Yes	
Project Manager:	TBD	Percent Eligible - SDCs:	39%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	3,045,100	1,113,700	-	-	-	-	4,158,800	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: P-136 (175th Ave - Kemmer to Siler Ridge)



KEY DRIVERS FOR CIP PROJECT		
1.	Safety & Security	This project will help offset fire flow deficiencies on Cooper Mountain
2.	Reliability	Improvements will provide greater seismic resilience.
3.	Aging Infrastructure	Replacement of aging infrastructure to provide new resilient structures capability of providing long-term, reliable service.

PROJECT DESCRIPTION

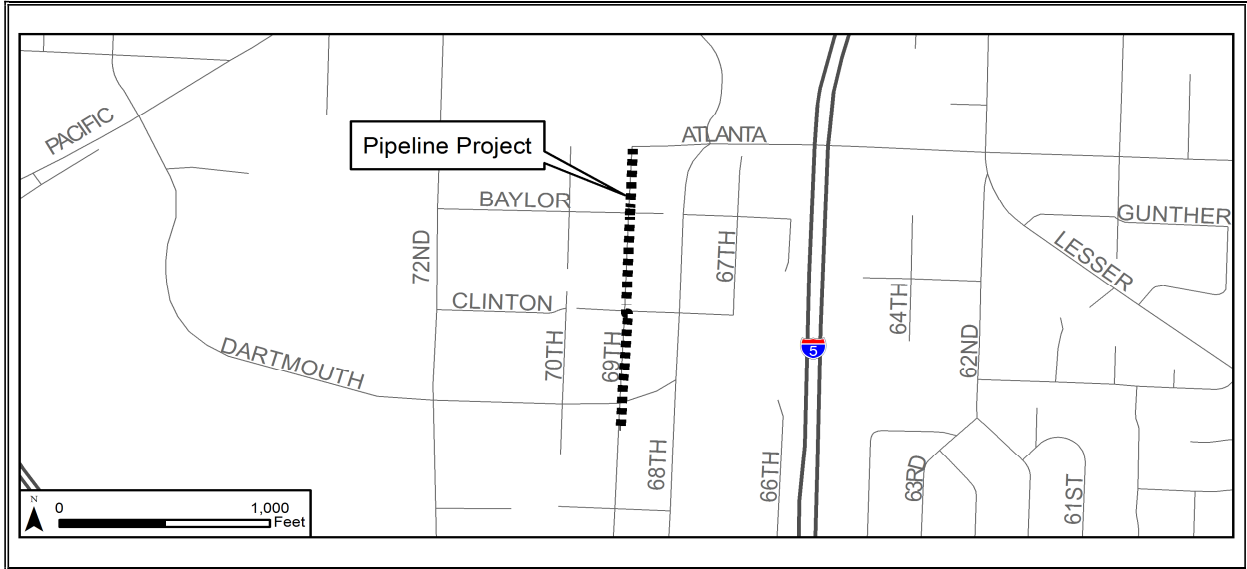
This fire flow improvement project consists of approximately 12,400 feet of 12-inch and 18-inch diameter pipeline along SW 175th Avenue between Kemmer Road and Siler Ridge Road. This pipeline will provide additional fire flow capacity to the top and south side of Cooper Mountain. This project was recommended in the 2015 Water Master Plan and a portion of this proposed pipeline will be installed in coordination with the Kemmer Ridge development.

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.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	TBD	SDCs:	Yes	
Project Manager:	Sarah Alton	Percent Eligible - SDCs:	100%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	-	-	-	-	-	4,434,500	4,434,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: P-164 (69th Ave - Dartmouth to Atlanta)



KEY DRIVERS FOR CIP PROJECT		
1.	Safety & Security	This project will help offset fire flow deficiencies in the Metzger 498 pressure zone.
2.	Reliability	Improvements will provide greater seismic resilience.
3.	Aging Infrastructure	Replacement of aging infrastructure to provide new resilient structures capability of providing long-term, reliable service.

PROJECT DESCRIPTION

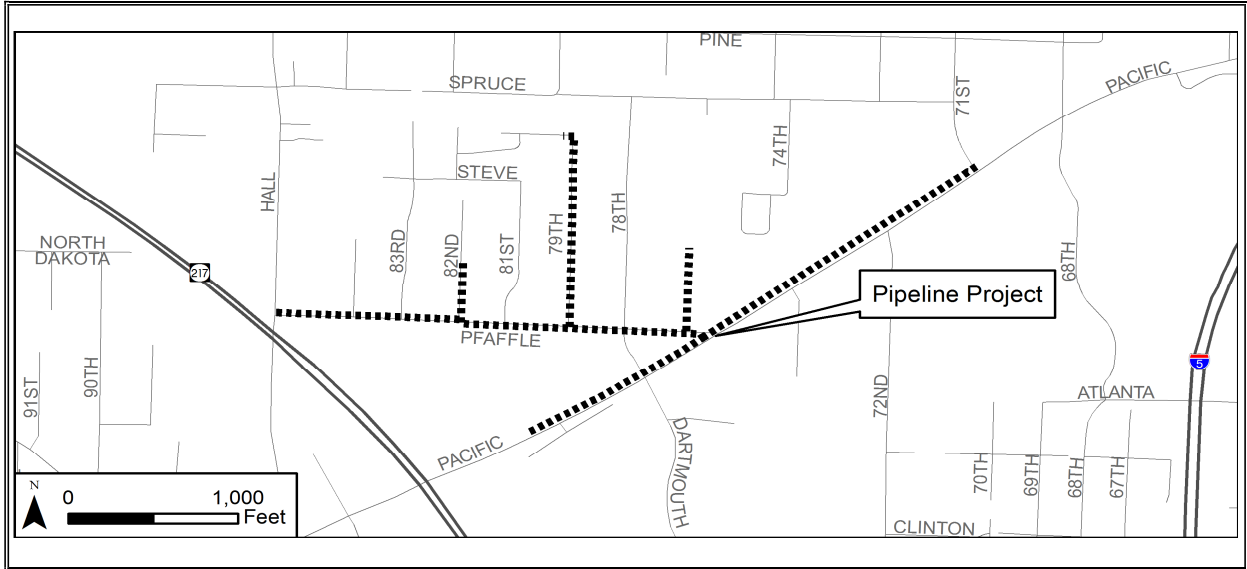
This fire flow improvement project consists of approximately 1,460 feet of 8-inch pipeline along SW 69th Avenue between Dartmouth and Atlanta to provide additional fire flow capacity to this area of Metzger. This project was recommended in the 2015 Water Master Plan.

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.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	TBD	SDCs:	Yes	
Project Manager:	TBD	Percent Eligible - SDCs:	39%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	-	-	-	-	395,100	-	395,100	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: P-161 (HWY 99-217 to 71st Ave)



KEY DRIVERS FOR CIP PROJECT		
1.	Safety & Security	This project will help offset fire flow deficiencies in the Metzger 498 and 426 pressure zones.
2.	Reliability	Improvements will provide greater seismic resilience.
3.	Aging Infrastructure	Replacement of aging infrastructure to provide new resilient structures capability of providing long-term, reliable service.

PROJECT DESCRIPTION

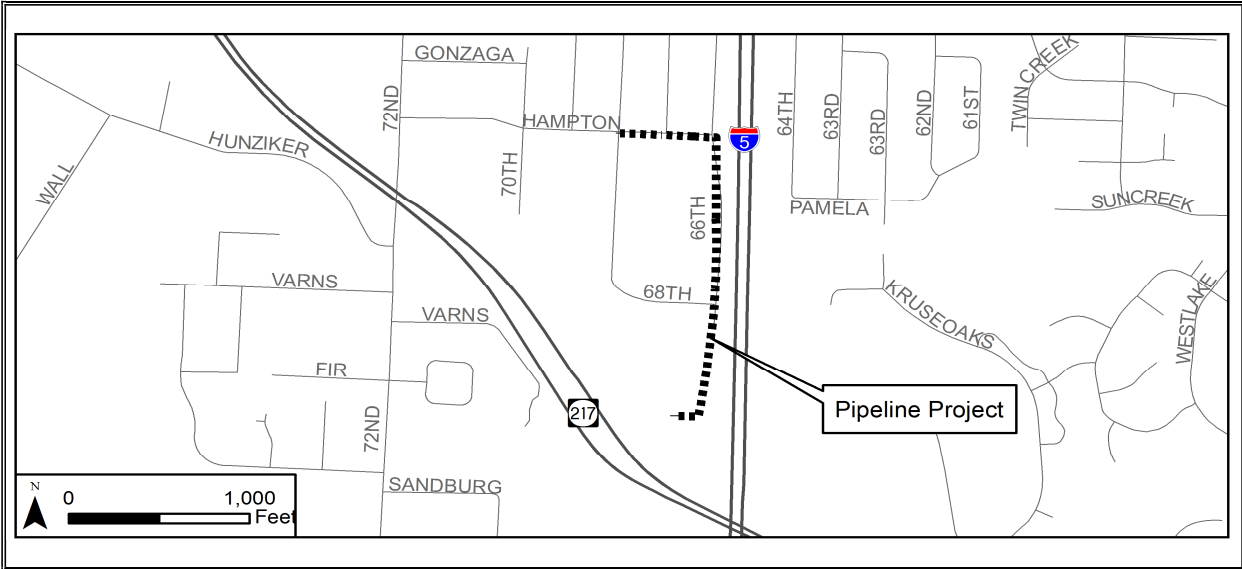
This fire flow improvement project consists of approximately 8,050 feet of 12-inch and 8-inch pipeline along Highway 99W between Highway 217 and SW 71st Avenue to provide additional fire flow capacity to this area of Metzger. This project was recommended in the 2015 Water Master Plan.

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.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	TBD	SDCs:	Yes	
Project Manager:	TBD	Percent Eligible - SDCs:	33%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	-	-	2,512,700	-	-	-	2,512,700	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: P-166 (66th Ave., Hampton, 68th Ave.)



KEY DRIVERS FOR CIP PROJECT		
1.	Safety & Security	This project will help offset fire flow deficiencies in the Metzger 498 pressure zone.
2.	Reliability	Improvements will provide greater seismic resilience.
3.	Aging Infrastructure	Replacement of aging infrastructure to provide new resilient structures capability of providing long-term, reliable service.

PROJECT DESCRIPTION

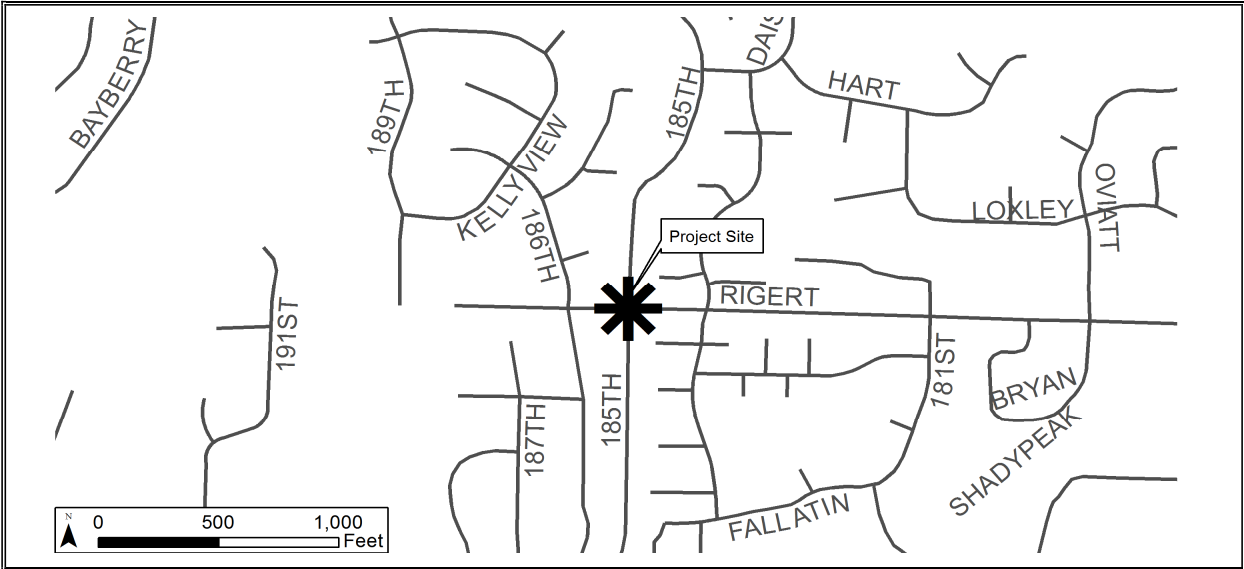
This fire flow improvement project consists of approximately 2,490 feet of 12-inch and 8-inch pipeline along SW 66th Avenue, SW 68th Avenue, and SW Hampton Street to provide additional fire flow capacity to this area of Metzger. This project was recommended in the 2015 Water Master Plan.

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.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	TBD	SDCs:	Yes	
Project Manager:	TBD	Percent Eligible - SDCs:	39%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	-	-	-	-	876,700	-	876,700	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Cooper Mtn ASR to 550 Backdown Pressure Reducing Valves (PRV)



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Miller Hill Road ASR supplies water into the 800 pressure zone and these two PRVs will supply the remainder of the Cooper Mountain area.
2.	Reliability	Improvements required to maintain reliable and seismically resilient facilities.
3.	Growth/Future Demands	This project will provide additional capacity to accommodate growth and future demands.

PROJECT DESCRIPTION

Design and installation of a pressure-reducing valve (PRV) to bring ASR water from 800 pressure zone down to the 550 pressure zone.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	The addition of a PRV station will increase operating and maintenance costs nominally, but will also allow greater operational flexibility of the Miller Hill ASR.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	TBD	SDCs:	Yes	
Project Manager:	Pete Boone	Percent Eligible - SDCs:	50%	
Work Performed By:	Contract & District Staff	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
235,000	-	258,800	-	-	-	-	-	258,800	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: PRV/Vault Replacements & Upgrades



KEY DRIVERS FOR CIP PROJECT		
1.	Aging Infrastructure	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.	Customers Served	These facilities provide water to significant portions of the District's service area.

PROJECT DESCRIPTION

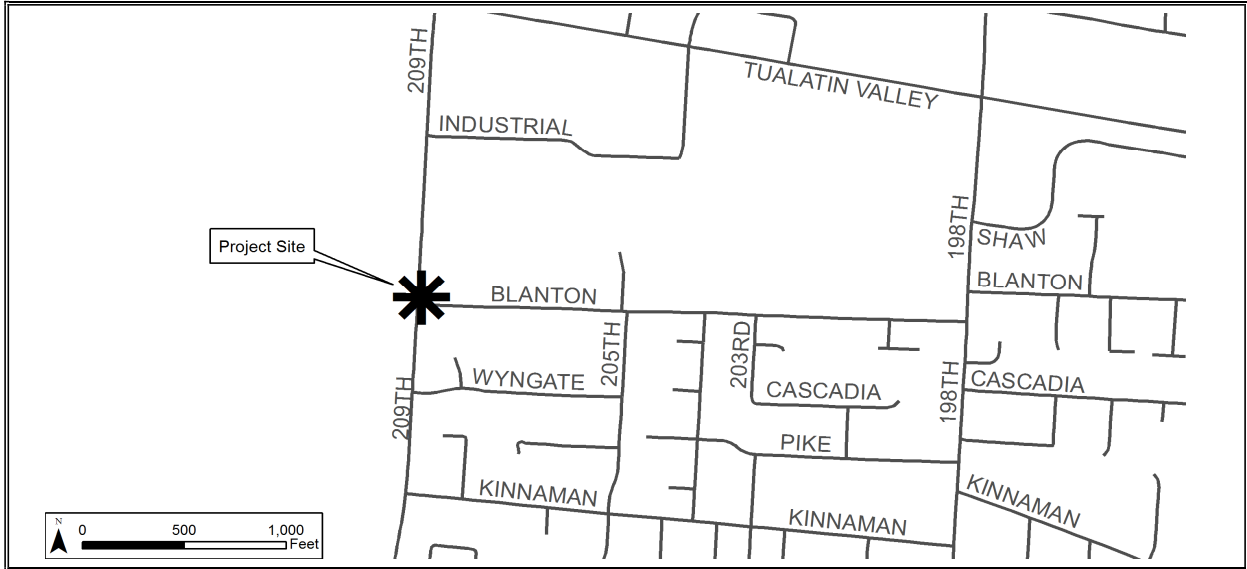
This line item will include replacements, upgrades, and safety improvements of pressure regulating valve vaults. Included in this line item is the 175th Ave. vault, which needs the piping replaced due to corrosion and the valves resized to fit the pressure zone's needs. Other representative projects 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 get a longer life out of its valves.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	These projects should result in an overall decrease in operating and maintenance costs by replacing deteriorating parts that have historically required extensive resources to maintain.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	TBD	SDCs:	No	
Project Manager:	TBD	Percent Eligible - SDCs:	0%	
Work Performed By:	District Staff	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	200,000	200,000	200,000	200,000	200,000	200,000	1,200,000	1,000,000

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: 385 Pressure Relief Valves (209th Ave)



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Provides fire flow and consistent pressure to the southern portion of the 385 pressure zone during ASR recharge operations.
2.	Cost Effectiveness	Assists in maximizing the use of ASR operations during peak demands at a lower unit cost than other District water sources.
3.	Safety & Security	Enhances safety by improving level of service for customers and providing safe, reliable drinking water.

PROJECT DESCRIPTION

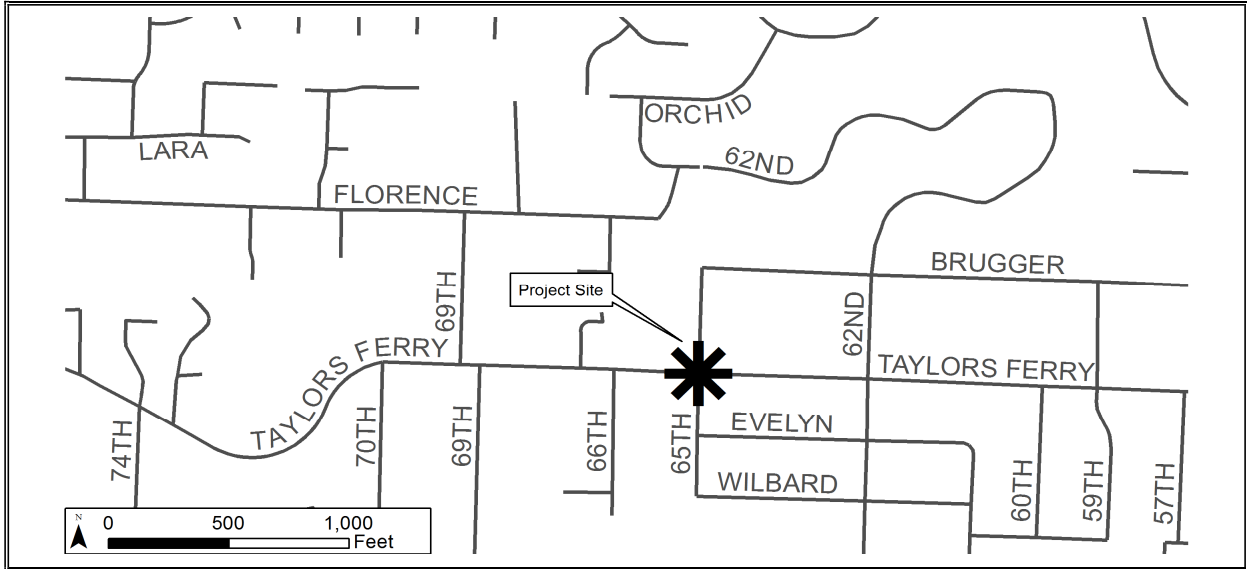
Design and installation of new pressure reducing valve in a vault located in the 385 pressure zone near SW 209th Avenue and Farmington Road. This PRV will supply consistent pressure and flow to the south end of the 385 pressure zone when the 30" transmission line in 209th is used to deliver high-pressure JWC water to the base of Cooper Mountain for ASR injection and will provide pressure relief for the 385 pressure zone while the Grabhorn Reservoir is offline during construction.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	The addition of a pressure relief valve station will increase operating and maintenance costs nominally, but will also allow greater operational flexibility of the 385 pressure zone.
General Ledger Account:	11-30-01-8504	Service Fees:	No	
Project Number:	TBD	SDCs:	No	
Project Manager:	Pete Boone	Percent Eligible - SDCs:	0%	
Work Performed By:	Contract & District Staff	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	258,800	-	-	-	-	-	258,800	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Washington Co. Supply Line Emergency PS Trailer Storage



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Weather-proof storage is required to keep the trailer-mounted pumps in good condition.
2.	Customers Served	Trailer-mounted pumps provide emergency supply to multiple water providers.
3.	Safety & Security	Building will keep the trailers secure.

PROJECT DESCRIPTION

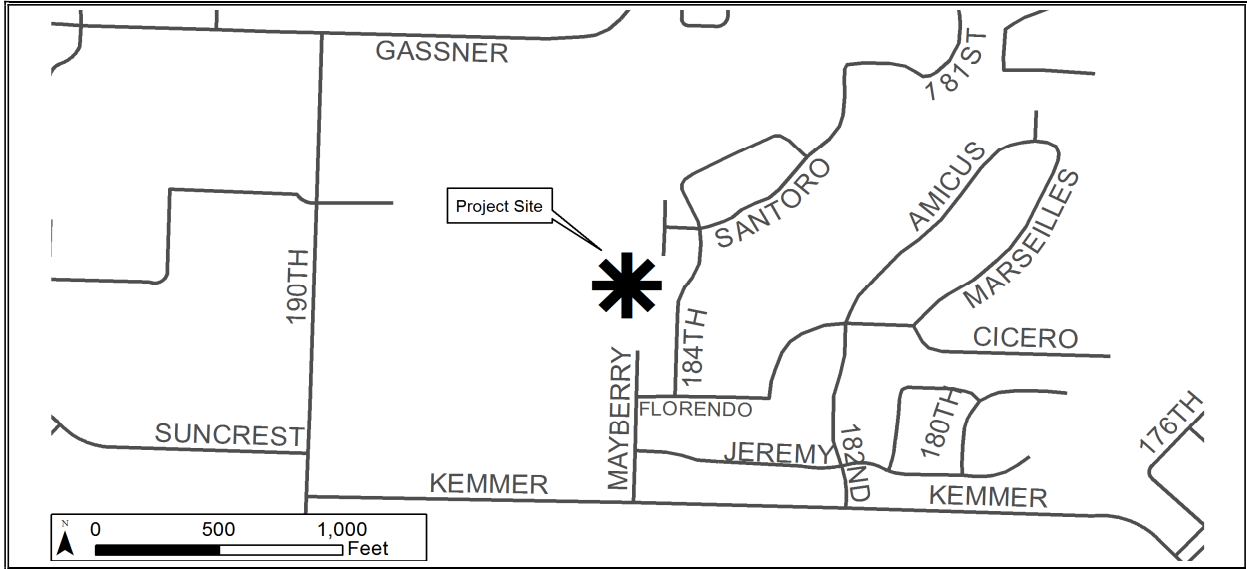
Planning, design, permitting, and construction of a new building to store the two emergency pump station trailer-mounted pumps. The pumps will provide emergency water during outages to the District's Metzger service area, and the City of Tualatin. The District is currently in discussions with Clean Water Services to possibly lease an existing CWS building to postpone the need for a TVWD facility to be constructed.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Facilities	Water Rates:	No	This will result in increased operational costs, but the occurrence of its use will be extremely infrequent. Operating costs will be shared with City of Tualatin.
General Ledger Account:	11-30-01-8501	Service Fees:	Yes	
Project Number:	C12478	SDCs:	No	
Project Manager:	Pete Boone	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	Yes	
		Partner Cost Percentage:	50%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
150,000	2,000	-	-	-	-	178,200	-	178,200	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Radio Equipment Building & Generator Replacement



KEY DRIVERS FOR CIP PROJECT		
1.	Aging Infrastructure	Replacement of a key District communications facility that has reached the end of its useful life.
2.	Project Criticality	Upgrades equipment and provides a facility designed to current seismic standards.
3.	Safety & Security	Building will keep the radio equipment secure.

PROJECT DESCRIPTION

Replacement recommend by the District's 2013 Wireless Master Plan. The current radio building does not meet conform to proper site standards for modern communications systems and seismic strength. Project includes installation of a 8' x 12' prefab building, a new standby generator, site preparation, and permits.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Facilities	Water Rates:	Yes	No material impact. This radio facility is already part of the routine maintenance performed by the District's Building & Grounds crew.
General Ledger Account:	11-30-01-8501	Service Fees:	Yes	
Project Number:	C12487	SDCs:	No	
Project Manager:	Neil Kennedy	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
100,000	20,000	50,000	-	-	-	-	-	50,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Diesel Exhaust Fluid Dispenser



KEY DRIVERS FOR CIP PROJECT		
1.	Growth/Future Demands	More vehicles need diesel exhaust fluid (DEF)
2.	Cost Effectiveness	DEF will be less expensive purchased in bulk.
3.	Safety & Security	Provides a safer method for filling tanks.

PROJECT DESCRIPTION

Installation of a 330 gallon bulk diesel exhaust fluid dispenser at the District's fleet yard. This project will allow the District to buy diesel exhaust fluid (DEF) in bulk as well as provide safety improvements for the fueling station. Tualatin Hills Park & Recreation District (THPRD) may use this facility in the future if their fleet has a need. The District will recover shared costs should THPRD sign on.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Facilities	Water Rates:	Yes	This facility will require minimal ongoing maintenance and may reduce DEF costs with the District now able to purchase in bulk.
General Ledger Account:	11-40-41-8501	Service Fees:	Yes	
Project Number:	TBD	SDCs:	No	
Project Manager:	Jeremy Kind	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	21,700	-	-	-	-	-	21,700	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Vault - Dewatering Facility



KEY DRIVERS FOR CIP PROJECT		
1.	Cost Effectiveness	This improvement will reduce bioswale maintenance requirements and staff time to maintain the dewatering facility.
2.	Environment	Improves water quality in the bioswale and in the runoff to the public storm system.
3.	Safety/Security	Maintenance to the bioswale will be minimized providing for a safer work environment.

PROJECT DESCRIPTION

Upgrade existing sedimentation vault at the District's dewatering facility. This will allow more sedimentation to remain in the vault for easier cleanup and provides added protection to the bioswale that serves to retain the water runoff for the dewatering facility.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Facilities	Water Rates:	Yes	This improvement save staff and vehicle time, resulting in cost savings to the District.
General Ledger Account:	11-40-41-8501	Service Fees:	Yes	
Project Number:	TBD	SDCs:	No	
Project Manager:	Collin Fleming	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	15,500	-	-	-	-	-	15,500	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (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 event.
2.	Aging Infrastructure	Structural improvements to make the facility capable of providing long-term, reliable service.
3.	Safety/Security	Structural improvements will improve life safety for District Staff.

PROJECT DESCRIPTION

Planning, design, permitting, and construction of seismic improvements to the TVWD Headquarters facility to increase resilience and life safety.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Facilities	Water Rates:	Yes	No material impact. TVWD Headquarters Facility is already part of the routine maintenance performed by the District's Building & Grounds crew.
General Ledger Account:	11-30-01-8501	Service Fees:	Yes	
Project Number:	TBD	SDCs:	No	
Project Manager:	Carrie Pak	Percent Eligible - SDCs:	0%	
Work Performed By:	Contract & District Staff	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	-	-	-	-	1,187,700	-	1,187,700	-

FIELD OPERATIONS - FLEET 2017-19 REPLACEMENT SCHEDULE

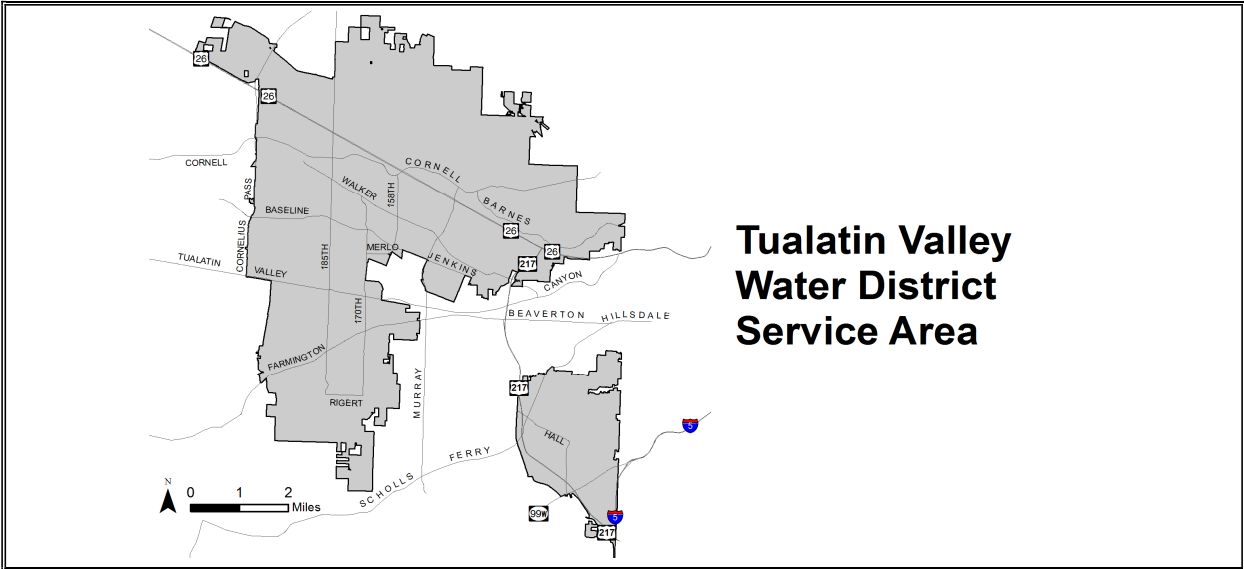
GL 11-40-01-8831
17-18 Portion 18-19 Portion

Total 2017-2019 Field Operations Fleet Schedule	\$ 800,900	\$ 527,700	\$ 273,200
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DIVISION OR PROGRAM	ITEM	QTY	DESCRIPTIONS AND RATIONALE	TOTAL AMT	EST. MONTH NEEDED	EST. YEAR NEEDED
OPS - Construction/Maint. & Valve	3 yd. Utility Dump Truck, Unit 22	1	Age Replacement	\$ 66,400	12	2017
OPS - Valve	4" Vacuum Replacement, Unit 127	1	Age Replacement	\$ 93,900	3	2018
ENG - Engineering	Compact Pickup, Unit 10	1	Age Replacement	\$ 34,800	10	2017
ENG - Water Quality	Cargo Minivan, Unit 12	1	New Vehicle, Redeploy existing Water Quality Truck	\$ 32,400	7	2017
OPS - Construction/Maint.	Dump Truck, Unit 43	1	Age Replacement	\$ 192,400	12	2018
DISTRICT - Shared	Emergency Pipe Trailer	1	New Trailer	\$ 21,600	3	2019
ENG - Distribution	Full Size Pickup 4x4, Unit 400	1	Age Replacement	\$ 42,900	10	2017
OPS - Building/Grounds	Landscape Truck, Crew cab, 4x4, Unit 24	1	Age Replacement	\$ 69,500	12	2017
OPS - Valve	One Ton Service truck, Unit 80	1	Age Replacement	\$ 67,500	1	2018
DISTRICT - Shared	Passenger Vehicle, Unit 19	1	Age Replacement	\$ 29,600	3	2019
DISTRICT - Shared	Passenger Vehicle, Unit 70	1	Age Replacement	\$ 29,600	3	2019
DISTRICT - Shared	Passenger Vehicle, Unit 71	1	Age Replacement	\$ 29,600	3	2018
OPS - Building/Grounds	Small Landscape Tractor Mower, unit 351	1	Age Replacement	\$ 15,700	7	2017
OPS - Construction/Maint. & Valve	Used 500 gal Capacity Vacuum, Unit 131	1	Age Replacement	\$ 75,000	3	2018

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Customer Information System



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Legacy utility billing system is outdated, requires significant internal support and lacks functionality for District objectives such as a transition to monthly billing.
2.	Customers Served	The Customer Information System (CIS) impacts all District customers and billing partners. Newer CIS technologies expand secure customer payment and information options.
3.	Reliability	CIS is a mission-critical system that must be reliable and flexible to adjust to District needs (e.g. provide a low-income rate structure to qualified customers).

PROJECT DESCRIPTION

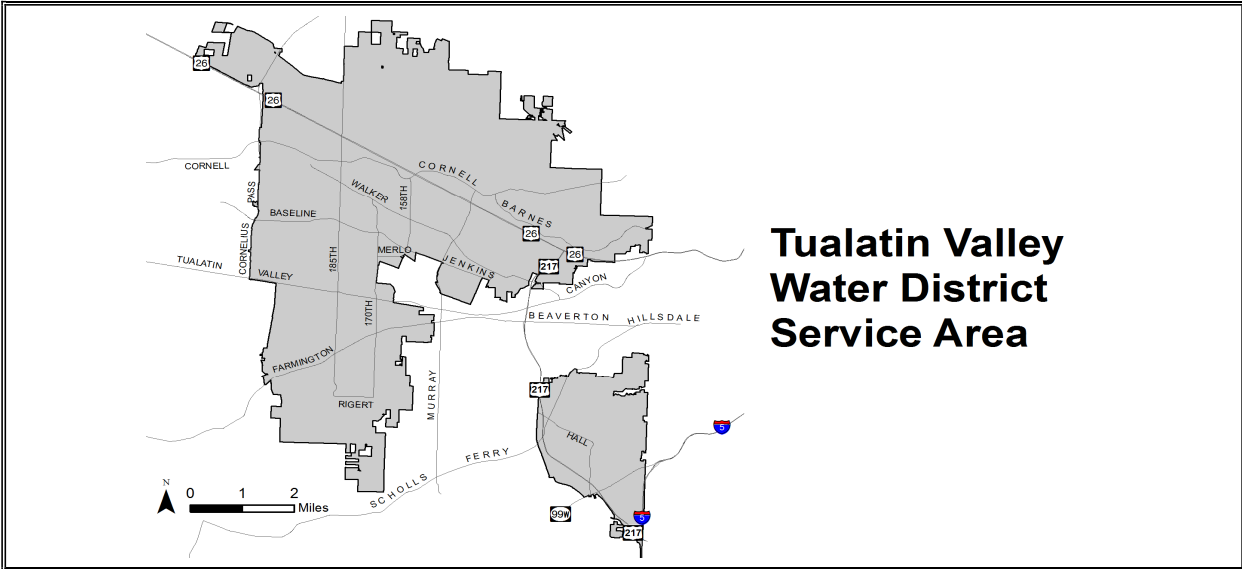
This project focuses on developing a new District Customer Information System (CIS) for utility billing and other customer support purposes. CIS project phases are anticipated to be: assess current business practices and define future CIS business needs based on best practices; develop an overall project strategy; develop system requirements and solicitation process; conduct a comprehensive solicitation; select and contract with vendor(s); implement core CIS functionality and transition to ongoing operations; develop enhancements roadmap. The CIS project timeline through "go live" implementation is anticipated to take 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. Project will involve extensive customer feedback and communications. Key project partners include Clean Water Services and the City of Beaverton.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Information Technology	Water Rates:	No	It is anticipated 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 and presentation with corresponding higher merchant and bank transactions fees.
General Ledger Account:	TBD	Service Fees:	Yes	
Project Number:	TBD	SDCs:	No	
Project Manager:	Andrew Carlstrom	Percent Eligible - SDCs:	0%	
Work Performed By:	Contract & District Staff	Partner Cost Share :	Yes	
		Partner Cost Percentage:	TBD	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six-Year Total	Future Years
-	-	1,164,400	2,410,300	1,247,300	-	-	-	4,822,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Upgrade Master Station software to ArchestrA



KEY DRIVERS FOR CIP PROJECT		
1.	Aging Infrastructure	Stand-alone InTouch is outdated technology. System Platform (ArchestrA) provides much better Business Tools.
2.	Reliability	The current HMI and Server machines are over 5 years old. The proposed hardware will provide redundancy and greater reliability.
3.	Cost Effectiveness	Included in this project is a redesign of the tag naming convention. Navigation of process variables will become much more intuitive and save time.

PROJECT DESCRIPTION

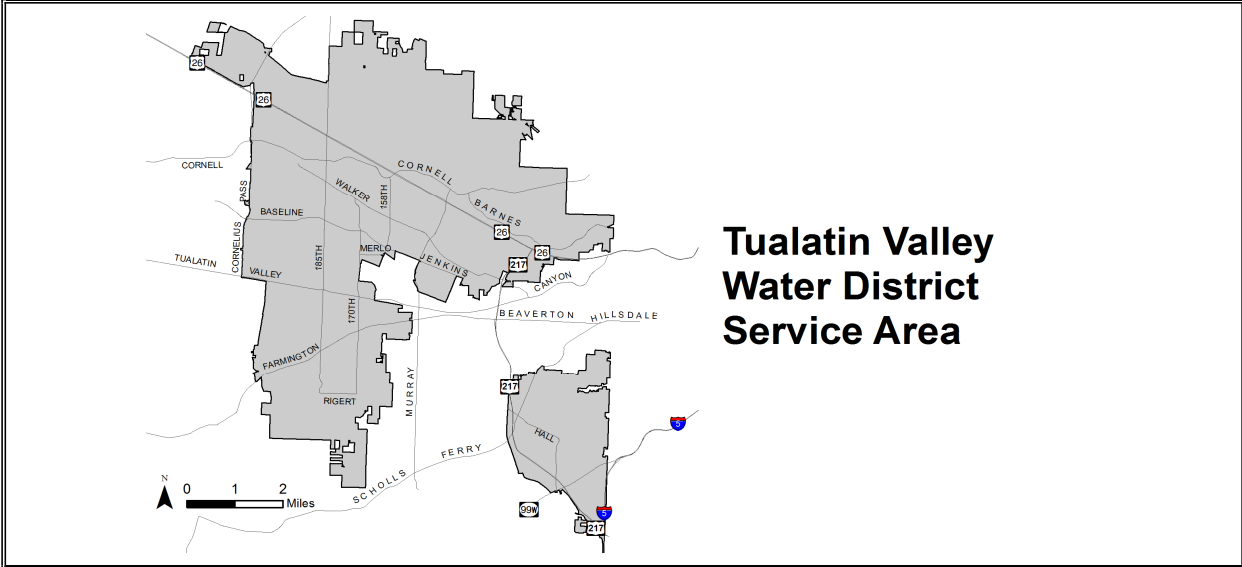
Upgrade of District's Supervisory Control & Data Acquisition System (SCADA) interface from Wonderware Intouch to Wonderware ArchestrA. ArchestrA has improved graphics and deployment models. The upgrade will also provide for simplified and more intuitive reporting.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Information Technology	Water Rates:	Yes	The District's annual support agreement would go from \$10,075 per year to \$13,835 per year, an increase of \$3,760 per year.
General Ledger Account:	TBD	Service Fees:	Yes	
Project Number:	TBD	SDCs:	No	
Project Manager:	Roy Kunkle	Percent Eligible - SDCs:	0%	
Work Performed By:	Contract & District Staff	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	100,000	-	-	-	-	-	100,000	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Field Ops: Service Installations



**Tualatin Valley
 Water District
 Service Area**

KEY DRIVERS FOR CIP PROJECT		
1.	Growth/Future Demands	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.	Customers Served	Enhances safety by improving level of service for customers and providing safe, reliable drinking water.

PROJECT DESCRIPTION

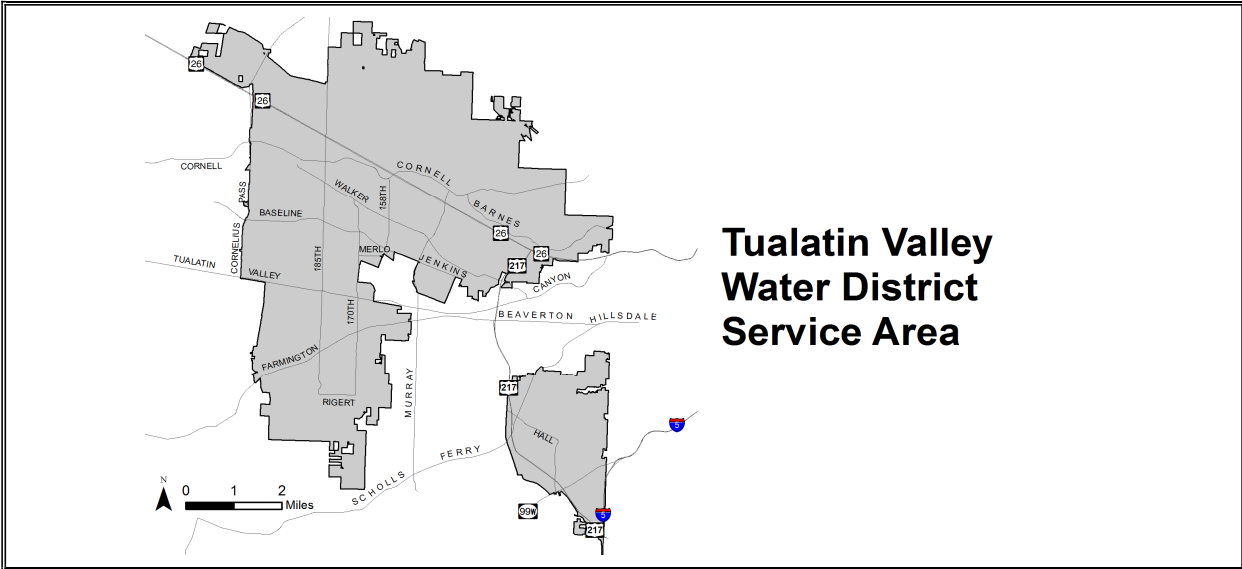
This category of work involves the various ongoing installation and replacement of service installations and large meters by District crews in support of new development and customer base growth, and to replace aging infrastructure on an as needed basis. The service and large meter installation work 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:	No	Meter and service maintenance is an ongoing and routine District activity. Meters and services for new customers are recovered through separate fees.
General Ledger Account:	11-40-42-8470	Service Fees:	Yes	
Project Number:	Various	SDCs:	No	
Project Manager:	Field Operations	Percent Eligible - SDCs:	0%	
Work Performed By:	District Staff	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
2,577,400	3,385,408	1,209,700	1,246,000	1,283,400	1,321,900	1,361,500	1,402,400	7,824,900	TBD

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: Customer Service: Meter Installations



KEY DRIVERS FOR CIP PROJECT		
1.	Growth/Future Demands	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.	Customers Served	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 TWWD 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.
General Ledger Account:	11-20-22-8470	Service Fees:	Yes	
Project Number:	Various	SDCs:	No	
Project Manager:	Field Customer Service	Percent Eligible - SDCs:	0%	
Work Performed By:	District Staff	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
456,657	-	237,300	250,000	257,500	265,200	273,200	281,400	1,564,600	TBD

Introduction

In 2014, the District partnered with the City of Hillsboro to form the Willamette Water Supply Program (WWSP) to begin planning, design, and construction of the Willamette Water Supply System (WWSS). Once complete, the WWSS will provide up to 60 million gallons a day to the District's and Hillsboro's customers by July 2026.

The WWSS will consist of over 30 miles of large diameter pipelines, two 15-million gallon reservoirs, and a new water treatment plant and pump station. Additionally, there will be upgrades to the existing river intake facilities located in Wilsonville to provide additional capacity and improve seismic resiliency. The WWSS is being designed to withstand the impacts of a large earthquake or other natural disaster so that water service can be restored quickly and communities can achieve recovery sooner. Developing the WWSS is one of Oregon's most important infrastructure projects. The system, when complete and operating, will supply water to more than 350,000 residents and some of the state's largest employers for the next 100 years.

As the managing agency of the WWSP, the District has a Water Supply Program (WSP) Department whose sole focus is managing the planning, design, and construction of the WWSS. The WSP Department also manages the communications, finance and controls, and partner coordination of the WWSP. For more information on the WSP Department, see Section 14.

Implementation

The WWSS is being designed and constructed as thirteen unique work packages or projects. Additional details about each project are provided later in this section. Several of the pipeline projects are being planned and constructed in conjunction with roadway projects with other local agencies such as Washington County and the City of Wilsonville. These partnership opportunity projects are examples of how regional cooperation can result in shared savings for each of the partners, and reduced construction impacts for the community.

In addition to the design and construction costs of the thirteen projects, there are several activities categorized as system-wide costs that are not directly associated with any one project. These program level costs include activities such as real estate and easement acquisition, permitting and mitigation, legal expenses, program management services, and management reserves.

Budget Process

As part of its biennial budget, the District appropriates the full amount of planned WWSP expenditures in a designated fund for the WWSP. The District records Hillsboro's share of the costs as resources in the fund. It is anticipated that upon completion, the assets will be held by a joint venture, like the Joint Water Commission, and the District will reflect its ownership as an investment in the new joint venture. While final cost shares are still being developed, it is anticipated that the District's share of the overall program will be approximately 60%. The total estimated cost for the WWSP is approximately \$1.2 billion.

Although the WWSP Fund is primarily capital in nature, there are some related materials and services expenses appropriated in the fund. These noncapital expenses are for related activities such as governance facilitation and the WWSP's involvement with source water protection. Personnel services for staff are appropriated and expensed in the General Fund under the WSP Department, then reimbursed by the WWSP Fund as a capital outlay.

Six-Year Projection and 2017-19 Biennium Budget

The FY2018 to FY2023 six-year projection for the WWSP is approximately \$735 million. By 2021, most projects will be into the construction phase, which proportionally accounts for more of the program costs than other phases.

For the 2017-19 biennium, the total requested budget for the WWSP is \$139,426,442. Appropriation amounts by category and detailed budget amounts by project are presented later in this section. The table below summarizes the project activities that will be underway during the 2017-19 biennium.

Work Package Name	Project	Activities
South Hillsboro Area Pipeline	PLW_1	Design & Construction
Beaverton Area Pipeline	PLE_1	Design
Scholls Area Pipeline	PLM_5	Design & Construction
Tualatin-Sherwood Area Pipeline	PLM_4	Design & Construction
124 th Avenue Partnership	PLM_3	Construction & Closeout
Kinsman Opportunity	PLM_2	Construction & Closeout
Wilsonville Area Pipeline	PLM_1	Design & Construction
Raw Water Facilities	RWF_1	Design & Pre-con Services

In addition to the project activities above, a significant focus of the WWSP in the 2017-19 biennium is the acquisition of properties and easements required for the pipeline routes and other facilities. Of the total \$139.4 million biennial budget, \$25.7 million is dedicated towards real estate acquisition.

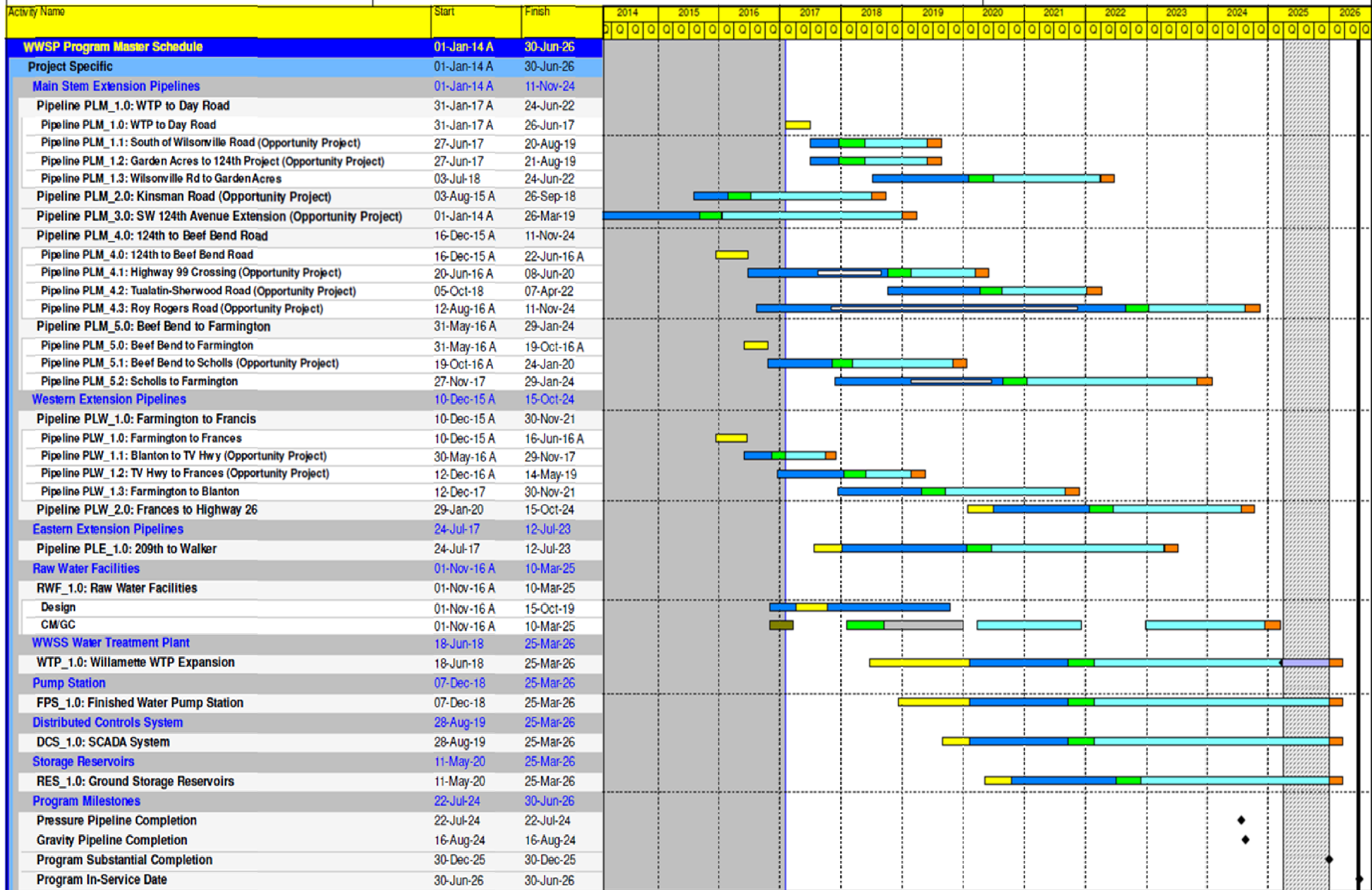
The following page provides a summary schedule for all WWSP projects as of Spring 2017.

The remainder of this section provides the individual project pages on the WWSP's Adopted 2017-19 Budget and six-year projection. For additional information on the WWSP, please visit www.ourreliablewater.org.

WWSP Monthly Program Bar Chart

WWSP Program Master Schedule Baseline Update Rev. 2.1.1

Data Date: 01-Feb-17; Print Date: 06-Mar-17
Layout: 01. WWSP Single Line Diagram
TASK filter: 01. SINGLE LINE DIAGRAM.



◆ MILESTONE ■ PROCURE DESIGN ■ DESIGN ■ BID ■ SUSPEND DESIGN ■ CM/GC EXEMPTION ■ PRE-CONSTRUCTION SERVICES ■ CONSTRUCTION ■ CLOSEOUT ■ STARTUP & COMMISSIONING

TUALATIN VALLEY WATER DISTRICT

2017-2019 BIENNIAL BUDGET

WILLAMETTE WATER SUPPLY PROGRAM (FUND 15)

HISTORICAL DATA			PERSONNEL SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 15-17
\$0	\$0	\$0	FUND TOTAL-WWSP GENERAL SERVICES	\$0	\$0	\$0	0.0%
\$0	\$0	\$0	TOTAL PERSONNEL SERVICES	\$0	\$0	\$0	0%

HISTORICAL DATA			MATERIALS & SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 15-17
\$0	\$4,275,252	\$7,392,540	FUND TOTAL-WWSP GENERAL SERVICES	\$765,189	\$765,189	\$765,189	-89.6%
\$0	\$4,275,252	\$7,392,540	TOTAL MATERIALS & SERVICES	\$765,189	\$765,189	\$765,189	-89.6%

HISTORICAL DATA			CAPITAL OUTLAY	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 15-17
\$0	\$2,776,285	\$49,810,630	FUND TOTAL-WWSP GENERAL SERVICES	\$138,661,253	\$138,661,253	\$138,661,253	178.4%
\$0	\$2,776,285	\$49,810,630	TOTAL CAPITAL OUTLAY	\$138,661,253	\$138,661,253	\$138,661,253	178.4%

HISTORICAL DATA			TRANSFERS & CONTINGENCY	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 15-17
\$0	\$0	\$0	TRANSFERS	\$0	\$0	\$0	N/A
\$0	\$0	\$8,600,000	GENERAL OPERATING CONTINGENCY	\$0	\$0	\$0	-100.0%
\$0	\$0	\$8,600,000	TOTAL TRANSFERS AND CONTINGENCY	\$0	\$0	\$0	-100.0%

HISTORICAL DATA			TOTAL EXPENDITURES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 15-17
\$0	\$7,051,537	\$65,803,170	TOTAL FUND EXPENDITURES	\$139,426,442	\$139,426,442	\$139,426,442	111.9%

TUALATIN VALLEY WATER DISTRICT

2017-2019 BIENNIAL BUDGET

WILLAMETTE WATER SUPPLY PROGRAM FUND

HISTORICAL DATA			WWSP DIVISION SUMMARY MATERIALS & SERVICES GENERAL SERVICES DIVISION		BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 15-17
\$0	\$598,928	\$3,600,460	OPERATING EXPENSE	15-60-01-7000	\$86,550	\$86,550	\$86,550	-97.6%
\$0	\$25,928	\$160,000	LEGAL EXPENSE	15-60-01-7300	\$0	\$0	\$0	-100.0%
\$0	\$3,633,966	\$3,504,780	PROFESSIONAL SERVICES	15-60-01-7310	\$678,639	\$678,639	\$678,639	-80.6%
\$0	\$16,429	\$81,000	BUSINESS EXPENSE	15-60-01-7330	\$0	\$0	\$0	-100.0%
\$0	\$0	\$30,000	DUES & SUBSCRIPTIONS	15-60-01-7360	\$0	\$0	\$0	-100.0%
\$0	\$0	\$16,300	POSTAGE	15-60-01-7440	\$0	\$0	\$0	-100.0%
\$0	\$4,275,252	\$7,392,540	FUND TOTALS		\$765,189	\$765,189	\$765,189	-89.6%

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: System-Wide Costs



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Development of long-term water supply providing reliable and safe drinking water to the District's customers
2.	Growth/Future Demands	Provides a long-term supply source to meet current and future demands
3.	Reliability	Increases overall reliability by providing a new seismically hardened source for the District

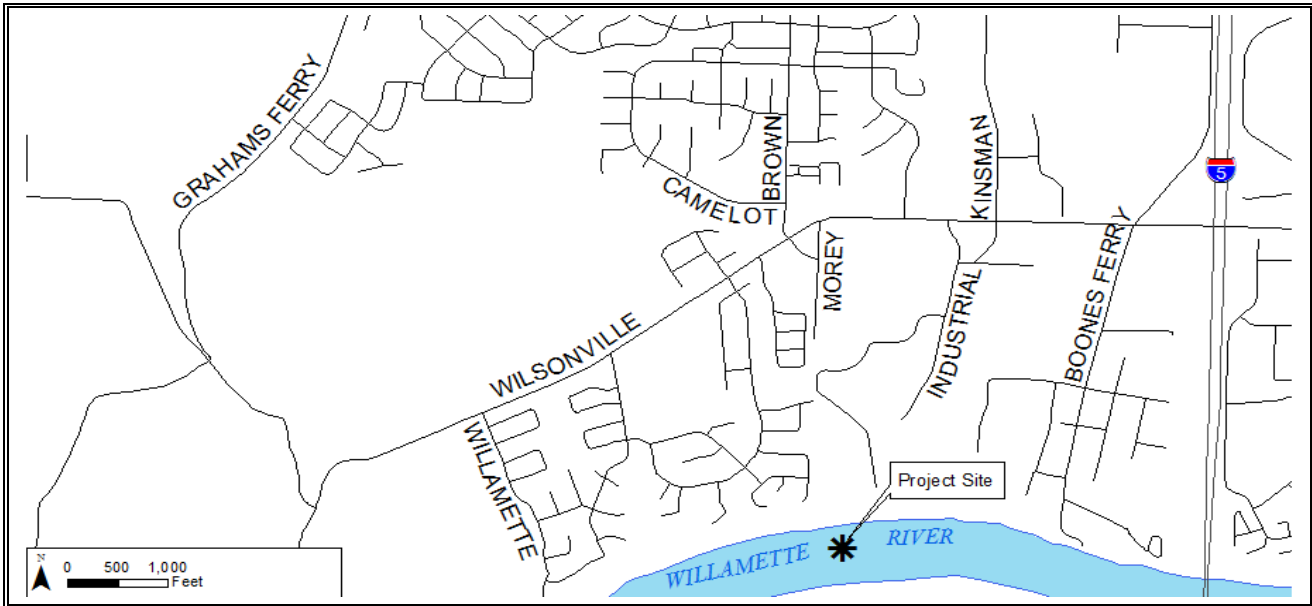
PROJECT DESCRIPTION
Program level costs associated with supporting the design and construction of the WWSS including costs for real estate and easements, permitting and mitigation, legal expenses, program management services, and management reserves

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Source/Land	Water Rates:	Yes	The Willamette Water Supply System is expected to result in long-term operating cost savings by reducing the need to purchase water as a wholesale customer with little control over wholesale rate increases.
General Ledger Account:	Multiple	Service Fees:	No	
Project Number:	Multiple	SDCs:	TBD	
Project Manager:	David Kraska	Percent Eligible - SDCs:	59%	
Work Performed By:	Contract & District Staff	Partner Cost Share :	Yes	
		Partner Cost Percentage:	40%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	31,345,188	25,767,990	24,381,983	30,311,133	32,988,909	29,038,012	173,833,214	76,791,538

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

PROJECT TITLE: Raw Water Facility



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Development of long-term water supply providing reliable and safe drinking water to the District's customers
2.	Growth/Future Demands	Provides a long-term supply source to meet current and future demands
3.	Reliability	Increases overall reliability by providing a new seismically hardened source for the District

PROJECT DESCRIPTION

Expansion of the existing raw water pump station and intake infrastructure at the Willamette River Water Treatment Plant (WRWTP). The expansion will increase the capacity of the facilities for the WWSP to 60 mgd. Major project elements include new vertical turbine pumps with variable frequency drives, electrical facilities, water surge protection, backup power, a raw water pipeline at the WRWTP site, and seismic improvements.

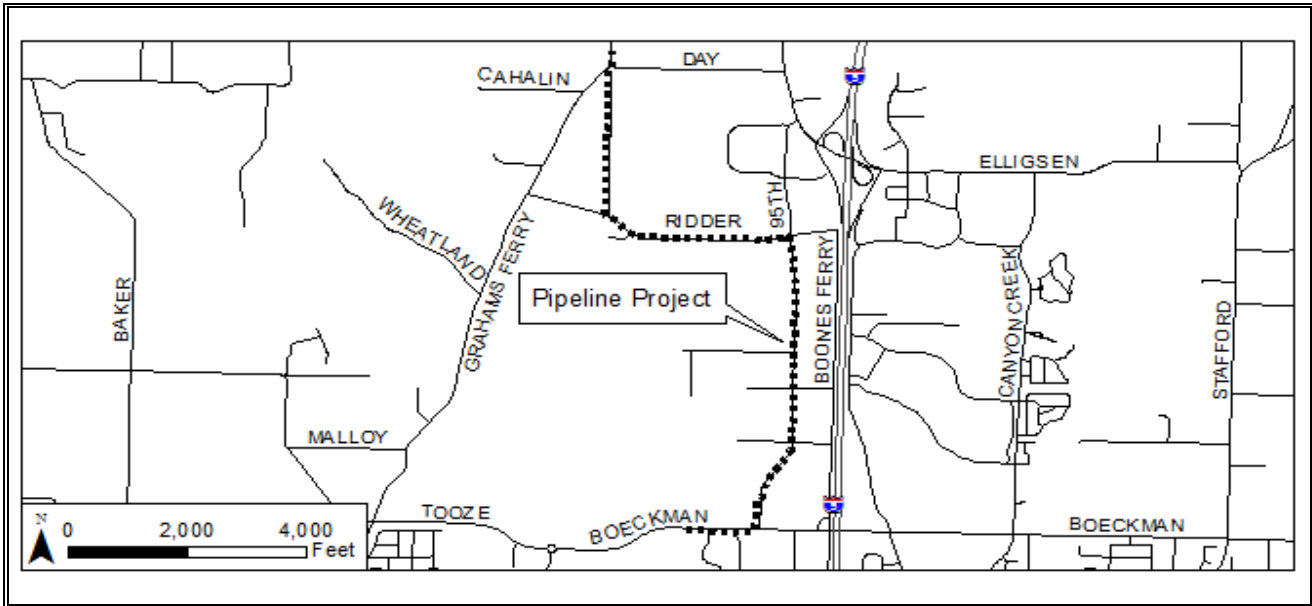
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Facilities	Water Rates:	Yes	The Willamette Water Supply System is expected to result in long-term operating cost savings by reducing the need to purchase water as a wholesale customer with little control over wholesale rate increases.
General Ledger Account:	15-60-01-8501	Service Fees:	No	
Project Number:	W510	SDCs:	TBD	
Project Manager:	Mike Britch	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	Yes	
		Partner Cost Percentage:	40%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	2,410,214	3,718,474	8,794,450	29,342,570	13,677,662	10,940,417	68,883,787	30,153,728

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: PLM 1.0 WTP to Day Road



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Development of long-term water supply providing reliable and safe drinking water to the District's customers
2.	Growth/Future Demands	Provides a long-term supply source to meet current and future demands
3.	Reliability	Increases overall reliability by providing a new seismically hardened source for the District

PROJECT DESCRIPTION

Conveyance pipeline for raw water from the WWSP WTP intake located on the Willamette River in Wilsonville to the intersection of SW Garden Acres Road at Day Road located in Washington County. This package includes 16,780 linear feet of 66-inch diameter welded steel pipeline. The alignment traverses on and off paved roads, but mostly within the right-of-way, although 21 permanent easements will be required. Construction method will be open cut with four trenchless crossings under railroads or major roadway crossings.

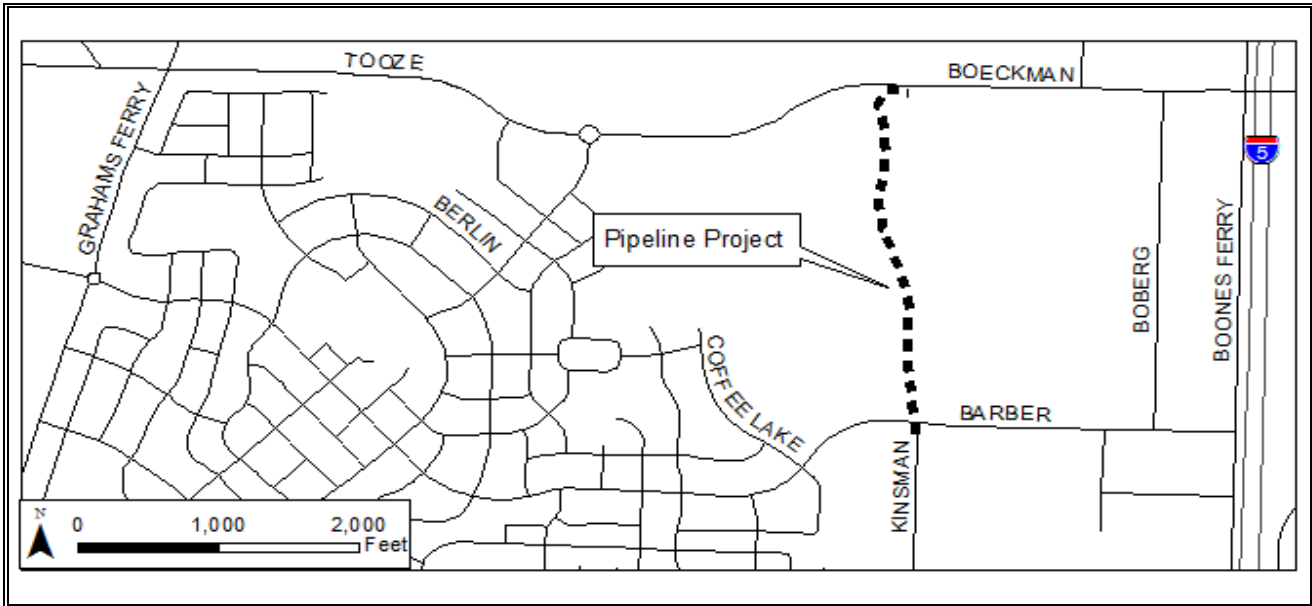
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	The Willamette Water Supply System is expected to result in long-term operating cost savings by reducing the need to purchase water as a wholesale customer with little control over wholesale rate increases.
General Ledger Account:	15-60-01-8504	Service Fees:	No	
Project Number:	W210	SDCs:	TBD	
Project Manager:	Mike Britch	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	Yes	
		Partner Cost Percentage:	40%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	1,358,114	14,157,838	1,575,107	29,734,880	15,914,664	-	62,740,603	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: PLM 2.0 Kinsman Road



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Development of long-term water supply providing reliable and safe drinking water to the District's customers
2.	Growth/Future Demands	Provides a long-term supply source to meet current and future demands
3.	Reliability	Increases overall reliability by providing a new seismically hardened source for the District

PROJECT DESCRIPTION

Conveyance pipeline for raw water in Wilsonville from Kinsman Road at Barber Road to Kinsman Road at Boeckman Road. This package includes 2,900 linear feet (0.5 miles) of 66-inch diameter welded steel pipeline. This package was identified as an Opportunity Project and will be constructed in partnership with an Oregon Department of Transportation (ODOT) roadway improvement project.

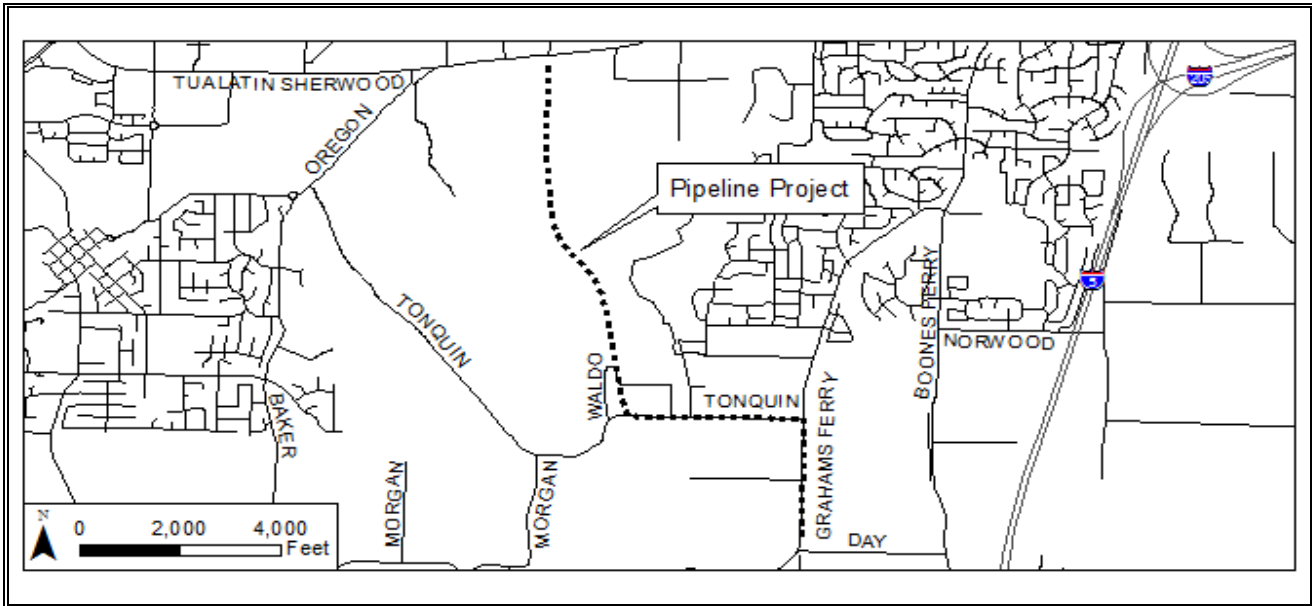
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	The Willamette Water Supply System is expected to result in long-term operating cost savings by reducing the need to purchase water as a wholesale customer with little control over wholesale rate increases.
General Ledger Account:	15-60-01-8504	Service Fees:	No	
Project Number:	W220	SDCs:	TBD	
Project Manager:	Mike Britch	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	Yes	
		Partner Cost Percentage:	40%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	277,231	-	-	-	-	-	277,231	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: PLM 3.0 SW 124th Avenue Extension



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Development of long-term water supply providing reliable and safe drinking water to the District's customers
2.	Growth/Future Demands	Provides a long-term supply source to meet current and future demands
3.	Reliability	Increases overall reliability by providing a new seismically hardened source for the District

PROJECT DESCRIPTION

Conveyance pipeline for raw and finished drinking water located in Washington County from SW Garden Acres Road at Day Road to 124th Avenue at SW Tualatin Sherwood Road. This package includes 14,050 linear feet (2.7 miles) of 66-inch diameter welded steel pipeline. This package was identified as an Opportunity Project and will be constructed in partnership with a Washington County roadway improvement project.

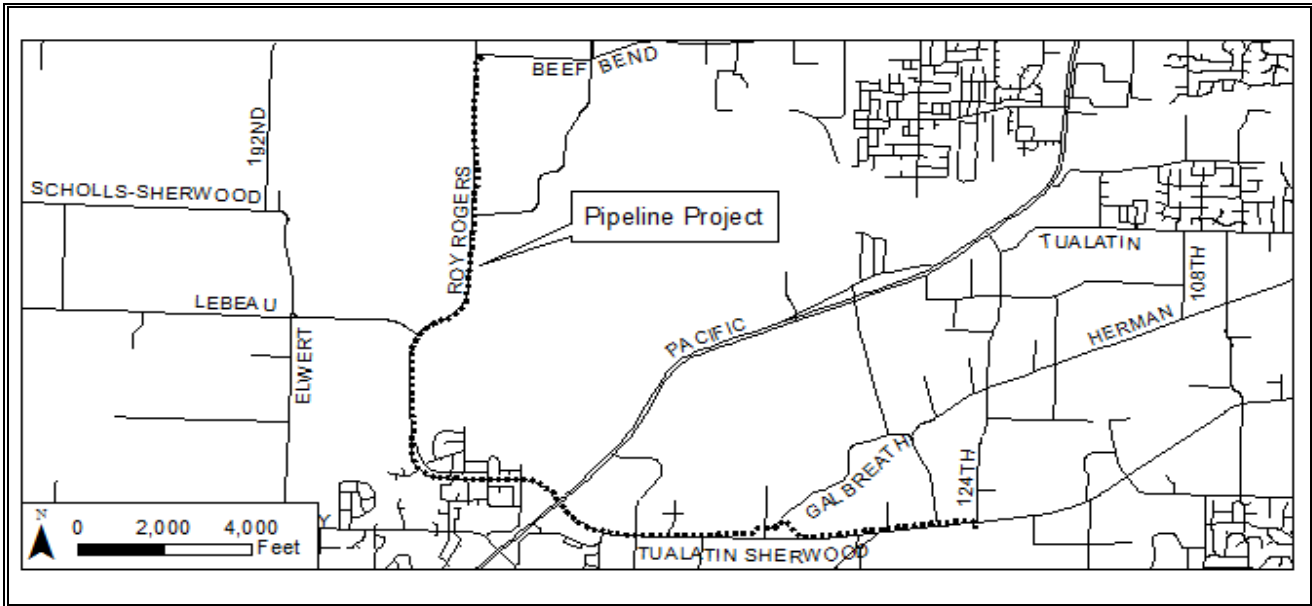
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	The Willamette Water Supply System is expected to result in long-term operating cost savings by reducing the need to purchase water as a wholesale customer with little control over wholesale rate increases.
General Ledger Account:	15-60-01-8504	Service Fees:	No	
Project Number:	W230	SDCs:	TBD	
Project Manager:	Mike Britch	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	Yes	
		Partner Cost Percentage:	40%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
20,097,700	6,300,000	6,220,033	773,030	-	-	-	-	6,993,064	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: PLM 4.0 SW 124th to Beef Bend Road



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Development of long-term water supply providing reliable and safe drinking water to the District's customers
2.	Growth/Future Demands	Provides a long-term supply source to meet current and future demands
3.	Reliability	Increases overall reliability by providing a new seismically hardened source for the District

PROJECT DESCRIPTION

Conveyance pipeline for finished/treated drinking water from 124th Avenue at SW Tualatin Sherwood Road to SW Roy Rogers Road at SW Beef Bend Road. This package includes 25,200 linear feet (4.8 miles) of 66-inch diameter welded steel pipeline. Although alignment parallels SW Tualatin Sherwood Road some of the alignment is not within right-of-way and will require permanent easements. The alignment along Roy Rogers within Sherwood is within right-of-way and within a lane of traffic. However, as the alignment traverses north along SW Roy Rogers into rural Washington County, the alignment exits the road and right-of-way to minimize traffic impacts. This alignment contains a 2,274 foot trenchless crossing of the Tualatin River.

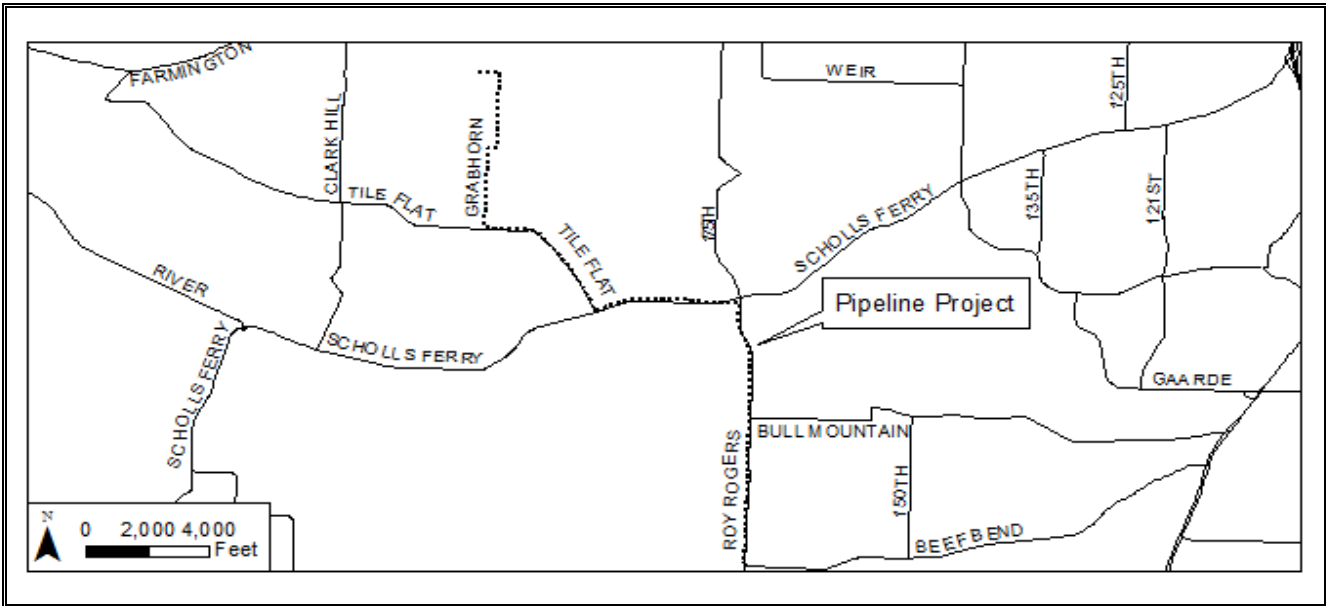
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	The Willamette Water Supply System is expected to result in long-term operating cost savings by reducing the need to purchase water as a wholesale customer with little control over wholesale rate increases.
General Ledger Account:	15-60-01-8504	Service Fees:	No	
Project Number:	W240	SDCs:	TBD	
Project Manager:	Mike Britch	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	40%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	1,137,126	3,942,479	11,463,279	23,250,505	8,665,158	8,394,812	56,853,360	52,945,042

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: PLM 5.0 Beef Bend Road to Farmington



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Development of long-term water supply providing reliable and safe drinking water to the District's customers
2.	Growth/Future Demands	Provides a long-term supply source to meet current and future demands
3.	Reliability	Increases overall reliability by providing a new seismically hardened source for the District

PROJECT DESCRIPTION

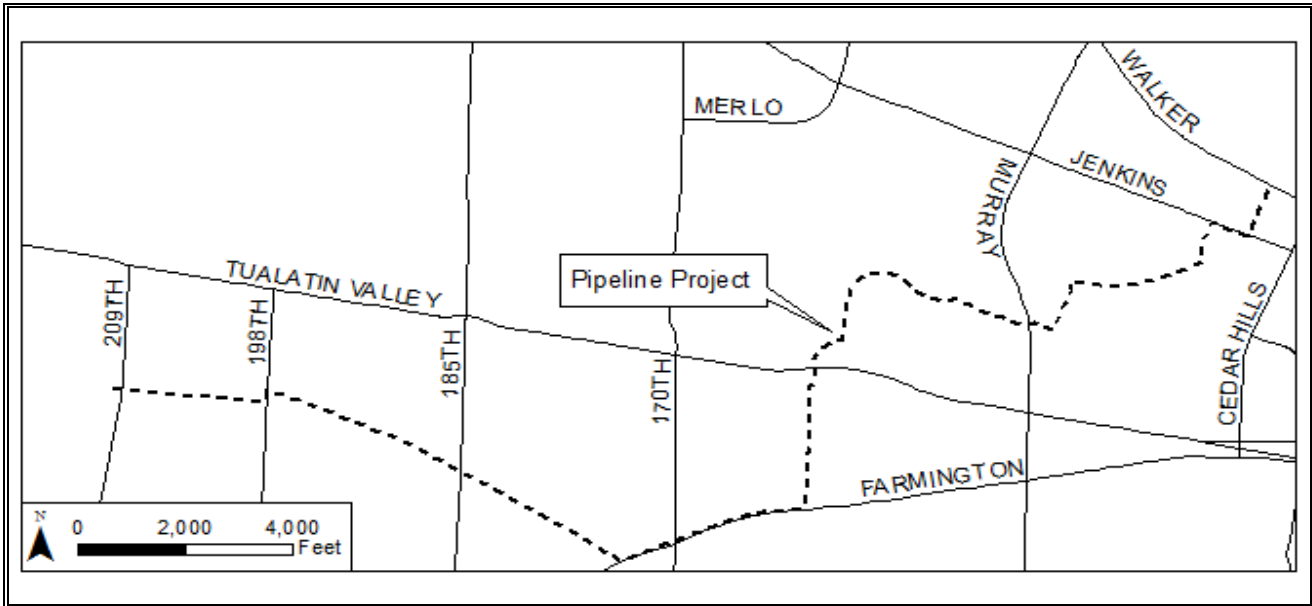
Conveyance pipeline for finished/treated drinking water from SW Roy Rogers Road at SW Beef Bend Road to SW Farmington Road at SW 209th Ave. This package includes 38,200 linear feet (7.2 miles) of 66-inch diameter welded steel pipeline. Although alignment parallels SW Roy Rogers Road, SW Scholls Ferry Road, SW Tile Flat Road, and SW Grabhorn Road, most of the alignment is not within right-of-way and will require permanent easements. Although the pipeline will be in right-of-way/lane of traffic along SW Koehler Rd and Clark Hills Rd, due to the small size of the road, permanent easements will still be required along most of this section. The alignment along Farmington Road will be completely in the right-of-way/lane of traffic and will not require any permanent easements. This alignment contains the inlet and outlet piping for the proposed reservoirs (RES_1.0).

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	The Willamette Water Supply System is expected to result in long-term operating cost savings by reducing the need to purchase water as a wholesale customer with little control over wholesale rate increases.
General Ledger Account:	15-60-01-8504	Service Fees:	No	
Project Number:	W250	SDCs:	TBD	
Project Manager:	Nick Augustus	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	Yes	
		Partner Cost Percentage:	40%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	3,643,085	26,217,450	3,584,333	4,012,547	46,246,862	38,394,775	122,099,052	2,391,620

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: PLE 1.0 209th to Walker



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Development of long-term water supply providing reliable and safe drinking water to the District's customers
2.	Growth/Future Demands	Provides a long-term supply source to meet current and future demands
3.	Reliability	Increases overall reliability by providing a new seismically hardened source for the District

PROJECT DESCRIPTION

Conveyance pipeline for finished/treated drinking water from SW 209th Ave at Kinnaman Rd to SW Cedar Hills Blvd in Beaverton where it connects to the existing system. This package includes 10,259 linear feet (1.9 miles) of 48-inch diameter and 18,975 linear feet (3.6 miles) of 54-inch diameter welded steel pipelines. Except for Millikan Way, the alignment is primarily located within a lane of traffic along the entire alignment.

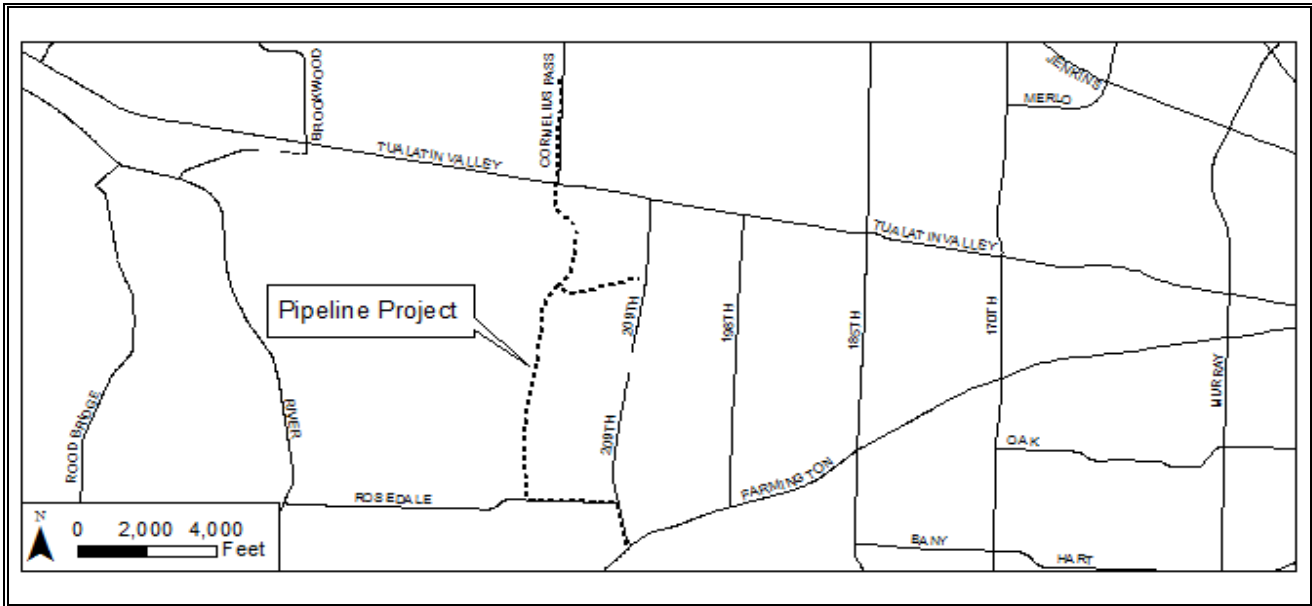
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	The Willamette Water Supply System is expected to result in long-term operating cost savings by reducing the need to purchase water as a wholesale customer with little control over wholesale rate increases.
General Ledger Account:	15-60-01-8504	Service Fees:	No	
Project Number:	W410	SDCs:	TBD	
Project Manager:	Mike Britch	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	0%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	1,273,583	2,388,253	1,673,780	16,473,642	48,444,098	8,930,538	79,183,894	47,378

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: PLW 1.0 Farmington to Frances



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Development of long-term water supply providing reliable and safe drinking water to the District's customers
2.	Growth/Future Demands	Provides a long-term supply source to meet current and future demands
3.	Reliability	Increases overall reliability by providing a new seismically hardened source for the District

PROJECT DESCRIPTION

Conveyance pipeline for finished/treated drinking water from SW Farmington Road at SW 209th Ave. to Cornelius Pass Road at Frances and the start of the Eastern Extension from Cornelius Pass at Kinnaman Rd to Kinnaman Rd at 209th Ave. This package includes 11,250 linear feet (2.1 miles) of 66-inch diameter, 2,700 linear feet (0.5 miles) of 54-inch diameter and 7,050 linear feet (1.3 miles) of 48-inch diameter welded steel pipelines. It is proposed that this entire alignment/segment of pipeline would be installed as a partnership during the construction of the new roads for these developments. Because of this partnership/opportunity, this work package would include the first 2,700 linear feet of the eastern extension, which would be within the new right-of-way of the development.

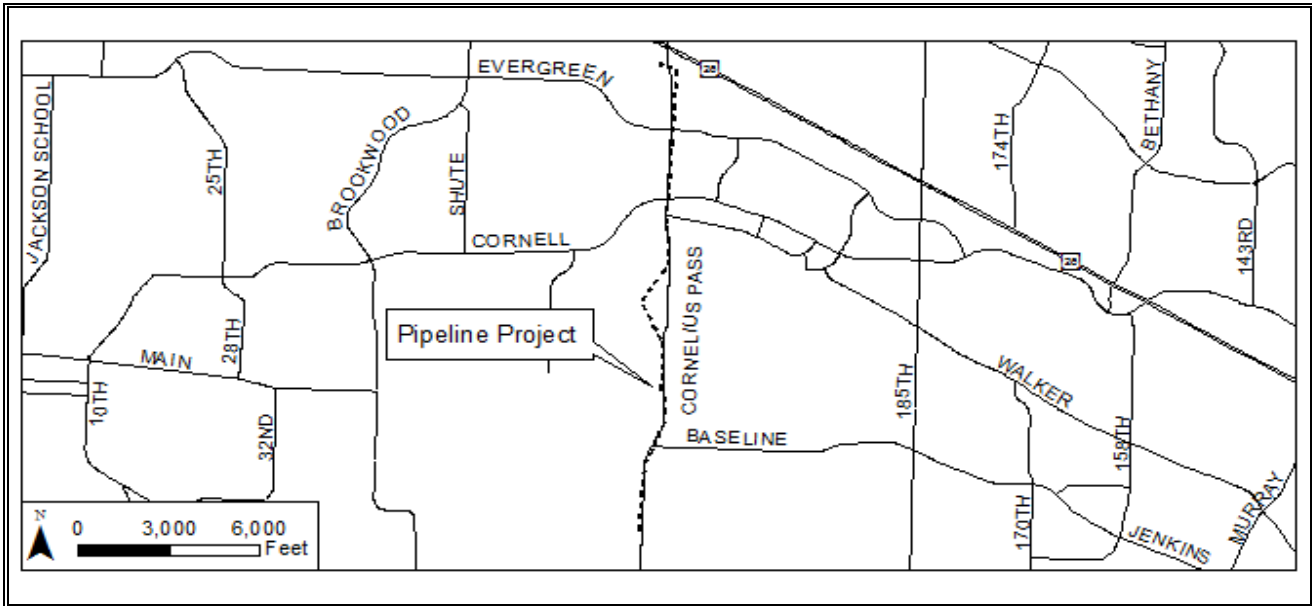
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	The Willamette Water Supply System is expected to result in long-term operating cost savings by reducing the need to purchase water as a wholesale customer with little control over wholesale rate increases.
General Ledger Account:	15-60-01-8504	Service Fees:	No	
Project Number:	W310	SDCs:	TBD	
Project Manager:	Mike Britch	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	40%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six-Year Total	Future Years
-	-	3,916,786	10,879,568	13,062,906	32,833,419	983,241	-	61,675,920	-

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: PLW 2.0 Frances to Hwy 26



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Development of long-term water supply providing reliable and safe drinking water to the District's customers
2.	Growth/Future Demands	Provides a long-term supply source to meet current and future demands
3.	Reliability	Increases overall reliability by providing a new seismically hardened source for the District

PROJECT DESCRIPTION

Conveyance pipeline for finished/treated drinking water Cornelius Pass Road at Frances Road to Cornelius Pass Road at Highway 26 where it connects into the existing supply lines for the City of Hillsboro and TVWD. This package includes 17,475 linear feet (3.3 miles) of 48-inch diameter and 5,725 linear feet (1.1 miles) of 36-inch diameter welded steel pipelines. Except for creek crossings, the alignment primarily is located within a lane of traffic along the entire alignment.

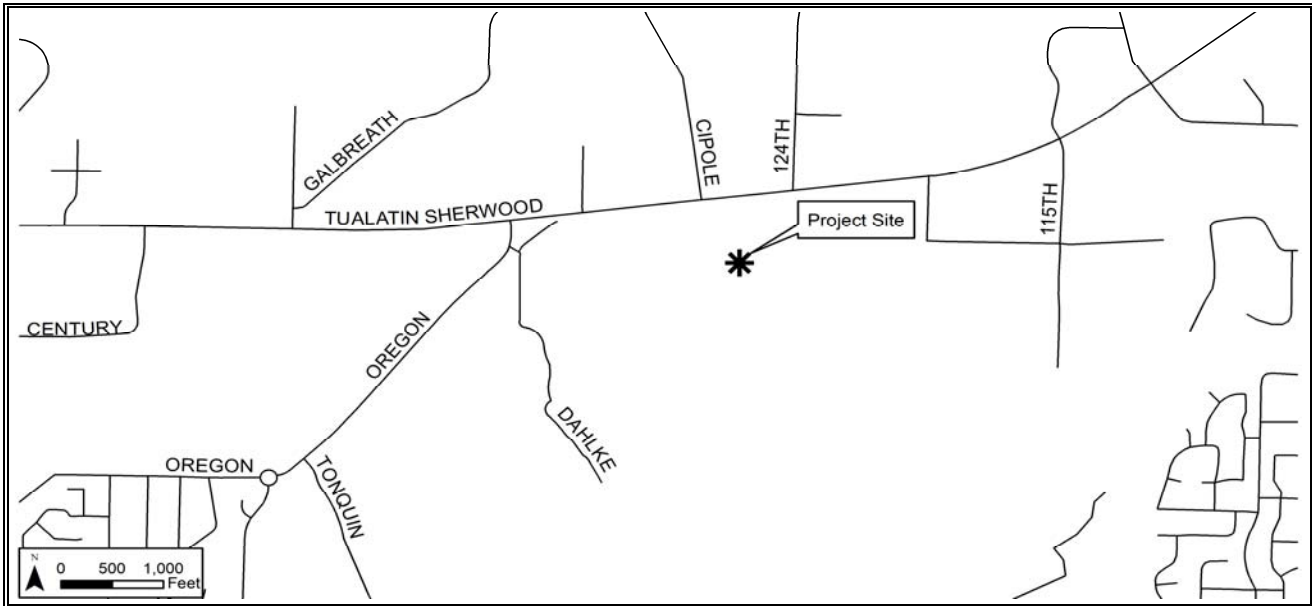
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pipeline	Water Rates:	Yes	The Willamette Water Supply System is expected to result in long-term operating cost savings by reducing the need to purchase water as a wholesale customer with little control over wholesale rate increases.
General Ledger Account:	15-60-01-8504	Service Fees:	No	
Project Number:	W320	SDCs:	TBD	
Project Manager:	Mike Britch	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	40%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected		Future Years
-	-	-	-	98,079	2,085,767	1,482,383	22,755,991	26,422,221	24,396,920

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: WTP 1.0 Water Treatment Plant



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Development of long-term water supply providing reliable and safe drinking water to the District's customers
2.	Growth/Future Demands	Provides a long-term supply source to meet current and future demands
3.	Reliability	Increases overall reliability by providing a new seismically hardened source for the District

PROJECT DESCRIPTION

Design and construction of a new water treatment plant to provide seismically resilient supply to the Partners.

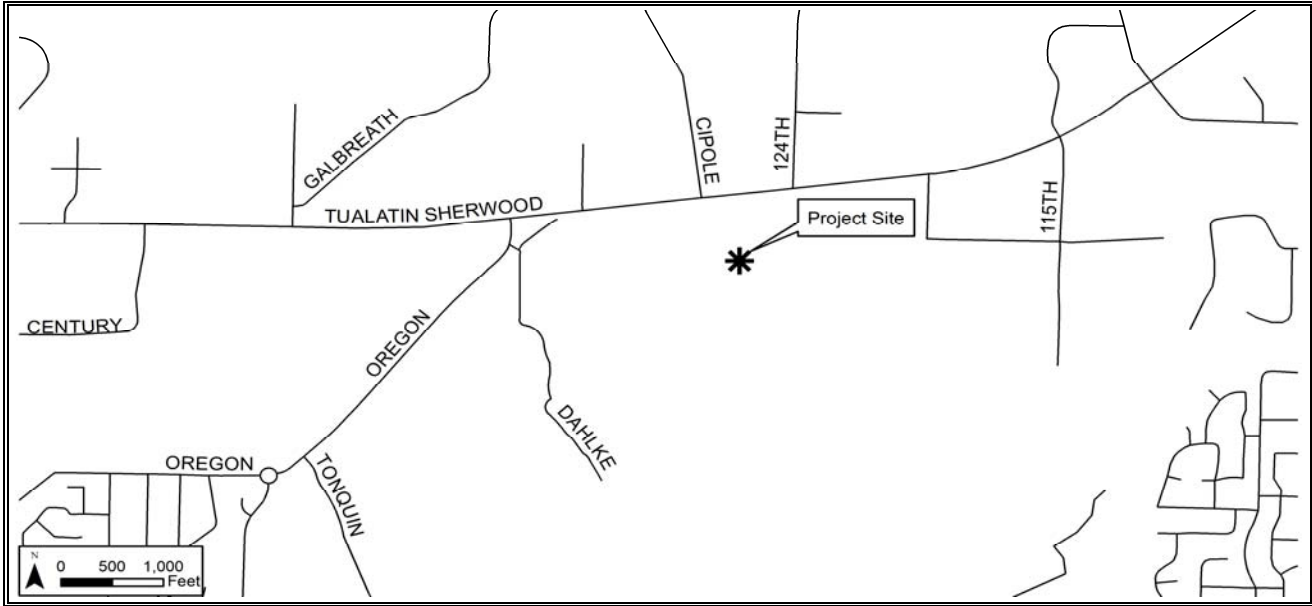
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Facilities	Water Rates:	Yes	The Willamette Water Supply System is expected to result in long-term operating cost savings by reducing the need to purchase water as a wholesale customer with little control over wholesale rate increases.
General Ledger Account:	15-60-01-8501	Service Fees:	No	
Project Number:	W520	SDCs:	TBD	
Project Manager:	Mike Britch	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	40%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	-	-	3,127,585	7,498,148	5,258,448	36,252,780	52,136,961	146,186,590

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: FPS 1.0 Finished Water Pump Station



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Development of long-term water supply providing reliable and safe drinking water to the District's customers
2.	Growth/Future Demands	Provides a long-term supply source to meet current and future demands
3.	Reliability	Increases overall reliability by providing a new seismically hardened source for the District

PROJECT DESCRIPTION

Finished water pump station required to move water from the treatment plant location to reservoirs.

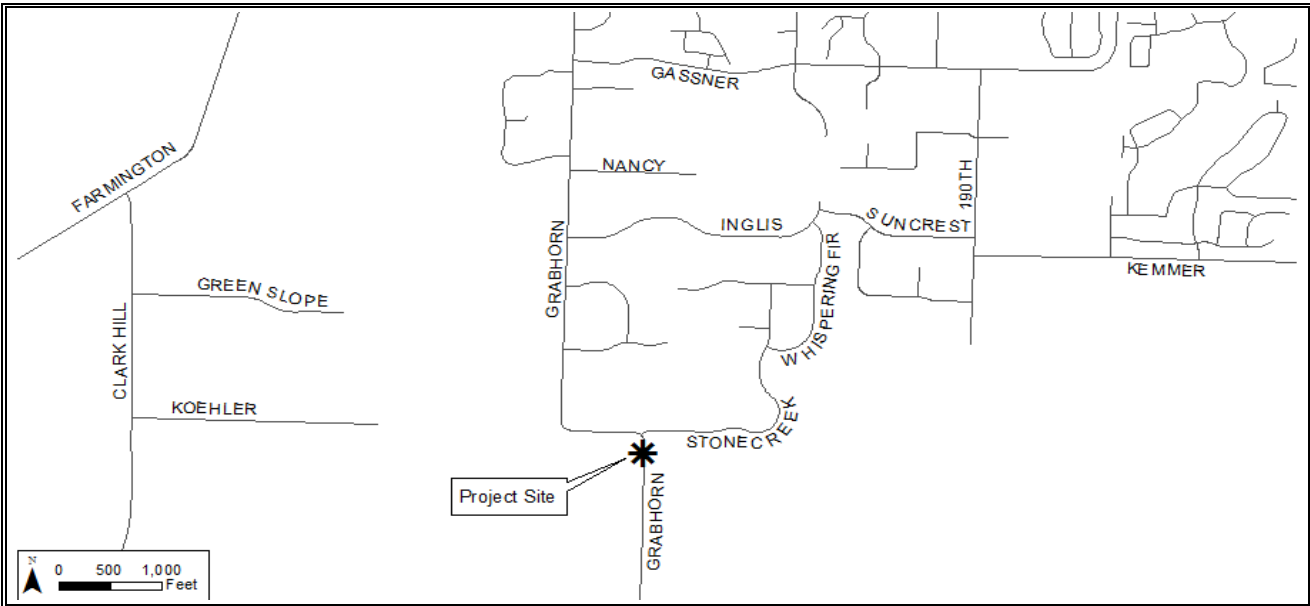
PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Pump Stations	Water Rates:	Yes	The Willamette Water Supply System is expected to result in long-term operating cost savings by reducing the need to purchase water as a wholesale customer with little control over wholesale rate increases.
General Ledger Account:	15-60-01-8506	Service Fees:	No	
Project Number:	W530	SDCs:	TBD	
Project Manager:	Mike Britch	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	No	
		Partner Cost Percentage:	40%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	-	-	752,157	1,802,733	1,267,064	8,713,346	12,535,301	35,294,878

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: RES 1.0 Storage Reservoir



KEY DRIVERS FOR CIP PROJECT		
1.	Project Criticality	Development of long-term water supply providing reliable and safe drinking water to the District's customers
2.	Growth/Future Demands	Provides a long-term supply source to meet current and future demands
3.	Reliability	Increases overall reliability by providing a new seismically hardened source for the District

PROJECT DESCRIPTION

Terminal reservoir with 30 MG divided into two independent 15-MG tanks to allow individual tanks to be taken offline for maintenance. Constructed with prestressed, cast-in-place, or conventionally reinforced, cast-in-place concrete.

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	Storage	Water Rates:	Yes	The Willamette Water Supply System is expected to result in long-term operating cost savings by reducing the need to purchase water as a wholesale customer with little control over wholesale rate increases.
General Ledger Account:	15-60-01-8501	Service Fees:	No	
Project Number:	TBD	SDCs:	TBD	
Project Manager:	Mike Britch	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	Yes	
		Partner Cost Percentage:	40%	

BUDGET INFORMATION & PROJECTED COSTS									
FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	-	-	50,010	2,197,058	2,980,169	3,896,261	9,123,498	71,014,260

Tualatin Valley Water District
 Adopted Capital Improvement Plan
 2017-19
 (Six-Year Projection)

PROJECT TITLE: DCS 1.0 Distributed Control System



KEY DRIVERS FOR CIP PROJECT

1.	Project Criticality	Development of long-term water supply providing reliable and safe drinking water to the District's customers
2.	Growth/Future Demands	Provides a long-term supply source to meet current and future demands
3.	Reliability	Increases overall reliability by providing a new seismically hardened source for the District

PROJECT DESCRIPTION

Fiber optic cable and conduit installation along the entire 31 miles of pipeline including connection to the reservoirs and to the terminus of both Eastern and Western Extensions. This package assumes independent installation of conduit (no partnering with pipeline installation).

PROJECT INFORMATION		FUNDING SOURCES		FUTURE OPERATING COST IMPACT
Project Category:	SCADA	Water Rates:	Yes	The Willamette Water Supply System is expected to result in long-term operating cost savings by reducing the need to purchase water as a wholesale customer with little control over wholesale rate increases.
General Ledger Account:	15-60-01-8832	Service Fees:	No	
Project Number:	TBD	SDCs:	TBD	
Project Manager:	Mike Britch	Percent Eligible - SDCs:	0%	
Work Performed By:	Outside Contract	Partner Cost Share :	Yes	
		Partner Cost Percentage:	40%	

BUDGET INFORMATION & PROJECTED COSTS

FY 15-17 Budget	FY 15-17 Projected	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Projected	FY 20-21 Projected	FY 21-22 Projected	FY 22-23 Projected	Six- Year Total	Future Years
-	-	-	-	93,244	223,623	286,687	1,169,165	1,772,720	4,171,077

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. In exchange, TVWD receives a discount on its dues for the services it provides. 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 2017-19

- The WRWC no longer contracts with an outside firm for management services. TVWD has been designated as the managing agency
- Materials & Services appropriations primarily support WRWC activities including administration, water rights, governance, public outreach and interagency support. Willamette Water Supply Program (WWSP) governance discussions are occurring among several regional partners including members who are currently in the WRWC and those who are not members. It is anticipated a new WWSP governance model will be completed during 2017-19, which may affect the future status of the WRWC.

TUALATIN VALLEY WATER DISTRICT

2017-2019 BIENNIAL BUDGET

WILLAMETTE RIVER WATER COALITION (FUND 41)

HISTORICAL DATA			PERSONNEL SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 11-13
\$0	\$0	\$0	FUND TOTAL-WRWC GENERAL SERVICES	\$0	\$0	\$0	0.0%
\$0	\$0	\$0	TOTAL PERSONNEL SERVICES	\$0	\$0	\$0	0%

HISTORICAL DATA			MATERIALS & SERVICES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 11-13
\$154,400	\$226,385	\$499,200	FUND TOTAL-WRWC GENERAL SERVICES	\$86,000	\$86,000	\$86,000	-82.8%
\$154,400	\$226,385	\$499,200	TOTAL MATERIALS & SERVICES	\$86,000	\$86,000	\$86,000	-82.8%

HISTORICAL DATA			CAPITAL OUTLAY	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 11-13
\$0	\$0	\$0	FUND TOTAL-WRWC GENERAL SERVICES	\$0	\$0	\$0	0.0%
\$0	\$0	\$0	TOTAL CAPITAL OUTLAY	\$0	\$0	\$0	0.0%

HISTORICAL DATA			TRANSFERS & CONTINGENCY	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	0.0% % CHG
\$0	\$0	\$0	TRANSFERS	\$0	\$0	\$0	N/A
\$0	\$0	\$44,800	GENERAL OPERATING CONTINGENCY	\$12,900	\$12,900	\$12,900	-71.2%
\$0	\$0	\$44,800	TOTAL TRANSFERS AND CONTINGENCY	\$12,900	\$12,900	\$12,900	-71.2%

HISTORICAL DATA			TOTAL EXPENDITURES	BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 11-13
\$154,400	\$226,385	\$544,000	TOTAL FUND EXPENDITURES	\$98,900	\$98,900	\$98,900	-81.8%

TUALATIN VALLEY WATER DISTRICT

2017-2019 BIENNIAL BUDGET

WILLAMETTE RIVER WATER COALITION FUND

HISTORICAL DATA			WRWC DIVISION SUMMARY MATERIALS & SERVICES GENERAL SERVICES DIVISION		BUDGET FOR 2017-19			
ACTUAL 11-13	ACTUAL 13-15	BUDGET 15-17	DETAILED DESCRIPTION	GL #	PROPOSED BUDGET	APPROVED BUDGET	ADOPTED BUDGET	% CHG FROM 11-13
\$96,000	\$96,000	\$96,000	OPERATING EXPENSE	41-60-01-7000	\$50,000	\$50,000	\$50,000	-47.9%
\$40,681	\$111,575	\$340,000	PROFESSIONAL SERVICES	41-60-01-7310	\$17,000	\$17,000	\$17,000	-95.0%
\$15,219	\$15,810	\$19,800	BUSINESS EXPENSE	41-60-01-7330	\$5,000	\$5,000	\$5,000	-74.7%
\$0	\$0	\$17,400	OTHER SUNDRY	41-60-01-7360	\$4,000	\$4,000	\$4,000	-77.0%
\$0	\$0	\$10,000	WATER QUALITY	41-60-01-7440	\$4,000	\$4,000	\$4,000	-60.0%
\$2,500	\$3,000	\$16,000	PUBLIC INFORMATION	41-60-01-7450	\$6,000	\$6,000	\$6,000	-62.5%
\$154,400	\$226,385	\$499,200	FUND TOTALS		\$86,000	\$86,000	\$86,000	-82.8%



DESCRIPTION OF THE TUALATIN VALLEY WATER DISTRICT

Website: www.tvwd.org

The District changed its name to the Tualatin Valley Water District (TVWD) in 1991, after being formed by the merger of the Wolf Creek Highway Water District and Metzger Water District. Historically, a number of water districts have served the area, the oldest of which was founded in 1922. Mergers and consolidations lead to the eventual formation of TVWD. The District is a domestic water supply district operating as authorized by Oregon Revised Statutes (ORS), chapter 264. The District is not a component unit of any other entity, as defined by the Governmental Accounting Standards Board.

A five-member Board of Commissioners (Board), elected at large to overlapping four-year terms, governs the District. The Board sets policy and appoints a Chief Executive Officer, who is charged with management of the District.

TVWD is organized into seven departments. The seven departments are Administrative Services, Customer Service, Engineering Services, Field Operations, Finance, Information Technology Services, and Water Supply Program. The Adopted 2017-2019 Budget has an authorized total of 135 full-time employee positions, an increase of two positions over the 2015- 2017 biennium.

Of these two new positions, one Business Analyst will support the District’s the Customer Service Department as it plans and implements a new Customer Information System (CIS). One limited-duration Senior Systems Administrator has been added in the Information Technology Services Department to support ongoing implementation of the District’s IT Master Plan.

TVWD BOARD OF COMMISSIONERS AS OF JULY 1, 2017

<i><u>NAME, BOARD POSITION</u></i>	<i><u>FOUR YEAR TERMS ENDING</u></i>
Richard Burke, President	June 30, 2019
Bernice Bagnall, Vice President	June 30, 2021
James Duggan, Treasurer	June 30, 2021
Dick Schmidt, Secretary	June 30, 2021
Jim Doane, Acting Secretary	June 30, 2019

CHIEF EXECUTIVE OFFICER

Mark Knudson, P.E.

Appointed May 2013

TVWD is located west of the City of Portland, in suburban Washington County, Oregon. The District serves unincorporated urban areas of Washington County and portions of the cities of Beaverton, Hillsboro, and Tigard. As of June 30, 2017, TVWD served 62,377 connections and an estimated population of 222,000. Population growth has averaged about 1.3 % annually over the past 10 years.

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 as a result 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 has two primary sources of water supply; the City of Portland source and the Joint Water Commission (JWC) source. Together, these two sources provide the District with 8.2 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 FY 2017, the District purchased an average of 65% 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 owns 12.5 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 FY 2017, about 35% 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 three MGD of water for summer peak-season supply and emergency use. The District also maintains two back-up wells that provide up to two MGD for emergency use. An additional ASR well providing an additional two MGD of capacity is under development and anticipated to be operation during the summer of 2016.

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 2017-19 Budget and future budgets. (See Section 2 - Budget Message page 2-7 and Section 17 for more information on the WWSP.) The WWSP website www.ourreliablewater.org provides additional detail.

The District’s transmission and distribution system totals 788 miles in length, with pipelines ranging from 2 to 60 inches in diameter. The District has a total of 23 covered tanks in service with a combined storage capacity of 67 million gallons (MG) as well as 14 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 of TVWD operating revenues are derived from the sale of water to residential, commercial and industrial customers. The District is 94.5% residential & multifamily, with the remaining 4.5% of customers classified as commercial, production and irrigation customers. A limited amount of 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 70% residential/multifamily, and 30% commercial and other non-residential customer classes. Revenue from residential customers comprises about 55% 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 2017.

Customer Class	Consumption/ CCF (1)	Percent Water Sales	Annual Revenue (Fixed & Volume Charges)	Percent Water Sales Revenue
Residential	5,483,890	50.9%	\$ 28,597,834	54.5%
Multifamily	2,115,898	19.7%	8,594,288	16.4%
Commercial	1,650,153	15.3%	7,032,465	13.4%
Production	913,254	8.5%	3,578,697	6.8%
Fireline	2,322	0.0%	1,989,860	3.8%
Irrigation	590,769	5.5%	2,616,046	5.0%
Temp Irrigation	10,466	0.1%	52,489	0.1%
Wholesale	18	0.0%	2,577	0.0%
Total	10,667,770	100%	\$ 52,464,255	100%

Note 1 CCF = 100 cubic feet. 1 CCF = 748 Gallons
 Source: Tualatin Valley Water District, Financial Reports, June 30, 2017 (unaudited)

The table below provides a listing of the District’s ten largest customers in FY 2017, their water usage in CCF during 2017 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, three large high technology manufacturing facilities, a food processing firm and a major regional hospital.

LARGEST TVWD CUSTOMERS

CONSUMER	Consumption (CCF)	Percentage of Total District
Intel Oregon	335,204	3.11%
Maxim Integrated Products	320,513	2.98%
Resers Fine Foods	133,160	1.24%
Nike INC	113,932	1.06%
Providence Health Systems	94,865	0.88%
Tualatin Hills Park & Recreation Distric	70,987	0.66%
Heritage Village Mobile Park	57,342	0.53%
Tektronix Inc	54,276	0.50%
Simpson Property Group	50,911	0.47%
OHSU West Campus	50,319	0.47%
TOTAL	1,281,509	11.91%

Source: Tualatin Valley Water District records

The region the District serves continues to fare better than the state of Oregon as a whole for employment and income. Unemployment statistics are unavailable for the District, however, as of June 2017, the unemployment rate for Washington County stood at 3.8% compared to 4.0% for the state. This is the eighth year in a row for improved employment data. 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 (2015), the county’s per capita income ranked first at \$66,754 and is almost 30% higher the state-wide median household income. The District is fortunate to serve one of the most economically viable areas of the state.

Demand for water services provided by the District also continues to show growth in new service connections each year. As illustrated in Figure 1 on the next page, the total number of water meters serving the District’s customers has increased 1.0% annually over the ten-year period ending FY 2017. In FY 2017, the District added 869 new meters for a total of 62,377, an increase of 1.4% over the prior year.

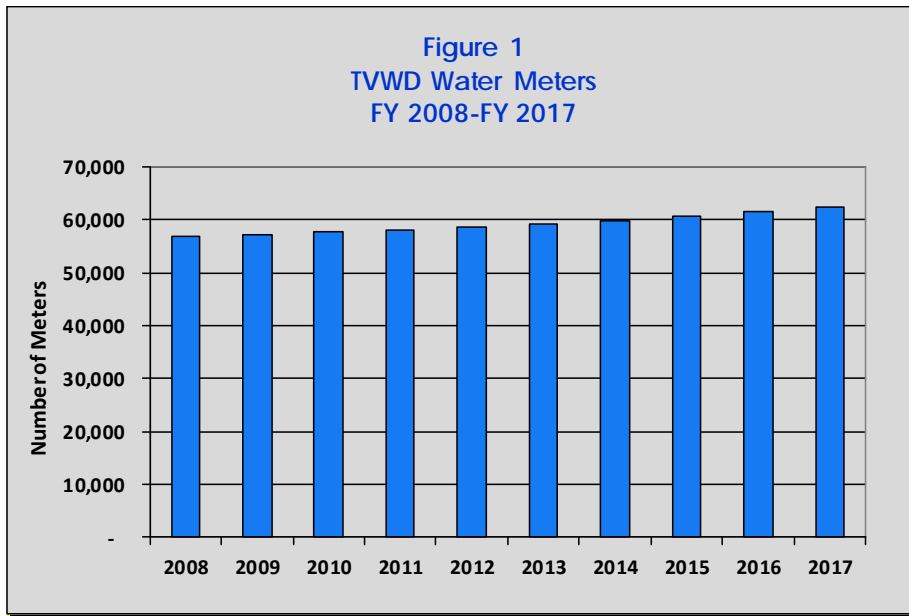
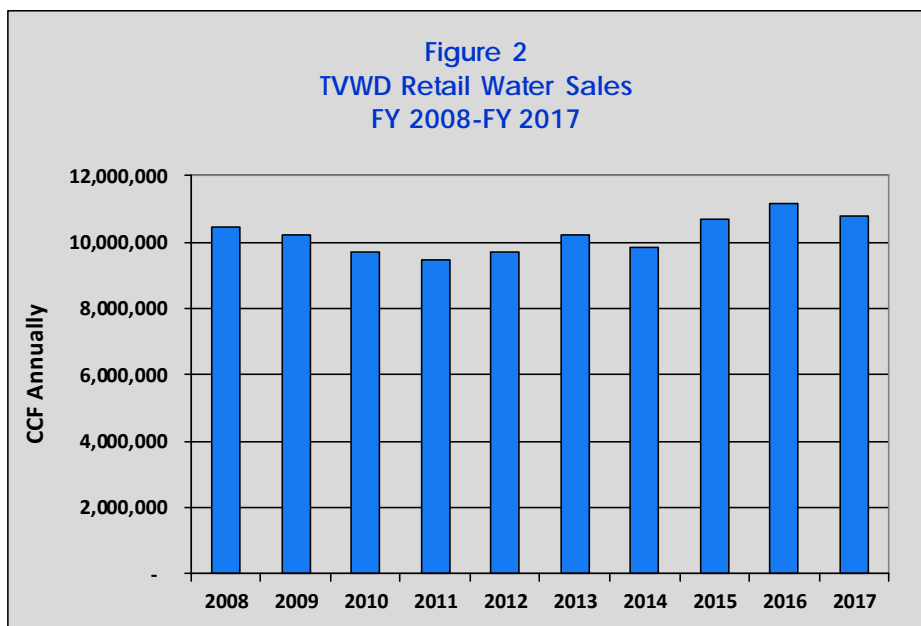


Figure 2 below shows annual retail water usage over the past 10 years. During FY 2017, TVWD sold 10.8 million CCF of water, a 3.6% decrease from FY 2016. Water demand is affected by weather conditions, conservation and general business conditions. Although demand was lower during FY 2017, it remains above the lowest level of water sales that was experienced in FY 2011. District management continues to closely monitor water sales; however, the trend of declining total demand appears to have leveled off. Over a five-year period, water usage has averaged 10.5 million CCF.

The District responded to flattening water demand in two ways: 1) by implementing a revised rate structure designed to recover a greater portion of the District’s fixed costs through fixed charges billed to customers thereby increasing revenue stability; and 2) by continually updating its projected financial requirements over a 30-year period. This detailed long-term financial planning effort helps to formulate the operating budget and the timing of future capital investments contained in the Adopted 2017-19 Budget and Six-Year Capital Improvement Plan. (See Section 5 – *Multi-Year Financial Outlook*.)



Source for Figure 1 and Figure 2: Tualatin Valley Water District records

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 customer classes, including multifamily and commercial, are assessed the higher block two rate for any water use in excess of 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. 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/customer-services/commercial-water-rates.aspx>

The table below illustrates a typical monthly bill over the past five 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	Percent Change
2016	\$ 12.29	\$ 28.42	\$ 40.71	14.4%
2015	10.73	24.85	35.58	16.4%
2014	9.22	21.35	30.57	10.7%
2013	8.43	19.18	27.61	5.4%
2012	7.64	18.55	26.19	----

Note 1: Based on 5/8” meter and 7 CCF of water volume per month. Most District customers are billed on a bi-monthly basis. The charges are shown as a monthly cost for ease of comparison to other utility services.

GLOSSARY

Adopted Budget: See Budget Phases.

Appropriation: The legal authorization to spend funds. The Board of Commissioners adopts a Resolution setting budget appropriations 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).

Basis of Accounting and Budgeting: The District's financial statements and budget (with the exception of debt service for the budget) are prepared using the accrual basis of accounting. Revenues are recorded at the time they are earned and expenses are recorded at the time liabilities are incurred. Accounting records are maintained on a governmental fund accounting basis, and the resolution authorizing appropriations is adopted by fund each year in the categories of operating expenses, debt service, capital outlay, contingency and operating transfers for each fund. Debt service is budgeted on a cash basis for the purpose of fully disclosing the annual debt obligations of the District. Depreciation and amortization are not budgeted.

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 July 1, 2017 and ends at midnight June 30, 2019

GLOSSARY (Continued)

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 continues to maintain favorable bond ratings with Standard and Poor's (S&P), and Moody's Investors Service, Inc., which rated the District's 2005 insured refunding at AAA and Aaa, respectively. S&P and Moody's have also upgraded their underlying ratings on TVWD's outstanding revenue bonds to AA+ and Aa2, respectively.

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.

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 Commissioners 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.

GLOSSARY (Continued)

- **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: 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 in excess of 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.

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 given fund that can be used for the purchase of Personal Services, Materials and Services, or Capital Outlay. Expenditure of the contingency fund does not require a supplemental budget or public hearing, but does require Board action to transfer the contingency to line item appropriations(s).

Coverage Ratios: See Bond Coverage.

GLOSSARY (Continued)

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. For example, the Fleet division in the Field Operations and Distribution Division in Engineering Services include personal services and materials & services budgeted for these specific activities.

Enterprise Fund: A fund established to account for operations that are financed and operated in a manner similar to 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.

Equivalent Residential Unit (ERU): A 5/8" x 3/4" meter used as the basis for calculating the greater demand from larger meter sizes.

Endangered Species Act (ESA): The Endangered Species Act is a federal legislation passed in 1973 designed to protect any species that is in danger of extinction throughout all or a significant portion of its range. The U.S. Fish and Wildlife Service (USFW) and the National Marine Fisheries Service (NMFS) share responsibility for administration of the ESA.

Fiscal Year: The period from 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 of 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.

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.

GLOSSARY (Continued)

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.

Greenhouse Gases: Gases in an atmosphere that absorb and emit radiation within the thermal infrared range. Common greenhouse gases in the Earth's atmosphere include water vapor, carbon dioxide, methane, nitrous oxide, ozone, and chlorofluorocarbons. These gases are believed to contribute to an effect which traps heat in the atmosphere, and may be increasing the average temperature of the Earth over time, causing changes in the environment.

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 and Water Management Plan adopted December, 2015 to evaluate the District's distribution system on a long-term basis. The plan meets the requirements of the Oregon Health Division and the Oregon Water Resources Department.

Metro (Metropolitan Service District): The Portland metropolitan area regional government charged with area-wide planning, solid waste and other regional functions.

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 in excess of the normal allowable bi-monthly amount.

Program: A group within a department comprised of related activities that accomplish a particular function for which the District is responsible.

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.

GLOSSARY (Continued)

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.

Revenue Bond: Long-term debt paid by General Fund revenues.

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.

ACRONYMS AND ABBREVIATIONS

Acre-ft	Acre feet
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
CAFR	Comprehensive Annual Financial Report
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
CIS	Customer Information System
CPI	Consumer Price Index (Inflationary Measurement)
CWA	(Federal) Clean Water Act
CWS	Clean Water Services
ENG	Engineering Services Department
EPA	(United States) Environmental Protection Agency
ERU	Equivalent Residential Unit
ETO	Energy Trust of Oregon
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
GHG	Greenhouse Gas
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 Retirement Account Plan (part of Public Employees Retirement System)
IGA	Intergovernmental Agreement
IT	Information Technology
IWRM	Integrated Water Resources Management
JWC	Joint Water Commission
Logos	Name of the District's financial software system provided by New World Systems
M&S	Materials and Services
MG	Million Gallons
MGD	Million Gallons per Day
N/A	Not available or does not apply
NWS	New World Systems (the District's financial software vendor)
OAR	Oregon Administrative Rules
OCIR	Office of Community and Intergovernmental Relations
OPS	Field Operations Department
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
WCSL	Washington County Supply Line
WRWC	Willamette River Water Coalition
WWSP	Willamette Water Supply Program
WWSS	Willamette Water Supply System