

Overview and Background Information Tualatin Valley Water District

Introduction

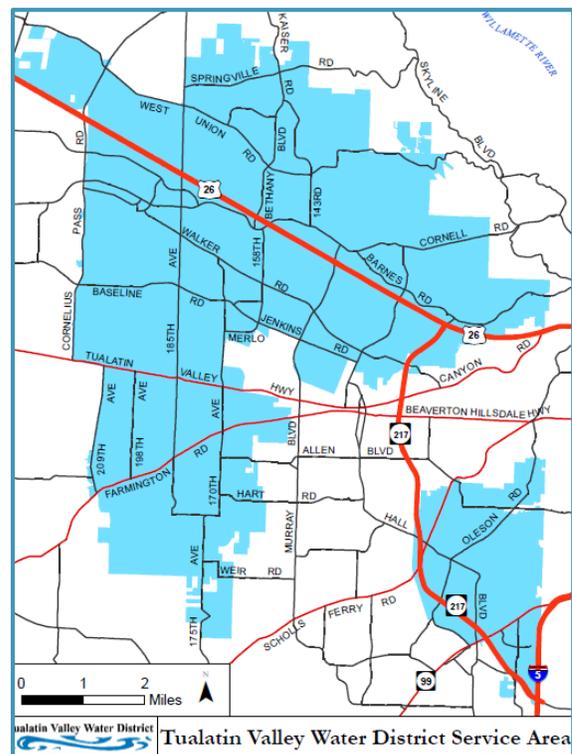
The Tualatin Valley Water District (“TVWD” or the “District”) is in the process of conducting a comprehensive rate study. As a part of the process, TVWD has formed a Rate Advisory Committee (RAC) to review specific rate related issues. The RAC consists of 15 individuals, representing various District stakeholders, who may have a limited understanding of the extent of the District’s operations and responsibilities. This overview and background paper¹ is intended to assist the RAC members in gaining a better understanding of TVWD and its current operations. This is solely intended to be foundational and background information as each of the key issues to be reviewed by the RAC will have a separate and distinct issue paper developed for it.

This document is intended to assist the RAC in gaining a better understanding of TVWD and its operations.

TVWD Service Area

The District is located in Washington County, west of the City of Portland. It serves unincorporated urban areas of Washington County and portions of the cities of Beaverton, Hillsboro, and Tigard. The District serves approximately 62,000 customers with an estimated population of 220,000.

Over the last ten years, population growth in the District’s service area has been approximately 1.1% per year. The early economy of Washington County area grew as a result of fertile agriculture and timberlands. While located near Portland, and considered a suburban area of Portland, the area has developed its own economic base which is based on high technology, retail trade, and distribution. Among the largest employers in the area, and District customers, are Intel, Nike, Maxim Integrated Products, Reser’s Fine Foods, Providence Health Systems, and the Beaverton School District.



In addition to serving District customers, the District provides contracted services to neighboring utilities. This includes utility billing for Clean Water Services; utility billing and meter reading for

¹ The information contained in this overview and background paper was primarily derived from various existing District information sources and reports such as the District’s Comprehensive Annual Financial Report (CAFR).

the City of Beaverton; and management, billing, and maintenance services to the Valley View Water District.

The District also provides finance, budgeting, and accounting services to the Willamette River Water Coalition (WRWC). The WRWC is an entity formed by four local agencies, including the District, to develop and maintain water rights on the Willamette River for regional needs.

TVWD Board of Commissioners

TVWD is authorized to operate as a domestic water supplier under the Oregon Revised Statutes (ORS) 264. The District is neither a part of, nor a component of, any other governmental entity. The District is governed by an elected five-member Board of Commissioners (Board). Each Board member is elected at large and there are over-lapping four-year terms of office. The District's current Board of Commissioners is as follows:



Marilyn McWilliams
Position 1



Dick Schmidt
Position 2



Jim Duggan, P.E.
Position 3



Richard Burke
Position 4



Jim Doane, P.E.
Position 5

The primary role of the Board is to establish District policy and appoint a Chief Executive Officer (CEO) who is responsible for the day-to-day management of the District and to assure that District's policies are implemented and followed. The District's CEO is Mark Knudson, P.E.

Board Vision, Mission and Values

The role of the Board is to provide leadership and vision for the District. The Board has established its vision, mission, and core values. These are as follows:

TVWD Vision
Delivering the Best
Water ♠ Service ♠ Value

TVWD Mission

To Provide Our Community Quality Water and Customer Service

TVWD Values

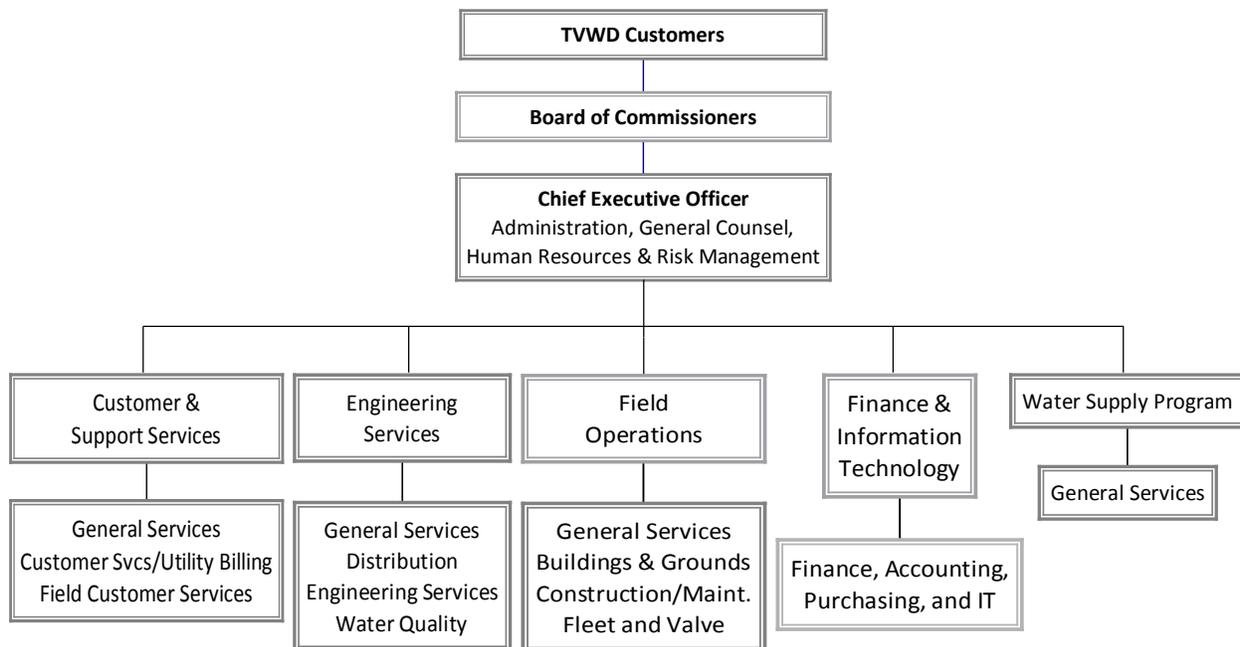
Reliability ♦ Integrity ♦ Stewardship ♦ Excellence ♦ Safety

As a result of the above Board vision, mission statement, and values, the Board has established the following desired results:²

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

Organization of the District

The District is organized and structured to meet the Board’s vision, mission, and values and to achieve the Board’s desired results. The District is organized into five departments and the Office of the Chief Executive. Provided below is a simple overview of the District’s five departments.



For the 2015-17 biennium, the District’s Board has authorized a total of 130 full-time equivalent positions.

District’s Adopted Budget

The District adopts biennial (two-year) budgets. The adopted budget reflects the appropriation for expenditures, debt service, transfers, and contingencies. The District’s primary source of

² Source: TVWD Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2015, p. 6.

operating revenue is from the sale of water and related services (i.e., rate revenues). In June 2015, the District adopted a biennial budget for fiscal years 2015-16 and 2016-17.

The District is currently in a strong financial position. The District is deliberately retaining a high level of reserves in anticipation of significant capital infrastructure investments related to future water supply resources.

Water Supply Resources

Currently, the District has two primary sources of water supply; the City of Portland and the Joint Water Commission (JWC). In total, the District delivers approximately eight billion gallons per year from these two water supply resources.

Portland's water supply is derived from the Bull Run watershed and the Columbia South Shore wellfield. The District has a wholesale purchase agreement (i.e., Intergovernmental Agreement) with the City of Portland to purchase water.³ The District currently purchases approximately 60% of its water supply from Portland.

The Joint Water Commission is a partnership between the District and the cities of Hillsboro, Forest Grove, and Beaverton. The JWC owns and operates water supply, treatment, and transmission facilities. JWC water is supplied by the Tualatin and Trask River watersheds with impoundments at Hagg Lake/Scoggins Dam and Barney Reservoir. The District owns 12.5 million gallons per day (MGD) of capacity in the JWC, and a 35% ownership in Barney Reservoir. Approximately 40% of the District's water supply requirements are provided by the JWC.

The District also has an aquifer storage and recovery (ASR) well at its Grabhorn reservoir site. This ASR facility can provide up to 300 million gallons (MG) of treated water storage and can deliver up to 3.0 MGD of water for peak season supply and emergency use. A second ASR water facility on Cooper Mountain is nearing completion and will provide 2.0 MGD of capacity. Finally, the District also maintains two back-up wells capable of providing up to 2.0 MGD for emergency use.

The District is a member of the Willamette River Water Coalition (WRWC) which has a permitted water right on the Willamette River of 130 MGD for a future water supply resource. The District also owns a portion of the Willamette River Water Treatment Plant located in Wilsonville. In 2007, the District assigned its water right to the WRWC and the Oregon Water Resources Department issued a Final Order extending WRWC's Willamette River Water Right Permit until October 1, 2047.

All water suppliers, including the District, must continuously plan for and construct facilities to meet future water demands. In 2013, following an extensive evaluation process, the District's Board selected the Willamette Water Supply System (WWSS) as its preferred future water supply. The WWSS provides the District with the opportunity to construct and own a seismically hardened water supply system that will meet the projected long-term demands of its customers.

³ In July 2006, the District signed an agreement with the City of Portland for water supply that had an initial 10-year term. That agreement automatically renewed on July 1, 2016.

To develop the WWSS, the District and its partners formed the Willamette Water Supply Program (WWSP). The District serves as the managing agency of the WWSP, with an objective of delivering the WWSS by 2026. To accomplish this goal, the WWSP will need to plan, design, construct, and commission the necessary facilities.

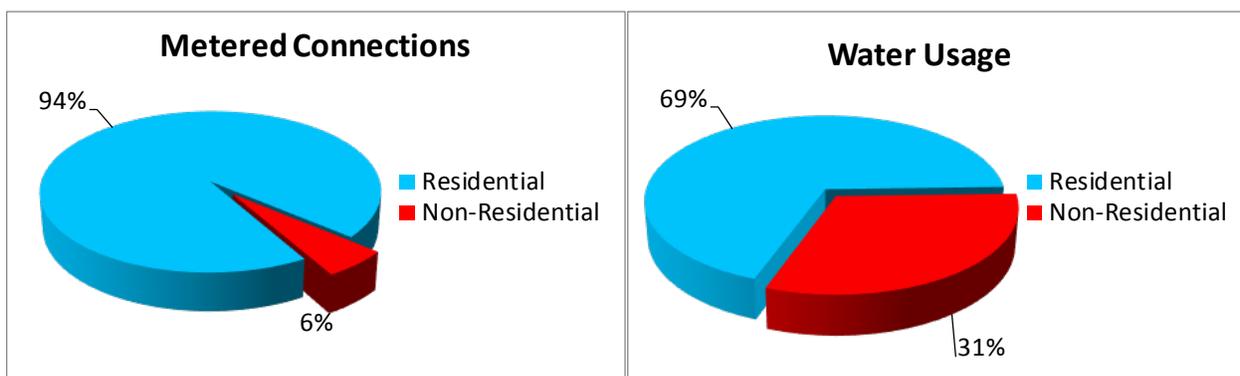
Implementation of the WWSS will dominate the District’s future capital expenditure plans, with the largest investments occurring outside of the current 2015 – 2017 biennium budget cycle. The costs of the WWSS are currently shared between the District and the City of Hillsboro with approximately 60% paid by the District and 40% by Hillsboro. Other partners may be added to the WWSP and the District is currently in seven-party talks to expand partnership in the WWSS.

Transmission and Distribution Facilities

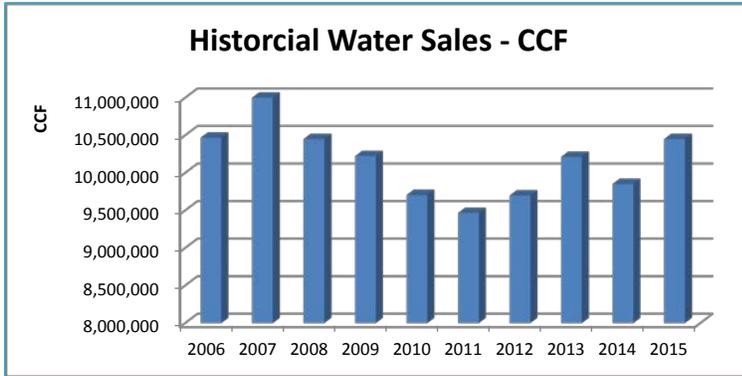
The District’s transmission and distribution system consists of approximately 780 miles of pipe, which ranges in size from 2-inches to 60-inches in diameter. The gravity flow line from the Portland Water Bureau’s Powell Butte Reservoir is a 60-inch line. The system also includes 13 pump stations to pump water to the District’s higher elevations. The District has 24 covered reservoirs to store water. The total combined capacity for reservoir storage is 67 million gallons. The District’s water system is monitored 24 hours a day, seven days a week. Flows are monitored using a Supervisory Control and Data Acquisition (SCADA) system. The system also includes reviews of water quality and security alarms.

Customers and Usage

The District currently provides service to approximately 62,000 customers (metered connections). Of these, about 3,400 connections serve non-residential customers (e.g., commercial and industrial). While the non-residential customers comprise a small proportion of the total number of connections, their overall water consumption is approximately 31% of the District’s total volumetric sales.



The District’s average day consumption (demand/usage) in 2015 was approximately 21 MGD and the peak day consumption (highest demand) was 44 MGD. Over the last three years, the total consumption or usage has gradually increased from 19 MGD to 21 MGD.



In any particular year, water demand is impacted by weather conditions, conservation, and general business conditions. In 2015, sales were driven by a warmer and drier spring, customer growth, and a favorable business climate. The graph to the left summarizes the District’s historical water sales, stated in hundreds of cubic feet (CCF).

As noted previously, the District serves a wide range and variety of customers. Shown below in Table 1 is a summary of the District’s largest customers for FY 2015.

Customer	2015 CCF Consumption	% of District Total
Intel Oregon	325,443	3.04%
Maxim Integrated Products	319,803	2.99%
Reser’s Fine Foods	110,853	1.03%
Tualatin Hills Park & Recreation District	108,979	1.02%
Nike, Inc.	107,981	1.01%
Providence Health Systems	106,432	0.99%
Panzer Nursery, Inc.	67,693	0.63%
Heritage Village Mobile Park	66,002	0.62%
Oregon Health Sciences University	59,673	0.56%
Simpson Property Group	49,774	0.46%
Total	1,322,633	12.35%

[1] – Source: TVWD 2015 CAFR, Table 1, p. 12.

Economy and Demographics for Washington County

The current economic and demographic data for Washington County is very positive. Table 2 (next page) provides a quick side by side comparison of key data.

Table 2
Summary of Key Economic and Demographic Data ^[1]

Customer	Washington County	State of Oregon
Population Growth (%/year)	5.8%	3.6%
Unemployment Rate (%) [2015]	4.9%	5.9%
Median Household Income (\$2013)	\$64,180	\$50,535

[1] – Source: TVWD 2015 CAFR, p. 11.

As shown in Table 2, Washington County has been growing at a rate which is higher than the overall State of Oregon average. This trend has been occurring over the last two decades.

Unemployment in Washington County is continually improving and in 2015 it was 4.9%. This compared to the overall state unemployment rate of 5.9%. The median household income in Washington County is \$64,180⁴ and is the second highest in the state. It is also 27% higher than the overall state average. With population growth and higher income levels, the real market value of property in Washington County also has been increasing. The market values which declined in 2007 have been more than fully recovered.

Water Conservation

Conservation of the District’s water resources and efficient use of those resources are important to the District. The District has an established conservation program and the program is carried out in a number of different ways.

- Residential and commercial customer rebates are provided for purchasing and installing high-efficiency indoor and outdoor water fixtures.
- On-site indoor water assessment services are available to help customers identify efficiency opportunities via upgrades in fixtures, equipment or process, and modified behavior.
- Landscape irrigation assessments are available which include education of best practices for system management and incentives to upgrade systems to high-efficiency equipment.
- Customer Organized Proposal Rebate Program is provided to incentivize water efficiency projects customized to improve specific commercial processes.

Water Rates

The District’s Board establishes the water rates for the District. The District has historically adopted its rates for a bi-annual period and utilized annual rate adjustments. The District’s current rates, effective November 1, 2015 are presented in Table 3.

⁴ A median household income does not reflect the range of incomes within a community.

Table 3
Summary of the District's Current Water Rates ^[1]

Rate Component	Current Adopted Rate
Bi-Monthly Meter Charge	
5/8" Meter	\$21.46/bi-month
3/4" Meter	23.64/bi-month
1" Meter	29.14/bi-month
1-1/2" Meter	39.14/bi-month
2" Meter	57.74/bi-month
3" Meter	160.78/bi-month
4" Meter	215.42/bi-month
6" Meter	347.20/bi-month
8" Meter	501.52/bi-month
10" Meter	824.84/bi-month
Consumption Charges (\$/CCF) ^[2]	
Base Rates	\$3.55/CCF
Block 2 Rates ^[3]	\$5.06/CCF

[1] – Source: TVWD website.

[2] – There are 748 gallons in one hundred cubic feet (CCF) of water

[3] – Block 2 rate applies to quantities used in excess of 28 CCF in a bi-monthly billing period for single family residential customers or 140% of the past twelve-months average usage for multi-family, irrigation, commercial and production customers.

District Revenues and Expenses

In FY 2015, the District's total operating revenues were approximately \$45.7 million. Of this amount, \$41.0 million was derived from water service (i.e., rates) and approximately \$4.7 million was derived from administrative services. In the same year, the operating expenses⁵ of the District were approximately \$31.7 million. Included within this amount are purchased water costs which totaled approximately \$7.7 million. The difference between the operating revenues and operating expenses is used to fund a portion of the total capital expenditures of the District, along with the operating and capital reserves of the District.

Summary

The above overview and background discussion of Tualatin Valley Water District is intended to assist the RAC in understanding the current status of the District. As the issue papers for the RAC are developed, they will utilize, in part, the information within the discussion paper, but also expand upon certain areas and items where relevant (e.g. median household income, etc.)

⁵ Operating expenses are defined as expenses directly related to providing services reflected within the operating revenues, including depreciation and amortization, but excluding capital-related personnel services.