

# Chapter 8

## FINANCIAL PLAN

### 8.1 Introduction

This section summarizes the financial status of the City of Tumwater’s (City) water utility and provides a cursory evaluation of the ability of the City to finance necessary capital improvements identified in the Capital Improvement Plan (CIP) as outlined in Chapter 7. Financial status of the water utility, funding required to finance the scheduled improvements, potential funding sources and the impact of water system improvements on water rates are presented.

### 8.2 Historical Financial Performance Summary

#### 8.2.1 Current Water Rates, Fees, and Charges

The City has the following rate categories for their water system customers:

- Single-Family Residential.
- Duplex Units.
- Multi-Family Residential.
- Non-Residential.
- Irrigation.

##### 8.2.1.1 Monthly Meter Charge

The monthly charge for customers is based on meter size, regardless of customer type, as shown in Table 8.1. For customers in the unincorporated areas of Thurston County, the water base rate is 140 percent of the appropriate meter monthly charge.

Table 8.1 2019 Water Base Rate Monthly Meter Charge

Meter Size (inches)	Monthly Charge
3/4	\$8.32
1	\$14.08
1.5	\$27.46
2	\$44.08
3	\$83.13
4	\$138.88
6	\$276.80
8	See Note 2
10	See Note 2
12	See Note 2

Notes:

- (1) Source: 2019 Fee Resolution; effective January 1, 2019
- (2) Per the resolution, user fee base rates shall be established based on AWWA Standards for meter equivalency. A three-quarter inch (3/4”) meter shall be used as the multiplier base.

### 8.2.1.2 Consumption Charge

In addition to the monthly charge, customers also pay a usage based consumption charge per hundred cubic feet (CCF) water consumed. Table 8.2 shows the City's consumption charges for each customer types. Single and multi-family residential customers have a four-block tier system based on their volume of water consumed. Non-residential and irrigation customers are charged a uniform rate per CCF of usage.

Table 8.2 2019 Consumption Charges

Customer Type	Volume of Water	Consumption Charge (per CCF)
Single-Family Residential	0 to 600 CF	\$2.44
	601 to 1,200 CF	\$2.70
	1,201 to 2,400 CF	\$3.24
	2,401 or greater	\$4.24
Multi-Family Residential	0 to 500 CF	\$2.44
	501 to 1,000 CF	\$2.70
	1,001 to 2,000 CF	\$3.24
	2,001 or greater	\$4.24
Non-Residential		\$2.70
Irrigation		\$3.24
Users in Unincorporated Thurston County	140% of water consumption rate of all category types	

Note:

(1) Source: 2019 Fee Resolution, effective January 1, 2019.

### 8.2.1.3 Lifeline Rates

The City has implemented a Lifeline Program, which provides discounted utility rates to low-income senior citizens (age 62 and older) and low-income citizens with disabilities. The monthly water base fee for a 3/4-inch meter is flat rate of \$4.16. The consumption rate (per CCF) is discounted by 50 percent for qualified lifeline customers.

### 8.2.1.4 Connection Charges

Connection charges are one-time charges paid by new development to reimburse existing utility customers for costs previously paid to construct current system capacity or to help finance planned future growth-related capacity improvements. The charges help ensure that all customers connecting to the system bear an equitable share of costs that have been or will be invested to provide capacity needed to serve them and any further growth-related expansion. Connection charge revenues are deposited in the Utility's capital fund and are used to help support current and future capital expenditures.

Water connection charge rates are traditionally recalculated following the update of the Water System Plan to reflect historical capital investments through that date and capital expenditures outlined in the Comprehensive Plan that are needed to support future growth. Current Water connection charge rates are based on Resolution R2018-026 and became effective January 1, 2019 and are shown in Table 8-3.

Table 8.3 2019 Connection Charges

Meter Size (inches)	Monthly Charge
3/4	\$4,512.12
1	\$7,670.87
1.5	\$14,637.39
2	\$23,911.51
3	\$45,115.91
4	\$75,191.79
6	\$150,233.76
8	\$375,846.58
10	\$571,644.66
12	\$872,097.61

Note:

(1) Source: 2019 Fee Resolution; effective January 1, 2019.

### 8.2.2 Historical Financial Operations

The City's operating revenues for the years 2015 to 2019 are summarized in Table 8.4. The largest revenue generating item is water sales. Other revenue the City receives is through utility taxes, which is six percent of the sales collection; penalties; leases; connection charges; and drop-in charges.

Table 8.5 shows a summary of the City's operating expenses from 2015 to 2019. Salaries and wages are the City's largest single expense. Expenditures increased in 2019 due to the budgeted system improvements expense of \$2,447,000.

### 8.2.3 Outstanding Debt

The City does not have any existing debt for the Water Fund.

Table 8.4 Historical Operating Revenue

Operating Revenue	2015	2016	2017	2018	2019 Budget
Water Sales	\$4,242,055	\$4,354,204	\$4,532,765	\$4,812,144	\$5,014,300
Other Revenue	1,201,898	1,785,455	2,156,018	1,274,174	1,205,858
<b>Total</b>	<b>\$5,443,953</b>	<b>\$6,139,659</b>	<b>\$6,688,783</b>	<b>\$6,086,318</b>	<b>\$6,220,158</b>

Notes:

- (1) Source: City's Financial Statements.
- (2) 2019 water sales includes proposed rate increase.
- (3) Years ended December 31st.

Table 8.5 Historical Operating Expenses

Operating Expenses	2015	2016	2017	2018	2019 Budget
Operating Expenses	\$3,105,699	\$3,650,194	\$3,569,317	\$4,574,400	\$6,802,448
Debt Service Payments	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$3,105,699</b>	<b>\$3,650,194</b>	<b>\$3,569,317</b>	<b>\$4,574,400</b>	<b>\$6,802,448</b>

Notes:

- (1) Source: City's financial statements.
- (2) Operating expenses include salaries, benefits, supplies, other services, intergovernmental, and operations expenses. Does not include depreciation.
- (3) Years ended December 31st.

### 8.3 Financial Policies

The City's adopted financial policies and guidelines, found in Appendix S, were updated in April 2018 and discuss the following in detail:

- Reserve and Contingency Policies.
- Revenue and Other Resources.
- Expenditures.
- Budget Preparation.
- Stewardship of What City Owns.
- Long-term Financial Planning.
- Long-term Operational Financial Planning.
- Investments.
- Debt.
- Auditing, Accounting, and Financial Reporting.
- Management of Federal Grants.

### 8.4 Financial Forecast

The financial forecast, or revenue requirement analysis, is a comprehensive test of a utility's fiscal health, scrutinizing the adequacy of current revenues, and setting the basis for rate planning. It reviews the utility's revenues, expenses, debts, and reserve policies, assessing the viability of each metric going forward. Where cash flows and balances are insufficient, the revenue requirement analysis determines the needed additional cash flows to meet all funding goals. For this analysis, two revenue sufficiency tests have been developed to reflect the financial goals and constraints of the City: cash needs must be met, and debt coverage requirements must be realized. The two tests are as follows:

- The **cash flow sufficiency test** looks for a net positive cash flow at the end of each fiscal year. This test looks at whether revenues exceed expenses; when they do not, this test recommends additional revenue.
- The second test is the **debt service coverage test**. Utility bond issuances regularly include a stipulation that the agency maintain sufficient cash flows to cover the planned debt service, plus an additional percent of that debt service, typically between 25 percent and 50 percent. For example, a 1.0 coverage factor would imply that no additional cushion is required. A 1.25 coverage factor means revenue must be sufficient to pay O&M expenses, annual revenue bond debt service payments, plus an additional 25 percent of annual revenue bond debt service payments. Targeting a higher coverage factor can help the City achieve a better credit rating and provide lower interest rates for future debt issues. If cash flow falls below this ratio, this test recommends additional revenue.

The revenue requirement analysis looks at both of these tests for any needed revenue increases.

#### 8.4.1 Projected Operating Revenues and Expenditures

Using the City's forecast factors and assumptions, operating revenues and expenditures were projected to 2028, as summarized in Tables 8.6 and 8.7, respectively.

#### 8.4.1.1 Assumptions

The City provided or agreed upon the following assumptions when projecting out the water fund's financial projections:

- **General Inflation.** For expenditures, a three percent annual inflation rate was agreed upon.
- **Water Growth Rate.** From the Plan's demand assumptions, it was calculated that a 2.4 percent increase in annual consumption would be applied to the projected water sales. Conservation is not factored into this percentage.
- **Benefits/Salary/Cost of Living Adjustment.** The City assumes that salary increases would be approximately 2.5 percent annually, and benefits would have a 4.0 percent annual increase.
- **Utility Taxes.** Currently utility taxes are projected to be 6.0 percent of the water sales.
- **Connection Fee Escalation.** The City is assuming that the connection fees would increase 2.0 percent annually.
- **CIP Funding.** The City is assuming any bonding would have a 4.0 annual interest rate over 30 years. A Single Revolving Fund would have an assumed annual interest rate of 1.0 percent, which would increase the City's debt service coverage ratio due to lower annual debt payments.

#### 8.4.1.2 Rate Increases

The projected water sales revenues shown in Table 8.6 include an "across the board" rate revenue increase, which assumes the revenue collected from the metered water sales the previous year will increase by a certain percentage, and was not calculated for each customer category. A three percent rate increase is assumed in 2019, a 4.0 percent increase in 2020, a 6.0 percent increase in 2021, a 5.0 percent increase in 2022, and a 4.0 percent increase from 2023 to 2028 in order to keep the City's minimum requirement of 20 percent of annual budgeted operating expenditures and debt service payments in the ending fund balance and to increase the City's debt service coverage ratio.

#### 8.4.1.3 Reserves

The City has the following reserves, which are summarized in the City's Financial Policies, found in Appendix S:

- Water Utility Cash Flow Reserve.
- Contingency Fund.
- General Cash Flow Reserve.
- Facility Reserve.
- Equipment Rental and Reserve Fund Cash Flow Reserve.

The Water Utility Cash Flow Reserve is specific to the Water Fund, and states that the fund should maintain an ending fund balance of 20 percent of annual budgeted operating expenditures and debt service payments.

#### 8.4.1.4 Cash Flow

Table 8.8 shows the ten-year projected operating cash flow for the water utility, which subtracts the total operation and maintenance expenses and any issued debt from the total operating revenues, as shown in the previous tables. The result is that the City's net revenue fluctuates from negative to positive over the 10-year planning period.

Based on the current water utility status the assumptions provided by the City, issuing debt to cover certain capital improvement projects, and increasing the water rate revenue as indicated, the City will have an adequate amount of funds to cover the projected operating expenditures and capital projects through the 10-year planning horizon.

Table 8.6 Projected Operating Revenue

Operating Revenue	2019 Budget	2020	2021	2022	2023	2024	2025	2026	2027	2028
Water Sales	\$5,164,730	\$5,500,230	\$5,970,160	\$6,419,110	\$6,836,120	\$7,280,190	\$7,753,100	\$8,256,760	\$8,793,120	\$9,364,320
Connection Charges	\$600,800	\$612,800	\$625,100	\$637,600	\$650,400	\$663,400	\$676,700	\$690,200	\$704,000	\$718,100
Other Revenue	\$605,058	\$626,910	\$656,340	\$666,170	\$695,570	\$724,810	\$763,840	\$812,540	\$849,770	\$887,110
Debt Proceeds	0	0	\$5,000,000	\$3,000,000	\$6,000,000	0	0	0	0	0
<b>Total</b>	<b>\$6,370,588</b>	<b>\$6,739,940</b>	<b>\$12,251,600</b>	<b>\$10,722,880</b>	<b>\$14,182,090</b>	<b>\$8,668,400</b>	<b>\$9,193,640</b>	<b>\$9,759,500</b>	<b>\$10,346,890</b>	<b>\$10,969,530</b>

Notes:

- (1) Source: City budget information and projections.
- (2) Water sales include proposed rate increases.
- (3) Years ended December 31st.

Table 8.7 Projected Operating Expenditures

Operating Expenses	2019 Budget	2020	2021	2022	2023	2024	2025	2026	2027	2028
Operating Expenses	\$6,802,448	\$4,773,700	\$4,930,400	\$5,089,600	\$5,251,000	\$5,417,600	\$5,590,400	\$5,769,200	\$5,954,500	\$6,146,500
Debt Service Payments	0	0	\$328,580	\$525,728	\$920,024	\$920,024	\$920,024	\$920,024	\$920,024	\$920,024
<b>Total</b>	<b>\$6,802,448</b>	<b>\$4,773,700</b>	<b>\$5,258,980</b>	<b>\$5,615,328</b>	<b>\$6,171,024</b>	<b>\$6,337,624</b>	<b>\$6,510,424</b>	<b>\$6,689,224</b>	<b>\$6,874,524</b>	<b>\$7,066,524</b>

Notes:

- (1) Source: City budget information and projections.
- (2) Expenses are rounded.
- (3) Debt service payments based on a 4.0 percent annual interest at 30 years.
- (4) Years ended December 31st.



### 8.4.2 Projected Capital Improvement Projects

Table 8.7 includes the water CIP based on the short-term (2019 to 2028) projects listed in Chapter 7. For the purpose of this analysis, the projects were designated by project categories and then allocated to certain years within the 2019-2028 period. These designations are assumptions and can be shifted as the utility determines a more detailed schedule. The financial model shows that the utility will have to use reserves in order to pay for the projected capital projects, and issue debt in 2021, 2022, and 2023. By the end of the 10-year planning period, the ending fund balance will be depleted by approximately \$8.5 million, assuming the projected rate increases would be implemented, and debt would be issued to finance the CIP, leaving approximately \$1.4 million remaining in the fund balance.

### 8.4.3 Financial Forecast – Water Rate Increases, Additional Debt

Figure 8.1 shows the City's projected financial performance through 2028. This forecast assumes debt will be issued to fund capital improvement projects, as well as the implementation of rate increases between three and six percent each year. The stacked bar lines represent the City's operational expenses, CIP, and existing debt service. The City's revenues are shown in the solid blue line and include the proposed rate increases labeled. The presented revenues include water sales, other operating revenues, and debt proceeds. Revenues are projected to increase significantly in 2021, 2022, and 2023 when debt is issued to fund the proposed CIP.

The City's ending fund balance is also shown in the solid orange line. The dashed red line in Figure 8.1 represents the City's minimum ending fund balance of 20 percent of annual budgeted operating expenditures and debt service payments. Rate increases were adjusted to meet this requirement. The financial projections indicate that the minimum fund balance requirement will be met in all years with the exception of 2023, when the ending fund balance will dip slightly below the target due to a spike in capital expenses in that year. The fund balance is expected to rebound to a level above the minimum in 2024 as CIP expenses attenuate.

It should also be noted that the City will have to verify their debt coverage ratio as noted in Section 11 of their Financial Policies when issuing debt for the proposed projects, confirming they will not go below the advisable limit of debt.

Table 8.8 Summary Projected Cash Flow (short-term)

	2019 Budget	2020	2021	2022	2023	2024	2025	2026	2027	2028
(+) Total Operating Revenues	\$6,370,588	\$6,739,940	\$7,251,600	\$7,722,880	\$8,182,090	\$8,668,400	\$9,193,640	\$9,759,500	\$10,346,890	\$10,969,530
(+) Debt Proceeds	0	0	5,000,000	3,000,000	6,000,000	0	0	0	0	0
(-) Total Operating Expenses	6,802,448	4,773,700	4,930,400	5,089,600	5,251,000	5,417,600	5,590,400	5,769,200	5,954,500	6,146,500
(-) CIP	410,000	3,220,000	11,967,000	5,827,000	9,124,000	1,884,000	724,000	3,864,000	4,724,000	3,854,000
(-) Total Debt	\$0	\$0	\$328,580	\$525,728	\$920,024	\$920,024	\$920,024	\$920,024	\$920,024	\$920,024
<b>Total</b>	<b>(\$841,860)</b>	<b>(\$1,253,760)</b>	<b>(\$4,974,380)</b>	<b>(\$719,448)</b>	<b>(\$1,112,934)</b>	<b>\$446,776</b>	<b>\$1,959,216</b>	<b>(\$793,724)</b>	<b>(\$1,251,634)</b>	<b>\$49,006</b>
<b>Ending Fund Balance</b>	<b>\$9,061,748</b>	<b>\$7,807,988</b>	<b>\$2,833,608</b>	<b>\$2,114,160</b>	<b>\$1,001,225</b>	<b>\$1,448,001</b>	<b>\$3,407,217</b>	<b>\$2,613,492</b>	<b>\$1,361,858</b>	<b>\$1,410,864</b>

Note:

(1) Years ended December 31st.

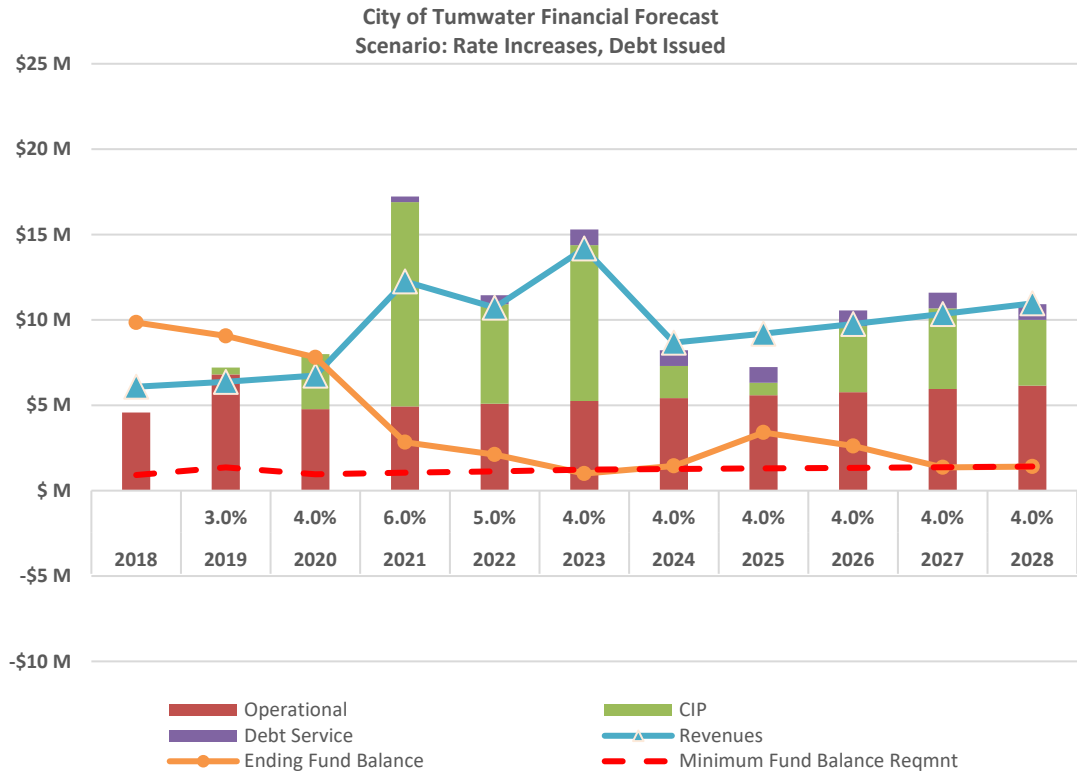


Figure 8.1 Financial Forecast

### 8.5 Available Funding Assistance and Financing Resources

The ten-year planning period shows the City will be have adequate funding for the anticipated short-term projects shown in the capital improvement plan with moderate rate increases and provided there is debt issued in 2021, 2022, and 2023. It is therefore important for the City to understand what funding assistance and financing resources are available to help fund the CIP. The following is a summary of the some of the City’s resources.

#### 8.5.1 Grants and Low Cost Loans

The Infrastructure Assistance Coordinating Council (IACC) is a non-profit organization that helps improve the delivery of infrastructure assistance, both financial and technical, to local governments and tribes in Washington State. The IACC has put together a list of funding opportunities that are currently available for drinking water and wastewater projects, broken down by the following:

- **Type of program:** (planning, pre-construction only, construction and design/construction, and emergency).
- **Eligible Projects:** the type of project (water, wastewater, stormwater, etc.).
- **Eligible Applicants:** the type of municipality or district, meeting certain requirements.
- **Funding Available:** whether the source is a grant or a loan, providing the maximum amount, and financial information if necessary.
- **How to apply:** providing the date to submit, website resources, and contact information.

The types of funding sources vary, but the main assistance programs are:

- **Public Works Trust Fund (PWTF):** loans for eligible projects including repair, replacement, and construction of infrastructure for domestic water projects that improve public health and safety, respond to environmental issues, promote economic development, or upgrade system performance.
- **Drinking Water State Revolving Fund (DWSRF):** This funding was established by the 1996 amendments to the Safe Drinking Water Act (SDWA) and is a partnership between the U.S. Environmental Protection Agency (EPA) and the states. According to the Washington State Department of Health (DOH) website, the DWSRF makes funds available to drinking water systems to pay for infrastructure improvements. The loan program is funded through federal and state money and subject to state laws and additional federal regulations. Loan repayments can range from 6 to 20 years.

### 8.5.2 Bond Financing

Bond financing is obtained by issuing general obligation or revenue bonds. Revenue bonds do not require voter approval and may be repaid with revenues from rates, miscellaneous fees or connection charges. The City's financial projections in this chapter assumes a 4.0 percent annual interest rate at a 30 year repayment period, a 2.0 percent cost of issuance, 10.0 percent capitalized bond reserve (percent of the debt proceeds) and a bond proceed of 88 percent.

## 8.6 Summary

Upon analysis of the financial status of the water utility, the City has adequate revenues from water rates and connection charges to meet the expected operating costs of the water system through 2028, provided they issue debt in some years to cover certain capital projects. The financial forecast scenario presented in this chapter shows \$5 million of debt issued in 2021, \$3 million of debt issued in 2022, and \$6 million of debt issued in 2023. Capital projects are projected to average approximately \$4.5 million annually in the next ten years, which will require the utility to use reserves and issue debt to fund these projects. Water rates are anticipated to increase 3.0 percent in 2019, 4.0 percent in 2020, 6.0 percent in 2021, 5.0 percent in 2022, and then continuing at 4.0 percent through 2028. This would decrease the ending fund balance to approximately \$1.4 million by 2028, which is still above the City's financial requirement of 20 percent operating expenses and debt payments. The City has the option to issue debt, apply for qualifying grants, or conduct a financial rate study to determine if additional rate increases would help cover the costs of the projected capital projects.