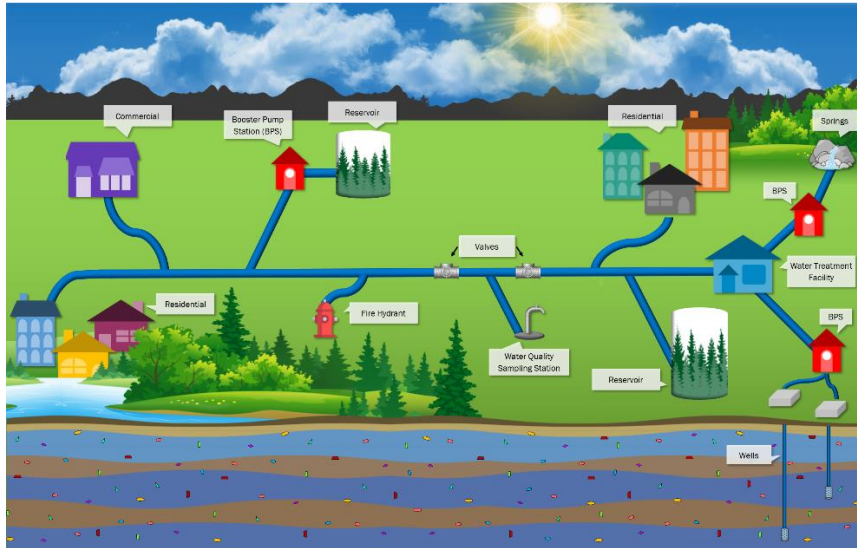


## CHAPTER 10

# FINANCIAL ANALYSIS



## INTRODUCTION

The financial analysis assesses the ability of the City’s water utility to remain financially viable during the planning period, considering its recent historical performance as well as anticipated future needs. It also evaluates the affordability of the City’s water rates, both at existing levels and with any rate increases needed to support its operations and planned capital program.

## FINANCIAL HISTORY

**Table 10-1** summarizes the financial performance of the City’s water utility for the 2008 – 2017 time period as documented in the City’s audited financial statements (Statement of Revenues, Expenses and Changes in Fund Net Position). Important take-aways from this analysis include:

- Charges for services increased by 32.0% from 2008 – 2017, due in part to growth in the City’s customer base and water rate increases that the City implemented during that period. The City established a policy of inflationary rate adjustments beginning in 2009 and has generally increased its water rates each year – however, the City decreased its water rates by 19.2% in mid-2012 to mitigate the impact of sewer rate increases needed at that time. The City reviewed its rates in early 2017 and implemented a mid-year rate increase of 9.0%. With these actions, the net increase to the City’s water rates from 2008 – 2017 was only 5.6%.

- Operating expenses (excluding depreciation) increased by 77.0% from 2008 – 2017.
- The operating ratio provides a means of evaluating the self-sufficiency of the City’s water utility as an enterprise, measuring the ability of annual operating revenues to cover annual operating costs. Including depreciation expense in this calculation provides insight as to whether the City is charging customers enough to fund the replacement of assets in addition to daily operating costs. **Table 10-1** indicates that the water utility was able to cover operating costs for the entire ten-year period but fell short of fully funding depreciation expense in 2015 and 2016.
- The current ratio is a measure of short-term liquidity or the water utility's ability to pay its current bills – it is calculated by dividing unrestricted current assets (excluding inventories and prepaid items) by current liabilities. A ratio of 1.0 indicates that the utility has exactly enough to pay its bills; higher values are desirable as they suggest an ability to pay large or unanticipated bills. The water utility has attained current ratios varying from 4.36 to 7.24 over the past ten years, suggesting that the utility has ample capacity to meet its short-term financial obligations. It is worth noting that the City reported its 2011 financials using a cash-based accounting method, making it difficult to compute metrics such as the current ratio in a manner consistent with the other years in the analysis.
- Days of cash on hand is a measure of financial security, quantifying how long the water utility would be able to fund daily operating and maintenance costs if it received no additional revenue. It is calculated by dividing unrestricted cash by the average daily cost of operations (excluding depreciation). While there is no firm minimum standard for this metric, bond rating agencies have recently expressed a preference for a minimum of 180 days of cash on hand for utilities seeking the highest bond ratings. **Table 10-1** indicates that the water utility has been able to maintain 677 – 1,299 days of cash on hand over the past ten years, which is more than adequate to meet this standard. However, it is worth noting that high cash balances can also result from decisions to defer capital investment.
- The water utility has cut its outstanding debt principal balance by \$9.2 million over the past ten years. It currently has one outstanding revenue bond (of which the water utility’s share is 82%) and eight outstanding loans, with a combined balance of \$7.6 million outstanding as of year-end 2017. The water utility has maintained debt service coverage ratios of 4.63 – 22.18 on revenue bonds, exceeding the 1.25 ratio required by its bond covenants.
- The Debt-to-Asset Ratio is a measure of indebtedness. This metric is often used to evaluate whether a utility is overleveraged, with values above 60% suggesting that a utility may have too much debt. Excessive indebtedness can be viewed negatively in the context of a fiscal health evaluation, as debt comes with incremental costs (e.g. interest) and requirements (e.g. coverage, reserves) that may reduce a utility's financial flexibility. The water utility's ratio has decreased from 30% in 2008 to 11% in 2017, reflecting its efforts to repay its existing debt obligations.

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**Table 10-1. Historical Financial Performance (2008 – 2017, \$000s)**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>Operating Revenues</b>										
Charges for Goods and Services	\$6,005	\$6,920	\$6,222	\$8,835	\$6,314	\$6,693	\$6,898	\$7,493	\$7,178	\$7,926
<b>Total Operating Revenues</b>	<b>\$6,005</b>	<b>\$6,920</b>	<b>\$6,222</b>	<b>\$8,835</b>	<b>\$6,314</b>	<b>\$6,693</b>	<b>\$6,898</b>	<b>\$7,493</b>	<b>\$7,178</b>	<b>\$7,926</b>
<b>Operating Expenses</b>										
Operation, Maintenance, Admin, & Taxes	\$3,313	\$4,063	\$4,169	\$4,147	\$4,268	\$4,782	\$4,861	\$6,109	\$5,567	\$5,865
Depreciation	1,311	1,404	1,476	1,504	1,546	1,611	1,658	1,667	1,653	1,683
<b>Total Operating Expenses</b>	<b>\$4,624</b>	<b>\$5,467</b>	<b>\$5,645</b>	<b>\$5,651</b>	<b>\$5,814</b>	<b>\$6,393</b>	<b>\$6,519</b>	<b>\$7,776</b>	<b>\$7,220</b>	<b>\$7,548</b>
<b>Operating Income (Loss)</b>	<b>\$1,381</b>	<b>\$1,452</b>	<b>\$577</b>	<b>\$3,184</b>	<b>\$500</b>	<b>\$300</b>	<b>\$379</b>	<b>(\$283)</b>	<b>(\$42)</b>	<b>\$378</b>
<b>Nonoperating Revenues (Expenses)</b>										
Investment Earnings	\$356	\$206	\$ 64	\$ -	\$ 25	\$ 56	\$ 14	\$ 19	\$ 52	\$ 104
Miscellaneous Revenue (Expense)	13	31	29	33	41	117	15	29	(71)	(685)
Pension Expense	-	-	-	-	-	-	-	(0)	(12)	(8)
Interest and Other Debt Service Cost	(754)	(166)	(259)	(252)	(231)	(203)	(175)	(142)	(162)	(454)
<b>Total Nonoperating Revenue</b>	<b>(\$386)</b>	<b>\$71</b>	<b>(\$166)</b>	<b>(\$219)</b>	<b>(\$165)</b>	<b>(\$ 30)</b>	<b>(\$146)</b>	<b>(\$94)</b>	<b>(\$193)</b>	<b>(\$1,043)</b>
<b>Income (Loss) Before Contributions/Transfers</b>	<b>\$995</b>	<b>\$1,524</b>	<b>\$411</b>		<b>\$335</b>	<b>\$270</b>	<b>\$233</b>	<b>(\$377)</b>	<b>(\$235)</b>	<b>(\$665)</b>
System Development Fees	\$1,743	\$1,357	\$1,567	\$ -	\$1,843	\$1,452	\$3,231	\$682	\$901	\$880
Capital Contributions	-	-	-	-	-	-	-	-	-	(70)
Transfers In	-	-	-	1,338	-	-	-	7	-	36
Transfers Out	(841)	-	(1,700)	(1,500)	-	-	-	-	(7,992)	(750)
Judgement	(821)	-	-	-	-	-	-	-	-	-
<b>Change in Net Position</b>	<b>\$1,076</b>	<b>\$2,880</b>	<b>\$278</b>	<b>\$2,803</b>	<b>\$2,178</b>	<b>\$1,722</b>	<b>\$3,464</b>	<b>\$312</b>	<b>(\$7,326)</b>	<b>(\$569)</b>
<b>Net Position at Beginning of Year</b>	<b>\$39,832</b>	<b>\$40,908</b>	<b>\$43,789</b>	<b>\$44,067</b>	<b>\$44,179</b>	<b>\$46,357</b>	<b>\$48,079</b>	<b>\$50,205</b>	<b>\$50,991</b>	<b>\$43,317</b>
Restatement Per GASB 68 Implementation	-	-	-	-	-	-	-	(378)	-	-
Prior Period Adjustment	-	-	-	(148)	-	-	(1,338)	852	(348)	-
Other Adjustments	-	-	-	(2,543)	-	-	-	-	-	-
<b>Net Position at End of Year</b>	<b>\$40,908</b>	<b>\$43,789</b>	<b>\$44,067</b>	<b>\$44,179</b>	<b>\$46,357</b>	<b>\$48,079</b>	<b>\$50,205</b>	<b>\$50,991</b>	<b>\$43,317</b>	<b>\$42,748</b>
<i>Operating Ratio (Excluding Depreciation)</i>	1.81	1.70	1.49	2.13	1.48	1.40	1.42	1.23	1.29	1.35
<i>Operating Ratio (Including Depreciation)</i>	1.30	1.27	1.10	1.56	1.09	1.05	1.06	0.96	0.99	1.05
<i>Current Ratio</i>	4.36	7.24	7.18	(N/A)	5.76	5.48	4.65	6.15	6.64	5.87
<i>Days Cash On Hand</i>	1,065	1,191	1,074	1,299	1,028	823	1,087	830	833	677
<i>Outstanding Debt Principal at Year-End</i>	\$16,810	\$17,747	\$17,698	\$15,999	\$14,283	\$12,665	\$12,166	\$10,312	\$8,913	\$7,563
<i>Outstanding Principal as % of Capital Assets</i>	30%	31%	29%	25%	22%	19%	18%	15%	13%	11%
<i>Debt Service Coverage (Parity Debt)</i>	22.18	19.69	8.20	10.40	8.64	7.75	11.66	4.63	5.55	5.24
<i>Debt Service Coverage (All Debt)</i>	4.75	4.38	2.65	3.21	2.56	2.31	3.44	1.38	1.65	1.64

### CAPITAL FUNDING RESOURCES

In addition to cash financing, the City may use multiple sources to fund the water capital improvement program described in detail below.

#### **Government Programs**

Federal and state grant programs were historically available to local utilities for capital funding assistance. However, these assistance programs have been mostly eliminated, significantly reduced in scope and amount, or replaced by low-interest loan programs. Remaining grants programs are usually lightly funded and heavily subscribed. Nonetheless, even the benefit of low-interest loans makes the effort of applying worthwhile. Funding programs for which the City might be eligible include:

#### ***Public Works Trust Fund (PWTF) Loan Program***

Cities, counties, special purpose districts, public utility districts, and quasi-municipal governments are eligible to receive loans from the PWTF. Eligible projects include repair, replacement, and construction of infrastructure for domestic water, sanitary wastewater, stormwater, solid waste, road, and bridge projects that improve public health and safety, respond to environmental issues, promote economic development, or upgrade system performance. No funding is currently available for Construction loans, but the Public Works Board states funding may become available in the 2019-2021 Biennium. The applications for Pre-Construction loans are currently closed. Information regarding the application process, status of the funding process, as well as rates and terms are posted on the PWTF website. Further detail is available at <http://www.commerce.wa.gov/building-infrastructure/pwb-home-page>.

#### ***Drinking Water State Revolving Fund (DWSRF) Loan Program***

DWSRF funding has historically targeted protection of public health and compliance with drinking water regulations. Loan repayments can range from 20 to 30 years and in some cases, provide partial loan forgiveness. Applicants need an approved water system plan (or plan amendment) containing the DWSRF project prior to submitting an application. All public water systems that receive a DWSRF loan must undergo an environmental review, a cultural review, and an Investment-Grade Efficiency Audit (IGEA). The IGEA is an effort to apply energy efficiency to water systems and may be financed as part of the DWSRF loan. Applications for 2019 are currently unavailable until the Capital Budget is passed.

More information regarding the DWSRF Loan Program can be found at <https://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemAssistance/DrinkingWaterStateRevolvingFundDWSRF>.

### **Community Economic Revitalization Board (CERB) Grant and Loan Program**

A division of the Washington State Department of Commerce, CERB was formed in 1982 to respond to local economic development issues in Washington communities. It provides funding to local governments and federally recognized tribes for public infrastructure (including water, stormwater, wastewater, public buildings, telecommunications, and port facilities) that supports private business growth. It prioritizes projects that create or retain jobs for low and moderate-income residents. CERB generally provides funding through three programs:

- **Committed Private Partner Program:** This program provides loans and grants to public agencies that have a commitment from the private sector to help fund the construction of infrastructure necessary for private business expansion. Applicants must submit evidence that private development is contingent on CERB funding and demonstrate that no other timely source of funding is available at terms comparable to what CERB offers.
- **Planning Grant Program:** This program provides limited funding for studies to evaluate high-priority economic development projects that target job growth and long-term economic prosperity.
- **Prospective Development Program:** This program offers loans and grants to rural communities for public infrastructure that facilitates future business development. It requires an economic feasibility study demonstrating that the project will lead to a significant level of job creation and private capital investment. Applicants must also show a need for CERB assistance and evidence that no other timely source of funding is available at terms comparable to what CERB offers.

CERB offers a maximum of \$2 million per project, per policy with interest rates ranging from 1% to 3%. The Board meets every two months to consider projects and make funding decisions. Even if funding were available, CERB is intended to be a “last-resort” measure relative to other funding sources, and therefore the City might not qualify for assistance under this program.

More information can be found at <http://www.commerce.wa.gov/building-infrastructure/community-economic-revitalization-board>.

### **Infrastructure Assistance Coordination Council**

The Infrastructure Assistance Coordinating Council is comprised of state and local agencies whose function is to provide funding for infrastructure repair and development. Its purpose is not to directly provide funding, but to assist local governments in coordinating funding efforts for infrastructure improvements. As a result, they are a valuable resource to provide awareness of any new funding opportunities. An example of this is their annual conference where they offer sessions dedicated to teaching attendees about available resources.

More information can be found at <http://www.infracfunding.wa.gov/>.

### BOND FINANCING

#### ***Revenue Bonds***

Commonly used to fund capital improvements that exceed a utility's financial resources, revenue bonds are secured by revenues of the issuing utility. With this limited commitment, revenue bonds typically bear higher interest rates than other types of debt and often require additional security measures to protect bondholders from default risk. Such measures may include the maintenance of dedicated reserves and minimum financial performance standards (e.g. bond debt service coverage).

Washington State law does not require a public vote for issuing revenue bonds. While there is no explicit statutory bonding limit, the conditions that come with revenue bonds often impose practical limits on a utility's level of indebtedness. Excessive levels of debt may reduce flexibility to phase in rate increases as well as increase the overall cost of capital investment given the related interest payments. It is important to note that bond rating agencies also consider debt service coverage when assigning a debt rating – higher levels of indebtedness make it more difficult for a utility to meet the coverage ratios that the rating agencies require for the highest rating. In recent years, the coverage ratios required for higher ratings have often exceeded the minimum legal standards outlined in the applicable bond covenants. Ratings are financially important because higher ratings generally provide access to lower interest rates.

### OTHER FUNDING SOURCES

#### ***System Development Charges (SDCs)***

Under the authority of RCW 57.08.005 (11), the City imposes an SDC on development as a condition of connecting to its water utility. This charge recovers an equitable share of the cost of utility infrastructure from growth, promoting equity between new and existing customers. SDC

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revenues provide a source of cash funding for utility capital needs and related debt service payments. The current water SDC is \$9,095 per equivalent residential unit (ERU).

### **Financial Plan**

The main goal of the financial plan is to develop a multi-year rate strategy that generates enough revenue to cover the City's operating and capital costs. This study focuses on defining the amount of revenues needed to meet the system's financial obligations including:

- Operation and maintenance costs
- Administrative and overhead costs
- Policy-based needs (e.g. reserve funding)
- Capital costs
- Existing and new debt service obligations

The City's water utility operates as an enterprise, relying on revenue from water rates rather than taxes or other external resources. The financial plan examines the water utility's ability to maintain affordable water rates while executing the recommended CIP and meeting its ongoing financial obligations. It is a comprehensive analysis that includes both operating and capital elements:

- The capital funding plan develops a funding strategy for the CIP that considers rate revenues, existing reserves, SDCs, debt financing, and other anticipated resources (e.g. grants, developer contributions). It can impact the overall financial plan through the use of debt financing (resulting in annual debt service) and capital funding embedded in rates.
- The revenue requirement analysis determines the amount of revenue necessary to fund the ongoing operation, maintenance, and administration of the utility on an annual basis. This analysis focuses specifically on the needs funded from operating revenues. It includes a framework of fiscal policies intended to promote long-term financial stability and viability.

## **FINANCIAL POLICIES**

The ensuing discussion summarizes the key financial policies used in this analysis.

### **Utility Reserves**

Reserves are a key component of any utility financial strategy, as they provide the ability to manage variations in costs and revenues that could otherwise have an adverse impact on ratepayers. For the purpose of this analysis, resources are separated into the following funds:

- **Operating Fund:** This fund provides an unrestricted fund balance to accommodate short-term cycles of cash flow. It intends to address variations in revenues and expenses, whether anticipated (e.g. billing/receipt cycles, payroll cycles) or unanticipated (e.g. weather, economic conditions). This analysis incorporates the City's policy requirement that the water

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utility maintain a minimum balance equal to 8% of operating expenses. Based on the 2018 Budget, this target is approximately \$524,000.

- **Capital Fund:** This fund provides a source of cash for unanticipated capital expenditures such as an emergency asset replacement or capital project overruns. In the context of the financial analysis, it also enforces an appropriate segregation of resources restricted or otherwise designated for capital purposes. This analysis assumes a minimum balance equal to 1% of the cost of system assets, which is approximately \$734,000.
- **Debt Reserve:** Bond covenants often establish reserve requirements as a means of protecting bondholders against the risk of nonpayment. This analysis assumes a debt reserve requirement of approximately \$375,000.

### **System Reinvestment**

System reinvestment funding promotes system integrity by ensuring adequate capital to fund the replacement of aging system facilities. Related funding policies intend to generate a reasonable level of cash funding for capital investment, rather than guarantee full cash funding at any particular point in time. When choosing a benchmark or a target amount for system reinvestment funding it is worth noting that a higher target will have a greater upfront impact on existing ratepayers, but will reduce future debt issuance and result in lower costs in the long-term. The City's 2018 Budget includes \$750,000 for system reinvestment, which equates to about 44% of the water utility's depreciation expense – this analysis increases the annual funding level over time, reaching 120% of depreciation expense by 2026.

### **Financial Performance Standards**

The revenue requirement analysis uses a pair of sufficiency tests to establish the amount of revenue needed in any given year to meet the water utility's annual financial obligations.

- **Cash Flow Test:** This test defines “sufficient revenue” as the amount needed to fund all known cash requirements including O&M expenses, debt service payments, system reinvestment funding (and other rate-funded capital outlays), and reserve funding.
- **Coverage Test:** Intended to ensure compliance with the City's bond covenants, satisfying this test requires that “net revenue” (generally defined as system revenue net of operating expenses) is greater than or equal to a specified multiple of annual parity debt service. This analysis assumes a minimum coverage ratio of 1.25 times annual debt service. Targeting a higher coverage ratio can help the City achieve a better credit rating, which will help lower the interest rates for future debt issues.

The annual revenue requirement can be loosely defined as the amount needed to satisfy both of these tests. Cash flow deficits may occur as part of a strategy to phase in rate increases, but the City must always meet any applicable coverage standards.

### **Capital Funding Plan**

The 2018 – 2027 CIP identifies \$30.4 million in project costs (in 2018 dollars). Adjusting for inflation at an assumed rate of approximately 3.0% per year, the total projected ten-year CIP



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expenditure is \$35.4 million. **Table 10-2** summarizes the annual CIP expenditures in 2018 and inflated dollars. **Table 10-3**, which summarizes the projected capital funding strategy, reflects a “pay-as-you-go” approach to fund the CIP. This approach targets full cash funding for the projected capital expenditures through a combination of existing cash balances, interest earnings, system reinvestment, and SDCs.

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**Table 10-2. Capital Improvement Program (2018 – 2027) (\$000s)**

Description	Year									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Storage Improvements	\$ -	\$ 1,025	\$ 4,500	\$ -	\$ -	\$ 4,480	\$ 2,660	\$ -	\$ 500	\$ -
Water Main Improvements	250	250	250	250	1,213	-	-	1,860	1,850	3,370
Supply Improvements	450	851	-	-	-	-	-	-	-	-
Facility Improvements	1,008	215	-	-	1,375	-	110	1,050	605	-
Pressure Zone Improvements	-	-	-	124	-	-	-	-	-	550
Planning and Operational Improvements	25	-	-	-	-	-	100	-	500	550
Machinery & Equipment	173	-	-	-	-	-	-	-	-	-
Generator Purchase	-	175	110	-	-	-	-	-	-	-
<b>Total (2018 Dollars)</b>	<b>\$ 1,906</b>	<b>\$ 2,516</b>	<b>\$ 4,860</b>	<b>\$ 374</b>	<b>\$ 2,588</b>	<b>\$ 4,480</b>	<b>\$ 2,870</b>	<b>\$ 2,910</b>	<b>\$ 3,455</b>	<b>\$ 4,470</b>
Plus: Adjustment for Inflation	-	65	299	35	328	721	563	676	932	1,378
<b>Total Projected Expenditures</b>	<b>\$ 1,906</b>	<b>\$ 2,581</b>	<b>\$ 5,159</b>	<b>\$ 409</b>	<b>\$ 2,916</b>	<b>\$ 5,201</b>	<b>\$ 3,433</b>	<b>\$ 3,586</b>	<b>\$ 4,387</b>	<b>\$ 5,848</b>

**Table 10-3. Summary of Projected Capital Funding Strategy (2018 – 2027) (\$000s)**

Description	Year									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>Beginning Capital Fund Balance</b>	<b>\$ 7,711</b>	<b>\$ 7,274</b>	<b>\$ 6,194</b>	<b>\$ 2,732</b>	<b>\$ 4,388</b>	<b>\$ 3,757</b>	<b>\$ 1,473</b>	<b>\$ 1,378</b>	<b>\$ 1,972</b>	<b>\$ 2,133</b>
plus: Rate-Funded System Reinvestment	750	750	950	1,350	1,550	1,900	2,200	2,850	2,836	3,002
plus: Transfer from Operating Fund	-	-	-	-	-	285	425	615	986	1,072
plus: System Development Charge Revenue	678	681	684	688	691	695	698	702	705	709
plus: Interest Earnings	41	70	62	27	44	38	15	14	20	21
less: Capital Expenditures	(1,906)	(2,581)	(5,159)	(409)	(2,916)	(5,201)	(3,433)	(3,586)	(4,387)	(5,848)
<b>Ending Capital Fund Balance</b>	<b>\$ 7,274</b>	<b>\$ 6,194</b>	<b>\$ 2,732</b>	<b>\$ 4,388</b>	<b>\$ 3,757</b>	<b>\$ 1,473</b>	<b>\$ 1,378</b>	<b>\$ 1,972</b>	<b>\$ 2,133</b>	<b>\$ 1,089</b>
<i>Minimum Target Balance</i>	\$ 734	\$ 760	\$ 812	\$ 816	\$ 845	\$ 897	\$ 931	\$ 967	\$ 1,011	\$ 1,070

### REVENUE REQUIREMENT

The revenue requirement analysis evaluates the water utility's ability to cover its projected costs under its currently adopted rates. In the event of any projected deficiencies, this analysis will serve as the basis for a strategy of recommended rate adjustments.

#### ***Projected Financial Performance***

The revenue requirement analysis was developed from the City's 2018 Budget, along with various assumptions:

- The rate revenue forecast is initially based on estimates provided by City staff, reflecting adjustments for growth at an assumed rate of 0.5% per year (corresponding to approximately 75 new ERUs per year). This growth assumption intends to be conservatively low for the purpose of projecting future revenues and assessing financial viability, which may differ from a conservatively high growth forecast used to estimate capacity needs for the capital improvement plan. Per City policy, the rate revenue forecast is also adjusted for inflation in the Consumer Price Index (CPI), which this analysis assumes to occur at a rate of 2.0% per year.
- Customer-related fees are based on the 2018 Budget values and adjusted for growth. Interest earnings are computed based on projected fund balances, assuming an interest rate of about 1.0% per year. Other operating revenues are held at the budgeted 2018 levels.
- The forecast of operating expenses is based on the 2018 Budget, with future projections reflecting adjustments for inflation.
  - Most expenses are adjusted for CPI inflation at a rate of 2.0% per year.
  - Recognizing that salary and benefit costs have increased at a rate above general inflation, they are escalated by 3.0% and 5.0% per year (respectively).
  - Variable operating costs reflect adjustments for growth as well as inflation.
  - Taxes are calculated based on the projected revenues and prevailing tax rates. (State excise tax: 5.029%, B&O tax: 1.5%, City utility tax: 12.0%)
- Given that the capital funding plan does not contemplate any new debt issuance to fund the CIP, the forecast of debt service costs is based on the City's existing debt schedules.
- System reinvestment is phased in over time to mitigate the impact on existing ratepayers.

**Table 10-4** summarizes the water utility's projected financial performance and rate revenue requirements based upon the above assumptions.

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**Table 10-4. Projected Financial Performance & Revenue Requirements (2018 – 2027) (\$000s)**

Description	Year									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>Revenue</b>										
Rate Revenue at 2018 Rates	\$ 8,377	\$ 8,248	\$ 8,454	\$ 8,666	\$ 8,883	\$ 9,106	\$ 9,334	\$ 9,568	\$ 9,807	\$10,053
Other Operating Revenue	151	208	189	147	159	152	130	129	136	138
<b>Total Revenues</b>	<b>\$ 8,528</b>	<b>\$ 8,456</b>	<b>\$ 8,643</b>	<b>\$ 8,813</b>	<b>\$ 9,042</b>	<b>\$ 9,258</b>	<b>\$ 9,464</b>	<b>\$ 9,697</b>	<b>\$ 9,943</b>	<b>\$10,191</b>
<b>Expenses</b>										
Cash Operating Expenses	\$ 6,553	\$ 7,714	\$ 7,973	\$ 8,107	\$ 8,359	\$ 8,522	\$ 8,736	\$ 8,971	\$ 9,192	\$ 9,429
Debt Service	1,837	1,811	1,388	1,346	1,343	1,338	1,271	841	839	839
System Reinvestment <sup>1</sup>	750	750	950	1,350	1,550	1,900	2,200	2,850	2,836	3,002
<b>Total Expenses</b>	<b>\$ 9,140</b>	<b>\$10,276</b>	<b>\$10,311</b>	<b>\$10,803</b>	<b>\$11,253</b>	<b>\$11,760</b>	<b>\$12,207</b>	<b>\$12,662</b>	<b>\$12,867</b>	<b>\$13,270</b>
<b>Net Operating Cash Flow</b>	<b>\$ (612)</b>	<b>\$ (1,820)</b>	<b>\$ (1,668)</b>	<b>\$ (1,990)</b>	<b>\$ (2,210)</b>	<b>\$ (2,502)</b>	<b>\$ (2,743)</b>	<b>\$ (2,695)</b>	<b>\$ (2,924)</b>	<b>\$ (3,079)</b>
<b>Annual Rate Increase</b>	<b>0.0%</b>	<b>8.5%</b>	<b>8.5%</b>	<b>8.5%</b>	<b>8.5%</b>	<b>8.5%</b>	<b>5.0%</b>	<b>5.0%</b>	<b>4.0%</b>	<b>3.0%</b>
<b>Incremental Increase Above CPI</b>	<b>0.0%</b>	<b>6.5%</b>	<b>6.5%</b>	<b>6.5%</b>	<b>6.5%</b>	<b>6.5%</b>	<b>3.0%</b>	<b>3.0%</b>	<b>2.0%</b>	<b>1.0%</b>
<b>Summary After Rate Increases</b>										
Rate Revenues	\$ 8,377	\$ 8,784	\$ 9,589	\$10,468	\$11,428	\$12,476	\$13,172	\$13,907	\$14,541	\$15,054
Net Operating Cash Flow <sup>2</sup>	\$ (612)	\$ (1,375)	\$ (727)	\$ (494)	\$ (99)	\$ 294	\$ 441	\$ 635	\$ 1,003	\$ 1,070
Debt Service Coverage	4.11	3.34	6.62	7.80	9.14	10.77	11.58	12.52	13.35	13.87
Ending Operating Fund Balance	\$ 3,388	\$ 2,012	\$ 1,286	\$ 792	\$ 693	\$ 702	\$ 718	\$ 739	\$ 756	\$ 754
Min. Operating Fund Balance	\$ 524	\$ 617	\$ 638	\$ 649	\$ 669	\$ 682	\$ 699	\$ 718	\$ 735	\$ 754

<sup>1</sup>Represents cash funding for capital projects generated through rates; the actual replacement projects are included as part of the CIP.

<sup>2</sup>Net cash flow after rate increases can be negative in the short-term, as long as the ending Operating Fund balance is projected to remain above the minimum level (8% of budgeted operating expenses per City policy).

**Table 10-5. Affordability Evaluation (2018 – 2027)**

	Year									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Monthly Single-Family Bill @ 7 ccf	\$26.98	\$29.27	\$31.76	\$34.45	\$37.36	\$40.56	\$42.61	\$44.73	\$46.49	\$47.86
Median Household Income	\$90,580	\$90,580	\$90,580	\$90,580	\$90,580	\$90,580	\$90,580	\$90,580	\$90,580	\$90,580
Annual SF Bill as a % of MHI	0.36%	0.39%	0.42%	0.46%	0.49%	0.54%	0.56%	0.59%	0.62%	0.63%

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**Table 10-4** shows that water rate increases are needed to keep up with rising operating costs, fund ongoing infrastructure maintenance projects included in the utility’s operating budget, and support a level of system reinvestment funding that will enable the water utility to complete its planned capital projects. The proposed rate strategy envisions using existing reserves to phase the necessary rate increase in over several years – beginning in 2023, the water utility’s annual revenues are expected to be sufficient to cover its annual costs. **Table 10-4** shows the water utility’s debt service declining as the City repays its existing bonds and loans, providing extra capacity for system reinvestment.

The City Council has started to implement the rate strategy presented in **Table 10-4**, adopting 8.5% annual rate increases from 2019 – 2023 with the passing of City Ordinance No. 1606 in November 2018. Understanding the potential for changes in economic conditions and customer behavior over time, the City plans to review rate needs for its water utility prior to adopting rates for 2024 or subsequent years.

### RATE AFFORDABILITY

The Washington State Department of Health and the Public Works Board use an affordability index to prioritize low-cost loan awards. They typically look how a system’s rates compare to the median household income (MHI) for the demographic area – a community’s rates are considered to be “affordable” if they result in bills that are below 2% of the MHI.

U.S. Census Bureau data indicates that the MHI for Bonney Lake was \$90,580 in 2017 dollars. **Table 10-5** summarizes the affordability evaluation of the City’s rates, suggesting that the City’s rates are, and will remain, within the affordability threshold during the 2018 – 2027 time period.

### CONCLUSION

The results presented in this chapter suggest that the water utility will require revenue increases to fund projected O&M, capital, and debt service requirements over the ten-year planning horizon. This chapter identifies the overall level of rate impact that may occur should the capital plan provided in Chapter 9 move forward.

It is important to remember that this financial plan is based on various assumptions that may change over time as new information becomes available. Circumstances might change over time, causing actual rate adjustments to be higher or lower once actual costs are known. The City reviews the financial needs for its utilities as part of its biennial budgeting process, periodically conducting more comprehensive rate studies. **Table 10-4** provides current projections of the near-term revenue adjustments, but the City will periodically revisit these projections and adjust them as needed. Continued prudent fiscal management will enable the water utility to continue to operate on a financially sound basis.