

9 | FINANCIAL PLAN

INTRODUCTION

This chapter was prepared by FCS GROUP to provide a financial program that allows the City of Richland's (City) water utility to remain financially viable during the planning period. This financial viability analysis considers the historical financial condition, current and identified future financial and policy obligations, operation and maintenance (O&M) needs, and the ability to support the financial impacts related to the completion of the capital projects identified in this Comprehensive Water System Plan (WSP) update. Furthermore, this chapter provides a review of the water utility's current rate structure with respect to rate adequacy and customer affordability.

PAST FINANCIAL PERFORMANCE

This section includes a historical summary of financial performance as reported by the City on fund resources and uses arising from cash transactions, as well as a historical summary of comparative statements of net position, which are useful indicators of the City's financial position.

COMPARATIVE FINANCIAL STATEMENTS

The City legally owns and operates a water utility. **Table 9-1** shows a summary of the utility fund resources and uses arising from cash transactions for the previous 6 years (2010 through 2015). **Table 9-2** shows a summary of assets and liabilities, with the difference between the two reported as "net position." Increases or decreases in net position are useful indicators of the financial position of the City's utility fund. Noteworthy findings and trends are discussed following each table to demonstrate the historical performance and condition of the City's water fund.

**Table 9-1
Summary of Historical Fund Resources and Uses Arising From Cash Transactions**

	2010	2011	2012	2013	2014	2015
OPERATING REVENUES						
Water distribution revenue:						
Charges for Service	11,379,325	11,455,632	12,474,851	13,209,459	13,854,380	14,365,670
	\$ 11,379,325	\$ 11,455,632	\$ 12,474,851	\$ 13,209,459	\$ 13,854,380	\$ 14,365,670
OPERATING EXPENSES						
Maintenance and Operations	\$ 3,822,345	\$ 3,962,381	\$ 4,163,505	\$ 4,548,526	\$ 4,615,015	\$ 4,635,169
Administration and General	1,811,225	1,865,989	1,768,609	1,801,672	1,791,125	1,987,898
Taxes	1,515,028	1,575,238	1,852,308	1,927,645	2,309,889	2,396,191
Depreciation	2,475,626	2,119,608	2,162,518	2,257,296	2,338,677	2,258,726
Total Operating Expenses	\$ 9,624,224	\$ 9,523,216	\$ 9,946,940	\$ 10,535,139	\$ 11,054,706	\$ 11,277,984
OPERATING INCOME	\$ 1,755,101	\$ 1,932,416	\$ 2,527,911	\$ 2,674,320	\$ 2,799,674	\$ 3,087,686
NONOPERATING REVENUE						
Investment Earnings	\$ 55,502	\$ 53,645	\$ 65,824	\$ 16,264	\$ 151,241	\$ 89,319
Other Interest Earnings	661	774	675	2,753	-	-
Miscellaneous Non-Operating Revenues	23,045	18,133	27,150	42,730	48,351	41,920
Total Non-Operating Revenues	\$ 79,208	\$ 72,552	\$ 93,649	\$ 61,747	\$ 199,592	\$ 131,239
NONOPERATING EXPENSE						
Interest Expense	\$ (1,162,616)	\$ (1,133,759)	\$ (1,115,801)	\$ (999,817)	\$ (888,846)	\$ (787,972)
Debt Costs	(145,317)	(145,329)	(91,121)	(21,967)	(74,796)	-
Total Non-Operating Expenses	\$ (1,307,933)	\$ (1,279,088)	\$ (1,206,922)	\$ (1,021,784)	\$ (963,642)	\$ (787,972)
NET INCOME BEFORE CAPITAL CONTRIBUTIONS AND TRANSFERS						
Capital Contributions	\$ 526,376	\$ 725,880	\$ 1,414,638	\$ 1,714,283	\$ 2,035,624	\$ 2,430,953
Transfers In	1,100,524	1,456,732	4,756,656	2,075,859	1,587,251	1,717,917
Transfers Out	-	250,000	127,359	655,473	-	50,000
	(59,972)	(8,073)	(1,510)	(20,000)	(20,000)	(20,000)
CHANGE IN NET POSITION	\$ 1,566,928	\$ 2,424,539	\$ 6,297,143	\$ 4,425,615	\$ 3,602,875	\$ 4,178,870
NET POSITION, JANUARY 1	\$ 29,104,661	\$ 37,803,933	\$ 40,268,614	\$ 46,463,974	\$ 50,954,357	\$ 52,824,316
Prior period adjustment	7,132,344	40,142	(3,046)	64,768	(353,234)	(57,773)
TOTAL NET POSITION, DECEMBER 31	\$ 37,803,933	\$ 40,268,614	\$ 46,562,711	\$ 50,954,357	\$ 54,203,998	\$ 56,945,413
O&M Coverage Ratio	118.2%	120.3%	125.4%	125.4%	125.3%	127.4%
Net Operating Income as a % of Operating Revenue	15.4%	16.9%	20.3%	20.2%	20.2%	21.5%
Debt Service Coverage Ratio	3.02	2.84	3.11	3.18	3.37	3.33

Findings and Trends

- The City's water charges for services increased from \$11.4 million (M) in 2010 to \$14.4M in 2015. The average annual increase is 4.4 percent per year, with a total increase of 26.2 percent from 2010 to 2015. Expenses range from \$9.5M in 2011 to \$11.3M in 2015, showing increases every year with the exception of 2011, where expenses decreased slightly over 1 percent. With an average increase of 3.1 percent, expenses have grown slower than revenues over the past 6 years and have increased 18.4 percent overall. While maintenance and operations expenses have increased 21.3 percent, the largest contributor to increases in expenses is taxes, growing by 58 percent since 2010.
- The O&M Coverage Ratio (total operating revenues divided by total operating expenses) was 118.2 percent in 2010 and has remained on an upward trend, ending at 127.4 percent in 2015. A ratio of 100 percent or greater shows that revenue will successfully cover expenses, and the City has remained above this ratio for the past 6 years.

- Net Operating Income as a percent of Operating Revenue was 15.4 percent in 2010, the lowest it has been in the past 6 years. This metric has increased over the past 5 years to end 2015 at 21.5 percent. Similar to the O&M Coverage Ratio, these trends help to show how successfully operating revenue actually covered operating expenses, with higher positive numbers being the best and negative numbers showing need for improvement.
- The Debt Service Coverage Ratio is to ensure the City is positioned to achieve favorable terms in the municipal bond market when issuing bonds for capital funding needs. Typically, bond debt service coverage requires a minimum factor of 1.25 during the life of the loans. This ratio is calculated by dividing cash operating income (revenues less expenses before depreciation) by annual revenue bond expenses. The City's water utility currently has four outstanding revenue bonds. The Debt Service Coverage Ratio for all outstanding debt ends 2010 at 3.02 and, although it dips to a low of 2.84 in the intervening years, recovers to 3.33 by 2015. The ability of this ratio to remain at levels significantly higher than the bond covenant minimum of 1.25 indicates a stable capacity for new debt and will likely result in favorable terms when entering the bond market.

Table 9-2
Summary of Historical Comparative Statements of Net Position

	2010	2011	2012	2013	2014	2015
CURRENT ASSETS						
Cash and cash equivalents	\$ 1,926,196	\$ 581,696	\$ -	\$ 611,979	\$ 419,729	\$ -
Deposits with third parties	5,775	5,775	5,775	5,775	5,775	5,775
Investments Receivables	213,815	1,461,281	2,153,833	2,065,085	2,488,511	4,100,776
Customer Accounts Receivables	369,499	286,677	440,071	534,773	572,471	690,554
Due from other funds	3,890	3,890	3,890	3,890	3,890	41,972
Due from other governments	356,389	356,389	-	-	-	-
Interfund Loans	-	-	-	-	-	3,890
Prepaid Items	-	-	-	1,500	-	1,445
Inventory	134,441	171,143	180,154	200,413	118,775	172,455
Total Current Assets	\$ 3,010,005	\$ 2,866,851	\$ 2,783,723	\$ 3,423,415	\$ 3,609,151	\$ 5,016,867
RESTRICTED CURRENT ASSETS						
Cash and cash equivalents	\$ 1,099,616	\$ -	\$ -	\$ 302,157	\$ 2,188,295	\$ 2,864,588
Restricted Investments	1,785,389	3,161,067	5,177,732	3,276,780	2,398,038	2,108,447
Deferred Charges	258,648	223,115	98,737	-	-	-
Receivables: Due from other funds	50,570	46,680	42,790	38,900	35,010	31,120
Total Restricted Assets	\$ 3,194,223	\$ 3,430,862	\$ 5,319,259	\$ 3,617,837	\$ 4,621,343	\$ 5,004,155
CAPITAL ASSETS						
Land	\$ -	\$ -	\$ -	\$ 5,604	\$ 5,604	\$ 5,604
Depreciable assets (net)	4,353,082	4,203,745	4,028,104	3,826,492	3,657,818	3,453,771
Infrastructure	63,348,197	67,082,803	69,972,919	73,130,576	72,191,909	71,734,752
Net plant in service	67,701,279	71,286,548	74,001,023	76,962,672	75,855,331	75,194,127
Construction work in progress	4,043,904	240,388	234,433	66,793	128,223	1,245,393
Total Capital Assets	71,745,183	71,526,936	74,235,456	77,029,465	75,983,554	76,439,520
TOTAL ASSETS	\$ 77,949,411	\$ 77,824,649	\$ 82,338,438	\$ 84,070,717	\$ 84,214,048	\$ 86,460,542
DEFERRED OUTFLOWS OF RESOURCES						
Deferred amount on debt refunding	-	-	-	580,880	408,782	314,456
Deferred charges - other	-	-	-	-	-	149,322
Total deferred outflows of resources	-	-	-	580,880	408,782	463,778
CURRENT LIABILITIES						
Accounts payable	\$ 554,662	\$ 484,668	\$ 450,358	\$ 518,089	\$ 277,159	\$ 1,104,954
Payable to other governments	37,075	(3,046)	-	791	-	37,948
Due to other funds	-	-	21,346	-	-	-
Deposits Payable	36,696	30,906	29,576	28,715	27,215	114,469
Accrued compensated absences	122,524	131,414	145,841	146,730	141,941	165,596
Notes and contracts payable - current	1,196,692	1,208,043	1,216,489	1,216,491	1,216,491	1,216,491
Revenue Bonds Payable - current	1,399,679	1,427,630	1,509,050	1,552,719	1,525,936	1,606,093
Total Current Liabilities	\$ 3,347,328	\$ 3,279,615	\$ 3,372,660	\$ 3,463,535	\$ 3,188,742	\$ 4,245,551
NON CURRENT LIABILITIES						
Compensated absences	\$ 122,524	\$ 131,415	\$ 145,841	\$ 146,730	\$ 141,941	\$ 165,596
Notes and contracts payable	14,579,048	13,371,001	12,146,064	10,929,573	9,713,082	8,496,591
Unearned revenue	54,460	50,570	46,680	42,790	-	-
Revenue Bonds Payable	22,042,118	20,723,434	20,064,482	19,114,612	17,336,167	15,614,119
Net Pension Liability	-	-	-	-	-	1,254,318
Total Non Current Liabilities	\$ 36,798,150	\$ 34,276,420	\$ 32,403,067	\$ 30,233,705	\$ 27,191,190	\$ 25,530,624
TOTAL LIABILITIES	\$ 40,145,478	\$ 37,556,035	\$ 35,775,727	\$ 33,697,240	\$ 30,379,932	\$ 29,776,175
DEFERRED INFLOWS OF RESOURCES						
Deferred charges - other	\$ -	\$ -	\$ -	\$ -	\$ 38,900	\$ 202,732
NET POSITION						
Net investment in capital assets	\$ 32,527,646	\$ 34,796,828	\$ 39,269,875	\$ 44,709,352	\$ 46,587,056	\$ 49,428,002
Restricted for debt service	1,785,389	3,161,067	2,459,836	1,541,822	2,060,450	2,019,601
Restricted for capital improvements	1,099,616	1,372,588	2,717,896	2,037,115	2,257,642	2,685,194
Unrestricted	2,391,282	938,131	2,115,104	2,666,068	3,298,850	2,812,616
TOTAL NET POSITION	37,803,933	40,268,614	46,562,711	50,954,357	54,203,998	56,945,413
TOTAL LIABILITIES AND NET POSITION	\$ 77,949,411	\$ 77,824,649	\$ 82,338,438	\$ 84,651,597	\$ 84,583,930	\$ 86,721,588
Current Ratio	0.9	0.9	0.8	1.0	1.1	1.2
Debt to Net Position Ratio	1.1	0.9	0.8	0.7	0.6	0.5
Debt to Noncurrent Capital Assets Ratio	0.6	0.5	0.5	0.4	0.4	0.4

- The Current Ratio is calculated by dividing the unrestricted current assets by current liabilities and measures a city's ability to pay short-term obligations. This ratio begins in 2010 at 0.9, drops to a low of 0.8 in 2012, and then rebounds to 1.2 by 2015. Anything around a 2.0 for this liquidity ratio is good. While the ratio is trending in the right direction, the City would be considered more financially stable by achieving at least a 2.0 on this measurement.
- The Debt to Net Position Ratio compares total debt to total net position, which is the difference between current assets and liabilities. This ratio ends 2010 at 1.1 before steadily declining to 0.5 in 2015. For city utilities, a ratio of 50 to 60 percent is within an industry target range. The decline of the Debt to Net Position Ratio over the past 6 years puts the City's ratio within this target range and shows steady improvement on this performance metric.
- The Debt to Noncurrent Capital Asset Ratio compares total debt to noncurrent assets, which are also known as property, plant, and equipment. This ratio begins at 0.6, or 60-percent debt to 40-percent noncurrent assets, in 2010. Noncurrent capital assets increase \$4.7M throughout the 6-year history, while debt decreases by \$10.4M; therefore, the ratio drops to 0.4 by 2015. A ratio of 60-percent debt to 40-percent equity is a general industry target. The City's Debt to Noncurrent Capital Asset Ratio is on the low end of the industry target, signifying capacity for new debt in the future.

CURRENT FINANCIAL STRUCTURE

This section summarizes the current financial structure used as the baseline for the capital financing strategy and financial forecast developed for this WSP.

FINANCIAL PLAN

The water utility is responsible for funding all of its costs. The primary source of funding is derived from ongoing monthly charges for service, with additional revenues coming from wholesale rates, late fees, reconnect fees, and other miscellaneous revenue. The City controls the level of user charges and, subject to the City Council, can adjust user charges as needed to meet financial objectives.

The financial plan can only provide a qualified assurance of financial feasibility if it considers the total system costs of providing water services, both operating and capital. To meet these objectives, the following elements have been completed.

1. **Capital Funding Plan.** Identifies the total capital improvement plan (CIP) obligations of the planning period. The plan defines a strategy for funding the CIP, including an analysis of available resources from rate revenues, existing reserves, connection charges, debt financing, and any special resources that may be readily available (e.g., grants, developer contributions, etc.). The capital funding plan impacts the financial plan through the use of debt financing (resulting in annual debt service) and the assumed rate revenue available for capital funding.
2. **Financial Forecast.** Identifies future annual non-capital costs associated with the operation, maintenance, and administration of the water system. Included in the financial plan is a reserve analysis that forecasts cash flow and fund balance activity, along with testing for

satisfaction of actual or recommended minimum fund balance policies. The financial plan ultimately evaluates the sufficiency of utility revenues in meeting all obligations, including cash uses such as operating expenses, debt service, capital outlays, and reserve contributions, as well as any coverage requirements associated with long-term debt. The plan also identifies the future adjustments required to fully fund all utility obligations in the planning period.

Capital Funding Plan

The CIP developed for this WSP identifies \$43.8M (inflated) in project costs over the 12-year planning horizon. The 21-year period totals \$90.0M (inflated) in total project costs. Costs were escalated by 3.00 percent annually to the year of planned spending.

A summary of the 12-year and 21-year CIP is shown in **Table 9-3**. As shown, each year has varied capital cost obligations depending on construction schedules and infrastructure planning needs. Approximately 49 percent (inflated dollars) of the capital costs are included in the 12-year planning period. **Table 9-4** provides more detail for the 12-year CIP.

Table 9-3
12- and 21-year CIP

Year	Inflated \$
2016	\$ 3,407,940
2017	3,345,528
2018	7,285,792
2019	3,975,835
2020	4,730,000
2021	2,360,000
2022	1,949,290
2023	1,780,857
2024	2,764,726
2025	10,399,042
2026	671,958
2027	1,107,387
12-Year Total	\$ 43,778,356
2028 - 2036	46,270,722
21-Year Total	\$ 90,049,078

Table 9-4
12-year CIP (Shown with 3 percent Annual Inflation)

Project	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Annual Water Main Replacement Program		100,000	150,000	200,000	250,000	250,000	597,026	614,937	633,385	652,387	671,958	692,117
Galvanized Service Replacement and Meter Relocations		100,000	100,000	100,000	100,000	100,000						
Duportail Street Transmission Main and Boring		750,000								9,159,508		
Badger Mt. South Subarea Water Main Improvements												
Orchard Way Conversion from Tap. I to Tap. II						35,000						
Broadmoor Street Conversion from Tap. I to Tap. II						110,000						
High Meadows St and Leslie Rd PRV (Tap. II to Tap. I)						105,000						
Core Y Additional PRV						410,000						
Tapteal I BPS						500,000			1,646,801			
Columbia River Intake Screens			200,000	100,000	4,330,000							
High Service Pump No. 8								766,211				
Reservoir Drain and Overflow Modifications				25,000				30,747				
WTP Solids Handling Replacement						400,000						
Treatment and Supply System Rehabilitation		300,000		300,000		300,000		368,962		391,432		415,270
WTP Automation									484,540			
Communications Upgrade for Telemetry and System Control		50,000	50,000	50,000	50,000	50,000	456,725					
Comprehensive Water System Plan Update										195,716		
Automatic Meter Reading System		235,000	3,000,000									
Core 545 Zone Surge Analyses						100,000	895,539					
Pump and Storage Renew and Replacement	449,056											
Stevens Dr. Roadway Improvement	28,580											
Completed Project Contingency	2,964											
Distribution System Repair & Replacement	693,177											
Future WTP Site Acquisition	69,282											
Harrison Well Improvements	75,000											
Water System Security Improvements	8,248											
Water Transmission Line - 2nd Yakima	341,000	1,000,000	3,500,000	2,999,000								
New South Richland Water Source	1,697,200	500,000										
Sky Meadow Transmission Main	11,433											
City-Wide Software Program (ERP Project)	32,000	310,528	285,792	201,835								
Total	\$ 3,407,940	\$ 3,345,528	\$ 7,285,792	\$ 3,975,835	\$ 4,730,000	\$ 2,360,000	\$ 1,949,290	\$ 1,780,857	\$ 2,764,726	\$ 10,399,042	\$ 671,958	\$ 1,107,387

CAPITAL FINANCING STRATEGY

An ideal capital financing strategy would include the use of grants and low-cost loans when debt issuance is required. However, these resources are very limited and competitive in nature and do not provide a reliable source of funding for planning purposes. It is recommended that the City pursue these funding avenues but assume bond financing to meet the needs for which the City’s available cash resources are insufficient. Revenue bonds have been used as the debt funding instrument in this analysis. The capital financing strategy developed to fund the CIP identified in this WSP assumes the following funding resources:

- Accumulated cash reserves;
- Transfers of excess cash (over minimum balance targets) from the Operating Fund;
- Annual cash from rates earmarked for rate-funded system reinvestment;
- Interest earned on Construction Fund balances and other miscellaneous capital resources; and
- Revenue bond financing.

Based on information provided by the City, the water utility began 2016 with \$2.6M in the Operating Fund and \$2.1M in the Capital Fund. Additional funds beyond the Operating Fund target of 45 days of O&M expenses are transferred to the Capital Fund.

The cash resources described above are anticipated to fund 62 percent of the 12-year CIP and 82 percent of the 21-year CIP. The remaining funding will come from new debt obligations. **Table 9-5** presents the corresponding 21-year capital financing strategy.

**Table 9-5
21-year Capital Funding Strategy**

Year	Capital Expenditures Escalated	Revenue Bond Financing	Cash Funding	Total Financial Resources
2016	\$ 3,407,940	\$ -	\$ 3,407,940	\$ 3,407,940
2017	3,345,528	3,345,528	-	3,345,528
2018	7,285,792	3,284,472	4,001,320	7,285,792
2019	3,975,835	3,975,835	-	3,975,835
2020	4,730,000	949,165	3,780,835	4,730,000
2021	2,360,000	-	2,360,000	2,360,000
2022	1,949,290	-	1,949,290	1,949,290
2023	1,780,857	-	1,780,857	1,780,857
2024	2,764,726	-	2,764,726	2,764,726
2025	10,399,042	5,100,000	5,299,042	10,399,042
2026	671,958	-	671,958	671,958
2027	1,107,387	-	1,107,387	1,107,387
Subtotal	\$ 43,778,356	\$ 16,655,000	\$ 27,123,356	\$ 43,778,356
2028 - 2036	46,270,722	-	46,270,722	46,270,722
Total	\$ 90,049,078	\$ 16,655,000	\$ 73,394,078	\$ 90,049,078

AVAILABLE FUNDING ASSISTANCE AND FINANCING RESOURCES

Feasible long-term capital funding strategies must be defined to ensure that adequate resources are available to fund the CIP identified in this WSP. In addition to the City's resources, such as accumulated cash reserves, capital revenues, and rate revenues designated for capital purposes, capital needs can be met from outside sources, such as grants, low-interest loans, and bond financing. The following is a summary of the City's internal and external resources.

CITY RESOURCES

Resources appropriate for funding capital needs include accumulated cash in the facility fee fund, rate revenues designated for capital spending purposes, and capital-related charges such as facility fee revenue. The first two resources will be discussed in the **Fiscal Policies** section of the **Financial Forecast**. Capital-related charges are discussed below.

Capital Connection Charges

A connection charge such as the facility assessment fee refers to a one-time charge imposed on new customers as a condition of connecting to the water system. The purpose of the connection charge is two-fold: 1) to promote equity between new and existing customers; and 2) to provide a source of revenue to fund capital projects. Revenue can only be used to fund utility capital projects or to pay debt service incurred to finance those projects. In 2016, the City charged all new customers a facility assessment fee of \$2,100 per equivalent residential unit (ERU) for indoor and non-irrigation uses. A

charge of \$2,990 per ERU was assessed for uses that include outdoor landscape irrigation and car washes.

Local Facilities Charges

While a connection charge is the manner in which new customers pay their share of plant investment costs, local facilities funding is used to pay the costs of local facilities that connect each property to the system's infrastructure. Local facilities funding is often overlooked in rate forecasting because it is funded upfront by either connecting customers and developers, or through an assessment to properties, but never from rates.

A number of mechanisms can be considered toward funding local facilities. One of the following scenarios typically occurs: (a) the utility charges a connection fee based on the cost of the local facilities (under the same authority as the facilities assessment fee); (b) a developer funds an extension of the system to its development and turns those facilities over to the utility (contributed capital); or (c) a local assessment is set up called a Utility Local Improvement District (ULID/LID) or a Local Utility District (LUD), which collects tax revenue from benefited properties.

A local facilities charge (LFC) is a variation of the connection charge. It is a city-imposed charge to recover the cost related to service extension to local properties. Often called a front-footage charge and imposed on the basis of footage of the main "fronting" a particular property, it is usually implemented as a reimbursement mechanism to a city for the cost of a local facility that directly serves a property. It is a form of connection charge and thus can accumulate up to 10 years of interest. It typically applies in instances when no developer-installed facilities are needed through developer extension due to the prior existence of available mains already serving the developing property.

The developer extension is a requirement that a developer install on-site and sometimes off-site improvements as a condition of extending service. These are in addition to the connection charge required and must be built to City standards. Part of the agreement between the City and the developer planning to extend service might include a latecomer agreement, resulting in a latecomer charge to new connections for the developer extension.

Latecomer charges are a variation of developer extensions, whereby new customers connecting to a developer-installed improvement make a payment to the City based on their share of the developer's cost. The City passes this charge on to the developer who installed the facilities. As part of the developer extension process, this defines the allocation of costs and records latecomer obligations on the title of affected properties. No interest is allowed, and the reimbursement agreement cannot exceed 20 years in duration.

ULID/LID is another mechanism for funding infrastructure that assesses benefited properties based on the special benefit received by the construction of specific facilities. Most often used for local facilities, some ULIDs also recover related general facilities costs. Substantial legal and procedural requirements can make this a relatively expensive process, and there are mechanisms by which a ULID can be rejected.

OUTSIDE RESOURCES

This section outlines various grant, loan, and bond opportunities available to the City through federal and state agencies to fund the CIP identified in the WSP.

Grants and Low Cost Loans

Historically, federal and state grant programs were available to local utilities for capital funding assistance. However, these assistance programs have been mostly eliminated, substantially reduced in scope and amount, or replaced by loan programs. Remaining miscellaneous grant programs are generally lightly funded and heavily subscribed. Nonetheless, even the benefit of low-interest loans makes the effort of applying worthwhile. Grants and low-cost loans for Washington State utilities are available from the Department of Commerce, including two assistance programs for which the City may be eligible.

Public Works Trust Fund (PWTF) – 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. Due to current funding restrictions and funding allocations, the Public Works Board (Board) has suspended the non-construction programs. As the economy builds, the Board will attempt to re-institute these programs.

PWTF loans are available at interest rates ranging from 1.28 percent to 2.55 percent depending on the repayment term, with reduced interest rates available for all projects located in communities that have been declared a natural disaster. The standard loan offer is 1.66 percent interest repaid over a 20-year term. All loan terms are subject to negotiation and Board approval. Currently, no local match is required and the maximum loan amount is \$10M per jurisdiction per biennium.

The next funding cycle for the PWTF loan process begins in the summer of 2017.

Information regarding the application process, as well as rates and terms, are posted on the PWTF website in early spring. Further detail is available at <http://www.pwb.wa.gov>.

Drinking Water State Revolving Fund (DWSRF) Loan Program – DWSRF funding historically targets protection of public health, compliance with drinking water regulations and assistance for small and disadvantaged communities. Terms are up to 20 years to pay back, and in some cases, provide partial loan forgiveness. Interest rates are 1.0 to 1.5 percent and no local match is required.

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.

The fall 2016 application cycle began August 1, 2016, and concluded September 30, 2016. DWSRF takes applications annually in the fall. Further detail is available at <http://www.doh.wa.gov>.

Bond Financing

General Obligation Bonds – General obligation (G.O.) bonds are bonds secured by the full faith and credit of the issuing agency, committing all available tax and revenue resources to debt repayment. With this high level of commitment, G.O. bonds have relatively low interest rates and few financial restrictions. However, the authority to issue G.O. bonds is restricted in terms of the amount and use of the funds, as defined by the Washington constitution and statute. Specifically, the amount of debt that can be issued is linked to assessed valuation.

Revised Code of Washington (RCW) 39.36.020 states:

(2)(a)(ii) Counties, cities, and towns are limited to an indebtedness amount not exceeding one and one-half percent of the value of the taxable property in such counties, cities, or towns without the assent of three-fifths of the voters therein voting at an election held for that purpose.

(b) In cases requiring such assent counties, cities, towns, and public hospital districts are limited to a total indebtedness of two and one-half percent of the value of the taxable property therein.

While bonding capacity can limit the availability of G.O. bonds for utility purposes, these can sometimes play a valuable role in project financing. A rate savings may be realized through two avenues: the lower interest rate and related bond costs; and the extension of repayment obligation to all tax-paying properties (not just developed properties) through the authorization of an ad valorem property tax levy.

Revenue Bonds – Revenue bonds are commonly used to fund utility capital improvements. The debt is secured by the revenues of the issuing utility. With this limited commitment, revenue bonds typically bear higher interest rates than G.O. bonds and also require security conditions related to the maintenance of dedicated reserves (a bond reserve) and financial performance (added bond debt service coverage). The City agrees to satisfy these requirements by resolution as a condition of bond sale.

Revenue bonds can be issued in Washington without a public vote. There is no bonding limit, except perhaps the practical limit of the utility's ability to generate sufficient revenue to repay the debt and provide coverage. In some cases, poor credit might make issuing bonds problematic.

FINANCIAL FORECAST

The financial forecast, or revenue requirement analysis, forecasts the amount of annual revenue that needs to be generated by user rates. The analysis incorporates operating revenues, O&M expenses, debt service payments, rate-funded capital needs, and any other identified revenues or expenses related to operations. The objective of the financial forecast is to evaluate the sufficiency of the current level of rates. In addition to annual operating costs, the revenue needs also include debt covenant requirements and specific fiscal policies and financial goals of the City.

The analysis determines the amount of revenue needed in a given year to meet that year's expected financial obligations. 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. In order to operate successfully with respect to these goals, both tests of revenue sufficiency must be met.

Cash Test – The cash flow test identifies all known cash requirements for the City in each year of the planning period. Typically these include O&M expenses, debt service payments, rate-funded system reinvestment funding or directly funded capital outlays, and any additions to specified reserve balances. The total annual cash needs of the City are then compared to projected cash revenues using the current rate structure. Any projected revenue shortfalls are identified and the rate increases necessary to make up the shortfalls are established.

Coverage Test – The coverage test is based on a commitment made by the City when issuing revenue bonds and some other forms of long-term debt. For the purposes of this analysis, revenue bond debt is assumed for any needed debt issuance. As a security condition of issuance, the City would be required per covenant to agree that the revenue bond debt would have a higher priority for payment (a senior lien) compared to most other expenditures; the only outlays with a higher lien are O&M expenses. Debt service coverage is expressed as a multiplier of the annual revenue bond debt service payment. 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, and an additional 25 percent of annual revenue bond debt service payments. The excess cash flow derived from the added coverage, if any, can be used for any purpose, including funding capital projects. Targeting a higher coverage factor can help the City achieve a better credit rating and provide lower interest rates for future debt issues.

In determining the annual revenue requirement, both the cash and coverage sufficiency test must be met, and the test with the greatest deficiency drives the level of needed rate increase in any given year.

CURRENT FINANCIAL STRUCTURE

The City maintains a fund structure and implements financial policies that target management of a financially viable and fiscally responsible water system.

Fiscal Policies

A brief summary of the key financial policies employed by the City, as well as those recommended and incorporated in the financial program, are discussed below.

Operating Fund – Operating reserves are designed to provide a liquidity cushion to ensure that adequate cash working capital will be maintained to deal with significant cash balance fluctuations, such as seasonal fluctuations in billings and receipts, unanticipated cash expenses, or lower than expected revenue collections. Like other types of reserves, operating reserves also serve another purpose: they help smooth rate increases over time. Target funding levels for an operating reserve are generally expressed as a certain number of days of O&M expenses, with the minimum requirement varying with the expected revenue volatility. Industry practice for utility operating reserves ranges from 30 days (8 percent) to 120 days (33 percent) of O&M expenses, with the lower end more appropriate for utilities with stable revenue streams and the higher end more appropriate for utilities with significant seasonal or consumption-based fluctuations. The City's current policy is

to maintain a minimum balance in the Operating Fund equal to 45 days of O&M expenses for working capital.

Capital Fund – A capital contingency reserve is an amount of cash set aside in case of an emergency should a piece of equipment or a portion of the utility’s infrastructure fail unexpectedly. The reserve also could be used for other unanticipated capital needs, including capital project cost overruns. Industry practices range from maintaining a balance equal to 1 to 2 percent of fixed assets, an amount equal to a 5-year rolling average of CIP costs, or an amount determined sufficient to fund equipment failure (other than catastrophic failure). The final target level should balance industry standards with the risk level of the City. The City does not currently maintain a documented capital contingency reserve target. It is recommended for consideration in future policy review and rate planning.

System Reinvestment – System reinvestment funding promotes system integrity through reinvestment in the system. Target system reinvestment funding levels are commonly linked to annual depreciation expense as a measure of the decline in asset value associated with routine use of the system. Particularly for utilities that do not already have an explicit system reinvestment policy in place, implementing a funding level based on full depreciation expense could significantly impact rates. A common alternative benchmark is annual depreciation expense net of debt principal payments on outstanding debt. This approach recognizes that customers are still paying for certain assets through the debt component of their rate, and intends to avoid simultaneously charging customers for an asset and its future replacement. The specific benchmark used to set system reinvestment funding targets is a matter of policy that must balance various objectives, including managing rate impacts, keeping long-term costs down, and promoting “generational equity” (i.e., not excessively burdening current customers with paying for facilities that will serve a larger group of customers in the future).

The City’s Utility Financial Operating Policy states that “traditional convention is to rate-finance a portion of capital additions at a level equal to annual depreciation expense.” In this analysis, the City has chosen to hold system reinvestment to \$600,000 a year through 2022 before beginning a phase-in approach to bring the utility up to a fully funded level over the next 20 years. The phase-in approach will begin in 2023 when the City’s debt obligations are drastically reduced, allowing for minimal rate impacts due to implementation of the policy.

Debt Management – It is prudent to consider policies related to debt management as part of a broader utility financial policy structure. Debt management policies should be evaluated and formalized, including the level of acceptable outstanding debt, debt repayment, bond coverage, and total debt coverage targets. The City has four outstanding water revenue bonds and coverage is tested at 1.25.

Financial Forecast

The financial forecast is established from 2016 budget documents along with other key factors and assumptions to develop a complete portrayal of the City’s annual financial obligations for the water utility. The following is a list of the key revenue and expense factors and assumptions used to develop the financial forecast.

- **Revenue** – The City has three general revenue sources: 1) water service charges (rate revenue); 2) wholesale water service charges; and 3) miscellaneous (non-rate) revenue.

In the event of a forecasted annual shortfall, rate revenue can be increased to meet the annual revenue requirement. For the purpose of this financial forecast, West Richland wholesale revenues are forecasted to increase with customer growth, while Badger Mountain wholesale revenues are projected to remain flat throughout the study period. Non-rate revenues are forecast to increase with customer growth and general cost inflation, or not escalate depending on the nature of the revenue.

- **Growth** – Rate revenue is escalated at 1.3 percent based on the growth rates provided in **Chapter 2** of this WSP.
- **Expenses** – O&M expense projections are based on the 2016 budget and forecasted to increase with general cost inflation of 2.50 percent, labor cost inflation of 1.60 percent, construction cost inflation of 3.00 percent, and benefit cost inflation of 7.50 percent. Budget 2016 figures were used for 2016 taxes; future taxes are calculated based on forecasted revenues and prevailing tax rates.
- **Existing Debt** – The City currently has ten outstanding debt issues, including four revenue bonds, four PWTF loans, and two DWSRF loans. Revenue bond payments range between \$86,000 and \$2.2M and expire between 2022 and 2034; PWTF payments range from \$163,000 to \$1.1M; and DWSRF loan payments range from \$175,000 to \$188,000 over the 20-year study period. In 2024, the City will experience a decrease of approximately \$2.9M in existing debt service as three existing loan obligations are paid in full at that time.
- **Future Debt** – The capital financial strategy developed for this WSP forecasts the need for \$16.66M in new debt proceeds in three separate instances (\$6.63M in 2017, \$4.93M in 2019 and \$5.1M in 2025). The analysis performed assumes all revenue bond financing.
- **Revenue Bond Assumptions** – The forecast incorporates bonding assumptions from the City’s bond consultant, the PFM Group. New issuances for bonds in 2017 and 2019 are assumed to be shaped such that the City will pay interest only on the bonds until 2024 when their existing debt obligations are reduced. The 2025 bond issuance assumes a 20-year term with a 5.0 percent interest rate and a 1.50 percent issuance cost. No shaping is assumed for the 2025 debt issuance.
- **Transfer to Capital** – Any Operating Fund balance above the minimum requirement is assumed to be available to fund capital projects and projected to be transferred to the Capital Fund each year. The 2016 Operating Fund balance is expected to end the year at 45 days of O&M expenses, or \$1.1M. The Capital Fund balance is expected to end the year at \$2.1M.

Although the financial plan is completed for the 21-year time horizon of this WSP, the rate strategy focuses on the shorter-term planning period of 2016 through 2027. It is recommended that the City revisit the proposed rates every 2 to 3 years to ensure that the rate projections developed remain adequate. Any significant changes should be incorporated into the financial plan and future rates should be adjusted as needed.

Table 9-6 summarizes the annual revenue requirements based on the forecast of revenues, expenditures, fund balances, and fiscal policies.

**Table 9-6
12-year Financial Forecast**

Revenue Requirement	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Revenues												
Rate Revenues Under Existing Rates	\$ 13,136,000	\$ 13,263,473	\$ 13,470,370	\$ 13,645,485	\$ 13,822,877	\$ 14,002,574	\$ 14,184,607	\$ 14,369,007	\$ 14,555,804	\$ 14,745,030	\$ 14,936,715	\$ 15,130,893
Wholesale Rate Revenues	353,000	357,290	361,636	366,038	370,498	375,015	379,591	384,227	388,923	393,680	398,499	403,380
Facility Fee Revenue Towards Debt	194,224	190,276	187,887	185,499	183,110	180,722	178,334	175,945	173,556	171,169	168,780	166,391
Non-Rate Revenues	670,376	600,070	557,146	559,670	563,074	565,674	568,257	570,932	573,646	576,402	579,180	581,997
Total Revenues	\$ 14,353,600	\$ 14,411,109	\$ 14,577,040	\$ 14,756,692	\$ 14,939,558	\$ 15,123,985	\$ 15,310,789	\$ 15,500,111	\$ 15,691,930	\$ 15,886,280	\$ 16,083,173	\$ 16,282,661
Expenses												
Cash Operating Expenses	\$ 9,312,934	\$ 9,413,782	\$ 9,669,055	\$ 9,820,998	\$ 10,120,686	\$ 10,217,794	\$ 10,551,466	\$ 10,907,169	\$ 11,287,598	\$ 11,619,671	\$ 11,966,151	\$ 12,577,881
Existing Debt Service	3,501,937	3,456,847	3,506,288	3,486,918	3,476,162	3,122,637	2,248,855	1,818,893	570,573	533,685	535,291	529,133
New Debt Service	-	132,600	265,200	363,700	462,200	462,200	462,200	462,200	1,052,200	1,500,917	1,501,517	1,506,117
Rate Funded System Reinvestment	600,000	600,000	600,000	600,000	600,000	600,000	600,000	2,000,000	2,200,000	2,400,000	2,600,000	2,800,000
Total Expenses	\$ 13,414,871	\$ 13,603,229	\$ 14,040,543	\$ 14,271,616	\$ 14,659,048	\$ 14,402,631	\$ 13,862,521	\$ 15,188,262	\$ 15,110,371	\$ 16,054,273	\$ 16,602,959	\$ 17,413,131
Net Surplus (Deficiency)	\$ 938,729	\$ 807,880	\$ 536,497	\$ 485,076	\$ 280,510	\$ 721,354	\$ 1,448,269	\$ 311,849	\$ 581,559	\$ (167,993)	\$ (519,786)	\$ (1,130,470)
Additions to Meet Coverage	-	-	-	-	-	-	-	-	-	-	-	-
Total Surplus (Deficiency)	\$ 938,729	\$ 807,880	\$ 536,497	\$ 485,076	\$ 280,510	\$ 721,354	\$ 1,448,269	\$ 311,849	\$ 581,559	\$ (167,993)	\$ (519,786)	\$ (1,130,470)

The financial forecast indicates that the utility is currently covering all financial obligations under existing rates, including the addition of new debt and annual rate-funded capital to aid in repair and replacement of existing infrastructure through 2024. When new debt is added in 2025 to fund the capital program, annual inflationary level rate increases are implemented to cover the forecast deficiency. The City recently completed a rate study in 2016 to assess the need for any near-term rate action. The remaining summaries are based on holding rates at the City’s existing levels through 2024 before increasing rates 9.80 percent cumulatively throughout the 2025 to 2027 timeframe.

CITY FUNDS AND RESERVES

Table 9-7 shows a summary of the projected Operating Fund and Capital Fund ending balances through 2027 based on the rate forecasts presented above. The operating fund is maintained at a minimum of 45 days of O&M expenses, and the capital fund balance fluctuates depending on the level of CIP funded; however, it should never fall below zero.

**Table 9-7
Ending Cash Balance Summary**

Ending Fund Balances	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Operating Fund	\$ 1,148,170	\$ 1,160,603	\$ 1,192,075	\$ 1,210,808	\$ 1,247,756	\$ 1,259,728	\$ 1,300,866	\$ 1,344,719	\$ 1,391,622	\$ 1,432,562	\$ 1,475,279	\$ 1,550,698
Capital Fund	2,099,154	7,253,678	1,568,803	4,079,922	705,320	171,105	755,712	1,782,337	2,305,478	159,895	2,915,151	5,219,980
Total	\$ 3,247,324	\$ 8,414,281	\$ 2,760,878	\$ 5,290,730	\$ 1,953,076	\$ 1,430,833	\$ 2,056,578	\$ 3,127,057	\$ 3,697,100	\$ 1,592,457	\$ 4,390,430	\$ 6,770,677

CURRENT AND PROJECTED RATES

CURRENT RATES

The City’s current rate structure consists of a fixed monthly charge based on meter size and a variable monthly charge per hundred cubic feet (ccf) for all use. **Table 9-8** shows the existing rate schedule.

**Table 9-8
Existing Schedule of Rates**

Monthly Rates	
Residential, Multifamily and Commercial	
Base Rate	
1" or less	\$ 27.25
1 1/2"	\$ 90.85
2"	\$ 145.35
3"	\$ 272.50
4"	\$ 454.15
6"	\$ 908.35
8" or larger	\$ 1,453.35
Fire Hydrant Meter	\$ 30.00
Usage Charge (per ccf)	
Residential/Fire Hydrant Meter	\$ 0.95
Multifamily/Irrigation	\$ 0.85
Commercial/Municipal	\$ 0.70
Large User Rates	
1" or less	\$ 239.80
1 1/2"	\$ 799.33
2"	\$ 1,278.93
3"	\$ 2,398.00
4"	\$ 3,996.67
6"	\$ 7,993.33
8" or larger	\$12,789.33
Usage Charge (per ccf)	\$ 0.67

PROJECTED RATES

The financial forecast discussed above indicates that the water utility is covering all financial obligations in the near term; therefore, rates can hold at existing levels through 2024. A cumulative rate increase of 9.80 percent is forecast throughout the 2025 to 2027 timeframe. This cumulative increase is applied to the existing rate structure to forecast rates in 2027. **Table 9-9** shows the projected rates with increases applied uniformly to all rate components in all classes.

**Table 9-9
Proposed Schedule of Rates**

Monthly Rates	Existing	2027
Residential, Multifamily and Commercial		
Base Rate		
1" or less	\$ 27.25	\$ 29.92
1 1/2"	\$ 90.85	\$ 99.76
2"	\$ 145.35	\$ 159.60
3"	\$ 272.50	\$ 299.22
4"	\$ 454.15	\$ 498.67
6"	\$ 908.35	\$ 997.40
8" or larger	\$ 1,453.35	\$ 1,595.83
Fire Hydrant Meter	\$ 30.00	\$ 32.94
Usage Charge (per ccf)		\$ -
Residential/Fire Hydrant Meter	\$ 0.95	\$ 1.04
Multifamily/Irrigation	\$ 0.85	\$ 0.93
Commercial/Municipal	\$ 0.70	\$ 0.77
Large User Rates		
1" or less	\$ 239.80	\$ 263.31
1 1/2"	\$ 799.33	\$ 877.69
2"	\$ 1,278.93	\$ 1,404.31
3"	\$ 2,398.00	\$ 2,633.09
4"	\$ 3,996.67	\$ 4,388.50
6"	\$ 7,993.33	\$ 8,776.98
8" or larger	\$12,789.33	\$14,043.17
Usage Charge (per ccf)	\$ 0.67	\$ 0.74

IRRIGATION UTILITY REVENUE REQUIREMENT

A separate revenue requirement analysis was completed for the irrigation utility serving the Horn Rapids, Columbia Point, Meadow Springs/Willowbrook, SMART Park, and Innovation Center areas. While this utility is currently covering its financial obligations, to avoid future debt issuances, rates will need to increase approximately 14.49 percent by 2021 to fund the \$1.4M capital program. Rates are projected to hold at this level through 2027. **Table 9-10** provides both existing rates and rates assumed in 2027 based on the cumulative increase mentioned previously.

**Table 9-10
12-year Projected Rates**

Customer Type	Existing	2027
Residential	\$ 297	\$ 340
Commercial, Industrial, Golf Courses, etc.	\$ 297	\$ 340
Each Additional Acre (Does not apply to residential)	\$ 122	\$ 140

AFFORDABILITY

The Washington State Department of Health and the Department of Commerce Public Works Board use an affordability index to prioritize low-cost loan awards depending on whether rates exceed 2.0 percent of the median household income for the service area. The average median household income for the City was \$69,198 between 2009 and 2013 according to the U.S. Census Bureau. The 2013 value is escalated based on the assumed 2.50 percent general cost inflation to show the median household income in future years. **Table 9-11** presents the City's rates projected to 2027, tested against the 2.0 percent monthly affordability threshold.

Table 9-11
Affordability Test

Year	Inflation	Median HH Income	2% Monthly Threshold	Projected Monthly Bill	% of Median HH Income
2013		\$ 69,198	\$ 115.33		
2014	2.50%	70,928	118.21		
2015	2.50%	72,701	121.17	44.35	0.73%
2027	2.50%	97,775	162.96	48.70	0.60%

Applying the 2.0 percent test, the City's rates are forecasted to remain within the indicated affordability range through 2027.

FACILITY ASSESSMENT FEE UPDATE

FACILITY ASSESSMENT FEE METHODOLOGY

As discussed previously, facility assessment fees are based on an equitable share of the cost of the system; they are different from installation fees, which are generally based on the cost of physically connecting the customer to the system. There may be additional fees imposed by the City related to meter charges, tap fees, inspection fees, or other non-capital charges resulting from connecting a new service (the scope of this study did not include an evaluation of these fees).

The facility assessment fee has two primary purposes: 1) to provide a source for capital financing; and 2) to equitably recover the proportionate share of utility plant in service from new customers. Without this charge, growth-related costs would be borne in large part by existing customers. The "cost of the system" to be recovered by facility assessment fees includes both the City's historical investment in existing assets and its planned investment in future capital projects. Facility assessment fee revenues can be used to fund capital projects or related debt service, but cannot be used as a funding source for O&M costs.

There are a variety of approaches that are used in the industry to establish a defensible facility assessment fee. While the City has some flexibility to define an equitable share of system costs, it is important that the City follows a rational approach to consistently determine and implement cost-based facility fees.

In 2015 the City contracted with FCS GROUP to update its facility assessment fees. **Table 9-12** provides a schedule of existing facility assessment fees based on meter size.

Table 9-12
Existing Facility Assessment Fees

Meter Size	Facility Assessment Fee for Indoor and Nonirrigation	Facility Assessment Fee for Outdoor Landscape Irrigation and Car Washes
3/4"	\$2,100	\$2,990
1"	\$2,100	\$2,990
1-1/2"	\$6,993	\$9,957
2"	\$11,193	\$15,937
3"	\$21,000	\$29,900
4"	By Contract	By Contract
6"	By Contract	By Contract

Existing Cost Basis

The existing cost basis portion of the charge developed in this study is intended to recognize the current ratepayers' net investment in existing system assets. RCW 35.92.025 sets forth the requirements and basis for calculating facility assessment fees for cities in the State of Washington. Based on the main provisions of the legislature, the existing cost basis includes the following components.

- **Utility Plant in Service** – City financial records indicate that as of the end of 2015, the water utility had \$126.9M in fixed assets.
- **Less: Meters and Services** – The total plant in service cost is reduced by the original cost and accrued interest on any assets related to meters and services. This adjustment is made to recognize that the costs associated with this function of the water utility are generally recouped through other fees normally associated with meter installation charges. The total reduction in costs related to meters and services is \$32.1M.
- **Less: Donated Plant** – The total original cost is reduced to recognize known third-party contributions. The outside contributions, which include grants and developer extensions, provide a source of capital at no new cost to the City's ratepayers. Since the facility fee is necessarily cost based, the net investment by the City excludes those contributions. Because FCS GROUP has removed costs associated with meters and services, all donated plant assets removed will be net of any donations attributed to meters and services. This translates into \$573,406 in ULIDs, and \$15.6M in donated assets, for a total reduction of \$16.2M to the cost basis.
- **Less: Irrigation Assets** – The original cost is further reduced to recognize that there are a number of City-owned water utility facilities that are related to non-potable water irrigation that are not included within this fee calculation. This reduction totals \$13.6M in irrigation related assets.
- **Plus: Interest on Non-contributed Plant** – As allowed by statute, the cost basis includes \$56.0M in interest accrued on non-contributed assets (over a period of up to 10 years with a maximum interest rate of 10 percent, depending on the age of the assets).

This was calculated by applying the appropriate interest rate, depending on the age of the asset, to the original cost of the asset.

- **Plus: Construction in Progress** – Additions related to construction in progress are made to recognize the investments the City has made in infrastructure that are neither booked as assets (as the assets have not yet been placed in service) nor included in the City’s capital plan. As of the end of 2015, the water utility had about \$1.2M in construction in progress.
- **Less: Net Outstanding Debt Principal** – Net outstanding debt principal is deducted from plant in service because new customers will pay for their share of debt service through user rates. As of the end of 2015, the water utility had approximately \$25.2M in long-term debt obligations. Because the City’s combined cash and investment balances as of the end of 2015 totaled approximately \$6.6M, an adjustment was made to the existing cost basis for outstanding debt. The difference between the outstanding debt obligations and cash on hand represents the adjustment to the existing cost basis of \$18.6M.

With the various components discussed above, the existing cost basis is \$94.9M.

FUTURE COST BASIS

The future cost basis portion of the general facilities charge is intended to recover a share of the costs associated with planned future capital projects. As provided by RCW 35.92.025, future facilities planned for construction can be included in the connection charge. Consistent with the legal requirement that the costs be borne by the City, funding by developers or special property assessments are not included in the calculation. There are three main types of capital projects, described below.

- **Less: Repair and Replacement Projects** – These are projects related to the repair or replacement of existing infrastructure, and are most often needed because existing facilities have deteriorated due to use by existing customers. The City’s existing facility assessment fee is relatively conservative in that it does not include repair and replacement projects in the facility fee cost basis on the grounds that: (a) these projects are attributable to existing customers; and (b) new customers will pay for their share of these projects through rates when they connect.
- **Plus: Upgrade Projects** – Upgrade projects generally involve upgrading the level of service for all customers to comply with regulatory requirements imposed by state and federal agencies.
- **Plus: Expansion Projects** – This type of project will increase system capacity to serve growth and would generally not be needed in the absence of growth.

The City’s 2016 through 2036 capital plan identifies \$65.9M in capital project costs. City staff allocated \$38.6M (58 percent) of the total cost to repair and replacement projects, which are deducted from the future cost basis as described above. City staff have also identified \$3.7M in capital costs associated with meters and services, which, as mentioned previously, are deducted from

the existing and future costs basis. Hence, the future cost basis only includes \$26.8M in capital costs associated with expansion and upgrade projects.

CUSTOMER BASE

Given that the City's customers can impose significantly different demands on the water system, the facility fee calculation uses the concept of meter capacity equivalents (MCEs) to "standardize" the customer base. An MCE will apply a weighting factor to meter sizes above the smallest meter to define the customer base relative to the usage characteristics of the smallest metered customer. The customer base is separated into two groups: existing customers and future growth.

- **Existing Customer Base:** The existing customer base reflects the MCEs using 2014 customer statistics provided from the City, escalated by the 1.3-percent growth rate to arrive at a 2016 existing customer base of 24,201 MCEs.
- **Future Customer Base:** Using the system capacity evaluation in **Table 3-26** of this WSP, one can deduce the future limiting capacity of each function of service. The general system will reach its limiting capacity at 35,837 MCEs based on the source capacity restriction. The transmission and distribution functions of the system will reach their limiting capacity at 51,914 MCEs, while the storage function has capacity to serve 85,549 MCEs.

CALCULATION OF THE FACILITY ASSESSMENT FEE

The facility assessment fee calculation includes the following components.

- **Existing Facilities Charge:** The existing cost basis of \$94.9M is divided by the total available capacity by function as seen in **Table 9-13**.

Table 9-13
Existing Facilities Charge

General, Supply/Treatment & Pumping	Transmission, Distribution & Hydrant	Supply
35,837 MCEs	51,914 MCEs	85,849 MCEs

This methodology recognizes that the existing infrastructure will serve all customers and that the number of future customers served is determined by the limiting capacity of each function of the system. The resulting existing facilities charge is \$2,002 per MCE.

- **Future Facilities Charge:** The future cost basis of \$26.8M is divided by the incremental growth available for each function (total capacity less existing), as seen in **Table 9-14**.

**Table 9-14
Future Facilities Charge**

General, Supply/Treatment & Pumping	Transmission, Distribution & Hydrant	Supply
11,637 MCEs	27,713 MCEs	61,348 MCEs

The resulting future facilities charge is \$1,337 per MCE.

Combining the existing facilities charge and the future facilities charge generates a facility assessment fee of \$3,339 per MCE.

The resulting fee from this analysis represents the facility assessment fee for outdoor landscape irrigation and car washes. To stay consistent with the previous facility assessment fee methodology, this fee is reduced by approximately 30 percent to represent the decreased peaking demands placed on each function of the system to arrive at a facility assessment fee for indoor and non-irrigation uses of \$2,345 per MCE. For ease of implementation, the City has chosen to round the fees to \$3,300 and \$2,300.

Table 9-15 provides an updated schedule of facility assessment fees based on meter size.

**Table 9-15
Proposed Facility Assessment Fees**

Meter Size	Indoor and Nonirrigation PROPOSED
3/4"	\$2,300
1"	\$2,300
1-1/2"	\$7,659
2"	\$12,259
3"	\$23,000
4"	By Contract
6"	By Contract

Meter Size	Outdoor Landscape Irrigation and Car Washes PROPOSED
3/4"	\$3,300
1"	\$3,300
1-1/2"	\$10,989
2"	\$17,589
3"	\$33,000
4"	By Contract
6"	By Contract

Since the calculated charges represent the maximum allowable charge, the City may choose to implement a charge at any level up to the calculated charge. Revenues generated from the charge will vary depending on whether or not the full charge is implemented (e.g., phase-in strategies). Delaying or otherwise limiting facility assessment fee increases will generally reduce the amount of facility fee assessment revenue available, which could result in delays in completing the capital improvement program and/or additional existing customer rate increases.

CONCLUSION

The results of this analysis indicate that rates can remain at existing levels and provide revenue sufficient to cover all utility financial obligations, including the addition of new debt and partial cash funding of the capital program through 2024. Beginning in 2025, when large capital expenditures are expected, rates are forecast to increase at inflationary levels for a cumulative increase of 9.80 percent from 2025 to 2027. Holding rates at existing levels through 2024 followed by a cumulative 9.80 percent increase by 2027 should provide for continued financial viability while maintaining generally affordable rates.

It is important to remember that the analysis performed in this chapter assumes growth rates from **Chapter 2** of this WSP. If the future growth rates change, the existing rate strategy may need to be updated and revised.

It is recommended that the City regularly review and update the key underlying assumptions that compose the multi-year financial plan to ensure that adequate revenues are collected to meet the City's total financial obligations.