

EXHIBIT A



Seattle Public Utilities
2024-2026 Water Rate Study

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PREFACE – STRATEGIC BUSINESS PLAN COMPARISON

Seattle City Council Resolution 32000, passed May 10, 2021, adopted a six-year Strategic Business Plan (SBP) for Seattle Public Utilities (SPU) which guides utility investments, service levels, and rate paths through 2026. While not a formal rate package, the SBP does give guidance and create accountability for the rate setting process. **Table P-1** compares the overall retail water increases for 2024-2026 proposed as part of this legislation with those in the SBP.

Table P-1
Comparison of Proposed and Adopted Retail Water Rates

	2024	2025	2026
Adopted Strategic Business Plan Update	3.6%	4.2%	5.5%
Proposed Water Rate Study	2.0%	2.0%	2.0%

The primary reason rates are lower than projected in the SBP is lower spending. In the first three years of the SBP, O&M underspent by a cumulative \$57 million (including projected 2023 underspending). The capital program also underspent \$81 million cumulatively from 2021-2023. Lower capital spending reduced the need to borrow, lowering the Fund’s debt burden. Additionally, the Fund was able to refund approximately \$50 million, and optimize another \$100 million, of existing higher-interest debt and refinance at lower rates. In the rate period, savings from refinancing are approximately \$1.5 million per year. All these savings allow rates from 2024-2026 to be lower than projected in the SBP.

1. EXECUTIVE SUMMARY

The water system is financed through an enterprise fund of the City of Seattle that is wholly supported by rate and fee revenues related to water service. In any given year, these rates and fees must be sufficient to pay the total costs of the water system and meet financial targets. This total cost is known as the **water system revenue requirement**. Most of the water system’s revenues are from direct service (“rates”) revenues from wholesale and retail customers. Wholesale contracts determine the amount SPU charges for wholesale service in a given year. Thus, retail water rates and other revenues are the “balancing entries” that generate the difference between each year’s total water system revenue requirement and wholesale revenues. In this proposal, retail rates are targeted to generate more revenue than the minimum requirement. The revenue generated by these increases is known as the **retail revenue target**.

This study focuses on proposed retail water rates. **Chapter 1** provides an overview of proposed changes to the revenue target and their drivers, bill impacts, and projected financial performance. **Chapter 2** gives an overview of financial policy targets resulting from the development of the revenue target. **Chapter 3** provides additional detail on the various components of the proposed revenue targets, including a discussion of demand and the low-income rate assistance program. **Chapter 4** discusses how the proposed revenue target is allocated between different customer classes. **Chapter 5** presents proposed rates by customer class, as well as an overview of the rate design, or rate structure, for each class. The **Appendices** present additional supporting data.

The proposed retail rates support increases to the retail rate revenue target of \$2.8 million in 2024, \$7.6 million in 2025, and \$5.0 million in 2026, for a combined \$15.4 million over the three-year period. **Table 1-1** presents the change in the retail revenue target and the monthly impact of proposed rate increases on typical residential customers and a sampling of general service customers. The proposed rates will affect customer bills to varying degrees depending on the volume of water used.

**Table 1-1
Proposed Water System Revenue Targets and Bill Impacts**

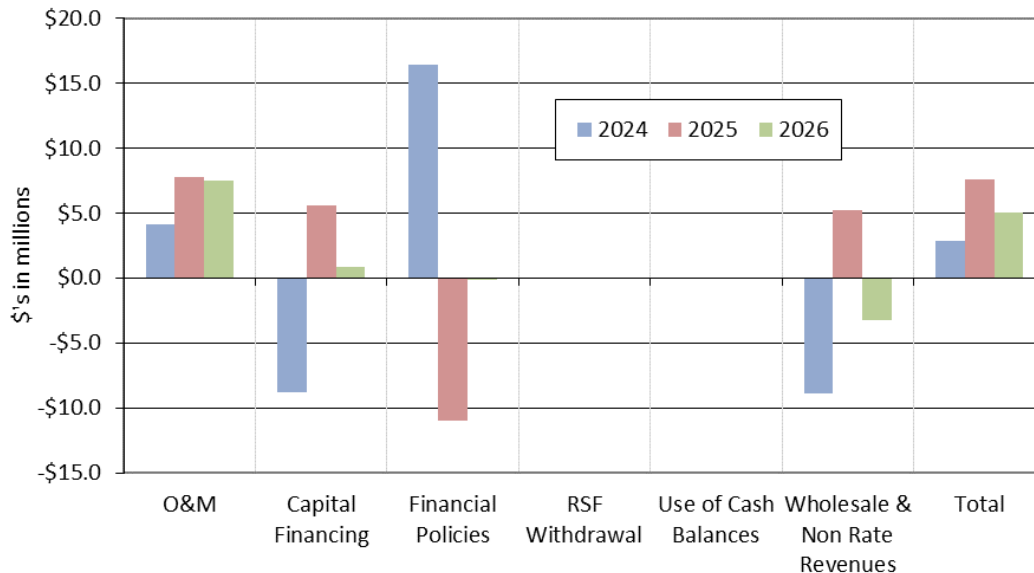
	2023*	2024		2025		2026	
		Proposed	Change from 2023	Proposed	Change from 2024	Proposed	Change from 2025
Retail Revenue Target	\$230,692,928	\$233,515,458	\$2,822,530	\$241,074,052	\$7,558,594	\$246,122,210	\$5,048,157
Typical Monthly Water Bills							
Residential	\$48.66	\$48.66	\$0.00	\$49.66	\$1.00	\$50.71	\$1.05
Convenience Store	\$113.70	\$119.10	\$5.40	\$122.05	\$2.95	\$125.10	\$3.05
Small Office Building	\$362	\$377	\$14	\$384	\$7	\$392	\$8
Apartment Bldg (90 units)	\$1,368	\$1,423	\$55	\$1,450	\$27	\$1,478	\$28
Medium Hotel	\$8,504	\$8,792	\$288	\$8,925	\$133	\$9,060	\$135
Large Industrial	\$20,538	\$21,209	\$671	\$21,513	\$304	\$21,818	\$305

* 2023 assumptions used in the 2022-2023 rate study
Calculations may not total due to rounding

The overall water system expenditure is expected to increase \$22.4 million between 2023 (the final year of the most recent rate study) and 2026. Proposed O&M spending increases of \$19.4 million account for most of the spending increase. Financial policy targets, primarily rate smoothing for Strategic Business Plan purposes, add an additional \$5.3 million which will be used to finance the capital program above minimum targets. Offsetting O&M and financial policy increases are reduced capital program spending requirements. Required capital spending decreases \$2.3 million through the rate study. Debt service is the primary driver of the reduced capital requirement.

Retail rate revenue target changes are comprised of multiple drivers. **Figure 1-1** breaks down the change in each retail revenue driver by year. The drivers of a new rate are based on the change in each underlying assumption used to create the previous rate. Therefore, assumptions for 2024 are compared to assumptions used for 2023 rates in the 2022-2023 rate study, 2025 assumptions are compared to 2024, and so on. See Chapter 3 for more detail.

**Figure 1-1
Change in Water Fund Retail Revenue Target Drivers by Year**



The following section provides further description of the drivers presented in Figure 1-1. See Chapter 3 for further detail.

O&M (and Taxes)

Branch O&M has increased \$3.4 million between the 2023 rate study and 2024 due to updated growth assumptions in labor costs, city central costs, and investments identified in the SBP. Taxes increased \$0.7 million from the 2023 rate study amount.

Capital Financing

Figure 1-1 shows the combined impact of *cash* and *debt financing* of the capital program on the revenue target for 2024-2026. Capital financing is significantly less in 2024 than planned in the 2023 rate study due to debt service savings related to reduced capital spending and borrowing in the prior rate period and bond defeasances in 2021 and 2022. Cash financing of the increased capital program in 2024 partially offsets the decreased debt service.

Financial Policies

The Water Fund has four primary financial targets. Typically, rates are set to just meet all financial policies in each year. For this rate study, however, rates are set to smooth rate increases over the study period as part of the overall Strategic Business Plan rate path. As a result, additional revenue is generated each year which is then used to increase the financing of the capital program. There is no binding financial policy in any year of the rate study. See Chapter 2 for more detail on binding policy targets.

Revenue Stabilization Fund (RSF) Withdrawal

In this rate study, SPU is not proposing any withdrawals. Withdrawals from the RSF can be used to increase cash contributions to CIP or reduce retail rate revenue requirements.

Use of Cash Balances

After a review of financial policies and assessment of current finances, SPU is proposing to keep cash balances higher than the formal policy target. The long-term planning goal is to keep 120 days of operating expense, including taxes, in operating cash. In 2024, proposed operating cash is \$110 million; the target is \$67.2 million. Because cash balances are higher than the target, the current proposal is to maintain the current cash balance and allow the 120-day policy target to increase until it meets the cash balance.

The proposal to not draw down cash is based on long-term spending projections. Drawing cash down to the planning target would allow the fund to increase cash funding of capital in the near term, but future rate periods would be negatively affected as cash would become the binding constraint and create a volatile rate path. In the capital program projection period of 2024-2030, which falls partially outside this rate study, spending, and therefore cash financing, is increasing at such a pace that rates would have to increase rapidly. Maintaining the \$110 million balance mitigates rate impacts through the end of the decade and eliminates cash balances as a driver in this study period.

Wholesale & Non-Rate Revenues

Non-Rate Revenues are projected to be stable during the rate study period. Changes in projected wholesale revenue account for nearly all funding changes in this category. Wholesale revenues in 2024 are buoyed by a \$5 million payment from Cascade Water Alliance. This is the final payment related to a contract amendment signed in 2013. Other non-rate revenues are projected to be relatively stable.

Effects of Changes in Demand and Utility Discount Program (UDP)

While generally not a *revenue requirement (or target)* driver, changing demand for water is typically a significant *rate* driver. **Table 1-2** shows the impact of demand and UDP changes on the overall average rate increase using the typical calculation method. However, because this rate study proposal sets average rate increases on external rate policy rather than financial policy, changes in UDP and demand affect revenue rather than rates. See Section 3.5 and Section 3.6 for more detail.

Table 1-2
Impacts of Demand and UDP on Rate Increase

	2024	2025	2026
Revenue Target Increase	1.2%	3.2%	2.1%
Demand/Connections Impact	1.2%	-1.4%	-0.2%
Utility Discount Program Impact	-0.4%	0.1%	0.1%
Average Rate Increase*	2.0%	2.0%	2.0%

*Rates may not total due to rounding.

Financial Performance

The 2024-2026 rate study exceeds all water system financial policy targets during the rate period as shown in **Table 1-3**. See Chapter 2 for further discussion of financial policy targets and their impact on rate setting.

Table 1-3
Water Fund Projected Financial Performance

(\$ in 1,000's)	Target	Actual 2021	Actual 2022	Projected 2023	Proposed 2024	Proposed 2025	Proposed 2026
Net Income	positive	\$72,259	\$57,280	\$50,003	\$41,194	\$33,701	\$30,095
Debt Service Coverage	1.7x	2.28	2.32	1.95	2.11	1.93	1.89
Cash Financing of the Capital Program	20%*	52.0%	41.9%	37.9%	35.1%	25.7%	25.8%
from Contributions in Aid of Construction		9.7%	10.9%	6.6%	5.5%	5.5%	5.8%
from Rate Revenues		42.3%	31.0%	31.3%	29.6%	20.2%	20.0%
Year-End Operating Cash	varies**	\$101,317	\$98,159	\$110,000	\$110,000	\$110,000	\$110,000
Days of Operating Cash		222	212	213	195	188	182

* Current revenues should be used to finance no less than 15% of the CIP in any one year, and average not less than 20% over each rate proposal period.

** Planning target for year-end operating cash is 120 days of operating expense, or \$67.2 million in 2024.

2. FINANCIAL POLICY OVERVIEW

Financial policies provide a guiding framework for the finances of the water utility. They represent a balance between the competing goals of fiscal conservatism through higher rates today and minimizing these same rates by spreading costs over time to future ratepayers. The direct effect of the policies is to determine the level at which water rates shall be set, given estimated costs and demand, and to define how the capital improvement program is to be financed.

The indirect effects of the policies are to:

- Shape the financial profile the utility presents to the financial community;
- Establish the utility's exposure to financial risk; and
- Allocate the utility's costs between current and future ratepayers.

In 2005, City Council passed Resolution 30742, which adopted new water system financial policies that reflect changes and additions to the financial policies initially adopted in 1992. The financial policies are as follows:

1. **Maintenance of Capital Assets.** For the benefit of both current and future ratepayers, the municipal water system will seek to maintain its assets in sound working condition. Future revenue requirement analyses will include provision for maintenance and rehabilitation of facilities at a level intended to minimize total cost while continuing to provide reliable, high-quality service.
2. **Debt Service Coverage.** Debt service coverage on first-lien debt should be at least 1.7 times debt service cost in each year on a planning basis.
3. **Net Income.** Net income should generally be positive.
4. **Cash Funding of the Capital Improvement Program.** Current revenues should be used to finance no less than 15 percent of the municipal water system's adopted CIP in any year, and not less than 20 percent of the CIP over the period of each rate proposal. Cash in excess of working capital requirements may be used to help fund the CIP.
5. **Eligibility for Debt Financing.** Unless otherwise authorized by Council, the following criteria must be met before project expenditures are eligible for debt financing:
 - i) Project is included in the CIP.
 - ii) Total project cost exceeds \$50,000.
 - iii) Project has expected useful life of more than two years (more than five years for information technology projects).
 - iv) Resulting asset will be owned or controlled by Seattle Public Utilities (SPU), is part of the regional utility infrastructure, or represents a long-term investment for water conservation.
 - v) Consistent with generally accepted accounting practices, project costs include those indirect costs, such as administrative overhead and program management, that can be reasonably attributed to the individual CIP project.
6. **Revenue Stabilization Fund (RSF).** Ordinance 121761 requires that a target balance of \$9 million be maintained in the RSF, except when withdrawals below this level are needed to offset shortfalls in metered water sales revenues, or to meet financial policy requirements. Withdrawals of funds in excess of the minimum balance will be used to meet operating expenses, to pay CIP expenditures, or

to meet financial policy requirements. Withdrawals from the RSF must be authorized by ordinance, except that Bonneville Power Administration (BPA) Account funds may be withdrawn based on BPA spending.

The Water Fund must deposit revenues in excess of planned metered water sales to the RSF in years where all financial policy targets are exceeded.

SPU may also make discretionary deposits to the RSF, provided that these discretionary deposits are in excess of the amounts required to meet the financial policy requirements. Should the RSF balance fall below the target balance, SPU will submit a water rate proposal that rebuilds the balance in the RSF within one year.

7. **Cash Target.** The adopted target for the year-end operating fund cash balance is one-twelfth of the current year's operating expenditures. SPU plans and targets a higher level of liquidity than the adopted policy in order to be responsive to changing market expectations from bond holders and rating agencies. The planning target is 120 days of operating expense including taxes. For this rate study SPU has modeled year-end cash in excess of the planning target. Keeping cash above the planning target eases cash demands in the years following the Strategic Business Plan. Keeping cash above the planning target prevents a situation where cash balances are required to increase along with increasing capital funding requirements creating additional rate volatility.
8. **Variable Rate Debt.** Variable rate debt should not exceed 15 percent of total outstanding debt. Annual principal payments shall be made on variable rate debt in a manner consistent with fixed rate debt.

In any future year, the minimum revenue requirement is the lowest amount of money necessary to simultaneously satisfy all financial policies in that year. At this level of revenues, some financial policies may be exceeded, but none will be missed – the financial policy that is exactly met is known as the binding constraint. For this rate study, however, rates were not set to just meet financial policies. As part of the Strategic Business Plan Update, rates were set to meet *rate* increase targets, a process commonly called rate “smoothing”. Proposed rates in all years will exceed all financial policy minimums.

3. RETAIL WATER REVENUE TARGET

The **water system revenue requirement** is the minimum amount of operating revenue required to fund the water system operating budget and meet financial policy targets for net income, cash balances, cash financing of the CIP, Revenue Stabilization Fund balances, and debt service coverage. The component requiring the greatest amount of revenue generation (budgetary expenses or one of the financial policy requirements) is termed the “binding constraint.” The **retail water revenue requirement** is equal to the water system revenue requirement, less funding from sources other than retail rates including wholesale revenues, drawdowns of cash balances, withdrawals from the Revenue Stabilization Fund, and other operating/non-operating revenues.

Rate increases are required to fund increases in the revenue requirement from one rate setting period to the next. Where demand is constant, the average rate increase will equal the increase in the revenue requirement. Increasing demand (i.e., customers buying more units of water or more customer meters) will reduce the required rate increase and declining demand will increase the rate increase relative to the change in the revenue requirement. In addition, changes in participation in the utility discount program affect rate changes. Increased participation in the program reduces revenues as more households are paying a discounted rate. The reduction in revenue must be made up through an increase in standard rates.

In addition to changes in the revenue requirement, demand, and discount program participation, rates can be increased to meet external goals. The **retail water revenue target**, which will be discussed throughout this chapter, was set to meet other financial policy and rate targets.

Table 3-1 summarizes the components of the change in the retail water revenue and rate targets during the proposed rate period. Current (2023) rates were set in 2021 based on planned expenditures, demand, and other funding sources for the prior rate setting period (2022-2023). The change in the 2024 revenue target in Table 3-1, and throughout this section, is relative to the 2023 plan assumed in the 2022-2023 rate study. Likewise, the 2025 changes are relative to the planned revenue target in 2024.

Table 3-1
Components of the Change in the Retail Water Revenue Target

(\$1,000's)	2023 Rate Study	2024	\$ Change in Rev Req	% Change in Total Rev Req	2025	\$ Change in Rev Req	% Change in Total Rev Req	2026	\$ Change in Rev Req	% Change in Total Rev Req
Expenditure										
Operations and Maintenance Expense (O&M)										
Branch O&M	151,902	155,280	3,377	1.5%	161,491	6,211	2.7%	167,951	6,460	2.7%
Taxes	49,861	50,591	730	0.3%	52,159	1,568	0.7%	53,241	1,081	0.4%
Total	201,764	205,871	4,108	1.8%	213,650	7,779	3.3%	221,191	7,541	3.1%
Capital Financing										
Cash financing (target)	20,763	23,683	2,919	1.3%	24,217	534	0.2%	23,415	(802)	-0.3%
Debt Service	87,271	75,535	(11,735)	-5.1%	80,599	5,064	2.2%	82,284	1,685	0.7%
Total	108,034	99,218	(8,816)	-3.8%	104,816	5,598	2.4%	105,699	883	0.4%
Other Financial Policy Targets										
Additional Capital Program Funding	1,481	17,880	16,399	7.1%	6,876	(11,003)	-4.7%	6,766	(111)	0.0%
Total	1,481	17,880	16,399	7.1%	6,876	(11,003)	-4.7%	6,766	(111)	0.0%
Total Expenditure	311,278	322,969	11,691	5.1%	325,343	2,374	1.0%	333,656	8,313	3.4%
Other Funding Sources										
Wholesale Revenues	(57,580)	(63,696)	(6,116)	-2.7%	(59,360)	4,336	1.9%	(60,628)	(1,268)	-0.5%
Non-rate revenues	(23,005)	(25,757)	(2,752)	-1.2%	(24,908)	849	0.4%	(26,905)	(1,997)	-0.8%
RSF withdrawal	-	-	-	0.0%	-	-	0.0%	-	-	0.0%
Total Other Funding Sources	(80,585)	(89,453)	(8,868)	-3.8%	(84,268)	5,185	2.2%	(87,533)	(3,265)	-1.4%
Net Retail Rates Revenue Target	230,693	233,515	2,823	1.2%	241,074	7,559	3.2%	246,122	5,048	2.1%
Impact of Demand/Connections				1.2%			-1.4%			-0.2%
Change in Utility Discount Program	6,882	5,980	(902)	-0.4%	6,205	224	0.1%	6,366	162	0.1%
Effective Increase in Retail Rates				2.0%			2.0%			2.0%

The **Expenditure** section of Table 3-1 presents the operating fund cash spending components that make up the water system revenue target. The **Other Funding Sources** section presents other sources of funding which reduce the amount of expenditure that must be recovered through retail rates. The final section of the table presents two items, "**Demand**" and "**Utility Discount Program**," that do not affect the revenue target but do affect rates. For example, total expenditure increases the total revenue target by 5.1 percent from 2023 to 2024. However, increases in other funding sources (wholesale revenues and non-rate revenues) decrease the retail revenue requirement by 3.8 percent, resulting in a net increase of 1.2 percent in the 2024 retail rates revenue requirement. The actual average rate increase of 2.0 percent is higher than the revenue target increase, due to a projected decrease in demand, which is partially offset by a decrease in utility discount projections.

The following sections include more detailed descriptions of the components of change in the revenue target.

3.1. Operations and Maintenance Expense (O&M)

The water system O&M expenditure requirement includes costs attributable to water operations, as well as a portion of administrative expenses that water shares with other SPU funds (e.g., finance, customer service, etc.). For rate study purposes, O&M includes taxes but does not include debt service, which is discussed under capital financing. O&M is broken into two categories: Branch O&M and taxes.

Branch O&M equals the spending required to support operations and maintenance functions of the water utility. Under this proposal, 2024 Branch O&M increases \$3.4 million from the 2023 amount as projected in the 2022-2023 rate study due to cost changes associated with updated growth assumptions in city central costs, pensions, and other labor costs. The proposal assumes an increase in Branch O&M of \$6.2 million in 2025 and \$6.5 million in 2026.

SPU pays three primary taxes, the City of Seattle Water Utility Tax, Washington State Utility Tax, and the Washington State B&O Tax. While all three taxes are not applicable to all revenue sources, they all are revenue-based taxes. As such, as revenue increases, tax expense increases. Taxes increase \$0.7 million in 2024, \$1.6 million in 2025, and \$1.1 million in 2026 due to a higher projected tax revenue base.

3.2. Capital Financing Expense

Financing of the capital program will decrease the expenditure target by 3.8 percent in 2024, increase the target by 2.4 percent and 0.4 percent in 2025 and 2026, respectively, as presented in Table 3-1.

Major water capital programs to be funded during this period include:

- Distribution System Improvements
- Transmission System Rehabilitation
- 'Move Seattle' Utility Relocation Projects
- Dam Safety Improvements
- Service Renewals and Retirements

SPU funds water system capital projects through a combination of cash (from direct service and non-rates revenue) and debt financing (revenue bonds and low-interest loans serviced by rates revenue). As discussed in Section 3.2.2, SPU will be issuing bonds in each year of the rate study. This rate study forecasts CIP cash financing that will exceed the financial target of 20 percent of CIP over the three-year rate period. The remaining CIP will be funded with revenue bond proceeds. **Table 3-2** presents CIP spending and financing assumptions during the rate period.

**Table 3-2
Capital Spending and Financing Assumptions**

(\$1,000's)	2024	2025	2026	Rate Study Average
CIP Spending Assumption	118,413	121,084	117,076	
CIP Financing Breakdown				
Cash Financed	41,562	31,093	30,181	
Debt Financing				
Low Interest Loan	0	0	0	
Bond Financing	76,850	89,991	86,895	
Cash Financed Percentage	35.1%	25.7%	25.8%	28.8%
Debt Financed Percentage	64.9%	74.3%	74.2%	71.2%

3.2.1. Cash Financing (Target Only)

Water system financial policies require that a minimum of 20 percent of the CIP be financed with current cash revenues (as opposed to debt proceeds) over the rate period. The sources of cash that assist in meeting this 20 percent target are operating revenues, cash on hand, and contributions in aid of construction¹.

Although CIP cash financing is projected to exceed the financial policy target, this section discusses only the cash necessary to just meet the 20 percent cash financing target. The additional capital funding, over and above the cash financing target, is discussed in Section 3.3.

As presented in **Table 3-3**, targeted cash financing of the CIP increases \$2.9 million in 2024, \$0.5 million in 2025, and decreases \$0.8 million in 2026.

**Table 3-3
Change in Target Cash Financing**

(\$1,000's)	2023*	2024	\$ Change	2025	\$ Change	2026	\$ Change
Cash Financed (Target)	20,763	23,683	2,919	24,217	534	23,415	(802)

* 2023 assumptions used in the 2022-2023 rate study

¹ Customers often pay for water facilities when they connect to the water system or cause the relocation of water facilities. For example, a developer pays for installation of a water meter and service line when building a new house.

3.2.2. Debt Service

Table 3-4 presents projected Water Fund debt service, by source, during the rate period.

Table 3-4
Change in Water Fund Debt Service

(\$1,000's)	2023*	2024	\$ Change	2025	\$ Change	2026	\$ Change
Debt Service Details							
Debt service for existing bond issues	84,929	71,988	(12,941)	71,893	(95)	67,587	(4,306)
2024 bond debt service**		1,234	1,234	6,422	5,188	6,422	-
2025 bond debt service***				-	-	6,244	6,244
2026 bond debt service***						-	-
Low interest loan debt service	2,342	2,285	(57)	1,794	(491)	1,592	(201)
Total Debt Service	87,271	75,507	(11,764)	80,108	4,601	81,844	1,736

* 2023 assumptions used in the 2022-2023 rate study

** 2024 bond assumes an interest-only payment in 2024.

*** Bond principal and interest payments are assumed to begin in the year following issue.

In the first half of 2024, SPU expects to issue approximately \$98.7 million in new revenue bonds. An additional \$96.0 million and \$100.4 million of new money bonds are expected to be issued in the third quarters of 2025 and 2026, respectively. SPU is proposing to issue bonds that are expected to fund roughly one year of CIP needs.

3.3. Other Financial Policy Requirements

As discussed in Chapter 2, proposed rates for 2024 – 2026 are designed to smooth the Strategic Business Plan rate path. Because revenues in these years are not set to just meet a binding financial target, all policy minimums are exceeded.

The revenue collected above the minimum required can be used to increase cash balances or provide additional cash funding of the capital program. Cash balances exceed planning targets, so no increase is proposed in this rate study. Instead, excess revenue generated by rate smoothing is proposed to fund the capital program. The additional funding is projected to increase capital financing by \$31.5 million over the rate study period.

Table 3-5 presents how SPU proposes to spend revenues generated from external policies over the three-year rate period.

Table 3-5
Impacts of Changes to Rate Policy

(\$1,000's)	2023*	2024	\$ Change	2025	\$ Change	2026	\$ Change
Increase Cash Balance	-	-	-	-	-	-	-
Additional Capital Program Funding	1,481	17,880	16,399	6,876	(11,003)	6,766	(111)
Financial Policies	1,481	17,880	16,399	6,876	(11,003)	6,766	(111)

* 2023 assumptions used in the 2022-2023 rate study

3.4. Other Funding Sources

A significant portion of the total water system expenditure target is funded through wholesale revenues, capital contributions, asset sales, and other operating and non-operating revenues. These other funding sources reduce the amount to be recovered through retail rates and therefore are reflected as reductions to the retail revenue target in each year. Other funding sources, primarily wholesale and non-rate revenues, are projected to increase from 2023 projections by \$8.7 million in 2024.

3.4.1. Wholesale Revenues

Revenues from wholesale customers, as presented in **Table 3-6**, are expected to increase \$6.1 million in 2024 from the assumed amount in the 2023 rate study. A \$5 million contract renegotiation payment from Cascade Water Alliance is the bulk of the variance.

Table 3-6
Change in Wholesale Revenues

(\$1,000's)	2023*	2024	\$ Change	2025	\$ Change	2026	\$ Change
Full & Partial Revenue**	30,202	28,117	(2,085)	29,592	1,475	32,059	2,467
Cascade Block Revenue	21,867	29,486	7,619	23,845	(5,641)	22,940	(905)
Northshore Block Revenue	5,511	6,093	582	5,923	(170)	5,629	(294)
Total	57,580	63,696	6,116	59,360	(4,336)	60,628	1,268

* 2023 assumptions used in the 2022-2023 rate study

** Includes facilities charge revenues and Renton conservation payment

Rates for wholesale customers are set in accordance with the wholesale contracts. These contracts define cost of service methodologies that determine how much the water system charges for wholesale service. Wholesale rate studies apply these methodologies based on expenditure projections (budget). Wholesale rates may be affected by actions that raise or lower the water system O&M or CIP budget. Outside of budget changes, there is very little flexibility to alter wholesale rates and revenues.

3.4.2. Non-rate Revenues

As presented in **Table 3-7**, other non-rate revenue (unmetered revenue) is projected to increase from \$23.0 million assumed for 2023 to \$25.8 million, \$24.9 million, and \$26.9 million in 2024, 2025 and 2026, respectively.

Table 3-7
Change in Non-Rate Revenues

(\$1,000's)	2023*	2024	\$ Change	2025	\$ Change	2026	\$ Change
Unmetered Revenues							
Capital Contributions & Tap Fees	14,083	14,756	673	15,022	265	15,292	271
Operating Fund Interest Income	342	39	(303)	30	(9)	21	(9)
Charges for Miscellaneous Services	4,466	4,753	287	4,872	119	4,994	122
Rentals & Others	1,442	3,470	2,028	3,549	79	3,630	81
Build America Bonds Reimbursement	1,520	1,741	221	1,671	(70)	1,597	(74)
Billing leads & lags	1,152	998	(153)	(235)	(1,234)	1,371	1,606
Total Unmetered Revenues	23,005	25,757	2,752	24,908	(849)	26,905	1,997

* 2023 assumptions used in the 2022-2023 rate study

The largest category of other non-rate revenues is capital contributions and tap fees, which are projected to be modestly higher during the rate period. Construction and development in Seattle have

sustained a torrid pace since 2013, and the projection reflects a modest regression in development activity partially offset by increased prices for new services.

Billing leads and lags are year-end cash effects that adjust for differences in when an expense (or revenue) is recorded in SPU financial systems² versus when the associated cash is paid (or received). These lags/leads result in an impact on rates when their sum dollar amount changes from year to year. The leads/lags presented in Table 3-7 are primarily associated with changes in the timing of CIP billed to SPU from year to year.

3.4.3. Revenue Stabilization Fund Withdrawals

As discussed in Chapter 2, the minimum balance in the RSF is \$9 million. From a rates perspective, withdrawals from the RSF are part of the other funding sources pool. Increases in withdrawal size add to this pool and therefore reduce the retail rate revenue target. Decreases in withdrawal size reduce the size of this alternative funding pool and increase the direct service funding target.

At the end of 2022 the RSF balance was \$42.6 million. The projected beginning balance for 2024 is \$43.1 million. In this rate proposal, SPU does not propose any withdrawals from the RSF.

Table 3-8 presents projected RSF balances.

Table 3-8
Projected Water Revenue Stabilization Fund Balances

(\$1,000's)	2023*	2024	2025	2026
Beginning RSF Cash Balance	42,114	43,059	43,490	43,924
Interest	421	431	435	439
Deposit (Withdrawal)	0	0	0	0
Ending RSF Cash Balance	42,535	43,490	43,924	44,364

* 2023 assumptions used in the 2022-2023 rate study

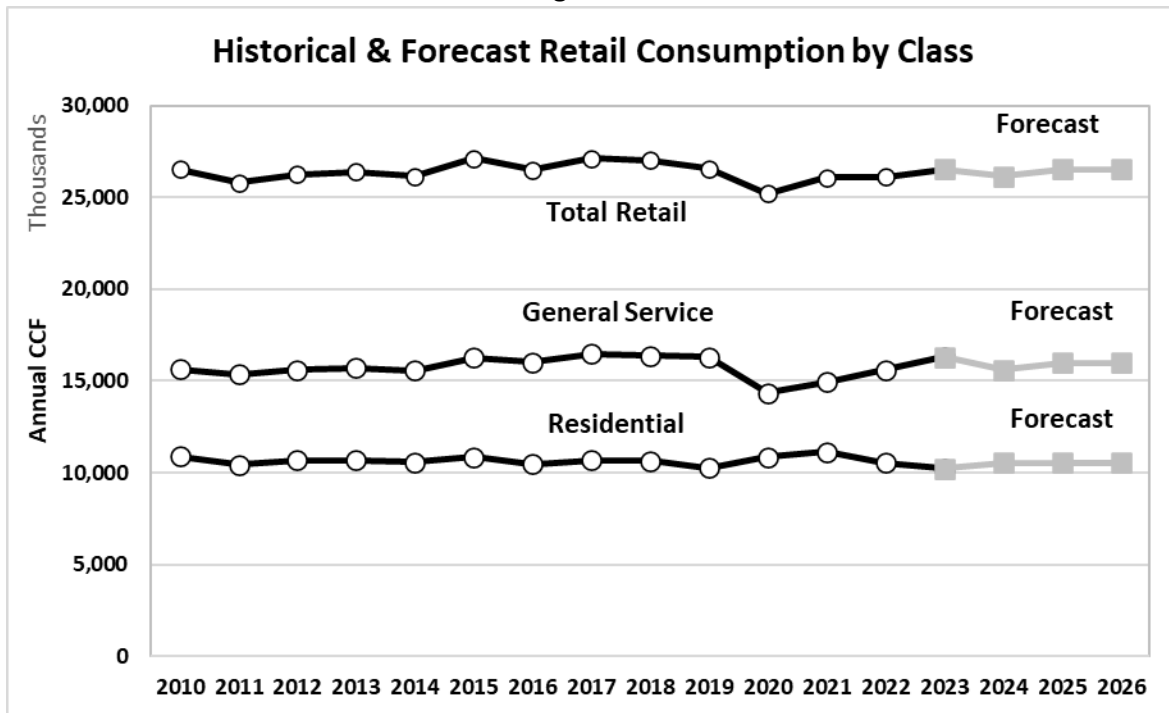
3.5. Effect of Demand

The volume of water sold to retail customers is projected to increase over the forecast period. For the rate study period, total retail consumption is expected to rise from 26.2 million CCF per year to 26.6 million CCF per year. All of the increase during the rate study period is projected to be in the General Service customer class.

Despite generally growing population and employment, water consumption through the 1990s and 2000s trended downwards due to various forms of conservation (programs, efficiency codes and standards, rising water and sewer rates, etc.). With the end of the 1% Conservation program in 2011 and a rebound in employment after the Great Recession, water consumption appeared to level off until 2020 when the COVID-19 pandemic disrupted regular activity. As shown in **Figure 3-1**, consumption is expected to decline in 2024 relative to the assumption in the 2023 rate study. Consumption is projected to increase in 2025 and remain at that level in 2026. The effects of growth and conservation are forecasted to largely offset after the economic recovery related to COVID-19 is complete.

² In general, revenues are recorded when billed and expenses when invoiced.

Figure 3-1



Consumption levels for the rate study period are expected to be similar to the average consumption from 2012 through 2019. The COVID-19 pandemic, and the public health response, dramatically altered water consumption patterns in 2020 and 2021. State-mandated shutdowns of non-essential businesses, along with capacity limits on indoor spaces, dramatically reduced water consumption for the General Service class. Conversely, water consumption for the Residential class increased as many people spent more time at home, including work from home.

There are residual effects from the pandemic, primarily increased consumption in the Residential class. This is believed to be an effect of increased work-from-home employment. Conversely, employees working from home lowered the daytime population of Downtown Seattle and decreased General Service consumption. In addition, general economic activity across the city declined during the pandemic and further reduced General Service consumption. For this Rate Study, consumption in the Residential class is expected to remain above pre-pandemic levels and remain flat each year of the Study. General Service consumption is forecast to remain below pre-pandemic levels, though increasing slightly in 2025 from the projected low in 2024. Rate Study water demand is shown in Figure 3-1 and in Table 3-9.

Table 3-9
Short Term Water Consumption Forecasts (Annual ccf)

	Residential		General Service		Total	
	Consumption (CCF)	Percent Change	Consumption (CCF)	Percent Change	Consumption (CCF)	Percent Change
Actual						
2019	10,258,052		16,311,787		26,569,839	
2020	10,865,609	5.9%	14,363,941	-11.9%	25,229,550	-5.0%
2021	11,134,811	2.5%	14,943,725	4.0%	26,078,536	3.4%
2022	10,527,097	-5.5%	15,596,609	4.4%	26,123,706	0.2%
Projected						
2023*	10,245,000	-2.7%	16,312,000	4.6%	26,557,000	1.7%
2024	10,550,000	3.0%	15,600,000	-4.4%	26,150,000	-1.5%
2025	10,550,000	0.0%	16,000,000	2.6%	26,550,000	1.5%
2026	10,550,000	0.0%	16,000,000	0.0%	26,550,000	0.0%

* Projection in 2022-2023 rate study

When rates are set based on financial policies, demand changes impact rates by changing the customer base from which to collect the revenue requirement. In other words, for water rates, increases to consumption and water meters partially offset increases to revenue requirements. When revenue is set, higher demand means revenue increases can be spread over more units, lowering the average rate increase.

In this rate study, through external policy decisions, annual *rate increases* were targeted. So rather than demand changes affecting rates, demand changes affect revenue. In 2025, the second year of the rate study, volumes are projected to increase 1.5%. In a typical rate study this would allow the revenue requirement to be spread across more sales units and lower the per unit rate. In this rate study the 2.0 percent per unit increase was the target by policy. As a result, the projected volume increase will increase revenue because more units are subject to the policy-determined rate increase.

Water rates are made up of a fixed base service charge as well as a volume charge. Water consumption is the unit of demand for the volume charge while number of customers (measured by the number of meters) is the unit of demand for the base meter charge. When the number of meters increases, the customer base broadens. Residential meters are projected to increase 0.6 percent annually, and commercial meters are projected to increase by a smaller amount during the 2024-2026 rate period.

As mentioned above, these combined changes in consumption and meters are normally a portion of the difference between the increased revenue requirement and the average rate increase. That is still the case in this rate study; however, the effect is reversed. For this study, rate increases drive revenue instead of revenue requirements driving rates. For this table, the revenue is assumed to be targeted (as is typical) and the impact of demand is shown in **Table 3-10**.

Table 3-10
Effect of Demand on Rate Increase

	2023*	2024	Change	2025	Change	2026	Change
Total Consumption (thousand ccf)	26,557	26,150	(407)	26,550	400	26,550	0
Total Retail Meters	202,156	202,684	528	203,584	900	204,484	900
Effect on Rate Increase			1.2%		-1.4%		-0.2%

* 2023 assumptions used in the 2022-2023 rate study

3.6. Effect of Changes in the Utility Discount Program

Similar to demand, changes in customer participation in the UDP do not typically affect the Water Fund revenue target but do affect the rate increase. Increased participation in the program reduces revenues as more households are paying a discounted rate. The reduction in revenue must be made up through an increase in standard rates. Enrollment in the program has increased steadily since the mid-2010s, with a spike in 2020 due to the COVID-19 pandemic and subsequent economic disruption.

Like demand, in this rate study UDP participation impacts revenue rather than rates. In a typical rate study, standard rates are set to collect an amount higher than the revenue requirement to account for the UDP revenue reduction. To maintain collected revenue at the required level, the average rate reflects UDP participation. However, in this rate study external policy drives rate increases. The result is that changes in UDP don't affect rates, but instead change how much revenue SPU collects.

Table 3-11 presents the impact of UDP as if revenue was driven by financial policy (as is typical) rather than by external policy.

Table 3-11
Effect of Changes to Utility Discount Program on Rate Increase

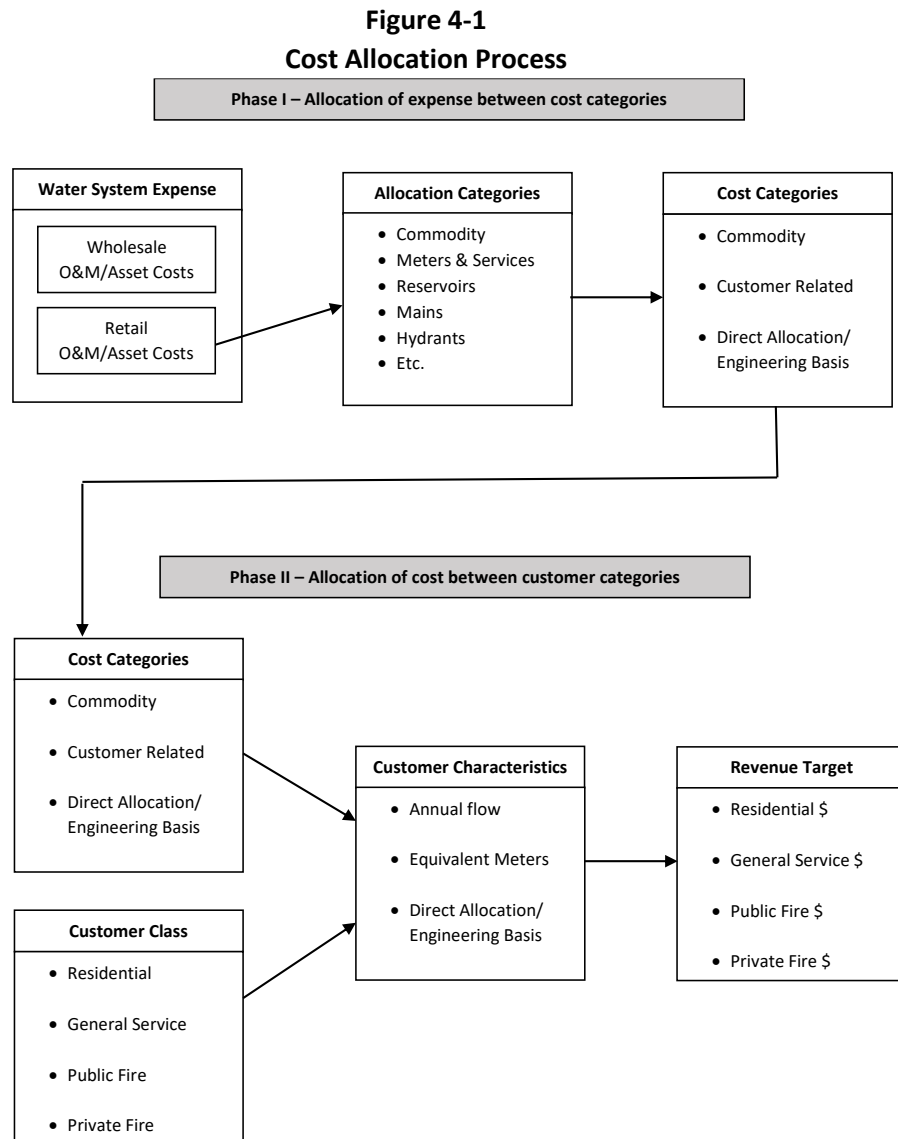
(\$1,000's)	2023*	2024	\$ Change	2025	\$ Change	2026	\$ Change
Total Discount	6,882	5,980	(902)	6,205	224	6,366	162
Effect on Rate Increase			-0.4%		0.1%		0.1%

* 2023 assumptions used in the 2022-2023 rate study

4. COST ALLOCATION

Note: The cost allocation was not updated for this rate study. The results of the previous cost allocation, using 2019 data for 2022-2023 rates, are still used for the 2024-2026 study. This was decided because the last year of audited financial data was 2021. SPU does not expect that 2021 costs and consumption will be predictive of future costs and consumption because of temporary disruptions related to the COVID-19 pandemic.

Once the **retail revenue target** is set, it must be assigned to different customer classes. A customer class is a group of customers that places a unique cost on the utility or is administratively easier to serve as a group. **Figure 4-1** presents the multiple steps (divided into two phases) required to allocate water expense to individual customer classes. In the first phase, the retail component of water system expense is allocated between cost categories, or groupings of cost items, that are driven by similar factors. In the second phase, the cost assigned to each cost category is allocated between customer classes based on defined customer characteristics.



The cost allocation process presented above recognizes differences in the costs of providing service to different types of customers. For example, a customer class with higher consumption requires increased use of the water treatment plants, whereas a customer class with more accounts requires increased use of the customer billing system.

This chapter provides a general framework for **Phase I** of the cost allocation process, with complete details provided in Appendix A. This chapter then focuses on **Phase II** of the cost allocation process, organized as follows:

- Overview - cost categories
- Framework for allocation of retail water expense between cost categories (Phase I)
- Identification of customer classes and quantification of cost allocation characteristics (Phase II)
- Calculation of total cost of service, or revenue target, for each customer class (Phase II)

The current rate study does not propose any fundamental changes to the cost allocation methodology used in prior rate studies. While the cost category of capacity was eliminated from the 2016-2017 rate study, the effect on final allocations is negligible. The change was made for two reasons:

- 1) Due to falling demand, the current system is oversized from a cost allocation standpoint so very few assets were allocated using the capacity allocator, and
- 2) The difference in peaking characteristics of residential and general service has diminished as demand has fallen, so the allocator does not provide much distinction between customer classes.

4.1. Overview – Cost Categories

Retail water system costs are grouped into three main cost categories which can be allocated among customer classes based on customer characteristics: commodity, customer-related, and directly assigned. The costs assigned to the first two categories are shared among different customer classes based on characteristics such as total annual water volume and number of accounts. Costs included in the directly assigned category are assigned in their entirety to the applicable customer classes.

Commodity Costs. Commodity costs vary proportionately with the amount of water provided under average consumption conditions. These costs include items such as the Cedar and Tolt treatment plants, and chlorination at in-town reservoirs. They also include the cost of activities and assets that are shared with wholesale customers since the allocation between wholesale and retail is based on annual flow.

Customer-Related Costs. Customer-related costs encompass an umbrella of expenses associated with serving customers independent of the amount of water they use. These include the cost of meter maintenance and repair, meter reading, billing, customer accounting, and the call center.

Directly Assigned Costs. These are costs that are directly allocable to a single customer class. For this rate study, directly assigned costs are primarily fire hydrant asset and repair costs.

4.2. Framework for Allocation of Retail Expense to Cost Categories (Phase I)

The cost allocation framework for retail water rates uses the distribution of embedded or average costs from a prior period (“test year”) to allocate future revenue targets between different cost categories. Therefore, the 2024-2026 retail water system revenue targets are assigned to customer classes based on the actual distribution of expense between those categories in 2019 (the test year). The test year expense is defined according to a “utility basis” which is the sum of the following elements:

- Annual operations and maintenance (O&M) costs;
- Depreciation expenses on assets paid for by rates; and
- A return on assets calculated on infrastructure in service.

Phase I of the cost allocation involves the distribution of prior year expense between cost categories, as further described in Appendix A, Sections A1.2 and A1.3. Additional information on the “utility-basis” costing framework can be found in Appendix A, Section A1.1 to this study.

Table 4-1 presents the breakdown of 2019 retail water system expense by cost component (see **Appendix A** for the detail behind this data). As noted below, over two-thirds of retail water system expense is driven by annual water flow (usage).

Table 4-1
Water Cost Category Summary

Component Cost Category	2019 Revenue	% of Total
Annual Flow	110,547,969	69.5%
Equivalent Meters	39,871,181	25.1%
Direct/Engineering Basis*	8,680,081	5.5%
Total	159,099,231	100.0%

*Public Fire

Note: Totals may not total due to rounding.

4.3. Retail Customer Classes and Characteristics (Phase II)

Retail water customers are divided into four customer classes.

- **Residential.** Customers living in single family or duplex residences.
- **General Service.** Commercial, governmental, and industrial customers as well as multi-family residential structures.
- **Private Fire.** The separately metered connections for fire-protection sprinkler systems installed on the customer’s property. These customers pay a separate rate for these services in addition to their General Service or Residential rates for their domestic services.
- **Public Fire.** The governmental agencies responsible for providing public fire protection (hydrants).

Costs are assigned to these customer classes based on how the characteristics of each class drive water system costs. **Table 4-2** summarizes the allocator (customer characteristics) used to assign cost to each component cost category.

Table 4-2
Allocators by Cost Category

Allocation Category	Customer Characteristics	Comments
Commodity Costs	Annual flow	Actual 2019 total water consumption in hundreds of cubic feet (ccf).
Customer-Related Costs	Equivalent Meters	Equivalent Meters is a weighted count of different sized meters by class (See Appendix A1.5 for calculation details).
Direct Assignment	Class specific expense assigned directly to applicable class	These are costs for activities or assets that are dedicated to one customer class only.

Table 4-3 quantifies the key characteristics (by class) that are used to allocate commodity and customer-related costs in the current rate study.

Table 4-3
Key Customer Characteristics

Customer Class	Annual Flow	Equivalent Meters
Residential	38.5%	73.3%
General Service	61.2%	21.8%
Private Fire	0.1%	4.9%
Public Fire	0.3%	0.0%
Total	100.0%	100.0%

Note: Totals may not total due to rounding. As shown in the table, the residential class accounts for the majority of equivalent meters while the general service class accounts for the majority of annual water usage. Although public fire water use is not directly measured, the annual flow used is consistent with the estimate used for state non-revenue water reporting.

4.4. Cost of Service and Revenue Target by Customer Class (Phase II)

The customer characteristic percentages in Table 4-3 are applied to the appropriate 2019 allocation categories in Table 4-1 to determine each customer class' actual 2019 cost of service. **Table 4-4** summarizes the results of this allocation process.

Table 4-4
Retail Water Cost of Service Based on 2019 Actual Financial Data

Customer Class	Annual Flow	Equivalent Meters	Direct/ Engineering Basis	Total	% of Total
Residential	42,530,308	29,215,916	-	71,746,224	45.1%
General Service	67,629,343	8,696,085	-	76,325,429	48.0%
Private Fire	80,703	1,959,180	-	2,039,883	1.3%
Public Fire	307,616	-	8,680,081	8,987,696	5.6%
Total	110,547,969	39,871,181	8,680,081	159,099,231	100.0%

Allocations to the general service and residential customer classes account for the bulk (93.1 percent) of the retail water cost of service. Public and private fire represents only about seven percent of the total. The general service class is allocated the largest single share (48.0 percent). This class accounts for 61.2 percent of annual flows, which is applied to the largest portion of the water system revenue target.

The rate revenue target for each rate class is calculated by applying each class' percent of total 2019 cost to the 2024-2026 retail rates revenue targets, with results as presented in **Table 4-5**.

Table 4-5
2024-2026 Retail Revenue Target By Customer Class

Customer Class	2024	2025	2026	Cost of Service Percentage
Residential	105,308,740	108,717,448	110,994,021	45.1%
General Service	112,017,084	115,642,932	118,064,527	48.0%
Private Fire	2,994,784	3,091,721	3,156,463	1.3%
Public Fire	13,194,851	13,621,951	13,907,198	5.7%
Total	233,515,458	241,074,052	246,122,210	100.0%

Calculations may not total due to rounding.

Table 4-6 illustrates the small changes for the 2024-2026 and 2022-2023 rate studies relative to the 2018-2020 rate study. See Appendix A for more information.

Table 4-6
Cost Shares by Customer Class

Customer Class	2018-2020 Rate Study	2022-2023 Rate Study	2024-2026 Rate Study
Residential	45.0%	45.1%	45.1%
General Service	47.9%	48.0%	48.0%
Private Fire	2.2%	1.3%	1.3%
Public Fire	5.0%	5.7%	5.7%
Total	100.0%	100.0%	100.0%

Calculations may not total due to rounding.

5. RATE DESIGN

Rate design is the last element of the rate study. Chapter 3 presented the amount of retail water revenue targeted to fund proposed 2024-2026 O&M and capital programs plus meeting other policy targets. Chapter 4 discussed the allocation of the revenue target between customer classes. This chapter identifies the rate structure and the proposed 2024-2026 rates, which will satisfy the retail revenue target and meet established rate design policy objectives.

The current rate study keeps the same rate structure as previous studies. However, some design practices are changed. In studies beginning in 2008, meter and commodity charges were the same for residential and general service customers. The 2022-2023 study broke that rate parity³, allowing meter and commodity rates for each class to move independently. For each customer class, meter and commodity rates increased at the same rate. In this study, meter and commodity rates continue to change independently between customer classes. A focus of this study is increasing fixed revenue by increasing meter rates more than commodity rates.

Continuing practice from previous rate studies, meter charges utilize the meter cost analysis from the 2009-2011 rate study in determining the differential (or progression) between charges for different size meters. No changes are proposed to some rates (larger meter charges), which are higher than their cost of service at current levels. Holding these rates constant rather than decreasing them somewhat mitigates the impact of the revenue target increase on the residential and general service commodity rate and provides rate stability.

The proposed rates increase the typical monthly residential bill by \$0.00 in 2024, \$1.00 in 2025, and \$1.05 in 2026. The total increase over the three-year period is \$2.05. Typical residential consumption has remained at 5.0 ccf per month in the 2024-2026 rate proposal. The exact increase in general service bills varies based on consumption and meter size. A typical convenience store would see increases of \$5.40, \$2.95, and \$3.05 per month for 2024, 2025, and 2026, respectively. Likewise, a typical 90-unit apartment building would see increases of \$55, \$27, and \$28 per month. Rates for public fire hydrants on larger mains increase 1.5 percent, 3.2 percent, and 2.1 percent in 2024, 2025, and 2026, respectively. Private fire meter rates and consumption rates do not increase in this rate study as current revenue meets revenue targets for the study period.

5.1. Rate Design Overview

A utility rate structure, or rate design, typically considers three elements: classification of customers served, billing frequency, and schedule of charges for each customer class. The schedule of charges, or “rates,” is designed to recover the utility’s costs, given projected customer demand⁴. In addition to cost recovery, a rate structure should support and optimize a blend of various utility objectives and should work as a public information tool in communicating these objectives to customers.

³ Rate parity began in 2008 when costs of service, consumption, and meter counts aligned to make it possible for rates to be equal between residential and general service classes.

⁴ Section 3.5 discusses projected customer demand and its influence on rates during the rate period.

5.1.1. Retail Water Rate Structure

Seattle’s retail water customers are grouped into four broad customer classifications: Residential, General Service, Private Fire (e.g., building sprinklers), and Public Fire (municipal hydrants). SPU has developed rate structures for each of these customer classes which reflect the classes’ cost of service structure, demand patterns, and policy objectives. A given rate class may be further divided into sub-classes. While the rate structure for each sub-class (under the same primary class) will be similar or identical, the actual rate assigned to each sub-class will vary based on actual differences in cost of service or historical contractual requirements. **Table 5-1** provides a summary of Seattle’s retail water rate classes, subclasses, and associated rate structures.

**Table 5-1
Retail Water Rate Structure Summary**

Class	Sub-class	Rate Structure
Residential	<ul style="list-style-type: none"> • In-City • Out-of-City • Shoreline Franchise • Lake Forest Park Franchise • Burien • Master-Metered Developments* 	<ul style="list-style-type: none"> • Base Service Charge (meter-size based) • Single Off-Peak Commodity Rate • Tiered Peak Commodity Rate • Low-Income Rates
General Service	<ul style="list-style-type: none"> • In-City • Out-of-City • Shoreline Franchise • Lake Forest Park Franchise • Burien • Mercer Island 	<ul style="list-style-type: none"> • Base Service Charge (meter-size based) • Single Off-Peak Commodity Rate • Single Peak Commodity Rate
Private Fire	<ul style="list-style-type: none"> • In-City • Out-of-City • Shoreline Franchise • Lake Forest Park Franchise 	<ul style="list-style-type: none"> • Base Service Charge (meter-size based) • Commodity Penalty Rate
Public Fire (hydrants)	<ul style="list-style-type: none"> • In-City/Out -of-City • Burien 	<ul style="list-style-type: none"> • Charge for 4-inch mains • Charge for larger mains

*For rate setting purposes, there are two kinds of Master Metered Residential Developments (MMRDs). MMRDs are eligible to be classified as water systems by the State of Washington. Customers that have achieved that designation, and pay State Public Utility Tax on their revenue, are eligible for a lower rate from SPU. SPU does not pay State Public Utility Tax on revenues from those customers. MMRDs that do not pay State Public Utility Tax are subject to regular rates.

Section 5.1.2 discusses the objectives that have been considered in the development of the rate structures outlined above. Sections 5.2 through 5.5 provide additional detail on the rate structures by customer class and subclass. **Appendix C** lists all 2024-2026 rate schedules by class and sub-class.

5.1.2. Rate Objectives

SPU staff, with input from past Rate Advisory Committees, have identified the following policy objectives for the retail water rate design:

- Provide financial soundness;
- Advance economic efficiency;
- Promote customer equity;
- Encourage customer conservation;
- Contribute to transparency and customer understanding; and
- Reduce impacts on low-income customers.

Some of these objectives imply different directions in rate design than others. An appropriate rate design must strike the best overall balance among conflicting objectives. The first objective of financial soundness is overriding and should be met by all rate designs considered. In this study, there was additional focus on providing soundness through rate design by increasing the amount of fixed revenue to the utility. The final objective of reducing impacts on low-income customers is partly met by a citywide program, in which SPU participates, to provide discounts to low-income and disabled customers. The remaining objectives are met to varying degrees by the individual rate structures, as further discussed in Sections 5.2 through 5.5.

5.2. Residential Rate Design

Residential accounts represent about 88 percent of total SPU retail water accounts. Residential customers are further broken into five subclasses: in-city customers, City of Shoreline/City of Lake Forest Park customers, Burien customers, other out-of-city customers, and master-metered customers. Low-income customers in any of these residential subclasses may qualify for a discount off their water utility bill. This section provides additional detail on the components of the residential rate design, the residential rate changes, residential rate subclasses and the UDP.

Under the proposed rates, a typical (median) single family residential bill will increase by **\$0.00** per month in 2024, **\$1.00** per month in 2025, and **\$1.05** per month in 2026 (given constant consumption). The impact for different residential customers can vary based on the amount of water used, as presented in **Table 5-2**.

Table 5-2
Monthly Residential Bills at Proposed Rates

Customer Type	Monthly Consumption		2023 Adopted	2024 Proposed	Change from 2023	2025 Proposed	Change from 2024	2026 Proposed	Change from 2025
Low Volume User (30th %tile)	Winter	2.9	\$36.30	\$36.30	\$0.00	\$37.24	\$0.94	\$38.23	\$0.99
	Summer	3.8	\$42.10	\$42.10	\$0.00	\$43.06	\$0.96	\$44.07	\$1.01
	Average	3.2	\$38.23	\$38.23	\$0.00	\$39.18	\$0.95	\$40.18	\$1.00
Median User (50th %tile)	Winter	4.7	\$46.67	\$46.67	\$0.00	\$47.66	\$0.99	\$48.70	\$1.04
	Summer	5.5	\$52.64	\$52.64	\$0.00	\$53.66	\$1.02	\$54.72	\$1.06
	Average	5.0	\$48.66	\$48.66	\$0.00	\$49.66	\$1.00	\$50.71	\$1.05
High Volume User	Winter	9.8	\$76.05	\$76.05	\$0.00	\$77.19	\$1.14	\$78.39	\$1.19
	Summer	13.4	\$110.69	\$110.69	\$0.00	\$112.02	\$1.34	\$113.33	\$1.30
	Average	11.0	\$87.59	\$87.59	\$0.00	\$88.80	\$1.21	\$90.03	\$1.23
Typical 3rd Tier User	Winter	6.7	\$58.19	\$58.19	\$0.00	\$59.24	\$1.05	\$60.34	\$1.10
	Summer	23.5	\$209.26	\$209.26	\$0.00	\$210.78	\$1.52	\$212.22	\$1.44
	Average	12.3	\$108.55	\$108.55	\$0.00	\$109.76	\$1.21	\$110.97	\$1.21

Calculations may not total due to rounding

Note: All bill impacts are for in-city customers and assume a ¾" meter.

5.2.1. Residential Rate Structure

Residential customers pay a fixed base service charge plus a commodity rate. The commodity rate is a single rate in the off-peak season (September 16 – May 15) and a three-tiered rate structure in the peak season (May 16 – September 15).

Base Service Charge

The base service charge is a fixed monthly fee which varies by water meter size. This charge is structured to reflect that some costs are not related to the volume of water used. The cost differential, or progression, between different meter sizes is based on 1) annualized costs, by meter size, for meter maintenance, testing, repair, replacement and service renewal; and 2) annual customer service costs. The progression used in this proposal is based on data from the 2009-2011 rate study.

Commodity Rate

Residential commodity rates are seasonal, with tiered peak (May 16 – September 15) rates and uniform off-peak (September 16 – May 15) rates. Peak season rates are higher than off-peak rates and tiered for residential customers to provide a disincentive for wasteful summer water usage.

Peak residential commodity rates consist of three tiers associated with differing usage volumes: 1) the lowest rate is charged on consumption up to five ccf/month; 2) the next 13 ccf/month (six to 18 ccf) is charged a higher rate; and 3) the highest rate is charged on consumption above 18 ccf/month. Historically, one out of 15 residential customers has some consumption at the third-tier level each year. In the past, the City implemented a third tier on a temporary basis to discourage water use under drought conditions. This tier became a permanent feature of the water rate structure in 2002 in

response to the legal requirement of initiative I-63⁵. This rate study holds constant third-tier rates through 2026.

5.2.2. Residential Increase

This study includes increases in residential commodity rates and meter base service charges. The residential rate schedule for inside city customers is presented in **Table 5-3**.

**Table 5-3
Proposed Residential Rates**

	2023 Rates	2024 Rates	2025 Rates	2026 Rates
<u>Commodity</u>				
Off-Peak (\$/ccf)	\$5.76	\$5.76	\$5.79	\$5.82
Peak (\$/ccf)				
Up to 5 ccf/mo	\$5.92	\$5.92	\$5.95	\$5.98
Next 13 ccf/mo	\$7.32	\$7.32	\$7.36	\$7.39
Above 18 ccf/mo	\$11.80	\$11.80	\$11.80	\$11.80
<u>Base Service Charge</u>				
3/4 inch	\$19.60	\$19.60	\$20.45	\$21.35
1 inch	\$20.20	\$20.20	\$21.10	\$22.00
1 1/2 inch	\$31.15	\$31.15	\$32.50	\$33.95
2 inch	\$34.50	\$34.50	\$36.00	\$37.60
3 inch	\$127.80	\$127.80	\$133.35	\$139.20
4 inch	\$183.05	\$183.05	\$191.00	\$199.00

Note: All rates above are in-city.

Residential meter charges are proposed to not increase in 2024, then increase 4.3 percent, and 4.4 percent, respectively, in 2025 and 2026.

Commodity rates are increasing at a slower pace than meter rates. Off-peak consumption rates are proposed to not increase in 2024, then increase 0.5 percent and 0.5 percent in 2025 and 2026, respectively. Peak rates are increasing similar percentages each year, with the exception that the third tier is not increasing in any year.

5.2.3. Residential Sub-Classes

The majority of Seattle Public Utilities' residential customers live within City limits (about 157,500 accounts). However, SPU also directly provides water service to about 10,750 residential customers in

⁵ In October 2001, the Mayor and City Council adopted City of Seattle Ordinance No. 120532, otherwise known as I-63 Settlement Ordinance (I-63 SO). This ordinance established various measures designed to promote water conservation, including the creation of the "Everyone Can Conserve" program to fund water conservation in low-income housing. This ordinance also established the requirement for a residential summer peak use third block to be charged on residents and businesses that use extraordinary amounts of water.

the City of Shoreline and City of Lake Forest Park, 1,700 residential customers in the City of Burien, and 3,100 residential customers residing in Unincorporated King County. Each of these residential customer groups, or sub-classes, pays a different rate due to differences in cost of service and/or historic agreements governing these relationships. In addition, master metered residential developments (MMRD) comprise another residential sub-class with its own distinct rates.

Outside City Residential Rates (except Shoreline, Lake Forest Park, and Burien)

SPU sets the base meter and commodity rates for SPU customers residing outside of Seattle City Limits at 14 percent greater than in-city rates. Certain characteristics of these areas increase the cost of service, including lower-density development and topography which limits the use of gravity fed systems. Both factors cause higher capital and operating costs (longer water mains, more pumping) per unit of water delivered. In addition, field crews, meter readers, inspectors, and other employees, along with vehicles and equipment, must travel farther to work on parts of the system that serve outside city customers.

Outside-City residential rates are found in **Appendix C**.

City of Shoreline/City of Lake Forest Park Residential Rates

SPU sets the base meter and commodity rates for SPU customers residing in Shoreline and Lake Forest Park approximately 21 percent⁶ higher than in-city rates. This rate surcharge is based on the 14 percent out-of-city surcharge (discussed above) plus an additional six percent to cover City of Shoreline and City of Lake Forest Park franchise fees.

The Cities of Shoreline and Lake Forest Park charge SPU franchise fees on the water service SPU provides within their boundaries. Each city's franchise fee is set at six percent of revenue. All the revenues from this franchise fee are paid to the City of Shoreline and City of Lake Forest Park, and neither Seattle nor any water customer outside Shoreline and Lake Forest Park receives a benefit from the associated revenues.

The Shoreline franchise fee was enacted in 1999. The Lake Forest Park franchise agreement has been in effect since November 2009.

Shoreline and Lake Forest Park residential rates are found in **Appendix C**.

City of Burien Residential Rates

In January 2021, the City of Burien began collecting an eight percent utility tax on all SPU revenue in Burien. As a result, SPU will set base meter and commodity rates for customers residing in Burien approximately 24 percent higher than in-city rates beginning in 2022. This rate surcharge is based on the 14 percent out-of-city surcharge (discussed above) plus an additional eight percent to cover City of Burien Utility Tax costs.

⁶ Franchise fees and revenue taxes are compounding by their nature. Because they are based on SPU revenue, SPU must increase charges more than the statutory rate to ensure after-tax/franchise fee charges are consistent. Ex: SPU charges \$10 for a service. A 10% revenue tax rate is applied. If SPU simply added 10% to the charge, the new price would be \$11. In that case revenue would be \$11, and the 10% revenue tax would be \$1.10. SPU would receive \$9.90 after payment of the tax. This is less than before the tax is applied. To account for this compounding effect, charges are increased slightly more than the statutory rate to equalize pre-tax and post-tax SPU receipts. In this example, the after-tax charge would be \$11.11. The 10% revenue tax would generate \$1.11, and SPU would receive \$10.00 after tax.

All revenues from this utility tax are paid to the City of Burien, and neither Seattle nor any water customer outside Burien receives a benefit from the associated revenue.

As stated earlier, the City of Burien began collecting tax revenue in 2021, before SPU incorporated the additional cost into rates. The tax was paid by all customers. To reimburse other SPU rate payers, Burien residential charges in 2023 incorporated an additional charge of \$0.55 per month for small meters and \$0.19 per ccf. The delay was incorporated to not exacerbate increases already imposed by the new tax in 2022. The additional charges are removed from proposed Burien rates beginning in 2024. The net result of removing these additional charges is Burien residential rates will decline in 2024.

Burien residential rates are found in **Appendix C**.

Master-Metered Residential Development Rates

Master-Metered Residential Development (MMRD) rates apply to residential developments with master meters of one and a half-inch or larger which operate and maintain their own distribution systems on private property. The water service to these developments primarily serves single-family detached residences on at least two separate legal parcels.

A separate rate structure was established for MMRD customers in 1995, with residential rates applying in the peak season and an escalated general service rate applying in the off-peak season. This rate structure recognizes the fact that MMRDs, although considered general service habitations, experience peak irrigation demands similar to those of residential customers. At present, all MMRD customers reside in Shoreline and pay Shoreline residential rates.

Certain Master-Metered Residential Developments are eligible to classify as water systems by the State of Washington. Those that have achieved that designation and pay State Public Utility Tax on their revenue are eligible for a lower rate from SPU. SPU does not pay State Public Utility Tax on revenues from those customers.

MMRD rates are found in **Appendix C**.

5.2.4. Utility Discount Program

The City assists qualified low-income customers with their water bills by providing a 50 percent credit on their utility bills, one of the most generous assistance policies in the nation. Income guidelines vary based on the number of people in the household, monthly income, and annual income. Income limits are updated every January and are based on 70 percent of the state median income. To ensure utilization by eligible residents, Seattle Housing Authority auto-enrolls its eligible customers in SPU's discount program.

Currently, about 30,000 water customers receive a utility discount. About one-third of these low-income assistance customers receive their credit on their SPU combined utility bill while the other two-thirds receives a credit through their Seattle City Light bill. For customers billed by SPU, the discount cuts their water bill in half. The City Light bill is used as the credit mechanism for customers who do not directly receive an SPU bill, such as customers living in apartment complexes, who typically receive a City Light bill but have utility costs for water, sewer and solid waste included in their rent. These customers receive a fixed dollar credit via their Seattle City Light bill, which approximates the 50 percent discount.

Table 5-4 presents the discounts for 2023, 2024, 2025, and 2026.

Table 5-4
Rate Assistance Discounts

Customer-type	Adopted 2023	Proposed 2024	Proposed 2025	Proposed 2026
SPU-billed customers	50% Discount	50% Discount	50% Discount	50% Discount
Non-SPU-billed customers				
Single-family (Residential)	\$24.33/month	\$24.33/month	\$24.83/month	\$25.36/month
Multi-family (Gen. Serv.)	\$13.25/month	\$13.73/month	\$13.96/month	\$14.19/month

5.3. General Service Rate Design

General service accounts represent about 11 percent of total SPU retail water accounts. General Service customers are also broken into five subclasses: in-city customers, Shoreline/Lake Forest Park customers, Burien customers, Mercer Island customers, and other outside-City customers. This section provides additional detail on the components of the general service rate design, the general service rate increase and general service rate subclasses.

The proposed rates will affect general service customer bills to varying degrees depending on the volume of water used. **Table 5-5** presents projected bill impacts for a sampling of general service customer types.

Table 5-5
Monthly General Service Bills at Proposed Rates

Customer Type	Monthly Consumption	2023 Adopted	2024 Proposed	Change from 2023	2025 Proposed	Change from 2024	2026 Proposed	Change from 2025	
Convenience Store (1" meter)	Winter	15.0	\$105.95	\$111.10	\$5.15	\$113.95	\$2.85	\$116.90	\$2.95
	Summer	15.0	\$129.20	\$135.10	\$5.90	\$138.25	\$3.15	\$141.50	\$3.25
	Average	15.0	\$113.70	\$119.10	\$5.40	\$122.05	\$2.95	\$125.10	\$3.05
Small Office Building (2" meter)	Winter	49.9	\$320	\$333	\$13	\$340	\$7	\$347	\$7
	Summer	56.8	\$448	\$465	\$17	\$473	\$9	\$482	\$9
	Average	52.2	\$362	\$377	\$14	\$384	\$7	\$392	\$8
Apartment Bldg (90 units) (3" meter)	Winter	168	\$1,090	\$1,136	\$46	\$1,159	\$23	\$1,184	\$24
	Summer	247	\$1,925	\$1,997	\$72	\$2,032	\$35	\$2,068	\$36
	Average	195	\$1,368	\$1,423	\$55	\$1,450	\$27	\$1,478	\$28
Medium Hotel (6" meter)	Winter	1,180	\$6,977	\$7,216	\$239	\$7,329	\$112	\$7,443	\$114
	Summer	1,559	\$11,558	\$11,944	\$386	\$12,117	\$174	\$12,293	\$176
	Average	1,307	\$8,504	\$8,792	\$288	\$8,925	\$133	\$9,060	\$135
Large Industrial (8" meter)	Winter	3,785	\$21,914	\$22,628	\$713	\$22,952	\$325	\$23,278	\$326
	Summer	2,410	\$17,785	\$18,371	\$586	\$18,634	\$263	\$18,898	\$264
	Average	3,327	\$20,538	\$21,209	\$671	\$21,513	\$304	\$21,818	\$305

Calculations may not total due to rounding

Note: All bill impacts are for in-city customers.

5.3.1. General Service Rate Structure

The general service rate structure is nearly identical to that for residential customers with a base service charge that varies by meter size and peak and off-peak commodity rates. In general, the discussion in Section 5.2.1 on these two rate components is applicable to general service rates.

The primary difference between the two rate structures is that general service customers do not have tiered peak rates⁷; all peak consumption is charged at a single rate. In addition, the general service base service charge progression includes several larger meter rates which are not applicable to residential customers.

5.3.2. General Service Increase

This rate study proposes increases in general service commodity and base service charges. Inside city general service rates are shown in **Table 5-6**:

⁷ The residential first tier peak rate is intended as a “lifeline” rate and as such does not apply to general service. The third-tier peak rate is intended to capture “excessive” or “wasteful” water consumption. Because each general service customer has a different level of consumption, SPU would not be able to set a threshold amount above which consumption is considered excessive.

**Table 5-6
Proposed General Service Rates**

	2023 Rates	2024 Rates	2025 Rates	2026 Rates
<u>Commodity</u>				
Off-Peak (\$/ccf)	\$5.72	\$5.90	\$5.98	\$6.06
Peak (\$/ccf)	\$7.27	\$7.50	\$7.60	\$7.70
<u>Base Service Charge</u>				
3/4 inch	\$19.55	\$21.90	\$23.50	\$25.20
1 inch	\$20.15	\$22.60	\$24.25	\$26.00
1 1/2 inch	\$31.10	\$34.80	\$37.35	\$40.05
2 inch	\$34.40	\$38.55	\$41.40	\$44.35
3 inch	\$127.45	\$143.00	\$153.00	\$164.00
4 inch	\$182.60	\$205.00	\$219.00	\$235.00
6 inch	\$225.00	\$252.00	\$270.00	\$290.00
8 inch	\$264.00	\$296.00	\$318.00	\$341.00
10 inch	\$323.00	\$362.00	\$389.00	\$417.00
12 inch	\$436.00	\$489.00	\$525.00	\$562.00
16 inch	\$490.00	\$549.00	\$589.00	\$631.00
20 inch	\$614.00	\$627.00	\$672.00	\$721.00
24 inch	\$771.00	\$771.00	\$771.00	\$819.00

Note: All rates above are in-city.

5.3.3. General Service Sub-Classes

As with residential accounts, most Seattle Public Utilities general service customers are located within City limits (about 21,500 accounts). In addition, SPU directly provides water service to 600 general service customers in the City of Shoreline and City of Lake Forest Park, 35 general service customers in Burien, one general service customer in Mercer Island, and 370 other general service customers outside of City boundaries. Similar to residential accounts, Shoreline and Lake Forest Park general service customers pay a 21 percent surcharge over the in-city general service meter and commodity rates, Burien customers pay a 24 percent surcharge, and other outside-City customers pay a 14 percent surcharge. For further details, see Section 5.2.3.

City of Mercer Island Rates

SPU sets the base service and commodity rates for one Mercer Island general service customer approximately 20 percent higher than in-city rates. This rate surcharge is based on the 14 percent out-of-city surcharge (discussed in Section 5.2.3) plus an additional 5.3 percent to cover City of Mercer Island utility taxes.

All revenues from this utility tax are paid to the City of Mercer Island, and neither Seattle nor any water customer outside of Mercer Island receives a benefit from the associated revenue.

5.4. Private Fire Rate Design

Private fire rates are charged for water service to fire sprinkler systems located on a customer’s property. Private fire service customers pay a **flat monthly meter base charge** which varies with meter size. This base fee includes an allowance for water consumption for testing and pump cooling. The monthly allowance is five ccf for meters up to six inches and 10 ccf for meters eight inches and larger. A **penalty charge** (\$20.00/ccf) is assessed on non-fire related consumption in excess of the allowed amounts.

Fire service rates are not proposed to change in this study as current revenue is enough to meet the revenue target for the class. Fire service rates for inside city customers are presented in **Table 5-7** below.

Table 5-7
Proposed Private Fire Rates

	2023	2024	2025	2026
	Rates	Rates	Rates	Rates
Commodity				
Penalty Charge (\$/ccf)	\$20.00	\$20.00	\$20.00	\$20.00
Base Service Charge				
2 inch and smaller	\$17.75	\$17.75	\$17.75	\$17.75
3 inch	\$17.75	\$17.75	\$17.75	\$17.75
4 inch	\$17.75	\$17.75	\$17.75	\$17.75
6 inch	\$17.75	\$17.75	\$17.75	\$17.75
8 inch	\$23.00	\$23.00	\$23.00	\$23.00
10 inch	\$43.00	\$43.00	\$43.00	\$43.00
12 inch	\$73.00	\$73.00	\$73.00	\$73.00

Note: All rates above are in-city.

Private fire service rate schedules by subclass are found in **Appendix C** of this study.

Like other retail customers, Shoreline and Lake Forest Park private fire customers pay a 21 percent differential over the in-city private fire rates, Burien customers pay a 24 percent surcharge, and other outside-city customers pay a 14 percent differential. For further details, see Section 5.2.3.

5.5. Public Fire Rate Design (Hydrants)

Fire hydrants provide water used by public fire departments to fight fires. Most fire hydrants owned by SPU are located within the City of Seattle. The majority of other hydrants are in retail service areas just north or south of the city limits. In order to more closely associate the cost of providing water for firefighting with the customers that use this water, SPU directly charges local governments an annual fee for public fire service. Charging local governments for the public fire service within their jurisdiction ensures that this portion of revenue target is not borne by Seattle’s retail customers.

5.5.1. Rate Structure

Public fire customers are charged **a flat annual fee** which varies based on the size of main attached to the hydrant and jurisdiction where located. SPU has established two different flat rates for fire service to reflect both service level and cost differences between four-inch and larger mains⁸. Four-inch mains provide substantially lower fire flows than larger mains. In addition, four-inch mains, while sufficient for domestic service, generally do not meet current state installation standards for mains supporting hydrants. Consequently, all of the cost of over-sizing water mains to provide fire flow, about half of total hydrant service cost, is assigned to larger mains. The remaining costs are shared between two rates based on the number of units, or hydrants. Hydrants connected to larger mains currently account for about 99 percent of all units within the SPU service area. Hydrants in Burien are charged a higher fee to recover the cost of utility taxes in the city.

5.5.2. Public Fire Rate Increase

This study proposes increases in each year of the rate study. The rate increase for large-main hydrants is greater than the increase for the 4-inch main rate in 2024. The rates increase evenly in 2025 and 2026. **Table 5-8** presents the calculation for proposed 2024, 2025, and 2026 public fire rates.

All public fire hydrants within the SPU retail service area are used to calculate and set hydrant rates. However, due to indemnification language in their franchise agreements, SPU does not charge King County, Shoreline, and Lake Forest Park for hydrant service. Per *Lane v Seattle*, the costs of providing, maintaining, and operating these hydrants are considered a “cost of doing business” in these areas.

**Table 5-8
Calculation of Proposed Public Fire Rates**

	2023*		2024		2025		2026	
	4-Inch	Larger Mains	4-Inch	Larger Mains	4-Inch	Larger Mains	4-Inch	Larger Mains
Revenue Requirement	\$108,513	\$12,926,850	\$110,387	\$13,084,464	\$113,960	\$13,507,991	\$116,346	\$13,790,852
Meter Count	208	18,613	209	18,609	209	18,609	209	18,609
Meter Rate	\$521.70	\$694.51	\$528.17	\$703.13	\$545.26	\$725.88	\$556.68	\$741.09

* 2023 assumptions used in the 2022-2023 rate study

Note: All rates above are in-city.

Table 5-9 presents projected annual bills for public fire customers at proposed rates.

**Table 5-9
Annual Public Fire Bills at Proposed Rates**

	Hydrant Count			2023*	2024	2025	2026
	4-Inch Mains	Larger Mains	Total	Bill	Bill	Bill	Bill
Seattle	118	17,189	17,307	\$12,012,801	\$12,148,349	\$12,541,576	\$12,804,200
Burien	40	122	162	\$115,347	\$116,204	\$119,966	\$122,478

* 2023 assumptions used in the 2022-2023 rate study

⁸ State requirements for hydrant service have become progressively more stringent over the last century. Four-inch mains were considered sufficient to provide fire flows when originally installed. Now, a minimum of six inches is required. Most areas with both domestic and fire flow demands require a minimum of eight-inch mains.

APPENDIX A: COST ALLOCATION DETAILS

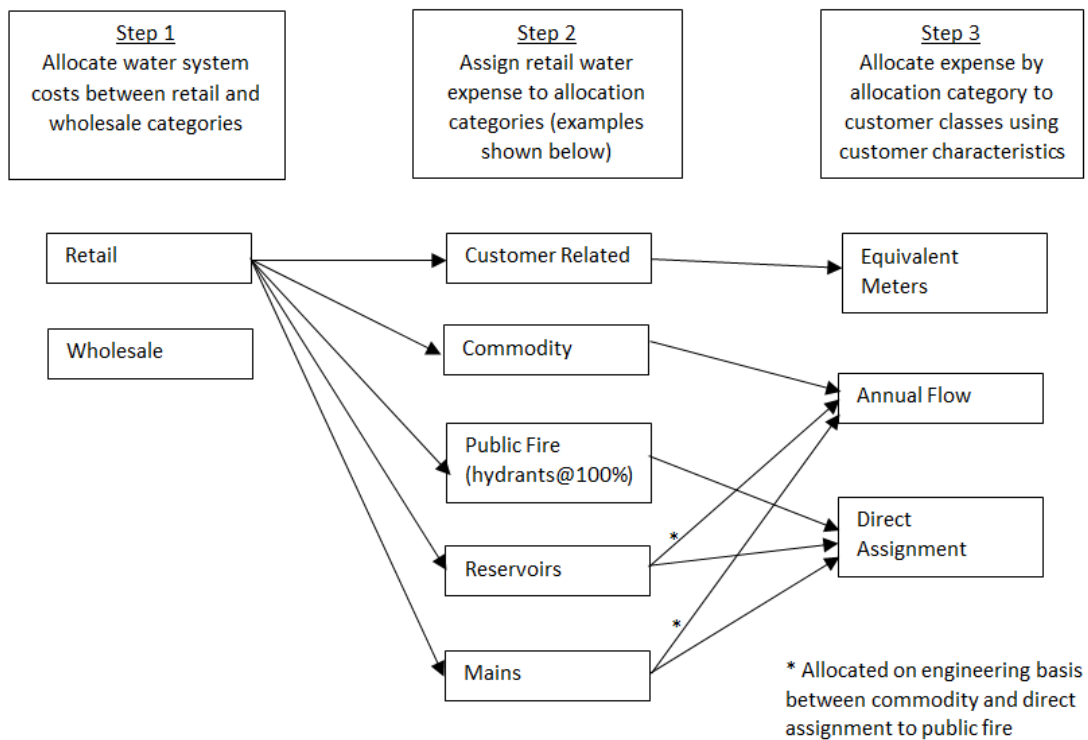
Chapter 4 contained an overview of how the 2024-2026 water revenue targets were allocated to each cost category. This Appendix provides the detail behind those allocations.

SPU uses embedded, or historical cost of service from a test year (2019 for this rate study), to determine the percentage of revenue to be assigned to each customer class in the rate-setting period. The costs from the test year are broken into service-based allocation categories that are then allocated to cost categories based on defined customer characteristics. The resulting percentages from the test year are then applied to the 2024-2026 revenue targets.

Three steps are required to determine the revenue split between test year cost component categories:

1. Allocation of water system expense into retail and wholesale buckets.
2. Allocation of retail water expense between different allocation categories.
3. Allocation of the cost assigned to each allocation category between cost categories.

Figure A1-1
Assignment of Water System Expense to Cost Component Categories
Allocation Steps



Prior to launching into the details of the separate steps, however, it is important to provide some context.

A1.1. Cost Allocation Context

The test year cost of service is calculated using a utility-based cost method whereby test year revenue (or total cost) is the sum of three components: O&M expense, depreciation expense, and a return on plant in service. The cost allocation steps described in Sections A1.2 through A1.4 are applied separately to each of the three cost components. Below is a description of each of these components within the context of the current rate study.

O&M. Total O&M spending is equal to O&M presented in the test year (2019) Water Fund audited financial statements, excluding debt service, depreciation, and certain accrued expenses.

Depreciation (use of capital assets). Total depreciation is equal to the amount presented in the 2019 Water Fund audited financial statements, excluding depreciation on contributed assets (those assets, such as water meters, whose installation was paid for directly by individual customers).

Return on Assets. This is the result of applying an “interest rate” (rate-of-return or ROR) to the net book value of plant in service. Plant in service is equal to the amount presented in the 2019 audited financial statements, excluding contributed assets. Two rates of return are used in this cost allocation. “Regional” assets (assets that are shared with the wholesale customers and whose costs are allocated to wholesale – primarily watersheds and transmission assets) use the rate-of-return as defined in the wholesale contracts (5.9 percent in 2019). The rate-of-return on retail assets (i.e., everything that is not regional) is adjusted so that the total rate-of-return is equal to the difference between the adjusted retail service revenue⁹ and the sum of O&M and depreciation in the test year. Therefore,

$$\begin{aligned} & \text{(Retail portion of Regional Assets*Regional ROR)} \\ & + \text{(Retail assets*Retail ROR)} \\ & + \text{Retail portion of Depreciation} \\ & + \text{Retail portion of O\&M} \\ & = \text{Adjusted Retail Revenue} \end{aligned}$$

where all values are for the 2019 test year.

The rate-of-return on only retail assets for 2019 is 4.5 percent.

A1.2. Step One: Water System Expense Allocation

The first step is to allocate test year expenses between wholesale and retail. This is similar to the split that is done to determine the wholesale revenue requirement for each year of the rate study.

Both wholesale customers (suburban municipalities and water districts) and Seattle’s direct service retail customers share the cost of the “regional” portion of Seattle’s water system, including facilities such as the watersheds and transmission pipelines. In addition, the system includes certain “subregional” assets, such as the West Seattle and Des Moines pipelines, which serve both Seattle retail customers and wholesale customers in the applicable subregions.

⁹ Industry standards allow for adjustments to test periods for known and quantifiable changes. Revenue in 2019, the test year, was significantly above the level necessary to meet all financial policies. The adjustment to 2019 revenue, \$22.5 million, reduced revenue to the level that just met all financial policy targets.

This step begins by assigning O&M and asset costs (depreciation and return on plant) to regional, subregional, and retail buckets. The regional O&M costs are then “grossed up” using various multipliers specified in the contracts to reimburse the Water Fund for additional general and administrative overhead costs not directly included in the regional bucket. The mechanics of this are similar to the G&A allocation used for CIP, including the need to create a corresponding regional credit to avoid counting expenses twice.

The resulting regional costs, subregional costs, and regional credit are then split by annual flows (as per contracts) between wholesale and retail customers. For 2019, 52 percent of regional costs went to wholesale and 48 percent to retail. The 2019 split of all subregional costs was 14 percent to wholesale and 86 percent to retail. The portion of the regional credit that retail receives is the amount it would pay under the contracts as a wholesale customer, so it is 48 percent.

Table A1-1 presents Seattle’s share of combined O&M, depreciation, and return on asset expense in the 2019 test year.

Table A1-1
Seattle’s Share of Water System Utility-based Expense (2019)

	System Expense		Retail Share
Regional Expense	87,748,518	48.3%	42,351,959
Regional Credit	(14,306,789)	48.3%	(6,905,194)
Sub-regional Expense	3,899,719	85.9%	3,349,335
Retail Expense	120,303,131	100.0%	120,303,131
Total	197,644,578		159,099,231

A1.3. Step Two: Allocation of Retail Expense to Allocation Categories

In Step Two, the retail share of each O&M activity and water asset (for depreciation and return on plant allocation) during the test year is assigned to one of seven allocation categories. This is an intermediate step which groups assets and services to then be allocated using customer characteristics (described in section A1.4). **Table A1-2** presents the distribution of actual 2019 retail expense between the various allocation categories.

**Table A1-2
2019 Retail Water Expense by Allocation Category**

Allocation Categories	O&M	Depreciation	Return on Plant	Total Retail Expense
Commodity	27,550,658	13,003,490	18,070,447	58,624,595
Accounts	9,669,608	8,761,919	7,024,165	25,455,692
Public Fire	1,717,601	125,729	202,225	2,045,555
Reservoirs	1,436,660	2,328,583	3,899,114	7,664,357
Mains	3,570,688	1,571,684	3,730,524	8,872,896
Asset Composite	18,111,364	-	-	18,111,364
Overall Composite	25,796,664	5,923,666	6,604,443	38,324,772
Total	87,853,242	31,715,071	39,530,918	159,099,231

A1.4. Step Three: Allocation of Expense by Allocation Category to Cost Component Categories

In Step Three, each allocation category from Step Two is distributed between the cost component categories. Some of these are fairly straightforward (e.g., commodity is allocated by annual flow) and some are a little more complicated. The details of each assignment follow in **Table A1-3**.

**Table A1-3
Allocation Factors for Assignment of Retail Expense
To Cost Component Categories**

Allocation Categories	Annual Flow	Equivalent Meters	Direct/ Engineering Basis
Commodity	100.0%		
Accounts		100.0%	
Public Fire			100.0%
Reservoirs	99.7%		0.3%
Mains	58.3%		41.7%
Asset Composite	68.9%	26.6%	4.5%
Overall Composite	69.5%	25.1%	5.5%

Commodity. This category is primarily made up of the regional and subregional costs identified in Step One. These costs are assigned to the commodity category because annual flow is what determines the split of costs between wholesale and retail customers.

Accounts. This category contains costs such as service replacements and meter testing and repair, which vary by meter size. It also includes customer related expenses which do not vary significantly with water usage or meter size, such as the Water Fund’s share of the CCB billing system, communication equipment (Interactive Voice Response) and other IT investments. Costs are allocated using a factor called “equivalent meters” that assigns a higher weight to larger meters. Additional details on equivalent meters are in Section A1.5.

Public Fire. These categories include expenses which are directly attributable to public fire service, such as hydrant repair and flow testing.

Reservoirs. Reservoirs provide a source of water during fires as well as water for domestic purposes.

Their cost is allocated to these uses based on an engineering analysis of the proportion of capacity devoted to each use. Further information on this allocator is in Section A1.6.

Mains. Watermains are sized to meet fire flow requirements and domestic demands for water. The cost for this allocation category is split between public fire and annual flow categories based on the proportional share of total installed main cost attributed to fire uses and to domestic uses. Section A1.7 contains a detailed description of this calculation.

Asset Composite. This category includes items that support the Water Fund’s asset base, such as Maximo and the stage gate process. The allocation among customer characteristics is the average allocation of all previously assigned asset costs.

Overall Composite. This category includes costs that support the overall Water Fund, such as Finance and the General Manager/CEO’s Office. The allocation among customer characteristics is the average allocation of all costs.

The application of the allocation factors identified in Table A1-2 to the test year (2019) expense by allocation category in Table A1-3 gives us the distribution of actual test year costs between cost component categories, as presented in **Table A1-4** below.

Table A1-4
Retail Component Cost Allocation
2019 Cost of Service (O&M + Depreciation + Rate-of-Return)

Allocation Categories	Total Retail Expense	Annual Flow	Equivalent Meters	Direct/ Engineering Basis
Commodity	58,624,595	58,624,595		
Accounts	25,455,692		25,455,692	
Public Fire	2,045,555			2,045,555
Reservoirs	7,664,357	7,641,364		22,993
Mains	8,872,896	5,175,770		3,697,127
Asset Composite	18,111,364	12,476,787	4,811,081	823,496
Overall Composite	38,324,772	26,629,454	9,604,408	2,090,910
Total	159,099,231	110,547,969	39,871,181	8,680,081

These costs are then divided among customer classes based on the characteristics of each customer class. This step is discussed in detail in Sections 4.1 and 4.2.

A1.5. Calculation of Equivalent Meters Allocator

Section 4.3 in Chapter 4 discusses the use of the equivalent meters allocator to assign certain customer-service related expenses between customer classes.

For customer related expenses, a hybrid allocator was used to reflect that some costs vary with meter size (e.g., meter repair), and some do not (e.g., customer billing). The first step was to calculate the percentage of meters by customer class, with private fire discounted 50% to reflect that these meters are typically secondary meters on a domestic account.

Table A1-5

Step 1 of Equivalent Meters Calculation - Meters by Customer Class

	0.75	1	1.5	2	3	4	6	8	10	12	16	20	24	Total	Percentage
Residential	150,313	17,822	1,413	515	1	1	1	1	-	-	-	-	-	170,067	87%
General Service	6,648	5,080	3,765	4,925	477	1,079	400	133	34	9	-	2	-	22,552	12%
Private Fire @50%	466	1	4	301	11	753	618	329	12	3	-	-	-	2,497	1%
Total	157,427	22,903	5,182	5,741	489	1,833	1,019	463	46	12	-	2	-	195,116	100%

Step two is to calculate the percentage of meters per customer class after weighting the meter counts using standard American Water Works Association (AWWA) meter progression ratios by meter size. Similar to step one, the private fire ratios were discounted 75% to reflect that these meters are typically secondary meters on a domestic account and typically use very little water.

Table A1-6

Step 2 of Equivalent Meters Calculation – Weighted Meter Counts by Customer Class

	0.75	1	1.5	2	3	4	6	8	10	12	16	20	24	Total
Residential Count	150,313	17,822	1,413	515	1	1	1	1	-	-	-	-	-	
Weighting Factor	1.0	1.7	3.3	5.3	10.0	16.7	33.3	53.3	76.7	143.3	250.0	325.0	420.0	
Residential Weighted Count	150,313	30,297	4,663	2,730	10	17	33	53	-	-	-	-	-	188,116
General Service Count	6,648	5,080	3,765	4,925	477	1,079	400	133	34	9	-	2	-	
Weighting Factor	1.0	1.7	3.3	5.3	10.0	16.7	33.3	53.3	76.7	143.3	250.0	325.0	420.0	
Gen Svc Weighted Count	6,648	8,636	12,425	26,103	4,770	18,019	13,320	7,089	2,608	1,290	-	650	-	101,557
Private Fire Count	932	2	8	602	21	1,506	1,236	658	24	5	-	-	-	
Weighting Factor @25%	0.3	0.4	0.8	1.3	2.5	4.2	8.3	13.3	19.2	35.8	62.5	81.3	105.0	
Private Fire Weighted Count	233	1	7	798	53	6,288	10,290	8,768	460	179	-	-	-	27,075

Table A1-7

Step 2 of Equivalent Meters Calculation – Weighted Meter Percentages

	Total	Percentage
Residential Weighted Count	188,116	59.4%
Gen Svc Weighted Count	101,557	32.1%
Private Fire Weighted Count	27,075	8.5%
Total	316,748	100%

The last step is to average the results of step one and step two. The hybrid allocator produced is used to allocate customer related expenses between customer classes.

Table A1-8

Equivalent Meters Allocation Percentage Basis

	Allocation on Meter Count Basis	Allocation on Weighted Basis	Hybrid Allocation
Residential	87.7%	59.4%	73.6%
General Service	11.6%	32.1%	21.8%
Private Fire	0.6%	8.5%	4.6%

A1.6. Allocation of Reservoirs to Public Fire

The allocation of reservoirs to public fire was updated for the previous rate study since the reservoir covering projects are nearly complete. (Note that for the rate study, “reservoirs” includes reservoirs, tanks, and standpipes.) From an allocation perspective, there are two types of reservoirs: regional/subregional reservoirs whose costs are shared with wholesale customers and those that are retail only. As discussed in Section 4, the retail portions of regional and subregional assets are considered commodity assets since the wholesale/retail split is determined by consumption. In other words, if a particular retail customer class uses more water, they will cause a higher portion of costs to be allocated to retail customers. Therefore, costs are caused by commodity regardless of the nature of the underlying asset.

For retail only reservoirs, detailed reservoir sizing is used to develop an overall allocation between public fire and commodity. For most reservoirs there is no dedicated fire storage, since water is available to the reservoir under gravity flow. It is only reservoirs that rely on pumped water for refill that have a dedicated amount of storage for public fire. That amount of dedicated storage is determined as 8,000 gpm for 15 minutes (equal to 0.12 MG), which is the response time needed to restore water flow to each of the non-gravity supplied reservoirs by remote start of a diesel pump or by activating a turbine driven pump. **Table A1-9** is based on reservoir data from SPU’s 2013 Water System Plan.

**Table A1-9
Reservoir Capacities**

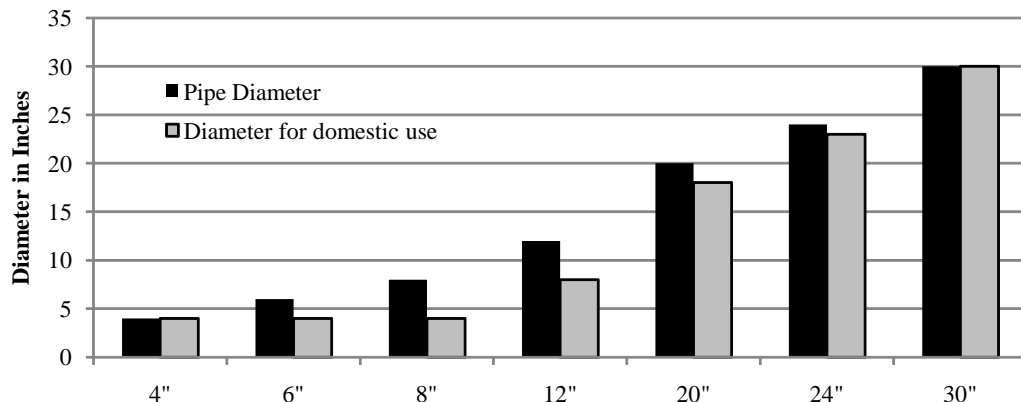
Millions of Gallons (MG)	Capacity	Storage Required
Retail Reservoirs		
Bitter Lake	21.30	N/A
Beacon	50.00	N/A
Lincoln	12.70	N/A
Magnolia	5.50	0.12
Myrtle	5.00	0.12
View Ridge	2.50	N/A
Roosevelt	50.30	N/A
Volunteer	20.50	N/A
Retail Tanks		
Charlestown	1.30	0.12
Queen Anne	1.90	0.12
North Trenton	1.20	N/A
South Trenton	1.20	N/A
Volunteer Park	0.90	0.12
Magnolia Bluff	1.00	N/A
Total	175.30	0.60
Percentage allocated to Public Fire		0.3%

A1.7. Calculation of Watermains Allocator

Watermains are sized to meet fire flow requirements and domestic demands for water. In sizing the watermain, the pipe must have sufficient capacity to meet two separate criteria: (i) peak hour domestic demand and (ii) peak day domestic demand + fire flow requirements. For medium and small-size pipes (8 inch diameter or less) the second criteria will be the binding constraint. For larger size pipe (i.e., pipes that are serving very large areas or areas with very dense developments), the first criteria (peak hour demand) will be the binding constraint.

The most common size pipe in Seattle’s system is, by far, an 8 inch diameter pipe. In areas served by 8 inch mains, domestic peak hour flows, i.e., the first criteria, can typically be met with 4 inch mains. The oversizing from 4 inch to 8 inch is needed to meet the second criteria. Taking into account that hydraulic capacity grows exponentially with the diameter of the pipe, this means about 25 percent of the 8 inch pipe is serving domestic flows and 75 percent is providing fire protection. Pipes smaller than 8 inch were installed on the system when the fire flow requirements were lower than they are today. For this allocation exercise, the cost of 4 inch mains were assigned to domestic service and the increased size of 6 inch mains were assigned to public fire protection. For pipes larger than 8 inch, the share of capacity needed for fire flows shrinks until we reach pipes with diameters of 30 inches or more. The graph below shows the relationship between pipe size and fire flow requirements expressed in diameters.

Figure A1-2
Actual Pipe Diameters Versus Diameter Required for Domestic Use



Pipe Diameter	4	6	8	12	20	24	30
Diameter for domestic use	4	4	4	8	18	23	30
Capacity for domestic use	100%	44%	25%	44%	81%	92%	100%

The cost of watermains is split between fire protection and domestic uses based on each group’s proportionate share of total watermain asset value. The calculation of this asset value takes into account the shares of hydraulic capacity discussed above. The steps to determining the appropriate allocation for watermain assets are as follows:

1. Estimate net book value by pipe size for all the mains in the system. SPU financial systems track net book value for total water mains, but not by pipe size. For the purposes of this allocation, net book value by pipe size is estimated by applying estimated accumulated depreciation to estimated replacement cost by pipe size. An adjustment factor is then applied in order to adjust

each pipe size so that the total estimated net book value equals actual total watermain net book value as of 12/31/19. Estimated replacement cost by pipe size is determined as follows:

$$\text{Estimated Replacement Cost} = (\$/\text{LF}_d) \times (\text{LF}_d)$$

Where $\$/\text{LF}_d$ = the replacement cost per lineal feet of a pipe of diameter 'd,' and
 LF_d = the number of lineal feet in the system of pipe of diameter 'd' as of 2019.

Using cost indices by year installed, the replacement cost net book value is converted to an estimated original net book value by year installed.

2. Determine cost associated with fire protection service.

Fire Protection Net Book Value =

$$\sum (\text{Hydraulic Capacity for Fire}_d) \div (\text{Hydraulic Capacity of Pipe}_d) \times (\text{Net Book Value by Pipe Length})$$

3. Determine the proportion of the watermain net book value devoted to fire protection.

Proportion of costs for fire protection =

$$(\text{Fire Protection Net Book Value}) \div (\text{Total Net Book Value})$$

The percentage share determined in Step Three is then used to assign watermain costs to fire protection. Using the above methodology, the cost share assigned to fire protection for this rate period is 42 percent.

APPENDIX B: INFORMATIONAL TABLES

B1.1. Residential Rate History

Effective Date:	1/1/12	1/1/13	1/1/14	1/1/16	1/1/17	1/1/18	1/1/19	1/1/20	1/1/22	1/1/23
Residential - Inside Seattle										
<u>Commodity Rate (per ccf)</u>										
Off-Peak	\$4.04	\$4.50	\$4.99	\$5.06	\$5.15	\$5.20	\$5.27	\$5.40	\$5.56	\$5.76
Peak 1st Block	\$4.34	\$4.73	\$5.13	\$5.20	\$5.29	\$5.33	\$5.41	\$5.55	\$5.71	\$5.92
Peak 2nd Block	\$5.15	\$5.72	\$6.34	\$6.43	\$6.54	\$6.59	\$6.69	\$6.86	\$7.06	\$7.32
Peak 3rd Block	\$11.80	\$11.80	\$11.80	\$11.80	\$11.80	\$11.80	\$11.80	\$11.80	\$11.80	\$11.80
<u>Meter Charge (\$s/mtr/mo)</u>										
3/4 inch	\$13.25	\$13.50	\$13.75	\$14.15	\$15.15	\$16.10	\$17.15	\$18.45	\$19.00	\$19.60
1 inch	\$13.65	\$13.90	\$14.20	\$14.60	\$15.60	\$16.60	\$17.70	\$19.00	\$19.60	\$20.20
1 1/2 inch	\$21.05	\$21.45	\$21.85	\$22.50	\$24.10	\$25.60	\$27.25	\$29.35	\$30.20	\$31.15
2 inch	\$23.35	\$23.75	\$24.20	\$24.90	\$26.65	\$28.35	\$30.20	\$32.50	\$33.45	\$34.50
3 inch	\$86.35	\$88.00	\$89.65	\$92.25	\$98.80	\$104.95	\$111.80	\$120.30	\$123.90	\$127.80
4 inch	\$123.75	\$126.10	\$128.45	\$132.15	\$141.50	\$150.40	\$160.20	\$172.35	\$177.45	\$183.05
<u>Utility Credit</u>										
Fixed Credit (per month)	\$16.97	\$18.19	\$19.46	\$19.84	\$20.56	\$21.15	\$12.86	\$22.85	\$23.52	\$24.33
<u>Commodity Rate (per ccf)</u>										
Off-Peak	\$2.02	\$2.25	\$2.50	\$2.53	\$2.58	\$2.60	\$2.64	\$2.70	\$2.78	\$2.88
Peak 1st Block	\$2.17	\$2.37	\$2.57	\$2.60	\$2.65	\$2.67	\$2.71	\$2.78	\$2.86	\$2.96
Peak 2nd Block	\$2.58	\$2.86	\$3.17	\$3.22	\$3.27	\$3.30	\$3.35	\$3.43	\$3.53	\$3.66
Peak 3rd Block	\$5.90	\$5.90	\$5.90	\$5.90	\$5.90	\$5.90	\$5.90	\$5.90	\$5.90	\$5.90
Meter Charges (Discount)	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%

Effective Date:	1/1/12	1/1/13	1/1/14	1/1/16	1/1/17	1/1/18	1/1/19	1/1/20	1/1/22	1/1/23
Residential - Outside Seattle										
<u>Commodity Rate (per ccf)</u>										
Off-Peak	\$4.61	\$5.13	\$5.69	\$5.77	\$5.87	\$5.93	\$6.01	\$6.16	\$6.34	\$6.57
Peak 1st Block	\$4.95	\$5.39	\$5.85	\$5.93	\$6.03	\$6.08	\$6.17	\$6.33	\$6.51	\$6.75
Peak 2nd Block	\$5.87	\$6.52	\$7.23	\$7.33	\$7.46	\$7.51	\$7.63	\$7.82	\$8.05	\$8.34
Peak 3rd Block	\$13.45	\$13.45	\$13.45	\$13.45	\$13.45	\$13.45	\$13.45	\$13.45	\$13.45	\$13.45
<u>Meter Charge (\$s/mtr/mo)</u>										
3/4 inch	\$15.10	\$15.40	\$15.70	\$16.15	\$17.25	\$18.35	\$19.55	\$21.05	\$21.65	\$22.35
1 inch	\$15.55	\$15.85	\$16.20	\$16.65	\$17.80	\$18.90	\$20.20	\$21.65	\$22.35	\$23.05
1 1/2 inch	\$24.00	\$24.45	\$24.90	\$25.65	\$27.45	\$29.20	\$31.05	\$33.45	\$34.45	\$35.50
2 inch	\$26.60	\$27.10	\$27.60	\$28.40	\$30.40	\$32.30	\$34.45	\$37.05	\$38.15	\$39.35
3 inch	\$98.45	\$100.30	\$102.20	\$105.15	\$112.65	\$119.65	\$127.45	\$137.15	\$141.25	\$145.70
4 inch	\$141.10	\$143.75	\$146.45	\$150.65	\$161.30	\$171.45	\$182.65	\$196.50	\$202.30	\$208.70
<u>Utility Credit</u>										
Fixed Credit (per month)	\$16.97	\$18.19	\$19.46	\$19.84	\$20.56	\$21.15	\$12.86	\$22.85	\$23.52	\$24.33
<u>Commodity Rate (per ccf)</u>										
Off-Peak	\$2.31	\$2.57	\$2.85	\$2.89	\$2.94	\$2.97	\$3.01	\$3.08	\$3.17	\$3.29
Peak 1st Block	\$2.48	\$2.70	\$2.93	\$2.97	\$3.02	\$3.04	\$3.09	\$3.17	\$3.26	\$3.38
Peak 2nd Block	\$2.94	\$3.26	\$3.62	\$3.67	\$3.73	\$3.76	\$3.82	\$3.91	\$4.03	\$4.17
Peak 3rd Block	\$6.73	\$6.73	\$6.73	\$6.73	\$6.73	\$6.73	\$6.73	\$6.73	\$6.73	\$6.73
Meter Charges (Discount)	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%

Effective Date:	1/1/12	1/1/13	1/1/14	1/1/16	1/1/17	1/1/18	1/1/19	1/1/20	1/1/22	1/1/23
Residential - Shoreline, Lake Forest Park										
<u>Commodity Rate (per ccf)</u>										
Off-Peak	\$4.90	\$5.46	\$6.05	\$6.14	\$6.25	\$6.31	\$6.39	\$6.55	\$6.74	\$6.99
Peak 1st Block	\$5.26	\$5.74	\$6.22	\$6.31	\$6.42	\$6.46	\$6.56	\$6.73	\$6.92	\$7.18
Peak 2nd Block	\$6.25	\$6.94	\$7.69	\$7.80	\$7.93	\$7.99	\$8.11	\$8.32	\$8.56	\$8.88
Peak 3rd Block	\$14.31	\$14.31	\$14.31	\$14.31	\$14.31	\$14.31	\$14.31	\$14.31	\$14.31	\$14.31
<u>Meter Charge (\$s/mtr/mo)</u>										
3/4 inch	\$16.05	\$16.35	\$16.70	\$17.15	\$18.35	\$19.55	\$20.80	\$22.40	\$23.05	\$23.75
1 inch	\$16.55	\$16.85	\$17.20	\$17.70	\$18.90	\$20.15	\$21.45	\$23.05	\$23.75	\$24.50
1 1/2 inch	\$25.55	\$26.00	\$26.50	\$27.30	\$29.25	\$31.05	\$33.05	\$35.60	\$36.65	\$37.80
2 inch	\$28.30	\$28.80	\$29.35	\$30.20	\$32.30	\$34.40	\$36.65	\$39.40	\$40.55	\$41.85
3 inch	\$104.70	\$106.70	\$108.70	\$111.90	\$119.80	\$127.30	\$135.60	\$145.90	\$150.25	\$155.00
4 inch	\$150.10	\$152.95	\$155.80	\$160.25	\$171.60	\$182.40	\$194.30	\$209.00	\$215.20	\$222.00
<u>Utility Credit</u>										
Fixed Credit (per month)	\$16.97	\$18.19	\$19.46	\$19.84	\$20.56	\$21.15	\$21.86	\$22.85	\$23.52	\$24.33
<u>Commodity Rate (per ccf)</u>										
Off-Peak	\$2.45	\$2.73	\$3.03	\$3.07	\$3.13	\$3.16	\$3.20	\$3.28	\$3.37	\$3.50
Peak 1st Block	\$2.63	\$2.87	\$3.11	\$3.16	\$3.21	\$3.23	\$3.28	\$3.37	\$3.46	\$3.59
Peak 2nd Block	\$3.13	\$3.47	\$3.85	\$3.90	\$3.97	\$4.00	\$4.06	\$4.16	\$4.28	\$4.44
Peak 3rd Block	\$7.16	\$7.16	\$7.16	\$7.16	\$7.16	\$7.16	\$7.16	\$7.16	\$7.16	\$7.16
Meter Charges (Discount)	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
<u>Master Metered Residential Development</u>										
<u>Commodity Rate (per ccf)</u>										
Off-Peak	\$4.90	\$5.46	\$6.05	\$6.14	\$6.25	\$6.31	\$6.39	\$6.55	\$6.74	\$6.99
Peak 1st Block	\$5.26	\$5.74	\$6.22	\$6.31	\$6.42	\$6.46	\$6.56	\$6.73	\$6.92	\$7.18
Peak 2nd Block	\$6.25	\$6.94	\$7.69	\$7.80	\$7.93	\$7.99	\$8.11	\$8.32	\$8.56	\$8.88
Peak 3rd Block	\$14.31	\$14.31	\$14.31	\$14.31	\$14.31	\$14.31	\$14.31	\$14.31	\$14.31	\$14.31
Meter Charges (See above)										

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Effective Date:	1/1/12	1/1/13	1/1/14	1/1/16	1/1/17	1/1/18	1/1/19	1/1/20	1/1/22	1/1/23
Residential - Burien										
<u>Commodity Rate (per ccf)</u>										
Off-Peak	NA	NA	NA	NA	NA	NA	NA	NA	\$6.89	\$7.33
Peak 1st Block	NA	NA	NA	NA	NA	NA	NA	NA	\$7.08	\$7.53
Peak 2nd Block	NA	NA	NA	NA	NA	NA	NA	NA	\$8.75	\$9.26
Peak 3rd Block	NA	NA	NA	NA	NA	NA	NA	NA	\$14.62	\$14.31
<u>Meter Charge (\$s/mtr/mo)</u>										
3/4 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$23.55	\$24.85
1 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$24.30	\$25.60
1 1/2 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$37.40	\$39.15
2 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$41.45	\$43.30
3 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$153.55	\$159.35
4 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$219.90	\$227.80
<u>Utility Credit</u>										
Fixed Credit (per month)	NA	NA	NA	NA	NA	NA	NA	NA	\$23.52	\$22.85
<u>Commodity Rate (per ccf)</u>										
Off-Peak	NA	NA	NA	NA	NA	NA	NA	NA	\$3.45	\$3.67
Peak 1st Block	NA	NA	NA	NA	NA	NA	NA	NA	\$3.54	\$3.77
Peak 2nd Block	NA	NA	NA	NA	NA	NA	NA	NA	\$4.38	\$4.63
Peak 3rd Block	NA	NA	NA	NA	NA	NA	NA	NA	\$7.31	\$7.16
Meter Charges (See above)	NA	NA	NA	NA	NA	NA	NA	NA	50%	50%

B1.2. General Service Rate History

Effective Date:	1/1/12	1/1/13	1/1/14	1/1/16	1/1/17	1/1/18	1/1/19	1/1/20	1/1/22	1/1/23
General Service - Inside Seattle										
<u>Commodity Rate (per ccf)</u>										
Off-Peak	\$4.04	\$4.50	\$4.99	\$5.06	\$5.15	\$5.20	\$5.27	\$5.40	\$5.52	\$5.72
Peak	\$5.15	\$5.72	\$6.34	\$6.43	\$6.54	\$6.59	\$6.69	\$6.86	\$7.01	\$7.27
<u>Meter Charge (\$s/mtr/mo)</u>										
3/4 inch	\$13.25	\$13.50	\$13.75	\$14.15	\$15.15	\$16.10	\$17.15	\$18.45	\$18.85	\$19.55
1 inch	\$13.65	\$13.90	\$14.20	\$14.60	\$15.60	\$16.60	\$17.70	\$19.00	\$19.45	\$20.15
1 1/2 inch	\$21.05	\$21.45	\$21.85	\$22.50	\$24.10	\$25.60	\$27.25	\$29.35	\$29.95	\$31.10
2 inch	\$23.35	\$23.75	\$24.20	\$24.90	\$26.65	\$28.35	\$30.20	\$32.50	\$33.20	\$34.40
3 inch	\$86.35	\$88.00	\$89.65	\$92.25	\$98.80	\$104.95	\$111.80	\$120.30	\$122.90	\$127.45
4 inch	\$123.75	\$126.10	\$128.45	\$132.15	\$141.50	\$150.40	\$160.20	\$172.35	\$176.05	\$182.60
6 inch	\$152.30	\$155.15	\$158.05	\$162.65	\$174.10	\$185.05	\$197.10	\$212.00	\$217.00	\$225.00
8 inch	\$199.00	\$199.00	\$199.00	\$199.00	\$205.00	\$218.00	\$232.00	\$250.00	\$255.00	\$264.00
10 inch	\$297.00	\$297.00	\$297.00	\$297.00	\$297.00	\$297.00	\$297.00	\$305.00	\$312.00	\$323.00
12 inch	\$402.00	\$402.00	\$402.00	\$402.00	\$402.00	\$402.00	\$402.00	\$412.00	\$421.00	\$436.00
16 inch	\$477.00	\$477.00	\$477.00	\$477.00	\$477.00	\$477.00	\$477.00	\$477.00	\$477.00	\$490.00
20 inch	\$614.00	\$614.00	\$614.00	\$614.00	\$614.00	\$614.00	\$614.00	\$614.00	\$614.00	\$614.00
24 inch	\$771.00	\$771.00	\$771.00	\$771.00	\$771.00	\$771.00	\$771.00	\$771.00	\$771.00	\$771.00
Utility Credit - Inside & Outside (Fixed Credit per month)										
Commercial (Multifamily)	\$10.14	\$11.22	\$12.38	\$12.38	\$12.38	\$12.38	\$12.38	\$12.50	\$12.78	\$13.25

Effective Date:	1/1/12	1/1/13	1/1/14	1/1/16	1/1/17	1/1/18	1/1/19	1/1/20	1/1/22	1/1/23
General Service - Outside Seattle										
<u>Commodity Rate (per ccf)</u>										
Off-Peak	\$4.61	\$5.13	\$5.69	\$5.77	\$5.87	\$5.93	\$6.01	\$6.16	\$6.29	\$6.52
Peak	\$5.87	\$6.52	\$7.23	\$7.33	\$7.46	\$7.51	\$7.63	\$7.82	\$7.99	\$8.29
<u>Meter Charge (\$s/mtr/mo)</u>										
3/4 inch	\$15.10	\$15.40	\$15.70	\$16.15	\$17.25	\$18.35	\$19.55	\$21.05	\$21.50	\$22.30
1 inch	\$15.55	\$15.85	\$16.20	\$16.65	\$17.80	\$18.90	\$20.20	\$21.65	\$22.15	\$22.95
1 1/2 inch	\$24.00	\$24.45	\$24.90	\$25.65	\$27.45	\$29.20	\$31.05	\$33.45	\$34.15	\$35.45
2 inch	\$26.60	\$27.10	\$27.60	\$28.40	\$30.40	\$32.30	\$34.45	\$37.05	\$37.85	\$39.20
3 inch	\$98.45	\$100.30	\$102.20	\$105.15	\$112.65	\$119.65	\$127.45	\$137.15	\$140.10	\$145.30
4 inch	\$141.10	\$143.75	\$146.45	\$150.65	\$161.30	\$171.45	\$182.65	\$196.50	\$200.70	\$208.15
6 inch	\$173.60	\$176.85	\$180.20	\$185.40	\$198.45	\$210.95	\$224.70	\$242.00	\$247.00	\$257.00
8 inch	\$227.00	\$227.00	\$227.00	\$227.00	\$234.00	\$249.00	\$264.00	\$285.00	\$291.00	\$301.00
10 inch	\$339.00	\$339.00	\$339.00	\$339.00	\$339.00	\$339.00	\$339.00	\$348.00	\$356.00	\$368.00
12 inch	\$458.00	\$458.00	\$458.00	\$458.00	\$458.00	\$458.00	\$458.00	\$470.00	\$480.00	\$497.00
16 inch	\$544.00	\$544.00	\$544.00	\$544.00	\$544.00	\$544.00	\$544.00	\$544.00	\$544.00	\$559.00
20 inch	\$700.00	\$700.00	\$700.00	\$700.00	\$700.00	\$700.00	\$700.00	\$700.00	\$700.00	\$700.00
24 inch	\$879.00	\$879.00	\$879.00	\$879.00	\$879.00	\$879.00	\$879.00	\$879.00	\$879.00	\$879.00
Utility Credit - Inside & Outside (Fixed Credit per month)										
Commercial (Multifamily)	\$10.14	\$11.22	\$12.38	\$12.38	\$12.38	\$12.38	\$12.38	\$12.50	\$12.78	\$13.25

Effective Date:	1/1/12	1/1/13	1/1/14	1/1/16	1/1/17	1/1/18	1/1/19	1/1/20	1/1/22	1/1/23
General Service - Shoreline, City of Lake Forest Park										
<u>Commodity Rate (per ccf)</u>										
Off-Peak	\$4.90	\$5.46	\$6.05	\$6.14	\$6.25	\$6.31	\$6.39	\$6.55	\$6.69	\$6.94
Peak	\$6.25	\$6.94	\$7.69	\$7.80	\$7.93	\$7.99	\$8.11	\$8.32	\$8.50	\$8.82
<u>Meter Charge (\$s/mtr/mo)</u>										
3/4 inch	\$16.05	\$16.35	\$16.70	\$17.15	\$18.35	\$19.55	\$20.80	\$22.40	\$22.85	\$23.70
1 inch	\$16.55	\$16.85	\$17.20	\$17.70	\$18.90	\$20.15	\$21.45	\$23.05	\$23.60	\$24.45
1 1/2 inch	\$25.55	\$26.00	\$26.50	\$27.30	\$29.25	\$31.05	\$33.05	\$35.60	\$36.30	\$37.70
2 inch	\$28.30	\$28.80	\$29.35	\$30.20	\$32.30	\$34.40	\$36.65	\$39.40	\$40.25	\$41.70
3 inch	\$104.70	\$106.70	\$108.70	\$111.90	\$119.80	\$127.30	\$135.60	\$145.90	\$149.05	\$154.55
4 inch	\$150.10	\$152.95	\$155.80	\$160.25	\$171.60	\$182.40	\$194.30	\$209.00	\$213.50	\$221.45
6 inch	\$184.70	\$188.15	\$191.70	\$197.25	\$211.15	\$224.40	\$239.05	\$257.00	\$263.00	\$273.00
8 inch	\$241.00	\$241.00	\$241.00	\$241.00	\$249.00	\$264.00	\$281.00	\$303.00	\$309.00	\$320.00
10 inch	\$360.00	\$360.00	\$360.00	\$360.00	\$360.00	\$360.00	\$360.00	\$370.00	\$378.00	\$392.00
12 inch	\$488.00	\$488.00	\$488.00	\$488.00	\$488.00	\$488.00	\$488.00	\$500.00	\$511.00	\$529.00
16 inch	\$579.00	\$579.00	\$579.00	\$579.00	\$579.00	\$579.00	\$579.00	\$579.00	\$578.00	\$594.00
20 inch	\$745.00	\$745.00	\$745.00	\$745.00	\$745.00	\$745.00	\$745.00	\$745.00	\$745.00	\$745.00
24 inch	\$935.00	\$935.00	\$935.00	\$935.00	\$935.00	\$935.00	\$935.00	\$935.00	\$935.00	\$935.00
Utility Credit - Inside & Outside (Fixed Credit per month)										
Commercial (Multifamily)	\$10.14	\$11.22	\$12.38	\$12.38	\$12.38	\$12.38	\$12.38	\$12.50	\$12.78	\$13.25

Effective Date:	1/1/12	1/1/13	1/1/14	1/1/16	1/1/17	1/1/18	1/1/19	1/1/20	1/1/22	1/1/23
General Service - Burien										
<u>Commodity Rate (per ccf)</u>										
Off-Peak	NA	NA	NA	NA	NA	NA	NA	NA	\$6.84	\$7.29
Peak	NA	NA	NA	NA	NA	NA	NA	NA	\$8.69	\$9.21
<u>Meter Charge (\$s/mtr/mo)</u>										
3/4 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$23.35	\$24.85
1 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$24.10	\$25.55
1 1/2 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$37.10	\$39.15
2 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$41.15	\$43.25
3 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$152.30	\$162.95
4 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$218.15	\$231.25
6 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$269.00	\$284.00
8 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$316.00	\$332.00
10 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$387.00	\$405.00
12 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$522.00	\$545.00
16 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$591.00	\$612.00
20 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$761.00	\$766.00
24 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$955.00	\$960.00
Utility Credit - Inside & Outside (Fixed Credit per month)										
Commercial (Multifamily)	NA	NA	NA	NA	NA	NA	NA	NA	\$12.78	\$13.25

Summary Ex A - 2024-2026 Water Rate Study
V1

Effective Date:	1/1/12	1/1/13	1/1/14	1/1/16	1/1/17	1/1/18	1/1/19	1/1/20	1/1/22	1/1/23	
General Service - Mercer Island											
<u>Commodity Rate (per ccf)</u>											
Off-Peak	NA	NA	NA	NA	NA	NA	NA	NA	NA	\$6.64	\$6.89
Peak	NA	NA	NA	NA	NA	NA	NA	NA	NA	\$8.44	\$8.75
<u>Meter Charge (\$s/mtr/mo)</u>											
8 inch	NA	NA	NA	NA	NA	NA	NA	NA	NA	\$307.00	\$318.00
10 inch	NA	NA	NA	NA	NA	NA	NA	NA	NA	\$376.00	\$389.00
Utility Credit - Inside & Outside (Fixed Credit per month)											
Commercial (Multifamily)	NA	NA	NA	NA	NA	NA	NA	NA	NA	\$12.78	\$13.25

B1.3. Wholesale Rate History

Effective Date:	1/1/09	1/1/10	1/1/11	1/1/12	1/1/13	1/1/14	1/1/15	1/1/16	1/1/17	1/1/18	1/1/19	1/1/20
Full and Partial Contracts												
Commodity Rate (per ccf)												
Off-Peak	\$1.14	\$1.15	\$1.16	\$1.52	\$1.53	\$1.53	\$1.42	\$1.42	\$1.42	\$1.50	\$1.58	\$1.67
Peak	\$1.77	\$1.77	\$1.79	\$2.26	\$2.26	\$2.27	\$2.10	\$2.10	\$2.10	\$2.22	\$2.36	\$2.50
Growth Charge	\$0.60	\$0.60	\$0.60	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Demand Charge (\$/1000 gals of deficient storage)	\$22.00	\$22.00	\$22.00	\$22.00	\$22.00	\$22.00	\$22.00	\$22.00	\$22.00	\$22.00	\$22.00	\$22.00
One Time New Service Fee (\$s/mtr)												
3/4 inch	\$713	\$713	\$783	\$783								
1 inch	\$1,426	\$1,426	\$1,566	\$1,566								
1 inch and smaller					\$877	\$936	\$936	\$936	\$936	\$936	\$1,081	\$1,081
1 1/2 inch	\$3,565	\$3,565	\$3,915	\$3,915	\$3,915	\$4,180	\$4,180	\$4,180	\$4,180	\$4,180	\$4,825	\$4,825
2 inch	\$5,704	\$5,704	\$6,264	\$6,264	\$6,264	\$6,688	\$6,688	\$6,688	\$6,688	\$6,688	\$7,720	\$7,720
3 inch	\$15,686	\$15,686	\$17,226	\$17,226	\$17,226	\$18,392	\$18,392	\$18,392	\$18,392	\$18,392	\$21,230	\$21,230
4 inch	\$22,103	\$22,103	\$24,273	\$24,273	\$24,273	\$25,916	\$25,916	\$25,916	\$25,916	\$25,916	\$29,915	\$29,915
6 inch	\$47,058	\$47,058	\$51,678	\$51,678	\$51,678	\$55,176	\$55,176	\$55,176	\$55,176	\$55,176	\$63,690	\$63,690
8 inch	\$79,856	\$79,856	\$87,696	\$87,696	\$87,696	\$93,632	\$93,632	\$93,632	\$93,632	\$93,632	\$108,080	\$108,080
10 inch	\$120,497	\$120,497	\$132,327	\$132,327	\$132,327	\$141,284	\$141,284	\$141,284	\$141,284	\$141,284	\$163,085	\$163,085
12 inch	\$169,694	\$169,694	\$186,354	\$186,354	\$186,354	\$198,968	\$198,968	\$198,968	\$198,968	\$198,968	\$229,670	\$229,670
16 inch	\$169,694	\$169,694	\$186,354	\$186,354	\$186,354	\$198,968	\$198,968	\$198,968	\$198,968	\$198,968	\$229,670	\$229,670
20 inch	\$169,694	\$169,694	\$186,354	\$186,354	\$186,354	\$198,968	\$198,968	\$198,968	\$198,968	\$198,968	\$229,670	\$229,670
24 inch	\$169,694	\$169,694	\$186,354	\$186,354	\$186,354	\$198,968	\$198,968	\$198,968	\$198,968	\$198,968	\$229,670	\$229,670

Note: Rates enacted in 2020 are still in effect through 2023.

B1.4. Private Fire Rate History

Effective Date:	1/1/12	1/1/13	1/1/14	1/1/16	1/1/17	1/1/18	1/1/19	1/1/20	1/1/22	1/1/23
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Volume (Penalty) Rate per ccf

Inside	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00
Outside	\$22.80	\$22.80	\$22.80	\$22.80	\$22.80	\$22.80	\$22.80	\$22.80	\$22.80	\$22.80

Meter Charge (\$s/mtr/mo)

Inside Seattle

2 inch	\$15.40	\$15.40	\$15.40	\$16.00	\$16.25	\$16.25	\$17.25	\$17.75	\$17.75	\$17.75
3 inch	\$20.00	\$20.00	\$20.00	\$21.00	\$21.00	\$21.00	\$22.00	\$23.00	\$23.00	\$23.00
4 inch	\$37.00	\$37.00	\$37.00	\$38.00	\$39.00	\$39.00	\$41.00	\$43.00	\$43.00	\$43.00
6 inch	\$63.00	\$63.00	\$63.00	\$65.00	\$66.00	\$66.00	\$71.00	\$73.00	\$73.00	\$73.00
8 inch	\$100.00	\$100.00	\$100.00	\$104.00	\$105.00	\$105.00	\$112.00	\$115.00	\$115.00	\$115.00
10 inch	\$144.00	\$144.00	\$144.00	\$150.00	\$152.00	\$152.00	\$161.00	\$166.00	\$166.00	\$166.00
12 inch	\$210.00	\$210.00	\$210.00	\$218.00	\$222.00	\$222.00	\$235.00	\$242.00	\$242.00	\$242.00

Outside Seattle

2 inch	\$18.00	\$18.00	\$18.00	\$18.00	\$19.00	\$19.00	\$20.00	\$20.00	\$20.00	\$20.00
3 inch	\$23.00	\$23.00	\$23.00	\$24.00	\$24.00	\$24.00	\$25.00	\$26.00	\$26.00	\$26.00
4 inch	\$42.00	\$42.00	\$42.00	\$43.00	\$44.00	\$44.00	\$47.00	\$49.00	\$49.00	\$49.00
6 inch	\$72.00	\$72.00	\$72.00	\$74.00	\$75.00	\$75.00	\$81.00	\$83.00	\$83.00	\$83.00
8 inch	\$114.00	\$114.00	\$114.00	\$119.00	\$120.00	\$120.00	\$128.00	\$131.00	\$131.00	\$131.00
10 inch	\$164.00	\$164.00	\$164.00	\$171.00	\$173.00	\$173.00	\$184.00	\$189.00	\$189.00	\$189.00
12 inch	\$239.00	\$239.00	\$239.00	\$249.00	\$253.00	\$253.00	\$268.00	\$276.00	\$276.00	\$276.00

Effective Date:	1/1/12	1/1/13	1/1/14	1/1/16	1/1/17	1/1/18	1/1/19	1/1/20	1/1/22	1/1/23
Volume (Penalty) Rate per ccf										
Shoreline, Lake Forest Park	\$24.30	\$24.30	\$24.30	\$24.30	\$24.30	\$24.30	\$24.30	\$24.30	\$24.30	\$24.30
Burien	NA	NA	NA	NA	NA	NA	NA	NA	\$24.80	\$24.80
Meter Charge (\$s/mtr/mo)										
Shoreline, Lake Forest Park										
2 inch	\$19.00	\$19.00	\$19.00	\$19.00	\$20.00	\$20.00	\$21.00	\$22.00	\$22.00	\$22.00
3 inch	\$24.00	\$24.00	\$24.00	\$25.00	\$25.00	\$25.00	\$27.00	\$28.00	\$28.00	\$28.00
4 inch	\$45.00	\$45.00	\$45.00	\$46.00	\$47.00	\$47.00	\$50.00	\$52.00	\$52.00	\$52.00
6 inch	\$76.00	\$76.00	\$76.00	\$79.00	\$80.00	\$80.00	\$86.00	\$89.00	\$89.00	\$89.00
8 inch	\$121.00	\$121.00	\$121.00	\$126.00	\$127.00	\$127.00	\$136.00	\$139.00	\$139.00	\$139.00
10 inch	\$175.00	\$175.00	\$175.00	\$182.00	\$184.00	\$184.00	\$195.00	\$201.00	\$201.00	\$201.00
12 inch	\$255.00	\$255.00	\$255.00	\$264.00	\$269.00	\$269.00	\$285.00	\$293.00	\$293.00	\$293.00
Burien										
2 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$22.00	\$22.00
3 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$29.00	\$28.00
4 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$53.00	\$52.00
6 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$90.00	\$89.00
8 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$143.00	\$139.00
10 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$206.00	\$201.00
12 inch	NA	NA	NA	NA	NA	NA	NA	NA	\$300.00	\$293.00

B1.5. Public Fire Rate History

Effective Date:	1/1/12	1/1/13	1/1/14	1/1/16	1/1/17	1/1/18	1/1/19	1/1/20	1/1/22	1/1/23
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Inside Seattle

Hydrants on 4 inch Mains	\$198.03	\$213.17	\$230.48	\$197.67	\$202.43	\$304.52	\$310.68	\$321.20	\$503.95	\$521.70
Hydrants on 6 inch and larger mains	\$412.56	\$444.11	\$480.16	\$479.96	\$491.53	\$548.49	\$559.59	\$578.53	\$669.04	\$692.60

Burien

Hydrants on 4 inch Mains	NA	NA	NA	NA	NA	NA	NA	NA	\$547.78	\$567.06
Hydrants on 6 inch and larger mains	NA	NA	NA	NA	NA	NA	NA	NA	\$729.22	\$754.90

B1.6. Average Effective System Rate Increase History

Effective Date	Rate Increase
May 16, 2001	5.9%
July 16, 2001	3rd Tier Adopted
January 1, 2002	5.6%
September 16, 2002	14.5%
January 1, 2004	10.6%
January 1, 2005	0.2%
June 1, 2006	0.8%
January 1, 2007	4.6%
January 1, 2008	5.9%
January 1, 2009	11.7%
March 31, 2009*	6.9%
January 1, 2010	9.3%
January 1, 2011**	0.6%
January 1, 2012	9.9%
January 1, 2013	9.7%
January 1, 2014	3.4%
January 1, 2015	-1.9%
January 1, 2016	2.5%
January 1, 2017	2.4%
January 1, 2018	0.7%
January 1, 2019	5.1%
January 1, 2020	2.3%
January 1, 2021	-2.8%
January 1, 2022	3.3%

* Temporary surcharge to cover costs related to *Lane v. City of Seattle, 2008*

** Expiration of surcharge

Note: Average system rate increases presented includes both retail and wholesale rate changes.

B1.7. Historical Financial Performance

	Target	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Actual 2019	Actual 2020	Actual 2021	Actual 2022
Net Income (\$1,000's)	positive	20,666	28,191	31,505	38,149	43,327	51,195	82,036	49,482	55,913	72,239	57,297
Debt Service Coverage	1.7x	1.70	1.86	1.93	1.87	1.78	1.94	2.27	2.07	2.03	2.28	2.32
Cash Financing of the Capital Program	20%*	59.4%	60.9%	65.8%	62.8%	57.8%	55.9%	50.9%	47.2%	53.0%	52.0%	41.9%
from Rate Revenues		53.3%	46.7%	57.7%	52.3%	43.9%	37.1%	35.5%	35.4%	45.2%	42.4%	31.3%
from Contributions in Aid of Construction		6.0%	14.2%	8.1%	10.5%	14.0%	18.8%	15.4%	11.8%	7.8%	9.6%	10.6%
from Bonneville Power Administration Account		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Year-End Operating Cash (\$1,000's)	varies**	12,373	29,046	43,516	42,349	39,106	54,637	93,941	130,036	140,762	103,020	88,984
Revenue Stabilization Fund Deposit (Withdrawal) (\$1,000)		3,354	7,000	8,172	7,000	5,266	5,200	7,650	2,518	0	(19,000)	0

* Current revenues should be used to finance no less than 15% of the CIP in any one year, and not less than 20% in each rate proposal

** Year-End Operating Cash Target is 1/12th of the current year's operating expenses

B1.8. Actual Operations Expenditures

	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Actual 2019	Actual 2020	Actual 2021	Actual 2022
Branch O&M *	82,257,166	89,696,040	92,028,663	98,517,597	101,080,197	117,562,578	112,343,955	113,409,070	112,728,101	119,210,888	121,372,844
Taxes	34,579,191	38,439,778	40,801,911	43,038,318	42,128,072	41,676,404	46,354,856	46,330,520	45,676,064	47,190,837	47,964,841
Debt Service											
Interest	48,810,640	45,171,328	43,601,158	47,467,084	40,549,603	42,781,460	41,047,099	38,667,809	36,478,735	34,124,124	31,378,137
Principal	33,363,293	33,873,204	34,669,987	38,454,987	42,739,987	41,206,473	43,069,929	45,129,935	47,674,935	44,824,935	50,294,935

* Includes contracts associated with treatment plants

APPENDIX C: PROPOSED RATES

Effective January 1, 2024

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	
	Direct Service																			
RATE SCHEDULES	Inside City				Outside City				City of Shoreline / City of Lake Forest Park					Burien				Mercer Island		
	Residential	MMRD*	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	MMRD* w/PUT	Residential	MMRD*	Gen Svc	Fire Service	Gen Svc		
1	Commodity Charge (\$/100 Cubic Feet)																			
2																				
3	Offpeak Usage (Sept 16-May 15)	\$5.76	\$5.76	\$5.90		\$6.57	\$6.57	\$6.73		\$6.99	\$6.99	\$7.16	\$6.54		\$7.14	\$7.14	\$7.31		\$7.10	
4	Peak Usage (May 16-Sept 15)																			
5	Up to 5 ccf**	\$5.92	\$5.92	\$7.50		\$6.75	\$6.75	\$8.55		\$7.18	\$7.18	\$9.10	\$6.72		\$7.34	\$7.34	\$9.29		\$9.03	
6	Next 13 ccf**	\$7.32	\$7.32	\$7.50		\$8.34	\$8.34	\$8.55		\$8.88	\$8.88	\$9.10	\$8.31		\$9.07	\$9.07	\$9.29		\$9.03	
7	Over 18 ccf**	\$11.80	\$11.80	\$7.50		\$13.45	\$13.45	\$8.55		\$14.31	\$14.31	\$9.10	\$13.39		\$14.62	\$14.62	\$9.29		\$9.03	
8	Usage over base allowance			\$20.00				\$22.80				\$24.30					\$24.80			
9	Utility Credit (\$/month)	\$24.33		\$13.73		\$24.33		\$13.73		\$24.33		\$13.73			\$24.33		\$13.73		\$13.73	
10																				
11																				
12																				
13																				
14	Base Service Charge (\$/month/meter)																			
15																				
16	3/4 inch and less	\$19.60		\$21.90		\$22.35		\$24.95		\$23.75		\$26.55		\$24.30		\$27.15				
17	1 inch	\$20.20		\$22.60		\$23.05		\$25.75		\$24.50		\$27.40		\$25.05		\$28.00				
18	1-1/2 inch	\$31.15	\$31.15	\$34.80		\$35.50	\$35.50	\$39.65		\$37.80	\$37.80	\$42.20	\$35.40	\$38.60	\$38.60	\$43.10				
19	2 inch	\$34.50	\$34.50	\$38.55	\$17.75	\$39.35	\$39.35	\$43.95	\$20.00	\$41.85	\$41.85	\$46.75	\$22.00	\$39.15	\$42.75	\$42.75	\$47.75	\$22.00		
20	3 inch	\$127.80	\$127.80	\$143.00	\$23.00	\$145.70	\$145.70	\$163.00	\$26.00	\$155.00	\$155.00	\$173.45	\$28.00	\$145.05	\$158.35	\$158.35	\$177.20	\$29.00		
21	4 inch	\$183.05	\$183.05	\$205.00	\$43.00	\$208.70	\$208.70	\$233.70	\$49.00	\$222.00	\$222.00	\$248.60	\$52.00	\$207.75	\$226.80	\$226.80	\$254.00	\$53.00		
22	6 inch		\$225.00	\$252.00	\$73.00		\$257.00	\$287.00	\$83.00		\$273.00	\$306.00	\$89.00	\$255.50		\$279.00	\$312.00	\$90.00		
23	8 inch		\$265.00	\$296.00	\$115.00		\$302.00	\$337.00	\$131.00		\$321.00	\$359.00	\$139.00	\$300.00		\$328.00	\$367.00	\$143.00	\$356.00	
24	10 inch		\$324.00	\$362.00	\$166.00		\$369.00	\$413.00	\$189.00		\$393.00	\$439.00	\$201.00	\$368.00		\$401.00	\$449.00	\$206.00	\$436.00	
25	12 inch		\$437.00	\$489.00	\$242.00		\$498.00	\$557.00	\$276.00		\$530.00	\$593.00	\$293.00	\$496.00		\$542.00	\$606.00	\$300.00		
26	16 inch		\$491.00	\$549.00			\$560.00	\$626.00			\$595.00	\$666.00	\$557.00		\$608.00	\$680.00				
27	20 inch		\$614.00	\$627.00			\$700.00	\$715.00			\$745.00	\$760.00	\$697.00		\$761.00	\$777.00				
28	24 inch		\$771.00	\$771.00			\$879.00	\$879.00			\$935.00	\$935.00	\$875.00		\$955.00	\$955.00				

* Master Metered Residential Development
** per residence

Effective January 1, 2025

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
	Direct Service																		
RATE SCHEDULES	Inside City				Outside City				City of Shoreline / City of Lake Forest Park					Burien				Mercer Island	
	Residential	MMRD*	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	MMRD* w/PUT	Residential	MMRD*	Gen Svc	Fire Service	Gen Svc	
Commodity Charge (\$/100 Cubic Feet)																			
Offpeak Usage (Sept 16-May 15)	\$5.79	\$5.79	\$5.98		\$6.60	\$6.60	\$6.82		\$7.02	\$7.02	\$7.25		\$6.57	\$7.17	\$7.17	\$7.41			\$7.20
Peak Usage (May 16-Sept 15)																			
Up to 5 ccf**	\$5.95	\$5.95	\$7.60		\$6.78	\$6.78	\$8.66		\$7.22	\$7.22	\$9.22		\$6.75	\$7.37	\$7.37	\$9.42			\$9.15
Next 13 ccf**	\$7.36	\$7.36	\$7.60		\$8.39	\$8.39	\$8.66		\$8.93	\$8.93	\$9.22		\$8.35	\$9.12	\$9.12	\$9.42			\$9.15
Over 18 ccf**	\$11.80	\$11.80	\$7.60		\$13.45	\$13.45	\$8.66		\$14.31	\$14.31	\$9.22		\$13.39	\$14.62	\$14.62	\$9.42			\$9.15
Usage over base allowance				\$20.00				\$22.80					\$24.30						\$24.80
Utility Credit (\$/month)	\$24.83		\$13.96		\$24.83		\$13.96		\$24.83		\$13.96			\$24.83		\$13.96			\$13.96
Base Service Charge (\$/month/meter)																			
3/4 inch and less	\$20.45		\$23.50		\$23.30		\$26.80		\$24.80		\$28.50			\$25.35		\$29.10			
1 inch	\$21.10		\$24.25		\$24.05		\$27.65		\$25.60		\$29.40			\$26.15		\$30.05			
1-1/2 inch	\$32.50	\$32.50	\$37.35		\$37.05	\$37.05	\$42.60		\$39.40	\$39.40	\$45.30		\$36.90	\$40.25	\$40.25	\$46.30			
2 inch	\$36.00	\$36.00	\$41.40	\$17.75	\$41.05	\$41.05	\$47.20	\$20.00	\$43.65	\$43.65	\$50.20	\$22.00	\$40.85	\$44.60	\$44.60	\$51.30	\$22.00		
3 inch	\$133.35	\$133.35	\$153.00	\$23.00	\$152.00	\$152.00	\$174.40	\$26.00	\$161.70	\$161.70	\$185.55	\$28.00	\$151.35	\$165.25	\$165.25	\$189.60	\$29.00		
4 inch	\$191.00	\$191.00	\$219.00	\$43.00	\$217.75	\$217.75	\$249.65	\$49.00	\$231.65	\$231.65	\$265.60	\$52.00	\$216.80	\$236.65	\$236.65	\$271.35	\$53.00		
6 inch		\$235.00	\$270.00	\$73.00		\$268.00	\$308.00	\$83.00		\$285.00	\$327.00	\$89.00	\$267.00		\$291.00	\$335.00	\$90.00		
8 inch		\$277.00	\$318.00	\$115.00		\$316.00	\$363.00	\$131.00		\$336.00	\$386.00	\$139.00	\$314.00		\$343.00	\$394.00	\$143.00		\$383.00
10 inch		\$338.00	\$389.00	\$166.00		\$385.00	\$443.00	\$189.00		\$410.00	\$472.00	\$201.00	\$384.00		\$419.00	\$482.00	\$206.00		\$468.00
12 inch		\$456.00	\$525.00	\$242.00		\$520.00	\$599.00	\$276.00		\$553.00	\$637.00	\$293.00	\$518.00		\$565.00	\$651.00	\$300.00		
16 inch		\$512.00	\$589.00			\$584.00	\$671.00			\$621.00	\$714.00		\$581.00		\$634.00	\$730.00			
20 inch		\$614.00	\$672.00			\$700.00	\$766.00			\$745.00	\$815.00		\$697.00		\$761.00	\$833.00			
24 inch		\$771.00	\$771.00			\$879.00	\$879.00			\$935.00	\$935.00		\$875.00		\$955.00	\$955.00			

* Master Metered Residential Development
** per residence

Effective January 1, 2026

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
	Direct Service																		
RATE SCHEDULES	Inside City				Outside City				City of Shoreline / City of Lake Forest Park					Burien				Mercer Island	
	Residential	MMRD*	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	MMRD* w/PUT	Residential	MMRD*	Gen Svc	Fire Service	Gen Svc	
Commodity Charge (\$/100 Cubic Feet)																			
Offpeak Usage (Sept 16-May 15)	\$5.82	\$5.82	\$6.06		\$6.63	\$6.63	\$6.91		\$7.06	\$7.06	\$7.35		\$6.61	\$7.21	\$7.21	\$7.51			\$7.30
Peak Usage (May 16-Sept 15)																			
Up to 5 ccf**	\$5.98	\$5.98	\$7.70		\$6.82	\$6.82	\$8.78		\$7.25	\$7.25	\$9.34		\$6.79	\$7.41	\$7.41	\$9.54			\$9.27
Next 13 ccf**	\$7.39	\$7.39	\$7.70		\$8.42	\$8.42	\$8.78		\$8.96	\$8.96	\$9.34		\$8.39	\$9.16	\$9.16	\$9.54			\$9.27
Over 18 ccf**	\$11.80	\$11.80	\$7.70		\$13.45	\$13.45	\$8.78		\$14.31	\$14.31	\$9.34		\$13.39	\$14.62	\$14.62	\$9.54			\$9.27
Usage over base allowance				\$20.00				\$22.80					\$24.30						\$24.80
Utility Credit (\$/month)	\$25.36		\$14.19		\$25.36		\$14.19		\$25.36		\$14.19			\$25.36		\$14.19			\$14.19
Base Service Charge (\$/month/meter)																			
3/4 inch and less	\$21.35		\$25.20		\$24.35		\$28.75		\$25.90		\$30.55			\$26.45		\$31.25			
1 inch	\$22.00		\$26.00		\$25.10		\$29.65		\$26.70		\$31.55			\$27.25		\$32.20			
1-1/2 inch	\$33.95	\$33.95	\$40.05		\$38.70	\$38.70	\$45.65		\$41.15	\$41.15	\$48.55		\$38.55	\$42.05	\$42.05	\$49.65			
2 inch	\$37.60	\$37.60	\$44.35	\$17.75	\$42.85	\$42.85	\$50.55	\$20.00	\$45.60	\$45.60	\$53.80	\$22.00	\$42.70	\$46.60	\$46.60	\$54.95	\$22.00		
3 inch	\$139.20	\$139.20	\$164.00	\$23.00	\$158.70	\$158.70	\$186.95	\$26.00	\$168.80	\$168.80	\$198.90	\$28.00	\$158.00	\$172.50	\$172.50	\$203.20	\$29.00		
4 inch	\$199.00	\$199.00	\$235.00	\$43.00	\$227.00	\$227.00	\$267.90	\$49.00	\$241.00	\$241.00	\$285.00	\$52.00	\$225.85	\$247.00	\$247.00	\$291.20	\$53.00		
6 inch		\$245.00	\$290.00	\$73.00		\$279.00	\$331.00	\$83.00		\$297.00	\$352.00	\$89.00	\$278.00		\$304.00	\$359.00	\$90.00		
8 inch		\$289.00	\$341.00	\$115.00		\$329.00	\$389.00	\$131.00		\$350.00	\$414.00	\$139.00	\$328.00		\$358.00	\$423.00	\$143.00		\$410.00
10 inch		\$353.00	\$417.00	\$166.00		\$402.00	\$475.00	\$189.00		\$428.00	\$506.00	\$201.00	\$401.00		\$437.00	\$517.00	\$206.00		\$502.00
12 inch		\$477.00	\$562.00	\$242.00		\$544.00	\$641.00	\$276.00		\$578.00	\$682.00	\$293.00	\$541.00		\$591.00	\$696.00	\$300.00		
16 inch		\$535.00	\$631.00			\$610.00	\$719.00			\$649.00	\$765.00		\$607.00		\$663.00	\$782.00			
20 inch		\$614.00	\$721.00			\$700.00	\$822.00			\$745.00	\$874.00		\$697.00		\$761.00	\$893.00			
24 inch		\$771.00	\$819.00			\$879.00	\$934.00			\$935.00	\$993.00		\$875.00		\$955.00	\$1,015.00			

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