



# Long-Range Financial Plan

**Financial Stewardship**  
**2021**

# Notice and Disclaimer

The City of Tacoma, Washington (City), is a municipal corporation under the Constitution and laws of the State of Washington. The Water Division of the City's Department of Public Utilities, doing business as Tacoma Water, operates the City's drinking water treatment, transmission, and distribution facilities.

## Disclaimer

The information included in this Long-Range Financial Plan (LRFP) is limited in scope, is dated and speaks only as of its date, and does not include all of the information relevant to bonds or notes issued by Tacoma Water, or all of the financial information pertinent to Tacoma Water. This LRFP is being provided by Tacoma Water for informational and convenience purposes only, and nothing contained in this LRFP is, or should be construed to be, a representation by Tacoma Water that this information could be material to a decision to invest in, hold or dispose of Tacoma Water bonds or notes. It is not a guarantee of results, and is subject to revision at any time. Tacoma Water has not committed to updating, and expressly disclaims any duty to update, this document. Unaudited financial information used in this document, including for fiscal year **2021** is preliminary and subject to change. This LRFP makes forecasts, projections, estimates and other forward-looking statements that are based on current expectations. The words "project," "forecast," "intent," "may," "will," "should," "expect," "believe," "anticipate," "estimate," and analogous expressions are intended to identify such forward-looking statements. However, any forward-looking statement or projection is subject to uncertainties. Actual results may differ materially. Inevitably some assumptions regarding future trends will not be realized and unanticipated events and circumstances may occur. A variety of risks and uncertainties affecting Tacoma Water's business and financial results – such as general economic and business conditions, public health emergencies and the resulting economic impacts, and other factors beyond Tacoma Water's control, some of which are discussed in this LRFP – could cause actual results to differ materially from the projected results stated in the forward-looking statements in this LRFP.

Further, this LRFP is not an offer to sell or solicit any offer to buy Tacoma Water bonds or notes. Make any investment decisions regarding Tacoma Water bonds or notes should only be made after careful review of the complete official statements for those particular bonds or notes. Copies of official statements related to Tacoma Water's outstanding bonds are available at <https://www.mytpu.org/about-tpu/investors/water-investor-information> or [www.emma.msrb.org](http://www.emma.msrb.org). The information in official statements is dated and speaks only as of those dates, may become outdated due to the passage of time or subsequent events, and may include forward-looking statements. Tacoma Water is not undertaking to update and disclaims any duty to update the information.

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# Introduction

## The Value of our Long-Range Financial Plan

As stewards for Tacoma Water, we have a responsibility to provide clean, reliable water for our customers, and to preserve and protect our water resources. This duty extends to ensuring that we develop a responsible Long-Range Financial Plan (LRFP) and implement it to support our system for the next few years and generations to come.

Our plan provides a road map for how to best fund ongoing expenses to keep the water system:

- Operating efficiently and effectively
- Provide for responsible renewal and replacement of our infrastructure
- Expand as needed to accommodate growth and system resiliency
- Invest in technology and data integrity
- Support the development of our employees

This LRFP strives to do all of this while keeping our rate adjustments stable and affordable for our customers.



# Introduction

## Planning is Dynamic

This document is for informational purposes only and is not a guarantee of results. Our financial position and assumptions used throughout the document will change as new information becomes known. Our forecast contained in the Appendix of this LRFP goes through **2034**, but that does not mean that the annual projections have not changed by the time you read them.

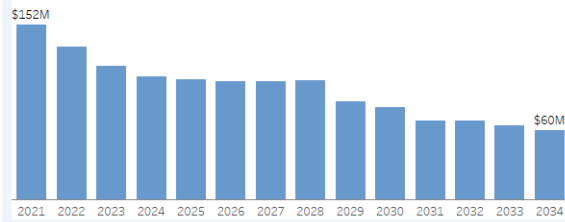
The LRFP is dynamic and will change over time. We will update the plan each year and will make it available online at [www.My.TPU.org](http://www.My.TPU.org).

To analyze past performance, we use [audited financial statements](#) through **2020**. All unaudited financial information contained in this document is preliminary, and subject to change.



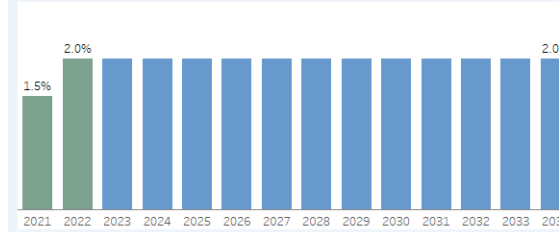
# The Highlights

Projected Liquidity



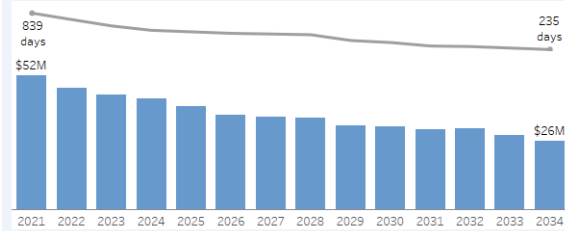
Liquidity projections reflect planned, responsible spend down of reserves

Projected System Average Rate Adjustments



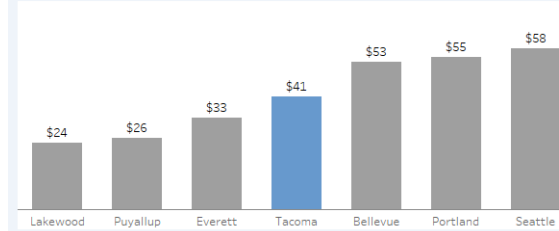
Stable rate adjustments projected over the next 14 years

Projected Operating Fund Balance & No. of Days Cash



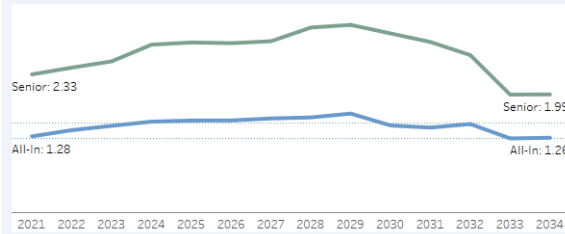
Operating fund and number of days cash operating expense also reflect planned spend down

Regional Comparison of Average Monthly Bills



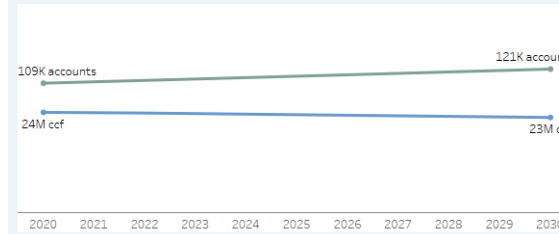
Rates remain competitive among regional peers

Projected Debt Service Coverage Ratios



Coverage ratios exceed policy requirements

Projected Annual Demand & Account Growth



Flat, declining total demand despite customer growth

*Projections from 2021-2022 Base Case.*



# Guiding our Long-Range Financial Plan

## The Purpose of Sound Financial Policies

The Tacoma Public Utility (TPU) Board **Strategic Directives (SDs)** and Tacoma Water **Rate and Financial Policies** establish formal agreement among our managers, the TPU Board, and City Council for how we manage the utility. They provide direction for managing our financial performance and a foundation for consistent financial and rate decisions. We have defined financial policy measures that support strong credit ratings and flexible financing options.



# TPU Board Strategic Directives

## TPU Board Strategic Directives

Along with Tacoma Power and Tacoma Rail, Tacoma Water is a part of Tacoma Public Utilities (TPU) governed by a five-member Public Utility Board (Board) that the Mayor and City Council appoints. The Board provides policy guidance and approves system expansion, bond and certain debt issues, and biennial budget and rate proposals with the subsequent approval of the City Council.

In **2019-2020**, the Board adopted Strategic Directives (SDs) to capture the performance for which the Board will hold TPU accountable on behalf of its ratepayers.

These SDs provide us with a policy direction that helps guide our decisions. Two of the SDs that most directly guide our LRFP are Financial Stability and Rates.



### Financial Stability

TPU will secure its commitment to provide safe and reliable power, water, and rail services over the long term by maintaining sustainable budget, financial, and asset management practices.

### Rates



TPU rates for power, water, and rail services play an essential role in securing a strong economy, establishing equity among customers, and producing revenue sufficient to provide safe, reliable, and environmentally sensitive utility services. TPU strives to ensure rates will be adequate, fair, just, and reasonable.



# Water Rate and Financial Policy

## **Purpose** | Supports SD 2 | [Financial Sustainability](#)

The Water Rate and Financial Policy gives direction to planning decisions and helps ensure that the Tacoma Water provides an adequate supply of safe, clean water to all customers efficiently, reliably, and at the lowest possible cost consistent with prudent utility management.

## **Guiding Objectives** | Supports SD 3 | [Rates](#)

- a. Water Rates Should Ensure Adequate Supply.
- b. Water Rates Should Be As Low As Is Responsible.
- c. Water Rates Shall Be Fair.
- d. Water Rates Should Be Stable and Understandable.
- e. Water Rates Should Be the Product of Customer Involvement.

**WATER RATE AND FINANCIAL POLICY**  
TACOMA PUBLIC UTILITIES  
WATER DIVISION

**November 2018**

Adopted by Public Utility Board Resolution U-11038 on October 24, 2018  
Adopted by City Council Resolution No. 40160 on November 13, 2018

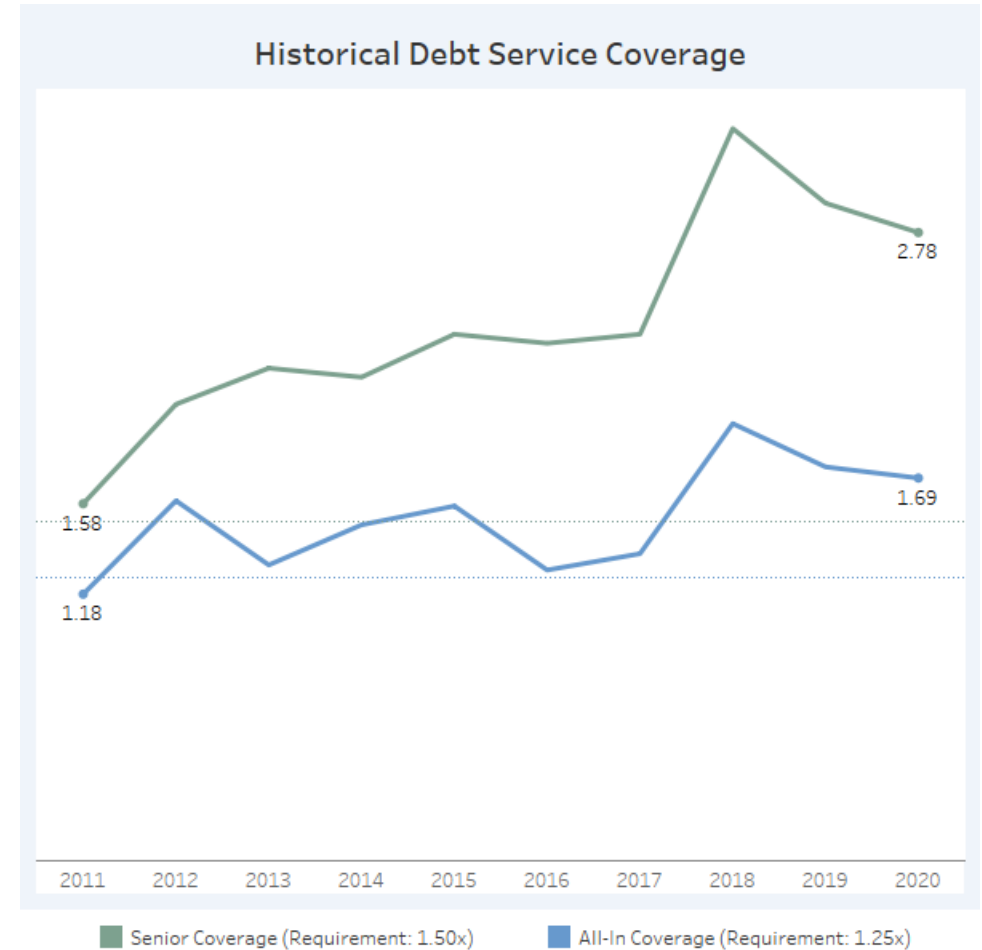
# Policy Financial Requirement: Debt Service

## Debt Service Coverage Ratios

Our Water Rate and Financial policy provides that we will secure the least costly financing for capital improvement projects based on our financial position and capital needs. Financing options for capital projects may include revenue funding, operating or capital reserves, low-interest loans, revenue bond funding, and other means.

The debt service coverage ratio measures our ability to use operating income to repay our debt obligations, including repayment of principal and interest on our outstanding debt. This measure helps us ensure that we comply with debt covenants and provides financing flexibility. Our policy requires that:

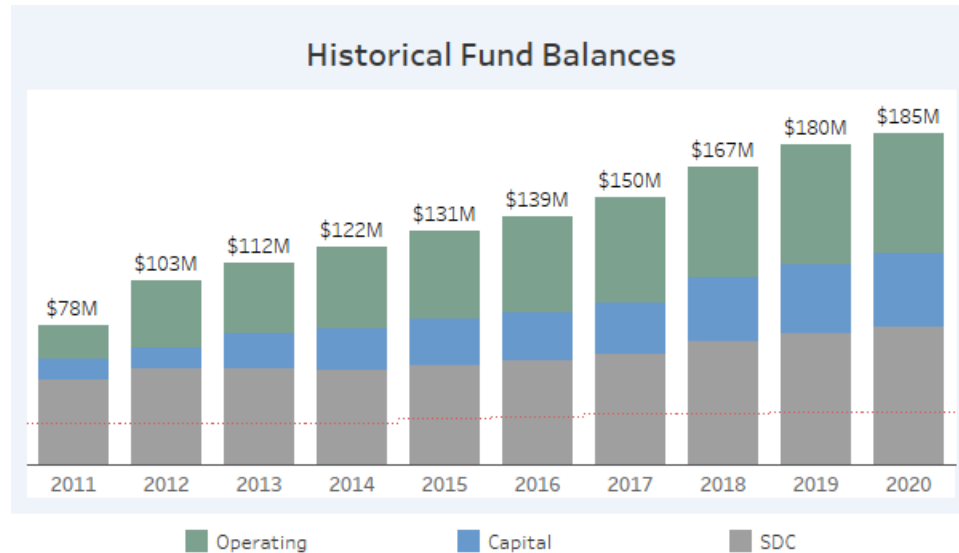
- “**Senior Debt Service Coverage** will be maintained above 1.50, exceeding Tacoma Water’s bond covenant requirement of net revenue at least 1.25 times annual senior debt service.
- **All-In Debt Service Coverage** will be maintained above 1.25 except when cash reserves are budgeted to meet the annual revenue requirement, when it will be maintained above 1.00.”



# Policy Financial Requirement: Reserves

## Operating and Capital Reserves

The Water Rate and Financial Policy defines minimum levels for each of our reserve funds. We may use these funds to offset the impact of rate increases.



## 2020 Reserve Requirements

Fund	Requirement	Purpose	2020
Operating	60 Days Budgeted Operating Expenses \$16M	<ul style="list-style-type: none"> <li>Day to Day O&amp;M</li> <li>Flexibility to manage risk</li> <li>Manage revenue fluctuations</li> <li>Meet working capital needs</li> </ul>	\$68M
Capital	1% Original Cost Plant-in-Service \$12M	<ul style="list-style-type: none"> <li>Capital funding for system projects</li> <li>Mitigate risk</li> <li>Financial stability</li> <li>Stable rate adjustments</li> </ul>	\$38M
System Development Charge (SDC)	\$2M	<ul style="list-style-type: none"> <li>\$33.6M Rate Stabilization Account</li> <li>Capital funding for system improvements</li> <li>Mitigate risk</li> <li>Financial stability</li> <li>Stable rate adjustments</li> </ul>	\$73M

Minimum requirements as of the 2019-2020 budget and current as of the year-end 2020.

# Testing the Reserve Policy Requirements

## Reserve Risk Modeling

We partnered with the **Government Finance Officers Association (GFOA)** in 2020 to develop a model that incorporates risks into our financial planning and tests the sufficiency of our current policy minimums.

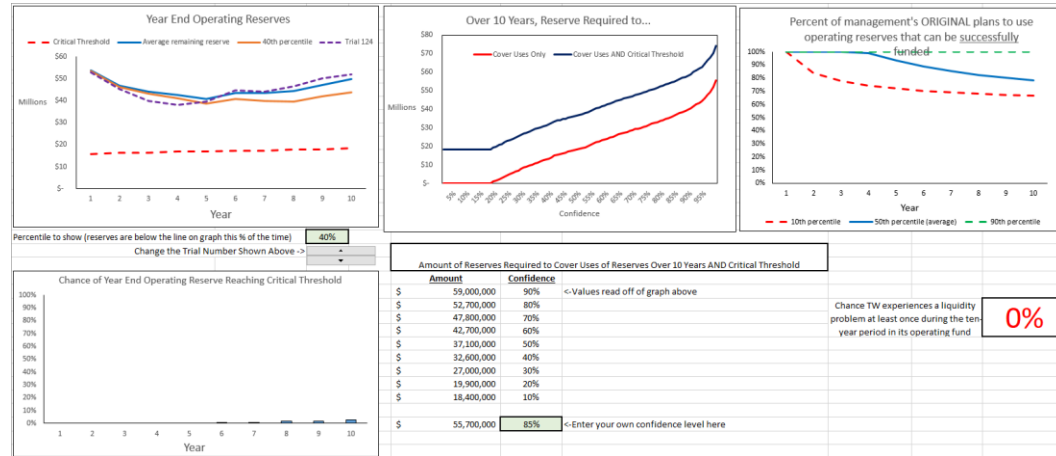
This work provides financial insight into risks specific to our utility and quantitative analysis for long-range financial planning recommendations and potential financial policy changes.

The following provides an example of the risks considered as part of this process, and is not intended to be comprehensive or exhaustive.

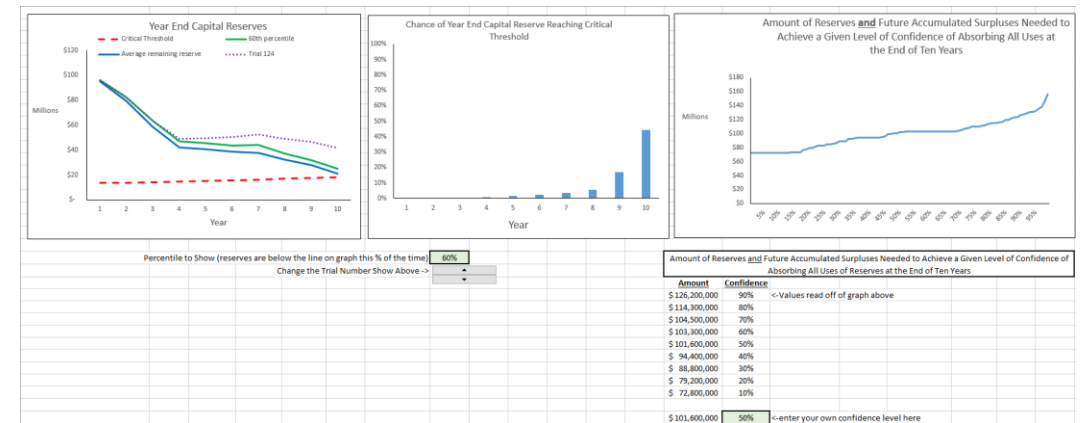
Modeled Risks	Unquantified Risks Considered
<ul style="list-style-type: none"><li>• Retail demand</li><li>• Major customer demand</li><li>• Wholesale demand</li><li>• Drought conditions</li><li>• Cash flow restrictions</li><li>• Interest rate variability</li><li>• Floods</li><li>• Earthquakes</li><li>• Wildfires</li><li>• Pandemic</li></ul>	<ul style="list-style-type: none"><li>• Debt position</li><li>• Rate control</li><li>• Age and condition of assets</li><li>• Ice and snow storms</li><li>• Volcanoes and lahars</li><li>• Endangered species</li><li>• Climate change</li><li>• Historical artifacts and sacred land</li><li>• Partner default on shared expenses</li><li>• Hazardous materials spills and cleanup</li></ul>

# Testing the Reserve Policy Requirements

## Operating Reserve Dashboard



## Capital Reserve Dashboard



## Results and Recommendations

- We have sufficient beginning balances in our Operating and Capital Funds to absorb modeled risks and planned spend-down over the next 10 years:

Operating Reserves: **97% Confidence Level**

Capital Reserves: **80% Confidence Level**

- Staff will conduct annual modeling updates to incorporate actual results and updated forecasts to retest policy sufficiency.
- Results will be used to update our LRFP and inform potential recommended changes to the Tacoma Water Rate and Financial Policy.



# Decision-Making Tools

In addition to our financial policies, other sources guide our decision-making and help inform our LRFP:

- We finalized our [2020-2025 Strategic Plan](#) in 2020, which provided a foundation for our business strategy and focuses on our customers, workforce and operations.
- Our [Budget Development Decision-Making Framework](#) provides systematic tools and processes to ensure that budgeting decisions are based on analysis, using the best data available. This framework provides a foundation for transparent, well-documented, and durable decisions.
- Our [Integrated Resource Plan](#) focuses on the ability to manage available water supplies, plan for new supplies as needed and protect stream flow for fish in the Green River.
- Our [Comprehensive Water System Plan](#), approved by the Washington State Department of Health in January 2020, serves as a tool to assist us in making the best use of available resources in order to provide quality water services and protect the health of our customers.
- Our [Commitment to Asset Management](#) demonstrates an organization-wide pledge to apply strategic asset management principles, such as ensuring asset decisions are well informed and documented, incorporating environmental, economic, social and equitable outcomes in long-term investment decisions, and seeking transparency and inclusion through stakeholder and customer engagement.

# About Us

Tacoma Water has a proud tradition of operating and maintaining one of the country's oldest municipally-owned water systems. We provide high-quality water at very competitive prices to more than 300,000 people throughout Pierce and King counties.

HISTORY	ORGANIZATION	WATER SYSTEM	CUSTOMERS	FINANCIAL
<b>Founded</b> July 1, 1883  <b>Regional Water Supply System</b> Second water system added for additional supply and storage in 2002  <b>Mission</b> Providing clean, reliable water	<b>Public Utility Board</b> <ul style="list-style-type: none"> <li>Appointed by Tacoma City Council</li> <li>Provides policy direction</li> <li>Approves system expansion, bond issues, budget and rates</li> </ul> <b>Tacoma Council City</b> Approves system expansion, bond issues, budget and rates  <b>Tacoma Water Management</b> <ul style="list-style-type: none"> <li>Superintendent</li> <li>Five division managers</li> <li>Reorganized in 2020</li> </ul>	<b>Mains</b> <ul style="list-style-type: none"> <li>1,294 miles of distribution</li> <li>150 miles of transmission</li> </ul> <b>Supply</b> <ul style="list-style-type: none"> <li>150 mgd Green River</li> <li>48 mgd wells</li> </ul> <b>Storage</b> <ul style="list-style-type: none"> <li>68 mg McMillin Reservoir</li> <li>73 mg other reservoirs/standpipes</li> </ul>	<b>Customers</b> 107,872 accounts  <b>Average Household Use</b> 168 gallons per day  <b>Average Household Bill</b> \$40 per month	<b>Bond Ratings</b> <ul style="list-style-type: none"> <li>Moody's: Aa2</li> <li>Standard and Poor's: AA</li> </ul> <b>Capital Assets</b> \$1.2 billion in original cost  <b>Operating Revenue</b> \$104 million

*Data as of year-end 2020.*

# Supporting Employees and Customers

## Prioritizing People

Our commitment to providing clean, reliable water extends to how we care for our employees and customers. For employees, we provide training and resources to ensure safety, support morale, and development opportunities. We provide education and outreach in conservation for our customers, offer financial assistance to low-income customers, and provide grants and loans to repair aged or leaking water lines. Our Strategic Plan prioritizes how we do this:

### Customer Focused

- We want to provide exceptional service through every engagement and experience.
- Listen to and respect our customers, stakeholders, and community.
- Build and maintain trust through consistent, reliable, transparent interactions and services.
- Share our story.

### Employee Safety and Equity

- We want to help build our utility's strength at all levels of the organization.
- Ensure people clearly understand the roles and expectations of their positions so employees can lead our utility.
- Provide training and development opportunities that will help people excel in their positions.
- Support efforts relating to recruitment and retention, career path development, succession planning, and cultivating an equitable workplace.



# Budget and Rate Development and Approvals

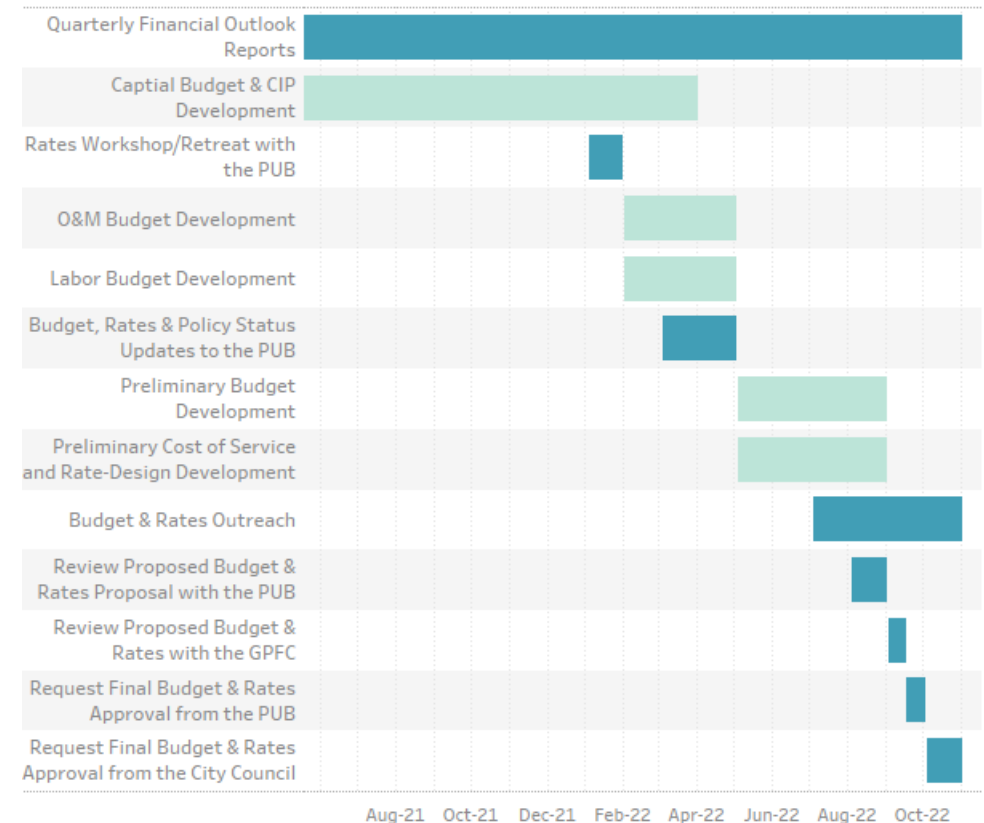
## Developing our Budget and Rates

The Board provides policy guidance and approves our biennial budget and rate proposals with subsequent approval by the City Council.

We represent biennial budget and rate recommendations in the first two years of the LRFP. Although rate adjustments are approved biennially along with the budget, the rate proposals are developed as part of the LRFP and include projections through the planning period. This long-term approach to budget and rate planning ensures we are in alignment with our Rate and Financial Policy and our projected rate adjustments are as low as is responsible as well as stable and understandable.

Budget and rate development is an ongoing process for the utility. Quarterly financial outlook reports provide Tacoma Water Management and the Board with projections for how we expect to perform relative to the current budget. These projections will inform updates for the LRFP, including developing the expense assumptions for the next budget proposal.

Budget and Rates Timeline



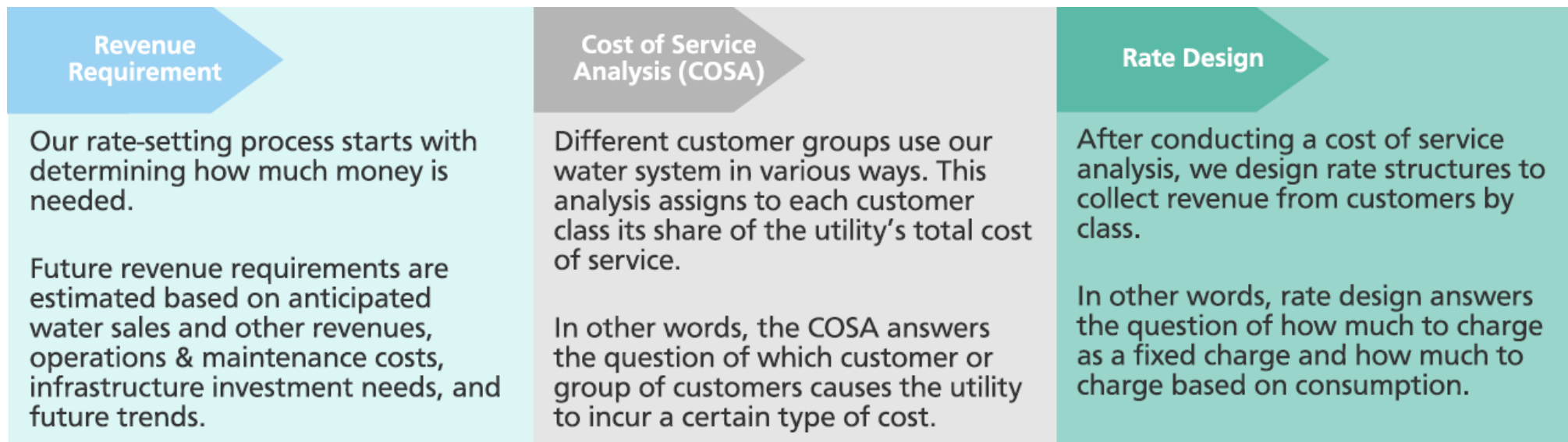
*This gantt chart categorizes typical work in developing budget and rates for an upcoming biennium.*

# Revenue Requirement, COSA, and Rate Design

## Developing our Rates

Nearly everything we do is paid through water rates and charges. These rates need to be adjusted periodically to ensure recovery of costs relating to change in conditions and to continue investing in our infrastructure, technology, and employees.

Planning for necessary adjustments to water rates is not a simple task, and it begins with creating a LRFP. The plan identifies revenue requirements needed for the planning horizon and is the foundation for the rate-setting process. The LRFP emphasizes balancing affordability with stewardship of our resources. Financial modeling informs how to pay for future expenses with gradual revenue increases over the long term.





# Rates

## Setting Rates

We set the price of water our retail customers pay to recover all operating and maintenance expenses, debt service, taxes, and a portion of capital additions and improvements made to the water system.

We recommend rate adjustments to minimize impacts to customers while maintaining the safety and reliability of our water system.

## Comparing our Rates

A metric often used for comparison is the cost of service in terms of an average monthly bill for a single-family home. We generally use the profile of an average City of Tacoma family and apply it to current rates from other utilities for comparison.

When comparing our residential rates to peer utilities, we are relatively average.

2020 Average Monthly Water Bill for a Single-Family Home



*This comparison assumes an average single family consumes 6 CCF in winter months and 9 CCF in summer months, with a 5/8" meter.*

# Affordability

## Forecasting our Rates

Our long-range planning currently forecasts stable annual rate adjustments over the next 10 years: this plan factors many cost escalating assumptions and growth projections.

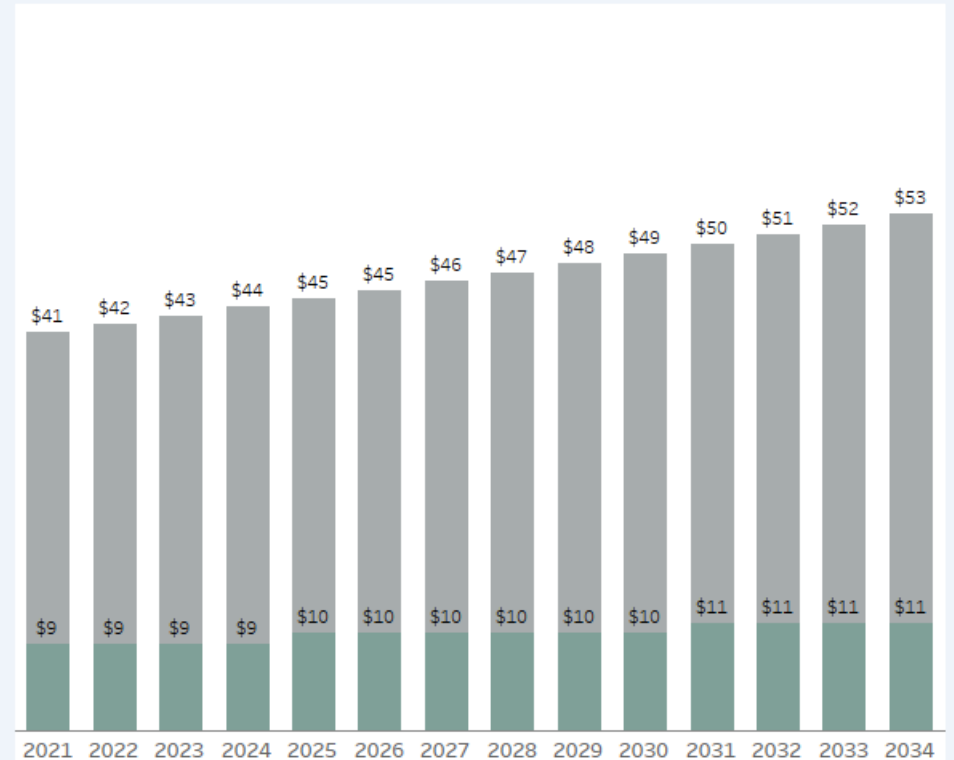
Although annual costs and expected capital projects vary annually, our goal in applying gradualism minimizes peaks and valleys in rate adjustments, providing customers with reasonable expectations of rate impact as much as possible.

## Planning for Customer Assistance

As we project annual rate adjustments, we also project the anticipated impact on an average monthly bill for a residential customer. Planning for increased assistance in parallel with our rate adjustments helps customers understand how their monthly bills could be impacted and, hopefully, mitigated.

We designed our bill credit assistance program to provide monthly credits set at approximately 20% of an average residential bill. Tying bill credit projections to rate adjustments is important in allowing policymakers to anticipate when additional customer assistance will be budgeted and for our customers when more customer assistance could be available.

Projected Average Monthly Bill and Customer Assistance



The grey bars represent the projected monthly bill and the green bars represent the projected bill credit assistance at 20% of the average bill.

# The Foundation

**These elements form the foundation of the LRFP and are used to inform our base case. Actual performance is likely to vary from these assumptions and may result in changes to our projected rate adjustments.**

**We've grouped the elements into three subsections:**

## Expense Assumptions

It costs a lot to maintain our infrastructure and deliver clean, reliable water to our customers. We invest in our employees, asset management, data, analytics, and technology as we continue to innovate and strive to become more efficient and effective.

## Revenue Assumptions

Our revenue primarily comes from water sales. In addition, we have several sources of miscellaneous revenue to help reduce the amount of revenue that we need to collect from our customers.

## Credit, Debt and Reserves

Our plan provides a balanced approach to managing reserves, revenue bonds, and low-interest loan or grant opportunities. Strong financial metrics and credit ratings allow us to provide the lowest costs for our customers and ensure our long-term financial sustainability.

# Expense Overview

## Capital

We fund capital projects through a combination of bonds, low-interest loans, capital, and operating reserves. The financing plan is developed as part of the LRFP and budgeted for each biennium.

## Debt Service

We partially fund capital projects with revenue bonds and low-interest loans. These principal amounts, along with interest payments, make up our total annual debt service. The federal interest subsidies for the Build America Bonds are not deducted from gross debt service and are instead included as non-operating revenue as provided in our bond covenants.

## Taxes

Tacoma Water is subject to several taxes and franchise fees. The largest is Gross Earnings Tax (GET) paid to the City of Tacoma, and State Public Utility Tax (SPUT) paid to the State of Washington.

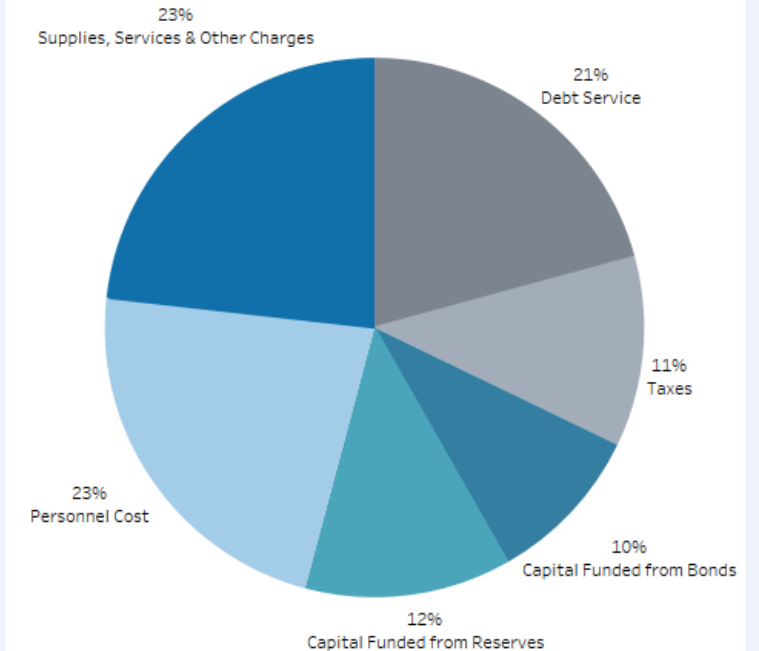
## Personnel

Personnel costs include wages and benefits such as medical coverage. We partially offset the expense by employees who charge their time to projects funded by developers or other entities outside of our utility.

## Other O&M

Other Operations and Maintenance costs include materials and supplies to maintain the system, safety equipment, legal and professional service contracts, internal service assessments, non-capital project expenses, and administrative costs not directly attributed to personnel.

2020 Actual Expenses by Type



*As of year-end 2020, excluding depreciation.*

# Capital Expenditures

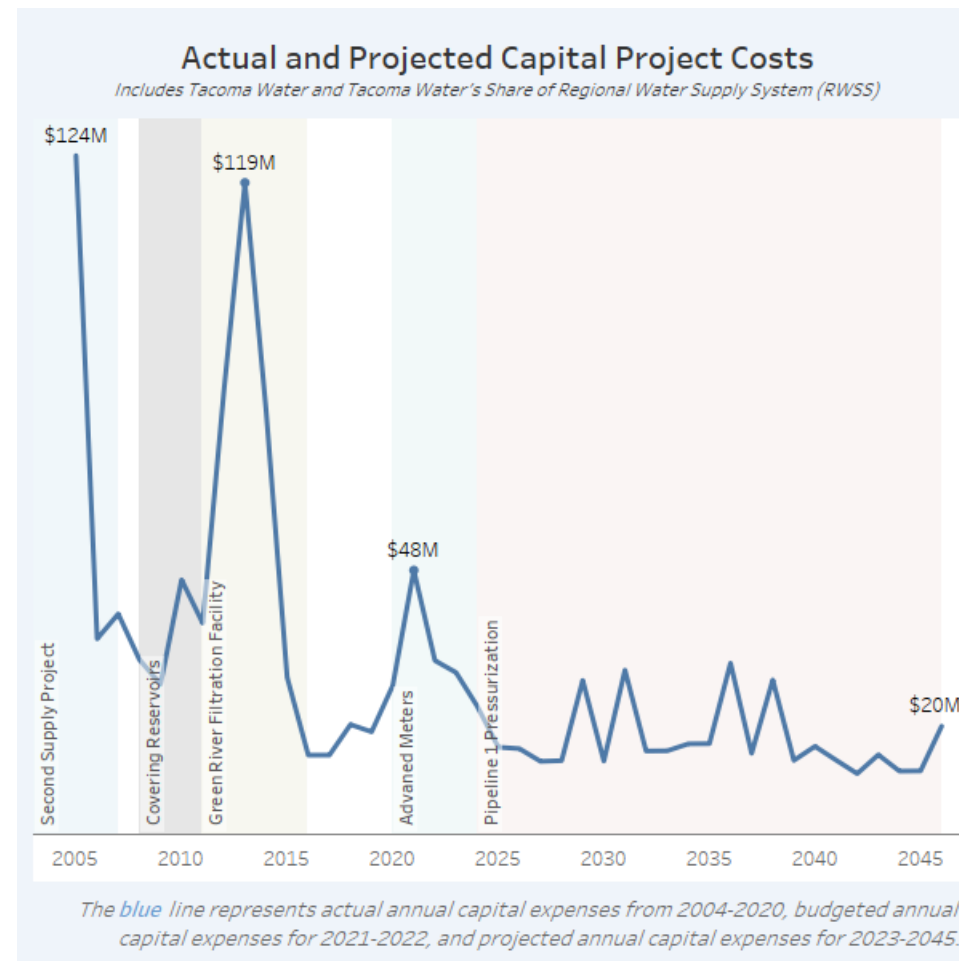
## Building and Maintaining our Infrastructure

We design our Capital Improvement Program to provide a prioritized schedule of projects to meet the water system's future needs.

For the LRFP, we used placeholders in instances where we identified a need due to the long planning horizon but had not developed a specific solution. We create business case evaluations, and alternatives analysis as the project moves from conceptualization into the planning and design phases and the two-year budget cycle.

As you can see in the chart, we have had several significant capital investments during the last 15 years as we developed our second supply and responded to regulatory requirements.

Although we don't foresee capital spending at those levels over the planning horizon, maintaining and reinvesting in the system is a responsible and necessary part of being financially sound.





# Capital Projects

## Planning for Capital Projects

All proposed projects follow Tacoma Water’s budget development decision-making framework. This process ensures transparency, provides risk analysis and promotes consistency and documentation for all projects included in the two-year capital budget request.

## Projects in the 2021/22 program include:

- Retrofitting Hood St Reservoir for seismic improvements
- Building a pump station and reservoir for Tehaleh
- Planning/preparing for the pressurization of Pipeline 1

## Developer Funded Capital Projects

In addition to the capital projects we plan, we also have projects initiated by private developers who fund the cost to add the additional infrastructure. As of 2020, developers have funded about \$214 million of our assets. This is shown as contributions in aid of construction (CIAC) revenue in our financial statements.

Project Type	Est. Cost	Project Description Goals for 2021-2022
<a href="#">Advanced Meters</a>	\$23,763,000	Updating meters with technology will allow for: monthly billing, the ability to control costs better, outage and leak detection, and more flexible payment options. These costs are a one-time expense.
Distribution System R&R	\$23,248,000	Ensures our existing distribution system remains robust and reliable as we develop our service territory and serve new accounts. These costs are ongoing.
Source and Treatment	\$12,683,000	Our commitment to investing in treatment equipment and capabilities helps us keep our water safe by protecting the watershed. These costs are ongoing.
Seismic Improvements	\$9,027,000	Protects our past investments and helps ensure we can continue to deliver water in the event of a major seismic event. These costs are a one-time expense.
Fleet Replacement	\$5,547,000	Ongoing replacement of Tacoma Water vehicles to maintain employee safety and help reduce the utility’s carbon impact. These costs are ongoing.
Technology Projects	\$2,424,000	Prepares our utility for the future by investing in tools and technologies that make us more efficient and help drive our analytical capabilities. These costs are ongoing.
Other	\$2,639,000	Allows the utility to pay for unanticipated capital projects or significant equipment failures without deferring planned projects. These costs are ongoing.
<b>Total</b>	<b>\$79,331,000</b>	

# Capital Assets

## Plant In Service (PinS)

Capital expenditures are a large part of our biennial budget. When we capitalize the costs of a project, we record an asset on our balance sheet, recognizing that we will receive value over its life. We expect our capital assets will last for more than a year (sometimes even more than 100 years) but will not last forever. The value of most assets decreases over time due to use, new regulatory mandates, or obsolescence. We measure this decrease as annual depreciation.

These assets include water mains, pipes and accessories, easements, and meters. We show PinS at original cost, including all the costs necessary to bring them into service.

### Types of assets in our water system include:

Supply and Treatment

Transmission

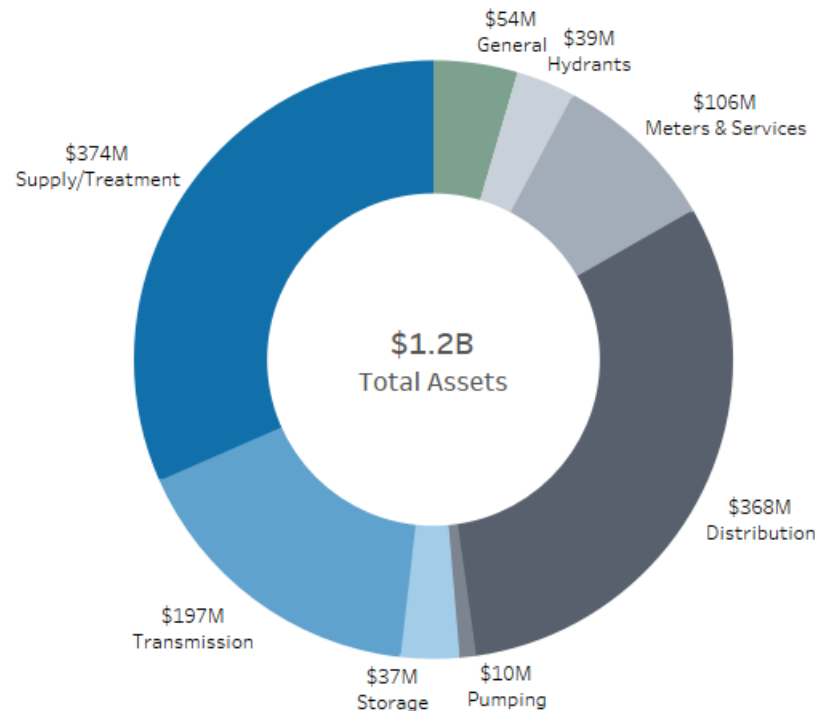
Storage and Pumping

Distribution

Meters and Services

Hydrants

2020 Original Cost Assets by Category



*Original costs as of year-end 2020, including non-utility plant.*

# Operations and Maintenance Expenses

## Operations and Maintenance (O&M)

O&M expenses reflect the day-to-day activities and costs necessary to run the utility. These include expenses such as supplies, services, and other charges, internal service assessments, and labor not related to a capital project.

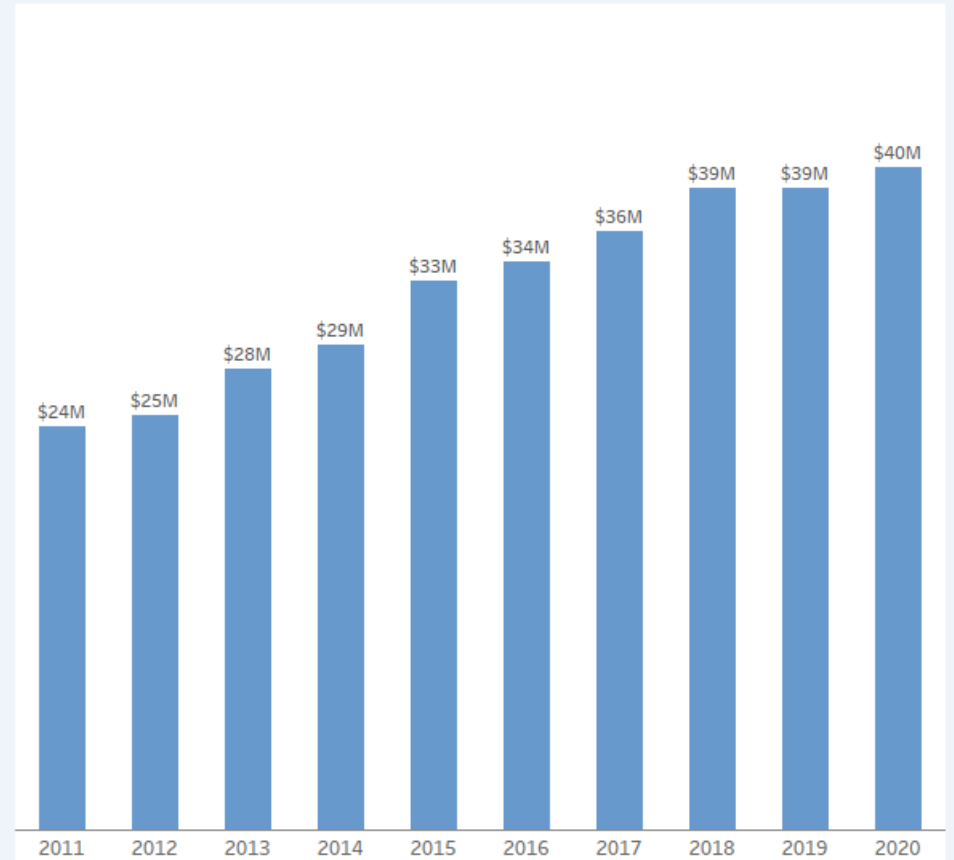
Budgeting for operations and maintenance includes two categories: Personnel and Other O&M.

## Other O&M

Other O&M includes expenses like fleet fuel and maintenance, technology support, customer service activities, bad debt expense, training, credit card fees, rent, electricity, and water treatment supplies.

Projects prioritized for the two-year budget cycle influence these expenses.

Actual Annual Other O&M Expenses



# Personnel Expenses

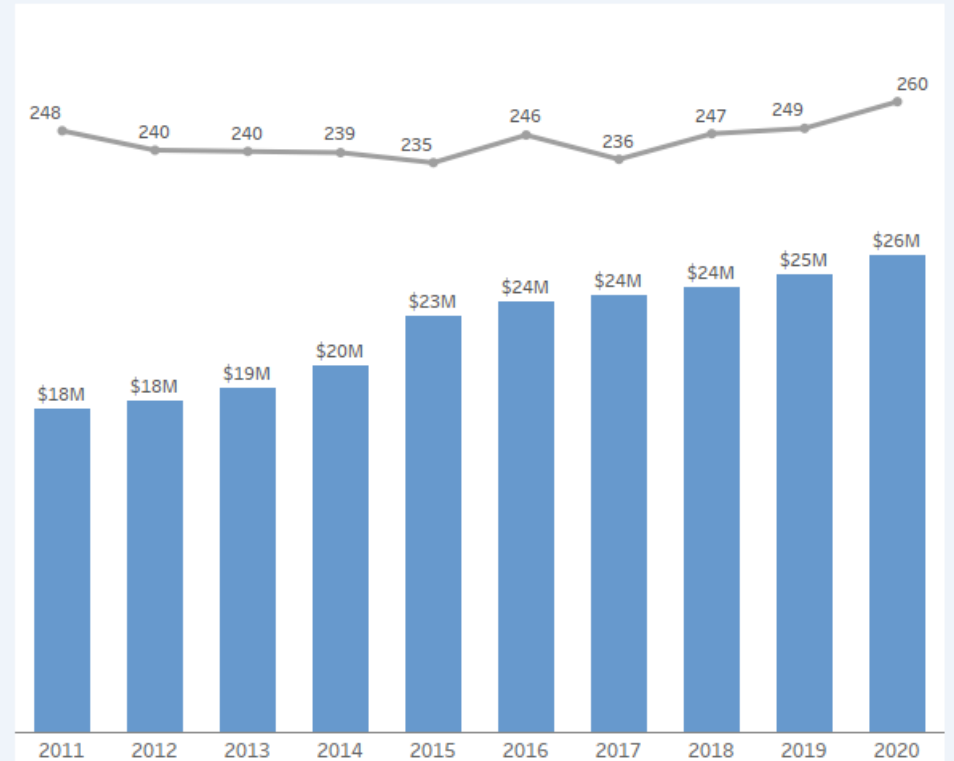
## Personnel

Operating and maintaining our water system takes hundreds of employees to keep the system healthy and delivering clean, reliable, and affordable water to more than 300,000 people.

Our biennial personnel budget includes employees' salaries and benefits with an escalation of 3% each year in projected expenses. We expect these costs to rise with cost-of-living adjustments and labor contract changes.

In addition, we expect to make investments in personnel to support the implementation of our strategic plan to improve access to data, enhance analytics and increase business process development. This work supports our ability to innovate and ensures that we are using our resources effectively and efficiently.

Actual Annual Personnel Expenses



The grey line represents annual FTE count and the blue bars represent annual personnel cost. Expenses include salaries, wages, and benefits net of labor charged out.

# Taxes

## Gross Earnings Tax

Based on a percentage of the utility's gross earnings paid to the City of Tacoma, which is currently **8.0%** for Water.

## Business and Occupation Tax

The utility pays B&O tax on its gross income from activities exempt from other taxes such as the Public Utility Tax.

The utility pays **1.75%** of its gross earnings to the State of Washington for B&O tax.

## State Public Utility Tax

The utility must also pay a tax on the public service of supplying water.

The utility pays **5.029%** of its gross earnings to the State of Washington for Public Utility tax.

## Utility Tax

Lakehaven Water and Sewer District v. City of Federal Way rejected a challenge to a City's authority to impose water utility taxes on Public Utility Districts.

As a result, the City of University Place approved a utility tax effective April 1, 2021.

This tax is based on a percentage of the utility's gross earnings in a particular jurisdiction and paid to that jurisdiction, which is currently the City of University Place at 3.0%.

Since we are a cost-of-service utility, taxes are a part of the rates we charge. The amount changes up or down depending on how much revenue we collect each year.

### 2020 Actual Taxes

	Rates	Amount
Gross Earnings Tax	8.000%	\$7.8M
State Public Utility Tax	5.029%	\$3.5M
B&O Tax	1.750%	\$1.1M
Utility Tax	3.000%	\$0.0M

*Taxes paid as of year-end 2020.*

University Place  
WASHINGTON



Department of  
**Revenue**  
Washington State





# Franchise Fees

## Franchise Fees

The utility pays franchise fees to operate in nearby jurisdictions.  
These are jurisdictions are:

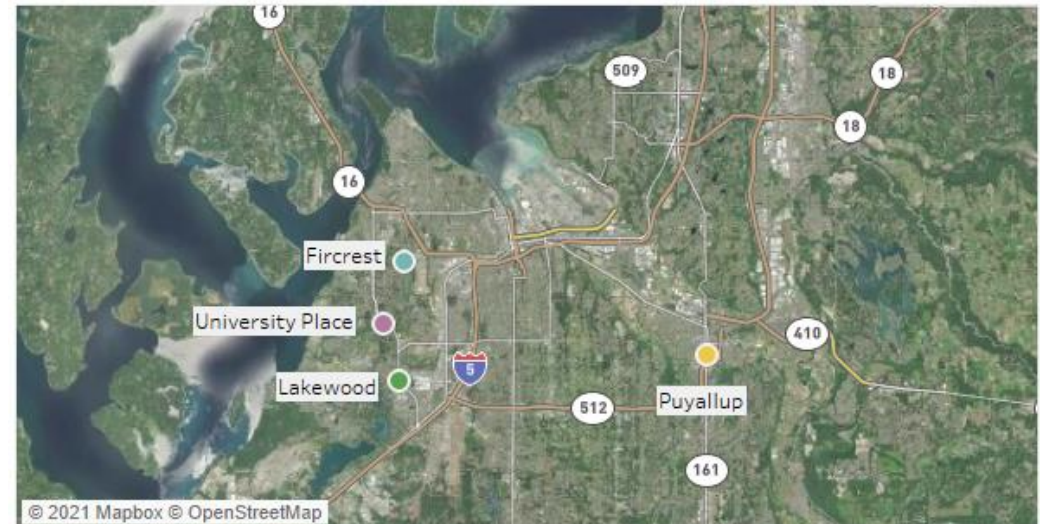
- **City of Fircrest**
- **City of Lakewood**
- **City of Puyallup**
- **City of University Place**

We negotiate franchise fees as part of franchise agreements  
with the respective jurisdictions.

2020 Actual Franchise Fees Paid by City

	Rates	Amount
Fircrest	6.0%	\$9K
Lakewood	6.0%	\$6K
Puyallup	6.0%	\$48K
University Place	8.0%	\$664K

*Annual franchise fees paid as of year-end 2020.*



# Revenue Sources

## Retail and Wholesale Water Sales

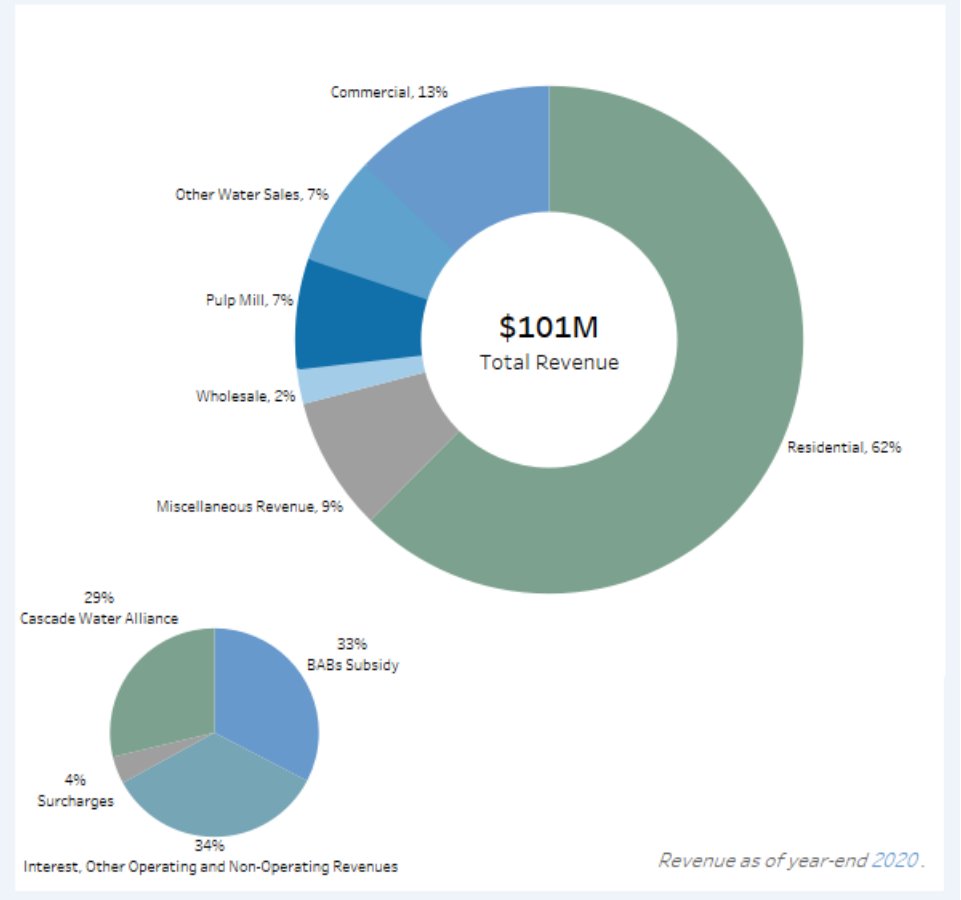
We base water sales revenue projections in the LRFP on demand forecasting that is updated each biennium. This forecast incorporates trends and estimates for account growth as well as for demand per account. We collected over **90%** of our revenue from retail water sales in **2020**.

## Other Revenues

The revenue we receive from other sources shown in the small chart includes surcharges we collected to pay for upgrades to system acquisitions, federal subsidies for Build America Bonds (BABs), and interest earned on cash balances.

We occasionally also receive revenue from a property sale, timber harvest, or limited-term contract payments like our agreement with Cascade Water Alliance. We deposit these revenues into our capital reserve funds to pay for capital expenses rather than rely on using them to pay for our ongoing O&M expenses.

2020 Actual Revenue by Source



# Customer Classes

## Customers and Types of Services

As a cost of service utility, we charge our customers only what it costs to manage our system responsibly and provide clean, reliable water. Each biennium, we conduct a cost of service analysis to determine the appropriate portion of revenue to recover from each customer class based on the types of services and infrastructure needed to deliver services to them.

The Residential Class is by far the largest and provides **68%** of the revenue from retail sales.

Residential water sales increased in **2020** largely because people were staying home and using more water due to the impacts of the COVID-19 pandemic. We remain dedicated to helping our customers pay their water bills by strengthening the assistance programs we provide and help them access federal assistance funds.

### 2020 Customer Classes

Customer Class	% of Revenue	% of Customers	# of Customers
Residential	68%	93%	98,848
Commercial	12%	4%	4,750
Large Volume	2%	> 0%	6
Parks & Irrigation	3%	1%	993
Private Fire	4%	1%	1,560
WestRock	8%	> 0%	1
Wholesale	2%	> 0%	21

*Customer classes reported as of year-end 2020.*

# Forecasting Accounts, Demand, and Supply

## Declining Residential Demand

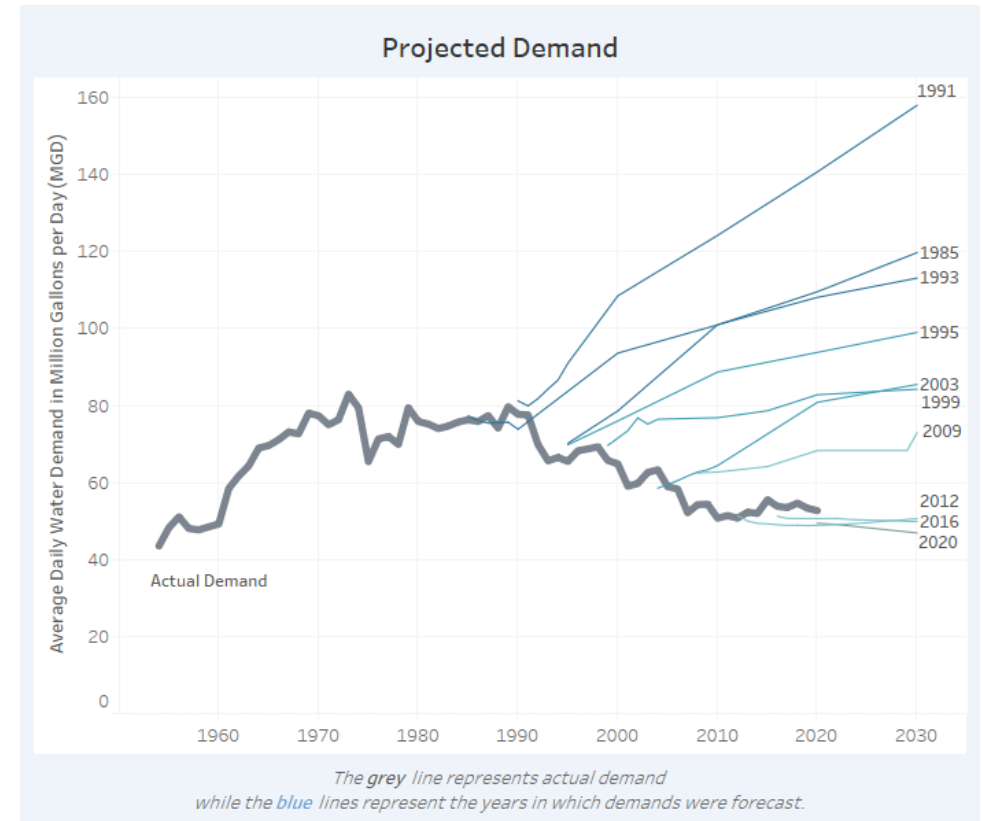
Tacoma Water's retail demand per account has been trending downward over recent years. The hockey stick projections of yesteryear explain why our utility built the water system the way it did: to prepare for future growth.

Conservation measures, improved code and standards and more efficient household fixtures lead to new flat or declining water demand forecasts.

For the next 10 years, we project the number of accounts to experience continued growth while we project water demand to continue its trajectory of decline.

## Modeling Regional Supply

With robust infrastructure and projections of ample supply, we have an opportunity to redirect excess supply into regional markets, which can provide resiliency via interties and avoid additional redundant infrastructure and supply development regionally.



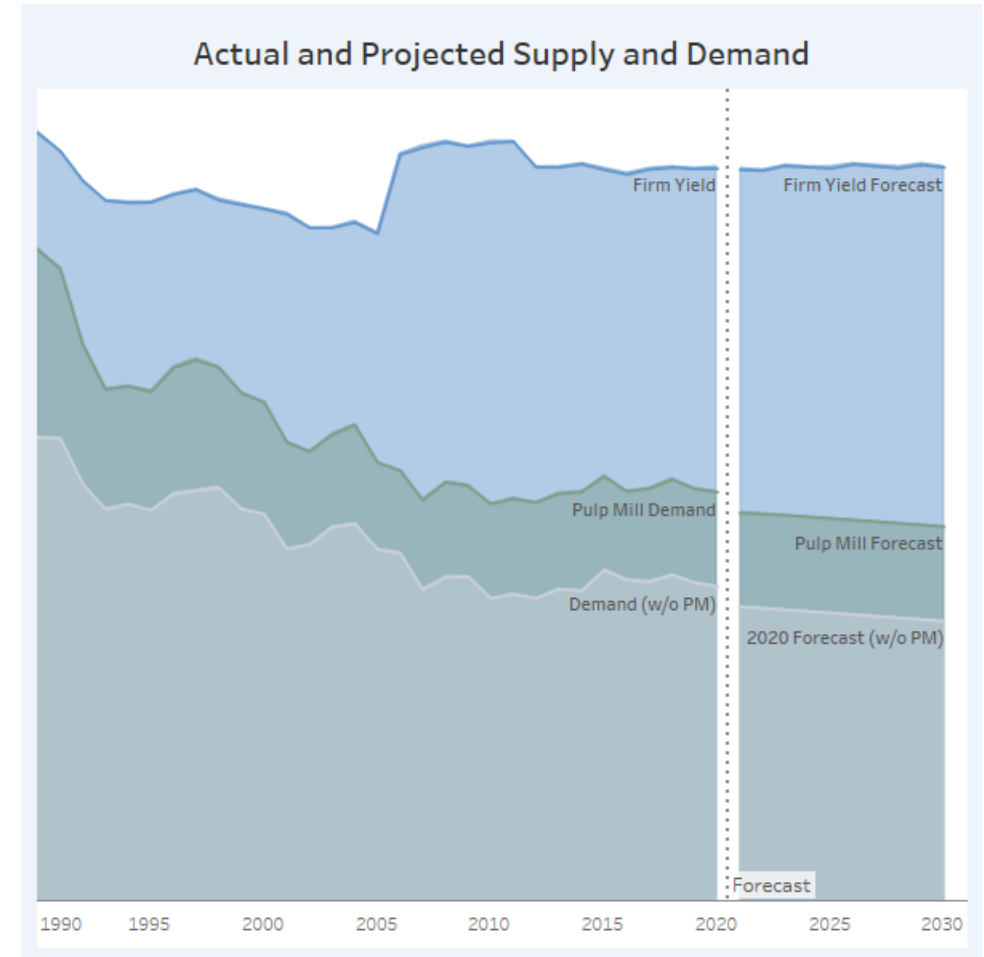
# Forecasting Accounts, Demand, and Supply

## Supply and Market Development

Although we project our system demand to decline slightly, we expect our supply (Firm Yield) to remain relatively constant. We anticipate this will provide us with an opportunity for market development to serve additional regional water customers.

Additionally, one-third of our consumption is from a single industrial customer (Pulp Mill). To be responsible stewards of our utility, we also need to proactively model the potential loss of this single customer and what that means in terms of re-inherited supply back into our water system.

The chart on the right shows our actual supply and demand in average millions of gallons per day from 1990–2020, and our forecast for supply and demand from 2021–2030. Please note there may be days where our system demand exceeds our firm yield due to weather and environmental considerations.



# Potential New Revenues with Wholesale

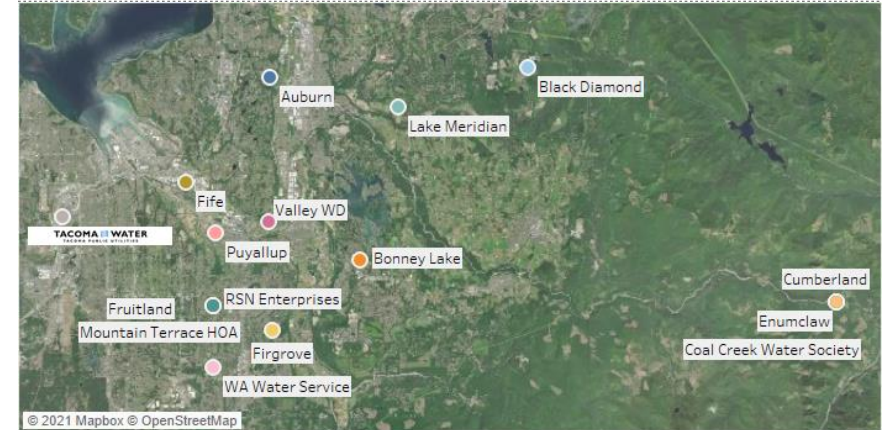
## Rate-Design for the Long-Term

While wholesale customers generally have their source of supply, there are a few reasons why they would elect to purchase water. Wholesale customers might want: (1) an additional source of supply, (2) redundancy, and/or (3) an emergency intertie. With historical and forecasted underutilization of contracted demand by wholesale customers, in 2020 we moved from a traditional rates structure based on meter size to rates based on contracted peak capacity to support wholesale market revenue growth.

Transitioning from meter size to contracted capacity helped Tacoma Water balance business objectives of revenue stability, equity within the wholesale class, and efficient price signaling.

While our rate-design shift remains neutral in recovering the cost of service, we intend to price ourselves competitively so our wholesale customers will buy more water from us in the long run. Additionally, wholesale customers now have alternate options available for water supply through market-based pricing or reduce contract capacity through reverse capacity amortization.

## Wholesale Customers



## Market-Based Pricing Model

- Enables the option to pay different rate than the new wholesale pricing schedule
- Pricing based on a customer's existing supply options
- Requires a new or amended contract

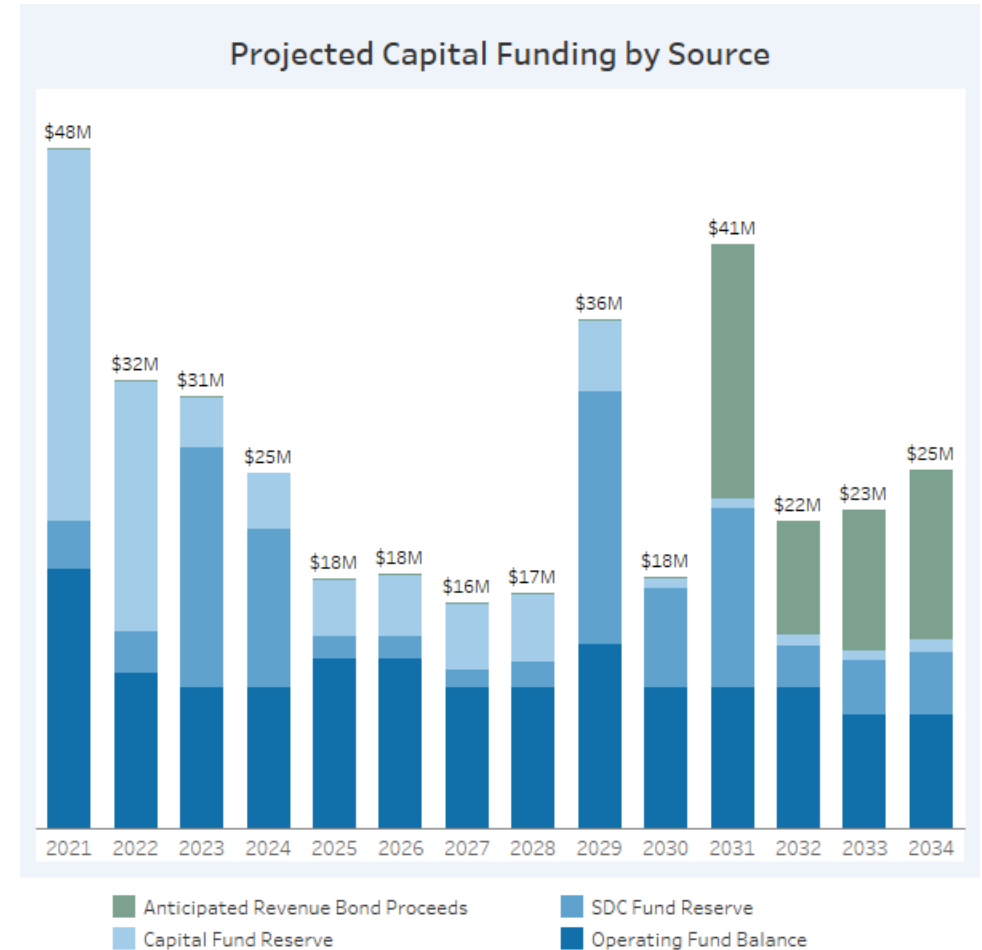
# Capital Funding Sources

## Funding the LRFP

Our financing strategy supports using a combination of cash reserves and debt to pay for capital costs.

Through financial modeling, we analyzed numerous possible funding scenarios. We based those scenarios on objectives that focus on affordability, equitable distribution of costs to customers for future generations, alignment with asset and system management principles, and gradual increases to revenue requirements.

The LRFP provides a funding scenario that gradually and minimally increases rates each year. Timing for when and how much debt to issue bonds allows us to keep revenue requirements smooth and gradual over the planning horizon.

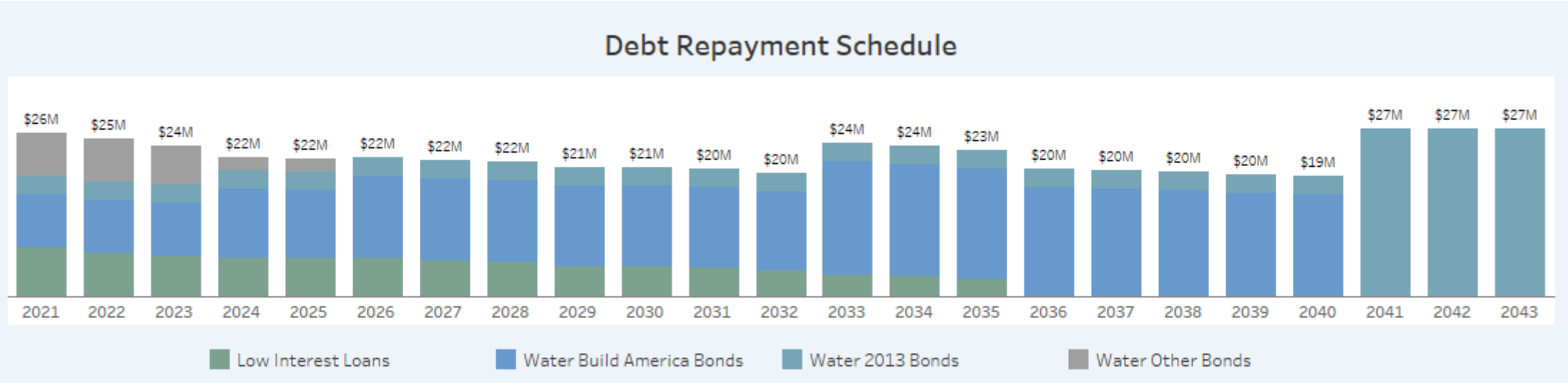




# Existing Debt Service

We sell senior lien bonds to investors to help fund capital projects and spread the payments over the life of the assets. This debt is generally financed over 30-years and structured to achieve the lowest interest rates possible based on market rate expectations. We issue most of our bonds in the tax-exempt market. However, in 2009 and 2010, we issued taxable bonds under the American Reinvestment and Recovery Act (ARRA). We receive federal interest subsidies, reducing the overall cost of the debt and giving us access to new investors in the taxable market. The chart below shows combined annual principal and interest payments before the federal subsidies, which we included as revenue in our planning and accounting.

In addition, we have financed portions of several large capital projects with low-interest loans from the State of Washington Public Works Trust Fund and Drinking Water State Revolving Fund Loan programs. This super-subordinate lien debt gets repaid with level principal and interest payments over 20-years, and the interest rates are between 0.5% and 1.5%, providing significant savings for our customers.



*Does not include federal interest subsidies or RWSS debt service.*

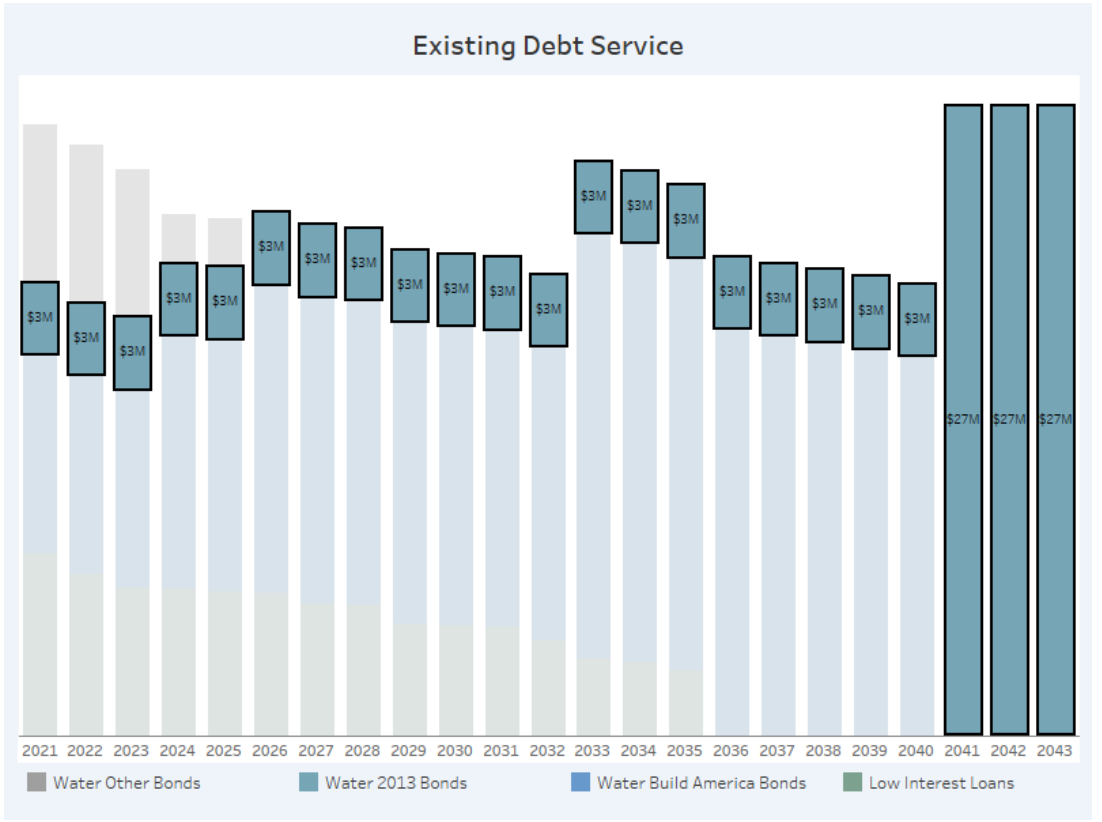
# Financing Plans

## Active Debt Management

As you saw in our existing debt profile, we have issued our bonds in different years and structured the debt to be repaid in different ways. We actively manage our debt profile and make changes to achieve debt service savings or reshape our debt service payments to provide level debt service or financial flexibility.

Tacoma Water also takes advantage of refunding opportunities for debt service savings. On the next page, you will see an example of a recent Tacoma Water bond refunding that will save our customers over \$1 million in interest payments between 2020 and 2023.

Currently, we are modeling the potential opportunity to refund Tacoma Water’s 2013 bonds for debt service savings and possible restructuring. These bonds are callable in June 2023 and available for a current refunding in early 2023. Estimated savings could be more than \$10 million over the life of the bonds. This estimate is preliminary, and subject to change.



# 2020 Bank Loan Refunding

## Managing our Debt and Refunding for Savings

In May 2020, we refunded the Water System Revenue Refunding Bonds, 2010A (2010 Bonds) with a bank loan from Key Government Finance, Inc. for the Water System Subordinate Revenue Refunding Bond, Series 2020 Direct Purchase Option (2020 Bond).

## City of Tacoma's Strategic Policy Priority

We achieved significant cash flow and net present value savings by this refunding, in alignment with encouraging and promoting an efficient and effective government, which is fiscally sustainable and guided by engaged residents.

## The Timing of Savings and Beyond

Since interest rates dropped significantly from the date of issuance of the 2010 Bonds, we were able to refinance the obligation at a much lower interest rate (1.4%) for the remaining term of the debt. This refunding provided \$1.1 million net present value (NPV) savings for ratepayers between 2020 and 2023, with \$168,000 saved in 2020. NPV percentage savings is 6.05% of refunded par, well above the City of Tacoma's recommended minimum of 5% for refunding bond transactions.

## Summary

Date	May 14, 2020
Par Amount	\$17,466,514
Bank	Key Government Finance, Inc.
Interest Rate	1.4%
Savings (NPV)	\$1,077,116
Savings (%)	6.05%
2020 Savings	\$168,000

# Credit Ratings

## We Have Strong Credit Ratings

Two rating agencies evaluate our utility and our performance on certain financial metrics helps them compare us to other utilities and assess our ability to meet long-term financial obligations. These ratings assure investors that we are a well-managed utility with the ability to pay our debt over the next 30 years. In addition, this helps us obtain low-interest rates and pay less interest over time, benefitting our customers and providing flexibility to address unexpected changes in the plan.

MOODY'S

April 9, 2015

Rating: **Aa2**

Outlook: **Stable**

### Summary Rating Rationale

- Broad and diverse customer base
- Robust liquidity will be used to support capital plan and rate relief
- Manageable debt levels and healthy debt service coverage expected to improve going forward
- Strong standing with respect to supply and system infrastructure
- Sound financial policies and planning
- Rating affirmed on August 19, 2021

S&P Global  
Ratings

April 9, 2015

Rating: **AA**

Outlook: **Stable**

### Summary Rating Rationale

- Large service area anchored by the City of Tacoma and located in the greater Puget Sound regional economy
- Diverse customer service area
- Strong debt service coverage (DSC)
- Strong liquidity position
- Manageable capital improvement plan
- Rating affirmed on March 19, 2021

# Credit Ratings

## Financial Metrics and Credit Ratings

Each rating agency has its methodology, process, and scale for rating the investment quality of a utility.

The rating agencies all include historical and projected financial performance in their analysis. In addition, they evaluate other criteria such as economic indicators, system diversity, water supply contracts, support for rate increases and management decisions.

Moody's Investors Service is a rating agency that has published its methodology for analyzing utilities like ours. Understanding its methodology helps us interpret the Moody process and align our financial metrics with the agency's rating scale.

## Moody's U.S Municipal Utility Revenue Debt Methodology

	Aaa	Aa	A
Days Liquidity	> 250 Days	150 to 250 Days	35 to 150 Days
Debt Service Coverage	> 2.0x	1.7 to 2.0x	1.25 to 1.7x

## Tacoma Water Metrics

	2020	2019	2018	2017	2016	2015
Days Liquidity	253	259	257	221	229	208
Debt Service Coverage	2.78x	2.91x	3.24x	2.33x	2.29x	2.33x
Debt Ratio	39.9%	42.5%	44.8%	46.5%	48.1%	48.1%

**Days Liquidity:** Ratio of Current Days Cash on Hand and the ability to cover expenses with cash.

**Debt Service Coverage:** Ratio of cash flow available to pay debt service owed.

**Debt Ratio:** Ratio of total debt outstanding as a percentage of Total Assets.

# Reserves

## Bond Reserve Funds

We established Bond Reserve Funds to pay for outstanding bond interest and principal payments in the event that the utility is unable to pay from revenues. These funds are not included in our financial metric calculations and are restricted to be used to meet bond covenants.

Our funds contain a combination of cash, investments, and a surety policy (insurance). The combined size of the funds must remain sufficient to meet the Reserve Account requirements in Tacoma Water's bond covenants. We base the size requirement on the lessor of the following:

1. **The maximum annual debt service payments in our bond debt-portfolio**
2. **125% of average annual debt service payments in our bond debt-portfolio**

Our Bond Reserve Fund is sufficiently funded through 2025 when our existing surety policy expires.

For the LRFP, we assume we will fund the reserve account with cash after the surety policy expires. If there is an opportunity to extend our surety policy, we would not need to fund the additional amount.

## Operating and Capital Reserves

Earlier in this document, we discussed our financial policies related to operating and capital reserve levels. These funds provide flexibility to manage potential risks, meet working capital needs, and support stable rate adjustments. Here is a summary of the funds with their balances at the end of 2020:

**Operating Reserve Fund: \$68M**

**Capital Reserve Fund: \$38M**

**System Development Charge (SDC) Fund: \$73M**

**Rate Stabilization Account: \$33.6M**

**Unrecognized revenue within the SDC Fund**

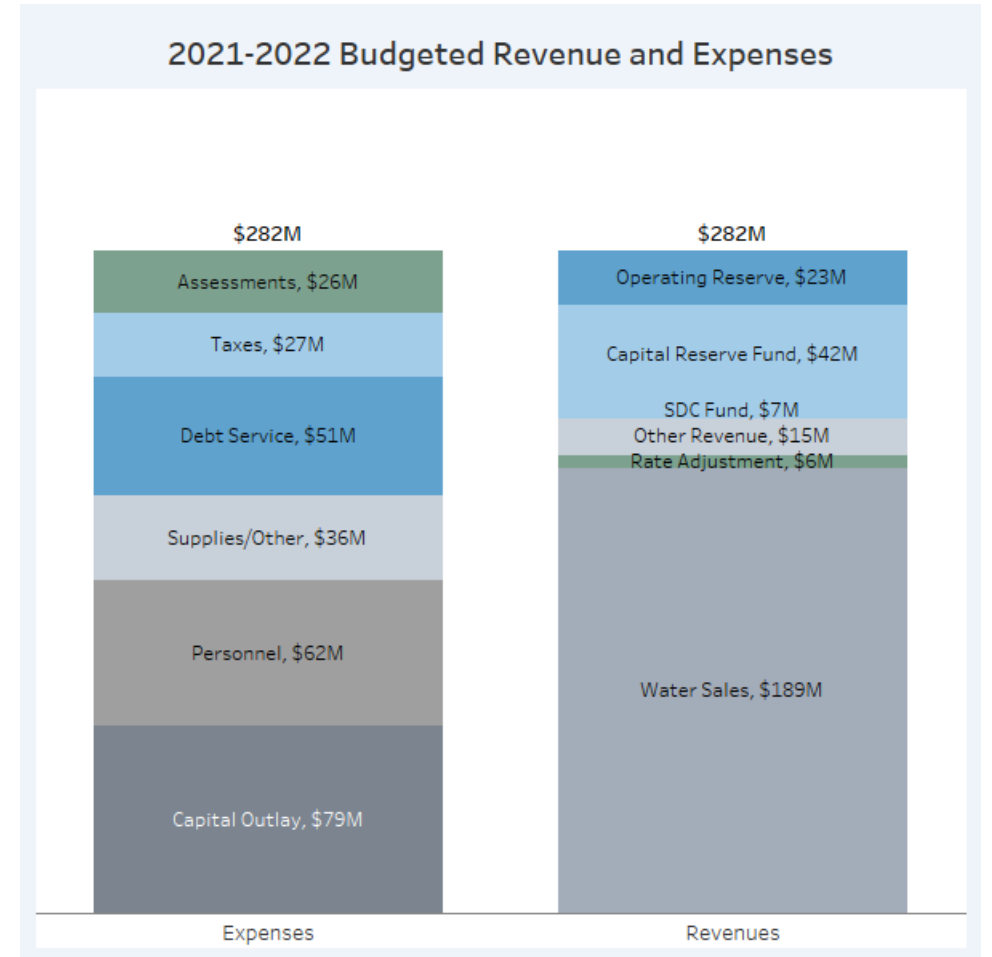
We include these fund balances as liquidity for our financial metric calculations. In addition, recognition of deferred revenues in the Rate Stabilization Account are included in the Senior Debt Service Coverage calculation and can boost the ratio.

# Credit, Debt, and Reserves

## Bringing It All Together

This slide brings the components together in a side-by-side comparison and shows our budgeted revenue and expenses for **2021-2022**. We generally match our revenues to our expenses when we develop and propose our budgets. We plan to fund about **69%** of our expenses from water sales, **26%** from existing reserves, and about **5%** from other revenues for this biennium.

When we collect more revenue than we spend in a given period, we use that surplus to reduce the amount collected from customers in future years. This revenue also helps build reserves to be used to fund future spikes in debt service or other expenses while keeping rate increases as low as is responsible, stable, and predictable for our customers.





# Regional Water Supply System (RWSS)

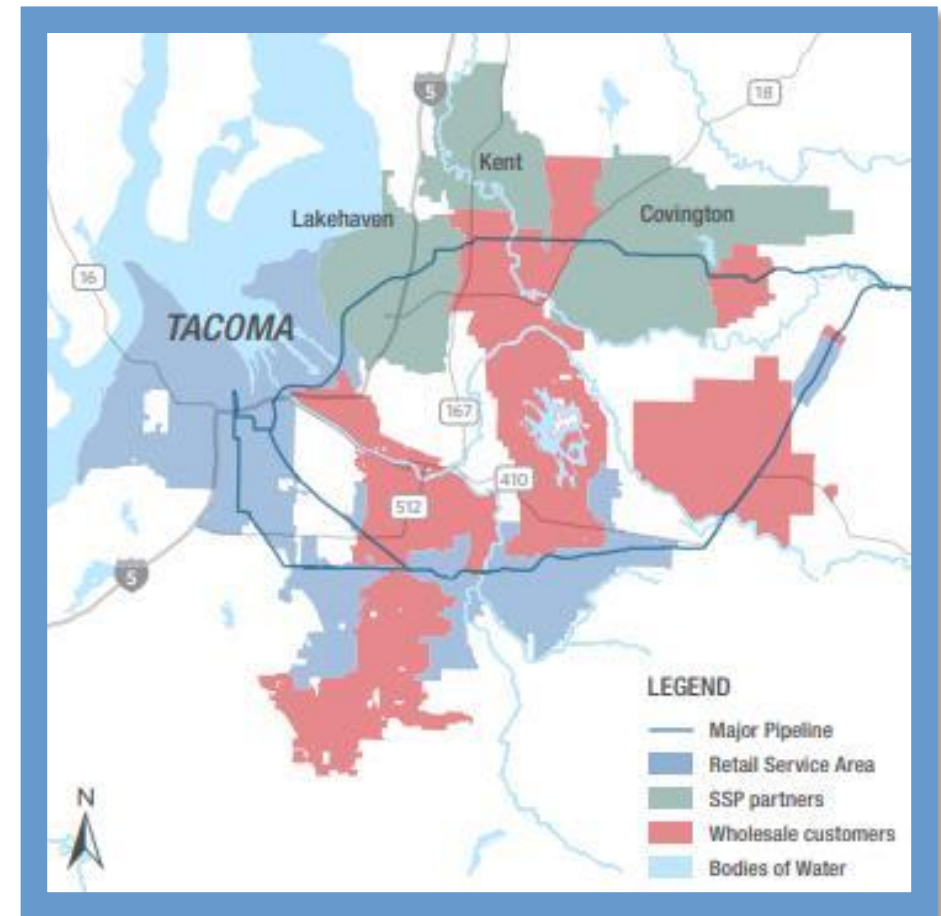
## Forming the Regional Partnership

We began developing the Second Supply Project (SSP) in 1968 to meet our future water supply requirements and increase regional supply.

In 2002, we entered into a partnership to form the RWSS and build the SSP. The Participants of the [Second Supply Project Partnership Agreement](#) (the Agreement) include:

- [Tacoma Water](#)
- [Covington Water District](#)
- [City of Kent](#)
- [Lakehaven Water and Sewer District](#)

The term of the Agreement extends through the Operating Life of the SSP, including all additions, renewals, and replacements.



# RWSS

## The RWSS Project Committee

Decisions are made by the RWSS Project Committee, consisting of one representative of each Participant. Tacoma has 15 votes, and each of the other Participants has seven votes. The Committee meets each month and to take action, a quorum of not less than three Participants, including Tacoma, must be present, and there must be an affirmative vote of 29/36ths of the Project Committee total votes. (Tacoma plus two other Participants.)

The RWSS operates under an annual budget, which includes the amounts necessary to operate and maintain the SSP and any proposed capital expenditures including renewals, replacements, additions, or improvements.

We are required to submit a proposed Annual Budget by July 1 with a final budget approved by the Project Committee no later than October 15 each year.



# RWSS

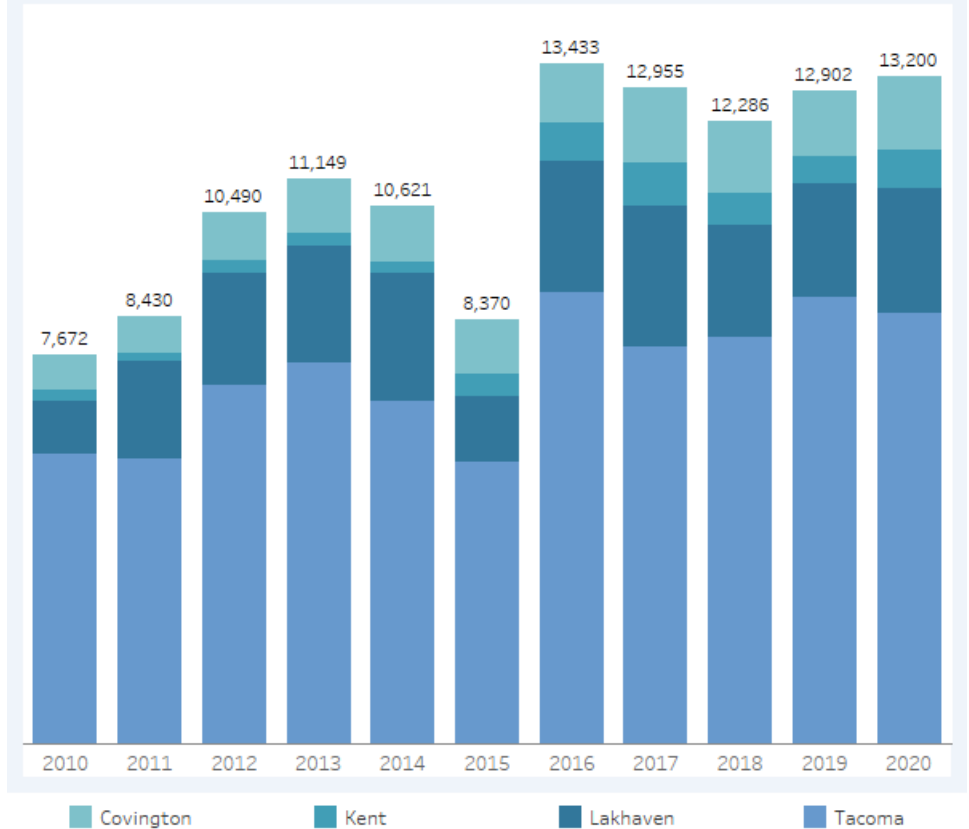
## Building the Second Supply Project

The SSP became operational in 2005, and today it is the major source of our water supply.

In addition to increasing water supply, the SSP increases flexibility and reliability of water delivery in both Tacoma Water's and the other Participants' service areas.

The Second Supply Project Partnership Agreement defines the rights and obligations of the Participants. Tacoma has a 15/36 Participant Share and each of Kent, Covington, and Lakehaven has a 7/36 Participant Share in the SSP. Each Participant Share represents a proportional right to receive, and obligation to pay for, water delivered by the Second Supply Project.

Annual Water Consumption by RWSS Participant  
*in million gallons*



# RWSS

## Second Supply System Components

The SSP includes the following components:

- Water from the exercise of Tacoma Water's Second Diversion Water Right
- The Second Supply Pipeline
- Improvements made at the Headworks diversion dam and intake
- SSP fisheries and environmental enhancements
- The right to store water as a result of the Howard Hanson Dam Additional Storage Project
- Treatment Facilities including the Green River Filtration Facility completed in 2015

2020 RWSS Assets by Participant  
*at Original Cost*

	Tacoma	Kent	Covington	Lakehaven	RWSS Total
Second Supply Pipeline	\$59,902,789	\$27,954,635	\$27,954,635	\$27,954,635	\$143,766,693
Water Treatment, Environmental, and Source	\$83,451,768	\$38,944,158	\$38,944,158	\$38,944,158	\$200,284,242
Other RWSS Assets	\$254,165	\$118,611	\$118,611	\$118,611	\$609,997
Grand Total	\$143,608,721	\$67,017,403	\$67,017,403	\$67,017,403	\$344,660,931

Although separately financed, the RWSS assets are owned, operated, and maintained by Tacoma Water. Therefore, the RWSS is accounted for in our Financial Statements.

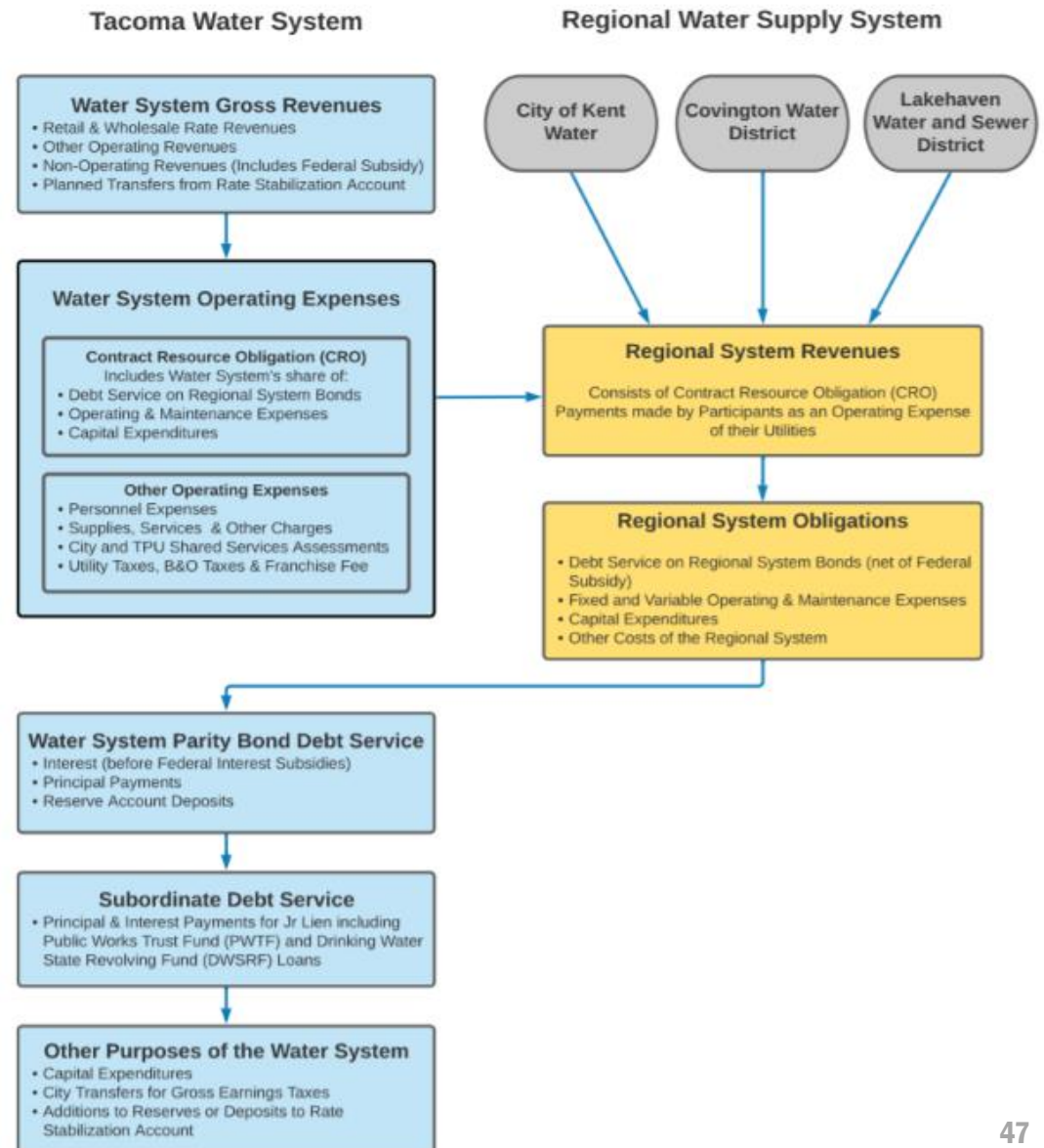
# RWSS

## RWSS Participant Flow of Funds

The Regional Water Supply System was established as a separate system, financed separately from the Water System, and designated as a Contract Resource Obligation (CRO) by each Participant. As a result, costs associated with the Regional System, including debt service on Regional System bonds, are paid as O&M of the Water System and each Participant.

Because debt of the Water System is paid from net revenue, Water System bonds are payable after the prior payment of all costs of the Regional System. The chart on this slide demonstrates the flow of funds and priority of payment.

Our obligation to pay the costs of the RWSS is offset partially by contractual payments made by the other Participants. If another Participant defaults, we are obligated to pay debt service on the Bonds.



# RWSS Expenses and Revenues

## Accounting for Expenses

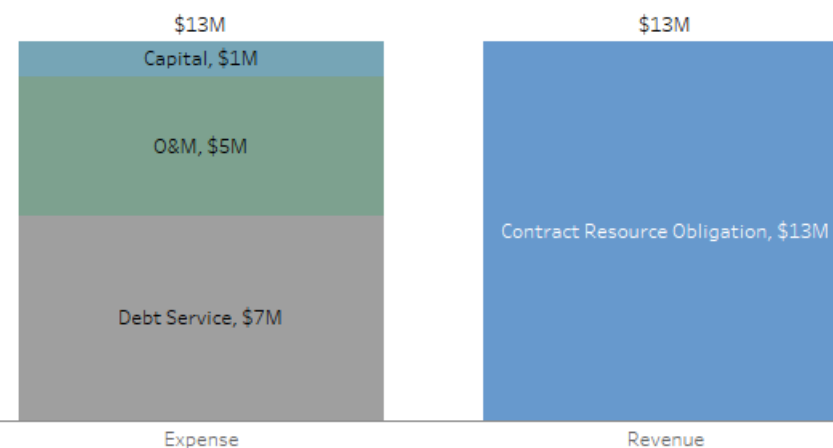
As Project Operator, we are responsible for the operation of the SSP, maintain the financial records, and provide reports to the Participants in accordance with the Agreement.

Participants are billed and pay their share of operating and maintenance expenses monthly and capital expenditures quarterly. Debt Service payments on RWSS Bonds are paid monthly for the 2013 Bonds and semi-annually for the 2010 Bonds in advance of when the payments are due.

We receive the payments and pay all operating costs and debt service of the RWSS. The annual revenues are established to approximately equal annual costs.

Our share of RWSS expenses is included as an assumption in our LRFP.

2021 RWSS Budget Revenue and Expense



Participant	Expense			Revenue
	Capital	O&M	Debt Service	Contract Resource Obligation
Covington	\$0.2M	\$0.8M	\$1.1M	\$2.6M
Kent	\$0.2M	\$0.8M	\$1.8M	\$2.6M
Lakehaven	\$0.2M	\$0.9M	\$0.0M	\$2.6M
Tacoma	\$0.5M	\$2.4M	\$4.4M	\$5.6M
Grand Total	\$1.2M	\$5.0M	\$7.3M	\$13.5M



# RWSS Fixed and Variable O&M Expenses

## Fixed O&M Costs

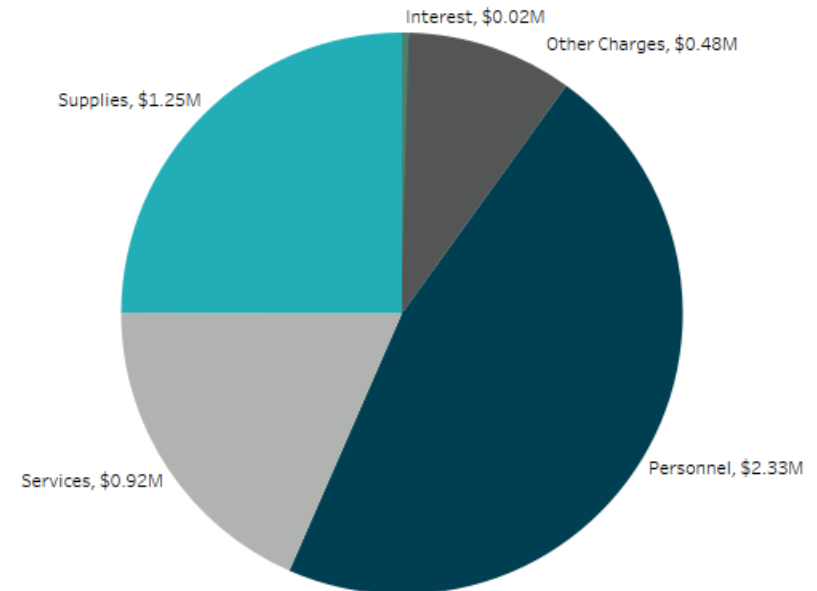
We incur these costs to operate and maintain the SSP. These expenses do not vary based on the quantity of water delivered to the Participants and include expenses related to labor, supplies, services, and equipment.

## Variable O&M Costs

These costs vary based on the quantity of water delivered to a Participant and include electricity and water treatment supplies and materials expenses.

We bill variable costs using estimates and true-up actual expenses at the end of each year.

2021 RWSS O&M Budget



# RWSS Capital Expenditures

## Capital Planning

We expect to fund the RWSS capital improvements by cash payments from the Participants.

We have no plans to issue Future Parity Bonds for the Regional System in the next several years.

## Current Projects:

- Ongoing renewal and replacement
- Relocating a major section of Pipeline 5
- Adding storage behind Howard Hanson Dam
- Upgrading the fish transfer hoppers
- Increasing security with gates and cameras

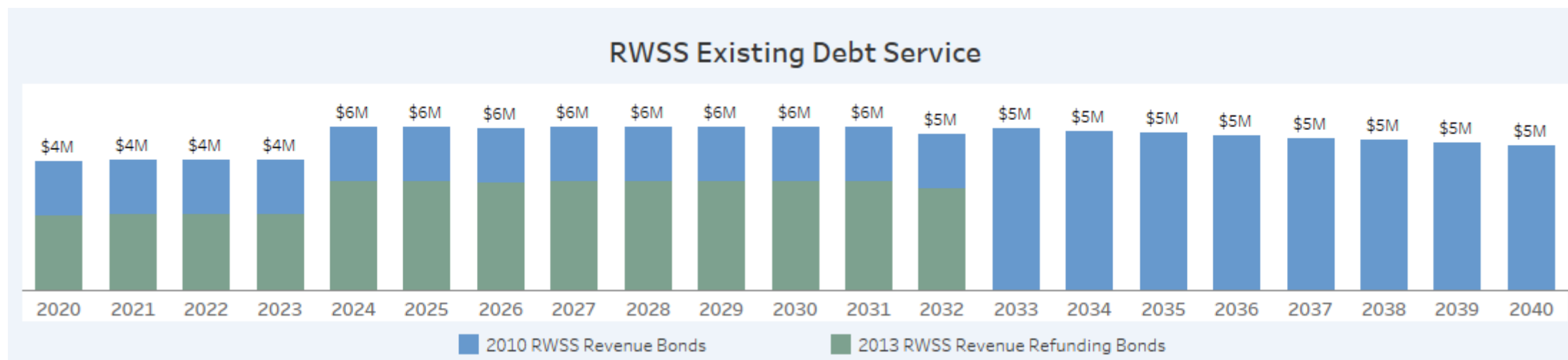
Project	2021	2022	Project Description
Radio Communication	\$661,000	\$368,000	Update our technology to video high-frequency for radio communication. These costs are a one-time expense.
Renewal and Replacement	\$349,000	\$138,000	Ensures our existing system remains robust and reliable as we develop our service territory and serve new accounts. These costs are ongoing.
North Fork Wells	\$94,000	\$126,000	Helps keep our water safe by protecting the watershed and continues the commitment to invest in treatment equipment and capabilities. These costs are ongoing.
Environmental Stewardship	\$89,000	\$39,000	Continues our commitment to ensure environmental stewardship in the watershed. These costs are ongoing.
Pipeline 5 Relocation	-	\$1,473,000	Relocation of a major section of our pipeline accommodates work done in this area for public transportation. These costs are a one-time expense.
Other	\$20,000	\$100,000	Allows RWSS to pay for unanticipated capital projects or major equipment failures without having to defer planned projects. These costs are ongoing.
<b>Total*</b>	<b>\$1,213,000</b>	<b>\$2,881,000</b>	Excludes Tacoma's First Diversion. Costs by participant is provided in the Appendix.



# RWSS Debt Management

Upon approval by the Project Committee, Tacoma may issue bonds to provide funding for capital costs on behalf of the RWSS. As part of this process, Tacoma develops and submits a Financing Plan that includes the purpose, amount, repayment schedule, and timing for the proposed issuance. Any Participant may elect to cash fund its share. Lakehaven cash funded its share of capital expenses, and Tacoma, Covington, and Kent are repaying the outstanding debt service.

The 2013 RWSS Revenue Refunding Bonds are callable in June 2023 and we are monitoring the market to identify opportunities for refunding the debt for savings. Estimated savings could be nearly \$9 million over the life of the bonds.



# RWSS Financial Metrics and Credit Ratings

## Operating Reserve

The RWSS has established an operating reserve equal to two months of its annual operating budget. Our operating reserve provides working capital to offset timing differences between the utility's payments for expenditures and reimbursement from Participants.

## Debt Service Coverage Ratio

Typically, near 1.0x due to the cost-recovery nature of the project and repayment agreements. The Participants generate strong debt service coverage and provide credit support for the RWSS bonds.

## Debt Service Reserve Funds

The requirement is equal to average annual debt service, and we met it with cash.

## MOODY'S

March 27, 2013

Rating: **Aa2**

Outlook: **Stable**

### Summary Rating Rationale

- Secured by operating revenues of Tacoma, Kent and Covington
- Debt service is senior to existing revenue bonds for each utility
- Tacoma pledged gross revenues to pay in the event of non-payment by other participants
- No additional debt planned
- Rating affirmed on August 19, 2021

## S&P Global

Ratings

March 27, 2013

Rating: **AA**

Outlook: **Stable**

### Summary Rating Rationale

- Generally strong credit quality of the four Participants
- Covenants by participants' covenants to collect water rates and charges to cover system obligations
- Agreement by Tacoma to cover payment defaults
- Liquidity in operating reserve and debt service reserve funds
- Rating affirmed on March 19, 2021

# The Base Case

## The Base Case

The LRFP combines financial forecasting with long-term strategic planning. We use it as a tool to identify and prepare for risks and opportunities that the Utility may encounter in the coming years.

To get anywhere, you have to start somewhere, and for our LRFP, that starting point is called the **Base Case**. This base case scenario is what we believe is the most probable set of outcomes, given estimates and assumptions that are based on history and our best knowledge today. This financial forecast forms the foundation of our Long-Range Financial Plan.

Once we establish the base case scenario, we can adjust individual assumptions to develop **Scenarios**. This adjustment helps identify uncertainties, evaluate possible impacts and develop strategies to mitigate the impacts.

## Assumptions for the Base Case

In this LRFP, the Base Case reflects the combination of Tacoma Water's financial performance through 2020, budget information for the 2021-2022 biennium, and the background information provided in the previous sections.

For any plan that looks far ahead, we know things will be different from what we planned. In fact, by the time this document has been published, we will have identified changes that we will incorporate in our next plan update.

## Building the Base Case

Once we have forecast our capital and O&M requirements, revenues at existing rates, and miscellaneous revenues, we look to see how much additional revenue we will need to collect in order to maintain financial stability and sustainability for the Utility.

This helps us manage future challenges with the objective of providing the most value for the utility's ratepayers at the lowest possible cost.

# Base Case: Debt Service Coverage

## Debt Service Coverage Ratio

The debt service coverage ratio measures how many times we can pay the interest and principal payments of our outstanding debt with available cash flow in a given year. This measure helps us ensure that we are in compliance with debt covenants and provides financing flexibility.

As you can see for the Base Case, we are above our policy requirements in all years. We have included projections beyond the ten-year horizon in order to show how we plan to mitigate anticipated revenue and debt service constraints in the early 2030s and maintain strong metrics.

### Calculation for Debt Service Coverage

**Senior:** *Net Revenue/Debt Service after transfers from rate stabilization account and without Gross Earnings Tax transfer or Subordinate Debt*

**All-In:** *Net Revenue/Debt Service does not include transfers from rate stabilization account and does include Gross Earnings Tax transfer and Subordinate Debt*

Projected Base Case Debt Service Coverage Ratios



# Base Case: Liquidity and Reserves

## Liquidity and Reserves

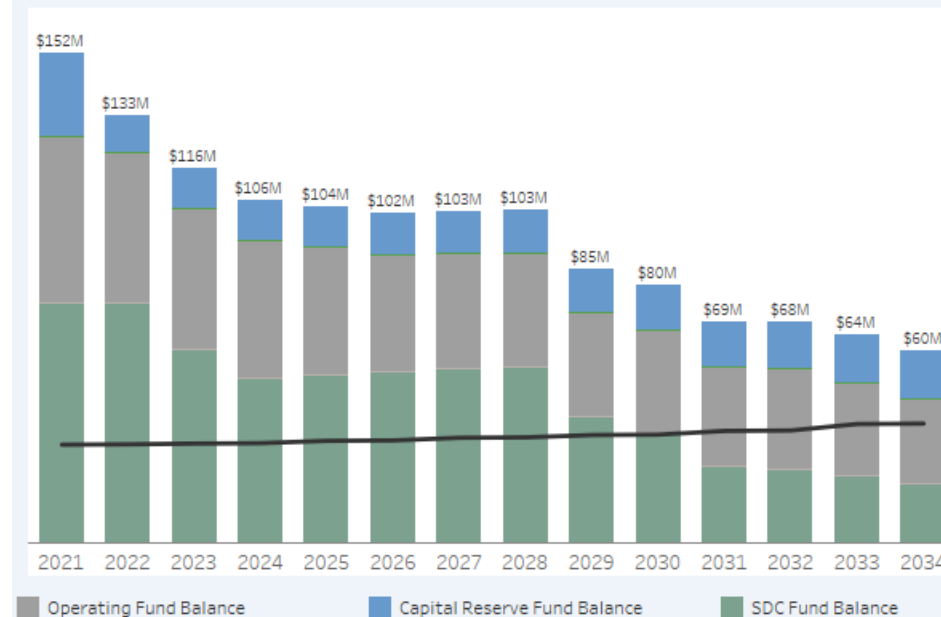
Our financial policies require certain cash balances for our operating and capital reserve funds. The reserves provide flexibility to manage risk, meet working capital needs and support stable rate adjustments. We also provide a Days Liquidity measure to show how many days of operating expenses we could fund from reserves.

As you can see for the Base Case, we are well above our policy requirements in all years. We have included projections beyond the ten-year horizon to illustrate our plan for a responsible spend-down to mitigate anticipated revenue and debt service constraints in the early 2030s and maintain projected rate adjustments as low as is responsible for our customers.

### Calculation for Days Liquidity:

*$(\text{Operating Fund Balances} + \text{Capital Reserve and SDC Fund Cash Balances} * 365 \text{ days}) / \text{Annual Budgeted Operating Expenses}$*

Projected Base Case Liquidity



Projected Base Case Days Liquidity

2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
839	732	627	554	529	504	493	480	385	351	294	285	260	235

*Projected Days Liquidity (Operating and Capital Funds) by year.*

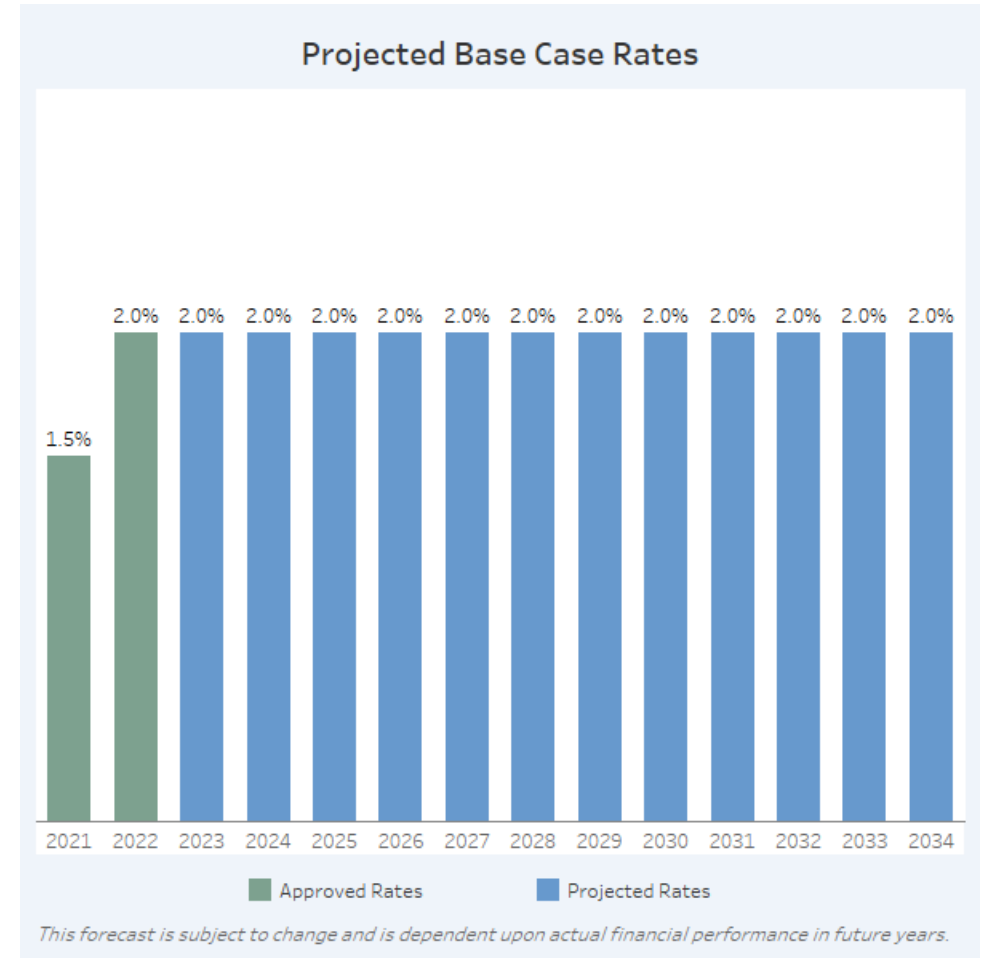
# Base Case: Rates

## Projecting Rate Adjustments

After we add all of the Base Case projections discussed previously into our rate and financial modeling forecast, we plan gradual rate adjustments that support strong financial metrics at the lowest cost possible for customers.

We base the plan on our best projections when we develop it, before formal recommendation or approval by our regulatory bodies.

Our Base Case provides steady rate adjustments of 2% each year through 2034. In the next section, we will test these projections by changing some of the assumptions in the model. The projected rate adjustments will increase or decrease based on the impact of the change, but we will always compare it with the Base Case adjustments shown.



# Summary of Risks and Opportunities

## Planning for Uncertainties

The only thing that is certain about any plan that looks so far ahead is that things will be different from what we planned. For this reason, it is important to identify possible uncertainties, evaluate their potential impacts and incorporate strategies to mitigate them.

We use our Rate and Financial Model to help us:

- Analyze and compare assumptions
- Determine a range of outcomes
- Project fund balances
- Estimate debt service coverage levels

The further out we forecast costs and revenues, the more uncertainty there is surrounding these estimates. Therefore, we have modeled some scenarios to address potential future conditions that may impact us. The following provides an example of the risks considered as part of this process, and is not intended to be comprehensive or exhaustive.

## Internal Risks



- Compliance with Regulatory Mandates
- Supply Portfolio
- Technology Changes
- Aging Infrastructure
- Employee Expectations

## External Risks



- Weather and Climate
- Seismic Events
- Economic Cycles and Inflation
- Policy or Regulatory Changes
- Environmental Regulations
- Changes in Customer Demand
- A Pandemic

# Summary of Scenarios We Include

## Scenarios for 2021

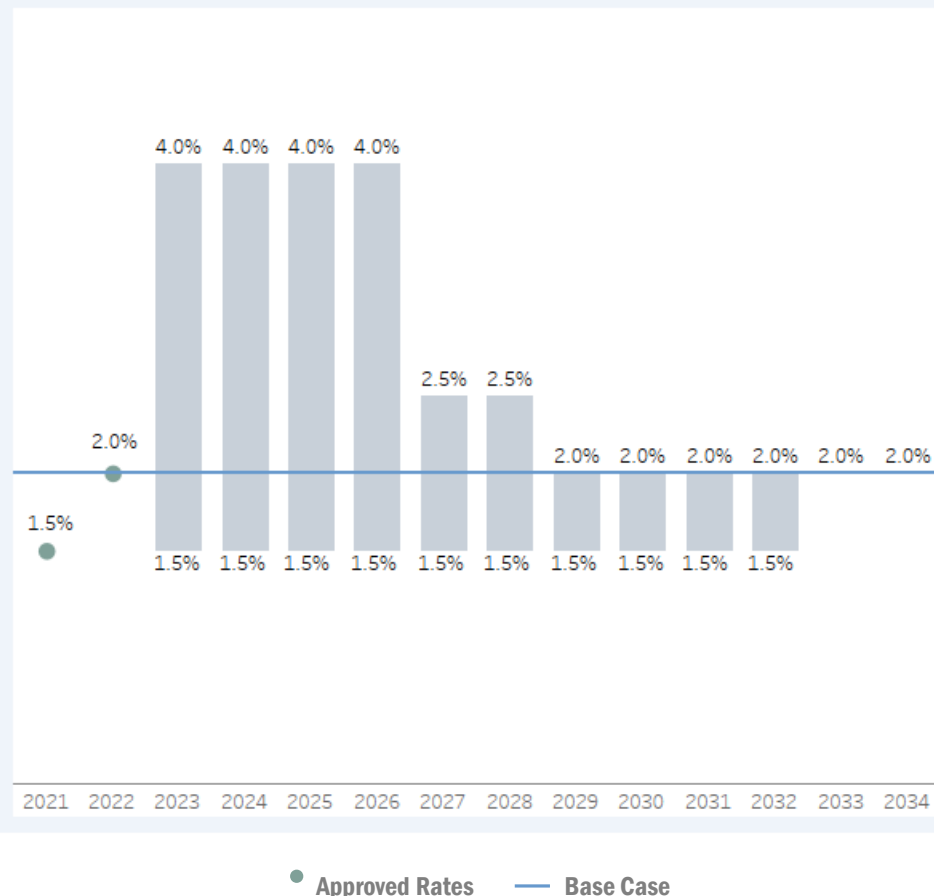
The further out in time we forecast costs and revenues, the more uncertainty exists around these estimates. Therefore, we have modeled some scenarios to address potential future conditions that may impact us.

The scenarios shown represent a range of possible outcomes, which help us assess potential financial risks and opportunities. The scenarios shown here do not represent all scenarios we develop and analyze. Scenario development helps us analyze potential variances from the base case and develop a projected range of rate impacts.

Projected Rate Impact by Scenario Table

Scenario	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Base Case	1.5%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Loss of Large Customer	1.5%	2.0%	4.0%	4.0%	4.0%	4.0%	2.5%	2.5%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
High Case CIP	1.5%	2.0%	2.5%	2.5%	2.5%	2.5%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Add'l Wholesale Revenues	1.5%	2.0%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	2.0%	2.0%

Projected Range of System Average Rate Adjustments





# Loss of a Large Customer

## Short-Term Impact to Rates

Under typical economic scenarios, retail sales represent over 90% of total revenue.

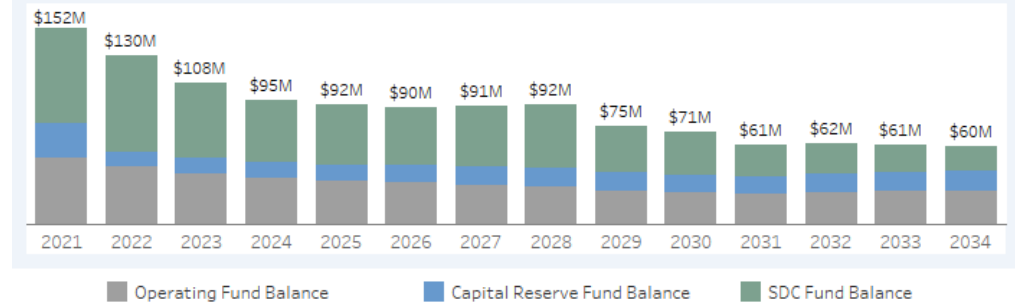
Losing a large retail customer due to local economic influences is one of the potential external risk factors facing Tacoma Water. If we lost a large retail customer, it makes sense that the amount of retail revenue earned would decrease. This loss would result in a decline in net revenues for Tacoma Water and affect rate adjustments in future years.

In this scenario, the loss of a large customer has an immediate short-term impact on rates. The rate impact spreads over two biennia, and the impact decreases over time.

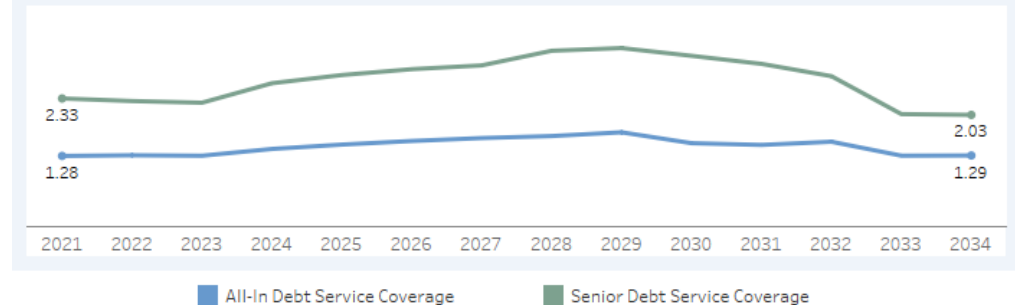
Conversely, in a scenario where we acquire a new large customer or a regional wholesale customer, net revenues for the utility would increase. Either would lead to lower rate adjustments in the near-term and future years.

In this scenario, we modeled a loss of \$7 million in annual revenues beginning in 2023 (we assume that they shut down in July 2022) from the loss of a large customer.

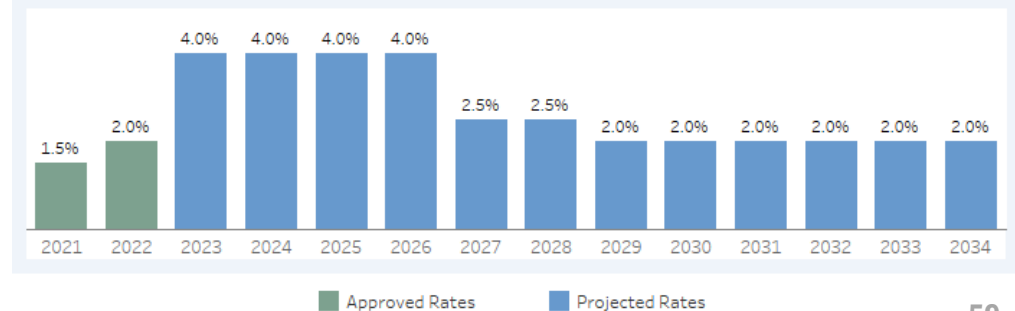
Projected Liquidity



Projected Debt Service Coverage Ratios



Projected Rates



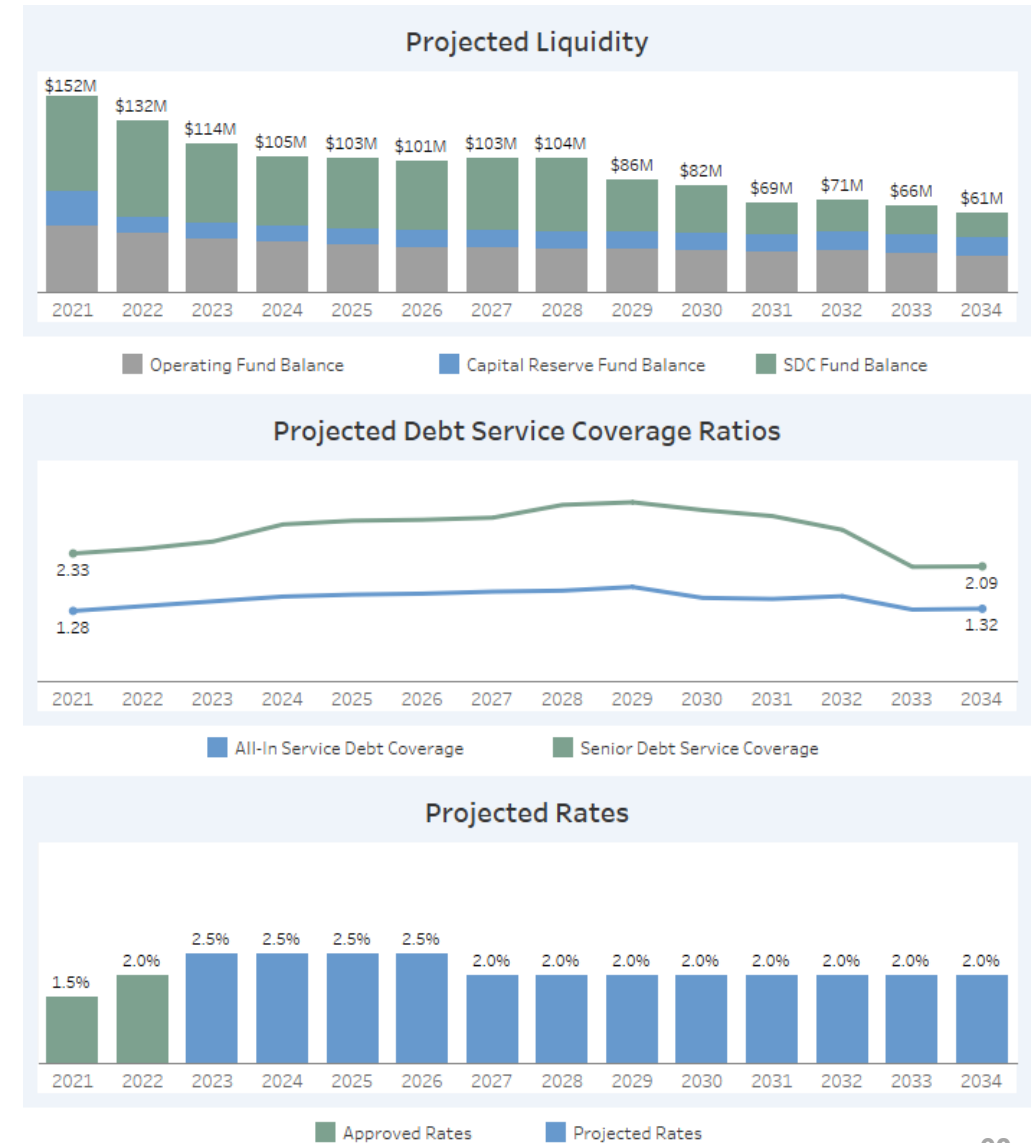
# High Case CIP

## Impact of Increases to the CIP

For this scenario, we modeled additional placeholders for unplanned capital expenditures and increased O&M to fund potential investment in our Enterprise Resource Planning (ERP) system. This update to our assumptions increased modeled capital contingency by \$1 million per year, and internal assessments for enterprise IT support by \$500,000 each year for the remainder of the planning period.

When adding them to our Base Case Scenario, we expect these increases would result in an additional rate increase of about 0.5% each year over the next four years. After that time, the plan goes back to 2.0% each year and maintains our gradual approach to funding increasing expenses.

We can mitigate and smooth the impacts of the capital increases by adjusting our spend-down of reserves and planned timeline for additional revenue bonds.



# Additional Wholesale Revenues

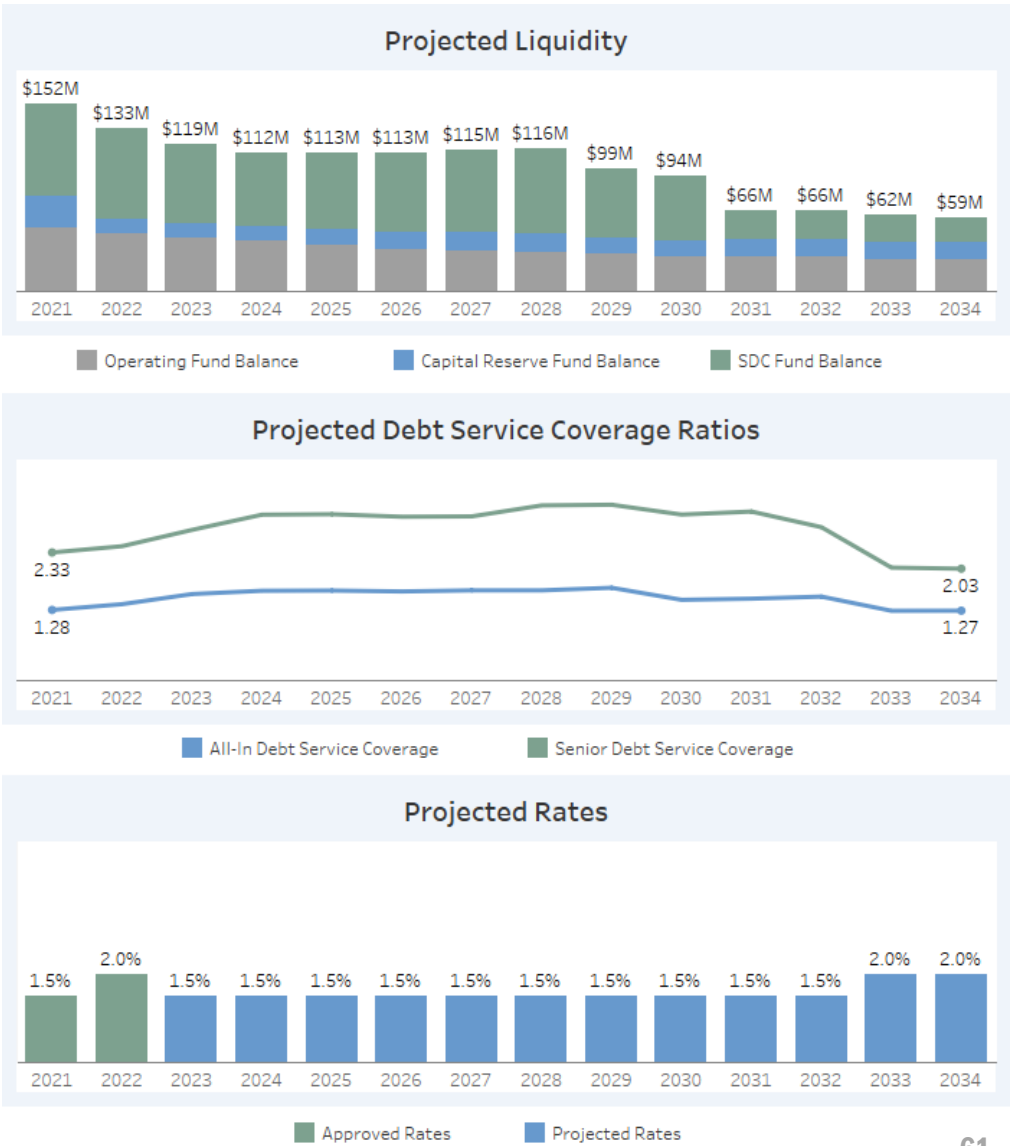
## Long-Term Positive Impact to Rates

Under typical economic scenarios, wholesale represents 2% of total revenue.

Transitioning from meter size to contracted capacity-based rates helped us achieve balanced business objectives, including revenue stability and equity with efficient price signaling. While the rate-design shift remains neutral in recovering the cost of service, we intend to price ourselves competitively so wholesale customers will buy more water from us in the long run.

In this scenario, we modeled an increase of \$3.6 million in annual revenues from the new rate structure and market-based pricing. The increase in wholesale revenue has a positive, long-term impact rate on rates.

Coupled with our efforts in modeling supply for the future, we also have the opportunity to market to other regional water purveyors in the coming years. Continued scenario modeling as we gain more information will significantly impact the trajectory of our rates.



# Pandemic Impacts

## Background

2020 was quite a year. We were embarking on developing budget and rates for 2021-2022 when the pandemic hit. The utility immediately transitioned office staff to working remotely and took extra precautions for field staff. Business resumed with video conferencing instead of in-person meetings.

Other notable impacts include:

- Water consumption remained stable
- Accounts receivable grew
- Customer assistance was revamped and funds were distributed as quickly as possible.
- Spending was reprioritized
- Budget and rates were modeled with more scenarios
- Pandemic was included in future risk modeling

## Rating Agency Responses

The rating agencies provided responses to COVID-19 for public utilities, stable outlook, no actions taken:

**Moody's:** "The essentiality of their service and rate-setting ability help mitigate risks . . ."

**SandP:** "Water and Wastewater are essential services with fairly inelastic demand."

**Fitch:** ". . . protected given quasi-monopolistic characteristics, long useful lives, reserves, discretion over capital expenditures."

In July 2021, Fitch Ratings provided a peer review of the water sector, stating that US water utilities have fared better than expected including the following strengths:

- Increased residential water consumption and scaling back discretionary costs in 2020 and early 2021
- Robust liquidity and current days cash on hand
- Essentiality of water service, autonomous rate-setting, and lack of competition

# Water Use Remained Relatively Stable

## “Stay Home, Stay Healthy” Order

Washington Governor Jay Inslee issued the “[Stay Home, Stay Healthy](#)” proclamation on March 23, 2020.

Immediately after, water consumption increased to above normal, and in some instances, nearly 10-year highs within the first month, then shifting to a delayed peak season.

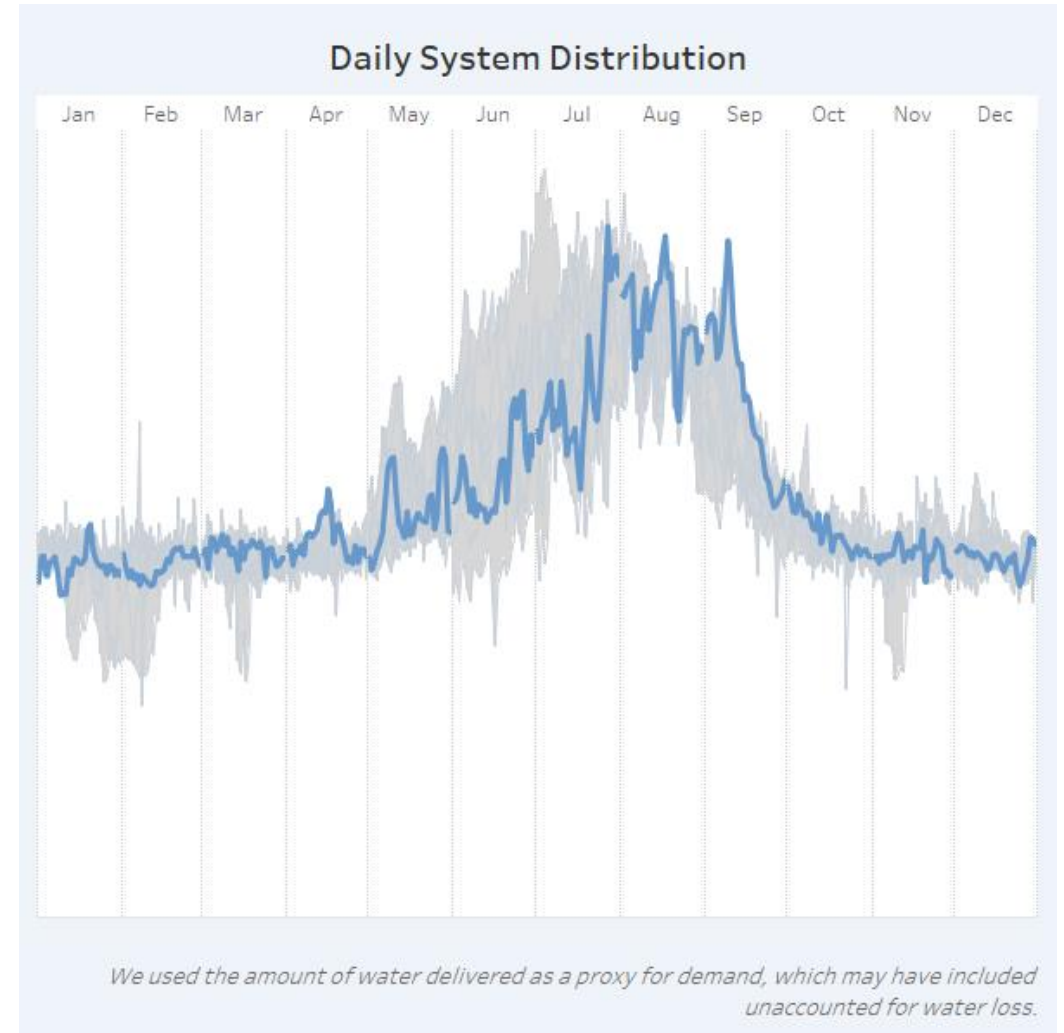
Due to water’s relatively inelastic demand and significant residential demographic, consumption remained somewhat average in 2020.

### Residential

Consumption for residential customers stayed elevated through 2020, which was significant enough to absorb the decline from businesses and other customers.

### Commercial

Consumption for businesses decreased mid-spring through summer before trending back to average in the fall.



# Aging Accounts Receivables Continue to Grow

## Utility Disconnection Moratorium

Washington Governor Jay Inslee's "[Ratepayer Assistance and Preservation of Essential Services](#)" proclamation was issued on March 18, 2020.

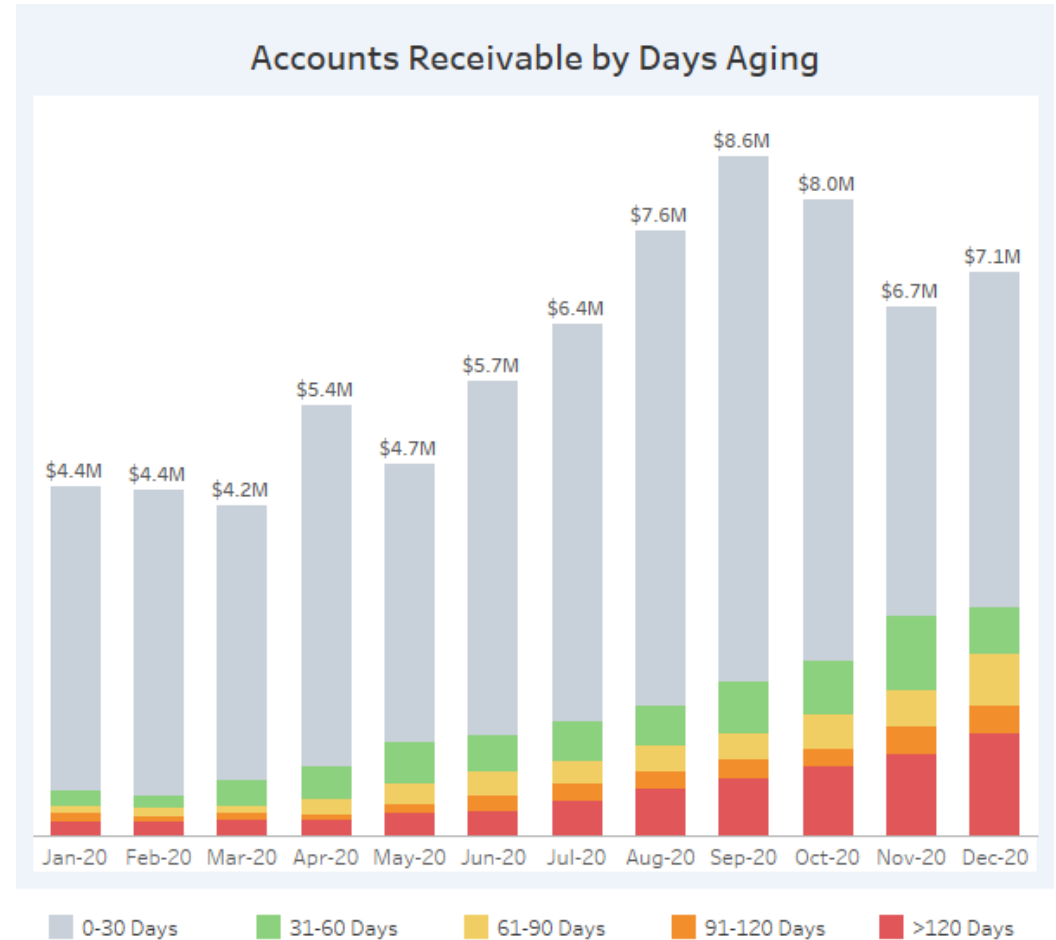
It included a disconnection moratorium through April 30, 2021, which expired September 30, 2021.

## Receivables and Accounts

Suspension of shut-offs and waiver of late fees and penalties have impacted Tacoma Water's revenues and write-offs.

The increase of accounts receivable continue to flow down the aging buckets. The number of delinquent accounts past 120 days went from approximately 400 to 5,200 by year-end.

We are actively contacting customers to set up payment plans and/or apply for federal utility assistance where applicable.



*Through the Coronavirus Relief Fund, the CARES Act provided payment of \$90,000 applied to small businesses.*

# Responding with Enhanced Customer Assistance

## Emergency Assistance

one-time **\$40** grant

< **200%** federal poverty level

**\$228,934** in grants in **2020**

## Bill Credit Assistance

up to **\$84** in credits per year

< **150%** federal poverty level

**\$15,057** in credits in **2020**

## Discount Program

**30%** ongoing bill reduction

< **150%** federal poverty level

**62+** years or disabled

**\$314,544** in discounts in **2020**

## Emergency Assistance Program

In response to the pandemic, Tacoma Public Utilities established an [Emergency Assistance Program](#) on March 17, 2020.

TPU created this **\$2.4 million** relief fund to help customers experiencing immediate financial crisis by instituting a utility bill credit for eligible households.

With a focus on affordability, customers receiving emergency assistance were encouraged to apply for other ongoing assistance.

## Bill Credit and Discount Programs

The pandemic, coupled with the 2021-2022 biennial budget and rate development, provided an opportunity for enhancements to current programs:

Eligibility was expanded from 150% federal poverty to **45%** area median income for the discount program and **60%** area median income for the bill credit assistance program.

Assistance also increased. Monthly bill discounts changed from 30% to **35%** and monthly bill credits changed from \$7 to **\$9** effective January 1, 2021.

# Utility Spending Response

## Cost Reductions

In 2020, we reprioritized O&M and capital spending to mitigate anticipated financial impacts of the pandemic on the utility. Flexibility in our business model allowed us to effectively manage our expenditures, achieve savings, and defer spending. Some notable savings were:

- Training and travel changes from in-person to virtual
- Prioritized and postponed hiring
- Extended lifecycle replacements for fleet

## Tracking Pandemic Spending

Once we deployed our Incident Command System (ICS) in response to the pandemic, we began tracking spending specific to COVID-19 such as PPE, additional equipment for remote work, and rental car costs to travel separately.

As a result of the CARES Act, we partially offset expenditures by \$120,000 through eligible reimbursement.

## Managed Expenditures

<b>\$17.8 million</b>	<b>Reduced or deferred capital expenses</b>
-----------------------	---

\$9.4 million	Capital reduction or deferral
---------------	-------------------------------

\$6.4 million	Deferred meter exchanges to align with AMI
---------------	--

\$2.0 million	Savings with meter box lids and survey
---------------	--

<b>\$2.8 million</b>	<b>Reduced controllable O&amp;M expenses</b>
----------------------	--

\$1.2 million	Decrease in professional services
---------------	-----------------------------------

\$1.0 million	Decrease in supplies, services, and other charges
---------------	---

\$0.6 million	Savings in debt service
---------------	-------------------------



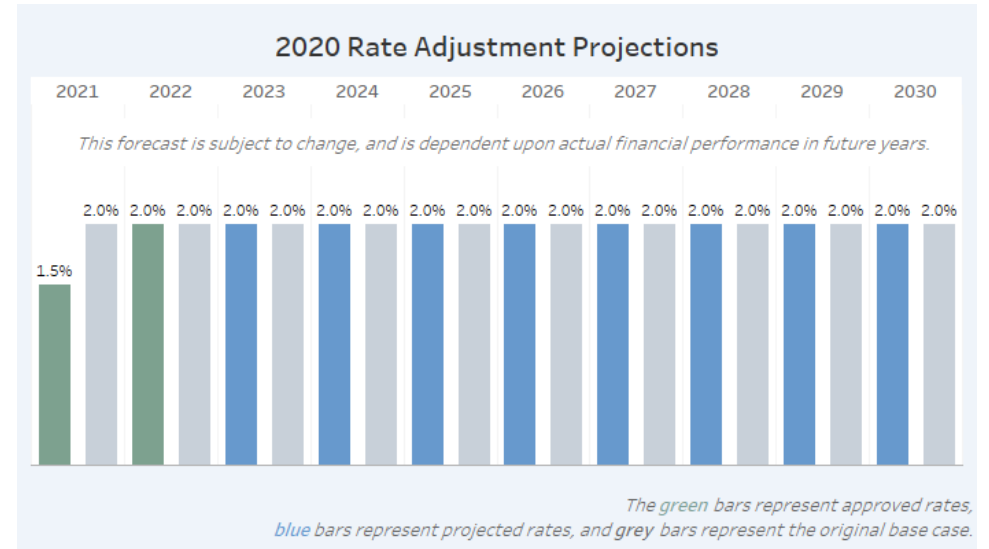
# 2020 Budget and Rates Process

## 2021-2022 Budget and Rates

In developing the Tacoma Water budget and rates for the 2021-2022 biennium, we modeled different rate scenarios to address the immediate impact of the pandemic. Policymakers asked us to do everything we could to keep rate adjustments low. We reviewed potential risks and ran multiple scenarios to understand impact against our ability to absorb rate reductions. Having healthy operating and capital reserves gave us the flexibility to handle different rate scenarios in light of extenuating circumstances.

After running a number of scenarios, we agreed we would be able to reduce the proposed 2021 rate adjustment by 0.5% or \$470,000, by carefully monitoring our expenditures and using additional reserves if necessary. Coupled with the enhanced customer assistance, the intent of our rate proposal change was to provide more time for customers to recover from personal impacts of the pandemic.

Although we have a strong financial plan that is flexible and able to accommodate reductions, we want to emphasize that this is an exception and not a common occurrence, as a one-time reduction continues annually into perpetuity and erodes our financial plan over time.



## Rate Projections Remain Constant

The financial outlook for the utility continues to be strong. While there is a change in the liquidity profile and debt service coverage projections, we still exceed financial policy requirements.

# Incorporating a Pandemic into Risk Modeling

## Pandemic Modeling

Beginning in 2020, Tacoma Water developed a model to assess financial impacts based on various risk factors. However, there was one risk factor previously not considered: pandemic risk.

With the help of the Government Finance Officers Association ([GFOA](#)), we expanded the risk model to include pandemic risk by defining minimum and maximum duration and providing a range of expected monthly costs.

A Monte Carlo simulation then provides the estimated total pandemic costs after stochastically determining the number of months and expenses for each month.

Enter Assumptions for COVID Costs		
How much longer will COVID cause extra costs for Tacoma Water? (in months)		
Minimum of...	18	months (must be equal to or greater than 0)
Maximum of...	36	months (max 36 and must be equal to or greater than cell above)
What is the average additional cost Tacoma Water will incur each month?		
Minimum	\$	20,000
Most likely	\$	38,000
Maximum	\$	135,000

## Additional Uses

This framework is flexible enough to be used for any event that Tacoma Water believes will cause a range of increased costs to the utility for an indeterminate amount of time.

## Pandemic and Beyond

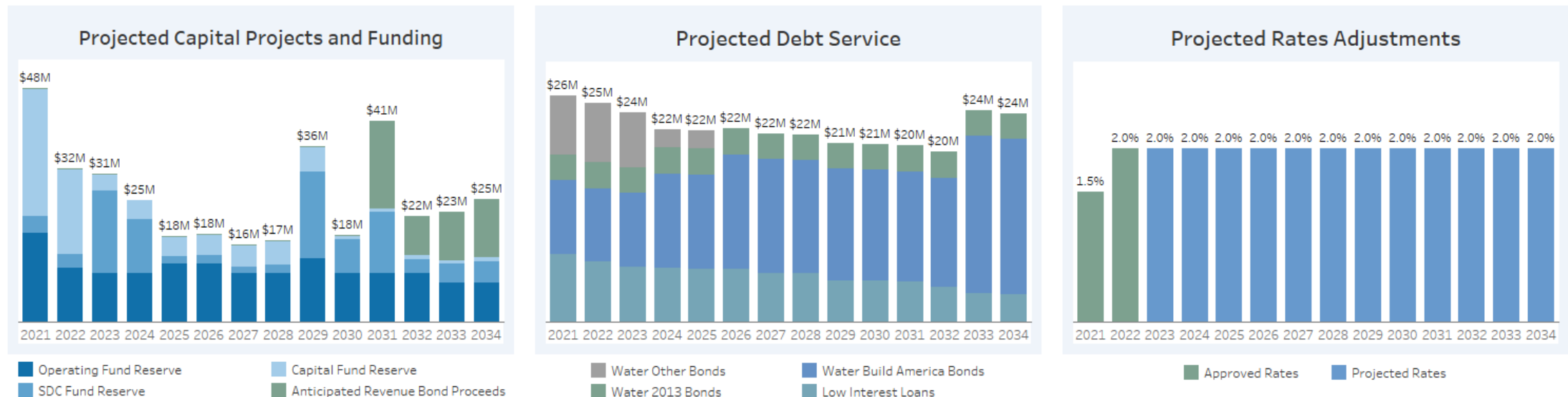
Initially, the model was capturing ongoing operational pandemic costs. However, we have since transitioned to modeling increased bad debt expense over time as utility disconnection moratorium expired on September 30, 2021.

# LRFP Summary

## Anticipating Projects, Optimizing Debt, and Stabilizing Rates

Our most recent projections incorporate guidance from our [Board Strategic Directives](#). They emphasize gradualism by moving financial levers up and down as we look into the future. Our [Water Rate and Financial Policy](#) provides ratepayers with stability and the ability to plan what their rates will look like over time. Finally, our 2020-2025 Strategic Plan ensures our mission, vision, and values are reflected in our objectives and initiatives.

We base these projections on available information as of 2020. If there are known circumstances that we need to plan for in 10 years and beyond, stable rate adjustments will put us in a good position for potential pinch points such as unforeseen revenue loss and increases in debt service.



# Looking Forward

## Annual Updates and Future Planning

We plan to update the LRFP each year to ensure our assumptions reflect current and evolving conditions and adjust as needed.

As we implement our plan, some assumptions are likely to change and require additional modeling and analysis to update the LRFP. Some potential considerations that may require us to adapt are:

- ***Pandemic.*** We will continue monitoring impacts such as customer arrearages, supply chain disruptions, and consumption changes.
- ***Advanced Meters.*** Once we fully exchange our meters, we will have the opportunity to utilize near real-time data to inform decision-making and enhance customer service (including assistance).
- ***Supply Modeling.*** With our changing customer demand profile, we will pivot modeling to market regional opportunities for increased revenue.



# Glossary: Abbreviations, Acronyms, and Initialisms

	Name		Name		Name
ARRA	<a href="#">American Reinvestment and Recovery Act</a>	GET	<a href="#">Gross Earnings Tax</a>	PWTF	<a href="#">Public Works Trust Fund</a>
B&O	<a href="#">Business and Occupation [Tax]</a>	GFOA	<a href="#">Government Finance Officers Association</a>	R&R	Renewal and Replacement
BABs	<a href="#">Build America Bonds</a>	GRFF	<a href="#">Green River Filtration Facility</a>	RWSS	<a href="#">Regional Water Supply System</a>
BCAP	<a href="#">Bill Credit Assistance Plan</a>	HHD	<a href="#">Howard Hanson Dam</a>	S&P	<a href="#">Standard and Poor</a>
Board	<a href="#">Public Utility Board</a>	ICS	Incident Command System	SDC	<a href="#">System Development Charge</a>
CARES	<a href="#">Coronavirus Aid, Relief, and Economic Security Act</a>	IRP	<a href="#">Integrated Resource Plan</a>	SDs	<a href="#">Strategic Directives</a>
CCF	Centum (Hundred) Cubic Feet	LIE/D	<a href="#">Low-Income Elderly/Disabled [Discount Rate Program]</a>	SPUT	<a href="#">State Public Utility Tax</a>
CIAC	Contribution In Aid of Construction	LRFP	Long-Range Financial Plan	SSP	<a href="#">Second Supply Project</a>
CIP	Capital Improvement Program/Plan	MG	Million Gallons	TPU	<a href="#">Tacoma Public Utilities</a>
City	<a href="#">City of Tacoma</a>	MGD	Million Gallons per Day	Utility	<a href="#">Tacoma Water</a>
COSA	Cost of Service Analysis	NPV	Net Present Value	WSP	<a href="#">Water System Plan</a>
COVID	Coronavirus Disease	O&M	Operating and Maintenance		
CRO	Contract Resource Obligation	PinS	Plant in Service		
CWA	<a href="#">Cascade Water Alliance</a>	PPE	Personal Protective Equipment		
DWSRF	<a href="#">Drinking Water State Revolving Fund</a>	PUB	<a href="#">Public Utility Board</a>		

# Pro-Forma: Base Case

Pro Forma Statement (\$ in Thousands)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
<b>System Average Rate Increase</b>	<b>1.5%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>
Retail and Wholesale Rate Revenues	\$ 95,626	\$ 97,895	\$ 100,112	\$ 102,382	\$ 104,705	\$ 107,085	\$ 109,521	\$ 112,016	\$ 114,570	\$ 117,186	\$ 120,734	\$ 124,389	\$ 128,155	\$ 132,035
Other Operating Revenues	9,022	9,146	9,296	9,449	9,621	9,796	9,881	10,062	10,247	4,435	4,508	4,584	4,661	4,741
Non-Operating Revenues (includes BABs subsidy)	3,778	3,574	3,347	3,345	3,309	3,270	3,190	3,100	3,006	2,909	2,808	2,700	2,587	2,362
Planned Transfers from Rate Stabilization Account	-	-	-	-	-	-	-	3,000	3,000	6,000	6,000	2,000	2,000	2,000
<b>Total Revenues</b>	<b>\$ 108,425</b>	<b>\$ 110,615</b>	<b>\$ 112,755</b>	<b>\$ 115,176</b>	<b>\$ 117,635</b>	<b>\$ 120,151</b>	<b>\$ 122,592</b>	<b>\$ 128,177</b>	<b>\$ 130,823</b>	<b>\$ 130,529</b>	<b>\$ 134,050</b>	<b>\$ 133,672</b>	<b>\$ 137,403</b>	<b>\$ 141,138</b>
Operation & Maintenance Expenses	\$ 54,563	\$ 55,421	\$ 56,697	\$ 58,003	\$ 59,820	\$ 61,692	\$ 63,620	\$ 65,605	\$ 67,651	\$ 69,757	\$ 71,927	\$ 74,162	\$ 76,464	\$ 78,835
RWSS Expenses (Tacoma Share CRO)	2,055	1,203	1,227	1,252	1,289	1,328	1,368	1,409	1,451	1,494	1,539	1,585	1,633	1,682
RWSS Bond Debt Service (Tacoma Share CRO)	3,795	3,798	3,823	4,908	4,916	4,903	4,914	4,912	4,929	4,922	4,935	4,668	4,856	4,821
Utility Taxes, B&O Taxes & Franchise Fees	5,530	5,645	5,772	5,903	6,037	6,175	6,311	6,456	6,603	6,754	6,951	7,154	7,363	7,578
<b>Total Operation &amp; Maintenance Expenses</b>	<b>\$ 65,944</b>	<b>\$ 66,067</b>	<b>\$ 67,519</b>	<b>\$ 70,065</b>	<b>\$ 72,063</b>	<b>\$ 74,097</b>	<b>\$ 76,212</b>	<b>\$ 78,382</b>	<b>\$ 80,633</b>	<b>\$ 82,928</b>	<b>\$ 85,353</b>	<b>\$ 87,570</b>	<b>\$ 90,316</b>	<b>\$ 92,916</b>
<b>Funds Available for Debt Service</b>	<b>\$ 42,482</b>	<b>\$ 44,548</b>	<b>\$ 45,235</b>	<b>\$ 45,111</b>	<b>\$ 45,572</b>	<b>\$ 46,054</b>	<b>\$ 46,380</b>	<b>\$ 49,796</b>	<b>\$ 50,189</b>	<b>\$ 47,601</b>	<b>\$ 48,697</b>	<b>\$ 46,103</b>	<b>\$ 47,087</b>	<b>\$ 48,222</b>
Current and Proposed Sr Lien Debt Service (Water Bonds)	\$ 18,273	\$ 18,270	\$ 17,779	\$ 15,965	\$ 15,925	\$ 16,175	\$ 16,089	\$ 15,996	\$ 15,893	\$ 15,796	\$ 17,173	\$ 17,625	\$ 23,716	\$ 24,256
<b>Balance Available for Other Purposes</b>	<b>\$ 24,209</b>	<b>\$ 26,278</b>	<b>\$ 27,456</b>	<b>\$ 29,145</b>	<b>\$ 29,647</b>	<b>\$ 29,880</b>	<b>\$ 30,291</b>	<b>\$ 33,800</b>	<b>\$ 34,296</b>	<b>\$ 31,806</b>	<b>\$ 31,525</b>	<b>\$ 28,477</b>	<b>\$ 23,371</b>	<b>\$ 23,966</b>
City Gross Earnings Tax	\$ 7,972	\$ 8,144	\$ 8,310	\$ 8,500	\$ 8,696	\$ 8,897	\$ 9,095	\$ 9,305	\$ 9,521	\$ 9,261	\$ 9,548	\$ 9,842	\$ 10,146	\$ 10,459
Existing Jr Lien Debt Service	7,790	6,915	6,318	6,254	6,137	6,074	5,640	5,578	4,756	4,700	4,645	4,033	3,311	3,144
<b>Balance Available for Capital and Reserves</b>	<b>\$ 8,447</b>	<b>\$ 11,220</b>	<b>\$ 12,828</b>	<b>\$ 14,391</b>	<b>\$ 14,814</b>	<b>\$ 14,909</b>	<b>\$ 15,557</b>	<b>\$ 18,916</b>	<b>\$ 20,020</b>	<b>\$ 17,844</b>	<b>\$ 17,332</b>	<b>\$ 14,601</b>	<b>\$ 9,914</b>	<b>\$ 10,362</b>
Debt Service Coverage Ratio - Sr. Debt	2.33	2.44	2.54	2.83	2.86	2.85	2.88	3.11	3.16	3.01	2.87	2.65	1.99	1.99
Debt Service Coverage Ratio - Total Debt	1.28	1.39	1.46	1.53	1.55	1.55	1.58	1.60	1.67	1.47	1.43	1.49	1.25	1.26
Year-end Operating Fund Balance	\$ 51,659	\$ 46,602	\$ 43,957	\$ 42,675	\$ 39,607	\$ 36,421	\$ 35,662	\$ 35,034	\$ 32,274	\$ 31,700	\$ 30,791	\$ 31,114	\$ 28,570	\$ 26,363
Year-end SDC Fund Balance	\$ 74,365	\$ 74,221	\$ 59,929	\$ 51,188	\$ 52,028	\$ 52,817	\$ 54,023	\$ 54,733	\$ 39,186	\$ 34,389	\$ 23,801	\$ 22,930	\$ 21,001	\$ 18,507
Year-end Capital Reserve Fund Balance	\$ 25,580	\$ 11,724	\$ 12,104	\$ 12,426	\$ 12,737	\$ 12,992	\$ 13,172	\$ 13,355	\$ 13,517	\$ 13,686	\$ 14,050	\$ 14,232	\$ 14,650	\$ 14,872
Days Liquidity (Operating and Capital Funds)	839	732	627	554	529	504	493	480	385	351	294	285	260	235
Operating Reserve Policy Minimum (60 days op exp)	\$ 16,614	\$ 16,614	\$ 16,726	\$ 16,726	\$ 17,339	\$ 17,339	\$ 18,025	\$ 18,025	\$ 18,624	\$ 18,624	\$ 19,649	\$ 19,649	\$ 21,522	\$ 21,522
Capital Reserve (1% of Original Cost Plant in Service)	\$ 11,850	\$ 11,968	\$ 12,088	\$ 12,209	\$ 12,331	\$ 12,454	\$ 12,579	\$ 12,705	\$ 12,832	\$ 12,960	\$ 13,090	\$ 13,221	\$ 13,353	\$ 13,486
SDC (\$2M)	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000
<b>Total Policy Minimum Liquidity</b>	<b>\$ 30,464</b>	<b>\$ 30,583</b>	<b>\$ 30,814</b>	<b>\$ 30,935</b>	<b>\$ 31,670</b>	<b>\$ 31,793</b>	<b>\$ 32,604</b>	<b>\$ 32,729</b>	<b>\$ 33,456</b>	<b>\$ 33,584</b>	<b>\$ 34,739</b>	<b>\$ 34,870</b>	<b>\$ 36,875</b>	<b>\$ 37,008</b>



# Pro-Forma: Loss of Large Customer

Pro Forma Statement (\$ in Thousands)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
<b>System Average Rate Increase</b>	<b>1.5%</b>	<b>2.0%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>2.5%</b>	<b>2.5%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>
Retail and Wholesale Rate Revenues	\$ 95,626	\$ 94,817	\$ 94,583	\$ 98,644	\$ 102,883	\$ 107,306	\$ 110,309	\$ 113,398	\$ 116,009	\$ 118,683	\$ 122,276	\$ 125,978	\$ 129,793	\$ 133,722
Other Operating Revenues	9,022	9,146	9,296	9,449	9,621	9,796	9,881	10,062	10,247	4,435	4,508	4,584	4,661	4,741
Non-Operating Revenues (includes BABs subsidy)	3,778	3,574	3,347	3,345	3,309	3,270	3,190	3,100	3,006	2,909	2,808	2,700	2,587	2,362
Planned Transfers from Rate Stabilization Account	-	-	-	-	-	-	-	3,000	3,000	6,000	6,000	2,000	2,000	2,000
<b>Total Revenues</b>	<b>\$ 108,425</b>	<b>\$ 107,537</b>	<b>\$ 107,226</b>	<b>\$ 111,438</b>	<b>\$ 115,812</b>	<b>\$ 120,373</b>	<b>\$ 123,380</b>	<b>\$ 129,560</b>	<b>\$ 132,262</b>	<b>\$ 132,027</b>	<b>\$ 135,593</b>	<b>\$ 135,262</b>	<b>\$ 139,041</b>	<b>\$ 142,825</b>
Operation & Maintenance Expenses	\$ 54,563	\$ 55,421	\$ 56,697	\$ 58,003	\$ 59,820	\$ 61,692	\$ 63,620	\$ 65,605	\$ 67,651	\$ 69,757	\$ 71,927	\$ 74,162	\$ 76,464	\$ 78,835
RWSS Expenses (Tacoma Share CRO)	2,055	1,203	1,227	1,252	1,289	1,328	1,368	1,409	1,451	1,494	1,539	1,585	1,633	1,682
RWSS Bond Debt Service (Tacoma Share CRO)	3,795	3,798	3,823	4,908	4,916	4,903	4,914	4,912	4,929	4,922	4,935	4,668	4,856	4,821
Utility Taxes, B&O Taxes & Franchise Fees	5,530	5,490	5,508	5,744	5,991	6,248	6,418	6,598	6,750	6,905	7,106	7,313	7,526	7,745
<b>Total Operation &amp; Maintenance Expenses</b>	<b>\$ 65,944</b>	<b>\$ 65,912</b>	<b>\$ 67,255</b>	<b>\$ 69,906</b>	<b>\$ 72,016</b>	<b>\$ 74,170</b>	<b>\$ 76,319</b>	<b>\$ 78,524</b>	<b>\$ 80,780</b>	<b>\$ 83,079</b>	<b>\$ 85,508</b>	<b>\$ 87,728</b>	<b>\$ 90,479</b>	<b>\$ 93,083</b>
<b>Funds Available for Debt Service</b>	<b>\$ 42,482</b>	<b>\$ 41,625</b>	<b>\$ 39,970</b>	<b>\$ 41,532</b>	<b>\$ 43,796</b>	<b>\$ 46,203</b>	<b>\$ 47,061</b>	<b>\$ 51,036</b>	<b>\$ 51,482</b>	<b>\$ 48,948</b>	<b>\$ 50,085</b>	<b>\$ 47,534</b>	<b>\$ 48,562</b>	<b>\$ 49,743</b>
Current and Proposed Sr Lien Debt Service (Water Bonds)	\$ 18,273	\$ 18,270	\$ 17,779	\$ 15,965	\$ 15,925	\$ 16,175	\$ 16,089	\$ 15,996	\$ 15,893	\$ 15,796	\$ 16,960	\$ 17,413	\$ 23,787	\$ 24,539
<b>Balance Available for Other Purposes</b>	<b>\$ 24,209</b>	<b>\$ 23,355</b>	<b>\$ 22,191</b>	<b>\$ 25,567</b>	<b>\$ 27,871</b>	<b>\$ 30,028</b>	<b>\$ 30,972</b>	<b>\$ 35,040</b>	<b>\$ 35,589</b>	<b>\$ 33,153</b>	<b>\$ 33,125</b>	<b>\$ 30,120</b>	<b>\$ 24,776</b>	<b>\$ 25,203</b>
City Gross Earnings Tax	\$ 7,972	\$ 7,897	\$ 7,867	\$ 8,201	\$ 8,550	\$ 8,915	\$ 9,158	\$ 9,416	\$ 9,636	\$ 9,381	\$ 9,671	\$ 9,970	\$ 10,277	\$ 10,594
Existing Jr Lien Debt Service	7,790	6,915	6,318	6,254	6,137	6,074	5,640	5,578	4,756	4,700	4,645	4,033	3,311	3,144
<b>Balance Available for Capital and Reserves</b>	<b>\$ 8,447</b>	<b>\$ 8,543</b>	<b>\$ 8,006</b>	<b>\$ 11,112</b>	<b>\$ 13,184</b>	<b>\$ 15,040</b>	<b>\$ 16,175</b>	<b>\$ 20,046</b>	<b>\$ 21,197</b>	<b>\$ 19,071</b>	<b>\$ 18,809</b>	<b>\$ 16,117</b>	<b>\$ 11,188</b>	<b>\$ 11,465</b>
Debt Service Coverage Ratio - Sr. Debt	2.33	2.28	2.25	2.60	2.75	2.86	2.93	3.19	3.24	3.10	2.95	2.73	2.04	2.03
Debt Service Coverage Ratio - Total Debt	1.28	1.29	1.29	1.41	1.49	1.55	1.61	1.64	1.71	1.51	1.48	1.54	1.29	1.29
Year-end Operating Fund Balance	\$ 51,659	\$ 43,925	\$ 38,457	\$ 35,895	\$ 33,197	\$ 32,142	\$ 30,001	\$ 28,503	\$ 25,921	\$ 24,574	\$ 22,929	\$ 24,556	\$ 25,215	\$ 26,111
Year-end SDC Fund Balance	\$ 74,365	\$ 74,221	\$ 57,914	\$ 47,128	\$ 45,892	\$ 44,574	\$ 46,906	\$ 49,273	\$ 35,687	\$ 32,861	\$ 24,265	\$ 23,400	\$ 21,479	\$ 18,992
Year-end Capital Reserve Fund Balance	\$ 25,580	\$ 11,724	\$ 12,104	\$ 12,426	\$ 12,737	\$ 12,992	\$ 13,937	\$ 14,382	\$ 13,524	\$ 13,686	\$ 14,050	\$ 14,232	\$ 14,650	\$ 14,872
Days Liquidity (Operating and Capital Funds)	839	719	589	498	465	441	434	428	339	312	261	259	247	235
Operating Reserve Policy Minimum (60 days op exp)	\$ 16,581	\$ 16,581	\$ 16,629	\$ 16,629	\$ 17,330	\$ 17,330	\$ 18,060	\$ 18,060	\$ 18,668	\$ 18,668	\$ 19,661	\$ 19,661	\$ 21,601	\$ 21,601
Capital Reserve (1% of Original Cost Plant in Service)	\$ 11,850	\$ 11,968	\$ 12,088	\$ 12,209	\$ 12,331	\$ 12,454	\$ 12,579	\$ 12,705	\$ 12,832	\$ 12,960	\$ 13,090	\$ 13,221	\$ 13,353	\$ 13,486
SDC (\$2M)	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000
<b>Total Policy Minimum Liquidity</b>	<b>\$ 30,431</b>	<b>\$ 30,550</b>	<b>\$ 30,717</b>	<b>\$ 30,838</b>	<b>\$ 31,661</b>	<b>\$ 31,785</b>	<b>\$ 32,639</b>	<b>\$ 32,765</b>	<b>\$ 33,500</b>	<b>\$ 33,628</b>	<b>\$ 34,750</b>	<b>\$ 34,881</b>	<b>\$ 36,954</b>	<b>\$ 37,088</b>

# Pro-Forma: High Case CIP

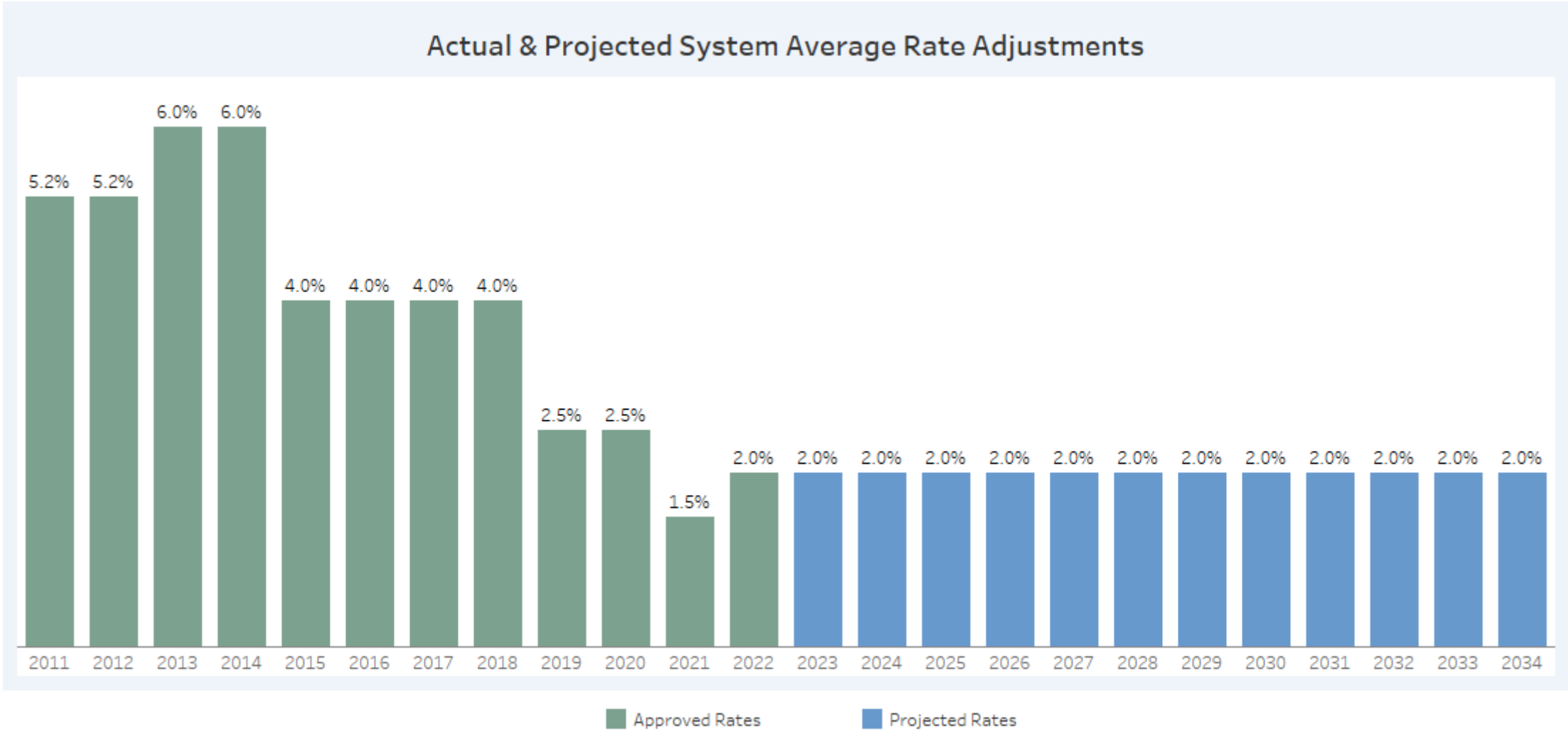
Pro Forma Statement (\$ in Thousands)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
<b>System Average Rate Increase</b>	<b>1.5%</b>	<b>2.0%</b>	<b>2.5%</b>	<b>2.5%</b>	<b>2.5%</b>	<b>2.5%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>
Retail and Wholesale Rate Revenues	\$ 95,626	\$ 97,895	\$ 100,603	\$ 103,388	\$ 106,253	\$ 109,200	\$ 111,684	\$ 114,228	\$ 116,833	\$ 119,500	\$ 123,118	\$ 126,846	\$ 130,686	\$ 134,643
Other Operating Revenues	9,022	9,146	9,296	9,449	9,621	9,796	9,881	10,062	10,247	4,435	4,508	4,584	4,661	4,741
Non-Operating Revenues (includes BABs subsidy)	3,778	3,574	3,347	3,345	3,309	3,270	3,190	3,100	3,006	2,909	2,808	2,700	2,587	2,362
Planned Transfers from Rate Stabilization Account	-	-	-	-	-	-	-	3,000	3,000	6,000	6,000	2,000	2,000	2,000
<b>Total Revenues</b>	<b>\$ 108,425</b>	<b>\$ 110,615</b>	<b>\$ 113,245</b>	<b>\$ 116,182</b>	<b>\$ 119,182</b>	<b>\$ 122,267</b>	<b>\$ 124,756</b>	<b>\$ 130,390</b>	<b>\$ 133,086</b>	<b>\$ 132,844</b>	<b>\$ 136,435</b>	<b>\$ 136,129</b>	<b>\$ 139,935</b>	<b>\$ 143,746</b>
Operation & Maintenance Expenses	\$ 54,563	\$ 55,921	\$ 57,207	\$ 58,523	\$ 60,356	\$ 62,244	\$ 64,188	\$ 66,191	\$ 68,254	\$ 70,378	\$ 72,567	\$ 74,821	\$ 77,143	\$ 79,534
RWSS Expenses (Tacoma Share CRO)	2,055	1,203	1,227	1,252	1,289	1,328	1,368	1,409	1,451	1,494	1,539	1,585	1,633	1,682
RWSS Bond Debt Service (Tacoma Share CRO)	3,795	3,798	3,823	4,908	4,916	4,903	4,914	4,912	4,929	4,922	4,935	4,668	4,856	4,821
Utility Taxes, B&O Taxes & Franchise Fees	5,530	5,645	5,801	5,961	6,126	6,297	6,436	6,583	6,733	6,887	7,088	7,295	7,508	7,727
<b>Total Operation &amp; Maintenance Expenses</b>	<b>\$ 65,944</b>	<b>\$ 66,567</b>	<b>\$ 68,057</b>	<b>\$ 70,643</b>	<b>\$ 72,687</b>	<b>\$ 74,771</b>	<b>\$ 76,905</b>	<b>\$ 79,094</b>	<b>\$ 81,366</b>	<b>\$ 83,682</b>	<b>\$ 86,129</b>	<b>\$ 88,369</b>	<b>\$ 91,140</b>	<b>\$ 93,764</b>
<b>Funds Available for Debt Service</b>	<b>\$ 42,482</b>	<b>\$ 44,048</b>	<b>\$ 45,188</b>	<b>\$ 45,539</b>	<b>\$ 46,495</b>	<b>\$ 47,496</b>	<b>\$ 47,851</b>	<b>\$ 51,296</b>	<b>\$ 51,720</b>	<b>\$ 49,162</b>	<b>\$ 50,306</b>	<b>\$ 47,760</b>	<b>\$ 48,795</b>	<b>\$ 49,982</b>
Current and Proposed Sr Lien Debt Service (Water Bonds)	\$ 18,273	\$ 18,270	\$ 17,779	\$ 15,965	\$ 15,925	\$ 16,175	\$ 16,089	\$ 15,996	\$ 15,893	\$ 15,796	\$ 16,748	\$ 17,342	\$ 23,433	\$ 23,903
<b>Balance Available for Other Purposes</b>	<b>\$ 24,209</b>	<b>\$ 25,778</b>	<b>\$ 27,409</b>	<b>\$ 29,574</b>	<b>\$ 30,570</b>	<b>\$ 31,321</b>	<b>\$ 31,762</b>	<b>\$ 35,300</b>	<b>\$ 35,827</b>	<b>\$ 33,367</b>	<b>\$ 33,557</b>	<b>\$ 30,418</b>	<b>\$ 25,362</b>	<b>\$ 26,079</b>
City Gross Earnings Tax	\$ 7,972	\$ 8,144	\$ 8,349	\$ 8,580	\$ 8,820	\$ 9,066	\$ 9,268	\$ 9,482	\$ 9,702	\$ 9,447	\$ 9,738	\$ 10,039	\$ 10,349	\$ 10,668
Existing Jr Lien Debt Service	7,790	6,915	6,318	6,254	6,137	6,074	5,640	5,578	4,756	4,700	4,645	4,033	3,311	3,144
<b>Balance Available for Capital and Reserves</b>	<b>\$ 8,447</b>	<b>\$ 10,720</b>	<b>\$ 12,742</b>	<b>\$ 14,739</b>	<b>\$ 15,613</b>	<b>\$ 16,182</b>	<b>\$ 16,854</b>	<b>\$ 20,239</b>	<b>\$ 21,369</b>	<b>\$ 19,220</b>	<b>\$ 19,174</b>	<b>\$ 16,345</b>	<b>\$ 11,703</b>	<b>\$ 12,267</b>
Debt Service Coverage Ratio - Sr. Debt	2.33	2.41	2.54	2.85	2.92	2.94	2.97	3.21	3.25	3.11	3.00	2.75	2.08	2.09
Debt Service Coverage Ratio - Total Debt	1.28	1.37	1.46	1.54	1.58	1.60	1.63	1.65	1.72	1.52	1.50	1.55	1.31	1.32
Year-end Operating Fund Balance	\$ 51,659	\$ 46,102	\$ 41,371	\$ 38,436	\$ 36,167	\$ 34,253	\$ 34,792	\$ 33,487	\$ 33,077	\$ 31,878	\$ 30,599	\$ 32,453	\$ 29,627	\$ 27,325
Year-end SDC Fund Balance	\$ 74,365	\$ 74,221	\$ 60,899	\$ 53,647	\$ 53,953	\$ 54,184	\$ 54,802	\$ 56,908	\$ 39,734	\$ 36,283	\$ 24,015	\$ 24,434	\$ 21,775	\$ 18,512
Year-end Capital Reserve Fund Balance	\$ 25,580	\$ 11,724	\$ 12,104	\$ 12,426	\$ 12,747	\$ 13,008	\$ 13,194	\$ 13,382	\$ 13,550	\$ 13,725	\$ 14,097	\$ 14,285	\$ 14,710	\$ 14,939
Days Liquidity (Operating and Capital Funds)	839	724	613	540	517	495	488	479	387	357	291	294	265	237
Operating Reserve Policy Minimum (60 days op exp)	\$ 16,656	\$ 16,656	\$ 16,829	\$ 16,829	\$ 17,471	\$ 17,471	\$ 18,171	\$ 18,171	\$ 18,778	\$ 18,778	\$ 19,754	\$ 19,754	\$ 21,643	\$ 21,643
Capital Reserve (1% of Original Cost Plant in Service)	\$ 11,850	\$ 11,968	\$ 12,088	\$ 12,209	\$ 12,331	\$ 12,454	\$ 12,579	\$ 12,705	\$ 12,832	\$ 12,960	\$ 13,090	\$ 13,221	\$ 13,353	\$ 13,486
SDC (\$2M)	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000
<b>Total Policy Minimum Liquidity</b>	<b>\$ 30,506</b>	<b>\$ 30,625</b>	<b>\$ 30,917</b>	<b>\$ 31,038</b>	<b>\$ 31,802</b>	<b>\$ 31,926</b>	<b>\$ 32,750</b>	<b>\$ 32,876</b>	<b>\$ 33,610</b>	<b>\$ 33,739</b>	<b>\$ 34,844</b>	<b>\$ 34,974</b>	<b>\$ 36,995</b>	<b>\$ 37,129</b>



# Pro-Forma: Additional Wholesale Revenues

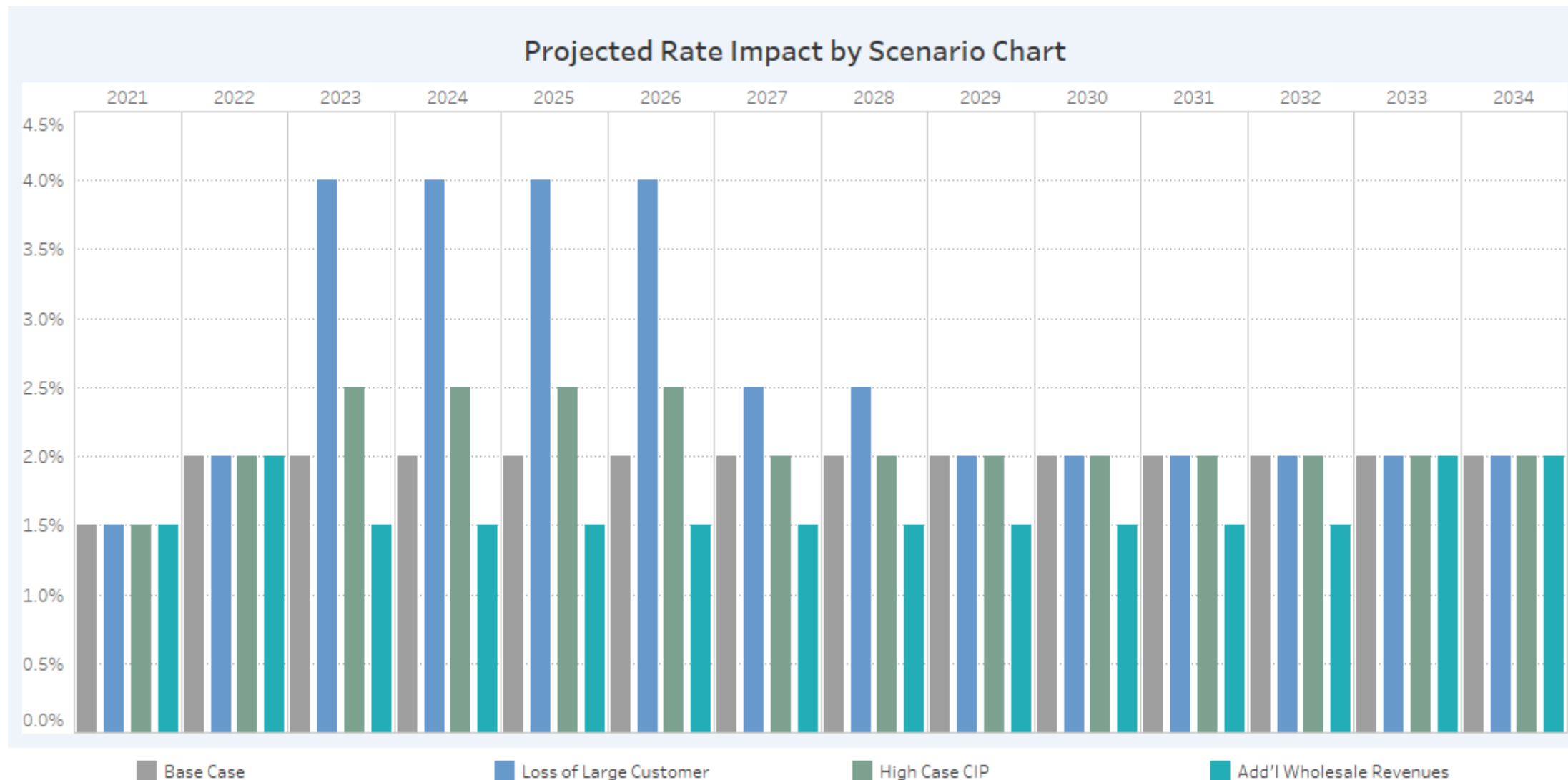
Pro Forma Statement (\$ in Thousands)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
<b>System Average Rate Increase</b>	<b>1.50%</b>	<b>2.00%</b>	<b>1.50%</b>	<b>1.50%</b>	<b>1.50%</b>	<b>1.50%</b>	<b>1.50%</b>	<b>1.50%</b>	<b>1.50%</b>	<b>1.50%</b>	<b>1.50%</b>	<b>1.50%</b>	<b>2.00%</b>	<b>2.00%</b>
Retail and Wholesale Rate Revenues	\$ 95,626	\$ 97,895	\$ 103,471	\$ 105,288	\$ 107,140	\$ 109,026	\$ 110,949	\$ 112,909	\$ 114,906	\$ 116,941	\$ 119,891	\$ 122,915	\$ 126,637	\$ 130,471
Other Operating Revenues	9,022	9,146	9,296	9,449	9,621	9,796	9,881	10,062	10,247	4,435	4,508	4,584	4,661	4,741
Non-Operating Revenues (includes BABs subsidy)	3,778	3,574	3,347	3,345	3,309	3,270	3,190	3,100	3,006	2,909	2,808	2,700	2,587	2,362
Planned Transfers from Rate Stabilization Account	-	-	-	-	-	-	-	3,000	3,000	6,000	6,000	2,000	2,000	2,000
<b>Total Revenues</b>	<b>\$ 108,425</b>	<b>\$ 110,615</b>	<b>\$ 116,114</b>	<b>\$ 118,082</b>	<b>\$ 120,069</b>	<b>\$ 122,093</b>	<b>\$ 124,020</b>	<b>\$ 129,070</b>	<b>\$ 131,158</b>	<b>\$ 130,285</b>	<b>\$ 133,208</b>	<b>\$ 132,199</b>	<b>\$ 135,885</b>	<b>\$ 139,574</b>
Operation & Maintenance Expenses	\$ 54,563	\$ 55,421	\$ 56,697	\$ 58,003	\$ 59,820	\$ 61,692	\$ 63,620	\$ 65,605	\$ 67,651	\$ 69,757	\$ 71,927	\$ 74,162	\$ 76,464	\$ 78,835
RWSS Expenses (Tacoma Share CRO)	2,055	1,203	1,227	1,252	1,289	1,328	1,368	1,409	1,451	1,494	1,539	1,585	1,633	1,682
RWSS Bond Debt Service (Tacoma Share CRO)	3,795	3,798	3,823	4,908	4,916	4,903	4,914	4,912	4,929	4,922	4,935	4,668	4,856	4,821
Utility Taxes, B&O Taxes & Franchise Fees	5,530	5,645	5,753	5,858	5,965	6,074	6,180	6,293	6,408	6,526	6,686	6,851	7,055	7,265
<b>Total Operation &amp; Maintenance Expenses</b>	<b>\$ 65,944</b>	<b>\$ 66,067</b>	<b>\$ 67,500</b>	<b>\$ 70,020</b>	<b>\$ 71,990</b>	<b>\$ 73,996</b>	<b>\$ 76,081</b>	<b>\$ 78,219</b>	<b>\$ 80,438</b>	<b>\$ 82,699</b>	<b>\$ 85,088</b>	<b>\$ 87,267</b>	<b>\$ 90,008</b>	<b>\$ 92,602</b>
<b>Funds Available for Debt Service</b>	<b>\$ 42,482</b>	<b>\$ 44,548</b>	<b>\$ 48,614</b>	<b>\$ 48,062</b>	<b>\$ 48,079</b>	<b>\$ 48,097</b>	<b>\$ 47,940</b>	<b>\$ 50,851</b>	<b>\$ 50,720</b>	<b>\$ 47,585</b>	<b>\$ 48,120</b>	<b>\$ 44,932</b>	<b>\$ 45,877</b>	<b>\$ 46,971</b>
Current and Proposed Sr Lien Debt Service (Water Bonds)	\$ 18,273	\$ 18,270	\$ 17,779	\$ 15,965	\$ 15,925	\$ 16,175	\$ 16,089	\$ 15,996	\$ 15,893	\$ 15,796	\$ 15,688	\$ 16,140	\$ 22,372	\$ 23,125
<b>Balance Available for Other Purposes</b>	<b>\$ 24,209</b>	<b>\$ 26,278</b>	<b>\$ 30,834</b>	<b>\$ 32,097</b>	<b>\$ 32,154</b>	<b>\$ 31,923</b>	<b>\$ 31,851</b>	<b>\$ 34,855</b>	<b>\$ 34,827</b>	<b>\$ 31,790</b>	<b>\$ 32,432</b>	<b>\$ 28,792</b>	<b>\$ 23,505</b>	<b>\$ 23,846</b>
City Gross Earnings Tax	\$ 7,972	\$ 8,144	\$ 8,579	\$ 8,732	\$ 8,891	\$ 9,052	\$ 9,209	\$ 9,377	\$ 9,548	\$ 9,242	\$ 9,480	\$ 9,725	\$ 10,025	\$ 10,334
Existing Jr Lien Debt Service	7,790	6,915	6,318	6,254	6,137	6,074	5,640	5,578	4,756	4,700	4,645	4,033	3,311	3,144
<b>Balance Available for Capital and Reserves</b>	<b>\$ 8,447</b>	<b>\$ 11,220</b>	<b>\$ 15,938</b>	<b>\$ 17,111</b>	<b>\$ 17,126</b>	<b>\$ 16,797</b>	<b>\$ 17,002</b>	<b>\$ 19,900</b>	<b>\$ 20,524</b>	<b>\$ 17,848</b>	<b>\$ 18,307</b>	<b>\$ 15,034</b>	<b>\$ 10,170</b>	<b>\$ 10,368</b>
Debt Service Coverage Ratio - Sr. Debt	2.33	2.44	2.73	3.01	3.02	2.97	2.98	3.18	3.19	3.01	3.07	2.78	2.05	2.03
Debt Service Coverage Ratio - Total Debt	1.28	1.39	1.57	1.63	1.63	1.62	1.64	1.64	1.69	1.47	1.49	1.52	1.27	1.27
Year-end Operating Fund Balance	\$ 51,659	\$ 46,602	\$ 43,067	\$ 40,503	\$ 37,748	\$ 34,450	\$ 33,136	\$ 31,492	\$ 30,236	\$ 27,666	\$ 27,519	\$ 28,062	\$ 25,703	\$ 25,503
Year-end SDC Fund Balance	\$ 74,365	\$ 74,221	\$ 63,959	\$ 59,309	\$ 61,862	\$ 64,453	\$ 67,084	\$ 69,753	\$ 55,280	\$ 52,753	\$ 24,306	\$ 23,442	\$ 21,521	\$ 19,035
Year-end Capital Reserve Fund Balance	\$ 25,580	\$ 11,724	\$ 12,104	\$ 12,426	\$ 13,160	\$ 13,782	\$ 14,738	\$ 15,196	\$ 13,530	\$ 13,686	\$ 14,050	\$ 14,232	\$ 14,650	\$ 14,872
Days Liquidity (Operating and Capital Funds)	839	732	644	585	572	556	552	543	449	415	283	275	251	234
Operating Reserve Policy Minimum (60 days op exp)	\$ 16,614	\$ 16,614	\$ 16,762	\$ 16,762	\$ 17,353	\$ 17,353	\$ 18,016	\$ 18,016	\$ 18,589	\$ 18,589	\$ 19,339	\$ 19,339	\$ 21,243	\$ 21,243
Capital Reserve (1% of Original Cost Plant in Service)	\$ 11,850	\$ 11,968	\$ 12,088	\$ 12,209	\$ 12,331	\$ 12,454	\$ 12,579	\$ 12,705	\$ 12,832	\$ 12,960	\$ 13,090	\$ 13,221	\$ 13,353	\$ 13,486
SDC (\$2M)	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000
<b>Total Policy Minimum Liquidity</b>	<b>\$ 30,464</b>	<b>\$ 30,583</b>	<b>\$ 30,850</b>	<b>\$ 30,971</b>	<b>\$ 31,684</b>	<b>\$ 31,808</b>	<b>\$ 32,595</b>	<b>\$ 32,720</b>	<b>\$ 33,421</b>	<b>\$ 33,549</b>	<b>\$ 34,429</b>	<b>\$ 34,559</b>	<b>\$ 36,596</b>	<b>\$ 36,730</b>

# Tacoma Water Annual Rate Adjustments

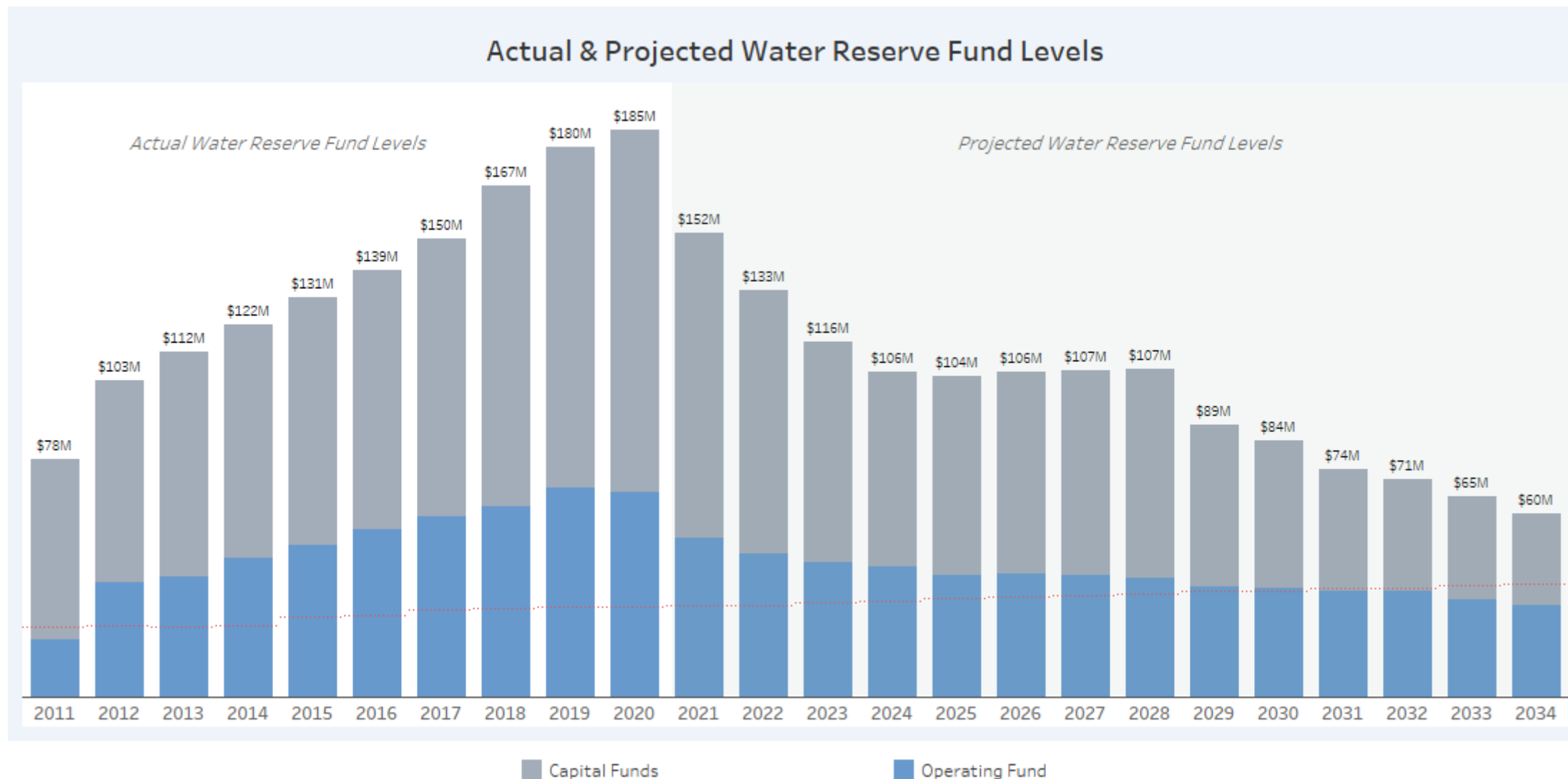


*Projected rates are subject to change, and is dependent upon actual financial performance in future years. Projections from the 2021-2022 Base Case.*

# Tacoma Water Projected Range of Rate Adjustments



# Tacoma Water Reserve Balances



# Tacoma Water Scheduled Senior Debt Service

	2005 Water System Revenue and Refunding Bonds	2009 Water System Revenue Bonds	2010 Water System Revenue Bonds	2013 Water System Revenue and Refunding Bonds	2015 Water System Revenue and Refunding Bonds	2020 Water System Subordinate Revenue Refunding Bond	Grand Total
2021	\$250	\$4,415,330	\$4,077,352	\$2,974,200	\$2,131,500	\$4,673,963	\$18,272,596
2022	\$250	\$4,415,330	\$4,077,352	\$2,974,200	\$2,133,000	\$4,669,764	\$18,269,897
2023	\$250	\$4,415,330	\$4,077,352	\$2,974,200	\$2,135,250	\$4,177,014	\$17,779,397
2024	\$250	\$4,415,330	\$6,442,352	\$2,974,200	\$2,133,000		\$15,965,133
2025	\$5,250	\$4,415,330	\$6,404,012	\$2,974,200	\$2,126,250		\$15,925,042
2026		\$4,415,330	\$8,785,029	\$2,974,200			\$16,174,560
2027		\$4,415,330	\$8,699,396	\$2,974,200			\$16,088,926
2028		\$4,415,330	\$8,606,281	\$2,974,200			\$15,995,811
2029		\$4,415,330	\$8,503,498	\$2,974,200			\$15,893,028
2030		\$4,415,330	\$8,406,047	\$2,974,200			\$15,795,577
2031		\$4,415,330	\$8,298,122	\$2,974,200			\$15,687,652
2032		\$4,415,330	\$8,185,137	\$2,974,200			\$15,574,667
2033		\$14,215,330	\$3,910,066	\$2,974,200			\$21,099,597
2034		\$14,016,732	\$3,871,182	\$2,974,200			\$20,862,114
2035		\$13,812,143	\$3,827,801	\$2,974,200			\$20,614,144
2036		\$13,600,700	\$3,779,924	\$2,974,200			\$20,354,824
2037		\$13,376,541	\$3,737,549	\$2,974,200			\$20,088,290
2038		\$13,149,090	\$3,690,116	\$2,974,200			\$19,813,405
2039		\$12,912,197	\$3,637,623	\$2,974,200			\$19,524,020
2040			\$16,255,072	\$2,974,200			\$19,229,272
2041				\$26,794,200			\$26,794,200
2042				\$26,791,400			\$26,791,400
2043				\$26,795,600			\$26,795,600

Tacoma Water continues to monitor potential refinancing opportunities for the Water and Regional Water Supply System (RWSS) 2013 Bonds. These bonds are callable in June 2023 and could potentially be refinanced for savings before that date. Currently, advance refunding is permitted in the taxable market and proposed legislation to allow tax exempt advance refunding would provide significant savings.

# Tacoma Water Scheduled Subordinate Lien Debt Service

## Drinking Water State Revolving Fund (DWSRF) Loans

## Public Works Trust Fund (PWTF) Loans

	2001   00-65120-031	2008   DM07-952-015	2009   DR09-952-074	2010   DM10-952-026	2010   DM10-952-031	2011   DM11-952-035	2011   DM11-952-036	2012   DM12-952-088	2013   DM13-952-133	2013   DM13-952-167	2015   DM15-952-033	2001   PW-00- 691-PRE-115	2001   PW-01-691-061	2002   PW-01- 691-PRE-127	2002   PW-02-691-056	2004   PW-04- 691-PRE-101	2006   PW-06-962-043	2008   PC08-951-047	2012   PC12-951-017
2021	\$165,079	\$240,921	\$742,350	\$411,138	\$357,540	\$145,221	\$368,541	\$371,175	\$751,440	\$742,350	\$733,579	\$52,895	\$536,000	\$54,451	\$536,562	\$54,430	\$381,706	\$567,705	\$586,112
2022		\$237,694	\$733,260	\$407,468	\$352,995	\$143,398	\$363,972	\$366,630	\$742,350	\$733,260	\$727,200				\$533,906	\$54,163	\$379,853	\$564,975	\$583,334
2023		\$234,468	\$724,170	\$403,797	\$348,450	\$141,575	\$359,403	\$362,085	\$733,260	\$724,170	\$720,821					\$53,897	\$378,000	\$562,246	\$580,556
2024		\$231,241	\$715,080	\$400,126	\$343,905	\$139,752	\$354,834	\$357,540	\$724,170	\$715,080	\$714,442					\$53,630	\$376,147	\$559,516	\$577,778
2025		\$228,014	\$705,990	\$396,455	\$339,360	\$137,929	\$350,266	\$352,995	\$715,080	\$705,990	\$708,063						\$374,294	\$556,787	\$575,000
2026		\$224,788	\$696,900	\$392,784	\$334,815	\$136,106	\$345,697	\$348,450	\$705,990	\$696,900	\$701,684						\$372,441	\$554,058	\$572,223
2027		\$221,561	\$687,810	\$389,113	\$330,270	\$134,284	\$341,128	\$343,905	\$696,900	\$687,810	\$695,306							\$551,328	\$569,445
2028		\$218,335	\$678,720	\$385,442	\$325,725	\$132,461	\$336,560	\$339,360	\$687,810	\$678,720	\$688,926							\$548,599	\$566,667
2029			\$669,630	\$381,771	\$321,180	\$130,638	\$331,991	\$334,815	\$678,720	\$669,630	\$682,548								\$563,889
2030			\$660,540	\$378,101	\$316,635	\$128,815	\$327,422	\$330,270	\$669,630	\$660,540	\$676,169								\$561,112
2031			\$651,450	\$374,430	\$312,090	\$126,992	\$322,854	\$325,725	\$660,540	\$651,450	\$669,790								\$558,334
2032			\$642,360	\$370,758	\$307,545	\$125,169	\$318,285	\$321,180	\$651,450	\$642,360	\$663,411								
2033			\$633,270			\$123,346	\$313,716	\$316,635	\$642,360	\$633,270	\$657,032								
2034			\$624,180				\$309,148	\$312,090	\$633,270	\$624,180	\$650,653								
2035			\$615,090					\$307,545	\$624,180	\$615,090	\$644,274								

The repayment highlighted in blue represented funds used to finance the Second Supply Project, the repayment schedule highlighted in green represent funds used to finance the McMillin Reservoir, and the repayment schedule highlighted in black represent the funds used to finance the Green River Filtration Facility.

# Tacoma Water Capital Improvement Plan (CIP)

## Projected Capital Improvement Program (CIP) Expenditures

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
General	\$19,780,703	\$14,380,032	\$4,843,729	\$4,843,729	\$3,564,623	\$3,564,623	\$1,749,089	\$1,749,089	\$2,468,169	\$2,468,169
Water Source	\$8,716,689	\$10,618,183	\$13,996,691	\$6,488,506	\$910,444	\$3,010,444	\$1,868,318	\$1,868,318	\$16,635,234	\$1,935,234
Water Treatment	\$1,259,717	\$1,259,717	\$991,000	\$2,241,000	\$341,000	\$341,000	\$378,500	\$378,500	\$378,500	\$378,500
Water Distribution	\$11,339,940	\$11,976,240	\$8,705,526	\$8,844,195	\$8,953,023	\$9,194,666	\$7,785,758	\$7,911,929	\$7,733,585	\$7,733,585
Grand Total	\$41,097,048	\$38,234,172	\$28,536,946	\$22,417,429	\$13,769,089	\$16,110,732	\$11,781,665	\$11,907,836	\$27,215,488	\$12,515,488



# RWSS Scheduled Debt Service

	2010 RWSS Revenue Bonds					2013 RWSS Revenue Refunding Bonds				
	Tacoma	Covington	Kent	Lakehaven	Total Annual Payment	Tacoma	Covington	Kent	Lakehaven	Total Annual Payment
2021	\$771,131	\$359,861	\$359,861	\$359,861	\$1,850,714	\$1,066,292	\$497,603	\$497,603	\$497,603	\$2,559,100
2022	\$771,131	\$359,861	\$359,861	\$359,861	\$1,850,714	\$1,067,438	\$498,138	\$498,138	\$498,138	\$2,561,850
2023	\$771,131	\$359,861	\$359,861	\$359,861	\$1,850,714	\$1,077,750	\$502,950	\$502,950	\$502,950	\$2,586,600
2024	\$771,131	\$359,861	\$359,861	\$359,861	\$1,850,714	\$1,530,042	\$714,019	\$714,019	\$714,019	\$3,672,100
2025	\$771,131	\$359,861	\$359,861	\$359,861	\$1,850,714	\$1,533,375	\$715,575	\$715,575	\$715,575	\$3,680,100
2026	\$771,131	\$359,861	\$359,861	\$359,861	\$1,850,714	\$1,527,750	\$712,950	\$712,950	\$712,950	\$3,666,600
2027	\$771,131	\$359,861	\$359,861	\$359,861	\$1,850,714	\$1,532,229	\$715,040	\$715,040	\$715,040	\$3,677,350
2028	\$771,131	\$359,861	\$359,861	\$359,861	\$1,850,714	\$1,531,604	\$714,749	\$714,749	\$714,749	\$3,675,850
2029	\$771,131	\$359,861	\$359,861	\$359,861	\$1,850,714	\$1,538,479	\$717,957	\$717,957	\$717,957	\$3,692,350
2030	\$771,131	\$359,861	\$359,861	\$359,861	\$1,850,714	\$1,535,667	\$716,644	\$716,644	\$716,644	\$3,685,600
2031	\$771,131	\$359,861	\$359,861	\$359,861	\$1,850,714	\$1,541,333	\$719,289	\$719,289	\$719,289	\$3,699,200
2032	\$771,131	\$359,861	\$359,861	\$359,861	\$1,850,714	\$1,430,000	\$667,333	\$667,333	\$667,333	\$3,432,000
2033	\$2,279,464	\$1,063,750	\$1,063,750	\$1,063,750	\$5,470,714					
2034	\$2,248,848	\$1,049,462	\$1,049,462	\$1,049,462	\$5,397,234					
2035	\$2,219,353	\$1,035,698	\$1,035,698	\$1,035,698	\$5,326,447					
2036	\$2,186,579	\$1,020,404	\$1,020,404	\$1,020,404	\$5,247,790					
2037	\$2,152,610	\$1,004,551	\$1,004,551	\$1,004,551	\$5,166,263					
2038	\$2,117,328	\$988,086	\$988,086	\$988,086	\$5,081,587					
2039	\$2,082,699	\$971,926	\$971,926	\$971,926	\$4,998,478					
2040	\$2,046,407	\$954,990	\$954,990	\$954,990	\$4,911,377					

*We continue to monitor potential refinancing opportunities for the 2013 RWSS Revenue Refunding Bonds. These bonds are callable in June 2023 and could potentially be refinanced for savings before that date. Currently, advance refunding is permitted in the taxable market and proposed legislation to allow tax exempt advance refunding would provide significant savings.*



# RWSS Capital Improvement Plan (CIP)

## Projected RWSS Capital Improvement Program (CIP) Expenditures

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Covington	\$107,487	\$358,098	\$461,585	\$461,585	\$171,968	\$171,968	\$285,641	\$285,641	\$302,574	\$302,574
Kent	\$107,487	\$358,098	\$461,585	\$461,585	\$171,968	\$171,968	\$285,641	\$285,641	\$302,574	\$302,574
Lakehaven	\$107,487	\$358,098	\$461,585	\$461,585	\$171,968	\$171,968	\$285,641	\$285,641	\$302,574	\$302,574
Tacoma	\$230,328	\$767,353	\$989,111	\$989,111	\$368,503	\$368,503	\$612,088	\$612,088	\$648,374	\$648,374
RWSS Total	\$552,788	\$1,841,648	\$2,373,867	\$2,373,867	\$884,408	\$884,408	\$1,469,010	\$1,469,010	\$1,556,096	\$1,556,096

*The RWSS budget is developed and approved on an annual basis. The 2022 budget will be approved in October 2021.*

# Resources and Contact

## Resources

### Website

Tacoma Water

Regional Water Supply System

Investor Information

### Link

<https://www.mytpu.org/about-tpu/services/water/>

<https://www.mytpu.org/about-tpu/investors/regional-water-supply-system-information/>

<https://www.mytpu.org/about-tpu/investors/water-investor-information/>

## Contact

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