

# WATER BUREAU

## FY 2021-22 REQUESTED BUDGET



January 29, 2021

# WATER BUREAU

## COVER LETTER



January 29, 2021



**Commissioner Mingus Mapps**  
City of Portland

January 29, 2021

To: Mayor Ted Wheeler  
Commissioner Jo Ann Hardesty  
Commissioner Dan Ryan  
Commissioner Carmen Rubio

From: Commissioner Mingus Mapps

Subject: PWB FY 2021-22 Requested Budget Memo

I am pleased to forward to you the Portland Water Bureau Requested Budget for fiscal year 2021-22. The Requested Budget continues to focus on water quality, resiliency, equity, affordability, and infrastructure needs of the drinking water system. The Requested Budget includes the Hydroelectric Power Division.

The Water Bureau delivers clean, safe and reliable drinking water to almost one million people in the Portland region. The water system is over 100 years old. Aging infrastructure and increasingly complex regulatory compliance standards continue to put pressure on the bureau's budget.

#### Budget Directives

The Water Bureau met the Mayor's budget directive to submit a FY 2021-22 Requested Budget that is in accordance with the rate levels articulated and approved as part of the bureau's multi-year financial plan. Further budget guidance included meeting all federal and state regulations and maintaining system infrastructure, collaborating with the Bureau of Environmental Service (BES) to enhance current financial assistance programs, promote economic recovery and opportunities to contract with partners for social equity and job creation, and utilize cost savings and efficiencies to offset financial impacts caused by the COVID-19 pandemic.

In addition, the budget directly addresses the four goals identified in the Mayor's budget guidance.

1: Prioritize existing resources towards Portlanders most affected by the public health crisis and/or economic crisis

The FY 2021-22 Requested Budget continues to support financial assistance services including a two-tier bill discount, crisis assistance, multi-family emergency rental

assistance, flexible bill-pay, an increased ongoing allocation to fixture repair and replacement, the utility safety net program, and water conservation kits. These services help prevent evictions of customers living in multi-family rental units, help keep low-income customers struggling to pay their utility bills in their homes and aids customers who may be experiencing temporary financial emergencies.

Due to the COVID-19 pandemic, the bureau ceased assessment of late fees, collections on delinquent customers, and shut-off of water service while also expanding access to financial assistance to help our most vulnerable customers. That expansion included relaxing the income verification requirements to qualify customers for financial assistance, recognizing that many may have difficulty providing documentation during the pandemic.

The bureau is currently researching opportunities to update its water meters to a system that would support more frequent meter readings and allow for monthly billing and a customer portal for greater visibility into water use. The bureau provides services to all customers to support affordability, including flexible bill pay, interest-free payment plans, conservation rebates and kits, and technical assistance for commercial customers wanting to use water more efficiently.

2: Leverage stable, available funding sources – such as bond proceeds or available ending balances – to responsibly stabilize services and/or stimulate growth and recovery

The bureau's ability to provide water service has not been impaired by the pandemic. Nearly all non-field staff are continuing to work remotely to perform tasks necessary to manage water infrastructure and bureau operations. The operational changes necessary to conduct business during the pandemic do not represent significant costs that would impact the five-year forecast.

In anticipation for the continued effects of the pandemic, the FY 2021-22 budget priorities for the bureau included no requests for additional position authority and no layoffs. The bureau successfully created a budget under these guidelines by using existing vacancies where there were requests for additional staff, implementing a "musical chairs" approach by using existing staff to fill gaps where there are operational needs, and prioritizing bureau initiatives.

Additionally, the Water Bureau is seeking funding through EPA's WIFIA loan program for the Bull Run Treatment Projects. The loan provides a fixed low interest rate and flexible terms with deferral of payments up to 5 years after completion of the projects. The bureau anticipates the loan will close in the first quarter of calendar year 2021. The retail rate forecast reflects the rate impacts of the WIFIA loan and would reduce the rate increase by 1%. This results in a rate increase of 7.8% for FY 2021-22.

### 3: Continue and expand cross-jurisdictional and cross-sector partnerships

Due to the governor's Stay Home Save Lives Order mandating closures of all non-essential businesses, the bureau experienced declines in retail water demand and revenue. The bureau worked with BES to support small business customers through the Small Business Program for Utility Relief (SPUR) administered by Prosper Portland. SPUR provided \$1.6 million of combined utility bill credits to more than 500 small business. SPUR prioritized businesses owned by Black, Indigenous, and all People of Color (BIPOC) and women, childcare providers, and businesses open as part of Phase 1 of the state's reopening plan. The bureaus also coordinated SPUR with Community Chambers of Commerce.

The bureau continues to collaborate and partner with other bureaus to advance city-wide efforts, such as creating an equity database and data governance protocols, embedding equity in budget program areas, strengthening community engagement, creating opportunities for minority contractors, improving workplace culture, creating professional development opportunities for our workforce, and identifying strategies to address displacement and houselessness issues.

### 4: Use data and evidence to minimize impacts to core services and vulnerable community members

In a further effort to assess the effectiveness of the financial assistance programs, BES and Water have collaboratively developed six new performance measures, included in the Requested Budget submission. The information will help the bureaus to further improve and expand on the financial assistance programs. Both bureau's plan to expand upon and improve these measures over time.

The bureau also created a team that includes an Equity and Policy Manager, a Strategic Data Analyst, an Equity Program Analyst, and an Accessibility Analyst. The Equity and Policy team focuses on eliminating disparity in policies, practices, processes, decisions, and resource allocations, as well as on influencing attitudes within the bureau that produce authority, access, opportunities, and measurable outcomes for the bureau workforce and community members.

#### Decision Package


The Water Bureau's Requested Budget also includes a decision package to request a General Fund allocation to implement the bureau's 5-year Americans with Disability Act (ADA) Facilities Plan. These ADA requirements are related to improvements necessary for park-like amenities for which the bureau is prohibited to use ratepayer funds. Implementation of the ADA Facilities Plan will remove barriers for public access to allow bureau properties to continue to be used as hydroparks.

Summary

This FY 2021-22 Requested Budget supports my expectations of reflecting a good value at a fair price, prioritizing outreach about the financial assistance program, continuing investments in equity and inclusion, and prioritizing rate stability in long-term financial planning. It also supports the Mayor's priority issues identified in his budget guidance.

The Water Bureau continues to inform and to seek feedback from the Portland Utility Board (PUB) and the Citizens' Utility Board of Oregon (CUB) throughout the budget development process.

Thank you for your consideration.

A handwritten signature in black ink, appearing to read "Mingus Mapps". The signature is fluid and cursive, with the first name "Mingus" written in a larger, more prominent script than the last name "Mapps".

Commissioner Mingus Mapps

# WATER BUREAU

## BUDGET ADVISORY COMMITTEE REPORT(S)



January 29, 2021

# PORTLAND UTILITY BOARD

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City Budget Office

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To: Mayor Ted Wheeler  
Commissioner Carmen Rubio  
Commissioner Dan Ryan  
Commissioner Jo Ann Hardesty  
Commissioner Mingus Mapps  
Auditor Mary Hull Caballero

Re: Requested Budgets for FY 2021-22 for the Bureau of Environmental Services and the Portland Water Bureau

Date: January 29, 2021

The Portland Utility Board (PUB) serves as a community-based advisory board for the Bureau of Environmental Services (BES) and the Portland Water Bureau (PWB).

This initial budget letter, in compliance with City practice for budget advisory committees, is an early opportunity to share our preliminary work and the considerations that will guide our next several months of budget work. The PUB views this letter as the first of several touch points with City Council throughout the annual budget and planning processes.

The PUB has begun our work focused on gathering information, providing feedback, and building the foundation needed to understand the complex budgets for both bureaus. Particularly with four of our members newly joining the board as of January 1, 2021, there is substantial work ahead as we orient to the budget, expand our knowledge, learn about what is being requested and formulate recommendations for Council this budget year.

**Program offers and PUB's approach to budget**

The PUB continues to be supportive of the City's program offer budgeting process and to collaborate with the bureaus to develop the best ways to work together within the budget process. The bureaus continue to refine development of program offers, including significant changes to accommodate the reorganization within BES and continued work needed to develop and refine performance measures within the program offers.

Beginning last year, the PUB adjusted our review process to maximize



the effectiveness of our budget advisory role. While the board continues to do a basic review of the full budgets for both bureaus, the PUB has identified some high-interest program offers for more in-depth review. By focusing on a strategic number of program offers in-depth, the PUB aims to provide more focused feedback to the bureaus as well as to engage earlier and more effectively at the policy/programmatic level that ultimately drives budget optimization. The PUB appreciates the increased level of information that the bureaus provide for the high-interest program offers as this allows the PUB to have greater context and provide more valuable feedback.

**PUB’s Values and Work Plan Frames**

The PUB remains focused on the values that have been developed in recent years and continuing to refine them and understand their connections. The PUB has also developed four key frames to guide our discussions and evaluation of work:

- Racial Equity – Ensuring racial equity is centered in decision making. Current distribution of burdens and benefits analyzed as well as consideration of reparative actions to address harm done by past inequities.
- Inter-Bureau Collaboration – Is successful collaboration happening? Are resources such as staff expertise and equipment being effectively shared across bureaus? How can barriers to collaboration and resource sharing be removed?
- Outcomes Oriented – Issues where there is opportunity to influence Council and bureau decisions or otherwise impact bureau operations, policies, and budget are prioritized.
- Sustainability – Is the City using resources wisely, investing wisely, considering issues of long-term resiliency, prepared to respond to emergencies in equitable ways?

The PUB recognizes that it is important to balance the tension among the various values and frames we use in our work. PUB recognizes that rate increases are borne more easily by some and are more challenging for others. Rate increases are necessary but need to be balanced with impact on customers. Some values such as equity also cut across all other values.

PUB's Values
Affordability
Assistance to low-income residents
Efficiency of operations
Equity
Improvement and sustainability of infrastructure
Long-term value to residents of Portland region
Protection of public and watershed health
Regulatory Compliance
Service Delivery
System resilience and reliability
Transparency and inclusive public engagement

*In alphabetic, not priority order*

**Affordability, Financial Assistance and Budget Guidance**

The Mayor’s budget guidance directs the bureaus to build their budgets within rates approved as their multi-year financial plan presented last year, for a combined rate increase of approximately 4.9%. The PUB holds in reserve its support of this rate increase until the budget process is completed. We do support the additional guidance for the bureaus to work collaboratively to enhance current financial assistance programs and to continue to find cost savings and efficiencies to offset financial impacts caused by the pandemic. As continues to be a

theme of our feedback, the PUB is very concerned about affordability for all Portlanders but particularly for residents that already bear the brunt of structural inequities. In light of COVID impacts, the bureaus may need to revisit their multi-year financial plans.

The PUB continues to engage directly with the bureaus to provide feedback on financial assistance programs as well as other activities such as the recent efforts to resume billing notices to customers. Some recommendations to the bureaus that may go beyond specific programs include:

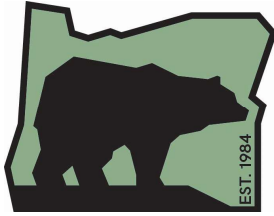
- Partner earlier with PUB to allow ample opportunity for feedback and co-creation, particularly when policies or decisions will impact customers.
- Increase proactive outreach regarding assistance available including increasing visibility on bills and notices with emphasis of availability of payment options and financial assistance programs.
- Conduct analysis of who is receiving important information about rate increases and financial assistance programs and of demographics of those asking questions or using the programs. Is information transparent across all groups? Are programs only used by particular groups of people? Identify potential gaps to develop priorities for outreach.
- Partner with community-based and/or housing organizations for outreach and more equitable information distribution. Evaluate what measures are already taken for communities that do not receive information in the same way as others and identify potential gaps for enhanced partnerships.

The PUB recognizes that this is a tough time that many customers, both households and businesses, are going through and is especially harder for people who are the most impacted by this public health crisis particularly Black, Indigenous and People of Color and other historically underrepresented communities. It is our job to make sure that the bureaus are providing help to people who are really in need and ensure that no one is left out.

### **Next steps**

Over the coming months the PUB anticipates more comprehensive review of the FY 2021-22 proposed operating budgets, program offers, and capital improvement plans. We look forward to analyzing and evaluating the bureau's requested budgets and the City Budget Office (CBO) analysis and providing additional feedback to City Council. As the budget develops, the PUB will provide a letter with recommendations regarding the budgets, participate in the budget work sessions in March, the utility rate hearing in May, as well as discuss budget issues with the Mayor and City Council if requested.

The PUB is grateful for the significant support we receive from the bureaus' directors, staff, ex-officio members, Commissioners and their staff, the City Budget Office, and PUB staff. We look forward to providing you further input as the budget process continues through the spring. We welcome open communication with City Council and any feedback you have regarding our proposed approach to FY 2021-22 budget work as well as the values and frames that guide our work.



# Oregon Citizens' Utility Board

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January 19, 2021

To: Portland Water Bureau (PWB) Commissioner-in-Charge Mingus Mapps  
c/o Senior Policy Advisor Matt Glazewski  
Gabriel Solmer and Cecelia Huynh PWB

cc: Portland Utility Board (PUB) c/o Eliza Lindsay  
Robert Cheney, City Budget Office (CBO) Analyst for PWB

From: Janice Thompson, Oregon Citizens' Utility Board (CUB)  
Re: CUB Input on Development of Requested PWB FY 2021-22 Budget

## **Compliance with Mayoral Budget Guidance**

CUB supports Mayor Ted Wheeler's budget guidance to PWB to hold rate increases at the level approved as part of both utility bureaus' multi-year financial plans discussed within the context of FY 2020-21 budget approval. For PWB this originally meant an 8.8 percent rate increase for the typical single family month bill for the FY 2021-22 budget. A reduction to 7.8 percent is expected due the PWB's successful application for a Water Infrastructure Finance and Innovation Act (WIFIA) loan for the Bull Run Treatment Program. The PWB's WIFIA loan closing date is expected to be either late January or early February. WIFIA does not provide dollars, rather it provides long-term, low-cost loans whose debt service savings result in lowered rate increases. The Bureau of Environmental Services (BES) 3.15 rate forecast for FY 2021-22 plus the lower PWB rate increase of 7.8 percent due to the anticipated WIFIA loan, results in a combined bill increase of about 4.9 percent for average residential bills.

CUB also supports the additional bullet points in the Mayor's budget guidance memo, especially collaborative work with BES to enhance current financial assistance programs. Of particular interest to CUB is assessment by both BES and PWB of opportunities to enhance the current partnership with Home Forward as well as exploring other options to assist low income consumers of Portland's utility services in multi-family housing that, due to the prevalence of building level water meters rather than unit-specific water meters, do not get bills in their own name. This dynamic hinders access to PWB/BES low-income discount programs due to restrictions on use of ratepayer funds, restrictions that are not unique to Portland. This comment will also be in CUB's memo to BES, since stormwater management and sewer costs comprise about two-thirds of a typical combined BES/PWB bill.

## **Comments**

Discussion with PWB staff about program offers and capital improvement planning (CIP) in the anticipated FY 2021-22 budget request indicated consideration of current economic stresses on many utility customers due to the COVID-19 pandemic. The PWB will not be requesting any new staff and are staying within previous rate projections even when revenue is reduced due to the pandemic. The customer service group for the combined BES and PWB bills, which is managed by

PWB, is taking a cautious approach towards resuming collections that is on par with customer impact agreements approved by the Oregon Public Utility Commission (PUB) between Oregon's major private energy utilities and numerous stakeholders, including CUB.

Given continued uncertainty about the longevity of the pandemic, however, CUB suggests that additional contingency planning would be prudent with a focus on identifying CIP projects that could be delayed. As in previous years, CUB oversight emphasizes CIP review due to the rate impacts of capital improvement projects. A particular focus is on CIP projects that are either new or recent entrants in the PWB's five year CIP budget since these projects are at a stage of development that is a relatively conducive to identifying opportunities for cost savings or feasible delays.

In this category, CUB requests more information on the advanced metering infrastructure/automatic meter reading (AMI/AMR) study that is currently underway and reflected in the CIP plan with estimated spending in FY 2021-22 of \$50,000 and a projected five year spending of total that could be 10 times that amount. CUB recognizes the high degree of uncertainty in that five year cost total and does not oppose AMI/AMR technology. We have concerns, however, that the benefits to PWB and customers are not as significant as the benefits of similar technology improvements that we have supported in the energy utility sector. We are also aware that in the past AMI/AMR has been a PWB improvement that has not secured funding since it wasn't a high enough priority compared to other CIP projects. Absent the COVID-19 pandemic, CUB may well have viewed the current study and inclusion of AMI/AMR spending in the five year CIP plan as a sign that the time could be right for this technological improvement. Given COVID-19, however, CUB is concerned that FY 2021-22 is not the appropriate year to launch this project. CUB requests a briefing on the AMI/AMR study.

CUB also requests PWB consideration of other new CIP projects that could reasonably be delayed as part of contingency planning if pandemic revenue impacts continue. We understand that project priorities are frequently evaluated along with CIP staffing capacity, but that could be a particular challenge due to pandemic related hiring issues. We also recognize that evaluating financial impacts of possible CIP delays requests consideration of related operating cost reductions.

Such contingency planning should also be informed by review of possible cost overruns in major CIP projects that, if they were to occur, would squeeze the availability of CIP dollars. For example, we request information about the Willamette River Crossing Project, since an initial geoprobe identified geotechnical challenges. Identifying such challenges is exactly why a pilot bore is conducted. Now that additional geoprobes may well be required, however, CUB requests information on the possibility of project cost adjustments. I will be in touch regarding possible requests for other major project updates. By no means, though, is CUB suggesting a re-thinking about projects that address significant resiliency goals. But given pandemic revenue concerns, it seems only prudent to check on Willamette River Crossing and possibly other projects that are not subject to the annual oversight reviews required on the Bull Run Treatment Project.

# WATER BUREAU

## PATTERNSTREAM DOCUMENTS



January 29, 2021

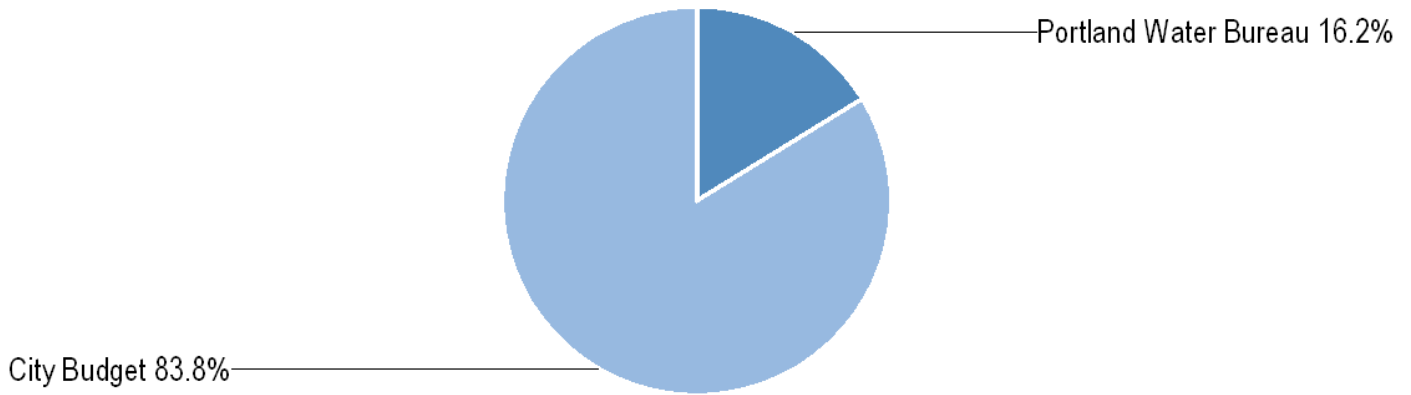
# Portland Water Bureau

Public Utilities Service Area

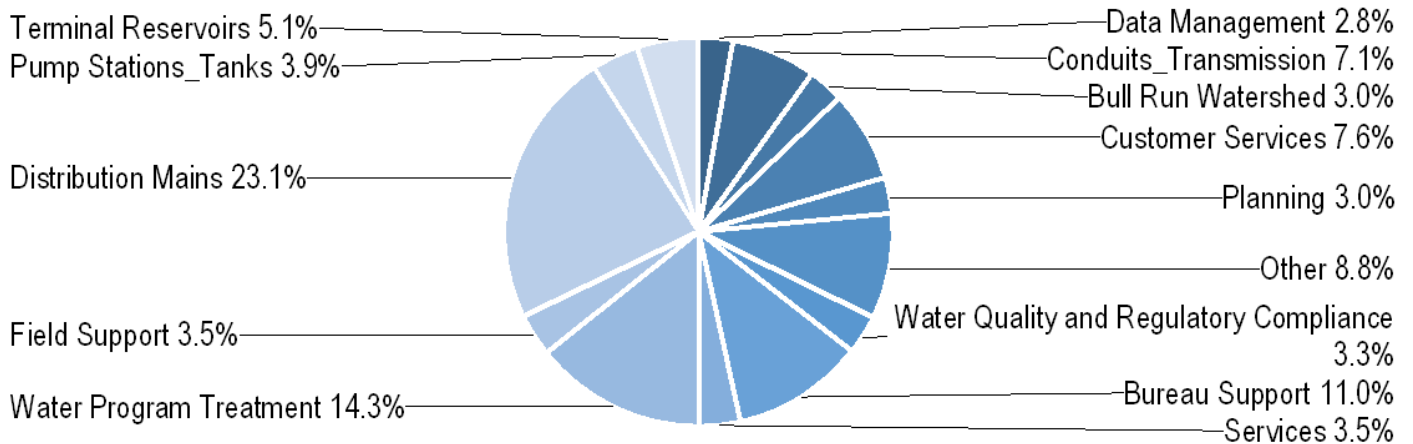
Mingus Mapps, Commissioner-in-Charge

Gabriel Solmer, Director

**Percent of City Budget Graph**

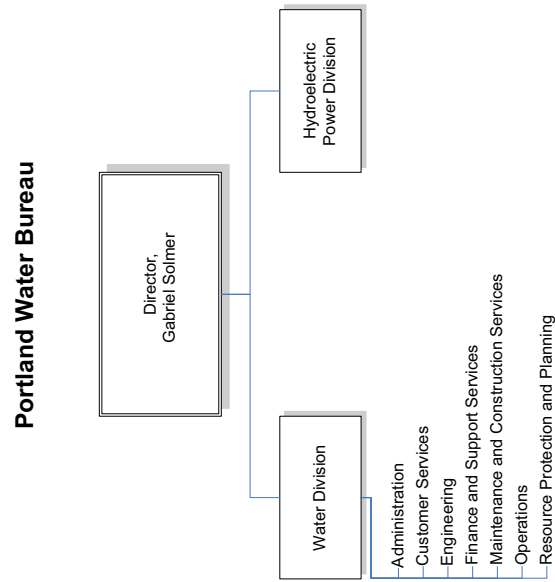


**Bureau Programs**



**Bureau Overview**

Requirements	Revised FY 2020-21	Requested FY 2021-22	Change from Prior Year	Percent Change
Operating	\$708,452,691	\$749,396,788	\$40,944,097	6%
Capital	\$163,875,000	\$156,927,845	\$(6,947,155)	(4)%
<b>Total</b>	<b>\$872,327,691</b>	<b>\$906,324,633</b>	<b>\$33,996,942</b>	<b>4%</b>
Authorized Positions	630.70	626.55	(4.15)	(0.66)%



## Bureau Summary

### Bureau Mission

The Guiding Statements of the Portland Water Bureau (Water Bureau or PWB) include:

**Mission:** We serve excellent water every minute of every day.

**Vision:** The water our community loves is safe and abundant for generations to come.

**Equity:** We work to uproot systemic inequities and their impacts on our employees and the people we serve. We commit to the difficult—and essential—work of transforming Water Bureau policies, practices, and culture to better serve historically and currently oppressed communities

**Values:**

- ◆ Honor our responsibility. We take part in a long legacy of careful stewardship of natural resources, infrastructure, and public trust. We never forget that water is essential.
- ◆ Serve our community. We know people depend on us. We are dedicated to listening, communicating, and acting with compassion.
- ◆ Work well. Our strength lies in the skills, expertise, and creativity our employees bring to work every day. We work hard, we work safely, and we adapt.
- ◆ Use money wisely. We work to control costs while maintaining high standards. We invest to make our water system stronger, more flexible, and better prepared for challenges ahead.
- ◆ Build relationships. We recognize the power of collaboration – with customers, coworkers, and partner organizations. Our relationships guide our work.

### Bureau Overview

The Water Bureau has two divisions, the Water and Hydroelectric Power Divisions. The Water Division is responsible for construction, maintenance, and operation of Portland’s municipal water system. The bureau’s Hydroelectric Power Division is responsible for all aspects of the Portland Hydroelectric Project (PHP) administration and operations.

### Water Division

The Water Division ensures that the water system can provide a sufficient quantity of high-quality water to satisfy the existing and future needs of the community. Nearly one million people, almost one-quarter of the state’s population, are served from the Bull Run/Columbia South Shore Water Systems. Retail customers use about 60 percent of the water sold, and wholesale customers use the remaining 40 percent. Portland has wholesale contracts with 19 cities, special districts, and private water companies surrounding Portland. Retail water sales account for approximately 90 percent of water sales revenue; wholesale makes up approximately 10 percent of revenues. The Water Division is organized around 22 water programs that encompass all of the division’s work.



**Hydroelectric Power Division** The Hydroelectric Power Division is responsible for regulatory issues and power sales related to hydroelectric projects at two dams in the Bull Run watershed and the Vernon Station Hydroelectric Project.

### Strategic Direction

On August 2017, the bureau began to develop a five-year Strategic Plan emphasizing a Risk-Management approach. The two-year collaborative effort led to a published plan in the Summer of 2019, representing staff at all levels of the bureau, 14 different regional and national utility managers, and key community leaders. The 2020-2024 Strategic Plan will guide the work of the bureau in articulating the bureau's overall mission, values, vision and commitment to equity. The strategic plan also contains a framework for risk management goals, objectives, and strategies going forward. The bureau is committed to focusing on the five risk management goals identified in the process: (1) System Reliability, (2) Community Relationships, (3) Workforce and Culture, (4) Organizational Processes and (5) Accountability and Leadership. The Strategic Plan is an adaptable road map for informing bureau direction, equity impact, programming, budgeting, work plans, and strategic risk.

### Budget Direction

The Water Bureau was directed to submit a budget that continues to demonstrate commitment to providing high-quality services at a good value, and operating the bureau efficiently, economically, and equitably, with a continued focus on strengthening system infrastructure and supporting our workforce. Further, the bureau is expected to fully support the Oregon Citizens' Utility Board (CUB) and the Portland Utility Board (PUB) in their budget review roles.

Mayor Ted Wheeler's FY 2021-22 Budget Guidance to Water Bureau and Bureau of Environmental Services (BES) directed bureaus to focus on the following:

- ◆ meeting all federal and state regulations and maintaining system infrastructure,
- ◆ collaborating with BES to enhance current financial assistance programs,
- ◆ promote economic recovery and opportunities to contract with partners for social equity and job creation,
- ◆ and utilize cost savings and efficiencies to offset financial impacts caused by the COVID-19 pandemic.

Further, the mayor directs the Water Bureau to build a budget that is in accordance with the rate forecast presented in the FY 2020-21 budget process, updated to reflect the rate reductions resulting from the Environmental Protection Agency (EPA) Water Infrastructure Finance and Innovation Act (WIFIA) loan program.

<b>Forecast Retail Water Demand</b>	The most recent reduction in retail demand in FY 2019-20 is partially attributable to COVID-19 impacts but the pandemic was not the primary driver. The bureau’s retail water demand for FY 2019-20 was 23.5 million ccf, or 1.6 million ccf below plan. The lower demand in FY 2019-20 was experienced even before the start of the pandemic. Retail water sales for FY 2020-21 is planned at 24.7 million ccf with actuals expected to be below the forecast. The current projection on retail water sales for FY 2020-21 is 22.4 million ccf. Some of the reduction in retail demand is believed to be permanent. As a result, the bureau will be reducing its retail demand forecast beginning in FY 2021-22 to 24.5 million ccf.
<b>Rate Forecast</b>	The bureau is proposing a 7.8 percent retail water rate increase for FY 2021-22. The FY 2020-21 Five-Year Financial Plan estimated an average effective retail water rate increase of 8.8 percent for FY 2021-22 for anticipated cost increases related to inflation and capital projects related to regulatory requirements and replacement of the water system. The 1.0 percent rate decrease below the forecast for FY 2021-22 reflects the expectation that the bureau will borrow funds for the Bull Run Treatment Projects through the EPA’s WIFIA loan program.
<b>Water Division Budget</b>	The Water Division’s operating budget is \$117.9 million. The CIP budget is \$156.9 million. This budget supports the division’s operating expenditures required to maintain, operate, support, and manage the water system, and also supports the expenditures for the bureau’s capital work. The division’s budget includes 623.55 FTE. The requested budget includes a decision package of \$1.5 million in FY 2021-22 to be provided by the General Fund for the removal of Americans with Disability (ADA) barriers related to park-like amenities. A second decision package is included to meet the Mayor’s request for a 5 percent reduction of General Fund transfers.
<b>Hydroelectric Power Division Budget</b>	The Hydroelectric Power Division’s operating budget is \$3.1 million. This budget supports the division’s administrative and operational costs from using revenues generated from power sales. The division’s budget includes 2.25 FTE.
<b>Equity Plan</b>	<p>The Portland Water Bureau is committed to the difficult—and essential—work of transforming policies, practices, and culture to better serve historically and currently oppressed communities. The bureau is working to reduce systemic inequality and its impacts on employees and the people it serves. The bureau’s five-year Strategic Plan explicitly identifies 42 strategies (63 percent of the total) with the high capacity for advancing equity. These include addressing the impacts of climate change, strengthening community relationships, improving recruitment and retention practices, and embedding participatory decision-making in bureau operations.</p> <p>In 2019, the bureau hired it’s first Equity Manager, who organized an Equity Planning Taskforce to facilitate the alignment of the equity efforts with the Strategic Plan. The bureau’s five-year Equity Plan uses the Racial-Centered Results-Based Accountability methodology, identifies specific tasks to advance equity (both internally and externally), and establishes performance measures to monitor and</p>

track progress over time. Beginning in FY 2020-21, the bureau added specific Equity Plan tasks to team and individual workplans, in addition to adding equity goals for all bureau managers and supervisors in their performance evaluations. The bureau is also strengthening its Bureau Equity Committee to align efforts more closely to the Equity Plan and continues to collaborate and partner with other bureaus to advance city-wide equity efforts.

### Summary of Budget Decisions

#### **ADA Barrier Plan**

The 2014 Citywide Transition Plan identified 580 barriers at the bureau's facilities accessed by the public. A non-ratepayer source of funding is needed for the removal of most of these ADA barriers. The bureau has developed an ADA Facilities Plan. The FY 2021-22 requested budget includes a decision package requesting the funding of \$1.5 million to be provided by the General Fund for the removal of ADA barriers. ADA barrier removal work will be coordinated by bureau staff. A project manager will coordinate with the equity manager and facilities program manager to develop work packages to begin the procurement process for removal of ADA barriers.

#### **Advance Equity**

The bureau is working to expand capacity for the equity program, create opportunities to promote more equitable community engagement, and embed equity throughout all bureau functions. The bureau created a team that includes an Equity and Policy Manager, a Strategic Data Analyst, an Equity Program Analyst, and an Accessibility Analyst. The Equity and Policy team focuses on eliminating disparity in policies, practices, processes, decisions, and resource allocations, as well as on influencing attitudes within the bureau that produce authority, access, opportunities, and measurable outcomes for the bureau workforce and community members. Additionally, the Equity and Policy team identifies training needs, develops tools, and supports bureau employees at all levels to incorporate equity into their work.

#### **Financial Assistance Outreach**

The bureau offers one of the most extensive financial assistance programs of all water utilities in the United States. The bureau's low-income services include two-tiered bill discounts, flexible bill pay, interest-free payment plans, crisis vouchers, multi-family emergency rental and crisis assistance, water leak repair and replacement services, the utility safety net program, water rebates and conservation kits and technical assistance for commercial customers wanting to use water efficiently. Further, the bureau understands that some customers have significantly been impacted by the pandemic and are experiencing loss of income or significant reduction in income. The bureau has relaxed the income verification requirements to qualify customers for financial assistance recognizing that many may have difficulty providing documentation during the pandemic.

#### **Five Percent General Fund Transfer Reduction**

Mayor Ted Wheeler's FY 2021-22 Budget Guidance stated that all centrally administered transfers of ongoing General Fund discretionary resources, with the exception of funding for the Joint Office of Homeless Services, are subject to the 5 percent reduction, including Special Appropriations allocations. The Water Bureau receives two ongoing transfers from the General Fund. There are administrative

costs associated with the Multi-Family crisis voucher that total \$40,000. This contractual amount cannot be reduced. The bureau also receives a transfer of \$201,598 related to maintenance of park like amenities at bureau properties. The combined reduction of \$12,080 is reduced from the park like amenities and will result in more infrequent maintenance of these locations.

## Capital Summary

### CIP Highlights

The Water Bureau's five-year FY 2021-26 Capital Improvement Plan (CIP) includes approximately \$1,178 million in water system investment needs. The CIP budget is \$157 million for FY 2021-22. The primary drivers of the bureau's capital work are ensuring the reliable functioning of the drinking water system, achieving compliance with federal and state drinking water regulations, improving the resilience of the water system and replacing assets that are at the end of their useful lives.

The largest investments for the CIP are for projects within the Treatment Program which makes up 42% of the five-year total. In the program, there are two major projects to improve water quality and to comply with regulatory requirements. A new filtration plant will be constructed to remove the microorganism *Cryptosporidium* and must be completed by 2027 to comply with state and federal water quality rules. Improvements are also underway to further reduce lead in drinking water levels at customer taps. No later than April 2022, the bureau will have improved treatment facilities operational to make Portland's water less corrosive and minimize lead and other metals found in household and building plumbing. The combined total of both projects is currently estimated to be over \$630 million. Almost \$500 million is included in this five-year CIP.

The Transmission and Terminal Storage Program represents about 26% of the CIP. Included is pipeline work to provide raw water, and convey finished water, to support the Bull Run Filtration plant. Work also continues to complete the Washington Park Reservoir 3 Project. About \$265 million of the over \$400 million planned for both projects are reflected in this CIP, much of it for the pipeline work.

More large CIP investments are for the Distribution Program, which makes up about 23% of the total. Construction will start on the single largest project, the Willamette River Crossing, reinforcing the vital link between the east side water supply and west side houses and businesses. About \$36 million of the \$88 million project total will be expended.

The Support Program is approximately 2% of the total five-year CIP and includes funding for the master planning of capital projects.

The Supply Program makes up approximately 2% of the CIP. The program includes over \$4 million in improvements to roads that transport staff, supplies, and equipment into and out of the Bull Run watershed. Other projects include improving or replacing equipment such as electrical control equipment at the groundwater pumping plant, Howell-Bunger valve improvements at Headworks and rehabilitation of the Dam 1 spillway gates.

The Customer Service (4%) and Regulatory Compliance Programs make up the remaining amount, with customer metering improvements, ongoing program commitments for habitat conservation and any needed security and emergency management projects.

### Major Issues

The bureau's emphasis in the upcoming five years will continue to be complying with all water quality and environmental regulations. The bureau will also continue work that maintains critical infrastructure, improves system reliability and resilience. Work continues toward building a water filtration treatment facility to meet the treatment requirements for *Cryptosporidium*. Construction is scheduled to start in FY 2022-23 to comply with the requirement to have filtration operational no later than September 30, 2027.

On March 1, 2017, Portland City Council authorized the Portland Water Bureau to begin a Corrosion Control Treatment Pilot. This was the first step to improved corrosion control treatment to further limit the leaching of lead from household plumbing and fixtures. Treatment improvements are to be implemented by April 30, 2022 and are expected to cost up to \$20 million.

Improving system resilience includes improving essential system elements to withstand and recover from natural hazards, such as earthquakes, floods, and landslides. The City of Portland is following the guidance of the statewide Oregon Resilience Plan in strengthening its water and sewer systems against earthquakes.

### Changes from Prior Year

The FY 2021-22 Five Year CIP is approximately \$1,178 million, up from about \$805 million in FY 2020-21, a difference of \$373 million for the next five years. The increase reflects the Bull Run Filtration Project's significant construction work in the last 2 years of the CIP. Also, construction of the Bull Run Pipelines will be completed in the five-year plan.

This budget request introduces about \$80 million in new major projects. There is \$14 million in new water main distribution projects, about \$10 million in support of projects for other bureaus and agencies. \$5 million for Bull Run Dam 1 spillway gates, \$2.8 million to repair damaged sections of Conduit 3. Other proposals include replacing the deprecated building access systems at Interstate, and some renovation of the Operations facility also at the Interstate campus. About \$50 million has been reserved for the implementation of advanced metering infrastructure (AMI). The request is a place holder to improve the metering infrastructure only. A detailed planning study currently underway that will provide a complete program scope and expected costs.

### Connection to Goals, Priorities and Plans

The City's 2035 Comprehensive Plan was finalized in 2018. The plan includes a guiding framework for strategic growth and improvements. Major goals and policies include providing infrastructure to support healthy Portlanders, accessible neighborhoods with transportation options, and public safety. The bureau supports these goals through its mission of "serving excellent water every minute of every day" and its vision of "water our community loves that is safe and abundant for generations to come."

The bureau's CIP program supports Comprehensive Plan goals and policies by providing for the major rehabilitation of the City's water system and developing new facilities in a proactive, strategic, and cost-effective manner. Capital projects provide planned and emergency repairs, new services, replacement of aging assets, and improved or backup services to ensure the long-term expansion of neighborhoods and business centers.

Serving excellent water is the bureau's mission and a key part of the capital program. The reliable delivery of clean water that exceeds regulatory standards is integral to all bureau programs and projects. Hydrant placement for fighting fires is also evaluated as part of capital project development.

Many of the bureau's capital projects support environmental health. The Water Bureau's Bull Run Habitat Conservation Plan includes habitat improvement projects for endangered species affected by water supply operations. Renovations and new construction projects for occupied workspaces incorporate sustainability goals where feasible. Operational changes made through the bureau's Asset Management Program include reducing the use of energy.

Building in system resilience is a bureau value to make the water system stronger, more flexible, and better prepared for challenges ahead. The Asset Management Program regularly evaluates assets at risk from natural or human-caused events and recommends methods to reduce risk and improve resilience.

**Criteria**

Bureau projects in the CIP budget meet at least one of the following criteria: compliance with water quality or environmental regulations, maintaining reliable service, supporting properly functioning equipment, reducing system risk, supporting other agencies' project needs, or ensuring emergency preparedness. The Water Bureau selects projects for inclusion in the budget based on these criteria, as well as, the results of a benefit-cost analysis and consideration of rate increases, the opportunities to share costs with interagency partners, opportunities for revenue, and regulatory requirements. The Major's climate change priority is considered part of the project planning efforts. A bureau priority for the FY 2021-22 budget is development and implementation of Equity Impact Assessments for capital planning and project design as well.

**Capital Planning Process**

Most bureau project proposals are identified through long-range planning studies such as master plans and asset specific analyses of systems, service areas, or groups of assets. Bureau decision-makers weigh individual projects against wider bureau issues and requirements. If projects are recommended to move forward, planning staff conduct detailed studies. The Water Bureau uses industry best practices in benefit-cost analysis and risk assessment to identify and weigh project alternatives.

Project initiation and planning includes several decision-making points. For major projects, an initial concept report includes evaluations of project alternatives and recommendations. Water Bureau senior management uses the initial findings to narrow alternatives and approve the next steps. If approved, a project undergoes more formal evaluation in a Project Validation Report (PVR). The PVR includes a risk assessment, which weighs proposed solutions and identifies benefits, followed by a benefit-cost analysis. The Water Bureau selects and ranks capital projects with consideration for the magnitude and necessity of the project.

Each year, the Water Bureau engages the public in developing its budget. The Portland Utility Board (PUB) meets monthly throughout the year to provide input to financial plans, capital improvements, annual budget development, and rate setting for the City's water, sewer and stormwater services. The PUB also reviews key bureau plans, initiatives, and processes, such as preparations for seismic resilience and efforts to expand the Financial Assistance Program.

The nonprofit CUB, attends the monthly PUB meetings as well. The mission of CUB is to "represent the interests of ...residential utility customers." The CUB provides independent evaluations and recommendations directed to Portland City Council, Water Bureau leadership, and the City Budget Office.

The City seeks additional input from the public during the Citywide budget process. The budget process includes City Council work sessions on the budget, a rate hearing, and postings on the bureau website and social media channels. Members of the public are invited to provide comments on the bureau's presentations.

### **Funding Sources**

Capital investments in the water system are funded through the Water Construction Fund (WCF) which is financed from three major sources: net proceeds from revenue bond sales, transfers from the Water Fund (primarily water sales revenues), and construction fund revenues (system development charges, direct capital reimbursements, and interest earnings). These monies also fund indirect capital costs, such as overhead, as well as direct project costs. Capital revenues provide approximately \$65 million across the five years. Cash-financed capital funding from rate revenues provides approximately \$223 million across the five years. Approximately 16% of capital requirements for this five-year CIP is funded with current resources; the balance will come from bond proceeds. The balance between debt and cash financing affects the debt service coverage targets, as do bond terms and structures.

### **Asset Management and Replacement Plan**

The Asset Management Program supports the bureau's goals to ensure the longest possible useful asset life as well as the most cost-effective replacement strategies. Using engineering, economics, and business expertise, asset managers identify the most cost-effective way to maintain, repair, and replace assets. The bureau's asset values, updated in 2020, are currently valued at over \$14.9 billion, with about 92% in fair, good, or very good condition.

The bureau tracks its high risk assets and for and has addressed 75 percent of them, and has plans to address another 14 percent. The bureau has implemented a monitoring and management program for the remainder of the assets. The bureau's 23 separate asset management plans include strategies for proactively managing asset risk. Strategies currently implemented have improved asset operations and reduced the City's risk exposure.

### **Net Operating and Maintenance Costs**

Bureau project planners estimate operating and maintenance (O&M) costs as part of the project feasibility study and preliminary evaluations. The costs generally include labor, electricity or fuel, and chemicals. Changes in the cost of energy and chemicals are typically a greater percentage than labor or efficiency savings.

Much of the CIP is dedicated to repairing, replacement, or rehabilitation of pipes and other system elements used to deliver water to customers. These long-life passive assets, typically buried and not visible, do not require much in the way of regular O&M. Due to a large number of these assets, completed renewal projects may result in only a nominal net change in O&M costs because the maintenance cost for these elements is so minimal. For example, the replacement of pipes with a high frequency of leaks will result in reduced reactive O&M due to fewer leak repairs. However, the relatively small percentage of pipe length replaced in any given year will not appreciably alter the O&M budget.

For infrastructure such as pump stations, O&M may increase if additional facilities are constructed or capacity is added. When new facilities are built, like filtration, the O&M cost can affect water rates and would be included in the forecast. Most improvements are to reconstruct existing facilities, and the net change in O&M expense is insignificant. The new treatment process improvements will significantly alter O&M cost starting with the first full year of operation. With operation beginning in spring 2022, the corrosion improvements could add \$1.6 million in additional annual expense. Bull Run Filtration is estimated to add more than \$6 million in operating costs and will impact the budget beginning in 2027.



# Portland Water Bureau

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target FY 2020-21	Target FY 2021-22	Strategic Target
<b>EFFICIENCY</b>					
Percentage of budgeted Capital Improvement Plan expended	93%	66%	100%	100%	100%
Percentage of calls answered within 60 seconds	87%	66%	100%	100%	100%
Percentage of projects forecast to be completed within three months of planned date	80%	20%	80%	80%	80%
Percent of services installed more than 15 days for residential and 60 days for commercials after the permit was issued (lower number is better)	92.0%	92.0%	90.0%	90.0%	90.0%
<b>OUTCOME</b>					
Days any pump station in service does not meet system demand (lower number is better)	0	0	0	0	0
Number of Assistance Program Information Events	0	0	0	0	0
Number of City of Portland Nuisance Activity violations (lower number is better)	NA	0	0	0	0
Number of unplanned conduit outages	0	0	0	0	0
Number of unplanned transmission outages.	0	0	0	0	0
Number of violations of state and federal drinking water quality regulations	0	0	0	0	0
Number of violations of state and federal environmental regulations	0	0	0	0	0
Security incidents resulting in damage to facilities or harm to employees (reflects incidents logged in the Security budget program)	3	3	6	6	6
Service line incidents that cause water users to not have service for more than 12 hours (lower number is better)	0	0	0	0	0
Number of main breaks per 100 miles per year (lower number is better)	7.20	5.70	9.00	9.00	9.00
Compliance with meeting benchmarks of Water Management and Conservation Plan (measure the percent of benchmarks successfully met). The WMCP has 5 benchmarks, a new set of benchmarks was established in	74%	74%	100%	100%	100%
Maintain minimum daily water level in reservoirs that are in use	NA	69%	60%	60%	60%
Maintain the current rating for Water first lien revenue bonds	0%	0%	0%	100%	100%
Percentage of Billed Revenue Collected	0%	0%	0%	98%	98%
Percentage of community members who, in a statistically significant survey, say they have "good" or "very good" awareness of the services the bureau provides	NA	54%	75%	75%	75%
Percentage of employees reporting that they are "engaged" or "fully engaged" in their work (in employee survey done every other year)	NA	0%	78%	78%	78%
Percentage of files sent to records for archiving are filed in accordance with State of Oregon and City of Portland retention rules.	NA	100%	100%	100%	100%

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target FY 2020-21	Target FY 2021-22	Strategic Target
Percentage of hydrants in service at any point	100.0%	100.0%	100.0%	99.5%	99.5%
<b>OUTPUT</b>					
Amount of power sold to Portland General Electric in megawatt hours	57,974	76,344	86,600	86,600	84,800
Days Bull Run supply is available, excluding regulatory compliance events (such as turbidity events that exceed regulatory limits)	365	366	365	365	365
Days total reservoir storage is above 6.9 billion gallons (the reservoirs' baseline storage threshold)	365	366	365	365	365
Groundwater capacity for 60 days of well use	NA	90	73	73	73
Number of valves exercised/operated	611	430	750	750	750
Percentage of city's water supply provided by Bull Run watershed under normal operating conditions	88%	93%	100%	100%	100%
Percentage of meters tested each year for accuracy 6+ inch meters and meters with consumption over 1000 CCF/month	NA	55%	90%	90%	90%
<b>WORKLOAD</b>					
Work orders the Maintenance and Construction group completes each year	4,415	3,700	4,000	4,000	4,000
Percent of fountains operational	NA	89%	95%	95%	95%

# Portland Water Bureau

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Base FY 2021-22	Requested FY 2021-22
<b>Resources</b>					
<b>External Revenues</b>					
Charges for Services	198,155,305	202,330,359	214,237,828	226,269,165	226,537,772
Intergovernmental	743,780	712,966	526,000	605,000	605,000
Bond & Note	0	188,498,163	119,350,000	161,280,000	161,280,000
Miscellaneous	7,251,550	8,861,047	5,801,336	5,460,383	5,460,383
<b>External Revenues Total</b>	<b>206,150,634</b>	<b>400,402,536</b>	<b>339,915,164</b>	<b>393,614,548</b>	<b>393,883,155</b>
<b>Internal Revenues</b>					
Fund Transfers - Revenue	213,339,970	236,394,755	302,547,371	294,028,913	295,524,560
Interagency Revenue	3,913,738	3,691,153	5,175,377	4,848,671	4,848,671
<b>Internal Revenues Total</b>	<b>217,253,708</b>	<b>240,085,908</b>	<b>307,722,748</b>	<b>298,877,584</b>	<b>300,373,231</b>
Beginning Fund Balance	231,757,778	197,725,125	224,689,779	212,068,247	212,068,247
<b>Resources Total</b>	<b>655,162,120</b>	<b>838,213,569</b>	<b>872,327,691</b>	<b>904,560,379</b>	<b>906,324,633</b>
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	69,070,482	77,042,370	85,120,199	89,209,914	89,209,914
External Materials and Services	38,106,440	36,481,718	49,397,881	56,399,412	58,175,746
Internal Materials and Services	22,151,325	21,599,753	24,137,192	23,857,587	23,845,507
Capital Outlay	54,325,436	94,504,799	123,174,992	106,613,084	106,613,084
<b>Bureau Expenditures Total</b>	<b>183,653,682</b>	<b>229,628,641</b>	<b>281,830,264</b>	<b>276,079,997</b>	<b>277,844,251</b>
<b>Fund Expenditures</b>					
Debt Service	59,643,128	119,458,019	71,163,018	65,520,319	65,520,319
Contingency	0	0	147,346,949	190,690,710	190,690,710
Fund Transfers - Expense	214,140,185	235,380,255	309,069,472	300,094,792	300,094,792
Debt Service Reserves	0	0	32,127,462	33,352,584	33,352,584
<b>Fund Expenditures Total</b>	<b>273,783,313</b>	<b>354,838,274</b>	<b>559,706,901</b>	<b>589,658,405</b>	<b>589,658,405</b>
Ending Fund Balance	197,725,125	253,746,655	30,790,526	38,821,977	38,821,977
<b>Requirements Total</b>	<b>655,162,120</b>	<b>838,213,569</b>	<b>872,327,691</b>	<b>904,560,379</b>	<b>906,324,633</b>
<b>Programs</b>					
Bull Run Watershed	7,299,482	9,059,536	8,791,776	8,292,997	8,292,997
Bureau Support	23,806,727	54,380,764	29,775,460	28,832,334	30,596,588
Conduits/Transmission	1,453,416	1,755,075	10,649,047	19,604,561	19,604,561
Customer Services	16,708,065	17,020,548	20,500,731	21,112,953	21,112,953
Data Management	3,504,179	3,783,072	5,147,743	7,916,126	7,916,126
Distribution Mains	29,732,171	38,320,886	52,790,986	64,273,638	64,273,638
Employee Investment	3,089,266	2,780,570	2,987,183	3,207,399	3,207,399
Field Support	8,730,259	8,901,309	10,079,907	9,842,135	9,842,135
Fountains	738,599	718,725	1,181,479	1,215,500	1,215,500
Grounds/Parks	677,256	769,648	584,160	563,795	563,795
Groundwater	4,886,481	3,759,127	3,101,715	4,478,727	4,478,727

	<b>Actuals FY 2018-19</b>	<b>Actuals FY 2019-20</b>	<b>Revised FY 2020-21</b>	<b>Base FY 2021-22</b>	<b>Requested FY 2021-22</b>
Hydrants	4,409,395	4,063,727	3,174,526	3,308,963	3,308,963
Hydroelectric Power	2,791,684	2,557,340	2,780,520	2,983,097	2,983,097
Meters	2,722,325	2,591,039	3,246,554	3,373,082	3,373,082
Planning	(14,963,748)	(18,418,930)	8,193,304	8,315,631	8,315,631
Pump Stations/Tanks	10,497,198	8,358,917	9,714,628	10,794,573	10,794,573
Security/Emergency Management	2,221,311	6,882,069	2,690,344	2,655,966	2,655,966
Services	13,204,934	11,083,546	9,456,577	9,601,765	9,601,765
Terminal Reservoirs	36,558,655	39,875,273	30,090,794	14,296,698	14,296,698
Valves/Gates/Regulators	1,633,465	1,276,127	1,522,721	1,577,976	1,577,976
Water Efficiency	784,034	889,585	1,132,162	1,028,303	1,028,303
Water Program Treatment	15,164,907	21,872,902	54,749,550	39,750,331	39,750,331
Water Quality & Regulatory Compliance	8,003,624	7,347,786	9,488,397	9,053,447	9,053,447
<b>Total Programs</b>	<b>183,653,682</b>	<b>229,628,641</b>	<b>281,830,264</b>	<b>276,079,997</b>	<b>277,844,251</b>

# Portland Water Bureau

Class	Title	Salary Range		Revised FY 2020-21		Requested No DP FY 2021-22		Requested FY 2021-22	
		Min	Max	No.	Amount	No.	Amount	No.	Amount
30000063	Accountant II	54,912	81,151	4.00	296,810	4.00	308,174	4.00	308,174
30000064	Accountant III	60,466	89,256	1.00	86,268	1.00	87,506	1.00	87,506
30003003	Administrative Specialist II	48,277	94,878	13.00	972,451	13.00	972,451	13.00	972,451
30003004	Administrative Specialist III	53,290	104,701	5.00	393,235	5.00	393,235	5.00	393,235
30003006	Analyst I	53,290	104,701	8.00	707,638	8.00	707,638	8.00	707,638
30003007	Analyst II	63,336	111,681	9.00	840,178	9.00	840,178	9.00	840,178
30003008	Analyst III	69,805	133,873	8.00	881,598	8.00	881,598	8.00	881,598
30003009	Analyst IV	80,205	148,724	3.00	371,551	3.00	371,551	3.00	371,551
30000204	Applications Analyst III- Generalist	69,971	107,841	3.00	298,709	3.00	298,709	3.00	298,709
30000207	Applications Analyst IV- Generalist	73,528	113,569	3.00	221,244	3.00	161,745	3.00	161,745
30000102	Automotive Equip Oper II: Sewer Vacuum	47,861	67,637	1.00	65,374	1.00	66,310	1.00	66,310
30000104	Automotive Equip Oper II: Tractor-Trailr	47,861	67,637	1.00	65,374	1.00	66,310	1.00	66,310
30000101	Automotive Equipment Oper I	45,053	64,094	17.00	1,020,660	17.00	1,045,921	17.00	1,045,921
30003010	Business Systems Analyst I	53,290	104,701	3.00	221,187	3.00	221,187	3.00	221,187
30003011	Business Systems Analyst II	63,336	111,681	3.00	290,098	3.00	290,098	3.00	290,098
30003012	Business Systems Analyst III	69,805	133,873	4.00	438,880	4.00	438,880	4.00	438,880
30000331	CAD Analyst	67,974	100,224	1.00	96,876	1.00	98,259	1.00	98,259
30000329	CAD Technician II	55,973	82,467	3.00	210,985	3.00	219,252	3.00	219,252
30000399	Capital Project Manager I	67,974	100,224	3.00	290,628	3.00	294,777	3.00	294,777
30003014	Capital Project Manager III	69,805	133,873	1.00	123,469	1.00	123,469	1.00	123,469
30000110	Carpenter	56,805	74,553	3.00	216,186	3.00	219,273	3.00	219,273
30000107	Concrete Finisher	56,805	74,553	3.00	216,186	3.00	219,273	3.00	219,273
30000105	Construction Equipment Operator	47,986	71,943	19.00	1,321,146	19.00	1,340,127	19.00	1,340,127
30003235	Coordinator I - E	48,277	94,878	6.00	445,785	6.00	445,785	6.00	445,785
30003027	Coordinator I - NE	48,277	94,878	5.00	421,243	5.00	421,243	5.00	421,243
30003028	Coordinator II	53,290	104,701	7.00	665,746	7.00	665,746	7.00	665,746
30003029	Coordinator III	63,336	111,681	12.00	1,197,406	12.00	1,190,102	12.00	1,190,102
30003030	Coordinator IV	69,805	133,873	3.00	333,979	3.00	333,979	3.00	333,979
30000017	Customer Accounts Specialist I	37,336	63,202	36.00	2,041,887	36.00	2,110,407	36.00	2,110,407
30000018	Customer Accounts Specialist II	44,512	69,228	9.00	570,832	9.00	589,268	9.00	589,268
30003036	Deputy Director III	111,696	201,191	1.00	180,003	1.00	180,003	1.00	180,003
30003039	Director III	147,035	249,288	1.00	223,392	1.00	223,392	1.00	223,392
30000116	Electrician	71,074	91,250	6.00	522,692	6.00	535,939	6.00	535,939
30003046	Engineer II	108,368	138,265	4.00	484,210	4.00	504,317	4.00	504,317
30003047	Engineer III	80,205	148,724	12.00	1,537,361	12.00	1,537,361	12.00	1,537,361
30003048	Engineer, Chief	111,696	201,191	1.00	185,786	1.00	185,786	1.00	185,786

## Portland Water Bureau

Class	Title	Salary Range		Revised FY 2020-21		Requested No DP FY 2021-22		Requested FY 2021-22	
		Min	Max	No.	Amount	No.	Amount	No.	Amount
30000364	Engineer-Chemical/ Environmental	89,357	125,408	1.00	115,409	1.00	121,522	1.00	121,522
30000365	Engineer-Civil	89,357	125,408	15.70	1,663,405	14.55	1,721,563	14.55	1,721,563
30000366	Engineer-Electrical	89,357	125,408	1.00	121,212	1.00	122,949	1.00	122,949
30000357	Engineering Associate, Sr- Chemical/Envir	77,272	113,739	1.00	94,983	1.00	100,149	1.00	100,149
30000358	Engineering Associate, Sr-Civil	77,272	113,739	17.00	1,710,530	17.00	1,781,953	17.00	1,781,953
30000353	Engineering Associate-Civil	63,502	98,273	4.00	295,336	4.00	319,775	4.00	319,775
30000355	Engineering Associate- Mechanical	63,502	98,273	1.00	86,247	1.00	87,485	1.00	87,485
30003050	Engineering Manager	92,851	172,210	7.00	1,083,385	7.00	1,083,385	7.00	1,083,385
30003051	Engineering Supervisor	91,728	161,390	8.00	1,122,239	8.00	1,122,239	8.00	1,122,239
30000325	Engineering Technician II	55,973	82,467	8.00	581,445	8.00	602,858	8.00	602,858
30000326	Engineering Technician III	67,974	100,224	6.00	516,998	6.00	530,906	6.00	530,906
30003376	Environmental Regulatory Coordinator	69,805	133,873	5.00	562,376	5.00	562,376	5.00	562,376
30001908	Environmental Spec-Wildlife Biologist	67,974	100,224	1.00	75,858	1.00	78,894	1.00	78,894
30000339	Environmental Specialist- Generalist	67,974	100,224	7.00	638,796	7.00	658,004	7.00	658,004
30003052	Environmental Supervisor	69,805	133,873	2.00	224,182	2.00	224,182	2.00	224,182
30000338	Environmental Technician II	55,973	82,467	8.00	553,797	8.00	568,148	8.00	568,148
30003054	Financial Analyst I	53,290	104,701	2.00	185,515	2.00	185,515	2.00	185,515
30003055	Financial Analyst II	63,336	111,681	3.00	278,013	3.00	278,013	3.00	278,013
30003056	Financial Analyst III	69,805	133,873	3.00	351,374	3.00	351,374	3.00	351,374
30000127	General Mechanic	51,542	75,380	2.00	145,724	2.00	147,804	2.00	147,804
30000341	GIS Technician I	41,766	64,624	1.00	62,462	1.00	63,357	1.00	63,357
30000342	GIS Technician II	55,973	82,467	4.00	290,368	4.00	294,528	4.00	294,528
30000343	GIS Technician III	67,974	100,224	3.00	268,372	3.00	279,853	3.00	279,853
30000373	Graphics Designer III	67,974	100,224	1.00	77,501	1.00	78,607	1.00	78,607
30000252	Horticulturist	48,526	68,761	1.00	66,466	1.00	67,413	1.00	67,413
30000340	Hydrogeologist	77,064	113,527	1.00	94,848	1.00	100,984	1.00	100,984
30000114	Industrial Painter	63,066	77,014	3.00	223,329	3.00	226,512	3.00	226,512
30000218	Inf Syst Analyst, Principal-Gen	82,909	127,508	1.00	105,206	1.00	105,206	1.00	105,206
30000239	Instrument Technician	71,074	91,250	6.00	522,692	6.00	536,465	6.00	536,465
30001283	Laboratory Analyst II	50,502	78,520	2.00	151,798	2.00	153,962	2.00	153,962
30001284	Laboratory Analytical Specialist	57,574	89,722	5.00	395,867	5.00	423,420	5.00	423,420
30001285	Laboratory Coordinator	59,758	98,973	2.00	191,340	2.00	194,064	2.00	194,064
30003074	Laboratory Manager	80,205	148,724	1.00	126,464	1.00	126,464	1.00	126,464
30003079	Maintenance Supervisor I - E	63,336	111,681	1.00	87,651	1.00	87,651	1.00	87,651

# Portland Water Bureau

Class	Title	Salary Range		Revised FY 2020-21		Requested No DP FY 2021-22		Requested FY 2021-22	
		Min	Max	No.	Amount	No.	Amount	No.	Amount
30003234	Maintenance Supervisor I - NE	63,336	111,681	8.00	741,811	8.00	741,811	8.00	741,811
30003080	Maintenance Supervisor II	69,805	133,873	3.00	343,975	3.00	343,975	3.00	343,975
30000073	Maintenance Worker	31,512	37,001	1.00	35,766	1.00	36,275	1.00	36,275
30003081	Manager I	80,205	148,724	11.00	1,340,251	11.00	1,340,251	11.00	1,340,251
30003082	Manager II	92,851	172,210	2.00	280,453	2.00	280,453	2.00	280,453
30003083	Manager III	111,696	201,191	5.00	828,861	5.00	828,861	5.00	828,861
30003084	Mapping & GIS Supervisor	69,805	133,873	1.00	123,469	1.00	123,469	1.00	123,469
30000978	Mapping Data Technician II	67,974	100,224	1.00	96,876	1.00	98,259	1.00	98,259
30003350	Office Support Specialist Assistant	26,000	37,170	1.00	35,932	1.00	36,442	1.00	36,442
30000012	Office Support Specialist II	34,798	58,662	2.00	113,402	2.00	115,024	2.00	115,024
30000013	Office Support Specialist III	44,512	69,228	2.00	133,828	2.00	135,740	2.00	135,740
30000152	Operating Engineer I	51,646	65,557	1.00	63,367	1.00	64,272	1.00	64,272
30000153	Operating Engineer II	52,104	81,618	3.00	224,464	3.00	231,472	3.00	231,472
30000154	Operating Engineer III	63,294	89,192	13.00	1,120,808	13.00	1,136,759	13.00	1,136,759
30000081	Parks Technician	46,987	62,651	4.00	242,236	4.00	245,688	4.00	245,688
30000398	Planner, Sr City-Water Resources	82,514	107,862	1.00	104,260	1.00	105,747	1.00	105,747
30003096	Public Information Manager	80,205	148,724	1.00	103,438	1.00	103,438	1.00	103,438
30003097	Public Information Officer	63,336	111,681	1.00	106,974	1.00	106,974	1.00	106,974
30000228	Public Works Inspector	62,774	84,206	4.00	323,140	4.00	330,220	4.00	330,220
30000229	Public Works Inspector, Sr	68,099	94,157	3.00	259,250	3.00	266,343	3.00	266,343
30000403	Remittance Technician	37,336	60,296	1.00	58,282	1.00	59,114	1.00	59,114
30000349	Right of Way Agent II	55,973	82,467	1.00	79,706	1.00	80,850	1.00	80,850
30003099	Risk Specialist I	53,290	104,701	1.00	73,195	1.00	73,195	1.00	73,195
30003100	Risk Specialist II	63,336	111,681	3.00	270,233	3.00	270,233	3.00	270,233
30003101	Risk Specialist III	69,805	133,873	1.00	117,666	1.00	117,666	1.00	117,666
30000029	Service Dispatcher	37,336	63,202	2.00	122,180	2.00	123,926	2.00	123,926
30000053	Storekeeper/Acquisition Specialist I	45,302	65,091	1.00	62,920	1.00	63,814	1.00	63,814
30000054	Storekeeper/Acquisition Specialist II	47,611	68,358	2.00	132,142	2.00	134,036	2.00	134,036
30000056	Storekeeper/Acquisition Specialist III	53,789	78,457	1.00	75,837	1.00	76,918	1.00	76,918
30003103	Supervisor I - E	63,336	111,681	9.00	879,423	9.00	879,423	9.00	879,423
30003104	Supervisor II	69,805	133,873	9.00	952,181	9.00	952,181	9.00	952,181
30000224	Surveying Aide II	50,960	69,652	2.00	130,713	2.00	134,717	2.00	134,717
30003105	Surveying Manager	91,728	161,390	1.00	143,645	1.00	143,645	1.00	143,645
30003106	Surveying Supervisor	80,205	148,724	1.00	142,272	1.00	142,272	1.00	142,272
30000225	Surveyor I	58,219	84,906	2.00	164,132	2.00	166,484	2.00	166,484
30000226	Surveyor II	73,362	100,267	1.00	96,918	1.00	98,301	1.00	98,301

## Portland Water Bureau

Class	Title	Salary Range		Revised FY 2020-21		Requested No DP FY 2021-22		Requested FY 2021-22	
		Min	Max	No.	Amount	No.	Amount	No.	Amount
30001558	Timekeeping Specialist	37,398	63,945	2.00	123,614	2.00	125,382	2.00	125,382
30001037	Utility Locator	52,021	64,624	7.00	434,738	7.00	443,076	7.00	443,076
30000076	Utility Worker I	44,491	56,774	2.00	109,762	2.00	111,322	2.00	111,322
30000077	Utility Worker II	48,381	61,060	31.00	1,799,937	31.00	1,849,141	31.00	1,849,141
30000075	Utility Worker II, Apprentice	36,421	56,477	6.00	261,185	6.00	276,110	6.00	276,110
30000133	Water Meter Reader I	39,915	59,511	12.00	670,820	12.00	688,741	12.00	688,741
30000134	Water Meter Reader II	48,922	67,340	1.00	61,578	1.00	64,126	1.00	64,126
30002158	Water Meter Technician I	48,381	61,060	5.00	295,100	5.00	299,310	5.00	299,310
30000142	Water Meter Technician II	49,400	67,340	5.00	322,474	5.00	329,083	5.00	329,083
30000143	Water Meter Technician III	59,571	75,996	4.00	293,820	4.00	298,024	4.00	298,024
30003402	Water Meter Technician IV	69,930	79,793	2.00	154,252	2.00	156,458	2.00	156,458
30000145	Water Operations Mechanic	57,429	78,245	28.00	2,114,607	28.00	2,147,144	28.00	2,147,144
30000144	Water Operations Mechanic, Apprentice	44,491	74,341	6.00	384,083	6.00	413,947	6.00	413,947
30000139	Water Quality Inspector I	52,083	81,618	1.00	68,131	1.00	73,115	1.00	73,115
30000140	Water Quality Inspector II	54,725	85,755	3.00	239,356	3.00	245,664	3.00	245,664
30000141	Water Quality Inspector III	57,429	89,977	1.00	86,965	1.00	88,213	1.00	88,213
30000138	Water Security Specialist	48,381	61,060	11.00	645,081	11.00	657,342	11.00	657,342
30000135	Water Service Inspector I	48,922	67,340	7.00	446,079	7.00	454,853	7.00	454,853
30000136	Water Service Inspector II	52,874	72,750	1.00	70,314	1.00	71,323	1.00	71,323
30000146	Water Treatment Operator I	51,646	65,557	2.00	126,734	2.00	128,544	2.00	128,544
30000147	Water Treatment Operator II	54,725	85,755	10.00	756,948	10.00	809,258	10.00	809,258
30000078	Water Utility Worker, Sr	49,130	64,094	1.00	61,953	1.00	62,837	1.00	62,837
30000149	Watershed Specialist I	42,432	61,060	3.00	162,542	3.00	171,953	3.00	171,953
30000151	Watershed Specialist II	49,130	64,094	3.00	185,859	3.00	188,511	3.00	188,511
30001308	Watershed Specialist III	58,594	77,099	2.00	134,025	2.00	148,771	2.00	148,771
	Total Full-Time Positions			618.70	51,662,204	617.55	52,467,325	617.55	52,467,325
30003007	Analyst II	63,336	111,681	1.00	102,128	0.00	0	0.00	0
30003011	Business Systems Analyst II	63,336	111,681	1.00	78,687	1.00	87,651	1.00	87,651
30003028	Coordinator II	53,290	104,701	1.00	79,009	1.00	79,009	1.00	79,009
30000368	Engineer-Mechanical	89,357	125,408	1.00	108,864	1.00	115,905	1.00	115,905
30000337	Environmental Technician I	41,766	64,624	1.00	56,597	0.00	0	0.00	0
30000241	Laboratory Analyst I	47,029	69,949	1.00	53,539	0.00	0	0.00	0
30000349	Right of Way Agent II	55,973	82,467	1.00	73,597	1.00	47,796	1.00	47,796
30003099	Risk Specialist I	53,290	104,701	1.00	79,467	1.00	84,594	1.00	84,594
30000076	Utility Worker I	44,491	56,774	4.00	165,548	4.00	213,700	4.00	213,700
	Total Limited Term Positions			12.00	797,436	9.00	628,655	9.00	628,655
	<b>Grand Total</b>			<b>630.70</b>	<b>52,459,640</b>	<b>626.55</b>	<b>53,095,980</b>	<b>626.55</b>	<b>53,095,980</b>



# Portland Water Bureau

Bureau Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	5-Year Total
<b>Customer Service</b>								
Customer Services	0	0	50,000	15,000,000	25,000,000	10,000,000	0	50,050,000
Security and Emergency Mgt	0	150,000	65,000	65,000	51,500	51,500	51,500	284,500
<b>Total Customer Service</b>	0	150,000	115,000	15,065,000	25,051,500	10,051,500	51,500	50,334,500
<b>Distribution</b>								
162nd PS MCC	0	0	194,000	161,000	0	0	0	355,000
Distribution Mains	0	10,850,000	14,783,590	18,531,760	22,392,200	24,157,222	30,580,694	110,445,466
Field Support	0	4,900,000	4,562,000	4,532,001	4,532,001	4,532,001	4,532,001	22,690,004
Fountains	0	250,000	257,500	515,000	515,000	515,000	515,000	2,317,500
Fulton Pump Mains Replacement	415,834	383,000	4,874,000	310,000	0	0	0	5,184,000
Greenleaf Tank 3	25,230	60,000	320,000	345,000	555,000	1,770,000	15,000	3,005,000
Hydrants	0	1,858,000	1,913,740	1,913,740	1,913,740	1,913,740	1,913,328	9,568,288
IA - NW Broadway Corridor	0	0	644,000	5,000	0	0	0	649,000
<b>Offsite</b>								
IA - SE Buckman and Stark St	0	0	1,534,000	431,000	0	0	0	1,965,000
IA - SE Division Transit Project	670,500	810,000	406,000	10,000	0	0	0	416,000
IA - SW Capitol Hwy fr Garden	185,942	1,398,000	230,000	0	0	0	0	230,000
<b>Home Rd S</b>								
Meters	0	1,100,000	1,133,000	1,133,000	1,133,000	1,133,000	1,133,000	5,665,000
N Jantzen Ave west of Pavilion	259,833	0	305,000	1,455,000	10,000	0	0	1,770,000
NE 72nd Ave and Fremont St	0	0	150,000	935,000	2,017,000	5,000	0	3,107,000
NE Going to Alberta and 79th Ave to 82nd	0	150,000	102,000	1,778,000	50,000	0	0	1,930,000
NE Morris St from 123rd Ave to 127th Ave	40,399	200,000	185,000	0	0	0	0	185,000
NE Skidmore from 23rd to 27th Aves	26,078	0	410,000	5,000	0	0	0	415,000
Outer Powell Safety Project Phase 2	0	0	1,300,000	3,580,000	2,040,000	370,000	60,000	7,350,000
Penridge Mains	284,509	300,000	930,000	1,075,000	350,000	0	0	2,355,000
Pump Stations and Tanks	0	1,747,000	2,043,070	2,030,260	1,799,540	462,600	2,410,330	8,745,800
SE 1st Ave from Oak to Market	56,504	221,000	195,000	72,000	3,522,000	310,000	0	4,099,000
SE Lambert St and 19th Ave	73,954	147,000	2,811,000	0	0	0	0	2,811,000
Security Access and Mass Notification	0	0	90,000	222,000	613,000	0	0	925,000
Services	0	6,600,000	6,798,000	6,798,000	6,798,000	6,798,000	6,798,000	33,990,000
SW Gibbs St 10th and 11th Ave	0	0	543,000	30,000	0	0	0	573,000
SW Jefferson St from 4th to 5th Ave	0	0	405,000	10,000	0	0	0	415,000
SW Macadam Ave Lane St to Bancroft St	0	80,000	42,000	825,000	136,000	0	0	1,003,000

## Portland Water Bureau

<b>Bureau Capital Program Project</b>	<b>Prior Years</b>	<b>Revised FY 2020-21</b>	<b>Requested FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>	<b>FY 2024-25</b>	<b>FY 2025-26</b>	<b>5-Year Total</b>
Willamette Blvd Bridge Main Replacement	758,151	253,000	0	0	0	1,641,000	6,341,000	7,982,000
Willamette River Pipe Crossing	20,231,532	30,070,000	28,447,000	7,900,000	0	0	0	36,347,000
<b>Total Distribution</b>	23,028,466	61,377,000	75,607,900	54,602,761	48,376,481	43,607,563	54,298,353	276,493,058
<b>Regulatory Compliance</b>								
Water Quality and Regulatory	0	500,000	200,000	100,000	100,000	100,000	100,000	600,000
<b>Total Regulatory Compliance</b>	0	500,000	200,000	100,000	100,000	100,000	100,000	600,000
<b>Supply</b>								
Bull Run Dam 1 Spillway Gates	0	0	300,000	3,600,000	1,100,000	0	0	5,000,000
Bull Run Watershed	0	700,000	1,030,000	1,221,000	1,530,000	2,030,000	2,030,000	7,841,000
Dam 1 Needle Valve Replacement	1,170,420	2,010,000	10,000	0	0	0	0	10,000
FUTURE - Howell-Bunger Valve Improvements	0	0	0	273,000	1,360,000	14,000	0	1,647,000
Groundwater	0	650,000	1,221,000	1,221,000	1,221,000	1,221,000	1,221,000	6,105,000
Groundwater PS Roof Replacement	20,734	65,000	647,000	0	0	0	0	647,000
Groundwater Pump Station MCC	0	225,000	150,000	1,355,000	300,000	0	0	1,805,000
Hamilton Creek Culvert Replacement	0	137,000	481,000	0	0	0	0	481,000
Road 10 and J North Fork BR MP 14.44	12,000	50,000	475,000	1,995,000	0	0	0	2,470,000
Road 10E MP 6.2 - 8.2	295,104	1,550,000	1,677,000	0	0	0	0	1,677,000
<b>Total Supply</b>	1,498,258	5,387,000	5,991,000	9,665,000	5,511,000	3,265,000	3,251,000	27,683,000
<b>Support</b>								
Interstate Ops Bldg 2021 Renovation	0	0	140,000	110,000	945,000	1,840,000	0	3,035,000
Mt. Tabor Interpretive Project	233,557	260,000	53,000	0	0	0	0	53,000
Planning	0	3,218,000	3,300,120	3,300,120	3,300,120	3,300,120	3,300,120	16,500,600
Water Asset Management System	0	500,000	3,792,000	10,000	0	0	0	3,802,000
<b>Total Support</b>	233,557	3,978,000	7,285,120	3,420,120	4,245,120	5,140,120	3,300,120	23,390,600
<b>Transmission/Terminal Storage</b>								
Bull Run Pipelines	0	7,600,000	15,138,000	14,136,012	138,220,732	54,405,297	2,261,196	224,161,237
Conduit 3 And 4 Internal Inspection	300,506	0	818,000	34,000	0	0	0	852,000
Conduit 3 Ovality Replacement	0	0	35,000	390,000	1,770,000	635,000	0	2,830,000
Conduits and Transmission Mains	0	1,600,000	2,296,884	5,609,000	5,609,000	5,609,000	5,609,000	24,732,884
Gresham Conduit 2 Trestle Upgrades	799,446	300,000	155,000	0	0	0	0	155,000
Powell Butte Reservoir 1 Roof Upgrades	179,138	220,000	5,052,780	0	0	0	0	5,052,780
Terminal Reservoirs	0	100,000	1,455,220	103,000	103,000	103,000	103,000	1,867,220

# Portland Water Bureau

<b>Bureau Capital Program Project</b>	<b>Prior Years</b>	<b>Revised FY 2020-21</b>	<b>Requested FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>	<b>FY 2024-25</b>	<b>FY 2025-26</b>	<b>5-Year Total</b>
WA Park Hypochlorite Improvements	475,110	208,000	1,113,000	0	0	0	0	1,113,000
Washington Park	134,197,454	28,795,000	5,900,000	3,542,000	15,292,000	15,356,000	1,736,000	41,826,000
<b>Total Transmission/Terminal Storage</b>	<b>135,951,654</b>	<b>38,823,000</b>	<b>31,963,884</b>	<b>23,814,012</b>	<b>160,994,732</b>	<b>76,108,297</b>	<b>9,709,196</b>	<b>302,590,121</b>
<b>Treatment</b>								
Bull Run Filtration	22,554,489	43,693,000	27,483,441	24,119,947	64,481,531	201,056,861	170,841,365	487,983,145
Corrosion Control Improvements	3,765,134	7,482,000	8,230,000	461,000	0	0	0	8,691,000
Treatment	0	50,000	51,500	51,500	51,500	51,500	51,500	257,500
<b>Total Treatment</b>	<b>26,319,623</b>	<b>51,225,000</b>	<b>35,764,941</b>	<b>24,632,447</b>	<b>64,533,031</b>	<b>201,108,361</b>	<b>170,892,865</b>	<b>496,931,645</b>
<b>Total Requirements</b>	<b>187,031,558</b>	<b>161,440,000</b>	<b>156,927,845</b>	<b>131,299,340</b>	<b>308,811,864</b>	<b>339,380,841</b>	<b>241,603,034</b>	<b>1,178,022,924</b>

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Base Budget FY 2021-22	Requested FY 2021-22
<b>Resources</b>					
<b>External Revenues</b>					
Charges for Services	192,858,145	197,550,016	210,987,828	223,019,165	223,287,772
Intergovernmental	658,536	605,061	526,000	605,000	605,000
Miscellaneous	3,580,175	4,217,930	1,945,532	1,822,869	1,822,869
<b>External Revenues Total</b>	<b>197,096,856</b>	<b>202,373,007</b>	<b>213,459,360</b>	<b>225,447,034</b>	<b>225,715,641</b>
<b>Internal Revenues</b>					
Fund Transfers - Revenue	118,928,122	133,373,979	192,524,506	200,295,348	201,790,995
Interagency Revenue	3,666,944	3,523,284	5,000,377	4,673,671	4,673,671
<b>Internal Revenues Total</b>	<b>122,595,066</b>	<b>136,897,263</b>	<b>197,524,883</b>	<b>204,969,019</b>	<b>206,464,666</b>
Beginning Fund Balance	104,029,342	142,107,299	135,849,711	136,985,834	136,985,834
<b>Resources Total</b>	<b>423,721,264</b>	<b>481,377,570</b>	<b>546,833,954</b>	<b>567,401,887</b>	<b>569,166,141</b>
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	68,778,233	76,671,530	84,759,177	88,843,351	88,843,351
External Materials and Services	35,793,557	34,406,565	47,193,039	54,092,112	55,868,446
Internal Materials and Services	21,964,773	21,356,629	23,922,536	23,548,353	23,536,273
Capital Outlay	54,240,192	94,504,799	123,174,992	106,613,084	106,613,084
<b>Bureau Expenditures Total</b>	<b>180,776,754</b>	<b>226,939,522</b>	<b>279,049,744</b>	<b>273,096,900</b>	<b>274,861,154</b>
<b>Fund Expenditures</b>					
Debt Service	3,845,376	4,791,132	5,032,737	5,233,418	5,233,418
Contingency	0	0	146,056,030	188,872,316	188,872,316
Fund Transfers - Expense	96,991,835	108,442,349	116,695,443	100,199,253	100,199,253
<b>Fund Expenditures Total</b>	<b>100,837,211</b>	<b>113,233,482</b>	<b>267,784,210</b>	<b>294,304,987</b>	<b>294,304,987</b>
Ending Fund Balance	142,107,299	141,204,566	0	0	0
<b>Requirements Total</b>	<b>423,721,264</b>	<b>481,377,570</b>	<b>546,833,954</b>	<b>567,401,887</b>	<b>569,166,141</b>

## fund Overview

The Water Fund is the operating fund of the Portland Water Bureau. With the exception of debt service, all expenditures in this fund are for operation, maintenance, and capital assets. Receipts from the sale of water are the primary revenue source for the Water Fund.

**Managing Agency** Portland Water Bureau

## Significant Changes from Prior Year

The FY 2021-22 Requested Budget includes an increase in Water Fund resources of approximately \$22.3 million from the FY 2020-21 Revised Budget. The changes in Charges for Services include increases in water sales revenue due to increases in water rates, and other water fees and charges of \$12.3 million. Cash transfers increased by \$9.3 million from the prior year, primarily due to additional transfer from the Construction Fund. The beginning fund balance increased by \$1.1 million driven by FY 2020-21 year end fund balance projections.

Total bureau requirements are higher in the FY 2021-22 Requested Budget than FY 2020-21 Revised Budget primarily due to increased operating expenses, offset by decreased capital expenses and cash transfers. Operating expenses increased \$5.7 million from the FY 2020-21 Revised Budget. Capital expenses decreased \$9.9 million from the FY 2020-21 Revised Budget. Fund transfers decreased by \$16.5 million, which includes \$10.5 million less transferred to the Construction Fund primarily for cash financed capital, and \$5.8 million less to the Sinking Fund for debt service. General Fund transfers decreased \$0.2 million for General Fund overhead, POBS transfers, and Portland Harbor Superfund costs.

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Base Budget FY 2021-22	Requested FY 2021-22
<b>Resources</b>					
<b>External Revenues</b>					
Charges for Services	5,297,160	4,780,343	3,250,000	3,250,000	3,250,000
Bond & Note	0	139,638,144	112,109,000	154,042,000	154,042,000
Miscellaneous	1,652,918	2,015,945	582,617	230,069	230,069
<b>External Revenues Total</b>	<b>6,950,078</b>	<b>146,434,432</b>	<b>115,941,617</b>	<b>157,522,069</b>	<b>157,522,069</b>
<b>Internal Revenues</b>					
Fund Transfers - Revenue	39,305,776	44,420,602	44,123,007	33,608,963	33,608,963
<b>Internal Revenues Total</b>	<b>39,305,776</b>	<b>44,420,602</b>	<b>44,123,007</b>	<b>33,608,963</b>	<b>33,608,963</b>
Beginning Fund Balance	93,943,491	23,086,423	63,021,932	47,494,695	47,494,695
<b>Resources Total</b>	<b>140,199,346</b>	<b>213,941,457</b>	<b>223,086,556</b>	<b>238,625,727</b>	<b>238,625,727</b>
<b>Requirements</b>					
<b>Fund Expenditures</b>					
Debt Service	0	0	0	0	0
Fund Transfers - Expense	117,112,922	126,881,454	192,296,030	199,803,750	199,803,750
<b>Fund Expenditures Total</b>	<b>117,112,922</b>	<b>126,881,454</b>	<b>192,296,030</b>	<b>199,803,750</b>	<b>199,803,750</b>
Ending Fund Balance	23,086,423	87,060,003	30,790,526	38,821,977	38,821,977
<b>Requirements Total</b>	<b>140,199,345</b>	<b>213,941,457</b>	<b>223,086,556</b>	<b>238,625,727</b>	<b>238,625,727</b>

## Fund Overview

The Water Construction Fund is the capital fund of the Portland Water Bureau. This fund pays for equipment and capital expenditures for the water system, including ongoing capital repair and replacement, enhancements, and large and nonrecurring additions to the system.

**Managing Agency**      Portland Water Bureau

## Significant Changes from Prior Year

By City Charter stipulation, this fund is the recipient of proceeds from bond sales and system development charges. Water sales revenues are also transferred to this fund to finance a portion of capital expenditures for routine system repairs and replacements. Revenue bond sales are planned for October 2021 and will provide funding of \$112.0 million to fund capital projects. There is also a WIFIA loan draw of \$42.0 million planned for October 2021 to fund a portion of the Bull Run Filtration projects and Improved Corrosion Control Treatment. The Water Fund will transfer \$33.6 million to the Water Construction Fund to fund capital projects, a decrease of \$10.5 million from the FY 2020-21 Revised Budget.

This fund reimburses the Water Bureau's operating fund, the Water Fund, for capital expenditures incurred in that fund, including direct capital costs, capitalized overhead, capitalized interest, and the cost of issuing bonds. In FY 2021-22, the Water Construction Fund will transfer \$199.8 million to reimburse the Water Fund for direct and indirect capital costs, an increase of \$7.5 million from the FY 2020-21 Revised Budget.

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Base Budget FY 2021-22	Requested FY 2021-22
<b>Resources</b>					
<b>External Revenues</b>					
Bond & Note	0	48,860,019	7,241,000	7,238,000	7,238,000
Miscellaneous	735,731	664,065	198,936	129,550	129,550
<b>External Revenues Total</b>	<b>735,731</b>	<b>49,524,085</b>	<b>7,439,936</b>	<b>7,367,550</b>	<b>7,367,550</b>
<b>Internal Revenues</b>					
Fund Transfers - Revenue	55,106,071	58,600,174	65,899,858	60,124,602	60,124,602
<b>Internal Revenues Total</b>	<b>55,106,071</b>	<b>58,600,174</b>	<b>65,899,858</b>	<b>60,124,602</b>	<b>60,124,602</b>
Beginning Fund Balance	31,496,421	31,568,848	24,886,462	26,114,584	26,114,584
<b>Resources Total</b>	<b>87,338,223</b>	<b>139,693,107</b>	<b>98,226,256</b>	<b>93,606,736</b>	<b>93,606,736</b>
<b>Requirements</b>					
<b>Fund Expenditures</b>					
Debt Service	55,769,375	114,636,610	66,098,794	60,254,152	60,254,152
Debt Service Reserves	0	0	32,127,462	33,352,584	33,352,584
<b>Fund Expenditures Total</b>	<b>55,769,375</b>	<b>114,636,610</b>	<b>98,226,256</b>	<b>93,606,736</b>	<b>93,606,736</b>
Ending Fund Balance	31,568,848	25,056,497	0	0	0
<b>Requirements Total</b>	<b>87,338,223</b>	<b>139,693,107</b>	<b>98,226,256</b>	<b>93,606,736</b>	<b>93,606,736</b>

## Fund Overview

The Water Bond Sinking Fund pays for principal and interest on revenue bonds issued to finance water system improvements. The bond reserve accounts are maintained in the Water Bond Sinking Fund.

**Managing Agency**      Portland Water Bureau

## Significant Changes from Prior Year

The primary resource in the FY 2021-22 Requested Budget is a transfer from the Water Fund of \$60.1 million to pay for debt service. A bond reserve account of \$7.2 million is planned with the bond sale scheduled for October 2021.

Debt Service will decrease in FY 2021-22. The FY 2020-21 Adopted Budget assumed a bond sale in August 2020, but the sale has been delayed until spring 2021 and is planned to be a smaller amount than originally budgeted.



Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan					5-Year Total
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26		

**Customer Service**

**PROJECT NAME: Customer Services**

	Total Project Cost		Ongoing	Area
Confidence	Original Cost		0	Objective

**Project Description**

Projects funded by this budget will include improvements to meter reading infrastructure, customer billing and data applications. FY 2021-22 work includes assessing the implementation of advance metering solutions (AMI/AMR).

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	0	50,000	15,000,000	25,000,000	10,000,000	0	50,050,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Security and Emergency Mgt**

	Total Project Cost		Ongoing	Area	Undetermined
Confidence	Original Cost		0	Objective	Maintenance & Repair

**Project Description**

Projects funded by this budget will include physical security improvements to major and smaller facilities as well as improved security in the overall water distribution system and control and communications system.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	150,000	65,000	65,000	51,500	51,500	51,500	284,500
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**Distribution**

**PROJECT NAME: NEW - 162nd PS MCC**

	Total Project Cost		430,000	Area	Southeast
Confidence	Low	Original Cost	430,000	Objective	Maintenance & Repair

**Project Description**

This project will update electrical facilities at the 162nd Ave Pump Station. Improvements include: 1) replace the existing Motor Control Centers (MCCs) for the pumps, 2) excavate and install a secondary access to the vault, 3) relocate the Remote Terminal Unit (RTU) above grade, and 4) add a main power shutoff and distribution panel above grade. In FY 2021-22, the project will begin construction.

**Revenue Source(s)**

# Portland Water Bureau

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				5-Year Total
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	
The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	0	0	194,000	161,000	0	0	0	355,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Distribution Mains**

	Total Project Cost	Ongoing	Area	Citywide
<b>Confidence</b>	<b>Original Cost</b>	0	<b>Objective</b>	Replacement

**Project Description**

The bureau is committed to improving maintenance of the water system infrastructure, including repairs, replacements and upgrades. This program supports rehabilitation and replacement of substandard mains; expansion due to private lands development; increased water supply for fire protection; improved water quality; and water system upgrades due to local improvement districts and street improvements. The Portland Water Bureau uses a risk-based, reliability-centered approach to identify, catalog, and prioritize projects to ensure minimal disruption to customers. Distribution main replacements also include appurtenances such as fire hydrants, valves, pressure regulators, service branches, and other facilities. Small projects, under \$200,000, are normally completed by bureau personnel. Projects with construction estimates of more than \$200,000 are typically put out for bid. Many projects in this program provide for the relocation and adjustment of water facilities to accommodate storm drainage and sewer pipelines constructed by the Bureau of Environmental Services (BES), roadway configuration changes, pavement overlays, and bridge improvements for the Portland Bureau of Transportation and the Oregon Department of Transportation. Other bureaus reimburse a portion of the costs based on the age of the existing water facility. In FY 2021-22, the bureau expects to work on about 50 minor distribution mains projects. Also, the bureau expects to complete construction of larger mains such as SW Fulton Park Blvd, NW Ramsey and Walmar Dr as well as SE Ankeny St from SE 117th Ave to 119th.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	10,850,000	14,783,590	18,531,760	22,392,200	24,157,222	30,580,694	110,445,466
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Field Support**

	Total Project Cost	Ongoing	Area	Citywide
<b>Confidence</b>	<b>Original Cost</b>	0	<b>Objective</b>	Efficiency

**Project Description**

This program funds the supplies, equipment, and facilities that the bureau field crews use to maintain and operate the water system. The bureau's fleet of construction equipment and vehicles are managed through this program.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	4,900,000	4,562,000	4,532,001	4,532,001	4,532,001	4,532,001	22,690,004
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Fountains**

Project Description - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				5-Year Total
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	
				<b>Total Project Cost</b>	Ongoing		<b>Area</b>	Central City
	<b>Confidence</b>			<b>Original Cost</b>	0		<b>Objective</b>	Maintenance & Repair

**Project Description**

Portland’s decorative fountains are among the Water Bureau’s oldest signature assets. The bureau has been entrusted with the City’s decorative fountain infrastructure, including repairs, replacements, and upgrades. This budget includes provision for repair of drain lines and valves, replacement of liners, repair and replacement of electrical equipment and lighting systems, repair and replacement of pumps, addition of telemetry, and various improvements to exterior surfaces.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	250,000	257,500	515,000	515,000	515,000	515,000	2,317,500
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Fulton Pump Mains Replacement**

				<b>Total Project Cost</b>	6,100,000		<b>Area</b>	Southwest
	<b>Confidence</b>	Low		<b>Original Cost</b>	5,079,000		<b>Objective</b>	Maintenance & Repair

**Project Description**

This project will install approximately 2,890 feet of new 20-inch pump main and 450 feet of new 24-inch pump main. The 24-inch pump main includes 300 feet bored under the I-5 freeway and approximately 150 feet bored under SW Barbur Blvd. The project will also include abandoning approximately 3,180 feet of 10-inch pump main and 3,180 feet of 12-inch pump main between the I-5 right-of-way and the Burlingame Tank Site. In FY 2021-22, the project will start construction.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	415,834	383,000	4,874,000	310,000	0	0	0	5,184,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Greenleaf Tank 3**

				<b>Total Project Cost</b>	3,095,000		<b>Area</b>	Northwest
	<b>Confidence</b>	Low		<b>Original Cost</b>	3,095,000		<b>Objective</b>	Replacement

**Project Description**

This project will construct a new 175,000-gallon steel water storage tank that meets current seismic standards and install associated 12-inch pipe connections to remove Greenleaf Tank 1 from the system. In FY 2021-22, the project will continue design.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	25,230	60,000	320,000	345,000	555,000	1,770,000	15,000	3,005,000
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# Portland Water Bureau

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	5-Year Total
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

## PROJECT NAME: Hydrants

	Total Project Cost	Ongoing	Area	Citywide
Confidence	Original Cost	0	Objective	Replacement

### Project Description

There are approximately 14,500 fire hydrants connected to the Portland water system. These hydrants allow Portland the flexibility and preparedness to meet the challenge of a fire emergency through coordination with the Portland Fire & Rescue. This subprogram replaces fire hydrants that are nonstandard or no longer repairable to increase efficiency.

### Revenue Source(s)

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

Total Expenditures	0	1,858,000	1,913,740	1,913,740	1,913,740	1,913,740	1,913,328	9,568,288
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

## PROJECT NAME: NEW - IA - NW Broadway Corridor Offsite

	Total Project Cost	Ongoing	Area	Citywide
Confidence	Low	Original Cost	838,000	Expansion

### Project Description

This project will install approx. 760 feet of 8-inch ductile iron main. In addition abandon approx. 40 feet of 6-inch and 60 feet of 12-inch cast iron main and install three (3) hydrants. In FY 2021-22, the project will begin construction.

### Revenue Source(s)

The project funding is from a combination of net proceeds from interagency agreements, water sales revenue, and other construction fund revenues such as and interest earnings.

Total Expenditures	0	0	644,000	5,000	0	0	0	649,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

## PROJECT NAME: NEW - IA - SE Buckman and Stark St

	Total Project Cost	Ongoing	Area	Citywide
Confidence	Low	Original Cost	2,289,000	Maintenance & Repair

### Project Description

This project will install approx. 100 feet of 16-inch, 235 feet of 12-inch, 560 feet of 8-inch and 2,873 feet of 6-inch ductile iron main. Also abandon approx. 95 feet of 20-inch, 225 feet of 12-inch, 534 feet of 8-inch, 1,930 feet of 6-inch cast iron main and 395 feet of 2-inch galvanized main. And, install forty-five (45) services and thirteen (13) hydrants. In FY 2021-22, the project will begin construction.

### Revenue Source(s)

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	5-Year Total

The project funding is from a combination of net proceeds from interagency agreements, water sales revenue, and other construction fund revenues such as and interest earnings.

<b>Total Expenditures</b>	0	0	1,534,000	431,000	0	0	0	1,965,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: IA - SE Division Transit Project**

			<b>Total Project Cost</b>	1,675,000		<b>Area</b>	Southeast
<b>Confidence</b>	Moderate		<b>Original Cost</b>	1,675,000		<b>Objective</b>	Replacement

**Project Description**

This project supports TriMet’s Transit project. In FY 2021-22, the project will continue design of water facilities impacts.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from interagency agreements, water sales revenue, and other construction fund revenues such as and interest earnings.

<b>Total Expenditures</b>	670,500	810,000	406,000	10,000	0	0	0	416,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: IA - SW Capitol Hwy fr Garden Home Rd S**

			<b>Total Project Cost</b>	2,300,000		<b>Area</b>	Southwest
<b>Confidence</b>	Moderate		<b>Original Cost</b>	2,300,000		<b>Objective</b>	Replacement

**Project Description**

This project will abandon 2,500 feet of 6-inch cast iron (CI), 30 feet of six-inch ductile iron (DI), and 720 feet of four-inch CI water main, as well as remove five fire hydrants. The project also installs 2,908 feet of 8-inch DI and 827 feet of six-inch DI water main, six fire hydrants, and renew 41 one-inch water service lines. Four fire hydrants will also be relocated. The project will also adjust or relocate 34 existing services and modify one existing regulator’s access. In FY 2021-22, the project will continue construction.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from interagency agreements, water sales revenue, and other construction fund revenues such as and interest earnings.

<b>Total Expenditures</b>	185,942	1,398,000	230,000	0	0	0	0	230,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Meters**

			<b>Total Project Cost</b>	Ongoing		<b>Area</b>	Citywide
<b>Confidence</b>			<b>Original Cost</b>	0		<b>Objective</b>	Replacement

**Project Description**

The bureau has thousands of meters that monitor the quantity of water flowing through the system. The bureau purchases about 8,500 meters annually. These meters are tools to manage the appropriate allocation of the costs of service between retail customers, and other users such as public agencies, commercial enterprises, and other non-residential customers. The bureau objective is to maintain metering devices to read within 3% of actual values.

# Portland Water Bureau

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				5-Year Total
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	
<b>Revenue Source(s)</b>								
The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	0	1,100,000	1,133,000	1,133,000	1,133,000	1,133,000	1,133,000	5,665,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

<b>PROJECT NAME: N Jantzen Ave west of Pavilion</b>									
				<b>Total Project Cost</b>	2,100,000			<b>Area</b>	North
<b>Confidence</b>		Moderate	<b>Original Cost</b>		1,283,000	<b>Objective</b>		Replacement	

**Project Description**  
 This replacement main is recommended for following reasons: (1) as many as six nonstandard services lack complete documentation and documented backflow devices, (2) the nonstandard services have leak histories and other possible undocumented private connections, (3) the asbestos-concrete main (while not affecting water quality) requires specialized training and personal protection for repairs. This project will correct services without backflow devices and replace approximately 2,200 ft. of substandard asbestos-concrete and plastic water lines. The project will also install six fire hydrants. In FY 2021-22, this project will continue with easement acquisition.

<b>Revenue Source(s)</b>								
The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	259,833	0	305,000	1,455,000	10,000	0	0	1,770,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

<b>PROJECT NAME: NEW - NE 72nd Ave and Fremont St</b>									
				<b>Total Project Cost</b>	3,107,000			<b>Area</b>	Northeast
<b>Confidence</b>		Low	<b>Original Cost</b>		3,107,000	<b>Objective</b>		Replacement	

**Project Description**  
 This project will install approximately 5,860 feet of 6-inch and 50 feet of 8-inch ductile iron (DI) mains. This includes abandoning approximately 3,200 feet of 8-inch cast iron (CI) main, 2700 feet of 6-inch CI main and 100 feet of 2-inch galvanized main. The project will renew one hundred fifty three (153) 1-inch services, and install six(6) hydrants. In FY 2021-22, the project will begin construction.

<b>Revenue Source(s)</b>								
The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	0	0	150,000	935,000	2,017,000	5,000	0	3,107,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

<b>PROJECT NAME: NE Going to Alberta and 79th Ave to 82nd</b>									
				<b>Total Project Cost</b>	2,080,000			<b>Area</b>	Northeast
<b>Confidence</b>		Low	<b>Original Cost</b>		2,080,000	<b>Objective</b>		Replacement	

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised	Requested	Capital Plan				
		FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	5-Year Total

**Project Description**

This project will install 3,440 feet of six-inch Ductile Iron (DI) water main, 640 feet of eight-inch DI main, renew 52 one-inch service lines, install six hydrants, and eliminate three hydrants. In addition, the bureau is abandoning 625 feet of 1.5-inch galvanized, 395 feet of 2.5-inch galvanized, 1,655 feet of four-inch steel, 1,210 feet of six-inch steel, 150 feet of eight-inch steel, 415 feet of eight-inch cast iron. In FY 2021-22, the project will continue design.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	150,000	102,000	1,778,000	50,000	0	0	1,930,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: NE Morris St from 123rd Ave to 127th Ave**

			<b>Total Project Cost</b>	450,000		<b>Area</b>	Northeast
	<b>Confidence</b>	Moderate	<b>Original Cost</b>	450,000		<b>Objective</b>	Replacement

**Project Description**

This project will install approximately 1,030 feet of 6-inch ductile iron (DI) main. This project will replace a 6 - inch cast iron main that has four breaks and one leak. This main has a history of breaking and is of a cohort prone to failure. In FY 21-22, the project will begin construction.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	40,399	200,000	185,000	0	0	0	0	185,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: NE Skidmore from 23rd to 27th Aves**

			<b>Total Project Cost</b>	465,000		<b>Area</b>	Northeast
	<b>Confidence</b>	Low	<b>Original Cost</b>	465,000		<b>Objective</b>	Replacement

**Project Description**

This project will install approximately 1,190 feet of new main, including 1,010 feet of new 6 - inch and 180 feet of new 8 – inch ductile iron (DI) mains, and abandon approximately 675 feet of 2 - inch galvanized main. This project will replace 2-inch galvanized main that has two breaks and four leaks. Per Asset Management, the main has reached the end of its useful life and is in very poor condition. Galvanized main is substandard, is susceptible to water quality deterioration, and is prone to a greater number of leaks than standard materials. In FY 21-22, the project will begin construction.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	26,078	0	410,000	5,000	0	0	0	415,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: NEW - Outer Powell Safety Project Phase 2**

# Portland Water Bureau

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	5-Year Total
				<b>Total Project Cost</b>	7,625,000		<b>Area</b>	Southeast
	<b>Confidence</b>	Low		<b>Original Cost</b>	7,625,000		<b>Objective</b>	Maintenance & Repair

## Project Description

This project will assess the impacts of the ODOT project to reconstruct SE Powell Blvd and design and construction mitigations for the impacts. This project will connect to the east and west ends of the Outer Powell Blvd Safety Project Phase 1 that is complete. In FY 2021-22, the project will begin construction.

## Revenue Source(s)

The project funding is from a combination of net proceeds from grants, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	0	1,300,000	3,580,000	2,040,000	370,000	60,000	7,350,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

## PROJECT NAME: Penridge Mains

				<b>Total Project Cost</b>	2,690,000		<b>Area</b>	Northwest
	<b>Confidence</b>	Moderate		<b>Original Cost</b>	2,530,000		<b>Objective</b>	Replacement

## Project Description

This project will replace a total of 8,000 feet of existing main, renew 41 one-inch domestic services, and install seven hydrants. In FY 2021-22, the project will begin construction.

## Revenue Source(s)

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	284,509	300,000	930,000	1,075,000	350,000	0	0	2,355,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

## PROJECT NAME: Pump Stations and Tanks

				<b>Total Project Cost</b>	Ongoing		<b>Area</b>	Citywide
	<b>Confidence</b>			<b>Original Cost</b>	0		<b>Objective</b>	Replacement

## Project Description

This program maintains a large variety of infrastructure consisting of water storage tanks, pumps, and pump and control facilities. The bureau uses a reliability-centered maintenance analysis to prioritize projects in these areas. The focus for this program continues to be the replacement of the remote telemetry units at over 140 remote sites. The existing units are over 15 years old and are becoming obsolete.

## Revenue Source(s)

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	1,747,000	2,043,070	2,030,260	1,799,540	462,600	2,410,330	8,745,800
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0



Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				5-Year Total
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	

**PROJECT NAME: SE 1st Ave from Oak to Market**

				<b>Total Project Cost</b>	4,336,000		<b>Area</b>	Southeast
	<b>Confidence</b>	Low		<b>Original Cost</b>	4,336,000		<b>Objective</b>	Replacement

**Project Description**

This project will abandon approximately 3,500 feet of 14-inch cast iron (CI) main next to the railroad in SE 1st Avenue; relocate 14 domestic services, five fire lines and three hydrants; and install approximately 2,000 feet of new six-inch main to pick up these services and hydrants. This project will also construct five cased crossings. In FY 2021-22, the project will continue design.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	56,504	221,000	195,000	72,000	3,522,000	310,000	0	4,099,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: SE Lambert St and 19th Ave**

				<b>Total Project Cost</b>	3,100,000		<b>Area</b>	Southeast
	<b>Confidence</b>	Low		<b>Original Cost</b>	3,100,000		<b>Objective</b>	Replacement

**Project Description**

This project will install a total of 4,800 feet of new main. This includes installing 4,380 feet of eight-inch ductile iron (DI) and 420 feet of six-inch DI main and abandoning approximately 3,900 feet of 12-inch cast iron (CI) main, 480 feet of eight-inch CI main, and 420 feet of six-inch CI main. The project will also renew 68 one-inch services and install six new hydrants. In FY 2021-22, the project will continue design.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	73,954	147,000	2,811,000	0	0	0	0	2,811,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: NEW - Security Access and Mass Notification**

				<b>Total Project Cost</b>	925,000		<b>Area</b>	Southeast
	<b>Confidence</b>	Low		<b>Original Cost</b>	925,000		<b>Objective</b>	Replacement

**Project Description**

This project will replace unsupported iNET7 access card readers with new city standard Genetec system (148 card readers at eight PWB sites); and install OSHA required Emergency Mass Notification system at the Interstate campus. In FY 2021-22, the project will begin assesment and design.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

# Portland Water Bureau

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	5-Year Total
<b>Total Expenditures</b>	0	0	90,000	222,000	613,000	0	0	925,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Services**

		Total Project Cost	Ongoing	Area	Citywide
Confidence		Original Cost	0	Objective	Maintenance & Repair

**Project Description**  
 A service is the connection between the water main and any given customer's service meter. Service connections are always performed by bureau crews. This program funds installation and upgrade of about 1,000 water service connections annually. The funds facilitate construction of replacement water services requested by customers for new development as well as redevelopment. A fee is collected for new service requests to partially reimburse the bureau's costs.

**Revenue Source(s)**  
 The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	6,600,000	6,798,000	6,798,000	6,798,000	6,798,000	6,798,000	33,990,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: NEW - SW Gibbs St 10th and 11th Ave**

		Total Project Cost	653,000	Area	Southwest
Confidence	Low	Original Cost	653,000	Objective	Replacement

**Project Description**  
 This project will install approximately 480 feet of 4-inch ductile iron (DI) main and 545 feet of 6-inch DI main. This includes abandoning approximately 1045 feet of 2-inch galvanized main and 195 feet of 6-inch CI main. The project will renew fourteen (14) services, transfer five (5) services and replace three (3) hydrants. In FY 2021-22, the project will begin construction.

**Revenue Source(s)**  
 The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	0	543,000	30,000	0	0	0	573,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: NEW - SW Jefferson St from 4th to 5th Ave**

		Total Project Cost	3,107,000	Area	Southwest
Confidence	Low	Original Cost	460,000	Objective	Replacement

**Project Description**  
 This project will install approximately 250 feet of 24-inch ductile iron (DI) main. This includes abandoning approximately 250 feet of 24-inch CI main. The project will transfer three (3) services and replace one (1) hydrant. In FY 2021-22, the project will begin construction.

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	5-Year Total
<b>Revenue Source(s)</b>								
The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	0	0	405,000	10,000	0	0	0	415,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: SW Macadam Ave Lane St to Bancroft St**

			<b>Total Project Cost</b>	1,083,000		<b>Area</b>	Southwest
<b>Confidence</b>	Low		<b>Original Cost</b>	1,083,000		<b>Objective</b>	Replacement

**Project Description**

This project will abandon approximately 980 feet of 24-inch steel main, 50 feet of six-inch CI and 20 feet of eight-inch CI. Also, the project renews five existing services including one eight-inch fire line and transfer three services including one six-inch fire line. In addition, it installs 980 feet of 16-inch Ductile Iron (DI) water main, install two hydrants, and eliminate three hydrants. In FY 2021-22, the project will begin design.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	80,000	42,000	825,000	136,000	0	0	1,003,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Willamette Blvd Bridge Main Replacement**

			<b>Total Project Cost</b>	8,770,000		<b>Area</b>	North
<b>Confidence</b>	Moderate		<b>Original Cost</b>	4,500,000		<b>Objective</b>	Replacement

**Project Description**

This project will install 950 feet of 24-inch pipe in 42-inch casing, plus an additional 200 feet of uncased 24-inch pipe to connect to the existing system. The project also abandons the existing 20 inch pipeline crossing the Willamette Boulevard Bridge. In FY 2021-22, the project will pause design to restart in FY 2024-25.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	758,151	253,000	0	0	0	1,641,000	6,341,000	7,982,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Willamette River Pipe Crossing**

			<b>Total Project Cost</b>	88,000,000		<b>Area</b>	Central City
<b>Confidence</b>	Low		<b>Original Cost</b>	57,000,000		<b>Objective</b>	Replacement

**Project Description**

# Portland Water Bureau

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised	Requested	Capital Plan				
		FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	5-Year Total
<p>This project will build a large pipe crossing of the Willamette River. Existing pipelines that cross the Willamette River do not meet the current seismic code. This project will add a new pipeline built to the current seismic code and provide a reliable transmission link between Powell Butte and the service areas west of the Willamette River, including downtown and the storage reservoirs at Washington Park. In FY 2021-22, the project will continue design and construction.</p>								
<b>Revenue Source(s)</b>								
The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	20,231,532	30,070,000	28,447,000	7,900,000	0	0	0	36,347,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0
<b>Regulatory Compliance</b>								
<b>PROJECT NAME: Water Quality and Regulatory</b>								
			<b>Total Project Cost</b>	Ongoing			<b>Area</b>	Undetermined
<b>Confidence</b>			<b>Original Cost</b>	0			<b>Objective</b>	Mandated
<b>Project Description</b>								
The bureau recognizes the Bull Run Watershed as a diverse ecosystem. The bureau is committed to preserving this habitat and complying with federal regulations using practical, locally driven solutions. Many of the projects in this subprogram respond to the Clean Water Act and Endangered Species Act, including the implementation of the Bull Run Habitat Conservation Plan as adopted by City Council and approved by the National Marine Fisheries Service. Consistent with Habitat Conservation Plan commitments, this program funds easements, purchases land, and supports projects jointly conducted with other watershed partners.								
<b>Revenue Source(s)</b>								
The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	0	500,000	200,000	100,000	100,000	100,000	100,000	600,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0
<b>Supply</b>								
<b>PROJECT NAME: NEW - Bull Run Dam 1 Spillway Gates</b>								
			<b>Total Project Cost</b>	5,000,000			<b>Area</b>	Undetermined
<b>Confidence</b>			Low	<b>Original Cost</b>	5,000,000	<b>Objective</b>		Replacement
<b>Project Description</b>								
This project will improve the Bull Run Dam 1 spillway gates and lift system to meet Federal Energy Regulatory Commission (FERC) requirements. In FY 2021-22, the project will begin design.								
<b>Revenue Source(s)</b>								
The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	0	0	300,000	3,600,000	1,100,000	0	0	5,000,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	5-Year Total

<b>PROJECT NAME: Bull Run Watershed</b>								
				<b>Total Project Cost</b>	Ongoing		<b>Area</b>	Undetermined
	<b>Confidence</b>			<b>Original Cost</b>	0		<b>Objective</b>	Maintenance & Repair

**Project Description**  
 The Bull Run Watershed provides one of the highest quality drinking water sources in the United States. The bureau is committed to updating the Bull Run Watershed protection and maintenance procedures and agreements based on the 2007 Bull Run Agreement with the Mt. Hood National Forest. Funds in this program maintain, improve, and protect the watershed roads and facilities. Many of these facilities are between 50 and 70 years old. Projects address the proper functioning of watershed assets, such as the dams and the intake and treatment facilities. In FY 2021-22, we will be completing a land exchange to convey approximately 2,800 acres of national Forest System land to the City of Portland in exchange for approximately 2,500 acres of City-owned lands within the Bull Run Watershed Management Unit.

**Revenue Source(s)**  
 The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	700,000	1,030,000	1,221,000	1,530,000	2,030,000	2,030,000	7,841,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

<b>PROJECT NAME: Dam 1 Needle Valve Replacement</b>								
				<b>Total Project Cost</b>	3,800,000		<b>Area</b>	Undetermined
	<b>Confidence</b>	High		<b>Original Cost</b>	3,260,000		<b>Objective</b>	Replacement

**Project Description**  
 This project will replace the three existing needle valves, actuators, and control panels at Dam 1 with new fixed cone valves and appurtenances. In FY 2021-22, the project will be operational and closeout.

**Revenue Source(s)**  
 The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	1,170,420	2,010,000	10,000	0	0	0	0	10,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

<b>PROJECT NAME: FUTURE - Howell-Bunger Valve Improvements</b>								
				<b>Total Project Cost</b>	1,647,000		<b>Area</b>	Undetermined
	<b>Confidence</b>			<b>Original Cost</b>	1,647,000		<b>Objective</b>	Maintenance & Repair

**Project Description**  
 This project will replace existing appurtenances associated with the three Howell-Bunger valves at Dam #2, including the actuators, external linkages and gearboxes, control infrastructure, electrical service and panels, and the aerial cable. No activity expected in FY 2021-22

**Revenue Source(s)**

# Portland Water Bureau

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				5-Year Total
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	
The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	0	0	0	273,000	1,360,000	14,000	0	1,647,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

PROJECT NAME: Groundwater								
			Total Project Cost		Ongoing	Area		Northeast
Confidence			Original Cost		0	Objective		Efficiency

**Project Description**  
 The Columbia South Shore Well Field is Portland's alternative supply of water should the Bull Run Watershed supply be interrupted for any reason. The well field's primary use is to supplement the bureau peak demand during summers. If flow from the Bull Run source must be interrupted or augmented due to storm-caused turbidity, drought conditions, or other causes, then the bureau pumps groundwater. The groundwater supply also allows the bureau to continue to operate while constructing and operating a filtration facility. Projects funded in this program improve the maintenance of this aging infrastructure, including repairs, selective replacements, and upgrades.

**Revenue Source(s)**  
 The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	650,000	1,221,000	1,221,000	1,221,000	1,221,000	1,221,000	6,105,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

PROJECT NAME: Groundwater PS Roof Replacement									
			Total Project Cost		728,000	Area		Northeast	
Confidence			Low	Original Cost		728,000	Objective		Maintenance & Repair

**Project Description**  
 This project will replace 11,000 square feet of existing roofing on both Groundwater Pump Gallery and Control Buildings. In FY 2021-22, the project will begin construction.

**Revenue Source(s)**  
 The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	20,734	65,000	647,000	0	0	0	0	647,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

PROJECT NAME: Groundwater Pump Station MCC									
			Total Project Cost		2,030,000	Area		Northeast	
Confidence			Low	Original Cost		2,030,000	Objective		Replacement

**Project Description**

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				5-Year Total
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	

This project will replace the existing Motor Control Centers (MCCs) (six main units at 2,350 horsepower each and two jockey pumps at 500 horsepower each) with new MCCs. In FY 2021-22, the project will continue design.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	225,000	150,000	1,355,000	300,000	0	0	1,805,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Hamilton Creek Culvert Replacement**

			<b>Total Project Cost</b>	638,000		<b>Area</b>	Undetermined
	<b>Confidence</b>	Low	<b>Original Cost</b>	638,000		<b>Objective</b>	Replacement

**Project Description**

This project will replace existing 45-foot long, 36-inch steel culvert with a new bridge providing a 24-foot clear span that meets the USFS Aquatic Organism Passage requirements. In FY 2021-22, the project will continue design.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	137,000	481,000	0	0	0	0	481,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Road 10 and J North Fork BR MP 14.44**

			<b>Total Project Cost</b>	2,520,000		<b>Area</b>	Undetermined
	<b>Confidence</b>	Low	<b>Original Cost</b>	2,520,000		<b>Objective</b>	Maintenance & Repair

**Project Description**

This project will grind existing pavement, restore road subgrade, pave, and stripe 1.9 miles of Road 10. The road will be brought up to current standards, fixing small slides and widening where needed. Approximately 20 ditch culverts will be replaced with aluminum alloy pipe, and two stream crossings will be replaced with AOP culverts. In FY 2021-22, the project will continue design.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	12,000	50,000	475,000	1,995,000	0	0	0	2,470,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Road 10E MP 6.2 - 8.2**

			<b>Total Project Cost</b>	3,800,000		<b>Area</b>	Southeast
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# Portland Water Bureau

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	5-Year Total
	Confidence	High	Original Cost	1,652,000			Objective	Maintenance & Repair

## Project Description

This project will grind existing pavement, restore road subgrade, and pave and stripe two miles of Road 10. The road will be brought up to current standards, using fill and walls to add an average of two feet of width to the segment. Approximately ten culverts will be replaced with aluminum alloy pipe. In FY 2021-22, the project will continue construction.

## Revenue Source(s)

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	295,104	1,550,000	1,677,000	0	0	0	0	1,677,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

## Support

### PROJECT NAME: NEW - Interstate Ops Bldg 2021 Renovation

			<b>Total Project Cost</b>	3,114,000		<b>Area</b>	Southeast
	<b>Confidence</b>	Low	<b>Original Cost</b>	3,114,000		<b>Objective</b>	Replacement

## Project Description

This project will replace Interstate roof, leaking windows and possibly HVAC system. There will also be repairs for windows and HVAC. In FY 2021-22, the project will begin design.

## Revenue Source(s)

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	0	140,000	110,000	945,000	1,840,000	0	3,035,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

### PROJECT NAME: Mt. Tabor Interpretive Project

			<b>Total Project Cost</b>	732,000		<b>Area</b>	Southeast
	<b>Confidence</b>	Low	<b>Original Cost</b>	470,000		<b>Objective</b>	Maintenance & Repair

## Project Description

This project will develop an interpretive program to educate the public about the history of the Mt. Tabor Reservoirs in particular and the City of Portland potable water system overall. In FY 2021-22, the project will begin construction.

## Revenue Source(s)

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	233,557	260,000	53,000	0	0	0	0	53,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0



Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan					5-Year Total
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26		

**PROJECT NAME: Planning**

				<b>Total Project Cost</b>	Ongoing		<b>Area</b>	Undetermined
	<b>Confidence</b>			<b>Original Cost</b>	0		<b>Objective</b>	Efficiency

**Project Description**  
 This program consists of general planning studies for projects needed to improve the operation of the water system. These include pressure zone adjustments, facility modifications, and system element studies. In FY 2021-22, the bureau will complete work on the Bull Run Dam 1 Restoration Study and the Customer Metering Analysis. We will also continue work on the Decorative Fountains Master Plan. The bureau will also begin studies on topics such as water quality, tank and pump station issues, groundwater upgrades, and evaluations of transmission pipeline elements.

**Revenue Source(s)**  
 The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	3,218,000	3,300,120	3,300,120	3,300,120	3,300,120	3,300,120	16,500,600
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: NEW - Water Asset Management System**

				<b>Total Project Cost</b>	5,263,000		<b>Area</b>	Undetermined
	<b>Confidence</b>	Low		<b>Original Cost</b>	5,263,000		<b>Objective</b>	Replacement

**Project Description**  
 This project will implement the Infor Public Sector (IPS) software to replace Oracle Utilities Work and Asset Management (OWAM) and several peripheral systems as part of the Water Asset Management System (WAMS) Implementation Project. In FY 2021-22, the project will begin implementation.

**Revenue Source(s)**  
 The project funding is from a combination of net proceeds from water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	500,000	3,792,000	10,000	0	0	0	3,802,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**Transmission/Terminal Storage**

**PROJECT NAME: Bull Run Pipelines**

				<b>Total Project Cost</b>	225,000,000		<b>Area</b>	Undetermined
	<b>Confidence</b>	Low		<b>Original Cost</b>	209,000,000		<b>Objective</b>	Mandated

**Project Description**  
 This project will design and construct large-diameter pipelines that connect the proposed Filtration Facility to the existing conduits. In FY 2021-22, the project will continue design.

**Revenue Source(s)**

# Portland Water Bureau

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				5-Year Total
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	
The project funding is from a combination of net proceeds from revenue bond sales, EPA Water Infrastructure Finance and Innovation Act loan, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	0	7,600,000	15,138,000	14,136,012	138,220,732	54,405,297	2,261,196	224,161,237
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

PROJECT NAME: Conduit 3 And 4 Internal Inspection								
				<b>Total Project Cost</b>	1,505,000	<b>Area</b>		East
<b>Confidence</b>		Low	<b>Original Cost</b>		1,505,000	<b>Objective</b>		Maintenance & Repair

**Project Description**  
 This project will inspect the interior of approximately 3.5 miles of Conduit 3, and approximately 3.5 miles of Conduit 4, identified as highly vulnerable; record findings from the investigation; identify limits of degraded sections; and prepare reports that recommend strategies for addressing the defects found from the investigation. In FY 2021-22, PWB will complete the Conduit 3 inspections.

Revenue Source(s)								
The project funding is from a combination of net proceeds from water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	300,506	0	818,000	34,000	0	0	0	852,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - Conduit 3 Ovality Replacement								
				<b>Total Project Cost</b>	2,830,000	<b>Area</b>		Undetermined
<b>Confidence</b>		Low	<b>Original Cost</b>		2,830,000	<b>Objective</b>		Replacement

**Project Description**  
 This project will replace 200 feet of existing 58-inch, lock-bar steel pipe with new 58-inch welded steel pipe. In FY 2021-22, the project will begin design.

Revenue Source(s)								
The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	0	0	35,000	390,000	1,770,000	635,000	0	2,830,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

PROJECT NAME: Conduits and Transmission Mains								
				<b>Total Project Cost</b>	Ongoing	<b>Area</b>		Undetermined
<b>Confidence</b>			<b>Original Cost</b>		0	<b>Objective</b>		Maintenance & Repair

**Project Description**

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan					5-Year Total
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26		

The conduits that bring water to Portland from the Bull Run watershed are pipes 56 to 72 inches in diameter. Service to the City's wholesale customers is a key reason for the bureau's commitment to improve maintenance of this aging infrastructure. The funding is to rehabilitate the conduits.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	0	1,600,000	2,296,884	5,609,000	5,609,000	5,609,000	5,609,000	24,732,884
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Gresham Conduit 2 Trestle Upgrades**

			<b>Total Project Cost</b>	1,590,000		<b>Area</b>	Citywide
<b>Confidence</b>	High		<b>Original Cost</b>	1,150,000		<b>Objective</b>	Maintenance & Repair

**Project Description**

This project will install 13 ring girders and scour protection on both the El Camino and Beaver Creek trestles. In FY 2021-22, the project will continue construction.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	799,446	300,000	155,000	0	0	0	0	155,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Powell Butte Reservoir 1 Roof Upgrades**

			<b>Total Project Cost</b>	6,056,000		<b>Area</b>	Southeast
<b>Confidence</b>	Low		<b>Original Cost</b>	6,056,000		<b>Objective</b>	Maintenance & Repair

**Project Description**

This project will design and construct multiple structural improvements to the Powell Butte Reservoir 1 (PBR1) roof, including the removal of the existing overburden, a new rubberized cover, new perimeter concrete aprons around the existing opening, and a new drainage system above the roof. In FY 2021-22, the project will begin construction.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	179,138	220,000	5,052,780	0	0	0	0	5,052,780
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Terminal Reservoirs**

			<b>Total Project Cost</b>	Ongoing		<b>Area</b>	Southeast
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# Portland Water Bureau

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	5-Year Total
	<b>Confidence</b>			<b>Original Cost</b>	0		<b>Objective</b>	<b>Mandated</b>
<b>Project Description</b>								
The Terminal Reservoirs program includes conveying water from the supply facilities to the retail distribution system. Major assets in this program include the terminal reservoirs, such as those at Powell Butte, Kelly Butte, and Washington Park. The program provides for the rehabilitation, replacement, and expansion of smaller reservoir system assets.								
<b>Revenue Source(s)</b>								
The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	0	100,000	1,455,220	103,000	103,000	103,000	103,000	1,867,220
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0
<b>PROJECT NAME: WA Park Hypochlorite Improvements</b>								
				<b>Total Project Cost</b>	1,740,000		<b>Area</b>	Southwest
	<b>Confidence</b>	Low		<b>Original Cost</b>	1,740,000		<b>Objective</b>	Maintenance & Repair
<b>Project Description</b>								
This project will design and construct new feed systems for hypochlorite and aqueous ammonia and upgrades to the existing Chlorine Building to improve safety and accommodate expanded operations. In FY 2021-22, the project will begin construction.								
<b>Revenue Source(s)</b>								
The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	475,110	208,000	1,113,000	0	0	0	0	1,113,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0
<b>PROJECT NAME: Washington Park</b>								
				<b>Total Project Cost</b>	205,000,000		<b>Area</b>	West
	<b>Confidence</b>	High		<b>Original Cost</b>	61,000,000		<b>Objective</b>	Mandated
<b>Project Description</b>								
The project planned, designed, and constructed a new buried reservoir to replace open Reservoir 3. This project was one solution toward compliance with LT2 replacement of the open reservoirs. It is assumed that Reservoir 4 will be used as the overflow detention, dichlorination, and stormwater structure. The bureau envisions that the buried reservoir would be topped with a reflecting pond and historical features would be protected as much as possible. In FY 2021-22, the project will complete commissioning and begin surface improvements.								
<b>Revenue Source(s)</b>								
The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	134,197,454	28,795,000	5,900,000	3,542,000	15,292,000	15,356,000	1,736,000	41,826,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	5-Year Total

**Treatment**

**PROJECT NAME: Bull Run Filtration**

				<b>Total Project Cost</b>	595,000,000		<b>Area</b>	Undetermined
	<b>Confidence</b>	Low		<b>Original Cost</b>	500,000,000		<b>Objective</b>	Mandated

**Project Description**

This project will plan, design, and construct a new filtration plant for the City of Portland’s water supply. The first step will be to develop a Basis of Design Report. The Basis of Design Report will include an evaluation of needs and alternatives and the implementation of a pilot study. After planning is complete, the project will hire a design consultant and proceed with the design and construction of the treatment facility. In FY 2021-22, the project will continue design.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, EPA Water Infrastructure Finance and Innovation Act loan, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	22,554,489	43,693,000	27,483,441	24,119,947	64,481,531	201,056,861	170,841,365	487,983,145
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

**PROJECT NAME: Corrosion Control Improvements**

				<b>Total Project Cost</b>	19,961,000		<b>Area</b>	Undetermined
	<b>Confidence</b>	High		<b>Original Cost</b>	19,916,000		<b>Objective</b>	Mandated

**Project Description**

This project will design and construct a corrosion control treatment facility at the Lusted Hill Treatment Facility. In FY 2021-22, the project will continue construction.

**Revenue Source(s)**

The project funding is from a combination of net proceeds from revenue bond sales, EPA Water Infrastructure Finance and Innovation Act loan, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.

<b>Total Expenditures</b>	3,765,134	7,482,000	8,230,000	461,000	0	0	0	8,691,000
<b>Net Operations and Maintenance Costs</b>	0	0	0	1,600,000	1,600,000	1,600,000	0	4,800,000

**PROJECT NAME: Treatment**

				<b>Total Project Cost</b>	Ongoing		<b>Area</b>	Undetermined
	<b>Confidence</b>			<b>Original Cost</b>	0		<b>Objective</b>	Mandated

**Project Description**

The Treatment Program provides for meeting or exceeding the federal and state requirements for a public water system utilizing an unfiltered surface water source as well as a groundwater source.

# Portland Water Bureau

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Project Detail - Portland Water Bureau

Capital Program Project	Prior Years	Revised FY 2020-21	Requested FY 2021-22	Capital Plan				5-Year Total
				FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	
<b>Revenue Source(s)</b>								
The project funding is from a combination of net proceeds from revenue bond sales, water sales revenue, and other construction fund revenues such as system development charges and interest earnings.								
<b>Total Expenditures</b>	0	50,000	51,500	51,500	51,500	51,500	51,500	257,500
<b>Net Operations and Maintenance Costs</b>	0	0	0	0	0	0	0	0

# WATER BUREAU

## PROGRAM OFFERS



January 29, 2021

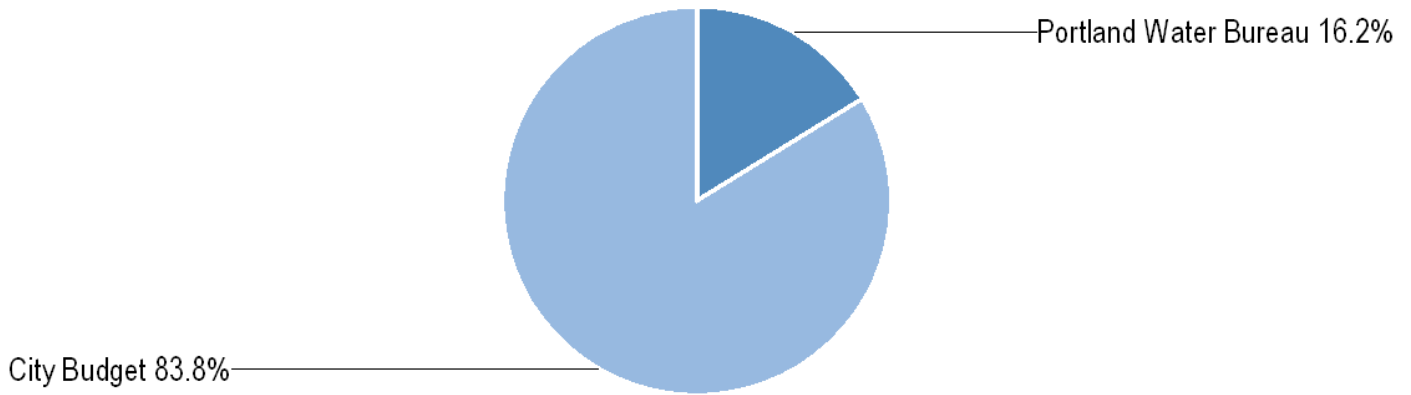
# Portland Water Bureau

Public Utilities Service Area

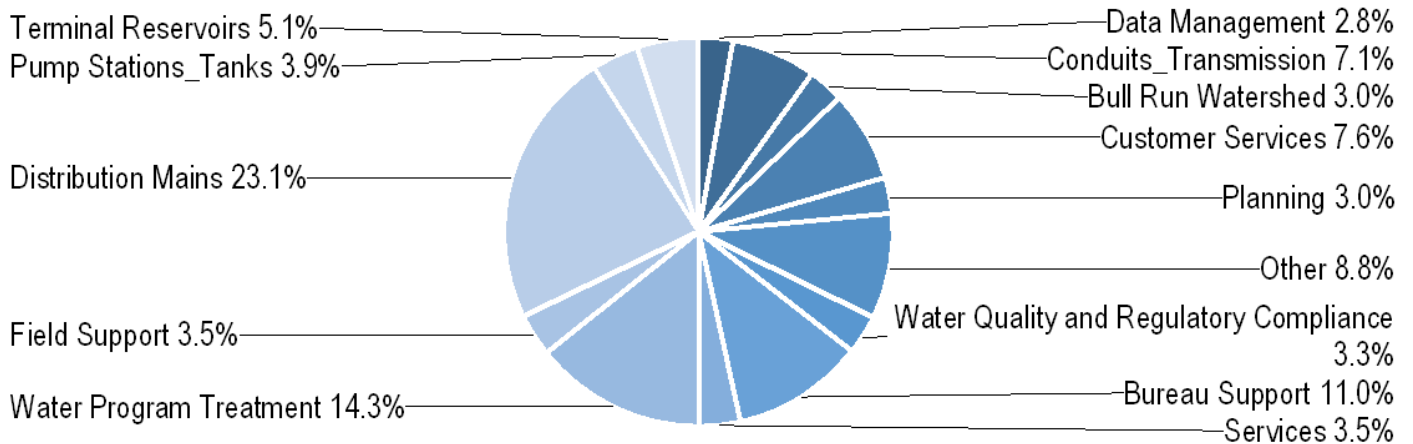
Mingus Mapps, Commissioner-in-Charge

Gabriel Solmer, Director

**Percent of City Budget Graph**



**Bureau Programs**



**Bureau Overview**

Requirements	Revised FY 2020-21	Requested FY 2021-22	Change from Prior Year	Percent Change
Operating	\$708,452,691	\$749,396,788	\$40,944,097	6%
Capital	\$163,875,000	\$156,927,845	\$(6,947,155)	(4)%
<b>Total</b>	<b>\$872,327,691</b>	<b>\$906,324,633</b>	<b>\$33,996,942</b>	<b>4%</b>
Authorized Positions	630.70	626.55	(4.15)	(0.66)%



## **Bull Run Watershed**

### **Program Description & Goals**

The Bull Run Watershed Program encompasses the efforts of the Water Bureau to protect and maintain the natural resources and infrastructure that enable Portland to use the federally designated Bull Run Watershed Management Unit (BRWMU) as the region’s primary drinking water source.

<b>Performance</b>	<b>Actuals FY 2018-19</b>	<b>Actuals FY 2019-20</b>	<b>Target 2020-21</b>	<b>Target FY 2021-22</b>	<b>Strategic Target</b>
Days Bull Run supply is available, excluding regulatory compliance events (such as turbidity events that exceed regulatory limits)	365	366	365	365	365
Days total reservoir storage is above 6.9 billion gallons (the reservoirs’ baseline storage threshold)	365	366	365	365	365

### **Explanation of Services**

Program efforts are focused on:

- **Infrastructure work:** This program includes capital infrastructure planning, design, construction, operations, maintenance, repair, and rehabilitation of the water supply facilities and road system in the BRWMU.
- **Collaboration with the U.S. Forest Service:** 95% of the BRWMU is National Forest land. The City of Portland and the Forest Service work together to manage the watershed.
- **Monitoring of water supply and weather conditions:** Weather conditions affect water quality and supply. The Water Bureau closely monitors and responds to relevant conditions.
- **Compliance with requirements:** The Water Bureau complies with federal land management, the Federal Energy Regulatory Commission (FERC), historic properties, and cultural resources requirements.
- **Providing appropriate public access:** The Water Bureau leads supervised tours of the watershed for members of the public and other stakeholders.
- **Collaboration with Tribal Nations:** The Water Bureau and the City are committed to building and improving relationships with Tribal Nations and finding opportunities for partnerships that support each other’s goals.

### **Equity Impacts**

The Bull Run Watershed program has equity impacts in three main areas:

- Protecting water quality: The Water Bureau recognizes that water quality problems could disproportionately affect communities of color and people with medical disabilities. Robust protection of water sources protects public health.
- Protecting cultural resources: The Bull Run Watershed program contains the bureau’s cultural resource protection work in Bull Run. This program will include work with Native American tribes and communities.
- Education program: The bureau’s education program offers free programs to all schools within the Portland metropolitan area. Transportation subsidies are available to reduce financial barriers for participating schools, with full transportation reimbursement options available to schools with Title 1 status, as budgets allow. The education program meets accommodation requests, from wheelchair-accessible transit to language translation. Staff offer programming in Spanish. Over the coming five years, the bureau will extend the reach of the current education program, focusing on underserved and under-represented communities.

## Changes to Program

There are no significant changes to this program in FY 2021-22.

## Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	3,037,615	3,264,284	2,314,443	2,774,145	2,774,145
External Materials and Services	1,094,576	838,665	1,875,903	1,566,817	1,566,817
Internal Materials and Services	1,459,828	1,719,062	814,430	757,035	757,035
Capital Outlay	1,707,462	3,237,525	3,787,000	3,195,000	3,195,000
<b>Bureau Expenditures Total</b>	<b>7,299,482</b>	<b>9,059,536</b>	<b>8,791,776</b>	<b>8,292,997</b>	<b>8,292,997</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>7,299,482</b>	<b>9,059,536</b>	<b>8,791,776</b>	<b>8,292,997</b>	<b>8,292,997</b>
<b>FTE</b>	<b>18.00</b>	<b>17.00</b>	<b>18.00</b>	<b>18.00</b>	<b>18.00</b>

## Budget Narrative

**Resources** Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.

## Portland Water Bureau

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<b>Expenses</b>	The operating budget totals \$4.3 million and the capital budget totals \$4.0 million. The operating budget's main expenses are staffing, repair and maintenance, and water supply monitoring conducted by the Water Bureau and U.S. Geological Survey. Major capital projects include road maintenance and Dam 1 valve replacement.
<b>Staffing</b>	There are 16.7 FTE operating and 1.8 FTE capital positions supporting this program. These positions include engineers, planners, and watershed maintenance staff, among others. The table does not reflect FTE budget allocations to programs.
<b>Assets &amp; Liabilities</b>	<p>Major assets include two dams and reservoirs, a smaller dam and dike at Bull Run Lake, 164 miles of paved and gravel roads, water monitoring systems, and communication systems. The two major reservoirs store 16.9 billion gallons of water. The replacement value of Bull Run Watershed infrastructure total \$1.2 billion. 86% of the assets are in very good, good, or fair condition. The roads tend to be the assets in poor or very poor condition.</p> <p>The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in twenty-three asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <a href="https://www.portlandoregon.gov/water/64032">https://www.portlandoregon.gov/water/64032</a>.</p>

## Program Information

<b>Program Contact:</b>	Felicia Heaton
<b>Contact Phone:</b>	971-940-8933
<b>Website:</b>	<a href="https://portlandoregon.gov/water/assets">portlandoregon.gov/water/assets</a>

## Bureau Support

### Program Description & Goals

The Bureau Support Program encompasses work across all sections of the Water Bureau. The program meets administrative, financial, communications, and equity needs.

The program includes promoting equity across all bureau programs and services; engaging the public in bureau work; making sure ratepayer money is used appropriately; and making sure the bureau works as efficiently as possible and is accountable to the public.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Percentage of community members who, in a statistically significant survey, say they have "good" or "very good" awareness of the services the bureau provides	NA	54%	75%	75%	75%

### Explanation of Services

**Support for bureau-wide work:** This program includes contract administration and facilities work, as well as administrative expenses such as rent, utilities, postage, operating supplies, and the Utility License Fee.

**Accounting:** Staff in this program manage the bureau’s financial transactions, including financial statements, and ensuring that funds are spent as designated.

**Communications:** Staff coordinate and perform community outreach, public engagement and media relations on Water Bureau projects and programs and in support of all bureau work groups. The team prioritizes cultural responsiveness, accessibility and connection with underrepresented communities. Communications responds to public records requests, delivers water-related emergency and public health information, manages digital engagement, and develops content to strengthen public trust and ownership of the water system.

**Equity:** The Water Bureau embeds equity through its Strategic Plan and has a comprehensive Plan to Advance Equity, Diversity, and Inclusion (Equity Plan). The Equity Plan centers the needs of community members who have been historically underserved and underrepresented; in Portland, these community members are overwhelmingly Black, Indigenous and all People of Color (BIPOC) and people experiencing disabilities. The Equity and Policy Team focuses on eliminating disparity in policies, practices, processes, decisions, and resource allocations, as well as supporting bureau employees at all levels to incorporate equity into their work.

**Program planning and performance management:** This program includes the time managers and supervisors spend planning programs and evaluating performance.

**Interagency work:** This program includes support from other City of Portland agencies, such as the Bureau of Technology Services, the City Attorney, and the Office of Management and Finance.

## Portland Water Bureau

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Advisory groups: The Water Bureau works with two main utility advisory groups: the Portland Utility Board and the Citizens' Utility Board. Staff in this program work with these advisory groups.

Managing and maintaining bureau-owned property: The bureau owns more than 175 properties, including around its reservoirs, tanks, and pump stations. This program also includes the Mount Tabor Preservation Project, which is led by the Water Bureau but funded by the City's General Fund.

### Equity Impacts

Bureau Support contains the bulk of the bureau's equity management. The program includes the Equity and Policy Team, which works toward influencing attitudes within the bureau that produce authority, access, opportunities, and measurable outcomes for the bureau workforce and community members.

This program also includes the Communications group, which ensures equitable engagement and communications with underserved and under-represented communities. Staff in this program help fulfill translation, interpretation, and accommodations requests, and implement an equity lens for communications materials. This group partners with community organizations and people from under-represented communities, attends culturally specific community events, works with media, and holds outreach events at facilities with greater access for communities of color. The bureau will develop and implement an external strategic communications plan that prioritizes cultural responsiveness. And, the bureau is also creating more ways for people from under-represented communities to inform bureau policies, programs, and projects.

This year's budget changes expand capacity for the equity program and create opportunities to promote more equitable community engagement.

### Changes to Program

Program efforts are focused on:

- Supporting employees during COVID-19 uncertainties and possible continuation of teleworking;
- Beginning the implementation of the bureau's ADA transition plan to make our facilities accessible to people with disabilities;
- \$250,000 for Mount Tabor which will be funded by the General Fund.

### Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	6,907,928	7,593,208	8,475,604	9,719,031	9,719,031
External Materials and Services	9,987,943	10,052,240	11,404,888	11,814,711	13,591,045
Internal Materials and Services	6,796,173	6,746,683	6,726,926	7,198,592	7,186,512
Capital Outlay	114,683	29,988,634	3,168,042	100,000	100,000

## Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Bureau Expenditures Total</b>	23,806,727	54,380,764	29,775,460	28,832,334	30,596,588
<b>Fund Expenditures</b>					
Debt Service	59,614,751	119,427,743	71,131,531	65,487,570	65,487,570
Contingency	0	0	146,056,030	188,872,316	188,872,316
Fund Transfers - Expense	214,104,758	235,323,803	308,991,473	300,003,003	300,003,003
Debt Service Reserves	0	0	32,127,462	33,352,584	33,352,584
<b>Fund Expenditures Total</b>	273,719,508	354,751,546	558,306,496	587,715,473	587,715,473
Ending Fund Balance	196,762,570	253,432,523	30,790,526	38,821,977	38,821,977
<b>Requirements Total</b>	<b>494,288,805</b>	<b>662,564,833</b>	<b>618,872,482</b>	<b>655,369,784</b>	<b>657,134,038</b>
<b>FTE</b>	120.60	123.00	128.00	128.00	128.00

## Budget Narrative

<b>Resources</b>	Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.
<b>Expenses</b>	The operating budget totals \$30.4 million. The capital budget totals \$0.2 million. The operating budget’s main expenses are staffing, supplies, the Utility License Fee, facilities, communications, technology support, and insurance.
<b>Staffing</b>	There are 64.1 FTE operating positions supporting this program. These positions include administrative specialists, accountants, and communications staff, among others. The table does not reflect FTE budget allocations to programs.
<b>Assets &amp; Liabilities</b>	<p>The bureau owns more than 175 properties, including a share of the Portland Building. The assets have a replacement value of \$88 million. 95% of the assets are in very good, good, or fair condition.</p> <p>The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <a href="https://www.portlandoregon.gov/water/64032">https://www.portlandoregon.gov/water/64032</a>.</p>

## Program Information

**Program Contact:** Felicia Heaton

## Portland Water Bureau

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**Contact Phone:** 971-940-8933

**Website:** [portlandoregon.gov/water/assets](http://portlandoregon.gov/water/assets)

## Conduits/Transmission Mains

### Program Description & Goals

The Conduits/Transmission Mains Program is responsible for bringing water from the city’s two water sources, the Bull Run Watershed and Columbia South Shore Well Field, to buried reservoirs at Powell Butte, then to other in-town buried reservoirs and tanks at Kelly Butte, Washington Park, Sam Jackson, and Mayfair.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Number of unplanned conduit outages	0	0	0	0	0
Number of unplanned transmission outages.	0	0	0	0	0

### Explanation of Services

Program efforts are focused on the capital infrastructure planning, design and construction, operations, maintenance, repair, and rehabilitation of the assets in this program, as well as improving operability, reducing risk, and hardening the supply to meet seismic resilience goals. This program also makes sure the conduits and transmission mains are regularly inspected and are protected from corrosive soil. Staff in this program protect the bureau’s right of way where conduits cross non-bureau property and have laid out a protected path for a potential future conduit.

### Equity Impacts

The Water Bureau recognizes that water distribution problems could disproportionately affect communities of color and people with medical disabilities due to the high cost of water source alternatives (namely bottled water). Robust maintenance and strengthening resilience of conduits and transmission mains reduce the vulnerability of communities of color and people with disabilities.

Staff in this program do not work with the public and do not receive requests for accommodations.

This year’s budget changes are unlikely to have equity impacts. As this program grows to include new pipelines related to water treatment processes, the bureau will have the opportunity to explore how equity can be brought into construction and hiring processes.

### Changes to Program

The capital budget for this program is adjusted to be consistent with the 5-year Capital Plan.



Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	819,440	843,419	2,378,021	2,362,431	2,362,431
External Materials and Services	312,195	389,062	1,131,124	1,297,727	1,297,727
Internal Materials and Services	214,205	393,961	218,987	228,519	228,519
Capital Outlay	107,575	128,633	6,920,915	15,715,884	15,715,884
<b>Bureau Expenditures Total</b>	<b>1,453,416</b>	<b>1,755,075</b>	<b>10,649,047</b>	<b>19,604,561</b>	<b>19,604,561</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>1,453,416</b>	<b>1,755,075</b>	<b>10,649,047</b>	<b>19,604,561</b>	<b>19,604,561</b>

Budget Narrative

- Resources** Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds, including the WIFIA loan, and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.
- Expenses** The operating budget totals \$1.2 million and the capital budget totals \$18.4 million. Main expenses in the operating budget include staffing, repair and maintenance services, supplies, and vehicle fleet. The primary capital project in the program is Bull Run Pipelines.
- Staffing** There are 5.1 FTE operating and 8.4 FTE capital positions supporting this program. These positions include engineers, watershed specialists, and operating engineers (staff who operate the water system in the field), among others. The table does not reflect FTE budget allocations to programs.
- Assets & Liabilities** Major assets in the program include 60.5 miles of conduit (in three conduits) and 50 miles of transmission pipe, as well as supporting trestles and bridges, cathodic protection, Willamette River crossings, and intertie facilities. Conduits 2, 3, and 4 were built in 1911, 1925, and 1953, respectively. The conduits and transmission mains have a total replacement value of \$1.8 billion. 48% of the assets are in very good or good condition, with 41% in fair condition, and 11% in poor or very poor condition.
- The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in twenty-three asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <https://www.portlandoregon.gov/water/64032>.

## **Program Information**

**Program Contact:** Felicia Heaton

**Contact Phone:** 971-940-8933

**Website:** [portlandoregon.gov/water/assets](http://portlandoregon.gov/water/assets)

## Customer Service

### Program Description & Goals

This program is responsible for the collection of cash for the Water Bureau and Bureau of Environmental Services (BES). This includes meter reading, managing account and customer data, and billing, collection, and payment processing of 192,000 water, sewer, and stormwater accounts billed monthly, bimonthly, or quarterly. This program includes providing culturally-responsive services, offering financial assistance and related education to qualifying low-income customers, and making water provision programs, billing, and services accessible to people with disabilities.

This program also supports development by performing reviews of water-related building permit application intakes, reviews, and purchases. All developments are reviewed to ensure that they comply with standards for water service.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Percentage of calls answered within 60 seconds	87%	66%	100%	100%	100%
Annual combined utility bill as a percent of median household income	2.44%	2.40%	0.00%	2.27%	NA
Annual combined utility bill as a percent of the lowest quintile of household income	6.03%	6.22%	0.00%	5.55%	NA
Annual combined utility bill with Tier 1 discount as a percent of the lowest quintile of household income	3.53%	3.46%	0.00%	3.09%	NA
Annual combined utility bill with Tier 1 discount as a percent of the lowest quintile of single family residential household income	1.99%	2.11%	0.00%	1.88%	NA
Annual combined utility bill with Tier 2 discount as a percent of the lowest quintile of household income	2.03%	1.81%	0.00%	1.61%	NA
Annual combined utility bill with Tier 2 discount as a percent of the lowest quintile of single family residential household income	1.14%	1.10%	0.00%	0.98%	NA

### Explanation of Services

Each working day, Customer Service staff answer more than 750 customer calls and field an average of 75 online inquiries about customer accounts and other bureau work. The program also assists 75 walk-in customers each day (suspended during COVID closures) with their payments and/or water service, and administers the Financial Assistance Program, including a bill discount for more than 8,800 enrolled participants and rent assistance for multi-family dwellings.

This program includes the team that manages the Customer Information System, which is used to bill for sewer, stormwater, and water services; collect money from customers; and assist customers with account inquiries.

In a typical year, the Customer Service Program processes about 2,280 water permits annually for commercial and residential developments. The activities cover land use reviews, development reviews, sale of new domestic services, fire services, and petition mains needed to support new construction by private parties seeking water service.

## Equity Impacts

Staff in the Customer Service program work directly with community members and have made major changes in recent years to do this work more equitably.

The bureau’s Financial Assistance Program has recently expanded and now offers more help to more people. Staff members working in this program have studied participant demographics, and work to continuously assess needs by area to increase program representation among traditionally underserved and under-represented communities.

The bureau is expanding partnerships with culturally specific organizations to increase education about financial assistance, so that participation rates reflect the diversity of the city. Additionally, the bureau is increasing bill payment options to meet the needs of all customers.

The bureau provides culturally responsive services by hiring and training staff to address the needs of customers from diverse backgrounds in a timely manner. Staff in this program regularly use interpretation services, and program managers aim to increase the number of staff who fluently speak multiple languages. Some phone services and brochures are available in multiple languages. For people with disabilities, staff in this program can enlarge bills, convert bills to braille, and communicate via writing.

## Changes to Program

In an effort to expand the financial assistance program, the bureau has increased the allocation to the Fixture Repair program to \$250,000.

## Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	9,742,116	9,987,254	11,379,558	11,925,286	11,925,286
External Materials and Services	2,834,508	3,058,671	5,241,644	5,232,220	5,232,220
Internal Materials and Services	4,131,441	3,974,623	3,879,529	3,955,447	3,955,447
<b>Bureau Expenditures Total</b>	<b>16,708,065</b>	<b>17,020,548</b>	<b>20,500,731</b>	<b>21,112,953</b>	<b>21,112,953</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>16,708,065</b>	<b>17,020,548</b>	<b>20,500,731</b>	<b>21,112,953</b>	<b>21,112,953</b>
<b>FTE</b>	<b>103.00</b>	<b>103.00</b>	<b>102.00</b>	<b>102.00</b>	<b>102.00</b>

## Budget Narrative

<b>Resources</b>	Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.
<b>Expenses</b>	The operating budget totals \$21.1 million. Main operating costs include staffing, bill generation, payment processing (bank fees and payment vendor fees), and the Financial Assistance Program.
<b>Staffing</b>	There are 99.5 FTE operating positions supporting this program. These positions include customer accounts specialists, business analysts (who support the billing system), meter readers, water service inspectors, and engineering technicians, among others. The table does not reflect FTE budget allocations to programs.
<b>Assets &amp; Liabilities</b>	<p>The major asset of the Customer Service is the Cayenta billing system.</p> <p>The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <a href="https://www.portlandoregon.gov/water/64032">https://www.portlandoregon.gov/water/64032</a>.</p>

## Program Information

<b>Program Contact:</b>	Felicia Heaton
<b>Contact Phone:</b>	971-940-8933
<b>Website:</b>	<a href="https://portlandoregon.gov/water/assets">portlandoregon.gov/water/assets</a>

# Data Management

## Program Description & Goals

The Data Management Program is responsible for managing information about water system infrastructure. This includes water facilities maps; project plans and reports; water use data; conditions of facilities, infrastructure, and equipment; and records of customer interactions. The Water Bureau uses multiple data management systems, including Records Management, Geographic Information System (GIS) mapping, Computer-Aided Design and Drafting (CADD), and Computerized Maintenance Management System (CMMS). Data from these systems are used to evaluate and monitor the condition and performance of assets, help make decisions about investment strategies, and improve business processes and customer services.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Percentage of files sent to records for archiving are filed in accordance with State of Oregon and City of Portland retention rules.	NA	100%	100%	100%	100%

## Explanation of Services

Activities include developing, operating, and maintaining data management systems that directly support effective and efficient daily field operations and management of the water system. This program includes maintaining and updating quarter-section maps in GIS; maintaining and reporting from the bureau’s maintenance management and project management systems; and maintaining a database for capital improvement projects to monitor planning, design, and construction for status, scope, schedule, and budget. The program also includes the maintenance of a management system for construction contract administration and equitable decision-making.

## Equity Impacts

Data management is essential to achieve equitable outcomes. This program manages asset, customer interaction, and internal process information. As the bureau works to embed equity in all programs, practices, and processes, staff in this program will be instrumental in providing analyses that can be used to help inform decision-making. To ensure equitably data applications, the bureau is adopting digital justice principles: access to information and technology, participatory decision-making, right to privacy, data consent, etc.

Staff in this program do not work directly with the public and do not receive requests for accommodations.

## Changes to Program

The current CMMS system will not be supported by the vendor. The bureau will be replacing the system with WAMS, therefore this program is increasing by \$3.8 million to support this capital project.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	2,413,142	2,648,987	2,794,818	2,963,164	2,963,164
External Materials and Services	35,592	9,474	729,900	2,526,900	2,526,900
Internal Materials and Services	1,055,445	1,124,612	1,123,025	1,156,062	1,156,062
Capital Outlay	0	0	500,000	1,270,000	1,270,000
<b>Bureau Expenditures Total</b>	<b>3,504,179</b>	<b>3,783,072</b>	<b>5,147,743</b>	<b>7,916,126</b>	<b>7,916,126</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>3,504,179</b>	<b>3,783,072</b>	<b>5,147,743</b>	<b>7,916,126</b>	<b>7,916,126</b>
<hr/>					
<b>FTE</b>	18.00	17.00	17.00	17.00	17.00

Budget Narrative

<b>Resources</b>	Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.
<b>Expenses</b>	The operating budget totals \$4.1 million and the capital budget totals \$3.8 million. The operating budget’s main expenses are staffing and application maintenance. The capital expenses will be the implementation of WAMS.
<b>Staffing</b>	There are 20.8 FTE operating positions supporting this program. These positions include GIS technicians, data analysts, and engineers, among others. The table does not reflect FTE budget allocations to programs.
<b>Assets &amp; Liabilities</b>	<p>Assets within this program include data management systems and 748 quarter-section maps of water facilities.</p> <p>The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <a href="https://www.portlandoregon.gov/water/64032">https://www.portlandoregon.gov/water/64032</a>.</p>

**Program Information**

**Program Contact:** Felicia Heaton

**Contact Phone:** 971-940-8933

**Website:** [portlandoregon.gov/water/assets](http://portlandoregon.gov/water/assets)



## Distribution Mains

### Program Description & Goals

About 2,260 miles of distribution and distribution-transport main (pipe) transport drinking water from terminal reservoirs through mains to local storage, and then through mains to hydrants and services. Portland’s water system includes active mains that were installed as early as 1894. Pipe sizes in the distribution system range from 1.5 inches to 36 inches in diameter. Distribution system mains include a variety of material types, such as cast iron, steel, and ductile iron. This program ensures the continuity of drinking water, minimizes potential damage to public and private property, ensures fire suppression capabilities, minimizes water loss, and ensures compliance with water quality regulations.

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Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Number of main breaks per 100 miles per year (lower number is better)	7.20	5.70	9.00	9.00	9.00

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### Explanation of Services

This program includes capital infrastructure planning, design, installation, operations, maintenance, and repair of distribution system mains and appurtenances, including leak locates and mains flushing. Design and replacement of aging cast iron and steel distribution mains (constructed by both City crews and private contractors) are the core investments of the program, while main repair, leak locating, and flushing support maintenance of the existing system. In addition, this program manages the design and installation or relocation of water mains to support interagency projects (such as light rail tracks). The bureau installs approximately 30,000 feet of main each year and repairs an average of 200 main breaks each year. The 30,000 feet of main installation includes a significant allocation of resources to support interagency and development work.

### Equity Impacts

The Water Bureau has data about the condition of mains in the city. The bureau overlays the condition of distribution mains, work orders, and main breaks onto demographic and geographic data to identify potential areas where main condition may vary by community. Results may help inform equitable capital infrastructure planning, maintenance, and repair of distribution system mains and appurtenances.

Staff in this program have access to interpretation services.

### Changes to Program

There are no budget changes.

## Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	8,544,668	10,051,601	12,476,171	13,190,485	13,190,485
External Materials and Services	3,529,516	5,606,674	4,488,954	8,898,823	8,898,823
Internal Materials and Services	9,132,647	9,925,502	3,504,511	3,554,330	3,554,330
Capital Outlay	8,525,339	12,737,108	32,321,350	38,630,000	38,630,000
<b>Bureau Expenditures Total</b>	<b>29,732,171</b>	<b>38,320,886</b>	<b>52,790,986</b>	<b>64,273,638</b>	<b>64,273,638</b>
Ending Fund Balance	(664,428)	(688,301)	0	0	0
<b>Requirements Total</b>	<b>29,067,743</b>	<b>37,632,584</b>	<b>52,790,986</b>	<b>64,273,638</b>	<b>64,273,638</b>
<hr/>					
<b>FTE</b>	11.00	11.00	11.90	11.55	11.55

## Budget Narrative

<b>Resources</b>	Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.
<b>Expenses</b>	The operating budget totals \$6.0 million and the capital budget totals \$58.3 million. The operating budget’s main expenses are staffing, pipes and fittings, and vehicle fleet. Major capital projects include Willamette River Crossing, ongoing replacements of mains, and mains projects in support of the Bureau of Environmental Services and the Portland Bureau of Transportation.
<b>Staffing</b>	There are 35.1 FTE operating and 53.3 FTE capital positions supporting this program. These positions include engineers, automotive and construction equipment operators, water operations mechanics, utility workers, and utility locators, among others. The table does not reflect FTE budget allocations to programs.
<b>Assets &amp; Liabilities</b>	This program’s assets are the bureau’s 2,260 miles of distribution mains. The replacement value of mains total \$4.3 billion. About 97% are in very good, good or fair condition, and 3% are in poor or very poor condition. The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for

## Portland Water Bureau

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repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <https://www.portlandoregon.gov/water/64032>.

### Program Information

**Program Contact:** Felicia Heaton

**Contact Phone:** 971-940-8933

**Website:** [portlandoregon.gov/water/assets](https://portlandoregon.gov/water/assets)

# Employee Investment

## Program Description & Goals

This program focuses on employee well-being, training and development. Employees are a critical asset to the bureau. The bureau invests in its employees by providing opportunities for training, continuing education, job shadows, participation in water industry associations, and mentorship.

The State of Oregon requires employees engaged in the operation of the water system for both distribution and treatment (nearly 200 employees in the Water Bureau) to be certified by the Oregon Health Authority. Certified employees are required to complete regular continuing education to maintain those certifications.

Water Bureau engineers and electricians also must be licensed and complete ongoing education to maintain their certifications. Employees who operate specialty equipment, such as cranes, also require state and national certifications. The Water Bureau operates two unique apprenticeship programs sanctioned by the Bureau of Labor and Industries. Many field employees are required to obtain and maintain a Commercial Driver’s License, following federal Department of Transportation requirements.

The City requires a variety of mandatory trainings, such as defensive driving, Equity 101, HR Administrative Rule 2.02 training, emergency management trainings, and the Occupational Safety and Health Administration requires safety-sensitive trainings for Work Zone Traffic Control, Confined Space Entry, Rigging and Slings, Excavation Safety, Hazardous Chemicals, and Asbestos Handling, among many other trainings provided by the Water Bureau. Finally, the Water Bureau augments required certifications with training that supports employee development.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Percentage of employees reporting that they are "engaged" or "fully engaged" in their work (in employee survey done every other year)	NA	0%	78%	78%	78%

## Explanation of Services

Program activities include providing employee training; tracking, monitoring, and ensuring all required certifications and licenses are maintained; and making sure all City-required training requirements are met. The program also includes administering and evaluating the ongoing apprenticeship programs. Activities also include managing workplace safety program for high-hazard environments, such as electrical arc-flash, confined spaces, and fall hazards.

Staff in this program also create employee enrichment programs and equity-focused trainings designed to instill an equity mindset in all bureau staff.

## Equity Impacts

The Water Bureau is committed to changing policies, practices, and procedures to better support the employees. To this end, the bureau’s 2020-2024 Strategic Plan includes a Workforce and Culture section, which aims to advance equity by improving workplace communication and collaboration, recruitment and retention, and empowering employees. Specifically, the bureau implements equitable hiring practices with the goal of establishing a workforce that reflects the diversity of the community. The bureau is adding resources to the onboarding process to improve employee retention. Additionally, the bureau encourages the use of paid time for professional development. The bureau also encourages leadership development to improve management practices, provides more equitable access to cross-group learning opportunities, promotes utilization of the job shadow program, and offers flexible work schedules and telecommuting opportunities to more employees. Lastly, the bureau is developing and training all bureau employees on position specific equity curricula.

This program includes the bureau’s Training and Development Officer, who has an equity focus in employee enrichment and programming. Among other programs, the Training and Development Officer runs a job shadow program and informal lunchtime sessions that address issues of race, gender, and age in the workplace.

Staff in this program do not work directly with the public and do not receive accommodation requests from the public. The bureau does not currently track employees’ requests for accommodations.

## Changes to Program

There are no significant changes to this program for FY 2021-22.

## Program Budget

	<b>Actuals FY 2018-19</b>	<b>Actuals FY 2019-20</b>	<b>Revised FY 2020-21</b>	<b>Requested No DP FY 2021-22</b>	<b>Requested FY 2021-22</b>
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	2,558,045	2,382,187	2,193,714	2,432,079	2,432,079
External Materials and Services	471,615	351,201	671,408	645,568	645,568
Internal Materials and Services	59,606	47,183	122,061	129,752	129,752
<b>Bureau Expenditures Total</b>	<b>3,089,266</b>	<b>2,780,570</b>	<b>2,987,183</b>	<b>3,207,399</b>	<b>3,207,399</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>3,089,266</b>	<b>2,780,570</b>	<b>2,987,183</b>	<b>3,207,399</b>	<b>3,207,399</b>
<hr/>					
<b>FTE</b>	<b>43.00</b>	<b>41.60</b>	<b>34.00</b>	<b>33.00</b>	<b>33.00</b>

## **Budget Narrative**

**Resources** Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.

**Expenses** The operating budget totals \$3.2 million. The operating budget's main expenses are staffing, training, certifications, and vehicle fleet.

**Staffing** There are 18.8 FTE operating positions supporting this program. These positions include risk specialists, apprentices, automotive and construction equipment operators, among others. The table does not reflect FTE budget allocations to programs.

**Assets & Liabilities** This program does not contain assets.

## **Program Information**

**Program Contact:** Felicia Heaton

**Contact Phone:** 971-940-8933

**Website:** [portlandoregon.gov/water/assets](http://portlandoregon.gov/water/assets)

## Field Support

### Program Description & Goals

Field Support is a broad group of support functions that enable field crews to complete system maintenance. This program includes the bureau staff who manage workflow, scheduling, and data through the bureau’s CMMS, which is currently being replaced by WAMS. This program also includes the bureau’s inventory of materials and the staff who manage acquisition, storage, delivery, and contract management in support of field crews. Other functions in this program include utility location, maintenance engineering, surveying, geotechnical support, and management of the bureau’s more than 450 vehicles.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Work orders the Maintenance and Construction group completes each year	4,415	3,700	4,000	4,000	4,000

### Explanation of Services

This program supports field crews by providing the tools, equipment, materials, and information necessary to complete system maintenance.

### Equity Impacts

As the bureau embeds equity into asset management, staff in this program will have the opportunity to examine how they can support equitable approaches to system maintenance.

The bureau is applying an equity lens on how it helps outdoor crews prepare for extreme weather and wildfire smoke. These include but are not limited to: providing culturally specific protective equipment for employees, ceasing optional functions during extreme weather events, and providing alternative transportation options, more time, and/or lodging for employees during adverse weather events.

Staff in this program who work with the public have access to interpretation services.

### Changes to Program

There are no changes to this program in FY 2021-22.

## Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	4,154,394	4,043,485	4,408,178	4,747,443	4,747,443
External Materials and Services	1,498,670	1,567,710	1,373,501	1,715,891	1,715,891
Internal Materials and Services	(1,171,906)	(376,380)	(501,772)	(821,199)	(821,199)
Capital Outlay	4,249,101	3,666,494	4,800,000	4,200,000	4,200,000
<b>Bureau Expenditures Total</b>	<b>8,730,259</b>	<b>8,901,309</b>	<b>10,079,907</b>	<b>9,842,135</b>	<b>9,842,135</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>8,730,259</b>	<b>8,901,309</b>	<b>10,079,907</b>	<b>9,842,135</b>	<b>9,842,135</b>
<hr/>					
<b>FTE</b>	117.00	119.00	126.00	127.00	127.00

## Budget Narrative

<b>Resources</b>	Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.
<b>Expenses</b>	The operating budget totals \$5.2 million and the capital budget of \$4.7 million. The operating budget’s main expenses are staffing, supplies, and fleet vehicle maintenance. Major capital expenses include replacement of fleet vehicles and equipment.
<b>Staffing</b>	There are 34.6 FTE operating positions supporting this program. These positions include maintenance supervisors, storekeepers, utility workers, and service dispatchers, among others. The table does not reflect FTE budget allocations to programs.
<b>Assets &amp; Liabilities</b>	<p>This program’s assets include the bureau’s Interstate Building, fleet vehicles and various equipment. Current replacement value is \$117 million. 85% of the assets are in very good, good, or fair condition.</p> <p>The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <a href="https://www.portlandoregon.gov/water/64032">https://www.portlandoregon.gov/water/64032</a>.</p>



## Portland Water Bureau

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### Program Information

**Program Contact:** Felicia Heaton

**Contact Phone:** 971-940-8933

**Website:** [portlandoregon.gov/water/assets](http://portlandoregon.gov/water/assets)

## Fountains

### Program Description & Goals

The Water Bureau owns 129 drinking fountains, including four-bowl Benson Bubblers, throughout the city. This program includes operation, maintenance, cleaning, repair, and replacement of those drinking fountains. The first Benson Bubblers date from 1912.

This program also includes work by Portland Parks & Recreation to operate and maintain decorative (landscape feature) fountains.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Percent of fountains operational	NA	89%	95%	95%	95%

### Explanation of Services

Water Bureau crews clean each drinking fountain every two weeks. Staff in this program maintain, inspect, repair, and replace the fountains as necessary. We keep some fountains running year-round. Drinking fountains are turned off during freezing weather.

### Equity Impacts

Drinking fountains and decorative fountains mainly serve downtown Portland. Drinking fountains are a source of drinking water for Portland's houseless community, concentrated in the Central City district.

Staff in this program who work with the public have access to interpretation services.

### Changes to Program

There are no changes to this program in FY 2021-22.

### Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	106,147	84,280	99,748	99,932	99,932

**Program Budget**

	<b>Actuals FY 2018-19</b>	<b>Actuals FY 2019-20</b>	<b>Revised FY 2020-21</b>	<b>Requested No DP FY 2021-22</b>	<b>Requested FY 2021-22</b>
External Materials and Services	6,147	14,018	258,000	265,500	265,500
Internal Materials and Services	626,304	620,427	823,731	850,068	850,068
<b>Bureau Expenditures Total</b>	738,599	718,725	1,181,479	1,215,500	1,215,500
Ending Fund Balance					
<b>Requirements Total</b>	<b>738,599</b>	<b>718,725</b>	<b>1,181,479</b>	<b>1,215,500</b>	<b>1,215,500</b>

**Budget Narrative**

**Resources** Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.

**Expenses** The operating budget totals \$1.0 million and the capital budget totals \$0.3 million. The operating budget’s main expenses are staffing, supplies, vehicle fleet, and operations and maintenance of decorative fountains. Capital costs include major rehabilitation of both types of fountains.

**Staffing** There are 0.9 FTE operating positions supporting this program. This position includes utility workers’ and parks technicians’ time. The table does not reflect FTE budget allocations to programs.

**Assets & Liabilities** This program’s assets are the city’s 127 drinking fountains and 19 decorative fountains. The replacement value of the drinking fountains totals \$2.1 million. Of these, 95% are in very good, good or in fair condition, and 5% are in poor condition. The replacement value of the decorative fountains totals \$23.8 million. Of these, 80% are in very good, good, or fair condition, and 20% are in poor or very poor condition.

The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <https://www.portlandoregon.gov/water/64032>.

**Program Information**

**Program Contact:** Felicia Heaton

**Contact Phone:** 971-940-8933

**Website:** [portlandoregon.gov/water/assets](http://portlandoregon.gov/water/assets)

## Grounds

### Program Description & Goals

The Water Bureau portfolio includes more than 175 properties. These properties include pump stations, tank sites, reservoir sites, and conduit sites, among others. This program maintains the grounds and landscaping around these assets. The activities of this program make it possible for bureau staff to safely access Water Bureau facilities and for community members to use bureau properties that are open to the public.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Number of City of Portland Nuisance Activity violations (lower number is better)	NA	0	0	0	0

### Explanation of Services

The bureau maintains grounds and landscaping in and around water facilities to meet Water Bureau, City requirements and community expectations. Staff in this program manage visitor and grounds facilities at all of the properties, including Kelly Butte, Washington Park, and Powell Butte.

### Equity Impacts

Grounds work occurs all over the city. One of the goals of the HydroParks program was to open public space in areas underserved by neighborhood parks. Facilities such as HydroParks provide regional outdoor spaces to Portland’s low-income populations.

The bureau will start to examine the equity impacts of the Grounds program by overlaying work areas with demographic data.

### Changes to Program

There are no changes to this program in FY 2021-22.

### Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	400,292	360,190	317,452	280,205	280,205
External Materials and Services	142,214	205,718	145,485	167,000	167,000
Internal Materials and Services	134,750	203,739	121,223	116,590	116,590

# Portland Water Bureau

## Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Bureau Expenditures Total</b>	677,256	769,648	584,160	563,795	563,795
Ending Fund Balance					
<b>Requirements Total</b>	<b>677,256</b>	<b>769,648</b>	<b>584,160</b>	<b>563,795</b>	<b>563,795</b>
<b>FTE</b>	9.00	9.00	9.00	9.00	9.00

## Budget Narrative

<b>Resources</b>	Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services. The Bureau receives General Funds for park-like amenities at Hydroparks and Powell Butte.
<b>Expenses</b>	The operating budget totals \$0.6 million. The operating budget’s main expenses are staffing, supplies, and fleet vehicles.
<b>Staffing</b>	There are 2.3 FTE operating positions supporting this program. These positions include a maintenance supervisor, a parks technician, and a horticulturist. The table does not reflect FTE budget allocations to programs.
<b>Assets &amp; Liabilities</b>	<p>Assets in this program include the bureau’s more than 175 properties. The current replacement value is \$0.5 million. Of these, 100% are in very good, good, and fair condition.</p> <p>The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <a href="https://www.portlandoregon.gov/water/64032">https://www.portlandoregon.gov/water/64032</a>.</p>

## Program Information

<b>Program Contact:</b>	Felicia Heaton
<b>Contact Phone:</b>	971-940-8933
<b>Website:</b>	<a href="http://portlandoregon.gov/water/assets">portlandoregon.gov/water/assets</a>

## Groundwater

### Program Description & Goals

The Groundwater Program contains the Water Bureau’s efforts to protect and maintain the infrastructure and natural resources that enable Portland to reliably draw water from the Columbia South Shore Well Field (CSSWF) as a supplemental and emergency backup supply source. The City has supplied drinking water from the CSSWF since 1984. The well field is used as a supplemental supply when necessary and as an emergency backup supply when the Bull Run supply is temporarily unavailable (due to major storms, wildfire, or landslides, for example).

Wells in the CSSWF draw from three regional aquifers along the south shore of the Columbia River in Portland, Fairview, and Gresham. The City has an Oregon Department of Environmental Quality- certified Wellhead Protection Program for the groundwater resource to prevent chemical spills that could seep into the ground and adversely affect groundwater quality.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Groundwater capacity for 60 days of well use	NA	90	73	73	73

### Explanation of Services

Program efforts are focused on:

- Infrastructure: This program contains capital infrastructure planning, design, construction, operation, maintenance, repair, and rehabilitation of the water supply facilities within the CSSWF, including the system’s production wells, monitoring wells, pumps, motors, well sites, collection mains, and pump station.
- Maintenance of wells, pipes, pump station, and monitoring wells.
- Avoiding or minimizing groundwater contamination from human activities; identifying and managing naturally occurring groundwater contaminants.
- Monitoring aquifer resources and water quality conditions; performing spatial analysis of groundwater conditions and risks.
- Collaboration with area businesses to protect water quality and prevent contamination of groundwater resources.
- Administration of City code that regulates and requires inspections of chemical storage and drainage systems on public and private property. The Water Bureau works with Portland Fire & Rescue inspectors to make sure businesses comply with groundwater protection rules.
- Providing technical help for regulated businesses and educational events for the community.

## Equity Impacts

Water quality problems can disproportionately affect communities of color and people with medical disabilities, and a major goal of the Groundwater program is to protect water quality. Water quality issues have a disproportionately larger impact on Portland’s low-income and vulnerable populations as clean water alternatives are more costly. Groundwater increases the resilience of the entire water supply system, therefore reducing the vulnerability of sensitive groups.

This program also includes a significant education component for business owners and residents in or near the well field. In recent years, program staff have worked to expand education outreach in communities of color. The program’s education events increasingly draw more diverse participants. Staff have created translated event materials and employ event staff who speak Spanish, Russian, and Vietnamese.

## Changes to Program

Following a comprehensive review of this program, the bureau has decided to move forward with a 30-day groundwater capacity target between 85-90 MGD. In addition, there is an increase in the capital budget for the Groundwater Pump Station Roof Replacement and the Groundwater Pump Station MCC Replacement.

## Program Budget

	<b>Actuals FY 2018-19</b>	<b>Actuals FY 2019-20</b>	<b>Revised FY 2020-21</b>	<b>Requested No DP FY 2021-22</b>	<b>Requested FY 2021-22</b>
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	1,413,321	1,283,549	1,290,114	1,328,657	1,328,657
External Materials and Services	2,061,459	1,448,623	1,297,212	1,641,768	1,641,768
Internal Materials and Services	403,365	421,618	149,389	198,302	198,302
Capital Outlay	1,008,335	605,337	365,000	1,310,000	1,310,000
<b>Bureau Expenditures Total</b>	<b>4,886,481</b>	<b>3,759,127</b>	<b>3,101,715</b>	<b>4,478,727</b>	<b>4,478,727</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>4,886,481</b>	<b>3,759,127</b>	<b>3,101,715</b>	<b>4,478,727</b>	<b>4,478,727</b>
<hr/>					
<b>FTE</b>	3.00	3.00	3.00	3.00	3.00

## Budget Narrative

### Resources

Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.

<b>Expenses</b>	The operating budget totals \$2.5 million and the capital budget totals \$2.0 million. Main operating costs include staffing, electricity for groundwater pumping and repair and maintenance of infrastructure. Capital improvements include the rehabilitation of well field infrastructure.
<b>Staffing</b>	There are 7.2 FTE operating and 1.0 FTE capital positions supporting this program. These positions include engineers, operating engineers (employees who operate the water system in the field), program managers, and outreach staff, among others. The table does not reflect FTE budget allocations to programs.
<b>Assets &amp; Liabilities</b>	<p>Facilities include 25 active production wells and pumps; collection and transmission pipes; 18 inactive production wells; 168 non-supply wells used for monitoring and resource management; a 2.0 million-gallon storage tank; a 100 million-gallon per day (MGD) pumping facility; and associated treatment and monitoring systems. The estimated total replacement value of the groundwater supply system is \$278 million. An estimated 86% of the assets are in very good, good, or fair condition.</p> <p>The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <a href="https://www.portlandoregon.gov/water/64032">https://www.portlandoregon.gov/water/64032</a>.</p>

## **Program Information**

<b>Program Contact:</b>	Felicia Heaton
<b>Contact Phone:</b>	971-940-8933
<b>Website:</b>	<a href="https://www.portlandoregon.gov/water/assets">portlandoregon.gov/water/assets</a>



## Hydrants

### Program Description & Goals

The Water Bureau maintains over 14,000 hydrants, some installed in the early 1900s, to provide fire suppression, flushing points for water quality, system maintenance, and alternative customer water sources. The Hydrants program ensures the constant availability of fire suppression supply throughout the city, providing essential support for life safety and minimizing damage caused by fire to property.

The provision of fire hydrants every 250 to 500 feet (depending on zoning) within the right of way, alongside redundant fire hydrant availability near key facilities such as hospitals and schools, ensures constant support of Portland Fire & Rescue’s fire suppression efforts.

Hydrants enable crews and customers to access alternative sources of water, which may mitigate service outages or provide needed water supplies for functions like street sweeping, landscaping, and construction projects. In addition, hydrants provide key points for flushing the water system following the completion of maintenance tasks, and for maintaining water quality in areas of the system prone to water quality issues.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Percentage of hydrants in service at any point	100%	100%	100%	100%	100%

### Explanation of Services

The activities of this program include installation, inspection, maintenance, repair, and replacement of hydrants, and maintaining the inventory of hydrants in CADD (Computer-Aided Design and Drafting) and records management systems.

### Equity Impacts

The bureau overlays 500 feet of hydrant buffers to identify services outside the buffer, which may help inform hydrant installations. Likewise, the bureau analyzes data to identify potential hydrant condition variations by geography and help guide maintenance, repair, and replacement of hydrants to ensure equitable service.

Some staff in this program work in the field and occasionally talk with community members. They have access to interpretation services.

### Changes to Program

There are no changes to this program in FY 2021-22.

## Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	1,492,103	1,362,163	2,049,625	2,055,632	2,055,632
External Materials and Services	1,108,293	1,008,647	620,480	690,220	690,220
Internal Materials and Services	1,807,056	1,689,052	504,421	563,111	563,111
Capital Outlay	1,943	3,865	0	0	0
<b>Bureau Expenditures Total</b>	<b>4,409,395</b>	<b>4,063,727</b>	<b>3,174,526</b>	<b>3,308,963</b>	<b>3,308,963</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>4,409,395</b>	<b>4,063,727</b>	<b>3,174,526</b>	<b>3,308,963</b>	<b>3,308,963</b>

## Budget Narrative

<b>Resources</b>	Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.
<b>Expenses</b>	The operating budget totals \$1.4 million, and the capital budget totals \$1.9 million. The operating budget’s main expenses are staffing, hydrant parts, supplies, and vehicle fleet. The capital budget covers hydrant replacement.
<b>Staffing</b>	There are 7.3 FTE operating and 9.6 FTE capital positions supporting this program. These positions include utility workers, automotive equipment operators, and water operations mechanics, among others. The table does not reflect FTE budget allocations to programs.
<b>Assets &amp; Liabilities</b>	<p>The 14,620 hydrants have a current replacement value of \$214 million. Of these, 89% are in very good, good, or fair condition.</p> <p>The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <a href="https://www.portlandoregon.gov/water/64032">https://www.portlandoregon.gov/water/64032</a>.</p>

## Program Information

**Program Contact:** Felicia Heaton

**Contact Phone:** 971-940-8933

## Portland Water Bureau

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Website: [portlandoregon.gov/water/assets](http://portlandoregon.gov/water/assets)

## Hydroelectric Power

### Program Description & Goals

The Hydroelectric Power Program provides for administrative, operational, and regulatory oversight for the Portland Hydroelectric Project (PHP).

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Amount of power sold to Portland General Electric in megawatt hours	57,974	76,344	86,600	86,600	84,800

### Explanation of Services

Program staff provide day-to-day oversight and coordination for the operation of PHP, which includes the control of the levels in the City’s Bull Run reservoirs, the withdrawal of water from the reservoirs, and release of water downstream for compliance with in-stream regulatory targets. Staff also coordinate all issues associated with the operation of PHP; the sales of generated power from PHP to Portland General Electric; all state and federal dam safety requirements associated with PHP; the Vernon Station Hydroelectric Project; and the Washington Park and Mt. Tabor dams.

### Equity Impacts

The Hydroelectric Power Program does not have any clear equity implications.

Staff in this program do not work with the public and do not receive requests for accommodations.

### Changes to Program

No program changes are planned for FY 2021-22.

### Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	292,249	321,023	361,022	366,563	366,563
External Materials and Services	2,312,883	2,048,249	2,204,842	2,307,300	2,307,300
Internal Materials and Services	186,552	188,067	214,656	309,234	309,234
<b>Bureau Expenditures Total</b>	<b>2,791,684</b>	<b>2,557,340</b>	<b>2,780,520</b>	<b>2,983,097</b>	<b>2,983,097</b>
<b>Fund Expenditures</b>					
Debt Service	28,378	30,276	31,487	32,749	32,749
Contingency	0	0	1,290,919	1,818,394	1,818,394

**Program Budget**

	<b>Actuals FY 2018-19</b>	<b>Actuals FY 2019-20</b>	<b>Revised FY 2020-21</b>	<b>Requested No DP FY 2021-22</b>	<b>Requested FY 2021-22</b>
Fund Transfers - Expense	35,427	56,452	77,999	91,789	91,789
<b>Fund Expenditures Total</b>	<b>63,805</b>	<b>86,728</b>	<b>1,400,405</b>	<b>1,942,932</b>	<b>1,942,932</b>
Ending Fund Balance	1,626,983	1,002,433	0	0	0
<b>Requirements Total</b>	<b>4,482,472</b>	<b>3,646,501</b>	<b>4,180,925</b>	<b>4,926,029</b>	<b>4,926,029</b>
<hr/>					
<b>FTE</b>	2.25	3.00	3.00	3.00	3.00

**Budget Narrative**

- Resources**                      Resources come from power sales to Portland General Electric. There are also interagency revenues for work performed by Hydroelectric staff for the Water Bureau and interest earnings on cash balances.
  
- Expenses**                        The operating budget is \$3.0 million and includes, staffing, operations and maintenance, licenses and fees, and other miscellaneous costs associated with the Portland Hydroelectric Project.
  
- Staffing**                          Positions that support this program include engineering staff.
  
- Assets & Liabilities**            The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <https://www.portlandoregon.gov/water/64032>.

**Program Information**

- Program Contact:**            Felicia Heaton
  
- Contact Phone:**             971-940-8933
  
- Website:**                        portlandoregon.gov/water/assets

## Meters

### Program Description & Goals

Portland’s distribution system includes 178,000 small meters and 9,000 large meters. Meters allow for accurate measurement of residential, commercial, and fire line water use, which allows for accurate billing. Water meters also enable customers to track their water use.

Inventory of all meter sizes is maintained by the meters program.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Percentage of meters tested each year for accuracy 6+ inch meters and meters with consumption over 1000 CCF/month	NA	55%	90%	90%	90%

### Explanation of Services

This program includes capital infrastructure planning, installation, operations, maintenance, testing, and repair of both small and large meters. The Water Bureau uses a state-certified test bench, calibrated twice each year, to measure meter accuracy. Other water providers, private entities, and other bureaus can use the test bench as needed. All meters 1½ inches and larger are tested before being installed.

Small meters are often replaced when they are not measuring accurately or are highly used, as replacement is more cost effective than repair.

The bureau routinely tests large meters, given the high consequence of their failure. Meters for recording usage on wholesale customer accounts are tested twice each year, and meters for other users of large amounts of water are tested once each year. Additional testing on large meters is conducted based on the amount of water usage through the meter.

The program has installed and currently maintains about 2,000 automated metering devices, which allow meter readers to collect reads more efficiently and avoid dangerous reading situations.

### Equity Impacts

The Water Bureau has data on meter conditions and replacements. The bureau overlays this data onto demographic and geographic data to identify potential areas where meter condition may vary by community. The bureau continues to explore how automated metering infrastructure (AMI – sometimes called smart meters) could enable more equitable customer access to water use data. The bureau is researching and developing a strategy to include multifamily households and commercial tenants in the benefits of AMI.

Staff working in the field have access to interpretation services.

# Portland Water Bureau

## Changes to Program

There are no changes to this program in FY 2021-22.

## Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	1,560,176	1,518,028	2,232,342	2,372,182	2,372,182
External Materials and Services	284,873	242,434	486,846	499,560	499,560
Internal Materials and Services	417,763	460,301	227,366	237,700	237,700
Capital Outlay	459,514	370,276	300,000	263,640	263,640
<b>Bureau Expenditures Total</b>	<b>2,722,325</b>	<b>2,591,039</b>	<b>3,246,554</b>	<b>3,373,082</b>	<b>3,373,082</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>2,722,325</b>	<b>2,591,039</b>	<b>3,246,554</b>	<b>3,373,082</b>	<b>3,373,082</b>
<b>FTE</b>	<b>17.00</b>	<b>19.00</b>	<b>19.00</b>	<b>19.00</b>	<b>19.00</b>

## Budget Narrative

- Resources** Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.
- Expenses** The operating budget totals \$2.2 million, and the capital budget total \$1.1 million. The operating budget's main expenses are staffing, meter parts, and vehicle fleet. The capital budget covers meter replacement.
- Staffing** There are 13.9 FTE operating and 5.9 FTE capital positions supporting this program. These positions include water meter technicians, water operations mechanics, and construction equipment operators, among others. The table does not reflect FTE budget allocations to programs.
- Assets & Liabilities** This program's major assets are the bureau's 178,000 small meters and 9,000 large meters. The total replacement value of meters is \$172 million. About 89% of the meters are in very good, good, or fair condition.

The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <https://www.portlandoregon.gov/water/64032>.

## **Program Information**

**Program Contact:** Felicia Heaton  
**Contact Phone:** 971-940-8933  
**Website:** [portlandoregon.gov/water/assets](https://www.portlandoregon.gov/water/assets)



## Planning

### Program Description & Goals

The Planning Program includes short- and long-term strategic planning and direction; regional water providers coordination on water supply planning; financial planning; capital improvement development; infrastructure planning, including asset management; seasonal supply planning; and wholesale customer coordination.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Maintain the current rating for Water first lien revenue bonds	0%	0%	0%	100%	100%

### Explanation of Services

**Asset Management:** Staff in this program assess water system asset conditions, risks of failure, and risk mitigation strategies, and document alternatives and recommended solutions for maintenance and replacement of supply and distribution infrastructure.

**Capital Improvement Program (CIP) planning:** This program develops and administers a multi-year capital improvement program to address system needs, manage spending, and meet financial bond requirements.

**Water System planning:** Staff in this program develops infrastructure plans, long-range supply plans, and conducts water system planning studies.

**Budget and financial planning:** Staff in this program manages the bureau’s finances, develop and monitor the bureau’s budget, and adhere to prudent financial practices, enabling ongoing cost-effective access to bond financing for capital improvements, and ensure that water rates are at a good value and fair price to finance system operation and improvement.

**Climate change planning:** The bureau’s climate change expert works to build resilience to climate- related risks through risk assessment, analysis, and adaptation strategies.

**Seasonal supply planning:** Many bureau staff work together, and with wholesale customers, to ensure reliable water supply in every season.

**Strategic planning:** The bureau’s Strategic Business Plan aims to maintain continuous organizational improvement through strategic planning, risk identification, and implementation of management strategies.

**Participation in the Regional Water Providers Consortium:** The Water Bureau works with the Consortium to maintain cooperative relationships with regional water providers to plan for long-term supply, implement regional water conservation programs, and build emergency preparedness and response capability.

**Water rights:** Staff in this program manage and maintain water rights and water rights permits.

## Equity Impacts

The Planning program recognizes equity impacts in many areas:

- **Asset management:** works to prevent deferred maintenance that could burden future generations. The bureau identifies Key Service Levels (KSLs) that have equity considerations and overlay them onto geographic and demographic data to identify areas where service levels may vary by community. This program uses an equity category in the Consequence Likelihood Evaluation Methodology (CLEM) process for asset management. CLEM is a decision-making system for prioritizing asset work and resources.
- **Capital improvement project planning:** The bureau collaborates with other bureaus on capital and asset planning to minimize impact on communities and price increases. The bureau is developing a capital project Equity Impact Assessment for planning, design, and construction.
- **Water system planning:** the bureau considers unintentional equity implications of infrastructure design and location policies.
- **Climate change and supply system planning:** The bureau recognizes that climate impacts to the water system could disproportionately affect vulnerable populations. The bureau partners with community-based organizations to disseminate information and opportunities for climate adaptation.. The bureau is also working to embed culturally specific needs in the bureau’s Climate Action Plan and the Supply System Master Plan. And, the bureau is working to manage its energy use by monitoring, offsetting, and reducing carbon emissions from capital projects, fleet, and facilities.
- **The bureau’s strategic plan development embeds equity throughout its processes, identifying both equity&shy; focused issues within the bureau and equity impacts of every potential plan strategy. The bureau’s updated Equity Plan identifies specific equity outcomes for strategies and determines performance measures so we can track and monitor our work over time.**

## Changes to Program

There is a one-time increase in this program of \$250,000 to support the continuous improvement initiatives related to the Strategic Plan.

## Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	4,072,128	4,554,244	5,300,733	5,394,383	5,394,383
External Materials and Services	1,384,176	1,226,433	2,567,591	2,571,300	2,571,300
Internal Materials and Services	(16,392,474)	(18,609,619)	324,980	349,948	349,948
Capital Outlay	(4,027,576)	(5,589,989)	0	0	0
<b>Bureau Expenditures Total</b>	<b>(14,963,748)</b>	<b>(18,418,930)</b>	<b>8,193,304</b>	<b>8,315,631</b>	<b>8,315,631</b>

**Program Budget**

	<b>Actuals FY 2018-19</b>	<b>Actuals FY 2019-20</b>	<b>Revised FY 2020-21</b>	<b>Requested No DP FY 2021-22</b>	<b>Requested FY 2021-22</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>(14,963,748)</b>	<b>(18,418,930)</b>	<b>8,193,304</b>	<b>8,315,631</b>	<b>8,315,631</b>
<b>FTE</b>	21.50	21.58	22.90	21.50	21.50

**Budget Narrative**

- Resources** Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.
- Expenses** The operating budget totals \$5.0 million, with \$3.3 million for planning studies. Main operating costs include staffing, consultant services, and debt management.
- Staffing** There are 21.6 FTE operating and 7.8 FTE capital positions supporting this program. These positions include engineers, analysts, and financial analysts, among others. The table does not reflect FTE budget allocations to programs.
- Assets & Liabilities** This program does not include assets.

**Program Information**

- Program Contact:** Felicia Heaton
- Contact Phone:** 971-940-8933
- Website:** [portlandoregon.gov/water/assets](http://portlandoregon.gov/water/assets)

# Pump Stations/Tanks

## Program Description & Goals

Portland’s water distribution system includes 36 pump stations and 58 tanks. Most of Portland’s water is delivered by gravity, and storage tanks both store water and help maintain system pressure. For parts of the city at higher elevations, the Water Bureau pumps water through pump mains to storage facilities at higher elevations.

Tanks provide needed storage for daily demand fluctuations and for short-term demand spikes such as fire flow. Pump stations and tanks are distributed throughout the system to lift water to higher elevations.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Days any pump station in service does not meet system demand (lower number is better)	0	0	0	0	0

## Explanation of Services

This program includes capital infrastructure planning, design, construction, operation, maintenance, and repair of pump stations and tanks. Also included in this program are the operation, maintenance, and replacement requirements of the Supervisory Control and Data Acquisition (SCADA) system, which monitors, archives, and manages information about the water system.

This program includes the seismic upgrade and protection of pump stations and tanks, as well as regular cleaning that protects public health.

## Equity Impacts

Tanks are critical for emergency water supply; natural disasters that cause water outages can have greater impacts on communities of color. The Water Bureau regularly cleans and maintains tanks to ensure adequate function. The bureau overlays data on tank conditions, as well as tanks in service cleaned by area, onto demographic and geographic data that could suggest whether tank conditions vary by community.

Pump stations tend to benefit higher-elevation areas of the city, which have lower than average percentages of people of color and people with low English proficiency.

Staff in this program do not work directly with the public and do not receive requests for accommodations.

## Changes to Program

There is an increase in the operating budget for this program due to software system maintenance costs for the SCADA system, which monitors, archives, and manages information about the water system. In addition, funds were added for cyber security testing. Further, there is an increase in the capital budget for the Greenleaf Tank project, and 162nd Pump Station project.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	4,508,589	4,640,859	5,498,219	5,665,756	5,665,756
External Materials and Services	2,370,180	1,813,781	3,268,776	3,437,230	3,437,230
Internal Materials and Services	1,596,160	1,233,852	748,633	941,587	941,587
Capital Outlay	2,022,270	670,425	199,000	750,000	750,000
<b>Bureau Expenditures Total</b>	10,497,198	8,358,917	9,714,628	10,794,573	10,794,573
Ending Fund Balance					
<b>Requirements Total</b>	<b>10,497,198</b>	<b>8,358,917</b>	<b>9,714,628</b>	<b>10,794,573</b>	<b>10,794,573</b>
<hr/>					
<b>FTE</b>	51.50	50.39	53.90	53.50	53.50

Budget Narrative

<b>Resources</b>	Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.
<b>Expenses</b>	The operating budget totals \$8.2 million, and the capital budget totals \$2.6 million. The operating budget’s main expenses are staffing, utilities, repair and maintenance services, supplies, communication services, and vehicle fleet. The capital budget covers major maintenance of pump stations and tanks.
<b>Staffing</b>	There are 32.1 FTE operating and 5.4 FTE capital positions supporting this program. These positions include engineers, operating engineers (staff who operate the water system in the field), and applications analysts (who run the SCADA system), among others. The table does not reflect FTE budget allocations to programs.
<b>Assets &amp; Liabilities</b>	This program’s assets include 36 pump stations and 58 tanks, with a replacement value of \$641 million. Of the assets, 60% are in very good or good condition, and 36% are in fair condition.

The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <https://www.portlandoregon.gov/water/64032>.

## **Program Information**

**Program Contact:** Felicia Heaton  
**Contact Phone:** 971-940-8933  
**Website:** [portlandoregon.gov/water/assets](https://www.portlandoregon.gov/water/assets)

## Security/Emergency Management

### Program Description & Goals

The Security/Emergency Management Program includes protecting and safeguarding the water system and preparing for and responding to systemwide emergencies. This program provides comprehensive Emergency Management plans to prevent, mitigate, respond to, and recover from the potential effects of all types of disasters. This includes providing preparedness information and creating and implementing training and simulation exercises.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Security incidents resulting in damage to facilities or harm to employees (reflects incidents logged in the Security budget program)	3	3	6	6	6

### Explanation of Services

Security includes Bull Run Watershed surveillance and in-town field monitoring of pump stations, tanks, the Interstate buildings, and other facilities. Security also provides continuous dispatch and video surveillance of numerous locations and serves as first responder to intrusions and water emergencies.

Emergency Management activities include operating the bureau’s Emergency Operations Center in a state of readiness; coordinating with Portland Bureau of Emergency Management (PBEM), Oregon Emergency Management (OEM), and the Federal Emergency Management Agency (FEMA); facilitating, planning, and coordinating equitable emergency management trainings and exercises; updating bureau emergency management plans; and developing and maintaining continuity plans.

### Equity Impacts

A natural disaster that disrupts water service could have disproportionate impacts on communities of color and people from immigrant communities, and the bureau’s Emergency Management group prepares for this potential.

The bureau works with partners to plan for equitable emergency water distribution during systemwide emergencies and consider equity when planning for post-disaster system repair. The bureau partners with culturally specific organizations to expand preparedness capacity and distribute emergency preparedness equipment. The bureau has created preparedness videos and other materials in multiple languages. The bureau is exploring issuing culturally specific preparedness kits to Water Bureau employees so they can report to work in case of region-wide emergencies. And, the bureau is updating its Resilience Plan using a multicultural and equity lens.

## Changes to Program

There are no changes to this program in FY 2021-22.

## Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	1,526,153	6,010,966	1,728,782	1,774,550	1,774,550
External Materials and Services	99,695	163,960	331,338	219,338	219,338
Internal Materials and Services	595,463	707,143	630,224	662,078	662,078
<b>Bureau Expenditures Total</b>	<b>2,221,311</b>	<b>6,882,069</b>	<b>2,690,344</b>	<b>2,655,966</b>	<b>2,655,966</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>2,221,311</b>	<b>6,882,069</b>	<b>2,690,344</b>	<b>2,655,966</b>	<b>2,655,966</b>
<b>FTE</b>	<b>14.00</b>	<b>14.00</b>	<b>14.00</b>	<b>14.00</b>	<b>14.00</b>

## Budget Narrative

<b>Resources</b>	Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.
<b>Expenses</b>	The operating budget totals \$2.6 million, and the capital budget totals \$.1 million. The operating budget’s main expenses are staffing, supplies, communications, and fleet vehicles. Capital expenses include replacement of surveillance equipment.
<b>Staffing</b>	There are 14.2 FTE operating positions supporting this program. These positions include water security specialists and program coordinators, among others. The table does not reflect FTE budget allocations to programs.
<b>Assets &amp; Liabilities</b>	Assets in this program include the Emergency Operations Center and surveillance equipment at bureau-owned facilities with a replacement value of \$8.8 million. Of these assets, 100% are in very good, good, or fair condition.



## Portland Water Bureau

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The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <https://www.portlandoregon.gov/water/64032>.

### Program Information

**Program Contact:** Felicia Heaton

**Contact Phone:** 971-940-8933

**Website:** [portlandoregon.gov/water/assets](http://portlandoregon.gov/water/assets)

## Services

### Program Description & Goals

Portland’s water system includes about 179,000 domestic services, 1,700 irrigation services, and 3,900 fire lines, all of which transport water from the distribution or supply main to the customer’s meter or private fire line connection. The provision of water is an essential need that is delivered by the Distribution Services Program, as no building without water may be occupied. Service lines connect the water system to homes, businesses, and institutions such as hospitals and schools.

Many larger buildings require built-in fire suppression systems, which are served by larger-diameter fire services that protect life safety and property of high-intensity use structures.

Larger services include the installation of underground meter vaults in the right of way for ongoing access and maintenance of meters, which is particularly challenging in the utility-dense areas of the Central City.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Percent of services installed more than 15 days for residential and 60 days for commercials after the permit was issued (lower number is better)	92%	92%	90%	90%	90%
Service line incidents that cause water users to not have service for more than 12 hours (lower number is better)	0	0	0	0	0

### Explanation of Services

This program includes capital infrastructure planning, design and construction, operations, maintenance, and repair of services from the distribution or supply main to the meter. These include service installations, removals, repairs, and replacements. Maintenance of the system of services prevents leaks that can cause damage and waste water. Some of Portland’s service lines are made of older copper, galvanized steel, or plastic, and these require replacement due to the high failure rate of those material types.

### Equity Impacts

The Water Bureau has data about the condition of service lines and related leaks and outages in the city. The bureau overlays this information onto demographic and geographic data that could suggest whether service line condition varies by community, which may help inform bureau actions.

Staff in this program have access to interpretation services.

### Changes to Program

There are no changes to this program in FY 2021-22.

**Program Budget**

	<b>Actuals FY 2018-19</b>	<b>Actuals FY 2019-20</b>	<b>Revised FY 2020-21</b>	<b>Requested No DP FY 2021-22</b>	<b>Requested FY 2021-22</b>
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	4,302,609	3,690,435	5,753,547	5,719,854	5,719,854
External Materials and Services	3,091,123	2,660,814	1,674,156	1,628,345	1,628,345
Internal Materials and Services	5,788,363	4,730,724	2,028,874	2,153,566	2,153,566
Capital Outlay	22,839	1,573	0	100,000	100,000
<b>Bureau Expenditures Total</b>	<b>13,204,934</b>	<b>11,083,546</b>	<b>9,456,577</b>	<b>9,601,765</b>	<b>9,601,765</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>13,204,934</b>	<b>11,083,546</b>	<b>9,456,577</b>	<b>9,601,765</b>	<b>9,601,765</b>

**Budget Narrative**

- Resources** Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.
- Expenses** The operating budget totals \$2.8 million, and the capital budget totals \$6.8 million. The operating budget’s main expenses are staffing, materials, and vehicle fleet. The capital budget covers service line installations and replacement.
- Staffing** There are 13.6 FTE operating and 32.9 FTE capital positions supporting this program. These positions include utility workers, mechanics, automotive and construction equipment operators, and surveyors, among others. The table does not reflect FTE budget allocations to programs.
- Assets & Liabilities** The approximately 179,000 domestic services, 1,700 irrigation services, and 3,900 fire lines have a total replacement value of \$1.4 billion. Of the assets, around 70% are in very good, good, or fair condition.
- The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <https://www.portlandoregon.gov/water/64032>.

**Program Information**

**Program Contact:** Felicia Heaton

**Contact Phone:** 971-940-8933

**Website:** [portlandoregon.gov/water/assets](http://portlandoregon.gov/water/assets)

## Terminal Reservoirs

### Program Description & Goals

Five in-town enclosed reservoirs and tanks serve as primary water storage points for distribution to retail and wholesale customers. These terminal storage facilities are at Powell Butte (outer Southeast Portland), Kelly Butte (also outer Southeast), Washington Park (Southwest), Mayfair (Northwest), and Sam Jackson (Southwest). Portland’s terminal storage facilities are managed to maintain the gravity-based delivery of water and water availability for firefighting and emergencies. Terminal storage water levels are maintained from a low of 60% to around 95%.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Maintain minimum daily water level in reservoirs that are in use	NA	69%	60%	60%	60%

### Explanation of Services

Activities of this program include the capital infrastructure planning, design and construction, operation, and maintenance of the terminal storage facilities. Maintenance includes draining, inspecting, and cleaning these facilities as well as repairing and replacing their equipment.

### Equity Impacts

Natural disasters that cause water outages can disproportionately affect communities of color, and terminal storage reservoirs are critical to the City’s emergency preparedness. The Terminal Reservoirs program also includes the bureau’s funding of visitor facilities at Powell Butte, which is in an area of the city with higher than average percentages of people of color and people with low English proficiency.

Most staff in this program do not work directly with the public and do not receive requests for accommodations.

There are no changes to this budget, and there is no likely equity impact of the unchanged budget.

### Changes to Program

There is a significant reduction in the capital program mostly due to the completion of major parts of the Washington Park Reservoir project.

## Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	1,664,833	1,668,308	1,511,733	1,547,270	1,547,270
External Materials and Services	198,115	152,474	727,016	369,836	369,836
Internal Materials and Services	2,142,602	2,034,791	1,423,360	215,256	215,256
Capital Outlay	32,553,106	36,019,700	26,428,685	12,164,336	12,164,336
<b>Bureau Expenditures Total</b>	<b>36,558,655</b>	<b>39,875,273</b>	<b>30,090,794</b>	<b>14,296,698</b>	<b>14,296,698</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>36,558,655</b>	<b>39,875,273</b>	<b>30,090,794</b>	<b>14,296,698</b>	<b>14,296,698</b>

## Budget Narrative

<b>Resources</b>	Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.
<b>Expenses</b>	The operating budget totals \$0.8 million, and the capital budget totals \$13.5 million. The operating budget’s main expenses are staffing, supplies, and vehicle fleet. The major capital project is the Washington Park Reservoir.
<b>Staffing</b>	There are 4.4 FTE operating and 5.4 FTE capital positions supporting this program. These positions include engineers, operating engineers (employees who operate the water system in the field), and CADD (Computer-Aided Design and Drafting) technicians, among others. The table does not reflect FTE budget allocations to programs.
<b>Assets &amp; Liabilities</b>	Powell Butte has two 50 million-gallon buried tanks, one completed in 1981 and the second completed in 2014. Kelly Butte tank was built in 2015 with buried storage of 25 million gallons, replacing an older tank on the site. The recently completed Washington Park tank has 12.6 million gallons of buried storage, replacing two open reservoirs on the site. Sam Jackson and Mayfair, built in 1964 and 1967, respectively, have total storage of 8.5 million gallons. Each terminal storage facility includes piping, mechanical control buildings, vaults, pumps, and electrical infrastructure. The total replacement value of terminal storage is \$496 million. 93% percent of terminal storage is in very good, good, or fair condition.

## Portland Water Bureau

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The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <https://www.portlandoregon.gov/water/64032>.

### Program Information

**Program Contact:** Felicia Heaton

**Contact Phone:** 971-940-8933

**Website:** [portlandoregon.gov/water/assets](https://www.portlandoregon.gov/water/assets)

# Treatment

## Program Description & Goals

The Treatment Program encompasses the bureau’s efforts to make sure drinking water is potable across the bureau’s service area. Water treatment facilities for the Bull Run supply are currently located at Headworks (in the Bull Run Watershed) and Lusted Hill (between the watershed and the city). The Headworks facility adds chlorine for primary disinfection. The Lusted Hill facility adds sodium hydroxide for pH adjustment and ammonia to create chloramines. For the groundwater supply, treatment with sodium hypochlorite, ammonia, and sodium hydroxide occur at the groundwater pump station facility.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Number of violations of state and federal drinking water quality regulations	0	0	0	0	0

## Explanation of Services

This program provides the resources to treat water from Portland’s sources in the Bull Run Watershed and Columbia South Shore Well Field to meet or exceed all state and federal regulations for drinking water. This includes continuous monitoring and optimization of treatment processes. This program also includes capital infrastructure planning, design and construction, operation, maintenance, and repair of treatment facility systems, and associated regulatory and process control monitoring.

This program will include operating and maintaining the new facilities and infrastructure built as part of the Improved Corrosion Control Treatment (ICCT) and Bull Run Filtration Treatment Projects (to be operational by 2022 and 2027, respectively).

## Equity Impacts

The goal of water treatment is to keep water safe to drink. Drinking water quality problems can have a disproportionately negative impact on communities of color and people with medical disabilities (those with compromised immune systems) as clean water source alternatives are more costly (namely bottled water). This program is also responsible for reducing the potential for lead and copper to leach into water. Nationally, lead poisoning disproportionately affects children of color.

Staff in this program do not work directly with the public and do not receive requests for accommodations.

This year’s budget changes are unlikely to have equity impacts. The bureau will be embedding equity into the construction and hiring processes.

## Changes to Program

The Treatment Budget is consistent with the direction from City Council regarding the Bull Run Filtration Treatment projects. There are currently no changes to the total project cost of scope. This program also includes \$0.8 million of additional O&M in FY 2021-22 related to ICCT.



**Program Budget**

	<b>Actuals FY 2018-19</b>	<b>Actuals FY 2019-20</b>	<b>Revised FY 2020-21</b>	<b>Requested No DP FY 2021-22</b>	<b>Requested FY 2021-22</b>
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	3,346,639	4,727,977	4,333,273	4,509,115	4,509,115
External Materials and Services	3,085,691	1,463,789	6,056,721	6,242,229	6,242,229
Internal Materials and Services	1,970,994	3,438,639	174,556	184,763	184,763
Capital Outlay	6,761,582	12,242,496	44,185,000	28,814,224	28,814,224
<b>Bureau Expenditures Total</b>	<b>15,164,907</b>	<b>21,872,902</b>	<b>54,749,550</b>	<b>39,750,331</b>	<b>39,750,331</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>15,164,907</b>	<b>21,872,902</b>	<b>54,749,550</b>	<b>39,750,331</b>	<b>39,750,331</b>

**Budget Narrative**

- Resources** Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds, including the WIFIA loan, and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services
- Expenses** The operating budget totals \$4.0 million, and the capital budget totals \$35.8 million. Main expenses in the operating budget include staffing, utilities, chemicals, supplies, and vehicle fleet. Major capital projects include Bull Run Filtration and Improved Corrosion Control Improvement treatment facilities.
- Staffing** There are 10.9 FTE operating and 16.3 FTE capital positions supporting this program. These positions include water treatment operators, laboratory staff, and engineers, among others. The table does not reflect FTE budget allocations to programs.
- Assets & Liabilities** Assets include the treatment facilities at Headworks and Lusted Hill. The replacement value of the facilities and equipment is \$80.5 million. 70% of the infrastructure is in very good or good condition.
- The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <https://www.portlandoregon.gov/water/64032>.

**Program Information**

**Program Contact:** Felicia Heaton

**Contact Phone:** 971-940-8933

**Website:** [portlandoregon.gov/water/assets](http://portlandoregon.gov/water/assets)

## Valves/Gates/Regulators

### Program Description & Goals

The Water Bureau uses valves to isolate segments of the distribution system for maintenance; the availability of valves enables isolation of limited sections of the system to minimize the number of customers affected when isolation is necessary. Portland’s water distribution system includes 1,800 large valves (greater than 12”), 60,000 small valves, and 600 pressure-regulating valves.

Regulator valves allow the Water Bureau to maintain appropriate system pressure. Valves also perform a key safety function for crews by providing isolation that is a sufficient distance from where crews are working underground, protecting them from the potential force of water.

Large valves are critical to controlling the flow of water in large-diameter pipes, where breaks can generate significant damage to surrounding areas. Approximately 1,200 large valves in the system are deemed critical because their failure could result in significant consequences (for example, critical valves include valves near hospitals).

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Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Number of valves exercised/operated	611	430	750	750	750

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### Explanation of Services

This program includes capital infrastructure planning, design, construction, operation, maintenance, and repair of system valves and pressure-regulating valves and stations. Maintenance of these valves is essential to ensure their proper operation. The bureau operates each of its critical 1,200 valves once every two years to make sure they are functional and do not seize up due to lack of use. Bureau staff also inspect and exercise valves at 75 critical crossings at least once every seven years and rebuild regulator valves on a seven- or ten-year cycle based on criticality.

### Equity Impacts

The Water Bureau maintains data about valve condition, replacement, and testing. The bureau overlays those data onto demographic and geographic data to understand possible valve condition, replacement, and testing variations by area.

Staff in this program have access to interpretation services.

### Changes to Program

There are no changes to this program in FY 2021-22.

## Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	779,524	651,084	837,877	855,582	855,582
External Materials and Services	510,996	396,519	450,300	450,300	450,300
Internal Materials and Services	342,855	228,148	234,544	272,094	272,094
Capital Outlay	90	376	0	0	0
<b>Bureau Expenditures Total</b>	<b>1,633,465</b>	<b>1,276,127</b>	<b>1,522,721</b>	<b>1,577,976</b>	<b>1,577,976</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>1,633,465</b>	<b>1,276,127</b>	<b>1,522,721</b>	<b>1,577,976</b>	<b>1,577,976</b>

## Budget Narrative

<b>Resources</b>	Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.
<b>Expenses</b>	The operating budget totals \$1.6 million. The operating budget’s main expenses are staffing, repair and maintenance services, supplies, and vehicle fleet.
<b>Staffing</b>	There are 6.2 FTE operating positions supporting this program. These positions include utility workers, water operations mechanics, and construction equipment operators, among others.
<b>Assets &amp; Liabilities</b>	<p>Assets include 1,800 large valves, 60,000 small valves (including regulator valves), and 600 pressure-regulating valves. The total replacement value of valves and regulators is \$292 million. Of the assets, 63% are in very good or good condition, and 11% are in fair condition. The table does not reflect FTE budget allocations to programs.</p> <p>The Water Bureau has a robust Asset Management Program, with asset life-cycle strategies detailed in 23 asset management plans by asset type. These plans contain specific strategies for repair, renewal, and replacement of each asset type. While current condition of any asset type is an important factor, asset condition alone does not drive where and when the Water Bureau decides to invest in any given budget program. To learn more about Water Bureau asset management, visit: <a href="https://www.portlandoregon.gov/water/64032">https://www.portlandoregon.gov/water/64032</a>.</p>

## Program Information

**Program Contact:** Felicia Heaton

## Portland Water Bureau

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**Contact Phone:** 971-940-8933

**Website:** [portlandoregon.gov/water/assets](http://portlandoregon.gov/water/assets)

## Water Efficiency

### Program Description & Goals

The Water Efficiency program contains the Water Bureau’s efforts to sustain long-term availability of water resources through efficient water use by the bureau and the communities it serves. Program efforts are focused on demonstrating efficient use of state-regulated water resources to ensure ongoing long-term access to undeveloped water rights, encouraging and supporting efficient water use by customers (including focused efforts to assist low-income and small business customers in reducing water costs through efficiency), and systematic assessment and improvement of water system loss and leakage rates.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Compliance with meeting benchmarks of Water Management and Conservation Plan	74%	74%	100%	100%	100%

### Explanation of Services

Promoting efficiency in the community: Staff members in this program support community members by equitably distributing water efficiency devices, rebates, and information. The program focuses on helping low-income and commercial customers control their water use.

Reducing water loss: All water systems lose some water to leaks. Water Efficiency program staff are currently planning and implementing a water loss control plan for Portland’s system.

Complying with state and City requirements: This group manages efficiency-related compliance with the bureau’s state-mandated Water Management and Conservation Plan and the City’s water sustainability goals.

### Equity Impacts

This program works to ensure that historically underserved and underrepresented communities have access to water conservation strategies. Staff in this program partner with culturally specific community-based organizations to expand access to water conservation strategies resources and opportunities. Staff attend many community events, prioritizing those that engage communities of color. Staff in this program are working to reduce barriers to program access, including to the water leak repair and replacement program. Staff prioritize school programs for schools with Title 1 status. The Water Bureau overlays fixture repair and replacement data onto geographic and demographic data to identify potential underserved areas by this program.

This program routinely translates materials into Spanish, Vietnamese, and Chinese. When staff in this group attend events, they often employ Community Engagement Liaisons for engagement and language interpretation.

# Portland Water Bureau

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## Changes to Program

There are no changes to this program in FY 2021-22.

## Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	500,734	664,439	733,506	775,733	775,733
External Materials and Services	224,579	200,894	365,800	218,800	218,800
Internal Materials and Services	58,721	24,252	32,856	33,770	33,770
<b>Bureau Expenditures Total</b>	784,034	889,585	1,132,162	1,028,303	1,028,303
Ending Fund Balance					
<b>Requirements Total</b>	<b>784,034</b>	<b>889,585</b>	<b>1,132,162</b>	<b>1,028,303</b>	<b>1,028,303</b>

## Budget Narrative

### Resources

Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.

### Expenses

The operating budget totals \$1.0 million. The operating budget's main expenses are staffing, parts, and fleet vehicle.

### Staffing

There are 4.3 FTE operating positions supporting this program. These positions include engineers and program coordinators, among others. The table does not reflect FTE budget allocations to programs.

### Assets & Liabilities

This program does not contain assets.

## Program Information

**Program Contact:** Felicia Heaton

**Contact Phone:** 971-940-8933

**Website:** [portlandoregon.gov/water/assets](http://portlandoregon.gov/water/assets)

## Water Quality & Regulatory Compliance

### Program Description & Goals

The Water Bureau’s Water Quality and Regulatory Compliance Program encompasses the bureau’s efforts to ensure ongoing compliance with public health and environmental requirements of state and federal laws, principally regulations issued under the federal Safe Drinking Water, Clean Water, and Endangered Species Acts. As a public drinking water utility, the bureau must meet or exceed state and federal regulatory requirements for drinking water quality. The bureau must also ensure compliance with clean water rules and endangered species mitigation requirements throughout the drinking water system, most notably to address the impacts of the water supply system on federally listed anadromous fish species.

Relevant federal regulations include the Surface Water Treatment Rule, Stages 1 and 2 Disinfectants and Disinfection Byproducts Rules, Total Coliform Rule, Long Term 2 Enhanced Surface Water Treatment Rule, Lead and Copper Rule, Clean Water Act, and Endangered Species Act.

The bureau is also required to monitor water quality for a variety of regulated and unregulated contaminants and report results to the Oregon Health Authority and other agencies.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Number of violations of state and federal drinking water quality regulations	0	0	0	0	0
Number of violations of state and federal environmental regulations	0	0	0	0	0

### Explanation of Services

This program includes water quality monitoring, reporting and management; communication and response to water quality complaints and questions; communications and administration of proper installation and function of backflow prevention devices; proper disposal of dechlorinated water; implementation of community lead hazard reduction programs; protection of aquatic habitat and sensitive fish species; management of temperature and flow in the lower Bull Run River; and conservation measures to support threatened and endangered species. This program seeks to provide equitable water quality and service levels across geographies.

The goals of this program are to:

- Maintain water quality: Collect and test more than 11,000 water samples each year and ensure residents use backflow devices as needed to prevent contamination. The program assesses regulatory water quality objectives as well as taste, color/clarity, odor, and pressure and reliability expectations by geography.
- Reduce exposure to lead: Work with community partners to reduce lead exposure from all sources and provide free lead testing.



## Portland Water Bureau

- Meet Cryptosporidium requirements: The bureau is planning to build a filtration plant to remove Cryptosporidium (a microbe that can cause illness) from Bull Run water. Until the plant is built, the bureau continues to monitor Cryptosporidium.
- Meet environmental obligations: Continue to achieve and maintain the mitigation measures described in the Bull Run Watershed Habitat Conservation Plan to maintain the bureau’s federally issued incidental take permit; and contribute to salmonid restoration efforts throughout the Sandy River Basin.
- Evaluate future regulations: Review and evaluate potential and upcoming regulations that could affect water quality and operation of the water system.

## Equity Impacts

Water quality issues have the potential to disproportionately affect people of color and people from immigrant communities. Water quality staff work to mitigate these potential impacts.

Staff in this program translate all critical public health materials into nine languages. If a water quality notice needs to be issued to a specific area of the city, staff use census data to determine translation into the most relevant languages. Water quality information staff extensively use phone and in-person language interpretation for phone inquiries and at community events.

## Changes to Program

There are no changes to this program in FY 2021-22.

## Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	4,927,638	4,690,399	6,651,719	6,350,436	6,350,436
External Materials and Services	1,461,403	1,561,667	2,025,996	1,992,029	1,992,029
Internal Materials and Services	795,411	673,376	610,682	610,982	610,982
Capital Outlay	819,172	422,344	200,000	100,000	100,000
<b>Bureau Expenditures Total</b>	<b>8,003,624</b>	<b>7,347,786</b>	<b>9,488,397</b>	<b>9,053,447</b>	<b>9,053,447</b>
Ending Fund Balance					
<b>Requirements Total</b>	<b>8,003,624</b>	<b>7,347,786</b>	<b>9,488,397</b>	<b>9,053,447</b>	<b>9,053,447</b>
<b>FTE</b>	<b>66.00</b>	<b>70.90</b>	<b>69.00</b>	<b>67.00</b>	<b>67.00</b>

## Budget Narrative

<b>Resources</b>	Resources come from ratepayer charges for water and water-related services. Capital investments in water system infrastructure may also be funded with proceeds from issuance of Water Revenue Bonds and capital revenues. Capital revenues include sales of assets and System Development Charges from installations of new mains and services.
<b>Expenses</b>	The operating budget totals \$8.9 million, and the capital budget totals \$0.2 million. The operating budget's main expenses are staffing, lab supplies, water analysis, lead kit supplies, a contract with Multnomah County for the Lead Hazard Reduction Program, and vehicle fleet. Major capital projects include Habitat Conservation Plan mitigation.
<b>Staffing</b>	There are 41.7 FTE operating and 0.5 FTE capital positions supporting this program. These positions include lab specialists, environmental specialists, and water quality inspectors, among others. The table does not reflect FTE budget allocations to programs.
<b>Assets &amp; Liabilities</b>	This program does not contain assets.

## Program Information

<b>Program Contact:</b>	Felicia Heaton
<b>Contact Phone:</b>	971-940-8933
<b>Website:</b>	<a href="http://portlandoregon.gov/water/assets">portlandoregon.gov/water/assets</a>

# WATER BUREAU

## BUREAU PERFORMANCE MEASURE REPORT



January 29, 2021

## Portland Water Bureau

Friday, January 29, 2021

PM1. Report for FY 2021-22 Requested Budget

12:28:30 PM

## OUTCOME MEASURES

	Performance Measure	KPM	FY 2017-18 Actuals	FY 2018-19 Actuals	FY 2019-20 Actuals	FY 2020-21 Target	FY 2020-21 YTD Actuals	FY 2021-22 Target	Strategic Target
WA_0058	Number of violations of state and federal drinking water quality regulations	X	0	0	0	0	0	0	0
WA_0059	Number of violations of state and federal environmental regulations	X	0	0	0	0	0	0	0
WA_0115	Maintain the current rating for Water first lien revenue bonds	X	0	0	0	0		100%	100%
WA_0093	Number of unplanned conduit outages		1	0	0	0	0	0	0
WA_0094	Number of unplanned transmission outages.		0	0	0	0	0	0	0
WA_0098	Percentage of hydrants in service at any point		100%	100%	100%	100%	N/A	100%	100%
WA_0100	Days any pump station in service does not meet system demand (lower number is better)		0	0	0	0	0	0	0
WA_0101	Service line incidents that cause water users to not have service for more than 12 hours (lower number is better)		0	0	0	0	0	0	0
WA_0103	Maintain minimum daily water level in reservoirs that are in use		N/A	N/A	69%	60%	N/A	60%	60%
WA_0106	Number of main breaks per 100 miles per year (lower number is better)		5.24	7.20	5.70	9.00	0	9.00	9.00
WA_0107	Percentage of community members who, in a statistically significant survey, say they have "good" or "very good" awareness of the services		N/A	N/A	54%	75%	N/A	75%	75%
WA_0108	Percentage of employees reporting that they are "engaged" or "fully engaged" in their work (in employee survey done every other year)		N/A	N/A	0	78%	N/A	78%	78%
WA_0109	Number of City of Portland Nuisance Activity violations (lower number is better)		N/A	N/A	0	0	0	0	0

## Portland Water Bureau

Friday, January 29, 2021

PM1. Report for FY 2021-22 Requested Budget

12:28:30 PM

WA_0110	Security incidents resulting in damage to facilities or harm to employees (reflects incidents logged in the Security budget program)	6	3	3	6	0	6	6
WA_0111	Compliance with meeting benchmarks of Water Management and Conservation Plan	61%	74%	74%	100%	N/A	100%	100%
WA_0112	Percentage of files sent to records for archiving are filed in accordance with State of Oregon and City of Portland retention rules.	N/A	N/A	100%	100%	N/A	100%	100%
WA_0113	Percentage of Billed Revenue Collected	0	0	0	0		98%	98%
WA_0114	Number of Assistance Program Information Events	0	0	0	0	N/A		

## EFFICIENCY MEASURES

	Performance Measure	KPM	FY 2017-18 Actuals	FY 2018-19 Actuals	FY 2019-20 Actuals	FY 2020-21 Target	FY 2020-21 YTD Actuals	FY 2021-22 Target	Strategic Target
WA_0047	Percentage of projects forecast to be completed within three months of planned date		78%	80%	20%	80%	80%	80%	80%
WA_0048	Percentage of budgeted Capital Improvement Plan expended		93%	93%	66%	100%	100%	100%	100%
WA_0051	Percentage of calls answered within 60 seconds		83%	87%	66%	100%	N/A	100%	100%
WA_0102	Percent of services installed more than 15 days for residential and 60 days for commercials after the permit was issued (lower number is better)		86%	92%	92%	90%	0	90%	90%

## OUTPUT MEASURES

## Portland Water Bureau

Friday, January 29, 2021

PM1. Report for FY 2021-22 Requested Budget

12:28:30 PM

	Performance Measure	KPM	FY 2017-18 Actuals	FY 2018-19 Actuals	FY 2019-20 Actuals	FY 2020-21 Target	FY 2020-21 YTD Actuals	FY 2021-22 Target	Strategic Target
WA_0041	Amount of power sold to Portland General Electric in megawatt hours		81,512	57,974	76,344	86,600	0	86,600	84,800
WA_0077	Percentage of city's water supply provided by Bull Run watershed under normal operating conditions		98%	88%	93%	100%	N/A	100%	100%
WA_0091	Days total reservoir storage is above 6.9 billion gallons (the reservoirs' baseline storage threshold)		365	365	366	365	0	365	365
WA_0092	Days Bull Run supply is available, excluding regulatory compliance events (such as turbidity events that exceed regulatory limits)		365	365	366	365	0	365	365
WA_0097	Groundwater capacity for 60 days of well use		N/A	N/A	90	73	N/A	73	73
WA_0104	Number of valves exercised/operated		567	611	430	750	0	750	750
WA_099	Percentage of meters tested each year for accuracy 6+ inch meters and meters with consumption over 1000 CCF/month		N/A	N/A	55%	90%	N/A	90%	90%

## WORKLOAD MEASURES

	Performance Measure	KPM	FY 2017-18 Actuals	FY 2018-19 Actuals	FY 2019-20 Actuals	FY 2020-21 Target	FY 2020-21 YTD Actuals	FY 2021-22 Target	Strategic Target
WA_0095	Work orders the Maintenance and Construction group completes each year		4,280	4,415	3,700	4,000	0	4,000	4,000
WA_0096	Percent of fountains operational		N/A	N/A	89%	95%	N/A	95%	95%

# WATER BUREAU

## DECISION PACKAGE(S)



January 29, 2021

**Decision Package Summary**

Run Date: 1/28/21

Details

Run Time: 1:00:58 PM

**DP: 11404 - WA Capital Set-Aside Request**

**DP Type**

**Priority**

**New**

CAP

1

No

**Package Description**

In accordance with the Architectural Barriers Act Accessibility Guidelines: Outdoor Developed Areas, the Water Bureau's Americans with Disabilities Act (ADA) Transition Plan focuses on the removal of structural barriers to provide access to park-like amenities, including paths and picnic areas, in facilities owned by the bureau. The ADA Transition Plan used a series of equity criteria to prioritize barrier removal efforts, which include proximity to public transportation, proximity to historically underrepresented and underserved communities, and visitation rates. By design, given the bureau's focus on access-based geographic equity, implementing the ADA Transition Plan will largely benefit Black, Indigenous and all People of Color, as well as low-income groups. This budget request is for Transition Plan implementation that cannot be funded with ratepayer funds.

Sites identified for barrier removal solutions include seven hydroparks (Halsey, Hazelwood, Pittman, Sabin, Gilbert, Marigold, and Texas), Dodge Park, and Powell Butte Visitor Center .

Total Capital Set Aside Funds requested is \$1,507,727. The request for FY 21-22 is the total amount needed to complete the implementation. The bureau will be funding \$268,607 for barrier removals that can be funded with ratepayer funds.

**Description of Work:**

Phase 1: Engage ADA consultant and develop design/bid packages for these sites- Halsey, Hazelwood, Pittman and Sabin Hydroparks

Phase 2: Construction at Phase 1 sites and design/bid packages for these sites – Gilbert, Marigold, and Texas Hydroparks

Phase 3: Construction at Phase 2 sites and develop design/bid packages for these sites – Dodge Park and Powell Butte Visitor Center

Phase 4: Construction at these sites –  
Dodge Park  
Powell Butte Visitor Center

**Service Impacts**

Performance will be measured by the number of barriers removed.

**Equity Impacts**

Implementation of the bureau's ADA transition Plan will make our facilities accessible to people with disabilities.

**Budget Detail**

Fund	Major Object Name	2021-22 Request - V52 with DP	2021-22 CBO Recommended- V53	2021-22 Proposed-V54	2021-22 Approved - V55	2021-22 Adopted - V56
	<b>Major Object Name</b>	<b>Expense</b>				
602000	External Materials and Servi	1,776,334	0	0	0	0
	<b>Sum:</b>	<b>1,776,334</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Major Object Name</b>	<b>Revenue</b>				
602000	Charges for Services	268,607	0	0	0	0
602000	Fund Transfers - Revenue	1,507,727	0	0	0	0
	<b>Sum:</b>	<b>1,776,334</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>



**Decision Package Summary**

**DP: 11430 - 5% General Fund Transfer Reduction**

**DP Type**

**Priority**

**New**

SUB

0

No

**Package Description**

With the exception of funding for the Joint Office of Homeless Services, all centrally administered transfers of ongoing General Fund discretionary resources are subject to the 5 percent reduction, including Special Appropriations allocations.

The Water Bureau receives two ongoing transfers from the General Fund. There's are administrative costs associated with the Multi-Family crisis voucher that total \$40,000. This contractual amount cannot be reduced. The bureau also receives a transfer of \$201,598 related to maintenance of park like amenities at bureau properties. The combined reduction of \$12,080 is reduced from the park like amenities and will result in more infrequent maintenance of these locations.

**Service Impacts**

To offset the reduction to the General Fund transfer for park maintenance, the bureau must reduce the Parks IA by \$12,080. This reduction will affect the amount of maintenance that can be performed at Powell Butte, including maintenance to trails, bridges, and erosion areas.

**Equity Impacts**

There will not be significant equity impacts as a result of this reduction.

**Budget Detail**

Fund		2021-22 Request - V52 with DP	2021-22 CBO Recommended- V53	2021-22 Proposed-V54	2021-22 Approved - V55	2021-22 Adopted - V56
	<b>Major Object Name</b>	<b>Expense</b>				
602000	Internal Materials and Servic	-12,080	0	0	0	0
	<b>Sum:</b>	<b>-12,080</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Major Object Name</b>	<b>Revenue</b>				
602000	Charges for Services	0	0	0	0	0
602000	Fund Transfers - Revenue	-12,080	0	0	0	0
	<b>Sum:</b>	<b>-12,080</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

# WATER BUREAU

## FIVE-YEAR FINANCIAL PLAN



January 29, 2021

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# **FY 2021-22 FIVE-YEAR PRELIMINARY FINANCIAL PLAN**

**January 2021**

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**City of Portland Water Bureau  
Mingus Mapps, Commissioner  
Gabriel Solmer, Administrator**

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	1
Introduction.....	1
Budget Development .....	2
COVID-19 Impact, Risks and Assessment.....	3
Debt Recovery .....	5
Retail Water Rates .....	6
FINANCIAL PLAN .....	11
I. ISSUES AND UPDATES.....	11
Plan to Advance Equity, Diversity, and Inclusion (Equity Plan) .....	11
Strategic Plan .....	12
Major Capital Projects .....	13
Bull Run Treatment Projects.....	13
Washington Park Reservoir Improvement.....	14
Willamette River Pipe Crossing.....	15
Forecast Retail Water Demand .....	15
II. TEN-YEAR RATES.....	16
III. CONTINGENCIES/RESERVES .....	17
IV. PERFORMANCE MANAGEMENT .....	19
V. BUDGET PROGRAMS .....	19
VI. OPERATION & MAINTENANCE (O&M) PLAN.....	22
VII. CAPITAL IMPROVEMENT PLAN (CIP).....	23
APPENDIX .....	29

## **DOCUMENT FIGURES**

Figure 1 – FY 2020-21 COVID-19 Financial Impacts.....	4
Figure 2 – Monthly Bills Change .....	7
Figure 3 – Current Average Basic Utility-Only Services.....	7
Figure 4 – Discount Qualifications and Water Bills .....	8
Figure 5 – Residential Monthly Water Bills .....	10
Figure 6 – Retail Water Demand Forecast & Actual .....	16
Figure 7 – Ten-Year Rates Forecast.....	17
Figure 8 – Rate Stabilization Account Balance at Fiscal Year End.....	18
Figure 9 – FY 2021-22 Preliminary Budget Request by 22 Water Programs.....	21
Figure 10 – Operation & Maintenance Plan.....	22
Figure 11 – Five-Year Capital Improvement Plan .....	24
Figure 12 – Bureau Asset Condition .....	25
Figure 13 – Five-Year Capital Plan Summary .....	26
Figure 14 – Capital Plan Forecast .....	27
Figure 15 – Capital Financing Plan.....	28

## EXECUTIVE SUMMARY

### Introduction

The Portland Water Bureau is the largest domestic water supplier in Oregon. Nearly one million people, almost one-quarter of the state’s population, are served from the Bull Run/Columbia South Shore system. On average over the last five fiscal years, the bureau has delivered about 95 million gallons a day (MGD) to its customers. Over the last five years, the bureau has peak day delivery in excess of 159 MGD and has the capacity to deliver over 200 MGD. The bureau delivered a total of about 31 billion gallons of water to its customers in fiscal year (FY) 2019-20.

About 60 percent of water delivered serves retail customers in the city. The remaining 40 percent is provided on a wholesale contract basis to 19 cities, special districts, and private water company customers surrounding Portland.

The bureau’s overall mission, vision, and values includes a financial objective to “Use money wisely. The bureau works to control costs while maintaining high standards. The bureau invests to make the water system stronger, more flexible, and better prepared for challenges ahead.” The Five-Year Preliminary Financial Plan supports this value by:

- Providing sufficient annual funding of operating, maintenance, and capital programs approved by City Council;
- Providing rates and charges to customers that are based on generally accepted cost-of-service principles unless otherwise directed by City Council;
- Striving for a natural optimal balance among financial health, operational effectiveness, infrastructure condition, effective management, rate affordability, and maintaining a skilled and experienced workforce;
- Striving to optimize capital financing strategies, today and into the future;
- Ensuring the maintenance of appropriate and adequate cash balances (operating fund, construction fund, sinking fund, and rate stabilization account) consistent with City policies, bond covenants, and industry standards; and
- Advancing equity by creating the conditions for community members and employees to have access to the resources and opportunities they need to thrive, so their identities do not predict outcomes.

## **Budget Development**

Beginning with the FY 2019-20 budget cycle, the City has changed the budget process to be more programmatically focused. This approach is intended to empower City Council and stakeholders to better understand key operational programs and bureau activities. A standard program offer template has been developed by the City Budget Office that highlights the program description and goals, an explanation of services, equity impacts, changes to the program, performance measures, and a summary of the program budget.

Mayor Ted Wheeler's FY 2021-22 Budget Guidance to the Water Bureau and Bureau of Environmental Services (BES) directed the bureaus to focus on the following:

- meeting all federal and state regulations and maintaining system infrastructure,
- collaborating with BES to enhance current financial assistance programs,
- promote economic recovery and opportunities to contract with partners for social equity and job creation,
- and utilize cost savings and efficiencies to offset financial impacts caused by the COVID-19 pandemic.

Further, the Mayor directs the Water Bureau to build a budget that is in accordance with the rate forecast presented in the FY 2020-21 budget process. The bureau expects to borrow funds for the Bull Run Treatment Projects through the Environmental Protection Agency (EPA) Water Infrastructure Finance and Innovation Act (WIFIA) loan program which would reduce the rate increase by 1%. This results in a rate increase of 7.8% for FY 2021-22.

There are two oversight groups providing bureau program and budget input throughout the year. The Portland Utility Board (PUB) is an 11-member community body created to strengthen oversight functions for the City's water, sewer and stormwater services. PUB has assisted the bureau in refining the program offers, providing valuable input regarding descriptions of the program offers and performance measures. The Oregon Citizens' Utility Board (CUB) provides outside independent review of the Water Bureau and BES on behalf of residential ratepayers.

The PUB reviewed the budget guidance from Mayor Wheeler. PUB and CUB will be reviewing the bureau's budget and rates and will provide recommendations to City Council through budget work sessions and at the annual rate hearing.

## **COVID-19 Impact, Risks and Assessment**

The COVID-19 pandemic has caused financial and operational challenges for the bureau. On March 16, 2020, the bureau activated its continuity of operations plan and many bureau staff began to work remotely. The bureau ceased shut offs of water service on delinquent customers and turned on water to provide service to customers who had their service shut-off due to non-payment.

Due to the governor's Stay Home Save Lives Order mandating closures of all non-essential businesses, the bureau experienced declines in retail water demand and revenue. Impact on retail water demand continued with restrictions in the reopening of the economy. During the COVID-19 pandemic, the bureau ceased assessment of late fees, collections on delinquent customers, and shut-off of water service while also expanding access to financial assistance to help our most vulnerable customers. The bureau worked with BES to support small business customers through the Small Business Program for Utility Relief (SPUR) administered by Prosper Portland. SPUR provided \$1.6 million of combined utility bill credits to more than 500 small businesses. SPUR prioritized businesses owned by Black, Indigenous, and all People of Color (BIPOC) and women, childcare providers, and businesses open as part of Phase 1 of the state's reopening plan. The selection process was driven by a clear recognition that BIPOC communities are disproportionately affected by this crisis. The bureaus also coordinated SPUR with Community Chambers of Commerce

The bureau's ability to provide water service has not been impaired by the pandemic. Nearly all non-field staff are continuing to work remotely to perform tasks necessary to manage water infrastructure and bureau operations. Protocols are in place for physical distancing, hygiene, and safety for those working at City facilities and work sites. The bureau has managed work environments to ensure that these protocols are followed. Field staff that work in a crew environment are utilizing a "quaranteam" approach where the same staff work in the same small social set to limit their exposure while practicing proper physical distancing. This includes limiting vehicle occupancy to no more than two staff per vehicle when traveling to work sites. The bureau has restricted access to critical facilities and access is limited to only staff working in those facilities. The bureau's Customer Service staff are assisting customers with their accounts and payments remotely in addition to already available electronic payments online or over the phone through an automated system. These operational changes do not represent significant costs that would impact the FY 2020-21 budget or the five-year forecast. The bureau continues to



follow all COVID-19 City Health and Safety Guidance, Oregon Occupational Safety and Health Administration Temporary Rules related to COVID, and Centers for Disease Control public safety measures including face coverings.

The FY 2020-21 Adopted Plan does not reflect any financial impacts from the COVID-19 pandemic. As of January 2021, the total estimated net revenue shortfall related to COVID-19 is projected to be \$10.5 million. The bureau recognizes that many customers are financially impacted by the pandemic and some customers have been unable to pay their water, sewer and stormwater bills. Delinquent bills have increased as the outstanding accounts receivable (AR) balance due for water services is \$7.2 million as of December 2020. This represents a \$4.2 million increase in Water Bureau AR since March 2020. Balances more than 120 days past due increased \$2.0 million over that period. The bureau estimates that this may result in an additional \$2.0 million of bad debt expense above plan for FY 2020-21. The combined AR balance for the Water Bureau and BES is \$22.2 million as of December 2020. This represents a \$11.4 million increase in the combined AR balances over that period. Combined balances more than 120 days past due increased \$6.0 million over that period

This Five-Year Preliminary Financial Plan does not include any continued water sales shortfall from the pandemic. The bureau has implemented cost containment measures to offset a portion of the COVID-19 financial impacts. The bureau is holding non-essential positions vacant and has delayed and/or reduced discretionary operating spending where possible. These cost containment measures are estimated to result in \$8.0 million of operating savings. See Figure 1 for a detailed breakdown COVID-19 financial impacts.

**Figure 1 – FY 2020-21 COVID-19 Financial Impacts**

	<b>(in millions)</b>
<b>Revenue</b>	
Demand reduction	(\$12.7)
Foregone delinquency fees	(2.8)
Financial assistance (bill discounts, SPUR)	(1.0)
<b>Expenditure</b>	
Bad debt expense	2.0
Cost containment	(8.0)
<b>Total</b>	<b>(\$10.5)</b>

The estimated net impact of the revenue shortfall and cost containment is \$10.5 million. This revenue shortfall will be covered by utilizing the Rate Stabilization Account (RSA). The

RSA balance at the end of FY 2019-20 is \$75.5 million. See Section II - TEN-YEAR RATES for detail of the impact to the rate forecast for utilization of the RSA. A prolonged recovery or recession presents a risk to the rate forecast and would require future rate increases.

### **Debt Recovery**

During the COVID-19 pandemic, the bureau ceased shut off from water service on delinquent customers and discontinued assessing late fees on all accounts past due. The bureau will need to resume collection of unpaid account balances and has developed a phased plan to gradually resume to normal collections processes that will be implemented over several months.

Beginning in early January 2021, the bureau will send out no-fee reminder notices to customers whose water, sewer, and stormwater account outstanding balance is at least \$115 and are more than two weeks past due from their bill date. Reminder notices would normally have a \$5 fee, but these will carry no charge to the customer. The goal is to remind customers of their outstanding balance, encourage them to contact the bureau, make payment, establish a payment plan or apply for the bureau's financial assistance program. During this first phase, the bureau will assess staffing impacts, the ability to reduce the amount of outstanding balances, customer response, and participation in financial assistance programs before potentially moving to the next phase.

Debt recovery phases are tentatively set as:

- Phase 1 – no-fee reminder notices as outlined above
- Phase 2 – carrying charge and reminder notice with standard fee
- Phase 3 – carrying charge, reminder notice with standard fee, and pre-shut off notifications (notice and call) which may or may not include the fee
- Phase 4 – normal collection stream (pre-pandemic process)

### **Wholesale Water Rates**

There are currently 19 Regional Water Sales Agreements with most ending on June 30, 2026. The bureau has anticipated Tualatin Valley Water District (TVWD) will not be continuing to purchase water from Portland as it has been working to develop a separate water supply source. TVWD's Willamette Water Supply Project has been underway for several years and anticipates completion by 2026. For financial planning, the bureau had assumed TVWD will cease water purchase from Portland beginning in FY 2026-27. This results in a 3.1 percent increase to retail water rates in FY 2026-27 and is reflected in the ten-year rate forecast. More recently, Rockwood

PUD and City of Gresham have entered into an agreement to develop a groundwater system to use as a primary water supply source for both entities. The bureau has included in this Five-Year Preliminary Financial Plan the assumption that both Rockwood PUD and City of Gresham will discontinue purchases of water from Portland beginning in FY 2026-27 as well. This results in a 2.6 percent increase to retail water rates in FY 2026-27 and is reflected in the ten-year rate forecast. See Section II - TEN-YEAR RATES for further detail.

The current Water Sales Agreements require a five-year non-renewal notice to terminate the agreement. A five-year non-renewal notice can be given as early as June 30, 2021 by either the wholesale customer or Portland. In preparation for receiving the five-year non-renewal notices from some of the wholesale customers, the bureau has been working with the larger wholesale customers to begin discussions about new water sales agreements to replace the existing agreements. Discussions with some of the wholesale customers of the new agreements include a menu of services for water providers to choose from including purchasing water during an emergency for water providers with independent sources of supply. The bureau has retained a consultant to assist with modeling new terms to include in the new agreements to understand the impact on wholesale rates and will be working closely with all current 19 wholesale customers to develop new water sales agreements over the next year.

### **Retail Water Rates**

The bureau is proposing a 7.8 percent retail rate increase for FY 2021-22. The FY 2020-21 Five-Year Financial Plan estimated an average effective retail water rate increase of 8.8 percent for FY 2021-22 for anticipated cost increases related to inflation and capital projects related to regulatory requirements and replacement of the water system. The 1.0 percent rate decrease below the forecast for FY 2021-22 reflects the expectation that the bureau will borrow funds for the Bull Run Treatment Projects through the EPA's WIFIA loan program. See Section I – ISSUES AND UPDATES – Major Capital Projects for more information on EPA's WIFIA program.

### Proposed FY 2021-22 Water Rates

The proposed average effective retail water rate increase of 7.8 percent would increase the typical monthly residential customer's water bill by \$3.50 – from \$44.89 to \$48.39. A typical residential customer uses about 500 cubic feet (ccf) or 3,740 gallons of water each month.

The retail volume rate will increase from \$5.593 per ccf to \$6.029. The base charge (the fixed charge on the bill) for quarterly meter read customers will increase from \$16.92 to \$18.24 per

month. The base charge for monthly meter read customers will increase from \$50.75 to \$54.71 per month. Figure 2 shows sample bill increases.

**Figure 2 – Monthly Bills Change**

Monthly Bill Categories	FY 2020-21	FY 2021-22	Change
5 ccf Tier 2 Low-Income Residential Monthly Bill (80% discount)	\$8.97	\$9.69	\$0.72
5 ccf Tier 1 Low-Income Residential Monthly Bill (50% discount)	\$22.44	\$24.20	\$1.76
5 ccf Typical Residential Monthly Bill	\$44.89	\$48.39	\$3.50
100 ccf Medium Commercial Monthly Bill	\$610.05	\$657.61	\$47.56
20,000 ccf Large Commercial Monthly Bill	\$111,910.75	\$120,634.71	\$8,723.96

Basic Utility Services Comparison

Water service provided to Portland residents continues to be one of the lowest essential<sup>1</sup> utility costs in the local area, accounting currently for 12 percent of a typical residential customer’s total basic utility-only bills per month as shown in Figure 3.

**Figure 3 – Current Average Basic Utility-Only Services**

Basic Utility Services	Typical Monthly Charges	Percentage of Total
Electricity (900 kWh)	\$121.85	32%
Sewer and Stormwater	\$77.85	21%
Natural Gas (55 therms)	\$61.98	16%
<b>Water (5 ccf)</b>	<b>\$44.89</b>	<b>12%</b>
Telephone	\$37.37	10%
Solid Waste and Recycling	\$33.15	9%
<b>Total</b>	<b>\$377.09</b>	<b>100%</b>

Water service is also typically far less expensive than the cost of less essential, but commonly incurred services, such as broadcast/satellite cable service, mobile telephone service, or internet service.

<sup>1</sup> Does not include other services such as internet, mobile phone, and broadcast/satellite cable service.

Water Bill Affordability

The federal guidance on water bill affordability ranges from 1.0 percent to 3.5 percent of median household income, although 2.0 percent is the most commonly cited affordability measure. The Portland median household income for a two-person family for 2020 was about \$6,140 a month. The current typical monthly water bill of \$44.89 would then represent only about 0.7 percent of the monthly median household income. The bureau has worked with BES to develop six shared performance measures related specifically to combined utility bill (water, sewer, and stormwater charges). These combined affordability measures are included in the FY 2021-22 Requested Budget and will continue to be refined in the future.

The bureau offers one of the most extensive financial assistance programs of all water utilities in the United States. The current thresholds to qualify for the Tier 1 low-income discount for two- and four-person families are \$3,685 and \$4,605 per month, respectively. Under Tier 1, with a 50 percent discount, the typical residential monthly bill of \$22.44 represents 0.6 percent and 0.5 percent of these low-income threshold values, respectively. The FY 2021-22 typical monthly bill to qualified Tier 1 low-income residential customers will increase by \$1.76 – from \$22.44 currently to \$24.20 per month. See figure 4 for a summary of this detail.

A Tier 2 low-income discount was added in FY 2018-19. The current thresholds to qualify for this discount for two- and four-person families are \$1,843 and \$2,303 per month, respectively. Under Tier 2, with an 80 percent discount, the typical residential monthly bill of \$8.97 represents 0.5 percent and 0.4 percent of these low-income threshold values, respectively. The FY 2021-22 typical monthly bill to qualified Tier 2 low-income residential customers will increase by \$0.72 – from \$8.97 currently to \$9.69 per month. See figure 4 for a summary of this detail.

**Figure 4 – Discount Qualifications and Water Bills**

	Tier 1 Discount	
	Two-person	Four-person
Monthly income threshold	\$ 3,685	\$ 4,605
Typical monthly discounted bill	\$ 22.44	\$ 22.44
Percent of income	0.6%	0.5%

Tier 2 Discount		
	Two-person	Four-person
Monthly income threshold	\$ 1,843	\$ 2,303
Typical monthly discounted bill	\$ 8.97	\$ 8.97
Percent of income	0.5%	0.4%

In addition to the bill-discount for qualifying customers, the Utility Safety Net Program continues to be available to aid customers experiencing temporary financial hardships due to extraordinary medical expenses, changes in employment status, or changes in household status that adversely impacts their ability to pay their utilities.

The bureau’s financial assistance services also include flexible bill pay, crisis assistance, multi-family emergency rental assistance, water leak repair and replacement, and water conservation kits. The FY 2018-19 Adopted Plan included an expansion of the existing financial assistance program. This included the creation of a financial assistance services team, an increase of the crisis voucher from \$150 to \$500, expansion of the bureau’s income guidelines to maximize the number of qualifying customers, the increased bill discount for extremely low-income customers, and crisis assistance to multi-family low-income customers. The FY 2021-22 Requested Budget includes an ongoing \$160,000 expansion of the water leak repair and replacement program.

Through December 2020 there have been 1,715 crisis vouchers and 297 multi-family crisis vouchers issued. The decrease in multi-family vouchers was driven by CARES act funding available to community agencies in 2020. There are currently 8,807 customers participating in the financial assistance program with 4,986 qualifying for the Tier 1 discount and 3,821 qualifying for the Tier 2 discount.

The bureau understands that some customers have significantly been impacted by the pandemic and are experiencing loss of income or significant reduction in income. The bureau has relaxed the income verification requirements to qualify customers for financial assistance recognizing that many may have difficulty providing documentation during the pandemic. Through December 2020, the bureau has qualified 1,682 customers for financial assistance without verification of income. Other affordability services available to all customers include flexible bill pay, interest-free payment plans, conservation rebates and kits, and technical assistance for commercial customers wanting to use water efficiently.

The bureau is currently researching opportunities to update its water meters to a system that would support more frequent meter readings, allow for monthly billing and a customer portal

for great visibility into water use. The bureau provides services to all customers to support affordability, including flexible bill pay, interest-free payment plans, conservation rebates and kits, and technical assistance for commercial customers wanting to use water efficiently.

Water Bill Comparability

Figure 5 compares residential customer monthly water bills in Portland to other local and national water utilities. A typical Portland Water Bureau customer currently pays \$44.89 for 5 ccf. Comparisons are based on what other water utilities define to be a typical or average water monthly water bill.

**Figure 5 – Residential Monthly Water Bills<sup>2</sup>**

Milwaukie, City of	\$33.15
Bend, OR	\$33.24
Hillsboro, OR	\$39.08
Kansas City, MO	\$39.82
Seattle, WA	\$43.83
Tacoma, WA	\$44.09
<b>Portland, OR (Current)</b>	<b>\$44.89</b>
<b>Portland, OR (Requested)</b>	<b>\$48.39</b>
Atlanta, GA	\$50.77
Beaverton, City of	\$51.26
Honolulu, HI	\$52.62
Clackamas River Water	\$53.41
Tigard, City of	\$53.83
Gresham, City of	\$54.73
Tualatin Valley Water District	\$56.33
Lake Oswego, City of	\$60.51
West Slope Water District	\$60.93
Bellevue, WA	\$61.00
San Francisco, CA	\$62.11
Sacramento, CA	\$66.95

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<sup>2</sup> Calculations are based on rates in effect as of January 2021. Portland Current rates are effective July 1, 2020 through June 30, 2021. Water providers are selected based on providing both Water and Sewer/Stormwater services, similar to the City.

## FINANCIAL PLAN

### I. ISSUES AND UPDATES

#### **Plan to Advance Equity, Diversity, and Inclusion (Equity Plan)**

The development of this budget center achieving the bureau's equity vision of "creating the condition for all to have access to the resource and opportunities they need to thrive." The bureau works to uproot systemic inequities and their impacts on employees and the communities we serve. The bureau is committed to the difficult and essential work of transforming bureau policies, practices, and culture to better serve historically and currently oppressed communities. In 2020, the bureau launched a comprehensive five-year Plan to Advance Equity, Diversity, and Inclusion (Equity Plan). In the plan, the bureau articulates the following:

- The creation of an Equity and Policy Team
- Establishment of Equity Champions Resource Groups,
- Capacity development and adaptive management processes
- Tools: Community Equity Index, equity performance metrics, equity library
- Accountability: performance dashboard, annual report, community meetings
- Five goals and desired outcomes, 13 priorities for years 1 and 2, and 104 actions for the next five years.

Actions from the plan are articulated throughout the water program descriptions, equity impacts, and performance measures. The bureau created a team that includes an Equity and Policy Manager, a Strategic Data Analyst, an Equity Program Analyst, and an Accessibility Analyst. The Equity and Policy team focuses on eliminating disparity in policies, practices, processes, decisions, and resource allocations, as well as on influencing attitudes within the bureau that produce authority, access, opportunities, and measurable outcomes for the bureau workforce and community members. Additionally, the Equity and Policy team identifies training needs, develops tools, and supports bureau employees at all levels to incorporate equity into their work.

Beginning in FY 2020-21, the bureau added specific Equity Plan tasks to team and individual workplans, in addition to adding equity goals for all bureau managers and supervisors in their performance evaluations. The bureau is also strengthening its Bureau Equity Committee to align efforts more closely to the Equity Plan, focusing on empowering committee members to be equity change agents throughout the bureau.



The bureau continues to collaborate and partner with other bureaus to advance city-wide efforts, such as:

- Creating an equity database and data governance protocols
- Embedding equity in budget program areas
- Strengthening community engagement
- Creating opportunities for minority contractors
- Improving workplace culture
- Creating professional development opportunities for our workforce
- Identifying strategies to address displacement and houselessness issues

In addition, the Customer Service group recently contracted with an outside vendor to perform bill printing and mailing. The bureau is making use of the vendors ability and flexibility to do more targeted outreach and messaging to customers on the bills and billing inserts. Targeted outreach is to communities of color and low-income communities. Previously, the bureau relied on agency partners to conduct this specific outreach. However, since the financial assistance expansion in 2018, the bureau has been able to better connect directly with underserved communities, which are predominantly BIPOC, as well as people living with disabilities. The messaging is focused on the financial assistance program and how income qualified customers can reduce their bill.

### **Strategic Plan**

In August 2017, the bureau began to develop a five-year Strategic Plan emphasizing a risk management approach. The two-year collaborative effort led to a published plan in the summer of 2019 representing staff at all levels of the bureau, 14 different regional and national utility managers, and key community leaders. The 2020-2024 Strategic Plan will guide the work of the bureau in articulating the bureau's overall vision, mission, values, and commitment to equity. The strategic plan contains a framework for risk management goals, objectives, and strategies going forward. The bureau is committed to focusing on the five risk management goals identified in the process: (1) System Reliability, (2) Community Relationships, (3) Workforce and Culture, (4) Organizational Processes and (5) Accountability and Leadership.

Beginning in FY 2020-21, employee led scoping teams worked collaboratively to determine how the bureau implements the strategies. The work of the Strategic Plan slowed but did not stop in 2020 and provided bureau direction in a year of crisis. Each of the 16 Scoping Teams made progress on developing Strategy Action Plans focused on the subset areas of the

strategic plan. These teams include individuals from various backgrounds and levels of professional experiences, providing different perspectives and approaches to problem solving. In 2021, scoping teams will begin presenting recommendations for management team deliberation, and implementation of some strategies will begin. The Strategic Plan is an adaptable and continual road map for informing bureau direction, equity impacts, programming, budgeting, work plans, and strategic risk.

## **Major Capital Projects**

The largest capital projects included in this Five-Year Preliminary Financial Plan are the Bull Run Treatment Projects, Washington Park Reservoir Improvement, and Willamette River Pipe Crossing.

### Bull Run Treatment Projects

The Bilateral Compliance Agreement that the City entered into with the Oregon Health Authority (OHA) in December 2017 establishes a 10-year compliance schedule to build a filtration water treatment facility to remove *Cryptosporidium* from Bull Run Watershed drinking water. The bureau has committed to continued monitoring for *Cryptosporidium*, maintaining protections within the Bull Run Watershed, and coordinating with public health officials to maintain public health protection until filtration is online in FY 2027-28.

In December of 2018, City Council adopted Resolution 37402 acknowledging granular media as the filtration technology for the new system, having a capacity of 145 to 160 million gallons per day (MGD). The site for the filtration facility was selected to be at the Carpenter Lane property purchased by the bureau in 1975 and located in East Multnomah County.

After careful planning and considerations, PWB presented options and cost estimates ranging from a minimum compliance plan to full implementation to City Council during a September 2019 work session. In November 2019, City Council approved a design contract with Stantec Consulting Services, Inc. and adopted Resolution 37460 to guide the design and implementation of the project.

The Lead and Copper Rule requires large utilities to maintain optimal corrosion control treatment and conduct lead monitoring at high-risk customer taps. The City has a Lead Hazard Reduction Program approved by OHA dating back to 1997. In 2014, the bureau began a water quality corrosion study. The results of the study indicated that additional treatment is the most effective means of further reducing lead in water from home and building plumbing. On May 17,

2017, OHA approved a modified schedule to improve corrosion control treatment. The schedule includes completion of a corrosion control treatment facility by April 30, 2022.

The bureau is seeking funding through EPA's WIFIA loan program for the Bull Treatment Projects. EPA offers WIFIA financing for up to 49 percent of estimated total eligible project costs. The loan provides a fixed low interest rate and flexible terms with deferral of payments up to five years after completion of the projects. The interest rate is a single fixed rate established at closing equal to the US Treasury rate of a similar maturity plus one basis point. The budget for Bull Run Treatment Projects was established prior to design of the facilities and therefore is considered to be at low confidence level. A low confidence level cost estimate has the potential that the actual total project cost would have a -30% to +50% variance to the initial cost estimate. The bureau has included a 50% contingency in the total eligible project costs for the WIFIA loan to take full advantage of the benefits from WIFIA financing. For financial planning purposes, the bureau has included in this Five-Year Preliminary Financial Plan the 50% contingency for the Bull Run Treatment Projects. The loan is scheduled to close on February 2, 2021. The retail rate forecast reflects the rate impacts of the WIFIA loan.

#### Washington Park Reservoir Improvement

The Long Term 2 Enhanced Surface Water Treatment (LT2) Rule requires changes to how uncovered finished drinking water reservoirs are utilized, managed, or operated. This requires water systems with uncovered finished water reservoirs to be disconnected, fully covered, or provide treatment at the outlets of the reservoirs to inactivate *Cryptosporidium*, *Giardia*, and other pathogens. The Washington Park Reservoir Improvement project is the Water Bureau's final project to comply with the LT2 Rule requirement for uncovered finished drinking water reservoirs. It involves building a new below-ground reservoir to replace the existing 120-year-old uncovered reservoirs. The new enclosed reservoir is being built to current code and will be able to withstand earthquakes and landslides. The Water Bureau marked an important construction milestone on December 7, 2020 with a virtual streaming event, showcasing the completion of the 12.4-million-gallon Washington Park Reservoir 3. Crews will now begin to prepare connecting the reservoir to the water systems. In early 2021, the reservoir will be tested, sanitized, filled, and begin serving water to the local surrounding area. Surface improvements at Washington Park Reservoir to be constructed between 2021 and 2025 include finish grading, landscaping, permanent fencing, interpretive displays, and a reflecting pool. Due to soil settlement this phase is estimated to be completed in FY 2025-26.

### Willamette River Pipe Crossing

The Willamette River Pipe Crossing project will construct a seismically hardened transmission main under the Willamette River to ensure reliable water supply continues to the west side after a significant seismic event. The project is currently in the design and exploration phase. The initial geotechnical probe completed in August 2020 determined that additional exploration is needed as the soil along the proposed route consists of materials that would not be feasible to drill through with the current technology. Additional vertical borings are being completed to better understand the soils and earth conditions in developing alternative piping locations or depths. Crews continue to prepare the header connections from both sides of the river.

### **Forecast Retail Water Demand**

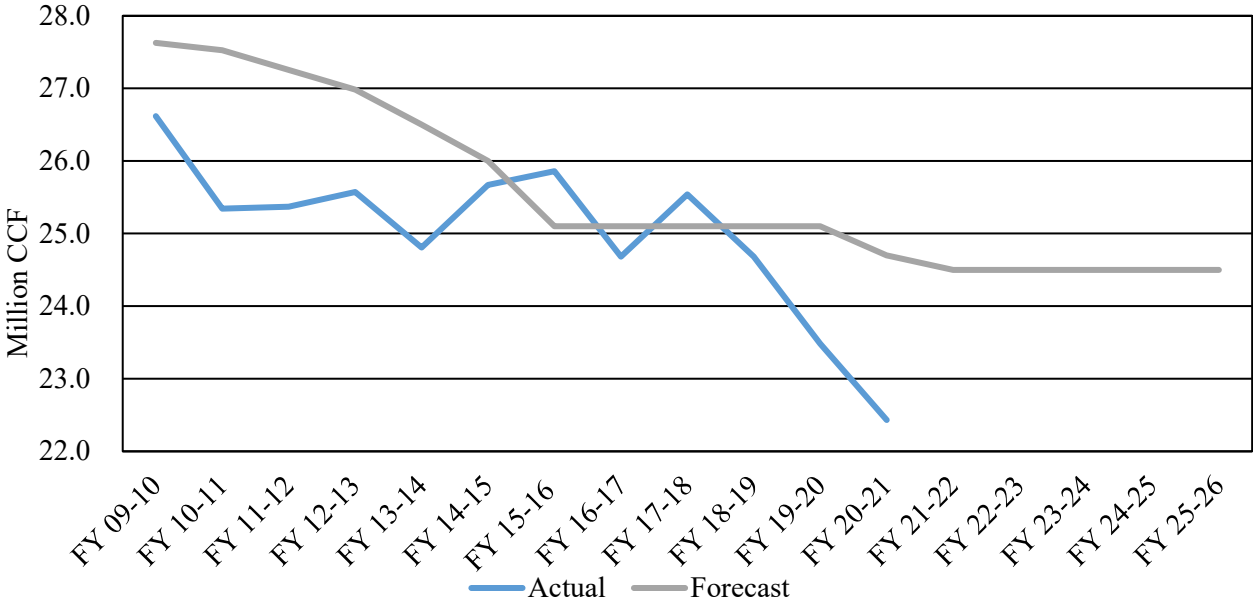
For nearly two decades, water utilities across the country have tracked a downward trend in water demand across the sectors. While this reduction in water use provides utilities with significant cost-savings from deferred infrastructure and source investments, there is a corresponding loss in revenues. Utilities typically adapt to the declining revenues through service reductions or rate increases due to proportionally less water revenue available for the fixed costs of the utility. The bureau lowered its demand plan through FY 2015-16 to recognize the lower actual retail water demand trend over the last decade. The bureau lowered its retail demand plan again in FY 2020-21 after experiencing the lower demand in FY 2018-19.

The most recent reduction in retail demand in FY 2019-20 is partially attributable to COVID-19 impacts but the pandemic was not the primary driver. The bureau's retail water demand for FY 2019-20 was 23.5 million ccf, or 1.6 million ccf below plan. The lower demand in FY 2019-20 was experienced even before the start of the pandemic. Retail water sales for FY 2020-21 is planned at 24.7 million ccf with actuals expected to be below the forecast. The current projection on retail water sales for FY 2020-21 is 22.4 million ccf. Some of the reduction in retail demand is believed to be permanent. As a result, the bureau will be reducing its retail demand forecast beginning in FY 2021-22 to 24.5 million ccf.

The City's Comprehensive Financial Management Policy requires conservative financial planning where revenue estimates shall be prepared conservatively. The bureau will be closely monitoring demand to assess whether further retail demand reduction will be necessary.

Figure 6 shows the historical retail water demand through FY 2019-20, projected FY 2020-21 demand and forecasted demand through FY 2025-26.

**Figure 6 – Retail Water Demand Forecast & Actual**



Water demand projections remain a key factor in setting water rates. As customers purchase less water, there is a corresponding loss in revenues that creates a need for either service reductions or rate increases due to proportionally fewer units (in ccf) of water sold to fund the fixed costs of the utility. More than 95 percent of Portland Water Bureau system costs are considered fixed in the short term which is common in most water utilities throughout the United States.

**II. TEN-YEAR RATES**

The ten-year retail rates forecast includes funding a revised ten-year Capital Improvement Plan (CIP), rate increases associated with revised budget assumptions, and inflation. Figure 7 shows the projected retail rates for the ten-year planning period. The bureau utilizes a Rate Stabilization Account (RSA) to smooth retail rate increases over the planning period to minimize rate spikes.

**Figure 7 – Ten-Year Rates Forecast**

	For Fiscal Year Ending in June of									
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Maintain Current Service Level	2.9%	2.8%	3.4%	2.9%	3.6%	2.9%	3.7%	2.9%	3.7%	2.9%
COVID-19 Impact (FY 2020-21)	0.1%	0.1%	0.1%	0.1%						
Demand Reduction	0.7%									
Operating Fund Surplus	-0.1%									
Wholesale & Other Revenues Updates	0.3%	0.1%	0.2%	0.1%		6.1%				
Bull Run Treatment Projects	3.9%	3.9%	3.8%	3.8%	3.8%	3.8%	3.8%			
WIFIA Impact	-1.0%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	2.3%	2.3%	1.6%
Capital Program	0.9%	1.1%	1.2%	2.3%	2.5%	1.0%	2.7%	3.8%	1.9%	2.2%
Rate Stabilization Account (RSA)	0.1%	0.8%	0.1%	-0.4%	-1.1%	-5.0%	-1.4%	-1.3%	-0.2%	0.3%
Rate Increase (Requested Budget)	7.8%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.0%
Potential Additional WIFIA Impact	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-1.6%
Rate Increase (Lower Bound)	5.5%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%

The rate forecast includes increasing rates to fund the Bull Run Treatment Projects. The annual rate increase to fund the Bull Run Treatment Projects is 3.9 percent in FY 2021-22 and FY 2022-23. The rate impact is 3.8 percent thereafter. The WIFIA loan will reduce this annual rate impact between 1.0 percent and 3.3 percent depending on the amount of contingency needed and is articulated in Figure 7. Once the construction manager/general contractor contract is approved in FY 2023-24, the rate savings from the WIFIA loan will be more clearly known. Until that time, the bureau will continue to reflect a range of potential forecasts.

The rate increase in FY 2026-27 for wholesale update includes the loss of revenues on the assumption that TVWD, Rockwood PUD, and City of Gresham will not be continuing as wholesale customers.

The 10-year rate forecast has been updated to include the anticipated rate impact to replenish the RSA as a result of the need to draw from the RSA to offset the net revenue shortfall as a result of COVID-19 to meet debt service coverage and minimum fund balances.

### III. CONTINGENCIES/RESERVES

The bureau’s Operating Fund Contingency Account, on a modified accrual basis, includes the minimum cash fund balance, the Rate Stabilization Account, and non-cash accounts. The bureau uses the cash basis of accounting in its financial planning and rate forecasts.

Cash Reserve

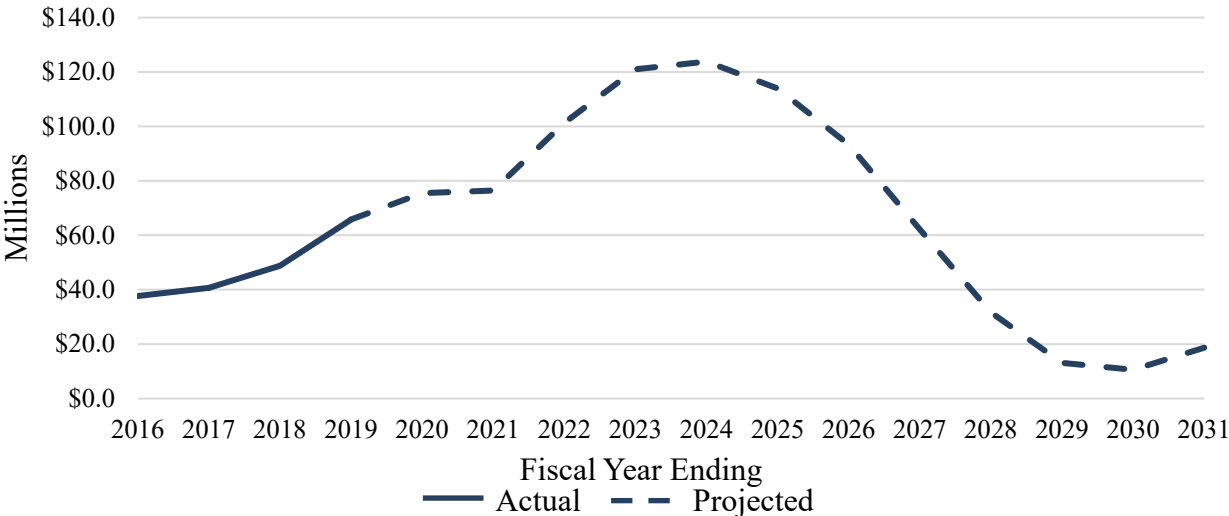
The bureau plans for a minimum fiscal year-end operating cash reserve of \$15.0 million in the Operating Fund. This reserve represents about 45 to 50 days of operating costs. This standard conforms to the generally accepted industry standard for such requirements and has been approved by the Office of Management & Finance as a reasonable amount in reserve. Cash flow will fluctuate throughout the year and the Operating Fund cash balances are lowest after transfers are made for debt service payments during the Fall and Spring.

Rate Stabilization Account

The bureau established a Rate Stabilization Account (RSA) within the Water Operating Fund to smooth retail rate increases over the financial planning period and beyond. The bureau began funding the RSA in FY 2006-07 as defined in the Master Second Lien Water System Revenue Bond Declaration and plans to maintain a minimum balance of \$10.0 million. This smoothing is one of the bureau’s key financial planning objectives and is aimed at maintaining financial stability and predictability.

The RSA balance going forward will continue to increase until FY 2024-25 when funds are expected to be drawn from the RSA to mitigate rate increases due to the filtration project. Figure 8 shows the actual and projected RSA balances at the end of each fiscal year.

**Figure 8 – Rate Stabilization Account Balance at Fiscal Year End**



The RSA also serves as an available useable reserve for unforeseen requirements and helps ensure that debt service coverage meets planning standards. The bureau will be reducing the planned FY 2020-21 RSA contribution to accommodate the net revenue impacts of COVID-19. The revised estimated contribution to the RSA to offset the net revenue shortfall of COVID-19 is \$0.9 million.

The transfers from and to the RSA could change with each update of forecasted operating expenses and revenues, the planned amount of bonds to be sold, and the balance of the RSA.

### Non-Cash Accounts

The bureau uses the full accrual basis of accounting for financial reporting. This means that revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of the related cash flows. This results in accounts receivable for revenues earned until the cash is received and accounts payable for expenses incurred until the payments are made. These non-cash account balances fluctuate throughout the year and the year-end balances can range from \$10 million to \$35 million. Although accounts receivable are technically funding sources to the bureau, the funds are not available for use until the cash has been received. Therefore, the bureau uses the cash basis of accounting for financial planning and rate forecasts.

## **IV. PERFORMANCE MANAGEMENT**

The Water Bureau is organized by seven Budget Programs which have a further subset of 22 Water Programs, described in more detail in Section V. Budget Programs. These programs contain relevant performance measures that enable the bureau to use evidenced based data metrics when reviewing the different programs. The adopted performance measures will be assessed and revised to align with the finalized Strategic Plan and program service level commitments. Consistency is one of the prime objectives for these key metrics as they enable better communication throughout the city and other bureaus. New performance measures have been developed and will be included in the FY 2021-22 budget cycle. Performance measures will be reported on a quarterly or annual basis.

## **V. BUDGET PROGRAMS**

The bureau has seven Budget Programs: **Supply, Transmission Terminal Storage, Treatment, Distribution, Regulatory Compliance, Customer Service and Administration & Support**. Within these Budget Programs are 22 Water Programs. The 22 Water Programs are



organized so that bureau staff and the public can more easily understand the work that the bureau performs. Each Water Program Offer includes its program description and goals; an explanation of services being provided by the program; equity impacts; changes to the program in the FY 2021-22 budget; performance measures; and a summary of the program budget. The Budget Program Offer framework provides an integrated approach that facilitates continuity between the bureau's planning (i.e., what is budgeted) and accomplishments (i.e., the work that is done.)

The FY 2021-22 preliminary budget request for the 22 Water Programs that are funded by the proposed 7.8 percent rate increase is presented in Figure 9. The list of full-time equivalencies (FTE) in this figure refers to the anticipated hours spent by all staff on the respective program activities. The FTEs listed do not reflect the staff organizationally assigned to each program. For example, a staff person assigned to Customer Service might charge time to Employee Investment (training), and those hours are shown in Administration & Support, not Customer Service.

**Figure 9 – FY 2021-22 Preliminary Budget Request by 22 Water Programs  
(Amounts in thousands)**

FY 2021-22 Preliminary Budget Request by 22 Water Programs				
Water Programs	O&M	CIP	Total	FTE
<b>Supply</b>				
Bull Run Watershed	\$4,319	\$3,973	\$8,293	18.5
Groundwater	\$2,461	\$2,018	\$4,479	8.2
	\$6,781	\$5,991	\$12,772	26.8
<b>Transmission &amp; Terminal Storage</b>				
Conduits/Transmission Mains	\$1,162	\$18,443	\$19,605	13.5
Terminal Reservoirs	\$776	\$13,521	\$14,297	9.8
	\$1,937	\$31,964	\$33,901	23.3
<b>Treatment</b>				
Treatment	\$3,985	\$35,765	\$39,750	27.2
<b>Distribution</b>				
Distribution Mains	\$5,977	\$58,297	\$64,274	88.4
Field Support	\$5,190	\$4,652	\$9,842	34.6
Fountains	\$958	\$258	\$1,216	0.9
Hydrants	\$1,395	\$1,914	\$3,309	16.8
Meters	\$2,240	\$1,133	\$3,373	19.8
Pump Stations/Tanks	\$8,238	\$2,557	\$10,795	37.6
Services	\$2,804	\$6,798	\$9,602	46.5
Valves/Gates/Regulators	\$1,578		\$1,578	6.2
	\$28,380	\$75,608	\$103,988	250.8
<b>Regulatory Compliance</b>				
Water Quality & Regulatory Compliance	\$8,853	\$200	\$9,053	42.2
<b>Customer Service</b>				
Customer Service	\$21,063	\$50	\$21,113	99.5
Grounds	\$564		\$564	2.3
Security/Emergency Management	\$2,591	\$65	\$2,656	14.2
Water Efficiency	\$1,028		\$1,028	4.3
	\$25,246	\$115	\$25,361	120.3
<b>Administration &amp; Support</b>				
Bureau Support <sup>3</sup>	\$30,404	\$193	\$30,597	64.1
Data Management	\$4,124	\$3,792	\$7,916	20.8
Employment Investment	\$3,207		\$3,207	18.8
Planning	\$5,016	\$3,300	\$8,316	29.4
	\$42,751	\$7,285	\$50,036	133.0
<b>Total</b>	<b>\$117,933</b>	<b>\$156,928</b>	<b>\$274,861</b>	<b>623.6</b>

Total may not add due to rounding.

<sup>3</sup> Bureau Support includes Utility License Fee of \$9.6 million

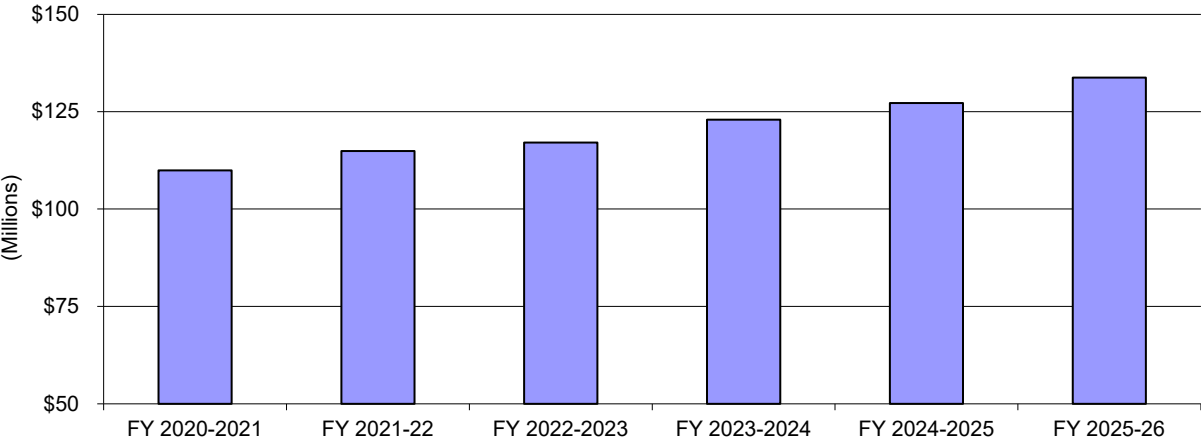
**VI. OPERATION & MAINTENANCE (O&M) PLAN**

The Water Bureau’s O&M plan includes all non-capital expenditures required to maintain, operate, support, and manage the water system. This includes the bureau’s ongoing operating costs within the O&M and CIP budgets (including Utility License Fees), General Fund Overhead, Pension Obligation Bonds, and offset with capitalized overhead.

FY 2021-22 O&M is forecast at \$114.9 million, a \$5.0 million or 4.5 percent increase compared to the FY 2020-21 revised O&M Plan. The majority of the increase is primarily due to inflationary increases in the O&M budget that includes cost-of-living adjustment, salary step increases for represented employees, non-represented job class changes, pay equity adjustments, employee pension costs, and a half year of operating cost for the new Improved Corrosion Control Treatment facility.

Figure 10 shows the FY 2020-21 O&M plan and the forecast of O&M costs over the five-year planning period beginning in FY 2021-22. The O&M forecast is projected to rise to \$133.7 million by FY 2025-26, growing at an annual average rate of 4.0 percent over the five-year planning period. The forecast includes assumptions from the City Economist regarding expected increases in Public Employees Retirement System (PERS) contribution rates in FY 2021-22, in FY 2023-24 and again in FY 2025-26. This O&M forecast includes the full year cost of \$1.6 million related to Improved Corrosion Control Treatment in FY 2022-23.

**Figure 10 – Operation & Maintenance Plan**



## **VII. CAPITAL IMPROVEMENT PLAN (CIP)**

The bureau has developed a requested FY 2021-22 Five-Year Capital Improvement Plan (CIP) as part of the comprehensive budget process that responds to the priorities identified through bureau planning processes and the City Council. New capital projects may be proposed through several processes: bureau master plans and studies; asset management plan recommendations; and requests by internal bureau staff, other agencies or bureaus, City Council, developers, and community members. Significant projects go through a multi-layered approval process. Projects are typically initiated with a planning-level report developed by engineering and reviewed by senior management. Upon approval, a more advanced Project Validation Report (PVR) is developed. The PVR uses industry best practices of benefit-cost analysis and risk management to identify and weigh alternative solutions to fulfilling the bureau's service standards. In addition to this quantitative analysis, the bureau also considers rate increase impacts, shared costs with other agencies, outside revenue opportunities, and regulatory requirements when evaluating a project for inclusion in the budget. A bureau priority for the FY 2021-22 budget is development and implementation of Equity Impact Assessments for capital planning and project design as well. Public input for projects is also received through PUB, CUB, and City Council, during the public budgeting process and during any city, state, and federal permit review periods.

The CIP includes projects with a requested budget totaling \$156.9 million for FY 2021-22 and \$1,178.0 million (in FY 2021-22 dollars) over the five-year period. The bureau has developed a Five-Year CIP that is achievable and continues to address the infrastructure needs of the water system. The primary drivers of the bureau's capital work are ensuring the reliable functioning of the drinking water system, achieving compliance with federal and state drinking water regulations, improving the resilience of the water system, replacing assets that are at the end of their useful lives, and supporting the City's renewed growth and development. The proposed FY 2021-22 Five-Year CIP continues to address short-term, immediate, and long-term water system infrastructure needs.

A summary of the proposed Five-Year CIP is shown in Figure 11.

**Figure 11 – Five-Year Capital Improvement Plan**

(Amounts in thousands)

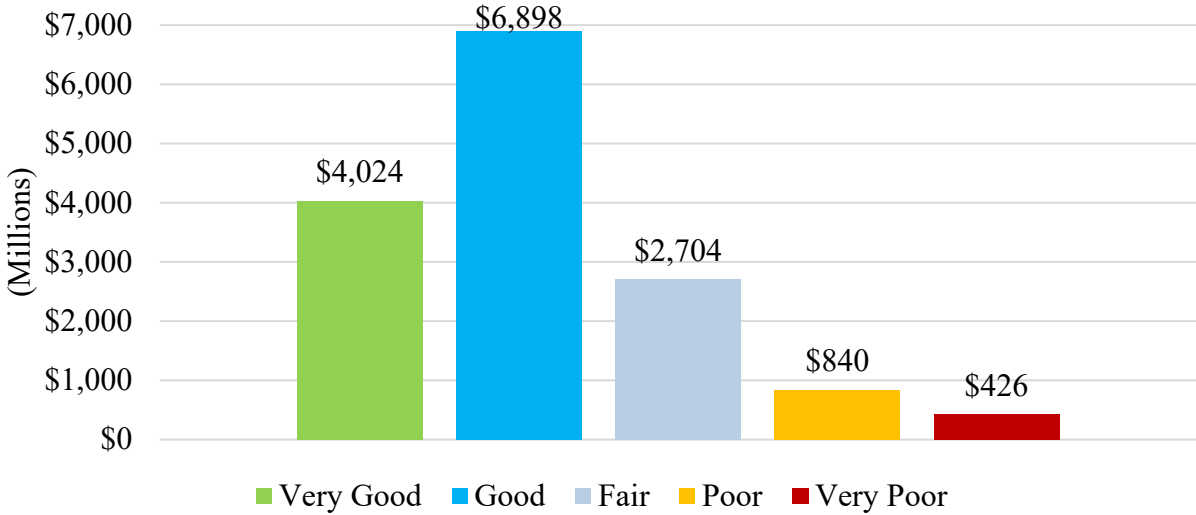
<b>Water Program</b>	<b>FY 21-22</b>	<b>FY 22-23</b>	<b>FY 23-24</b>	<b>FY 24-25</b>	<b>FY 25-26</b>	<b>Total</b>
<b>SUPPLY</b>						
Bull Run Watershed	\$3,973	\$7,089	\$3,990	\$2,044	\$2,030	\$19,126
Groundwater	\$2,018	\$2,576	\$1,521	\$1,221	\$1,221	\$8,557
<b>Total</b>	<b>\$5,991</b>	<b>\$9,665</b>	<b>\$5,511</b>	<b>\$3,265</b>	<b>\$3,251</b>	<b>\$27,683</b>
<b>TRANSMISSION &amp; TERMINAL STORAGE</b>						
Conduits/Transmission	\$18,443	\$20,169	\$145,600	\$60,650	\$7,871	\$252,733
Terminal Reservoirs	\$13,521	\$3,645	\$15,395	\$15,459	\$1,839	\$49,859
<b>Total</b>	<b>\$31,964</b>	<b>\$23,814</b>	<b>\$160,995</b>	<b>\$76,109</b>	<b>\$9,710</b>	<b>\$302,592</b>
<b>TREATMENT</b>						
Treatment	\$35,765	\$24,633	\$64,534	\$201,109	\$170,894	\$496,933
<b>DISTRIBUTION</b>						
Distribution Mains	\$58,297	\$36,953	\$30,518	\$26,483	\$36,982	\$189,233
Field Support	\$4,652	\$4,754	\$5,145	\$4,532	\$4,532	\$23,615
Fountains	\$258	\$515	\$515	\$515	\$515	\$2,318
Hydrants	\$1,914	\$1,914	\$1,914	\$1,914	\$1,914	\$9,570
Meters	\$1,133	\$1,133	\$1,133	\$1,133	\$1,133	\$5,665
Pumps Station/Tanks	\$2,557	\$2,536	\$2,355	\$2,233	\$2,425	\$12,106
Services	\$6,798	\$6,798	\$6,798	\$6,798	\$6,798	\$33,990
<b>Total</b>	<b>\$75,608</b>	<b>\$54,603</b>	<b>\$48,378</b>	<b>\$43,608</b>	<b>\$54,299</b>	<b>\$276,496</b>
<b>REGULATORY COMPLIANCE</b>						
Water Quality & Regulatory Compliance	\$200	\$100	\$100	\$100	\$100	\$600
<b>CUSTOMER SERVICE</b>						
Customer Service	\$50	\$15,000	\$25,000	\$10,000		\$50,050
Security/Emergency Management	\$65	\$65	\$52	\$52	\$52	\$285
<b>Total</b>	<b>\$115</b>	<b>\$15,065</b>	<b>\$25,052</b>	<b>\$10,052</b>	<b>\$52</b>	<b>\$50,335</b>
<b>ADMINISTRATION &amp; SUPPORT</b>						
Planning	\$193	\$110	\$945	\$1,840		\$3,088
Data Management	\$3,792	\$10				\$3,802
Bureau Support	\$3,300	\$3,300	\$3,300	\$3,300	\$3,300	\$16,500
<b>Total</b>	<b>\$7,285</b>	<b>\$3,420</b>	<b>\$4,245</b>	<b>\$5,140</b>	<b>\$3,300</b>	<b>\$23,390</b>
<b>TOTAL</b>	<b>\$156,928</b>	<b>\$131,300</b>	<b>\$308,814</b>	<b>\$339,382</b>	<b>\$241,605</b>	<b>\$1,178,028</b>

Totals may not add due to rounding.

Capital Asset Management

The Asset Management team provides the bureau with a framework for strategically analyzing and addressing risks, provides formal project evaluations and benefit-cost analysis, provides recommendations for future capital and operating investments, and recommends operational improvements that result in greater efficiencies. This approach allows the bureau to focus on critical assets and select the most effective mix of maintenance, repair, renewal, or replacement investments. Figure 12 shows the bureau’s asset condition assessment as of FY 2020-21.

**Figure 12 – Bureau Asset Condition**



The current Five-Year Capital Plan includes specific projects for addressing assets in the poor and very poor categories. These include supplementing current river crossings with the Willamette River Pipe Crossing, Powell Butte Reservoir 1 Roof Upgrades, road work in the Bull Run Watershed, distribution mains projects, service replacements, and hydrant replacements.

Capital Plan

The bureau’s Capital Plan includes routine and ongoing capital repair and replacements to the water system as well as enhancements and additions that tend to be large and nonrecurring. The Capital Plan is composed of the capital portion of the CIP, bond sale costs, and indirect capitalized costs (overhead).

The capital plan summary for the five-year planning period is presented in Figure 13.

**Figure 13 – Five-Year Capital Plan Summary**

(Amounts in thousands)

	<b>FY 21-22</b>	<b>FY 22-23</b>	<b>FY 23-24</b>	<b>FY 24-25</b>	<b>FY 25-26</b>	<b>Total</b>
<b>Capital Improvement Plan</b>						
Total Studies in CIP	\$3,300	\$3,300	\$3,300	\$3,300	\$3,300	\$16,500
Total O&M Labor in CIP	\$1,650	\$1,650	\$1,650	\$1,650	\$1,650	\$8,250
Total Direct Capital <sup>4</sup>	\$178,496	\$146,723	\$416,104	\$478,282	\$330,051	\$1,549,655
<b>CIP Total (Current Dollars)</b>	<b>\$183,446</b>	<b>\$151,673</b>	<b>\$421,054</b>	<b>\$483,232</b>	<b>\$335,001</b>	<b>\$1,574,405</b>
Forecast Inflation	1.00	1.03	1.08	1.11	1.17	N/A
Total CIP (Inflated Dollars)	\$183,446	\$156,223	\$455,370	\$537,771	\$390,705	\$1,723,514
Total Studies in CIP	\$3,300	\$3,399	\$3,569	\$3,672	\$3,849	\$17,789
Total O&M Labor in CIP	\$1,650	\$1,700	\$1,784	\$1,836	\$1,924	\$8,895
Total Direct Capital	\$178,496	\$151,125	\$450,017	\$532,262	\$384,932	\$1,696,831
Forecast Capital Expenditure Rate <sup>5</sup>	100%	100%	100%	100%	100%	100%
<b>Total Forecast Direct Capital</b>	<b>\$178,496</b>	<b>\$151,125</b>	<b>\$450,017</b>	<b>\$532,262</b>	<b>\$384,932</b>	<b>\$1,696,831</b>
<b>Indirect/Other Costs</b>						
Bond Sale Costs	\$796	\$1,170	\$1,779	\$1,547	\$819	\$6,111
Regulatory Capitalized Interest	\$1,120	\$1,153	\$1,211	\$1,246	\$1,306	\$6,037
Capitalized Overhead	<u>\$19,393</u>	<u>\$19,975</u>	<u>\$20,973</u>	<u>\$21,582</u>	<u>\$22,617</u>	<u>\$104,540</u>
Total Indirect/Other Costs	\$21,308	\$22,298	\$23,963	\$24,375	\$24,742	\$116,687
<b>Total Forecast Capital</b>	<b>\$199,804</b>	<b>\$173,423</b>	<b>\$473,980</b>	<b>\$556,637</b>	<b>\$409,674</b>	<b>\$1,813,518</b>
<b>Capital Financing (\$)</b>						
Capital Revenues	\$12,684	\$12,540	\$13,013	\$13,328	\$13,817	\$65,382
Debt	\$162,715	\$128,254	\$415,876	\$487,055	\$329,982	\$1,523,881
Cash	\$24,175	\$32,255	\$44,800	\$56,140	\$65,855	\$223,225
Interest on Investments	\$230	\$374	\$291	\$114	\$21	\$1,029
<b>Capital Financing (%)</b>						
Capital Revenues	6%	7%	3%	2%	3%	4%
Debt	81%	74%	88%	87%	81%	84%
Cash	12%	19%	9%	10%	16%	12%
Interest on Investments	0%	0%	0%	0%	0%	0%

Totals may not add due to rounding.

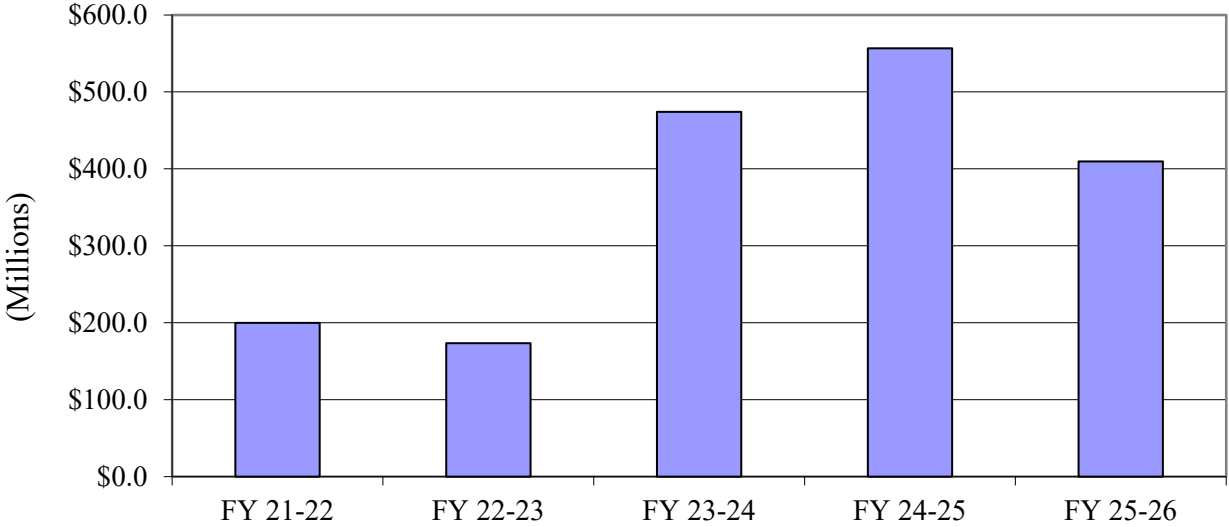
<sup>4</sup> Includes prior year inflation and WIFIA contingency related to Bull Run Treatment Projects.

<sup>5</sup> The Water Bureau assumes direct and indirect capital over the five-year forecast period will be spent at the full budgeted amounts.

Figure 14 displays the capital plan forecast over the five-year period.

**Figure 14 – Capital Plan Forecast**

This five-year capital plan reflects the CIP as updated through January 2021:



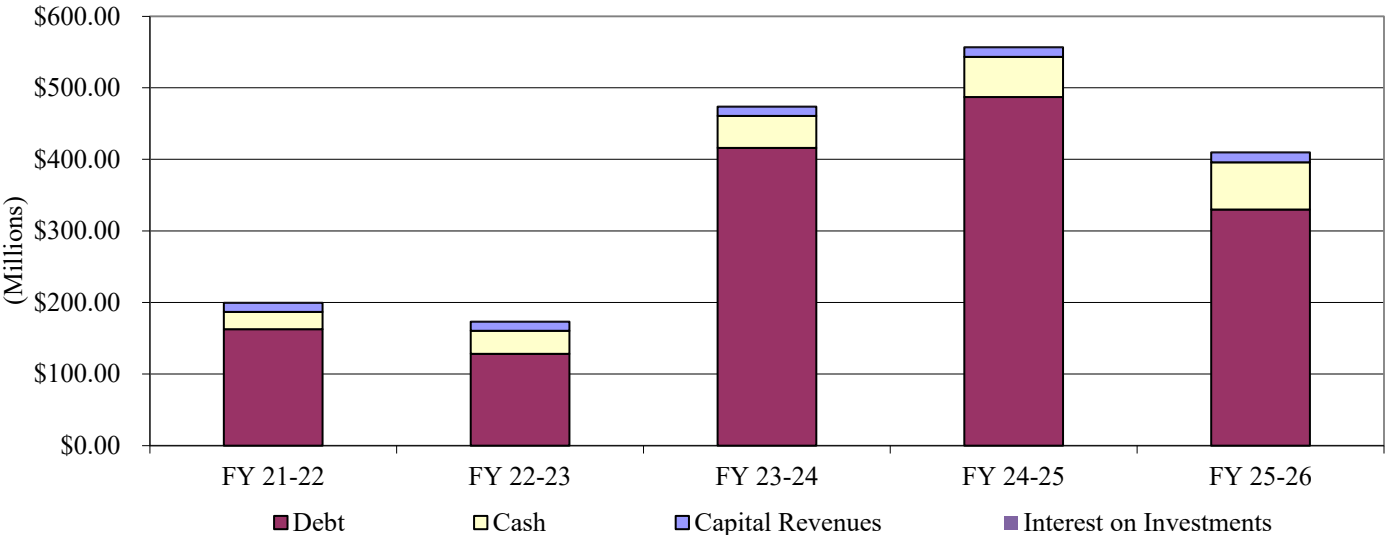
- The Capital Financing Plan provides funding for capital expenditures of \$1,565.4 million across the five-year forecast period. Capital expenditures include direct project costs and indirect costs (capitalized overhead and bond issuance costs).
- A bond sale of about \$119.3 million is planned for October 2021. In total, bond sales of \$960.2 million are planned over the five-year planning period. A draw on the WIFIA loan of about \$42.0 million is also planned for October 2021. There are planned annual draws on the WIFIA loan totaling \$624.1 million over the five-year planning period. Bonds are planned to be sold annually. Bond and loan proceeds totaling \$1,511.2 million are to be deposited in the Construction Fund over the five-year period. About \$73.0 million of the bond proceeds will be used to fund debt service reserves funds. The current and projected debt service payments are forecast to total \$450.4 million for the five-year forecast period. The debt service is funded by \$449.4 million from the Water Operating Fund and \$1.0 million of interest earned on bond reserves. Debt service for the WIFIA loan is planned to begin in FY 2032-33.



- Capital revenues provide approximately \$65.4 million across the five years. Capital revenues include system development charges, new service/main installations, City interagency project revenues, and sales of assets.
- Cash-financed capital funding from rate revenues provide approximately \$223.2 million across the five years.
- The bureau includes a set-aside of \$2.5 million for bureau-funded utility relocation investments.

Figure 15 displays the mix of capital financing over the five-year forecast period.

**Figure 15 – Capital Financing Plan**



Studies and O&M Embedded in the CIP

The bureau’s CIP also includes project expenditures that cannot be capitalized or debt financed. These expenditures generally fall into the grouping of capital studies, preliminary engineering, and O&M investments.<sup>6</sup> The bureau has included \$24.8 million (FY 2021-22 dollars) for capital studies, preliminary engineering, and O&M costs in the CIP over the five-year forecast period.

<sup>6</sup> O&M costs within the CIP projects that are not deemed capital include the portion of a CIP project that does not clearly meet the capital criteria of a betterment, improvement, or addition as prescribed by the City and industry standard and are considered an ordinary periodic expense. These are project costs, which are embedded in capital projects, but by their nature do not meet the capitalization test (e.g., preliminary engineering costs or capital maintenance).

## APPENDIX

The figures listed below are included in this appendix. Forecast figures were prepared based on the bureau's recommended forecast.

### **Figure A1 – Historical Water Rates**

This figure displays the bureau's water rate schedules for the period FY 2016-17 through FY 2020-21.

### **Figure A2 – Forecast Assumptions**

This figure provides a comparison of economic and budgetary assumptions underlying the current year (FY 2020-21) and the five-year forecast period.

### **Figure A3 – Operating Budget**

This figure displays the bureau's annual system operating costs and their funding for FY 2020-21 and the five-year forecast period.

### **Figure A4 – Revenue Requirements from Rates Summary**

This figure displays annual revenue requirements from rates for FY 2020-21 and the five-year forecast period. Revenue required from rates (net revenue requirements) is computed by subtracting other current system revenues from current system costs.

### **Figure A5 – Water Sales Summary**

This figure provides a synopsis of projected changes in total system revenue requirements, the costs financed by water sales, and projected changes in water sales and water rates for the combined wholesale and retail customer classes for FY 2020-21 and the five-year forecast period.

### **Figure A6 – Outstanding Debt and Annual Debt Service**

This figure provides a summary of the bureau's projected outstanding debt and annual debt service requirements (principal and interest) for FY 2020-21 and the five-year forecast period.

### **Figure A7 – Projected Debt Service Coverage**

This figure provides projected revenue debt service coverage for the first lien revenue bonds only and first and second lien revenue bonds stabilized for FY 2020-21 and the five-year forecast period. This figure also displays the projected gross revenues (operating revenues plus non-operating revenues) and operating expenses that are included to calculate debt service coverage.

**Figure A8 – Statement of Sources and Uses of Funds**

This figure summarizes the combined Operating, Construction, and Sinking Funds projected sources and uses of funds on a cash basis for FY 2020-21 and the five-year forecast period.

**Figure A9 – Water Operating Fund**

This figure displays the Operating Fund’s projected sources and uses of funds on a cash basis for FY 2020-21 and the five-year forecast period.

**Figure A10 – Construction Fund**

This figure displays the Construction Fund’s projected sources and uses of funds on a cash basis for FY 2020-21 and the five-year forecast period.

**Figure A11 – Sinking Fund**

This figure displays the bureau’s sinking fund’s projected sources and uses of funds including the bond reserve account on a cash basis for FY 2020-21 and the five-year forecast period.

**Figure A12 – Rate Stabilization Account (RSA)**

This figure displays the bureau’s Rate Stabilization Account’s projected sources and uses of funds on a cash basis for FY 2020-21 and the five-year forecast period.

**HISTORICAL WATER RATES**

Effective July 1 - June 30

	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>
<b>Inside City:</b>					
Volume Rate (per ccf)	\$4.216	\$4.499	\$4.890	\$5.252	\$5.593
<b>Outside City - Wholesale Customer:</b>					
Burlington Water District	1.337	1.484	1.628	1.742	1.344
GNR Water Company	0.700	1.059	1.041	1.207	1.172
Green Valley Water Company	0.700	1.059	1.041	1.207	1.172
City of Gresham	0.700	0.725	0.740	0.829	0.821
Hideaway Hills Water Company	0.700	1.059	1.041	1.207	1.172
Lake Grove Water District	1.800	2.261	3.021	2.841	2.411
Lorna Water Company	0.700	1.059	1.041	1.207	1.172
Lusted Water District	1.085	1.052	1.063	1.233	1.179
Palatine Hill Water District	1.978	2.319	2.273	2.442	2.129
Pleasant Home Water District	1.027	1.073	1.087	1.265	1.208
Raleigh Water District	0.911	1.017	0.989	1.219	1.126
Rockwood Water PUD	0.708	0.712	0.731	0.829	0.817
City of Sandy	0.582	0.605	0.619	0.699	0.712
Skyview Acres Water Company	0.700	1.059	1.041	1.207	1.172
Tualatin Valley Water District	1.139	1.189	1.225	1.364	1.311
City of Tualatin	1.005	1.061	1.090	1.229	1.208
Two Rivers Water Association	0.700	1.059	1.041	1.207	1.172
Valley View Water District	2.040	2.227	2.368	2.605	2.238
West Slope Water District	1.405	1.757	1.776	1.977	1.777
<b>BASE CHARGE (Monthly Rate)</b>					
Quarterly Billed Customer	\$12.75	\$13.61	\$14.79	\$15.88	\$16.92
Monthly Billed Customer	\$38.25	\$40.82	\$44.37	\$47.65	\$50.75
Monthly Bill for 5 ccf	\$33.83	\$36.11	\$39.24	\$42.14	\$44.89
Monthly Tier 1 Low-Income Water Discount*	\$16.90	\$18.05	\$19.60	\$21.07	\$22.43
Monthly Tier 2 Low-Income Water Discount*	N/A	N/A	\$31.40	\$33.70	\$35.90
Retail average overall change	7.0%	6.7%	8.7%	7.4%	6.5%
Wholesale average overall change	9.3%	5.9%	3.0%	12.0%	-4.1%
Portland CPIU**	2.8%	3.4%	2.7%	1.7%	3.0%

\* The low income discount program began January 1, 1995. A second tier for extremely low-income customers was added in FY 2018-19.

\*\* The Consumer Price Index for All Urban Consumers (CPIU). FY 2020-21 is the melded inflation estimate used in the adopted plan.

Figure A2

CITY OF PORTLAND  
 PORTLAND WATER BUREAU

BUREAU FINANCIAL FORECAST ASSUMPTIONS

	Revised Plan					
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
<b>Economic Assumptions</b>						
Melded Inflation Rate*	3.00%	3.30%	3.00%	5.00%	2.90%	4.80%
Interest Earnings Rate **	0.75%	0.50%	0.40%	0.40%	0.40%	0.40%
Bond Discount	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%
First Lien Bond Interest	3.50%	3.50%	6.00%	6.00%	6.00%	6.00%
Second Lien Bond Interest	3.50%	3.50%	6.00%	6.00%	6.00%	6.00%
<b>Wholesale Users' Rate of Return - greater of:</b>	<b>3.36%</b>	<b>2.85%</b>	<b>4.18%</b>	<b>4.18%</b>	<b>4.18%</b>	<b>4.18%</b>
Bond Buyer's Index	3.24%	2.58%	4.18%	4.18%	4.18%	4.18%
Average Cost of Debt	3.36%	2.85%	2.85%	2.85%	2.85%	2.85%
Bond Term	25 Years	25 Years	25 Years	25 Years	25 Years	25 Years
Debt Structure	level	level	level	level	level	level
Minimum Target Coverage Ratios - 1st Lien	1.90	1.90	1.90	1.90	1.90	1.90
Minimum Target Coverage Ratios - Combined 1st and 2nd lien bonds Stabilized tesl	1.75	1.75	1.75	1.75	1.75	1.75
<b>Budgetary Assumptions</b>						
Fund Balance	Cash	Cash	Cash	Cash	Cash	Cash
City Franchise Fee	\$ 8,952,000	\$ 9,601,000	\$ 10,346,000	\$ 11,148,000	\$ 12,012,000	\$ 12,943,000
City Franchise Fee - imputed rate	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Direct CIP Capital Expenditure Rate	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

\* Rates calculated as of January 2021

\*\* Amount does not include Treasury management fee.

**CITY OF PORTLAND**  
**PORTLAND WATER BUREAU**  
(Amounts in 000's)

**Figure A3**

	<b>OPERATING BUDGET</b>						<b>Total Years 1-5</b>
	<b>Revised Plan FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	
Forecasted Operating Budget:							
O&M* (includes inflation)	\$86,186	\$89,970	\$90,351	\$94,671	\$97,521	\$102,316	\$474,829
O&M Labor in Capital (includes inflation)	1,650	1,650	1,700	1,784	1,836	1,924	8,895
Studies in CIP (includes inflation)	3,218	3,300	3,399	3,569	3,672	3,849	17,789
General Fund Overhead (includes inflation)	4,911	5,179	5,872	6,166	6,345	6,649	30,210
Pension Obligation Bond Debt	4,977	5,176	5,383	5,599	5,823	6,056	28,037
Utility License Fee	<u>8,952</u>	<u>9,601</u>	<u>10,346</u>	<u>11,148</u>	<u>12,012</u>	<u>12,943</u>	<u>56,050</u>
<b>Total Forecasted Operating Budget</b>	<b><u>\$109,894</u></b>	<b><u>\$114,877</u></b>	<b><u>\$117,051</u></b>	<b><u>\$122,937</u></b>	<b><u>\$127,209</u></b>	<b><u>\$133,737</u></b>	<b><u>\$615,810</u></b>
<b>Funding</b>							
Funded thru Rates	\$107,754	\$114,877	\$117,051	\$122,937	\$114,959	\$110,823	\$580,647
Other Resources	2,140	0	0	0	12,250	22,914	\$35,164
<b>Funding - % of Total</b>							
Funded thru Rates	98%	100%	100%	100%	90%	83%	94%
Other Resources	2%	0%	0%	0%	10%	17%	6%
* O&M excludes all capitalized overhead	\$18,469	\$19,393	\$19,975	\$20,973	\$21,582	\$22,617	\$104,540

**REVENUE REQUIREMENTS FROM RATES SUMMARY**

	<b>Revised Plan</b>						<b>Total</b>
	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>Years 1-5</b>
Operation and Maintenance * (O&M + O&M Labor + Studies)	\$91,054	\$94,920	\$95,450	\$100,024	\$103,030	\$108,089	\$501,513
General Fund Overhead	\$4,911	\$5,179	\$5,872	\$6,166	\$6,345	\$6,649	\$30,210
Utility License Fee	\$8,952	\$9,601	\$10,346	\$11,148	\$12,012	\$12,943	\$56,050
Pension Obligation Bond Debt	\$4,977	\$5,176	\$5,383	\$5,599	\$5,823	\$6,056	\$28,037
Debt Service **	\$65,032	\$59,134	\$70,830	\$89,053	\$105,411	\$119,951	\$444,379
Cash Financed Capital Improvements	\$33,500	\$24,175	\$32,255	\$44,800	\$56,140	\$65,855	\$223,225
Annual System Costs	\$208,427	\$198,186	\$220,137	\$256,790	\$288,760	\$319,542	\$1,283,414
Less: Other System Resources							
Interagency Receipts and General Fund Cash Transfers	\$2,537	\$4,327	\$2,902	\$2,773	\$2,851	\$2,984	\$15,836
Interest Earnings	\$914	\$647	\$627	\$720	\$784	\$803	\$3,581
Other Water Sales Adjustments***	(\$3,649)	(\$4,288)	(\$4,629)	(\$4,957)	(\$5,358)	(\$5,743)	(\$24,975)
Other Miscellaneous Receipts	\$3,356	\$3,660	\$3,770	\$3,958	\$4,073	\$4,269	\$19,730
Transfer from (to) Rate Stabilization Account	(\$5,800)	(\$24,900)	(\$19,700)	(\$2,800)	\$9,900	\$20,600	(\$16,900)
Change in Beginning and Ending Balance	\$4,781	\$14	\$3	(\$2)	\$1	\$1	\$17
Total Other Resources	\$2,140	(\$20,540)	(\$17,027)	(\$308)	\$12,250	\$22,914	(\$2,711)
Required Revenues from Rates	\$206,287	\$218,725	\$237,164	\$257,098	\$276,510	\$296,628	\$1,286,126

\* O&M excludes capitalized overhead \$18,469 \$19,393 \$19,975 \$20,973 \$21,582 \$22,617 \$104,540  
\*\* Debt Service Excludes capitalized interest \$1,066 \$1,120 \$1,153 \$1,211 \$1,246 \$1,306 \$6,037  
\*\*\* Other Water Sales Adjustments include delinquent charge revenue, and other offsets to water sales including: low-income discount on base and volume charge, safety net, voucher program, bad debt expense, and cash collected on prior year volume rate.

**WATER SALES SUMMARY**

	<b>Revised Plan</b>						<b>Total Years 1-5</b>
	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	
Water Retail In-City Volume Revenue	\$136,277	\$145,696	\$156,917	\$168,997	\$182,007	\$196,024	\$849,642
Base Charge Revenue	\$42,095	\$45,528	\$49,031	\$52,809	\$56,879	\$61,256	\$265,503
Fireline Charge Revenue	<u>\$6,985</u>	<u>\$7,759</u>	<u>\$8,356</u>	<u>\$8,999</u>	<u>\$9,692</u>	<u>\$10,439</u>	<u>\$45,245</u>
Total Retail Revenue In-City	\$185,357	\$198,983	\$214,304	\$230,806	\$248,578	\$267,718	\$1,160,389
Average Effective Retail Rate Increase	6.5%	7.8%	7.7%	7.7%	7.7%	7.7%	
Groundwater Revenue	\$65	\$69	\$71	\$74	\$76	\$80	\$369
Outside-City Revenue	<u>\$693</u>	<u>\$709</u>	<u>\$825</u>	<u>\$902</u>	<u>\$966</u>	<u>\$1,005</u>	<u>\$4,407</u>
Total Retail Revenues	\$186,115	\$199,760	\$215,200	\$231,782	\$249,620	\$268,803	\$1,165,166
Wholesale Revenue Requirements	<u>\$20,172</u>	<u>\$18,965</u>	<u>\$21,963</u>	<u>\$25,316</u>	<u>\$26,890</u>	<u>\$27,825</u>	<u>\$120,960</u>
Wholesale Revenue % change*	-4.1%	-6.0%	15.8%	15.3%	6.2%	3.5%	
Revenue Requirements Water Sales	\$206,287	\$218,725	\$237,164	\$257,098	\$276,510	\$296,628	\$1,286,126
Water Sales Financing:							
Operation and Maintenance (net of capitalized overhead)	\$107,754	\$114,877	\$117,051	\$122,937	\$114,959	\$110,823	\$580,647
Capital Repair and Replacement	\$33,500	\$24,175	\$32,255	\$44,800	\$56,140	\$65,855	\$223,225
Debt Service (net of capitalized interest)	\$65,032	\$59,134	\$70,830	\$89,053	\$105,411	\$119,951	\$444,379
Fund Balance/Reserve	\$0	\$20,540	\$17,027	\$308	\$0	\$0	\$37,875
Water Sales Financing - % of Annual Total:							
Operation and Maintenance	52.2%	52.5%	49.4%	47.8%	41.6%	37.4%	45.1%
Capital Repair and Replacement	16.2%	11.1%	13.6%	17.4%	20.3%	22.2%	17.4%
Debt Service	31.5%	27.0%	29.9%	34.6%	38.1%	40.4%	34.6%
Fund Balance/Reserve	0.0%	9.4%	7.2%	0.1%	0.0%	0.0%	2.9%

\* Increases in FY 2023 and FY 2024 are driven by completion of the Willamette River Crossing and Washington Park Reservoir projects.



**CITY OF PORTLAND  
PORTLAND WATER BUREAU**  
(Amounts in 000's)

Figure A6

**OUTSTANDING DEBT SCHEDULE**

	<b>Revised Plan FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	
Revenue Debt:							
Current:							
Total First Lien	\$306,565	\$293,075	\$279,000	\$264,300	\$248,960	\$233,015	
Total Second Lien*	<u>\$318,405</u>	<u>\$302,420</u>	<u>\$285,625</u>	<u>\$267,990</u>	<u>\$253,790</u>	<u>\$238,870</u>	
Total Current Debt	<u>\$624,970</u>	<u>\$595,495</u>	<u>\$564,625</u>	<u>\$532,290</u>	<u>\$502,750</u>	<u>\$471,885</u>	
Future:							
Proposed First Lien	\$0	\$78,480	\$227,265	\$350,266	\$392,044	\$383,356	
Proposed Second Lien	\$20,235	\$40,800	\$70,652	\$224,305	\$415,155	\$538,264	
Proposed WIFIA	<u>\$52,200</u>	<u>\$94,200</u>	<u>\$126,700</u>	<u>\$299,400</u>	<u>\$521,900</u>	<u>\$676,300</u>	
Total Proposed First Lien Debt	\$72,435	\$213,480	\$424,618	\$873,971	\$1,329,100	\$1,597,920	
Total Debt Outstanding (year end)	<u>\$697,405</u>	<u>\$808,975</u>	<u>\$989,243</u>	<u>\$1,406,261</u>	<u>\$1,831,850</u>	<u>\$2,069,805</u>	

**CITY OF PORTLAND  
PORTLAND WATER BUREAU**  
(Amounts in 000's)

**ANNUAL DEBT SERVICE**

	<b>Revised Plan FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>Total Years 1-5</b>
Interest:							
Current Debt Schedule	\$28,458	\$26,768	\$25,380	\$23,924	\$22,505	\$21,171	\$119,747
Principal:							
Current Debt Schedule	<u>\$34,160</u>	<u>\$29,475</u>	<u>\$30,870</u>	<u>\$32,335</u>	<u>\$29,540</u>	<u>\$30,865</u>	<u>\$153,085</u>
Total Current Debt Service	\$62,618	\$56,243	\$56,250	\$56,259	\$52,045	\$52,036	\$272,832
Total Future Debt Service	<u>\$590</u>	<u>\$4,011</u>	<u>\$15,734</u>	<u>\$34,005</u>	<u>\$54,612</u>	<u>\$69,221</u>	<u>\$177,583</u>
Total Debt Service	<u>\$63,208</u>	<u>\$60,254</u>	<u>\$71,984</u>	<u>\$90,264</u>	<u>\$106,657</u>	<u>\$121,257</u>	<u>\$450,416</u>

CITY OF PORTLAND  
 PORTLAND WATER BUREAU  
 (Amounts in 000's)

Figure A7

	Projected Debt Service Coverage						Total Years 1-5
	Revised Plan FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	
<b>Operating Revenues</b>							
Water Sales (retail & wholesale)	\$206,287	\$218,725	\$237,164	\$257,098	\$276,510	\$296,628	\$1,286,126
Other Water Sales Adjustments*	(3,649)	(4,288)	(4,629)	(4,957)	(5,358)	(5,743)	(24,975)
Interagency Receipts (operating - all)	2,537	4,327	2,902	2,773	2,851	2,984	15,836
Miscellaneous Revenues	<u>3,356</u>	<u>3,660</u>	<u>3,770</u>	<u>3,958</u>	<u>4,073</u>	<u>4,269</u>	<u>19,730</u>
Total Operating Revenue	208,531	222,425	239,206	258,872	278,076	298,138	1,296,716
<b>Operating Expenses</b>							
Base O&M Budget (including all adjustments)	119,412	124,668	126,680	132,762	136,779	143,411	664,300
Capitalized Overhead (Deduction)	<u>(18,469)</u>	<u>(19,393)</u>	<u>(19,975)</u>	<u>(20,973)</u>	<u>(21,582)</u>	<u>(22,617)</u>	<u>(104,540)</u>
Total Operating Expenses	<u>100,942</u>	<u>105,276</u>	<u>106,705</u>	<u>111,789</u>	<u>115,197</u>	<u>120,794</u>	<u>559,760</u>
<b>Total Operating Income</b>	107,589	117,149	132,501	147,083	162,879	177,344	736,956
<b>Non-Operating Income</b>							
Interest Income	1,299	877	1,001	1,010	898	824	4,611
SDC Revenue	3,250	3,250	3,250	3,250	3,250	3,250	16,250
Cap. Contributions/Other	9,447	9,434	9,290	9,763	10,078	10,567	49,132
Others: Asset sales	<u>(250)</u>	<u>(275)</u>	<u>(283)</u>	<u>(297)</u>	<u>(306)</u>	<u>(321)</u>	<u>(1,482)</u>
Total Non-Operating Revenue	<u>13,746</u>	<u>13,286</u>	<u>13,258</u>	<u>13,726</u>	<u>13,920</u>	<u>14,320</u>	<u>68,510</u>
<b>Net Revenue Available for Debt</b>	121,335	130,436	145,759	160,809	176,799	191,664	805,466
<b>Stabilization Transfer</b>	<u>(900)</u>	<u>(24,900)</u>	<u>(19,700)</u>	<u>(2,800)</u>	<u>9,900</u>	<u>20,600</u>	<u>(16,900)</u>
<b>Stabilized Net Revenue</b>	\$120,435	\$105,536	\$126,059	\$158,009	\$186,699	\$212,264	\$788,566
<b>Debt Service Detail</b>							
Debt Service - First Lien revenue bonds	\$33,291	\$27,640	\$36,599	\$47,486	\$54,335	\$56,208	\$222,268
Debt Service - Second Lien revenue bonds	\$29,917	\$32,614	\$35,385	\$42,778	\$52,322	\$65,049	\$228,148
<b>Debt Service Coverage Tests</b>							
First Lien Revenue Bonds Only	3.64	4.72	3.98	3.39	3.25	3.41	
First Plus Second Liens Revenue Bonds Only	1.92	2.16	2.02	1.78	1.66	1.58	
Stabilized Test First and Second Lien	1.91	1.75	1.75	1.75	1.75	1.75	

\* Other Water Sales Adjustments include delinquent charge revenue, and other offsets to water sales including: low-income discount on base and volume charge, safety net, voucher program, bad debt expense, and cash collected on prior year volume rate.

CITY OF PORTLAND  
 PORTLAND WATER BUREAU  
 (Amounts in 000's)

Figure A8

STATEMENT OF SOURCES AND USES OF FUNDS

	Revised Plan						Total
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Years 1-5
<b>BEGINNING BALANCE</b>	\$207,193	\$165,543	\$188,995	\$294,638	\$337,398	\$307,523	
<b>REVENUES</b>							
Water Sales	\$190,787	\$218,725	\$237,164	\$257,098	\$276,510	\$296,628	\$1,286,126
Other Water Sales Adjustments*	(6,649)	(4,288)	(4,629)	(4,957)	(5,358)	(5,743)	(24,975)
Interagency Receipts	2,537	4,327	2,902	2,773	2,851	2,984	15,836
Other Miscellaneous Receipts	3,356	3,660	3,770	3,958	4,073	4,269	19,730
Interest Income	1,299	877	1,001	1,010	898	824	4,611
Total Revenue	\$191,330	\$223,302	\$240,207	\$259,882	\$278,973	\$298,962	\$1,301,327
<b>OTHER SOURCES OF FUNDS</b>							
Bond Proceeds including Bond Reserve	72,435	161,280	214,200	455,835	467,080	285,865	1,584,260
Contributions	9,447	9,434	9,290	9,763	10,078	10,567	49,132
System Development Charges	3,250	3,250	3,250	3,250	3,250	3,250	16,250
Total NonOperating Sources of Funds	\$85,132	\$173,964	\$226,740	\$468,848	\$480,408	\$299,682	\$1,649,642
<b>TOTAL SOURCES OF FUNDS</b>	<b>\$483,655</b>	<b>\$562,809</b>	<b>\$655,942</b>	<b>\$1,023,368</b>	<b>\$1,096,780</b>	<b>\$906,166</b>	
<b>OPERATING BUDGET</b>							
Operating & Maintenance	101,524	114,313	115,424	120,998	124,611	130,706	606,052
Utility License Fee	8,952	9,601	10,346	11,148	12,012	12,943	56,050
Pension Obligation Bond Debt	4,977	5,176	5,383	5,599	5,823	6,056	28,037
General Fund Overhead	4,911	5,179	5,872	6,166	6,345	6,649	30,210
Total Operating Budget	\$120,364	\$134,269	\$137,026	\$143,910	\$148,791	\$156,354	\$720,350
<b>CAPITAL COSTS</b>							
Direct Capital (Total)**	134,540	179,291	152,295	451,795	533,810	385,751	1,702,942
Debt Service (Total)	63,208	60,254	71,984	90,264	106,657	121,257	450,416
Total Capital Costs	\$197,748	\$239,545	\$224,278	\$542,060	\$640,467	\$507,007	\$2,153,357
<b>TOTAL OUTLAYS</b>	<b>\$318,112</b>	<b>\$373,815</b>	<b>\$361,304</b>	<b>\$685,970</b>	<b>\$789,257</b>	<b>\$663,361</b>	<b>\$2,873,707</b>
<b>ENDING BALANCE</b>	<b>\$165,543</b>	<b>\$188,995</b>	<b>\$294,638</b>	<b>\$337,398</b>	<b>\$307,523</b>	<b>\$242,805</b>	
<b>TOTAL USES OF FUNDS</b>	<b>\$483,655</b>	<b>\$562,809</b>	<b>\$655,942</b>	<b>\$1,023,368</b>	<b>\$1,096,780</b>	<b>\$906,166</b>	

\* Other Water Sales Adjustments include delinquent charge revenue, and other offsets to water sales including: low-income discount on base and volume charge, safety net, voucher program, bad debt expense, and cash collected on prior year volume rate.

\*\* Direct Capital includes bond issuance costs.

**CITY OF PORTLAND**  
**PORTLAND WATER BUREAU**  
(Amounts in 000's)

Figure A9

**WATER OPERATING FUND**

	Revised Plan FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total Years 1-5
<b>BEGINNING BALANCE</b>	\$22,516	\$15,018	\$15,004	\$15,001	\$15,003	\$15,002	
<b>RECEIPTS:</b>							
Water Sales	\$190,787	\$218,725	\$237,164	\$257,098	\$276,510	\$296,628	\$1,286,126
Other Water Sales Adjustments*	(6,649)	(4,288)	(4,629)	(4,957)	(5,358)	(5,743)	(24,975)
Interagency Receipts	2,537	4,327	2,902	2,773	2,851	2,984	15,836
Transfers from Construction Fund	154,076	199,804	173,423	473,980	556,637	409,674	1,813,518
Interest Income	708	518	503	548	534	473	2,577
Other Miscellaneous Receipts	3,356	3,660	3,770	3,958	4,073	4,269	19,730
<b>TOTAL RECEIPTS</b>	<b>344,815</b>	<b>422,746</b>	<b>413,133</b>	<b>733,400</b>	<b>835,247</b>	<b>708,285</b>	<b>3,112,812</b>
Transfer from Rate Stabilization Account	-	-	-	-	9,900	20,600	30,500
<b>TOTAL SOURCES OF FUNDS</b>	<b>\$367,331</b>	<b>\$437,764</b>	<b>\$428,137</b>	<b>\$748,401</b>	<b>\$860,150</b>	<b>\$743,888</b>	
<b>EXPENDITURES</b>							
Operation and Maintenance	\$101,524	\$114,313	\$115,424	\$120,998	\$124,611	\$130,706	\$606,052
Transfers to Construction Fund	33,500	24,175	32,255	44,800	56,140	65,855	223,225
Direct Capital Costs	134,540	179,291	152,295	451,795	533,810	385,751	1,702,942
General Fund Overhead	4,911	5,179	5,872	6,166	6,345	6,649	30,210
Utility License Fee	8,952	9,601	10,346	11,148	12,012	12,943	56,050
Pension Obligation Bond Debt	4,977	5,176	5,383	5,599	5,823	6,056	28,037
Transfers to Water Bond Sinking Fund	63,009	60,125	71,860	90,093	106,408	120,927	449,412
<b>TOTAL EXPENDITURES</b>	<b>351,413</b>	<b>397,860</b>	<b>393,436</b>	<b>730,598</b>	<b>845,148</b>	<b>728,887</b>	<b>3,095,928</b>
Transfer to Rate Stabilization Account	900	24,900	19,700	2,800	-	-	47,400
<b>ENDING BALANCE</b>	<b>15,018</b>	<b>15,004</b>	<b>15,001</b>	<b>15,003</b>	<b>15,002</b>	<b>15,001</b>	
<b>TOTAL USES OF FUNDS</b>	<b>\$367,331</b>	<b>\$437,764</b>	<b>\$428,137</b>	<b>\$748,401</b>	<b>\$860,150</b>	<b>\$743,888</b>	

\* Other Water Sales Adjustments include delinquent charge revenue, and other offsets to water sales including: low-income discount on base and volume charge, safety net, voucher program, bad debt expense, and cash collected on prior year volume rate.

**CITY OF PORTLAND  
PORTLAND WATER BUREAU**  
(Amounts in 000's)

**Figure A10**

**WATER CONSTRUCTION FUND**

	<b>Revised Plan</b>						<b>Total</b>
	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>Years 1-5</b>
<b>BEGINNING BALANCE</b>	\$84,319	\$48,039	\$39,366	\$111,098	\$128,908	\$89,800	
<b>RECEIPTS</b>							
Capital Revenues	\$12,697	\$12,684	\$12,540	\$13,013	\$13,328	\$13,817	\$65,382
Bond Proceeds	71,207	154,042	199,986	433,686	447,947	275,581	1,511,242
Transfer from Water Fund	33,500	24,175	32,255	44,800	56,140	65,855	223,225
Interest Income	393	230	374	291	114	21	1,029
<b>TOTAL RECEIPTS</b>	117,796	191,131	245,155	491,790	517,530	355,273	1,800,878
<b>TOTAL SOURCES OF FUNDS</b>	\$202,115	\$239,170	\$284,521	\$602,888	\$646,438	\$445,074	
<b>EXPENDITURES</b>							
Capital Reimbursement to Water	\$154,076	\$199,804	\$173,423	\$473,980	\$556,637	\$409,674	\$1,813,518
<b>TOTAL EXPENDITURES</b>	154,076	199,804	173,423	473,980	556,637	409,674	1,813,518
<b>ENDING BALANCE</b>	48,039	39,366	111,098	128,908	89,800	35,400	
<b>TOTAL USES OF FUNDS</b>	\$202,115	\$239,170	\$284,521	\$602,888	\$646,438	\$445,074	

**CITY OF PORTLAND  
 PORTLAND WATER BUREAU**  
 (Amounts in 000's)

**Figure A11**

**WATER SINKING FUND**

	<b>Revised Plan FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>Total Years 1-5</b>
<b>BEGINNING BALANCE</b>	\$24,887	\$26,115	\$33,353	\$47,567	\$69,716	\$88,849	
<b>RECEIPTS</b>							
Transfer from Water Fund	\$63,009	\$60,125	\$71,860	\$90,093	\$106,408	\$120,927	\$449,412
Bond Reserve from Proceeds	1,228	7,238	14,214	22,149	19,133	10,284	73,018
Interest Earning from Bond Reserve	199	130	124	171	249	330	1,004
<b>TOTAL RECEIPTS</b>	<b>\$64,436</b>	<b>\$67,492</b>	<b>\$86,198</b>	<b>\$112,413</b>	<b>\$125,790</b>	<b>\$131,541</b>	<b>\$523,434</b>
<b>TOTAL SOURCES OF FUNDS</b>	<b>\$89,323</b>	<b>\$93,607</b>	<b>\$119,550</b>	<b>\$159,980</b>	<b>\$195,506</b>	<b>\$220,389</b>	
<b>EXPENDITURES</b>							
Debt Service	63,208	60,254	71,984	90,264	106,657	121,257	\$450,416
<b>TOTAL EXPENDITURES</b>	<b>63,208</b>	<b>60,254</b>	<b>71,984</b>	<b>90,264</b>	<b>106,657</b>	<b>121,257</b>	<b>\$450,416</b>
<b>ENDING BALANCE</b>	<b>26,115</b>	<b>33,353</b>	<b>47,567</b>	<b>69,716</b>	<b>88,849</b>	<b>99,133</b>	
<b>TOTAL USES OF FUNDS</b>	<b>\$89,323</b>	<b>\$93,607</b>	<b>\$119,550</b>	<b>\$159,980</b>	<b>\$195,506</b>	<b>\$220,389</b>	

**CITY OF PORTLAND  
 PORTLAND WATER BUREAU**  
 (Amounts in 000's)

**Figure A12**

**RATE STABILIZATION ACCOUNT**

	Revised Plan FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total Years 1-5
<b>BEGINNING BALANCE*</b>	\$75,472	\$76,372	\$101,272	\$120,972	\$123,772	\$113,872	
<b>RECEIPTS</b>							
Transfer from Water Fund	\$900	\$24,900	\$19,700	\$2,800	\$0	\$0	\$47,400
<b>TOTAL RECEIPTS</b>	\$900	\$24,900	\$19,700	\$2,800	\$0	\$0	\$47,400
<b>TOTAL SOURCES OF FUNDS</b>	\$76,372	\$101,272	\$120,972	\$123,772	\$123,772	\$113,872	
<b>EXPENDITURES</b>							
Transfer to Water Fund	0	0	0	0	9,900	20,600	\$30,500
<b>TOTAL EXPENDITURES</b>	0	0	0	0	9,900	20,600	\$30,500
<b>ENDING BALANCE</b>	76,372	101,272	120,972	123,772	113,872	93,272	
<b>TOTAL USES OF FUNDS</b>	\$76,372	\$101,272	\$120,972	\$123,772	\$123,772	\$113,872	

\* Interest earnings are recorded in the Water Operating Fund.

# WATER BUREAU

## FEE STUDY



January 29, 2021





Mingus Mapps, Commissioner  
Gabriel Solmer, Director



1120 SW Fifth Avenue, Room 405  
Portland, Oregon 97204-1926  
Information: 503-823-7404  
[portlandoregon.gov/water](http://portlandoregon.gov/water)

Date: January 29, 2021  
To: Jessica Kinard, City Budget Office  
From: Cecelia Huynh, Finance Director *CH*  
Subject: FY 2021-22 Budget – Fee Study

As required by the City's Financial Policy 2.06 to complete fee studies based upon cost-of-service principles, the Portland Water Bureau will be filing its annual rate ordinance in May 2021 for rates and charges for water and water-related services during the fiscal year beginning July 1, 2021 to June 30, 2022.

The FY 2020-21 rate ordinance approved by City Council by Ordinance No. 189975 for FY July 1, 2020 to June 30, 2021 is available on the following website:

<https://efiles.portlandoregon.gov/Record/13654504/>

c: Gabriel Solmer, Director  
Robert Cheney, CBO Budget Analyst

# WATER BUREAU

## BUDGET EQUITY ASSESSMENT TOOL



January 29, 2021

City of Portland  
**Requested Budget Equity Report**

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**Portland Water Bureau**

**Requested Budget & Racial Equity Plan Update:**

In July 2019, the Water Bureau adopted a comprehensive 2021-2025 Plan to Advance Equity, Diversity, and Inclusion, which was developed by a multidisciplinary and diverse (race, ability, gender, position) team of bureau employees, and received input from community based organizations, the Office of the Commissioner In-Charge, and Equity Managers in other bureaus.

The Water Bureau's approach to advancing equity recognizes that:

- All individuals have individual needs.
- People—both bureau employees and community members—are the bureau's most important resource.
- Within the context of serving excellent water every minute of every day, the bureau must create the conditions for all to reach their full potential and thrive.
- The bureau focuses on race because race remains the biggest predictor of outcomes.
- By focusing on race, the bureau is not ignoring the needs of people who may experience discrimination related to other identities. The bureau's approach recognizes and addresses intersectionalities with many identities, including ability, gender, sexual orientation, class/income, religion, age, education, and language.
- Different equity issues have different root causes, which require different solutions.

In the plan, the bureau outlines five goals and associated desired outcomes that can be found in the attachment.

**Racial Equity Plan Link:** <https://www.portlandoregon.gov/oehr/article/595598>

**Requested Budget Community Engagement:**

For the FY 2021-2022 budget, the bureau is prioritizing the following actions:

1. Build an equity category into the Consequence Likelihood Evaluation Methodology (CLEM) process for asset management. CLEM is a decision-making system for prioritizing asset work and resources.
2. Assess key service level performance with demographic/geographic information to identify areas that receive a lower level of service, poorer water quality, or inadequate infrastructure due to historical circumstances and systemic decisions.
3. Develop tools to increase the bureau's understanding of communities across the service area, focusing on assessing the water-related needs, priorities, and interests of underserved communities.
  - o Community Equity Index, Equity Library
  - o Engagement with culturally specific groups

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**Requested Budget Equity Report**

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4. Run a benefit-cost analysis for managing and performing shutoffs. Include an assessment of which communities are most likely to experience a shutoff.
5. Develop and implement an external strategic communications plan that prioritizes cultural responsiveness and public trust.
6. Reform recruitment practices by removing accessibility barriers and creating processes that lead to the outcome of creating a workforce that reflects the diversity of the community.
7. Fund employee training tuition , expand mentoring programs, offer paid time for professional development, and create clear pathways for promotion, focusing on underrepresented groups.
8. Conduct an equity audit to better understand the barriers BIPOC employees face within the bureau.
9. Develop and implement Equity Impact Assessments for capital planning and project design, as well as community engagement protocols, including considerations for partnerships, community needs assessments, community goals and benefits, and impact reduction and mitigation.
10. Establish at least one equity-specific performance measure for each budget program.
11. Embed equity into manager/supervisor and team performance evaluations.
12. Develop a bureau diversity, equity, and inclusion curriculum and conduct continuous leadership- and employee-specific trainings.
13. Establish protocols for reporting and managing acts of hate, harassment, and creating a hostile environment.
14. When this plan is launched, hire consultants to conduct a baseline equity audit. Contract with the consultants to conduct the audit every other year thereafter to track progress on employee attitudes.

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**Requested Budget Equity Report**

**Base Budget Constraints:**

The Water Bureau is prioritizing equity through its budgeting process. Thus, the Equity Program has access to the necessary resources to fund the goals outlined in the equity plan. The biggest challenge the equity program faces is the time it takes to hire and onboard new personnel to work in the Equity Program.

Furthermore, the requested budget includes a rate increase of 7.8 percent in FY 2021-22, and annual rate increases of 7.7 percent through FY 2029-30 due to the cost of large infrastructure projects, namely the EPA and OHA required water filtration treatment facility. While Portland water remains largely affordable for most Portlanders, the bureau recognizes that for many low-income households even a marginal increase places additional burden on their finances. The bureau's financial assistance program is working with public and non-profit partners to expand the reach of the program.

**Notable Changes:**

The bureau has allocated \$250,000, an increase of \$160,000 over last fiscal year, for internal scoping teams representing all workgroups in the bureau so they can develop and implement plans for the strategies identified in the bureau's five-year strategic plan. The bureau's five-year Strategic Plan has specific strategies aimed at creating more ways for people from underrepresented communities to meaningfully inform bureau policies, programs, and projects and creating more and deeper partnerships with community organizations and people from underrepresented communities.

**Equity Manager Role in Budget Development**

The Equity Manager participated in the bureau's program review sessions, where bureau leadership reviewed and discussed programs and prioritized the direction of the bureau. Additionally, the Equity Manager rewrote all relevant budget program offers to ensure equity was embedded throughout. Lastly, the manager added equity specific performance measures to help guide future funding towards equity specific efforts.

In addition to the Equity and Policy Manager, in FY 2020-21 the bureau created a team with a Strategic Data Analyst, an Equity Program Analyst, and an Accessibility Analyst. The Equity and Policy team focuses on eliminating disparity in policies, practices, processes, decisions, and resource allocations, as well as on influencing attitudes within the bureau that produce authority, access, opportunities, and measurable outcomes for the bureau workforce and community members. The Equity and Policy team also identify training needs, develop tools, and support bureau employees at all levels to incorporate equity into their work.

**Equity  
Manager:**

Erich Pacheco

**Contact  
Phone:**

503-865-6038

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**Requested Budget Equity Report**

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**ADA Title II Transition Plan:**

Due to existing City Charter provisions, the bureau cannot use ratepayer funds to finance the majority of the barrier removal projects identified in the bureaus ADA Transition Plan. The bureau included \$1.5 million in requests for FY 2020-21, but it was not approved by City Council. The bureau will include the request once again in the FY 2021-22 Requested Budget. The plan is as follows:

2014 Citywide Transition Plan identified 580 barriers at Water Bureau Facilities accessed by the public. The schedule for barrier removal in the Transition Plan has not been met as rate payer funds cannot be used for much of this work. A non-ratepayer source of funding is needed for removal of most of these ADA barriers.

Following is a proposal to remove ADA barriers that leverages Water Bureau rate payer funds with General Fund dollars.

Hydroparks are prioritized as the first locations for barrier removal because they see the highest public use. The proposed schedule for barrier removal by site follows:

**Description of Work:**

Phase 1: Engage ADA consultant and develop design/bid packages for these sites- Halsey, Hazelwood, Pittman and Sabin Hydroparks

Phase 2: Construction at Phase 1 sites and design/bid packages for these sites – Gilbert, Marigold, and Texas Hydroparks

Phase 3: Construction at Phase 2 sites and develop design/bid packages for these sites –  
Dodge Park and Powell Butte Visitor Center

Phase 4: Construction at these sites –  
Dodge Park  
Powell Butte Visitor Center

Also, the Bureau recently hired an Accessibility Analyst to focus specifically on language and disability access. The Analyst will conduct accessibility assessments for infrastructure, programs, and services.

City of Portland  
**Requested Budget Equity Report**

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## **Accommodations:**

The Water Bureau embeds its funding to meet the requirements of ADA Title II and Civil Rights Title VI in the following ways:

- Starting the implementation of the bureau's five-year ADA transition plan,
- Hiring more multilingual staff in the customer service group to meet growing demand from customers with limited English proficiency
- Funding for translating materials and interpretation services for the following:
  - o Water efficiency fixture repair program, leaks, water conservation tips, and other conservation relevant information.
  - o Customer service information: bills, brochures, braille, and other customer relevant information
  - o Bureau support - Communications: project communications to the public, community engagement, Portland online website, open captions for all bureau videos
  - o Water quality: Staff in this program translate all critical public health materials into nine languages. If a water quality notice needs to be issued to a specific area of the city, staff use census data to translate into the most relevant languages. Water quality information staff extensively use phone and in-person language interpretation for phone inquiries and at community events.

## **Capital Assets & Intergenerational Equity**

The Water Bureau manages \$14.9 billion of assets. The bureau has a nationally recognized Asset Management program, which uses a risk-based, data-driven process to make decisions. The goal of this program is to address aging infrastructure by prioritizing what needs to be replaced and reducing the number of catastrophic failures (such as a pipe bursting under a major freeway).

The bureau's deferred maintenance needs are relatively low; generally, current ratepayers are paying for upkeep. The bureau has identified that it has an unmet need of \$57.8 million over 10 years to bring assets up to date.

The Equity Program works with the Asset Management program to identify Key Service Indicators that can be used to track how equitable are the bureau's asset maintenance. During FY 2021-22, the bureau will start conducting regular analyses to assess public and private water infrastructure condition by geographic area to identify areas where the bureau might focus future maintenance and construction efforts.

The Water Bureau is integrating an equity category into the CLEM process for asset management.

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Measure Title	PM 2018-19 Actuals	PM 2019-20 Actuals	PM 2019-20 Target	PM 2020-21 Target	Strategic Target
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<b>Data Tracking Methodology:</b>	<p>The Water Bureau collects significant data on service levels and infrastructure condition by area, including hydrants, distribution mains, service lines, terminal tanks, financial assistance, meters, etc. However, historically, the bureau has not had the resources to overlay this data onto geographic/ demographic data to identify potential service and condition variabilities by area and use this information to guide decision-making. As such, the bureau hired a dedicated Strategic Analyst to support with the collection, analysis, and reporting of equity and performance data. The position was initially limited term, but the bureau is reclassifying an existing vacancy to make the position permanent. The analyst supports the implementation of the bureau’s Equity and Strategic plans through the creation of performance management dashboards that can be used to help inform decision making and track progress towards outcomes over time. In FY 2020-21, the analyst worked with the Equity Manager to initiate the development of an internal equity resource portal, with data, tools, and information to support employees, managers, supervisors, and decision-makers to integrate equity into their daily tasks.</p> <p>The Water Bureau, additionally, uses quantitative and qualitative data to assess its community focused programs, which include:</p> <ul style="list-style-type: none"> <li>• The financial assistance program: The bureau offers one of the most extensive financial assistance programs of all water utilities in the United States. Included in the program are bill discounts for qualifying customers, the Utility Safety Net Program, flexible bill pay, crisis assistance, multi-family emergency rental assistance, water leak repair and replacement, and water conservation kits.</li> <li>• Outreach and engagement: the communications team collects data on event participants, maps events to identify spatial gaps /needs, translates materials.</li> <li>• Water quality: this program uses demographic data to target translated messages to non-English speaking populations around the city.</li> </ul>
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City of Portland  
**Requested Budget Equity Report**

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The Strategic Analyst over the course of the next year will collect, track, and evaluate relevant data to assess equity impacts in the community. However, the bureau believes that having each bureau collect and track disaggregated demographic data is a very inefficient method of embedding data informed decision-making into decisions. As such, the Water Bureau Equity Manager is working with the Bureau of Planning and Sustainability and other equity managers to develop a citywide equity data governance framework that can be used by all bureaus to comprehensively collect, track, and evaluate the collective relevant data. Bureau specific needs will be assessed throughout the year to continuously use data informed decision-making in planning, operations, and programming.

### **Hiring, Retention, & Employment Outreach:**

As of December 26th, 2019, the Water Bureau employee demographics are as follows:

- 65.22% male and 34.78% female
- 5.2% Asian, 6% Black, 7.2% Latinx, 2.4% Multiracial, 1.4% Native American, 0.2% Pacific Islander, 77.26% White

When considering the bureau's recruitment practices, it is worth noting that while current demographics are not representative of the City's demographics, recruitment over the past four years is trending in a more representative direction. Since the 2016 fiscal year, the bureau received applications from 6,375 qualified applicants of which 462 individuals were hired (7.4 percent). However, while the applicant pool was 29 percent people of color, 31 percent of the hired personnel were people of color, which is more representative of City demographics. While the applicant pool was 36 percent female, 41 percent of the hired personnel was female. These figures demonstrate the bureau's efforts to diversify the workforce. Nevertheless, the bureau acknowledges the temporal lag in redressing the large representative gaps that have existed historically, so the bureau is ensuring that diversity and inclusion remain important factors when considering recruitments.

Improving retention practices is a much more difficult task than recruitment. According to Bureau of Human Resources data, retention rates at the Water Bureau by race and ethnicity are as follows:

Race/Ethnicity: Asian Median Tenure (Days): 3,905  
Median Tenure (Years): 11 years 2 months 19 days

Race/Ethnicity: Black or African American Median Tenure (Days): 4,087

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Median Tenure (Years): 13 years 4 months 31 days

Race/Ethnicity: Hispanic or Latino Median Tenure (Days): 1,267  
Median Tenure (Years): 6 years 6 months 18 days

Race/Ethnicity: American Indian or Alaska Native Median Tenure (Days): 5,789  
Median Tenure (Years): 14 years 6 months 2 days

Race/Ethnicity: Native Hawaiian or Other Pacific Islander Median Tenure (Days): 2,622  
Median Tenure (Years): 7 years 2 months 6 days

Race/Ethnicity: Two or More Races Median Tenure (Days): 1,933  
Median Tenure (Years): 8 years 6 months 3 days

Race/Ethnicity: White or European American Median Tenure (Days): 4,405  
Median Tenure (Years): 11 years 8 months 16 days

Race/Ethnicity: Total  
Median Tenure (Days): 4,015  
Median Tenure (Years): 10 years 11 months 28 days

This data indicates that Asian, Black, Native American, and White employees all have comparable retention rates above the mean of 10 years 11 months. However, Latinx and Pacific Islander employees seem to have comparably lower retention rates.

Employee engagement surveys, as well as management demographics, indicate that employees of color are not given equitable access to the resources and opportunities they need to thrive. For example, since 2016 black employees account for 5 percent of all hires, but represent 23 percent of employees who did not pass probation. No readily available data exists on promotions, but management is only 19.2 percent people of color, which indicates that non-white employees may not be given the same opportunities for professional growth and development as their white counterparts.

Due to the Mayor's directive to keep our budget within the forecasted 7.8% rate increase for FY 2021-22, the Water Bureau will not be adding new permanent positions in the requested budget. However, the bureau is using vacancies, retirements, and personnel movements as opportunities to realign the workforce to achieve strategic and equity objectives.

City of Portland  
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In the 2021-2025 Plan to Advance Equity, Diversity, and Inclusion, the bureau established the desired outcome of “Water Bureau personnel diversity reflects the diversity of the Portland community at all levels of the organization.” In addition to the existing successful apprenticeship programs for the trades, the bureau is working to create internship programs to attract more diverse personnel, particularly in areas where there is little representation. Additionally, the Water Bureau is partnering with the Bureau of Human Resources to become an employer of choice for the Access to Work program, which matches people living with disabilities with employers.

### **Contracting Opportunities**

The Water Bureau has worked collaboratively with City Procurement, Office of Management and Finance and Office (OMF) and Office of Equity and Human Rights (OEHR) on several social equity contracting initiatives that target increasing workforce development and increasing access to City contracts for DMESB-SDVBE and Certification Office for Business Inclusion and Diversity (COBID) certified contractors. This includes the City’s Community Opportunities and Enhancement Program (COEP). This initiative requires 1% of public improvement contract funding be collected and used for workforce development and technical assistance to increase contractor diversity. Qualifying projects have been identified, and funds have been budgeted accordingly for FY 2021-22.

City of Portland  
**Requested Budget Equity Report**

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## **Engaging Communities Most Impacted by Inequities**

The bureau works with two advisory bodies (the Portland Utility Board and the Citizens' Utility Board) as it develops and describes its budget. Both advisory bodies have received this tool, and this year, the Portland Utility Board has received Equity 101 training from the Office of Equity and Human Rights. Some Portland Utility Board members have expressed interest in how the bureau prioritizes equity. The bureau recognizes that these are advisory groups and do not represent all community members. The bureau does not directly engage community members in the development of its budget.

Communities of color were highly involved in the development of the bureau's five-year Strategic Plan and provided input to the bureau's Equity Plan. These two plans are guiding bureau investments in equity over the coming years.

Outreach staff continue to prioritize participation in community events that engage communities of color and immigrant communities and attend new events as appropriate for advancing equity goals. Some of the events the Water Bureau prioritizes include the Martin Luther King Day Celebration, the Annual Muslim Festival, Portlanders Stand with Refugees and Immigrants, Día de los niños, Latino Home Buying Fair, Jade District Night Market, Water Is Life, Good in the Hood, and the NAYA Native American Housing to Homeownership Fair.

The bureau Plan to Advance Equity, Diversity, and Inclusion identifies several ways by which the bureau will increase engagements:

- Expand partnerships with culturally specific organizations to increase education about financial assistance, so that participation rates reflect the diversity of the city.
- Establish a Community Advisory Committee to inform programs, projects, services, and policies
- Develop a community-informed Outreach and Community Engagement Manual for bureau personnel.
- Prioritize the bureau's public presence and reputation with BIPOC communities by continuing to attend community events and trainings, host forums, and sponsor events.
- Connect engagement directly to decision-making and community needs, focusing on interests of underserved communities, including people living with disabilities:
  - o Contract community-based and culturally specific organizations to seek input on projects, programs, and policies.
  - o Build partnerships with trusted community leaders and institutions, including social service, faith-based, environmental justice, and community development organizations.
  - o Create a Community Ambassadors Program for employees, establishing a policy with criteria and training requirements to enable employees to represent the bureau at community events.
  - o Expand the bureau's use of the Community Engagement Liaisons program.

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**Empowering Communities Most Impacted by Inequities**

The bureau's five-year Strategic Plan has specific strategies aimed at creating more ways for people from underrepresented communities to meaningfully inform bureau policies, programs, and projects and creating more and deeper partnerships with community organizations and people from underrepresented communities.

Internal scoping teams representing all workgroups in the bureau are developing the implementation plans for the strategies identified in the bureau's five-year strategic plan. Funding for these initiatives was added in the FY 2021-22 Requested Budget in the amount of \$250,000.

# WATER BUREAU

## HYDRO DIVISION AND FUNDS



January 29, 2021

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Base Budget FY 2021-22	Requested FY 2021-22
<b>Resources</b>					
<b>External Revenues</b>					
Charges for Services	0	0	0	0	0
Miscellaneous	1,282,725	1,963,106	3,074,251	3,277,895	3,277,895
<b>External Revenues Total</b>	<b>1,282,725</b>	<b>1,963,106</b>	<b>3,074,251</b>	<b>3,277,895</b>	<b>3,277,895</b>
<b>Internal Revenues</b>					
Interagency Revenue	246,794	167,869	175,000	175,000	175,000
<b>Internal Revenues Total</b>	<b>246,794</b>	<b>167,869</b>	<b>175,000</b>	<b>175,000</b>	<b>175,000</b>
Beginning Fund Balance	2,841,495	1,515,526	820,217	1,361,677	1,361,677
<b>Resources Total</b>	<b>4,371,014</b>	<b>3,646,501</b>	<b>4,069,468</b>	<b>4,814,572</b>	<b>4,814,572</b>
<b>Requirements</b>					
<b>Bureau Expenditures</b>					
Personnel Services	292,249	321,023	361,022	366,563	366,563
External Materials and Services	2,312,883	2,048,249	2,204,842	2,307,300	2,307,300
Internal Materials and Services	186,552	188,067	214,656	309,234	309,234
<b>Bureau Expenditures Total</b>	<b>2,791,684</b>	<b>2,557,340</b>	<b>2,780,520</b>	<b>2,983,097</b>	<b>2,983,097</b>
<b>Fund Expenditures</b>					
Debt Service	28,378	30,276	31,487	32,749	32,749
Contingency	0	0	1,179,462	1,706,937	1,706,937
Fund Transfers - Expense	35,427	56,452	77,999	91,789	91,789
<b>Fund Expenditures Total</b>	<b>63,805</b>	<b>86,728</b>	<b>1,288,948</b>	<b>1,831,475</b>	<b>1,831,475</b>
Ending Fund Balance	1,515,526	1,002,433	0	0	0
<b>Requirements Total</b>	<b>4,371,015</b>	<b>3,646,501</b>	<b>4,069,468</b>	<b>4,814,572</b>	<b>4,814,572</b>

## Fund Overview

The Hydroelectric Power Operating Fund supports the administration, operation, and monitoring of the Portland Hydroelectric Project (PHP) through the Portland Water Bureau's Hydroelectric Power Division. All expenditures needed to meet the City's responsibilities for PHP are paid by this fund.

### Resources

The primary revenue source for this fund is power sales payments made to the City by Portland General Electric (PGE) for the purchase of electricity that is generated at PHP.

### Managing Agency

Portland Water Bureau

**Significant Changes from Prior Year**

The FY 2021-22 Requested Budget includes an increase in resources of approximately \$0.8 million from the FY 2020-21 Revised Budget. The increase is primarily in beginning fund balance, which increased by \$0.5 million as a result of lower than planned expenses in FY 2019-20.

The FY 2021-22 Requested Budget includes an increase to expenditures of approximately \$0.2 million primarily driven by repair and maintenance costs and property insurance.



	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Base Budget FY 2021-22	Requested FY 2021-22
Beginning Fund Balance	111,457	0	0	0	0
Resources Total	111,457	0	0	0	0
Ending Fund Balance	111,457	0	0	0	0
Requirements Total	111,457	0	0	0	0

## Fund Overview

The Hydroelectric Power Bond Redemption Fund was established to pay the debt service due on revenue bonds that were issued to finance construction of the Portland Hydroelectric Project (PHP). This fund was required by the prior PHP power sales agreement between the City and Portland General Electric.

**Managing Agency**      Portland Water Bureau

## Significant Changes from Prior Year

This fund is maintained in order to easily facilitate the future issuance of debt for the Hydroelectric Power Division. There are no planned bond sales in FY 2021-22.

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Base Budget FY 2021-22	Requested FY 2021-22
Beginning Fund Balance	0	111,457	111,457	111,457	111,457
Resources Total	0	111,457	111,457	111,457	111,457
<b>Requirements</b>					
<b>Fund Expenditures</b>					
Contingency	0	0	111,457	111,457	111,457
Fund Expenditures Total	0	0	111,457	111,457	111,457
Ending Fund Balance	0	111,457	0	0	0
Requirements Total	0	111,457	111,457	111,457	111,457

## Fund Overview

The Hydroelectric Power Renewal and Replacement Fund is a capital fund for the Portland Hydroelectric Project (PHP). The fund provides resources for the repair and replacement of major equipment and facilities that become damaged or are in need of repair.

**Managing Agency**      Portland Water Bureau

## Significant Changes from Prior Year

In FY 2017-18, \$2.4 million was transferred to the Hydroelectric Reserve Account, leaving \$111,457 in the Renewal and Replacement Fund. Funds will be transferred to the Renewal and Replacement Fund as power sales and operating expenses permit. There are no planned transfers to the Renewal and Replacement Fund in FY 2021-22.

**HYDROELECTRIC POWER DIVISION  
CITY OF PORTLAND, OREGON  
FY 2021-22  
PRELIMINARY FINANCIAL PLAN**

**January 2021**



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**City of Portland Water Bureau**

**Mingus Mapps, Commissioner**

**Gabriel Solmer, Administrator**



## **Introduction**

In 1989, the City Code was amended to have the Bureau of Hydroelectric Power report directly to the Water Bureau. The Bureau of Hydroelectric Power was an enterprise bureau charged with developing and then operating hydroelectric projects for the City of Portland. The Hydroelectric Power Operating Fund is the City of Portland financial fund through which the business activity for the City's Portland Hydroelectric Project (PHP) is conducted. The Hydroelectric Power operating budget is currently budgeted as the Hydroelectric Power Division in the overall Water Bureau budget submission.

## **Hydropower Division Fund Structure**

There are two funds that are used to account for PHP operation. The Hydroelectric Power Operating Fund (601000) contains the operating budget which is primarily funded by revenue from the sales of power generated at PHP. The Hydroelectric Reserve Account (601001) is a sub-fund within the Operating Fund established in FY 2017-18. The sub-fund is used to supplement and stabilize operating revenues, serving as a "sunny day" fund to mitigate the impact of periods with low power production or high operating costs. The Hydroelectric Power Renewal & Replacement (R&R) Fund (618000) is a capital fund that is used to pay for repairs, refurbishment or replacement of the facilities related to PHP.

Within the City's Comprehensive Annual Financial Report (CAFR), these funds are rolled up into one fund that is referred to as the Hydroelectric Power Fund. Under the Enterprise Funds – Budget and Actual Section of the CAFR, the funds are accounted for individually.

The Hydroelectric Power Funds are excluded from the Water Bureau's rate based financial structure used for the Water Division of the Water Bureau budget.

## **Revenues for the Hydroelectric Power Operating Fund**

The primary source of revenue for the Hydroelectric Power Operating Fund is from sales of power generated at PHP to Portland General Electric (PGE). Under the Power Purchase Agreement (PPA), PGE purchases all the power generated and PHP is responsible for all operation and maintenance of the facility.

The PPA began January 1, 2018 and requires PHP to make an annual election for guaranteed power sales each September for the subsequent calendar year. PHP may elect a 70% to 90% portion of historical long term mean power sales volume. This volume is then multiplied by the contract price to determine the specified revenue for the calendar year. The contract price, based on a forward price curve, has been pre-established through 2032 as part of the PPA. The contract price is fixed for on-peak and off-peak periods each year. Additional power sales outside of the specified volume are valued at current market prices. PHP utilizes a forward pricing model that is aligned with the PPA to project power sales revenue for FY 2021-22 as follows:

- Generation of power at PHP is driven by the actual amount of power produced during any given Contract Year which is dependent on the amount of precipitation falling in the Bull Run Watershed and the availability of PHP powerhouses to operate when needed

and within compliance of the City’s Habitat Conservation Plan for the Bull Run Reservoir system. For the purposes of Hydropower’s budgeting process, the historical average monthly power generation totals (based on 27 years of data) are adjusted by the annual election, which determines the projected specified, as-available, and deficient volumes.

- The guaranteed revenues are calculated based on the projected specified volumes multiplied by the PPA contract rate. As-available and deficient revenues are projected based on projected volumes multiplied by a forward price curve as of January 2021. The forward price curve utilized is for the Mid-Columbia hub and is the most proximal major electricity hub to PHP. The forward curve projects prices for the next 10 years with year 11 inflated by 3 percent.

FY 2021-22 power sales revenues are projected to total \$3.3 million. Power sales revenues are projected to increase over the five-year period to \$3.9 million as the contract price increases. Another source of revenue for this fund is from an Interagency Agreement with the Water Division for work that Hydropower Division staff performs on Water Division owned facilities.

### **Expenses for the Hydroelectric Power Operating Fund**

The Hydroelectric Power projected total expenses for FY 2021-22 total \$3.1 million. The operating budget includes:

- Personal Services – two full time staff members plus some part time staff
- External Services – operating expenses including maintenance and non-capitalizable repairs. This includes \$1.2 million for an operations and maintenance agreement, \$0.5 million in fees and licenses, \$0.3 million of one-time costs, \$0.2 million for a transmission line maintenance contract, and \$0.1 million for a scheduling contract.
- Internal Services – Interagency Agreements or Cash Transfers with other City entities
- Cash Transfers – transfers from the Hydroelectric Power Operating Fund to the R&R Fund as power sales revenues permit.

### The Hydroelectric Reserve Account

The HRA was funded in FY 2017-18 with \$2.4 million transfer from R&R Fund balance after reconciliation of the prior PPA. This sub-fund is a “sunny day” account which can be drawn on to cover operating expenses as needed throughout the life of the PPA. As additional net revenue from power sales are generated, contributions will be made to the HRA to reach a balance equal to approximately one year of operating expenses. See Figure 1 for projected HRA transfers and balances for FY 2021-22 through FY 2025-26.

**Figure 1**  
**Hydroelectric Reserve Account Projection**  
**(in millions)**

	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Beginning Balance	\$ 1.0	\$ 1.4	\$ 1.2	\$ 1.5	\$ 1.9
Transfers (From)/To HRA	0.4	(0.2)	0.3	0.4	0.6
Ending Balance	\$ 1.4	\$ 1.2	\$ 1.5	\$ 1.9	\$ 2.5

**Hydroelectric Power Renewal and Replacement Fund**

Hydroelectric Power R&R Fund balance was \$2.5 million after reconciliation from the previous PPA. In FY 2017-18, \$2.4 million of this balance was transferred to the HRA, leaving \$0.1 million in the R&R Fund. The R&R Fund will continue to be utilized for capital expenses for replacement of major equipment and necessary improvements to the project to maintain Federal and State licenses.

The Hydroelectric Power Division will need to re-establish the R&R Fund and will transfer funds from the Hydroelectric Power Operating Fund to the R&R Fund as power sales revenues increase and after the HRA maintains a minimum balance equal to one year of operating expenses. This five-year plan does not include any transfers to the R&R Fund based on the projected power sales net revenues. Current projections show contributions to the R&R Fund beginning in FY 2027-28 and continuing for the life of the PPA through FY 2031-32.

**Projected Hydroelectric Power Fund Balances**

This five-year plan projects consistent operating profits as the PPA contract price increases relative to the initial years of the agreement. O&M costs are continuing to increase, but at a slower rate than power sales increases.

Based on current energy market conditions, power revenues from the PPA are projected to exceed operating expenses beginning in FY 2020-21. As a result, PHP is projecting contributions to the HRA beginning in FY 2020-21. There are significant one-time maintenance costs of \$0.6 million planned in FY 2022-23 that will require a draw of \$0.2 million from the HRA. Contributions to the HRA are planned to resume in FY 2023-24 and are projected to continue through the life of the PPA. Transfers to the R&R Fund are expected to begin in FY 2027-28 and continue thereafter. See Figure 2 for the net cash flows of this five-year plan, including HRA transfers.

**Figure 2**  
**Hydroelectric Power Operating Fund Summary**  
**(in thousands)**

	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Beginning Balance	\$ 361.7	\$ 306.9	\$ 269.0	\$ 291.6	\$ 246.1
Revenues					
Power Sales	3,267.9	3,365.8	3,418.9	3,536.3	3,909.8
Other Revenues	185.0	185.0	185.0	185.0	185.0
Total Revenues	3,452.9	3,550.8	3,603.9	3,721.3	4,094.8
Expenses					
Personal Services	366.6	376.8	397.2	408.3	429.1
External Materials & Services	2,307.3	2,967.3	2,428.8	2,492.0	2,556.8
Internal Materials & Services	309.2	317.6	325.8	334.5	343.3
Other Expenses	124.5	127.0	129.5	132.0	134.7
Total Expenses	3,107.6	3,788.7	3,281.3	3,366.8	3,463.9
Net Cash Flow	345.3	(237.9)	322.6	354.5	630.9
Transfer From/(To) HRA	(400.0)	200.0	(300.0)	(400.0)	(600.0)
Ending Balance	\$ 306.9	\$ 269.0	\$ 291.6	\$ 246.1	\$ 277.0

Note:

Totals may not foot due to rounding.