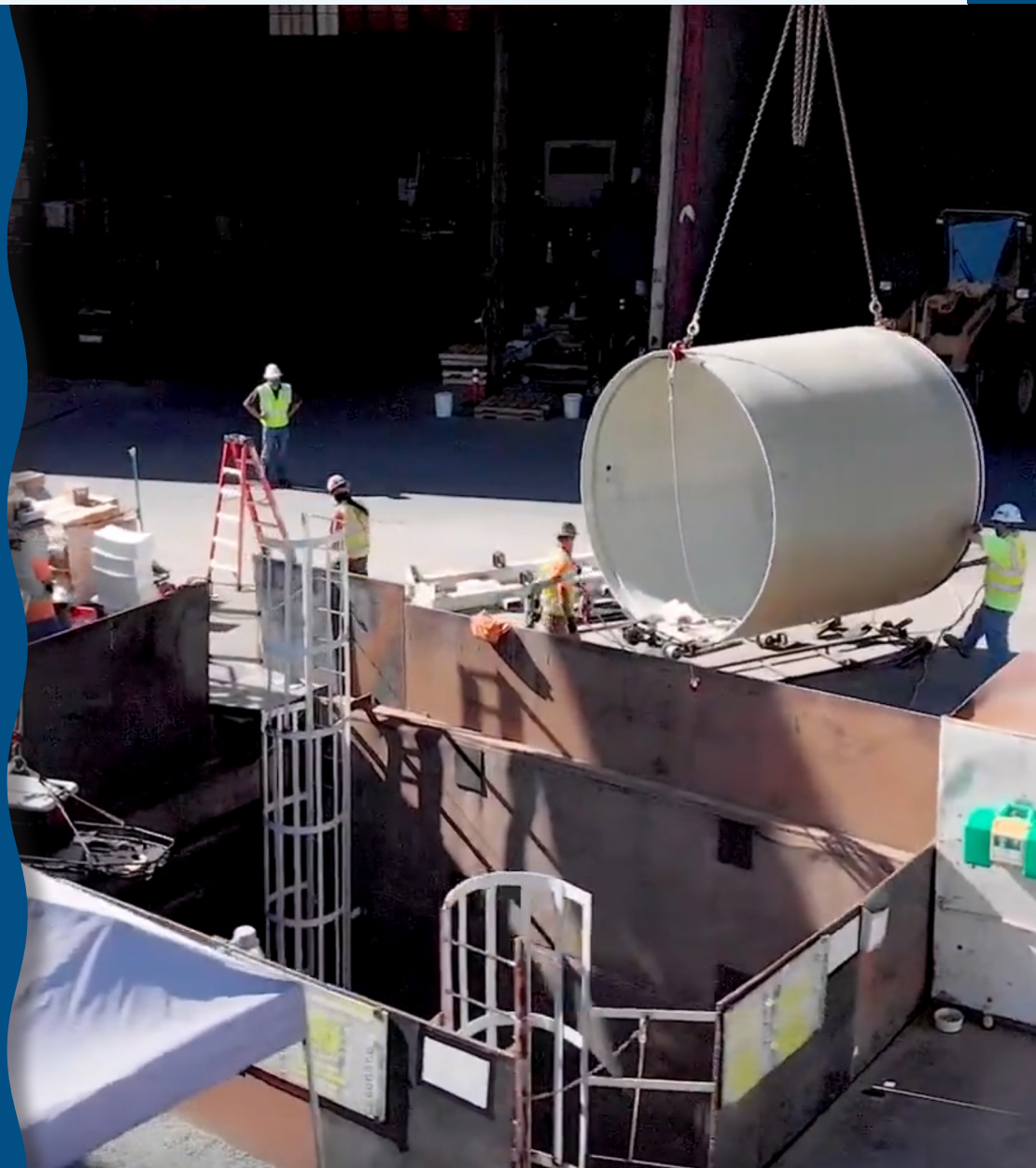




CITY OF PORTLAND | BUREAU OF ENVIRONMENTAL SERVICES

FY 2021-22 Requested Budget

JANUARY 2021



ENVIRONMENTAL SERVICES
CITY OF PORTLAND
working for clean rivers

Mingus Mapps, Commissioner
Michael Jordan, Director





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: BES FY 2021-22 Requested Budget Memo

I am pleased to forward to you the requested budget for the Bureau of Environmental Services (BES) for fiscal year 2021-22.

BES protects public health and the water quality of Portland's rivers and streams by providing wastewater and stormwater management services to more than 600,000 customers every day. This Requested Budget was developed to support the bureau's 10-year strategic plan and reflects a continuation of BES' long-term strategy to achieve both system and financial sustainability.

The Mayor's FY2021-22 budget guidance directed that any proposed rate increase remains within the prior year forecast. Despite increased regulatory requirements, high service expectations, and impacts of the global pandemic, the bureau will be able to meet the community's needs within our previously projected rate increase of 3.15%.

While the impacts of the pandemic do present a challenge, this budget supports the bureau's efforts to maintain an adequate level of capital investment and keeps the bureau on a path towards a sustainable system. The cost of this trajectory is spread across the multiple generations who will benefit from the work being done now and provides access to programs for those experiencing financial hardship and most in need.

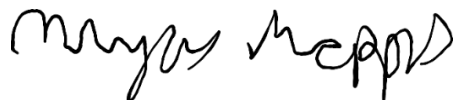
Over the past year, the bureau worked to advance its strategic plan goals with process improvements and a newly restructured organization. BES will continue to monitor and refine those realignments over the coming years. The changes will enable the bureau to increase capital output to repair aging infrastructure and deliver critical services in the most efficient and cost-effective manner.

I support the bureau's ongoing efforts to implement its strategic plan goals, including building community relationships and supporting BES employees. These efforts will help to ensure the bureau's work reflects and addresses community needs and priorities, is focused on the highest priority sewer and stormwater issues, and is supported by a diverse and high-performing workforce.

Increased commitment to equity and inclusion will enhance BES' ability to engage with traditionally underrepresented communities and provide linguistically and culturally-appropriate communications and public outreach. This commitment will also ensure more equitable access to bureau programs, policies, and projects.

Finally, rate stability and access to assistance for those impacted most by the pandemic is a high priority for our community and the bureau. Although increases of around 3% are projected over the next five years to ensure effective operations, regulatory compliance, asset reinvestment and long-term financial sustainability, I support efforts to continue with existing programs and to seek new ways to provide additional rate relief to those most in need.

The bureau will continue to refine efforts to identify cost-savings and improve efficiencies, increase collaborations with other City bureaus and partners to leverage resources and funding, and seek opportunities to combine cost-effective green solutions with grey (pipe) infrastructure to achieve multiple benefits for the community and our rivers and streams. I strongly support the path the bureau is on and look forward to working with BES over the coming year.

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

Director's Budget Memo





CITY OF PORTLAND ENVIRONMENTAL SERVICES



1120 SW Fifth Avenue, Suite 613, Portland, Oregon 97204 ■ Mingus Mapps, Commissioner ■ Michael Jordan, Director

January 29, 2021

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

From: Michael Jordan, Director

RE: Bureau of Environmental Services FY2021-22 Requested Budget

Introduction

I am pleased to submit the Bureau Environmental Services (BES) Requested Budget for FY2021-22. Although slowed by the global pandemic, this budget continues the bureau's path towards long-term sustainability and supports our focus on maintaining critical sewer and stormwater services.

Over the last several years, BES has been re-imagining what it means to be a world-class sewer/stormwater public utility. We began this journey five years ago with a new 10-year strategic plan (published in February 2018). That effort identified a need to revise our Capital Improvement Plan (CIP) development process and management structure, leading to start-up of a Project Management Office in 2019. The CIP is the primary driver of much of the operational and regulatory work we do. Over the past year, we have been implementing organizational changes that more effectively deployed our limited human resources to achieve priority service outcomes for all Portlanders – today and into the future. Our efforts have been challenged and, in some cases, slowed by the global pandemic, but we maintain our resolve to build a better and more resilient BES.

Bureau FY2021-22 Budget Priorities

Like much of the City, BES has been impacted by the effects of the pandemic; however, BES decision-making remains driven by our strategic plan, with critical consideration of Citywide priorities, community input and regulatory compliance. Although the bureau is putting forward a current service level budget, the following priority lenses were used during development of our FY2021-22 Requested Budget:

- **Equity** – The bureau’s equity work is rooted in our Racial Equity Plan. Current priority initiatives focus on internal training and culture building, along with continued improvements in contracting with D/M/W/SDV/ESB firms. BES, the first City bureau to hire two dedicated Equity Managers, has been working diligently bureau wide to develop and improve our tools and capacity to make meaningful progress in improving equitable outcomes both internally and for all Portlanders. Although we are far from calling our efforts a success, there is movement toward equity literacy.
- **Asset Maintenance and Reinvestment** – We are an infrastructure bureau, responsible for over \$15 billion in assets including pipes, pump stations, treatment plants and natural areas. Our efforts in capital planning and delivery, ongoing maintenance and repair, and operational efficiency ensure that we protect the assets currently under our care and invest wisely for the long-term viability and resiliency of Portland’s sewer and stormwater system.
- **Regulatory Compliance and Environmental Leadership** – As the bureau responsible for compliance with the City’s environmental regulations, we continue to build and operate a system that protects Portland’s natural environment. We aim to be a leader in promoting environmental justice and climate resiliency planning. We work diligently with our regulators, partners, educators and the community, including tribal nations and urban Indians, to ensure that Portland complies with all environmental regulations to support healthy rivers, streams, waterways and natural areas.
- **Improvements to Organizational Alignment** – Beginning in FY2018-19, BES began a comprehensive review of our organizational process and alignments to ensure our functions are integrated, collaborative and optimally efficient. Early in calendar year 2020, we completed a significant organizational realignment. Although not at the pre-COVID level initially anticipated, the FY2021-22 Requested Budget supports these changes and we will continue implementation and course correction over the next several years.
- **Long-term Sustainability** – Lastly, our work is rooted in the understanding that we are in business for the very long-term. It is critical that our decisions reflect high-value actions today, but also recognize risks and benefits to current and future generations of Portlanders.

Mayor’s FY2021-22 Budget Guidance

Over the last several years, BES has been on a trajectory of growth to manage increasing demands on the system, assess critical infrastructure, and invest in capital assets to achieve a sustainable system. With the impacts of the pandemic, the bureau is presenting a budget that maintains a current level of service yet meets our regulatory and critical needs. Although the personnel counts in this request show an increase of two positions, the bureau is not requesting additional personnel. The FY 2020-21 count is understated due to a technical error that couldn’t be resolved prior to publishing. This budget leverages our available resources to both meet our

current needs responsibly and, with the capital investment, will stimulate economic growth.

The bureau continues to work with our bureau partners to support the work they do on behalf of the sewer and stormwater systems and ultimately rate payers. This budget additionally supports our partners efforts to improve their systems that will improve efficiency in the long run. BES is additionally supportive of the Water Bureau's efforts to provide access to programs that support the most vulnerable communities, including those most in need during the pandemic and the economic crisis.

This budget provides funding to meet all federal and state regulations and maintain system infrastructure while keeping rates in alignment with the multi-year financial plan presented for FY 2020-21. The bureau continues to invest in capital assets and spread much of the cost across multiple generations by financing a portion of the capital program over multiple years. This helps to ensure that costs of today's capital investment, composed of assets that will last many years, are not fully paid by the current rate payers.

This is a challenging time for everyone and we believe the budget we are presenting today rises up to that challenge and supports our mission in a responsible manner.



Bureau Oversight



PORTLAND UTILITY BOARD

Members:

Dory Robinson, co-chair

Heidi Bullock

Robin Castro

Kaliska Day

Julia DeGraw

Theresa Huang

Tom Liptan

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City Budget Office
1120 SW 5th Ave, Ste 1010

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.

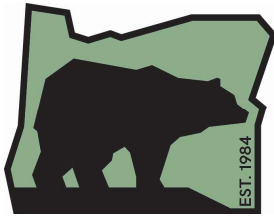
The PUB recognizes that this is a tough time that many customers, both households and businesses, are going through and is especially harder for people who are the most impacted by this public health crisis particularly Black, Indigenous and People of Color and other historically underrepresented communities. 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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Portland, OR 97205

(503) 227-1984
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January 19, 2021

To: Bureau of Environmental Services (BES) Commissioner-in-Charge Mingus Mapps
c/o Senior Policy Advisor Matt Glazewski
Michael Jordan, Dawn Uchiyama, Steve Hansen, and Farshad Allahadi, BES

cc: Portland Utility Board (PUB) c/o Eliza Lindsay
Yung Ouyang, City Budget Office (CBO) Analyst for BES

From: Janice Thompson, Oregon Citizens' Utility Board (CUB)

Re: CUB Input on Development of Requested BES FY 2021-2022 Budget

Introduction

This memo includes all the information and replaces our December 31, 2020 memo. That memo focused on Capital Improvement Planning (CIP) elements of the BES FY 2021-22 requested budget while this memo concludes with a brief comment on the BES program offers.

Compliance with Mayoral Budget Guidance

CUB supports Mayor Ted Wheeler's budget guidance to BES to hold rate increases at the level approved as part of both utility bureaus' multi-year financial plan discussed within the context of FY 2020-21 budget development. For BES this means a 3.15 percent rate increase for the typical single family month bill for the FY 2021-22 budget.

CUB also supports the additional bullet points in the Mayor's budget guidance memo, especially collaborative work with the Portland Water Bureau (PWB) 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 PWB but highlighting this topic is important in this BES memo since stormwater management and sewer costs comprise about two-third of a typical combined BES/PWB bill.

Secondary Treatment Expansion Program

Regarding the Secondary Treatment Expansion Program (STEP) at Columbia Boulevard Wastewater Treatment Plant (CBWTP), a year ago CUB recommended: 1) far greater attention to planning, and 2) clear delineation between investments that are directly related to meeting regulatory mandates and investments for other CBWTP projects. CUB continues to understand the regulatory and other drivers behind the need for major CIP STEP investments at CBWTP. However, we are pleased to learn that delegation of the STEP effort to the Project Management Office and a commitment to value engineering is proving to be effective in finding cost savings in the STEP project. It is no surprise that challenges have occurred in STEP implementation given the scope of this effort, but they have been effectively addressed in a timely fashion. At this point, for example,

\$17 million in savings due to value engineering have been found, out of a possible savings estimate of \$40 million. In terms CIP planning, it is understandable that STEP continues to dominate, and it is appropriate that other CIP projects are delayed, when feasible. CUB requests continued STEP updates in 2021.

New CIP Projects and Major Additions to Existing CIP Projects

CUB's review of CIP planning focuses on new projects entering the five year CIP plan for the first time and major additions to projects in their early stages. Identifying concerns with the need for and/or cost of projects early in the CIP planning process facilitates timely and effective oversight.

Regarding major additions to existing CIP projects, CUB appreciates the identification of upward adjustments to cost estimates for three projects and documentation of heightened project management attention resulting in improved cost estimates. Increased STEP costs comprise 5 percent of the total cost for this project and should be manageable via value engineering. Separate from STEP improvements, improving blowers in another CBWTP facility also seems to be a prudent cost increase based on improved project management, though, rigorous project management must continue. Large scale pipe replacement cost estimates have increased due to continual evaluation of asset condition and program priorities resulting in an updated forecast. Given the importance of this program this cost increase seems reasonable and appropriately offset by other CIP adjustments.

Possible new CIP projects are assessed via review of either project request forms (PRF) or feasibility PRFs. Given COVID-19 related budget challenges, only top priority requests were to be submitted. This meant fewer PRFs were submitted than in previous years. However, CUB has some concerns and requests additional information about the six PRFs and one FPRF submissions and their evaluation. Cost estimates for these new project requests range from \$500,000 to \$17.6 million with all but one cost estimate at \$5 million or less. Evaluation of these new requests used a scoring process related to the timing of their potential start date. All of these projects were rated as either 1s or 2s. A project with a 1 score is recommended to move into the FY 2021-22 CIP plan and start in FY 2022 while projects with a 2 score were recommended with either a FY 2023 or FY 2024 start date.

Especially since the three projects with a one score are in the low end of the cost estimate range, CUB is inclined to agree with that score. The two score for the remaining four projects seems appropriate but CUB suggests ongoing review to see if an additional delay is feasible, especially since the longevity of COVID-19 related budget impacts are uncertain. In particular, CUB requests additional information on the \$17.6 million Eastbank Crescent Restoration/Willamette Mitigation Bank project. CUB anticipates that we won't disagree regarding the need and value of this project, but it is striking that its \$17.6 million cost estimate is 59 percent of the total estimated costs of the seven F/PRFs. It seems appropriate that the Eastbank Crescent Restoration/Willamette Mitigation Bank project received a 2 score since that provides more time to review this cost estimate and the timing of this effort. An additional CUB request is an update on any possible adjustment to the score of this project.

Program Offers

Beyond the program offerings reference to STEP which is discussed above, CUB does not see major issues with the non-CIP items in the proposed FY 2021-22 BES budget. CUB particularly supports BES not adding any new positions during this time of COVID-19 related uncertainty.

Bureau Summary



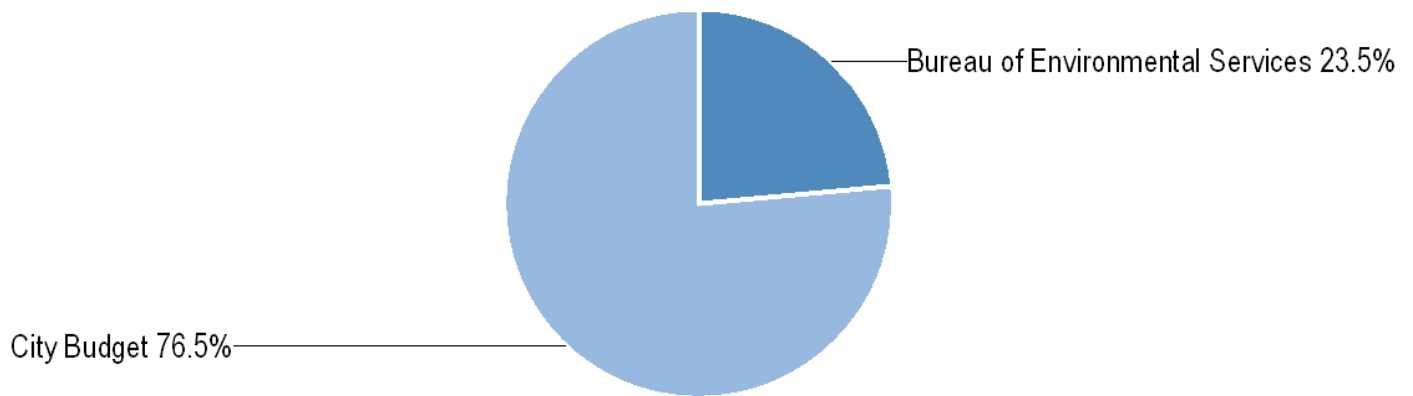
Bureau of Environmental Services

Public Utilities Service Area

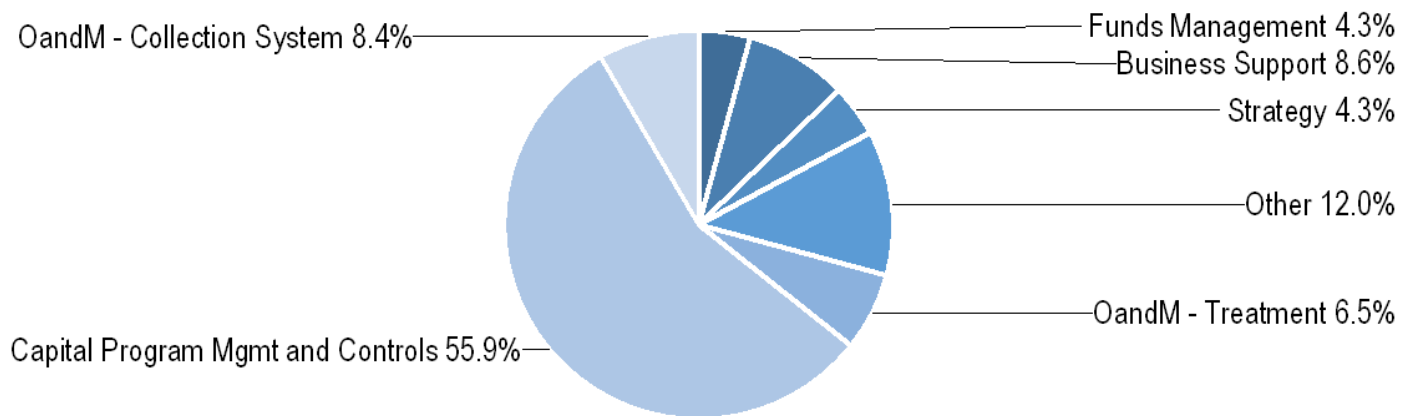
Mingus Mapps, Commissioner-in-Charge

Michael Jordan, Director

Percent of City Budget Graph



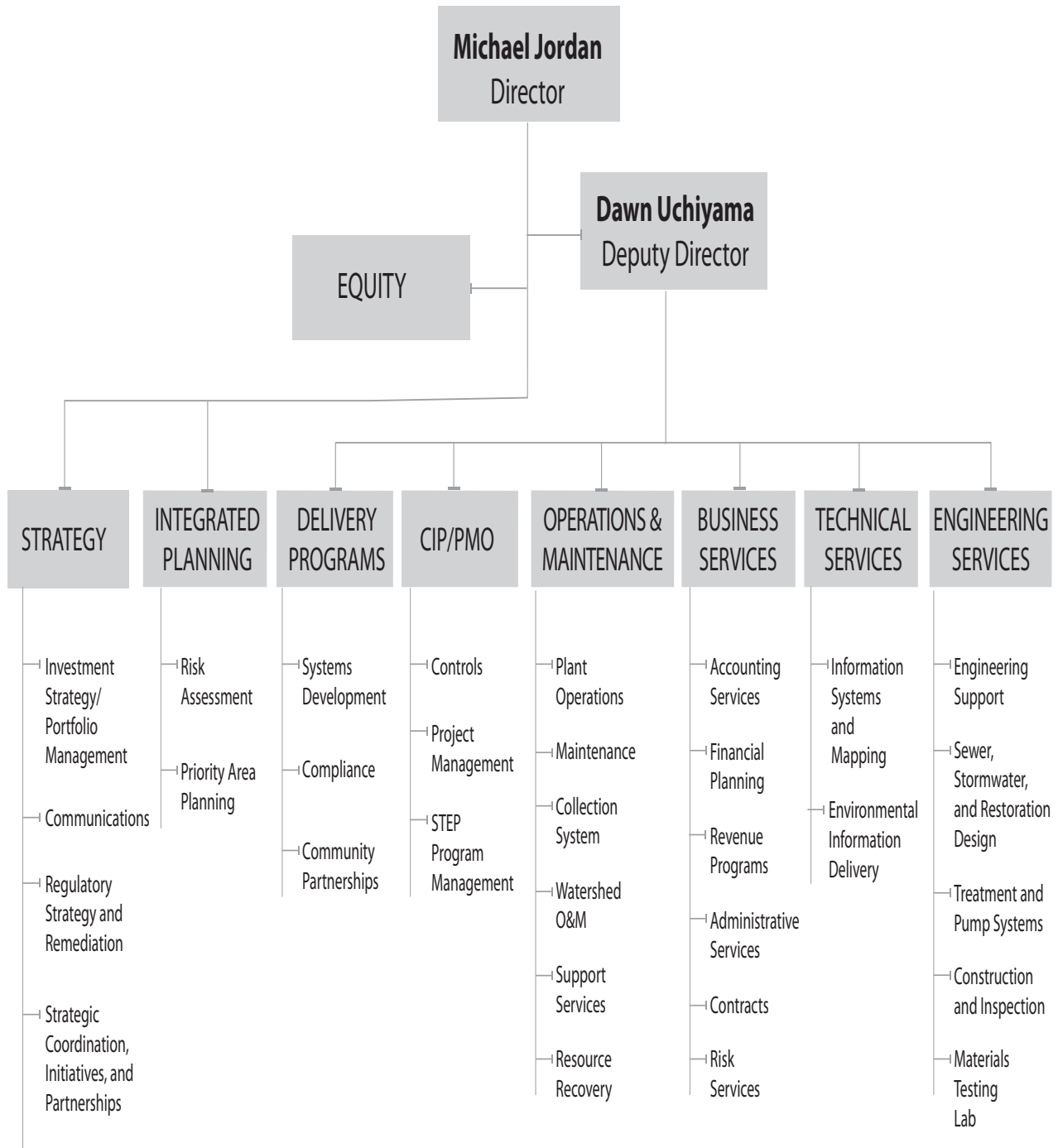
Bureau Programs



Bureau Overview

Requirements	Revised FY 2020-21	Requested FY 2021-22	Change from Prior Year	Percent Change
Operating	\$1,086,949,495	\$1,089,672,323	\$2,722,828	0%
Capital	\$170,544,532	\$227,109,000	\$56,564,468	33%
Total	\$1,257,494,027	\$1,316,781,323	\$59,287,296	5%
Authorized Positions	626.00	628.00	2.00	0.32%

Bureau of Environmental Services



Bureau Summary

Bureau Mission

The Bureau of Environmental Services (BES) manages Portland’s wastewater and stormwater infrastructure to protect public health and the environment.

BES’s strategic vision is to be a mission-driven, high-performance organization, leading the City in preserving and restoring the health of Portland’s watersheds.

We Value:

- ◆ Our customers and partners
- ◆ Portlanders’ sense of connection to their waterways
- ◆ Conscientious stewardship of our watersheds, wastewater and stormwater infrastructure, and financial resources
- ◆ A diverse, collaborative, healthy and engaged workforce
- ◆ Leadership among our employees and in our City and community
- ◆ Equity in our workplace, business practices, and service delivery
- ◆ Clear communication and transparency
- ◆ Innovative, sustainable, and resilient solutions

Bureau Overview

The bureau operates and maintains Citywide sanitary sewer and stormwater collection systems and serves a population of approximately 665,000. The bureau is also the City’s lead agency for watershed protection and restoration and recovery of threatened salmon and steelhead species. The bureau is funded primarily by retail sewer and stormwater charges, wholesale contract revenues from surrounding jurisdictions, system development charges, permit-related fees, and reimbursements for services provided to other bureaus. New for this fiscal year, the bureau has undergone a comprehensive organizational change and has realigned the work we do into 8 new organizational units: Strategy, Integrated Planning, Delivery Programs, Capital Improvement Program Project Management Office, Operations and Maintenance, Business Services, Technical Services, Engineering Services, and the Office of the Director.

The FY 2021-22 Requested Budget for operating and capital expenditures is \$411.0 million which is \$40.9 million – or 11.0% - higher than the FY 2020-21 Revised Budget and includes 628 full-time equivalent positions with no new positions requested (Note: FY 2020-21 revised budget information herein understates the bureau’s current positions by two.) The majority of the increase is within the capital portion of \$227.1 million, an increase of \$56.6 million (+33.2%) as the bureau moves forward with the Secondary Treatment Expansion Program which is required to be completed by the end of 2024. The operating portion of the requested budget, reflecting program costs of \$183.9 million, is 7.9% or \$15.7 million lower than the FY 2020-21 Revised Budget of \$199.6 million, which contains one-time items of \$12.4 million for the bureau’s share of Portland Building Renovation project and \$3.3 million of additional vehicle purchases that were carried over from the previous fiscal year. Also, the Utility License Fee paid to the General Fund is

expected to decline by \$912,000 due to the impact of the pandemic on sewer rate revenues. Excluding these items, the FY 2021-22 requested operating budget will increase by about \$0.94 million, or +0.6%. The typical single-family residential sewer and stormwater bill for FY 2021-22 is anticipated to increase by \$2.45 per month, or 3.15%, to support this Requested Budget and the long-term forecast.

The FY 2021-22 Requested Budget considered the December 2020 guidance memo from the Mayor, as well as any input received by the Portland Utility Board and Citizen's Utility Board. At the direction of the Mayor, this budget is submitted with a rate of increase of 3.15% and is within the projected rate of increase from the bureau's multi-year financial plan presented in FY 2020-21. Although slowed by the impacts of the pandemic, the bureau continues on stable financial footing. The bureau is on a lower cost trajectory than in prior years, but this budget balances low rate increases over an extended timeframe against long-term system risk to encourage system sustainability and intergenerational equity for all Portlanders.

Strategic Direction

In February 2018, the bureau completed a comprehensive update to its 10-Year Strategic Plan. The bureau is now actively using the Strategic Plan to prioritize operational and capital investments, to identify and utilize performance measures, and to assist with ongoing course correction. The strategic initiatives identified in the Strategic Plan have been used to guide development of this FY 2021-22 Requested Budget. Fully connecting the circuit between budget development, ongoing performance review, and adjustments to strategic prioritization will occur over multiple budget cycles.

The program narratives included in this Requested Budget – including any proposed budgetary adjustments – describe connections to strategic goals and priorities. The bureau expects that future budgets will continue to improve connections between measurable program outcomes and meaningful performance metrics that reflect priorities identified in the bureau's Strategic Plan and Equity Plan.

BES recently completed a comprehensive assessment of our organizational alignment and processes to promote optimal delivery of bureau and community priorities. This assessment included reviewing current resources, processes and best practices, and bureau leadership is continuing to work through organizational realignments and process improvements. Much of the organizational realignment has been established and this will be the first year it is presented in the Requested Budget. This is an ongoing effort as the organizational structure is refined. Additional decisions may be made throughout the budget process and the bureau acknowledges the need to remain flexible throughout FY2021-22.

The bureau remains in a financially strong position – due in large part to a healthy fund balance in the Rate Stabilization Fund – and continues a financial planning strategy that supports long-term financial stability, while providing ratepayers with predictable and manageable rates over a multi-decade period. In November 2020, in the midst of the COVID-19 pandemic, the bureau's credit ratings were reaffirmed with stable outlooks by both Moody's and by Standard & Poor's.

Financial Forecast Overview

The five-year financial forecast presents the bureau’s revenue and expenditure plan for the operation, maintenance, expansion, and reconstruction of the City’s sanitary sewer and stormwater systems. The operations, maintenance, and capital construction programs represented in the plan must provide for operation of the system in a safe, sound, and efficient manner as well as compliance with all applicable health, safety, and environmental laws, regulatory body rules and orders, and court orders. Revenues from rates and other sources must be sufficient to fund the necessary operation and capital programs. Based on the most recent update of the financial forecast, the bureau forecasts annual rate increases of 3.15% for FY 2021-22 and 3.15% annually until FY 2025-26 when the rate increases slightly to 3.25% and remains at that level for the long-term duration of the forecast. These increases are due to a combination of factors including inflationary increases, changes to operational costs to meet service expectations, and CIP investments including cash-funded projects and annual debt service on bonds that fund the CIP. Over the life of the forecast, rate increases are expected to be partially offset by transfers from the Sewer System Rate Stabilization Fund and by increases in non-rate revenues.

Additional detail, including revenue and expense projections, key assumptions, and long-term risks is included in the bureau’s ‘Preliminary Five-Year Financial Plan’ document submitted as part of the FY 2021-22 Requested Budget.

MAJOR ISSUES

System Operations

The FY 2021-22 Requested Budget includes \$61.4 million to support the operation and maintenance, inspection, cleaning, and repair of two treatment plants, 88 active pumping stations, 10 step systems, 3,015 miles of pipeline, 41,272 sewer access structures (manholes), 9,270 storm access structures, 8,643 stormwater sumps (underground injection control, or UIC), 727 miles of laterals, 95 miles of ditches, 73 miles of culverts, 55,530 stormwater inlets and catch basins, 328 trash racks, 155 manufactured stormwater facilities, and 2,283 green street stormwater facilities. This amount includes operation and maintenance costs on the collection system of \$34.7 million and \$26.7 million on the treatment plants and pump stations.

Infrastructure Investments

Asset inventory and condition assessment continues to be a major theme for two of BES’s infrastructure systems:

- ◆ The stormwater system, which includes the swales, ponds, channels, creeks, sloughs, ditches, culverts, sumps, and pipe systems that convey and treat stormwater runoff from the land; and
- ◆ The wastewater treatment system, which includes the City’s two wastewater treatment plants - the Columbia Boulevard Wastewater Treatment Plant (CBWTP) and the Tryon Creek Wastewater Treatment Plant (TCWTP).

The goal of this work is to identify the built and natural components of the systems, determine their current condition, predict their remaining useful life, and prioritize an optimal replacement and maintenance schedule. This will allow the bureau to better determine the ideal level of investment to sustain adequate levels of service over time.

Additionally, a significant planning effort is underway to update the 2012 Combined and Sanitary System Plan, which covers the two other BES infrastructure systems:

- ◆ The combined sewer system, which includes the network of pipelines and pump stations that collect and convey combined stormwater and wastewater; and
- ◆ The sanitary sewer system, which includes the network of pipelines and pump stations that collect and convey wastewater.

This *Continuous Collection System Plan (CCSP)* effort, as well as the recently completed Pump Station System Plan and in-progress Stormwater System Plan, all incorporate asset inventory and condition data along with risk information.

BES completed a BES Resiliency Plan in 2019 to identify infrastructure vulnerabilities to major risks such as earthquakes and climate change. The results of this project influence system planning and project design and align CIP project priorities in future years.

The outcome of these condition assessments and planning efforts, as well as regulatory requirements, suggests a trajectory of increased capital investment to support the needs of the aging infrastructure systems, with the goal of creating a reliable and sustainable sewer and stormwater system that optimally spreads risk and cost across multiple generations. BES estimates the replacement value of the bureau's assets at approximately \$15.2 billion; with over \$9.7 billion of that in the nearly 2,000-mile sanitary and combined sewer pipe system. While 77% of the collection system pipe is in good or fair condition, a significant amount of pipe is in poor or very poor condition. The bureau estimates that roughly \$1.7 billion of system assets are in poor or very poor condition. Future maintenance needs are anticipated to increase until those assets can be replaced.

System assets – including collection system pipes and both treatment plants – are anticipated to require sizable annual investments well into the future to address the backlog of critical maintenance needs. In addition, new regulatory requirements mandate expanded secondary treatment capacity at CBWTP. Unlike pipe – which can last 100 years or more under the right conditions – mechanical systems require reinvestment on a more regular cycle, generally every 25 to 50 years.

In FY 2018-19, the bureau completed the CIP Process Review and Enhancement Project (CIP-PREP), a multi-year effort to improve CIP planning, prioritization and delivery processes. Implementation of improvements to the bureau's CIP development and management process – including creation of a Project Management Office – began in FY2019-20 and will continue over the coming years.

See the section titled 'Capital Summary' for more information on the bureau's infrastructure investments and CIP.

Water Quality Compliance

The FY 2021-22 Requested Budget contains water quality compliance-related funding across a variety of bureau program areas, including Delivery Programs and Technical Services. Compliance with the City's two National Pollutant Discharge Elimination System (NPDES) permits for the wastewater treatment plants and the Municipal Separate Storm Sewer System (MS4), along with water quality regulations requires the bureau to conduct specific actions, including monitoring and analysis, modeling pollutant loads and stormwater runoff

volumes, conducting a pretreatment program, conducting an industrial stormwater program, requiring and inspecting stormwater controls on private property, and evaluating the effectiveness of stormwater management actions. The bureau must also comply with the conditions of an Underground Injection Control (UIC) permit issued by Oregon Department of Environmental Quality (DEQ) for the City's approximately 9,500 stormwater sumps.

Portland Harbor Superfund

The bureau represents the City's interests on the Portland Harbor Superfund site. Over 10 years ago, the City, the Port of Portland and several Portland businesses entered into an Agreement on Consent with EPA which required that they perform and fund the investigation of the contaminated sediments. That investigation is complete. In January 2017, The United States Environmental Protection Agency (USEPA) issued a Record of Decision (ROD) which outlines how the site will be cleaned up. With the release of the ROD, focus has turned to partnering with other government agencies and City bureaus on the next phase of work, including community outreach and working with other potentially responsible parties so that design for in-water work can proceed. During FY2019-20, the City began three new remedial design efforts which include the Willamette Cove site, a joint City and State funding offer, and the site-wide Information Management Plan. Those efforts are continuing in FY 2020-21 and will continue into FY2021-22 and beyond. The FY 2021-22 Requested Budget includes \$6.4 million (excluding amounts paid on behalf of other bureaus and Prosper Portland) of funding related to the Portland Harbor Superfund.

Endangered Species Act (ESA) Requirements

The bureau continues to develop and implement a comprehensive watershed framework for the protection of 13 Endangered Species Act-listed salmon and steelhead species in Portland per the requirements of the Endangered Species Act. In addition, the bureau is implementing the July 2013 federal recovery plan issued by the National Marine Fisheries Services (NMFS). A number of the recovery plan requirements are necessary for the bureau's compliance with permits under the Clean Water Act.

Capital Summary

CIP Highlights

The Bureau projects the need to significantly increase delivery of annual CIP projects over the next ten years, driven by several factors including aging infrastructure and deferred maintenance, regulatory requirements, public input, the City's Comprehensive Plan, City Council priorities, evolving operational needs, and updated BES system plans. The FY2021-22 Requested CIP Budget of \$227.1 million is 33% higher than the last year's budget. Future years are projected to peak at approximately \$260 million, as the Secondary Treatment Expansion Program (STEP) goes into construction in FY2021-22 through FY2023-24, before scaling back down to approximately \$138 million of known projects in FY 2025-26. The Five-Year Financial Plan assumes that the final two years will include additional projects, yet to be identified in the capital budget, that will bring the yearly total to nearly \$175 million per year.

Major process improvements and organizational changes to support increased CIP delivery began in FY2019-20 with creation of the Project Management Office (PMO). Initial staffing is focused on improving the capital project delivery process, continuing improvements and maturation of project and program controls functions, improving project scheduling, and managing a subset of CIP projects through a new model of dedicated project managers, distinct from project engineering. These improvements will increase efficiency in project delivery and optimize limited staffing resources to deliver a larger annual project throughput. Further implementation of the new processes and procedures continues in FY 2021-22, and the bureau is moving toward managing most capital projects through the PMO in the coming years.

As part of the bureau-wide reorganization and process improvement effort, the bureau is creating a new portfolio framework built around the lines of service the bureau delivers to our community. Rather than the four historic categories of capital work (Treatment, Maintenance & Reliability, Surface Water, and Systems Development), the bureau will now organize its work into seven service portfolios:

- ◆ Wastewater Resource Recovery
- ◆ Collection System Pumping
- ◆ Sanitary and Combined Collection
- ◆ Stormwater Management
- ◆ Restoration and Remediation
- ◆ Non-Process Properties and Facilities
- ◆ Support/Miscellaneous

This framework will allow for a more direct linkage between regulatory requirements and other City and community drivers for the services BES provides and the range of specific investments being made to deliver those services. It will also allow BES to better align its capital and operating investments to ensure it is best delivering its services in the most coordinated and efficient way possible.

The Requested Budget includes \$227.1 million in capital investment for FY2021-22 and \$964.0 million over five years. A significant amount of work is underway at the Columbia Boulevard Treatment Plant (CBWTP), addressing operational, deferred maintenance and long-term capacity issues, and to address permit requirements. The Wastewater Resource Recovery portfolio comprises almost half of the total CIP for the next five years, \$440.4 million. Facilities expansion through STEP at the CBWTP, estimated at just above \$400 million over multiple years, will increase wet weather treatment capacity and ensure compliance with new regulatory requirements. Other major treatment plant programs and projects are discussed in sections below. The Collections System Pumping portfolio covers the Bureau's nearly 100 pump stations citywide and is budgeted at \$19.4 million for next fiscal year and \$110.6 million over the next five years.

The Sanitary and Combined Collection portfolio, which includes projects for capital repair and replacement of collection pipes in the sanitary and combined sewer systems, makes up \$70.3 million in the FY 2021-22 Requested Budget and \$247.1 million in the five-year CIP (26% of the total). Also, in this portfolio are a series of projects designed to address the risk of basement sewer backups and street flooding due to pipe capacity, as well as expansion of city's sewer collection system to accommodate new development.

Approximately \$9.8 million is budgeted in FY2021-22 for the Restoration and Remediation portfolio projects (with \$67.1 million total in the five-year CIP). These projects address high priority, regulatory-driven projects that meet multiple watershed health objectives. Additionally, \$16.3 million has been allocated to the Stormwater Management portfolio which addresses stormwater system deficiencies (i.e., stormwater service outside the combined collection system). This portfolio comprises \$68.6 million of the total CIP over the 5-year term.

The remainder of the CIP includes \$9.0 million in FY2021-22 and \$30.2 million over the five-year CIP to address numerous Bureau non-process facilities city-wide, feasibility studies, software implementation, and the City's Community Opportunity and Enhancement Program.

Additional information about the portfolios is included in the Capital Programs and Major Projects section below.

Major CIP Priorities

Environmental Services has a regular inspection program to determine pipe condition. The use of video technology allows the bureau to focus repair and replacement efforts on pipes that are in the worst condition. Much of the City's collection system is in good or fair condition, but it is a high priority to address those areas of our system that are in poor condition, especially those assets that also serve as a critical infrastructure based on the BES Resiliency Master Plan. Continuing a long-term, programmatic approach to pipe repair and replacement through the Large-Scale Sewer Rehabilitation Program and the supporting integrated planning process are a priority for the bureau.

Capital maintenance and upgrades to the two wastewater treatment plants and 98 pump stations located throughout the collection system are also a high priority. These urgent and highly complex projects, featured prominently over the next five to ten years, weigh heavily in decision making around resource allocation to other portfolios in the CIP. The STEP program (currently estimated to be just above \$400 million), mentioned above, is the largest single capital program (suite of projects) for the bureau since the Combined Sewer Overflow (CSO) program. It is progressing in the design phase and planned for construction completion by the end of 2024 as required in a Mutual Agreement Order with Department of Environmental Quality. For Tryon Creek Wastewater Treatment Plant (TCWTP), the major capital projects are on-hold pending the City of Lake Oswego's pursuit of a public private partnership to potentially shift to a new small footprint treatment plant that is owned by the City of Lake Oswego. While this evaluation is occurring, investment in TCWTP will focus on immediate reliability needs. If the replacement plant concept is not pursued, TCWTP is projected to require over \$90 million in capital investment over the next ten years, including improvements to replace obsolete facilities, increase efficiency of the overall plant processes, and prepare the plant for meeting anticipated permit requirements.

Bureau of Environmental Services

Changes from Prior Year

In comparing this proposed five-year CIP to last year's 2021-2025 CIP, the four common years (2022-2025) have increased by \$50.7 million across the four years, roughly 6.5%. The primary drivers were:

- ◆ Updated forecast based on reevaluation of program prioritization and conditions. Due to COVID-19 related City-wide budget constraints, the bureau's immediate CIP emphasis has shifted toward projects addressing imminent threats or risk to human health and safety, asset failure, and projects addressing regulatory compliance. Projects with longer term risks and benefits, or with reduced urgency, have been postponed where possible.
- ◆ New projects added to the CIP, including the \$15 million Eastbank Crescent Willamette Riverbank Restoration, and updated estimates for large programs such as STEP.

While all projects in the five-year CIP are in FY 2020-21 dollars, inflationary assumptions are incorporated into the five-year financial forecast.

Connections to City Goals, Priorities and Plans

The City's 2035 Comprehensive Plan guides future development through a set of goals and policies across a broad range of urban issues. One of those policy areas is public facilities and services, which provides guidance on how the City spends money to maintain and construct physical facilities and public services necessary to support the approved land use patterns. Goals and policies in the plan address wastewater and stormwater facilities, systems and services, as well as flood management and watershed health.

The CIP reflects BES's commitment to protecting public health, safety and the environment in Portland, meeting the objectives of the City's 2035 Comprehensive Plan, and incorporating City equity goals and BES strategic initiatives. The bureau's new Integrated Planning Group (IPG) serves to connect Bureau strategic goals and community objectives to the prioritization and implementation of programs and CIP projects. Using asset management standards of practice, the IPG assesses risk across systems owned and managed by the Bureau and develops integrated solutions which optimize opportunities and community benefits. IPG oversees the Bureau's resiliency efforts (climate and seismic), including coordination with other bureaus' resiliency planning, recommends changes to standards and processes to achieve resiliency goals and provides guidance for incorporating resilient solutions into capital projects. Capital project planning at BES includes an analysis of the capacity of the existing system as compared to densities in the Comprehensive Plan, and analysis of asset condition to recommend projects that protect the City's infrastructure investment for current and future system users.

CAPITAL PLANNING AND BUDGETING

Capital Planning Process

Annually, BES prepares a one-, five-, and ten-year CIP. The CIP is developed using a multi-step process to identify, develop, review, score, and rank projects for funding and scheduling priority. This process ensures that the core needs of the sewer, drainage, and surface water systems and the community they serve are appropriately funded and scheduled. Projects originate from recommendations in BES system plans (discussed above), urgent and emergency projects to address asset failures, regulatory mandates, watershed planning, and inter-bureau collaborations. An internal BES stakeholder and subject matter expert review team

investigates, scores, and ranks all proposed CIP projects in accordance with identified CIP criteria, to evaluate relative priorities across all systems and project types. The PMO's CIP program controls team evaluates all the information from the process, works with bureau project and program managers to refine cost and schedule data, and submits a recommendation to the Bureau Director for approval of the CIP. The Portland Utility Review Board (PUB) and Citizens Utility Board (CUB) are provided with periodic updates through the CIP development process, including the annual and five-year CIP. Those community advisory bodies provide oversight and input on the overall CIP as well as specific projects or programs. The CIP planning process also includes "feasibility projects" that are funded with initial pre-design budgets only, in order to support more robust project scope and cost information to include in future CIP requests.

Criteria

The CIP development strategy is focused on strategic and comprehensive portfolio delivery to address goals and priorities discussed above, within a prescribed regulatory framework. Scoring criteria to prioritize projects are based on an asset management approach and weighted to account for the likelihood and consequence of failure of the asset if the proposed project is not completed. Criteria includes impacts to human health and safety, business and residential customers, and impacts to public infrastructure such as streets. Service levels for the likelihood and consequence scoring are based on established system plans, where available (e.g., the 2012 Combined and Sanitary System Plan), and are being revisited and updated in the coming years as part of the bureau's Strategic Plan and organizational transition efforts. Additional prioritization is given to those projects mandated by federal and state laws and those projects that address City Council direction, including collaborative projects between BES and other bureaus.

Equity considerations (for example, impacts on vulnerable communities) are built into the system planning processes that feed projects into CIP development. For example, in planning for both the combined sewer system and the stormwater system, projects are ranked and prioritized against all other needs within that system based on multiple factors of risk, including equity impacts on vulnerable communities. That information follows through to the CIP development (scoring) process, where benefits and burdens on communities of color, underserved and marginalized communities can be raised and included in the decision-making to fund a capital project. Although equity considerations are not yet explicitly and consistently factored into the scoring criteria, the ongoing BES organizational transition work includes efforts to align equity considerations across system planning, portfolio management, and the CIP prioritization processes.

Asset Management and Replacement Plan

As discussed above, BES estimates the replacement value of the bureau's assets at approximately \$15.2 billion, with over \$9.7 billion of that in the nearly 2,000-mile sanitary and combined sewer pipe system. While 85% of the combined and sanitary sewer pipes are in good or fair condition, a significant amount of pipe is in poor or very poor condition. The bureau estimates that roughly \$1.5 billion of the bureau's assets are in poor or very poor condition. These asset reinvestment needs

require significant increases to capital project delivery throughput – from the historic average level of approximately \$80 million annually to upwards of \$150 million annually (the majority of the planned CIP). This need is a key driver behind the Bureau’s recent reorganization to integrate planning efforts and increase efficiency in project delivery.

CAPITAL PROGRAMS AND MAJOR PROJECTS

The Capital Improvement Program is divided into seven portfolios:

- ◆ Wastewater Resource Recovery
- ◆ Collection System Pumping
- ◆ Sanitary and Combined Collection
- ◆ Restoration and Remediation
- ◆ Stormwater Management
- ◆ Non-Process Properties & Facilities
- ◆ Support/Miscellaneous

Wastewater Resource Recovery

This portfolio funds projects located at the treatment plants. Both treatment plants operate within the framework of the Federal Clean Water Act. Specific requirements for removal of pollutants from wastewater before the treated effluent is discharged into the Columbia or Willamette Rivers are contained in the National Pollution Discharge Elimination System permit for each plant. High priority is given to projects that provide reliability, maintaining treatment capacity, operation and maintenance improvements and extending the longevity of the facilities.

Major categories of Wastewater Resource Recovery projects include:

- ◆ Treatment Facilities - Rehabilitation and Modification: Both the CBWTP and TCWTP are major capital assets over 60 years old that require ongoing investment for repair, rehabilitation, and maintenance (RR&M) work to protect the capital investment and enhance system reliability. This portfolio is key to preventing violations of the City’s NPDES permit.
- ◆ CBWTP Secondary Treatment Expansion Program (STEP): Expansion of secondary treatment capacity is required per an agreement with Oregon Department of Environmental Quality (ODEQ) to increase secondary wet weather treatment capacity for captured CSO flows sent to CBWTP during storm events. The program also includes long overdue solids processing upgrades for effective plant operation and to meet permit requirements.

Collection System Pumping

This portfolio funds maintenance, repair, rehabilitation, equipment replacement, and pump station upgrades for the 98 active pump stations and associated force mains located system-wide. This portfolio also funds development of new pump stations and associated force mains to serve growth and development within the city.

Major categories of this portfolio include:

- ◆ Pump Station Improvement Program: This is an ongoing program to refurbish and upgrade pump stations and their associated force mains to meet current codes, operate more reliably, upgrade facilities to meet increased demand, improve safety, respond to failures and emergencies, and replace outdated equipment.
- ◆ Stand-Alone Pump Station Projects: These are larger, stand-alone project to fund major upgrades, replacements or new developments of pump stations and force mains such as the Inverness Pump Station Force Main System Improvements.

Sanitary and Combined Collection

Projects in this portfolio area address major maintenance requirements of the sewer collection system including collector sewers, trunk sewers, and interceptor sewers. The sewer collection and conveyance system includes over 1,900 miles of sanitary and combined sewers ranging in diameter from four inches to 20 feet, and nearly 450 miles of stormwater pipes. Much of the sewer pipe system in the city's older neighborhoods is more than 100 years old. In some areas of the city, recurrent basement sewer releases is a major problem creating health and environmental hazards as well as property damage. Projects in this portfolio are focused on rehabilitation or reconstruction of the most structurally deficient portions of the collection system and upsizing pipe or installing surface stormwater management to address hydraulic deficiencies. Additionally, this portfolio expands the city's sewer collection system in support of the implementation of Metro's 2040 Plan and the City's 2035 Comprehensive Plan.

Major categories of this portfolio include:

- ◆ Pipe Rehabilitation Projects: This suite of projects addresses pipes at high risk of failure. Many projects are bundled into geographic areas under the Large-Scale Sewer Rehabilitation Program (LSSRP), which is shifting to the Southwest neighborhoods including Hillsdale, Council Crest, and Burlingame. Large sewer trunk work will focus on the I-84 corridor, SW Portland and Inner Southeast Portland. Sewer rehabilitation will also continue in the Downtown-Old Town District as part of a multi-year program to rehabilitate some of the city's oldest sewers. The work includes coordination with agencies and area businesses to minimize public impact.
- ◆ Capacity Projects: This suite of projects is necessary to relieve risk of sewer releases and street flooding in various basins using a combination of pipe upsizing and stormwater infiltration facilities. Projects also rehabilitate pipe in very poor condition. Stormwater Best Management Practices (BMPs) are used where possible to manage stormwater as a natural resource and avoid unnecessary and more costly upsizing of pipes. The bureau's Neighborhoods to the River Program is an example of the Bureau's approach to integrated capital improvements with programmatic approaches to address sewer capacity issues, minimize City costs, and maximize additional watershed and community benefits. One example is the East Nicolai project in FY2021-22.
- ◆ System development: These projects focus on expanding the collection system to provide service access to serve the community, support development, and protect human and watershed health. The Non-Conforming Sewer Program addresses shared private sewer lines that are no longer compliant with plumbing code. This is an ongoing program that provides property owners direct access to a municipal sewer line or ensure that appropriate easements have been acquired.

Restoration and Remediation

This portfolio includes two types of work. Restoration projects protect and improve the function of surface water and natural areas to support watershed and ecologic health and address riverine flooding. Remediation projects reduce risks to people and the environment and manage liabilities from environmental contamination. This portfolio advances numerous City plans, goals and obligations, including the Portland Watershed Management Plan, the Endangered Species Act (ESA), the City's Municipal Separate Storm Sewer System (MS4) Discharge Permit, participation in the National Floodplain Insurance Program, ODEQ and Environmental Protection Agency (EPA) cleanup requirements, and addressing inequitable impacts of system conditions.

Major categories of this portfolio include

- ◆ Land Acquisition: This multi-year program targets high priority parcels for habitat and watershed health, which support the Bureau's efforts to reduce impacts from riverine flooding and protect and improve water quality. Funding often leverages that of other partners such as Metro and Portland Parks & Recreation. The Johnson Creek Willing Seller Program is an example of a large-scale acquisition effort to purchase flood-prone properties to protect vulnerable communities and create opportunities for restoration enhancements.
- ◆ Natural area restoration: This suite of projects provides vegetation and structural improvements to support habitat, hydrologic function, water quality, flood protection, and other watershed functions and ecosystem services provided by aquatic, floodplain, riparian and upland habitats. A number of projects in this category have originated from the Johnson Creek Restoration Plan. This category of work also includes removal of the highest priority fish passage barriers and instream habitat restoration necessary to support recovery of ESA-listed fish species. In the FY2021-22 CIP, this includes funding to start design on the Eastbank Crescent Willamette Riverbank Restoration and the Mitchell Creek culvert replacement.

Stormwater Management

This portfolio funds projects that provide collection, conveyance, control and treatment of stormwater to protect public, ecologic, and watershed health and improve safety and livability. These projects are developed to provide affordable access to the stormwater system from developed areas, provide reliable stormwater system conveyance and reduce localized flooding, provide for reduction and treatment of stormwater pollutants, and/or manage the volume and timing of stormwater discharges. This portfolio addresses inequitable impacts of system conditions, advances the goals of the Portland Watershed Management Plan, and is guided by the City's commitments under a number of regulatory obligations including the City's Municipal Separate Storm Sewer System (MS4) Discharge and Underground Injection Control (UIC) permits.

Major categories of this portfolio include:

- ◆ System development: These projects focus on expanding the stormwater system to collect and convey stormwater via approvable routes of conveyance to support development, reduce surface drainage issues and improve livability, protect property, and protect human and watershed health.
- ◆ Water quality treatment projects: These projects manage the generation and treatment of stormwater pollutants to meet receiving surface and ground water regulatory requirements and protect ecological and human health. A primary suite of projects in this category are the Columbia Slough Outfall projects to address the Remedial Action Record of Decision from the ODEQ. In 2010, ODEQ and BES entered into an Inter-Governmental Agreement under the Voluntary Cleanup Program to control pollutant sources discharged to the slough.
- ◆ Stormwater flow and volume management projects: These projects manage the discharge of stormwater from new and existing impervious areas to protect receiving waters, property, watershed health, and human health and safety, and improve livability. A significant project in this category is the upcoming Capitol Highway Stormwater Improvement project. Stormwater improvements along SW Capitol Hwy, local side streets, and within Tryon, Falling, Woods, & Vermont Creek basins will address existing drainage and conveyance deficiencies that cause recurring local nuisance flooding issues, as well as additional stormwater generated by transportation improvements.

Non-Process Properties and Facilities

The primary objective of this portfolio is to provide the properties and facilities that support the general function of the bureau. Capital investments proposed under this portfolio support bureau processes and its workforce to ensure effective, productive, safe, healthy, and equitable work environments.

These projects include the development and improvement of bureau assets such as office buildings, workspaces, parking lots, storage facilities and grounds. Projects are developed to meet the provisions of facilities master plans, operations plans and policies, HR administrative rules, security policies, and workplace safety and health guidelines.

Major categories of this portfolio include:

- ◆ Office spaces such as the Columbia building workspace improvements and the future Willamette Building at CBWTP
- ◆ Industrial facilities such as floor replacement at the Water Pollution Control Lab
- ◆ Property with no buildings such as the Brooklyn facility access road
- ◆ Parking and grounds, such as storage and security improvements at the Water Pollution Control Lab, electric vehicle charging stations at CBWTP, and paving improvements at both of the locations

Support/ Miscellaneous

This portfolio captures cost affecting multiple portfolios including the Bureau's Owner controlled Insurance Program, feasibility studies and software implementation.

Funding Sources

Planned CIP outlays total \$963.9 million (excluding inflation) over the five-year forecast interval FY 2021-22 through FY 2025-26. The majority of resources to fund CIP outlays come from bond proceeds and transfers from the sewer operating fund. A brief description of the resources needed to finance this requirement follows:

- ◆ Fees, Charges, and Permits. This source of funding includes an estimate of reimbursements for engineering, administration, and construction management services charged to local improvement districts and for permit sewer construction. Also included are anticipated revenues from construction and/or engineering services for projects initiated by other local government agencies such as the Portland Bureau of Transportation and the Port of Portland.
- ◆ Line and Branch Charges. Charges in lieu of assessment will be used to support CIP outlays. Line and branch charges are received cash and in the form of proceeds from special assessment bonds issued for property owners who elect to finance line and branch charges. Total revenues from these charges are projected to be approximately \$4.8 million over the five-year forecast.
- ◆ Cash Transfers from the Sewer System Operating Fund. Current sewer system net income from service fees and charges will also be used to fund CIP outlays. The availability of current income to fund CIP expenditures mostly results from meeting debt service coverage requirements on outstanding bonds. For planning purposes, the bureau maintains coverage ratios of at least 1.50 on first lien debt, at least 1.30 on combined first and second lien debt, and an ongoing operating reserve of 270 days' operating expenses for unforeseen financial needs. After making debt service payments, amounts in excess of those required to maintain planned operating reserves are available to fund capital improvements. Cash transfers from the Operating Fund to the Construction Fund are projected to total \$258 million over the five-year forecast interval.
- ◆ Bond Proceeds. Based on current planning assumptions, the bureau's five-year CIP request anticipates \$608 million (nominal dollars) in additional borrowings over the next five fiscal years. Debt service requirements for future bond sales have been calculated assuming level debt service. Interim short-term financing may be used in lieu of or in combination with long-term financings. The forecast assumes an average annualized coupon rate of 5.0% for the bonds sold in FY 2022-23, and FY 2024-25, with the bureau's planning standard debt service coverage ratios of 1.50 and 1.30, as mentioned previously.

Operating and Maintenance Costs

Each capital project includes estimated operating and maintenance costs or savings, which are considered during project prioritization and CIP development. To the extent possible, these ongoing operating impacts are included in budget decision-making. Historically, bureau operating budgets have generally not kept pace with the growing volume of infrastructure repair and maintenance needs and the increasing inventory of surface stormwater management facilities. As part of ongoing process improvements, the bureau aims to better integrate these estimates into the long-term financial forecast in future budget cycles.



Performance



Bureau of Environmental Services

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target FY 2020-21	Target FY 2021-22	Strategic Target
EFFICIENCY					
Amount of time loss, in hours per employee, due to injuries and illnesses	2.20	2.54	2.65	2.48	3.10
Cost to operate and maintain the treatment plants per million gallons treated	\$1,071	\$912	\$860	\$870	\$0
Construction management costs as a percentage of total construction costs	10%	12%	12%	12%	12%
Percent of CIP budget spent	0%	0%	0%	85%	95%
Percent of methane beneficially used	0%	0%	0%	60%	100%
Percentage of urgent public health and safety related service requests responded to within two-hour timeframe	95%	98%	90%	90%	0%
Percent of BES building permit reviews that meet the City's turnaround goals for reviewing permits	0.0%	NA	95.0%	95.0%	95.0%
Percentage of Level I/Phase I Environmental Assessments completed on time	0.0%	88.0%	80.0%	78.0%	90.0%
OUTCOME					
Number of combined sewer overflow events	1	1	4	4	0
Number of participants in community events, workshops, stewardship, and restoration events	27,238	10,821	10,000	7,000	10,000
Number of sanitary sewer overflows	187	174	135	135	0
Number of stormwater flooding events due to system capacity	49	38	100	100	0
Watershed Health Index for water quality	5.60	5.60	5.50	5.50	8.00
Percent of dollars awarded to disadvantaged, minority-owned and women-owned(D/M/W) firms in professional services	0.0%	25.0%	30.0%	30.0%	30.0%
Percentage of industrial enforcement tests in full compliance	99.1%	98.8%	99.0%	99.0%	0.0%
Average single family household bill as a percent of median income	1.39%	1.34%	1.38%	1.34%	0.00%
OUTPUT					
Feet of streambank restored (not cumulative)	22,340	5,100	12,000	12,000	12,000
Number of bureau education programs delivered	498	295	400	200	400
Number of education and engagement activities and events about Portland Harbor Superfund	0	19	25	30	22
Number of green streets inspected	0	0	0	2,200	0
Number of trees planted	10,073	13,088	12,600	11,500	0
Tons of biosolids beneficially used	0	0	0	12,000	15,000
Maintain bureaus combined first and second lien debt service coverage ratio at 1.3 or greater	1.35	1.66	1.44	1.35	1.40
Maintain the bureaus first lien debt service coverage ratio at 1.5 or greater	2.77	3.39	3.36	8.30	0.00
Percentage of biochemical oxygen demand removed	96.0%	95.3%	85.0%	85.0%	0.0%
WORKLOAD					
Amount of wastewater processed annually (in million gallons)	25,807	24,236	29,200	28,900	0
Linear feet of sanitary and combined sewer pipe repaired or replaced to improve condition and capacity	107,751	49,081	65,000	60,000	0
Number of lab analyses performed each year	59,577	58,026	60,000	60,000	0



Summary Tables



Bureau of Environmental Services

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Base FY 2021-22	Requested FY 2021-22
Resources					
External Revenues					
Licenses & Permits	2,320,655	2,029,443	1,345,000	1,572,000	1,572,000
Charges for Services	379,800,637	383,688,690	364,752,688	369,796,115	369,796,115
Intergovernmental	274,088	670,424	987,000	232,500	232,500
Bond & Note	0	265,033,751	145,000,000	0	0
Miscellaneous	12,933,977	8,452,867	7,278,500	6,223,100	6,223,100
External Revenues Total	395,329,356	659,875,174	519,363,188	377,823,715	377,823,715
Internal Revenues					
Fund Transfers - Revenue	378,872,316	439,070,954	426,048,000	488,682,735	488,682,735
Interagency Revenue	3,421,782	1,908,049	2,267,798	2,234,873	2,234,873
Internal Revenues Total	382,294,098	440,979,003	428,315,798	490,917,608	490,917,608
Beginning Fund Balance	496,518,158	428,489,339	309,815,041	448,040,000	448,040,000
Resources Total	1,274,141,612	1,529,343,516	1,257,494,027	1,316,781,323	1,316,781,323
Requirements					
Bureau Expenditures					
Personnel Services	74,930,220	82,936,281	89,148,886	91,961,218	91,961,218
External Materials and Services	77,793,264	78,854,293	102,906,131	100,585,575	100,585,575
Internal Materials and Services	43,961,412	50,089,483	53,292,448	55,622,476	55,622,476
Capital Outlay	80,294,942	85,215,839	124,780,033	162,737,512	162,737,512
Bureau Expenditures Total	276,979,839	297,095,896	370,127,498	410,906,781	410,906,781
Fund Expenditures					
Debt Service	185,387,780	477,640,214	172,676,781	177,055,111	177,055,111
Contingency	0	0	246,136,273	194,927,676	194,927,676
Fund Transfers - Expense	383,284,653	444,028,711	429,245,247	492,461,755	492,461,755
Debt Service Reserves	0	0	39,308,228	41,430,000	41,430,000
Fund Expenditures Total	568,672,433	921,668,926	887,366,529	905,874,542	905,874,542
Ending Fund Balance	428,489,339	310,578,694	0	0	0
Requirements Total	1,274,141,611	1,529,343,516	1,257,494,027	1,316,781,323	1,316,781,323
Programs					
Funds Management	—	—	—	17,560,000	17,560,000
O&M - Collection System	—	—	—	34,647,585	34,647,585
Strategy	—	—	—	17,768,969	17,768,969
Administration	2,308,154	2,905,436	2,674,982	—	—
Administration & Support	188	—	—	—	—
Asset Systems Management	(9,351,660)	(7,599,577)	4,781,263	—	—
Bureau Support	13,188,708	13,207,797	14,903,286	—	—
Business Support	—	—	—	35,180,922	35,180,922
Capital Program Mgmt & Controls	132,179,024	123,672,493	172,183,579	229,643,048	229,643,048
CERCLA (Superfund)	144,631	1,586,353	8,375,812	—	—

Bureau of Environmental Services

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Base FY 2021-22	Requested FY 2021-22
Collection System	30,001,501	32,920,772	37,133,713	—	—
Communications	1,408,106	1,443,833	1,696,432	—	—
Construction Services	2,301,086	2,250,806	2,115,455	—	—
Del Prog - Env Compliance	—	—	—	7,116,719	7,116,719
Del Prog - Systems Dev	—	—	—	4,554,820	4,554,820
Design	2,869,372	2,743,258	3,432,434	4,168,514	4,168,514
Downspout Disconnection	1,256	1,141	—	—	—
DP - Comm Partnerships	—	—	—	5,912,336	5,912,336
Employee Development	1,041,287	705,263	230,567	—	—
Employee Investment	290,793	104,524	—	—	—
Eng Svcs - Constr & MTL	—	—	—	3,512,326	3,512,326
Engineering	1,686,010	1,456,312	1,871,484	—	—
Env. Monitoring & Investigation	2,824,409	3,890,829	3,585,549	—	—
Environmental Compliance	8,150,865	7,776,271	9,493,082	—	—
Finance	25,221,645	49,083,154	41,678,296	—	—
Information Management	6,883,976	7,536,242	8,141,570	—	—
Integrated Planning	—	—	—	5,274,835	5,274,835
Leadership	—	—	—	3,454,545	3,454,545
Maintenance	638,317	674,534	1,600,368	—	—
Materials Test Lab	1,279,598	1,228,140	1,462,271	—	—
O&M - Treatment	—	—	—	26,649,390	26,649,390
O&M - Watershed	—	—	—	5,773,601	5,773,601
Pollution Prevention	553,508	624,683	628,460	—	—
Portland Harbor	2,379,867	3,576,226	2,960,928	—	—
Science, Fish & Wildlife	2,845,563	2,715,142	2,656,217	—	—
Source Control	1,937	933	—	—	—
Stormwater Retrofit	—	(26)	—	—	—
Sustainable Stormwater	5,032,090	6,123,498	8,254,118	—	—
Systems Development	5,716,416	6,308,574	5,945,347	—	—
Tech Svcs - Env Info	—	—	—	5,974,229	5,974,229
Tech Svcs - Info Sys, Map	—	—	—	3,714,942	3,714,942
Treatment	28,008,789	22,341,815	25,273,663	—	—
Wastewater	2,437,163	1,832,103	1,334,758	—	—
Watershed	672,047	896,353	743,588	—	—
Watershed Management	2,597,099	2,903,025	3,604,250	—	—
Watershed Revegetation	3,668,096	4,185,989	3,366,026	—	—
Total Programs	276,979,839	297,095,896	370,127,498	410,906,781	410,906,781

Bureau of Environmental Services

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	2.00	156,874	2.00	159,120	2.00	159,120
30000064	Accountant III	60,466	89,256	2.00	139,603	2.00	160,437	2.00	160,437
30003003	Administrative Specialist II	48,277	94,878	6.00	428,105	6.00	428,105	6.00	428,105
30003004	Administrative Specialist III	53,290	104,701	2.00	155,022	2.00	155,022	2.00	155,022
30003006	Analyst I	53,290	104,701	5.00	437,986	5.00	437,986	5.00	437,986
30003007	Analyst II	63,336	111,681	15.00	1,423,759	15.00	1,423,759	15.00	1,423,759
30003008	Analyst III	69,805	133,873	12.00	1,346,541	12.00	1,346,541	12.00	1,346,541
30003009	Analyst IV	80,205	148,724	1.00	116,480	1.00	116,480	1.00	116,480
30002494	Auto Equip Oper II: Tractr-Trail-CL	48,922	67,637	1.00	66,310	1.00	66,310	1.00	66,310
30000320	Botanic Spec II-Generalist	59,634	87,834	3.00	243,650	3.00	250,844	3.00	250,844
30000321	Botanic Spec II-Ntrl Resource Ecologist	59,634	87,834	5.00	406,109	5.00	414,872	5.00	414,872
30003378	Botanic Technician I-Green Infrastructure	41,766	64,624	3.00	143,913	3.00	158,595	3.00	158,595
30003379	Botanic Technician II-Green Infrastructure	45,947	71,031	1.00	52,979	1.00	58,247	1.00	58,247
30003010	Business Systems Analyst I	53,290	104,701	1.00	93,683	1.00	93,683	1.00	93,683
30003011	Business Systems Analyst II	63,336	111,681	4.00	342,638	4.00	342,638	4.00	342,638
30003012	Business Systems Analyst III	69,805	133,873	8.00	831,500	8.00	831,500	8.00	831,500
30000329	CAD Technician II	55,973	82,467	8.00	560,476	8.00	573,092	8.00	573,092
30000330	CAD Technician III	67,974	100,224	4.00	366,486	4.00	373,671	4.00	373,671
30000399	Capital Project Manager I	67,974	100,224	1.00	79,706	1.00	80,850	1.00	80,850
30003013	Capital Project Manager II	63,336	111,681	7.00	728,346	7.00	728,346	7.00	728,346
30003014	Capital Project Manager III	69,805	133,873	4.00	420,574	4.00	420,574	4.00	420,574
30000700	Communications Engineer	73,528	113,569	1.00	111,342	1.00	111,342	1.00	111,342
30003235	Coordinator I - E	48,277	94,878	2.00	166,463	2.00	166,463	2.00	166,463
30003027	Coordinator I - NE	48,277	94,878	3.00	193,420	3.00	229,217	3.00	229,217
30003028	Coordinator II	53,290	104,701	14.00	1,220,992	14.00	1,220,992	14.00	1,220,992
30003029	Coordinator III	63,336	111,681	11.00	1,086,749	11.00	1,086,749	11.00	1,086,749
30003030	Coordinator IV	69,805	133,873	1.00	109,720	1.00	109,720	1.00	109,720
30003036	Deputy Director III	111,696	201,191	1.00	172,910	1.00	172,910	1.00	172,910
30003039	Director III	147,035	249,288	1.00	225,930	1.00	225,930	1.00	225,930
30000116	Electrician	71,074	91,250	10.00	882,020	10.00	894,609	10.00	894,609
30000121	Electrician/Instrument Technician	73,237	92,778	4.00	358,716	4.00	363,833	4.00	363,833
30000401	Electronic Systems Technician	58,157	85,628	3.00	205,457	3.00	213,658	3.00	213,658
30003046	Engineer II	108,368	138,265	6.00	664,790	6.00	692,391	6.00	692,391
30003047	Engineer III	80,205	148,724	19.00	2,477,219	19.00	2,477,219	19.00	2,477,219
30003048	Engineer, Chief	111,696	201,191	1.00	156,645	1.00	156,645	1.00	156,645

Bureau of Environmental Services

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
30000365	Engineer-Civil	89,357	125,408	25.00	2,831,774	26.00	3,039,084	26.00	3,039,084
30000366	Engineer-Electrical	89,357	125,408	2.00	212,336	2.00	223,573	2.00	223,573
30000367	Engineer-Geotechnical	89,357	125,408	2.00	225,347	2.00	237,831	2.00	237,831
30000368	Engineer-Mechanical	89,357	125,408	1.00	121,212	1.00	122,949	1.00	122,949
30000358	Engineering Associate, Sr-Civil	77,272	113,739	17.00	1,644,292	18.00	1,799,141	18.00	1,799,141
30000353	Engineering Associate-Civil	63,502	98,273	8.00	594,730	8.00	633,793	8.00	633,793
30000354	Engineering Associate-Electrical	63,502	98,273	1.00	75,296	1.00	81,660	1.00	81,660
30003050	Engineering Manager	92,851	172,210	4.00	619,715	4.00	619,715	4.00	619,715
30003051	Engineering Supervisor	91,728	161,390	14.00	1,948,212	14.00	1,948,212	14.00	1,948,212
30000324	Engineering Technician I	41,766	64,624	1.00	48,100	1.00	52,935	1.00	52,935
30000325	Engineering Technician II	55,973	82,467	22.00	1,640,175	22.00	1,683,168	22.00	1,683,168
30000326	Engineering Technician III	67,974	100,224	13.00	1,201,824	13.00	1,248,812	13.00	1,248,812
30000662	Environmental Program Coordinator	66,622	102,558	8.00	688,043	8.00	711,864	8.00	711,864
30003376	Environmental Regulatory Coordinator	69,805	133,873	10.00	1,085,522	10.00	1,085,522	10.00	1,085,522
30000339	Environmental Specialist- Generalist	67,974	100,224	31.00	2,826,231	31.00	2,898,241	31.00	2,898,241
30003052	Environmental Supervisor	69,805	133,873	7.00	774,218	7.00	774,218	7.00	774,218
30000337	Environmental Technician I	41,766	64,624	2.00	95,153	2.00	102,877	2.00	102,877
30000338	Environmental Technician II	55,973	82,467	34.00	2,411,678	34.00	2,490,940	34.00	2,490,940
30002037	Field Science Specialist	67,974	100,224	6.00	536,816	6.00	551,904	6.00	551,904
30002038	Field Science Technician	55,973	82,467	5.00	343,362	5.00	359,590	5.00	359,590
30003054	Financial Analyst I	53,290	104,701	1.00	81,390	1.00	81,390	1.00	81,390
30003055	Financial Analyst II	63,336	111,681	1.00	93,246	1.00	93,246	1.00	93,246
30003056	Financial Analyst III	69,805	133,873	3.00	371,467	3.00	371,467	3.00	371,467
30000341	GIS Technician I	41,766	64,624	1.00	48,932	1.00	51,416	1.00	51,416
30000342	GIS Technician II	55,973	82,467	2.00	159,412	2.00	161,700	2.00	161,700
30000343	GIS Technician III	67,974	100,224	5.00	463,919	5.00	477,532	5.00	477,532
30000373	Graphics Designer III	67,974	100,224	1.00	96,876	1.00	98,259	1.00	98,259
30000340	Hydrogeologist	77,064	113,527	1.00	104,151	1.00	110,846	1.00	110,846
30000126	Industrial Machinist	58,614	78,266	1.00	76,731	1.00	76,731	1.00	76,731
30000157	Industrial Maintenance Millwright	58,614	78,266	31.00	2,323,419	31.00	2,339,667	31.00	2,339,667
30000155	Industrial Maintenance Millwright, Appr	41,558	74,362	1.00	46,030	1.00	47,954	1.00	47,954
30000114	Industrial Painter	63,066	77,014	1.00	74,443	1.00	75,504	1.00	75,504
30000239	Instrument Technician	71,074	91,250	13.00	1,084,252	13.00	1,150,090	13.00	1,150,090
30002505	Laboratory Analyst II-CL	52,645	78,520	6.00	432,643	6.00	443,949	6.00	443,949

Bureau of Environmental Services

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
30002506	Laboratory Analytical Specialist-CL	58,843	89,722	6.00	506,084	6.00	509,724	6.00	509,724
30002507	Laboratory Coordinator-CL	61,069	98,973	3.00	274,773	3.00	284,313	3.00	284,313
30003074	Laboratory Manager	80,205	148,724	1.00	99,029	1.00	99,029	1.00	99,029
30000313	Landscape Architect	67,974	100,224	4.00	381,170	4.00	393,038	4.00	393,038
30003079	Maintenance Supervisor I - E	63,336	111,681	1.00	86,549	1.00	86,549	1.00	86,549
30003081	Manager I	80,205	148,724	11.00	1,365,665	11.00	1,365,667	11.00	1,365,667
30003082	Manager II	92,851	172,210	13.00	1,765,723	13.00	1,765,723	13.00	1,765,723
30003083	Manager III	111,696	201,191	7.00	1,066,288	7.00	1,142,232	7.00	1,142,232
30003084	Mapping & GIS Supervisor	69,805	133,873	1.00	100,422	1.00	100,422	1.00	100,422
30000345	Materials Testing Technician II	55,973	82,467	5.00	358,130	5.00	370,100	5.00	370,100
30000346	Materials Testing Technician III	67,974	100,224	1.00	92,473	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	5.00	256,953	5.00	265,606	5.00	265,606
30000013	Office Support Specialist III	44,512	69,228	4.00	265,711	4.00	271,316	4.00	271,316
30000390	Planner II. City-Water Resources	65,395	100,373	4.00	365,370	4.00	382,861	4.00	382,861
30000398	Planner, Sr City-Water Resources	82,514	107,862	2.00	198,775	2.00	206,280	2.00	206,280
30003090	Planner, Supervising	80,205	148,724	1.00	121,534	1.00	121,534	1.00	121,534
30003096	Public Information Manager	80,205	148,724	1.00	126,360	1.00	126,360	1.00	126,360
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	16.00	1,221,304	16.00	1,306,352	16.00	1,306,352
30000229	Public Works Inspector, Sr	68,099	94,157	13.00	1,169,350	13.00	1,189,446	13.00	1,189,446
30000828	Records Specialist	44,512	69,228	1.00	66,914	1.00	67,870	1.00	67,870
30003099	Risk Specialist I	53,290	104,701	1.00	68,786	1.00	68,786	1.00	68,786
30003100	Risk Specialist II	63,336	111,681	2.00	203,944	2.00	203,944	2.00	203,944
30003102	Statistician	69,805	133,873	1.00	106,974	1.00	106,974	1.00	106,974
30002484	Storekeeper/Acquisition Specialist II-CL	48,651	68,358	3.00	201,054	3.00	201,054	3.00	201,054
30002485	Storekeeper/Acquisition Specialist III-CL	54,974	78,457	1.00	74,755	1.00	76,918	1.00	76,918
30003103	Supervisor I - E	63,336	111,681	8.00	771,036	8.00	771,034	8.00	771,034
30003104	Supervisor II	69,805	133,873	9.00	970,237	9.00	970,237	9.00	970,237
30000163	Wastewater Operations Specialist	66,560	87,643	4.00	329,288	4.00	334,683	4.00	334,683
30000161	Wastewater Operator II	55,578	78,266	41.00	3,061,362	41.00	3,110,307	41.00	3,110,307
	Total Full-Time Positions			625.00	57,772,979	627.00	59,128,164	627.00	59,128,164
30000339	Environmental Specialist-Generalist	67,974	100,224	1.00	86,367	1.00	88,577	1.00	88,577
	Total Part-Time Positions			1.00	86,367	1.00	88,577	1.00	88,577
Grand Total				626.00	57,859,346	628.00	59,216,741	628.00	59,216,741

Bureau of Environmental Services

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
Support								
CIP Planning Shell	0	0	1,000,000	1,000,000	1,200,000	1,400,000	1,600,000	6,200,000
Infor IPS Implementation	0	0	1,900,000	1,600,000	350,000	0	0	3,850,000
Owner Controlled Insurance Program Phase V	3,324,490	1,000,000	500,000	300,000	150,000	100,000	50,000	1,100,000
Owner Controlled Insurance Program Phase VI	2,369,128	0	500,000	500,000	500,000	500,000	250,000	2,250,000
Total Support	5,693,618	1,000,000	3,900,000	3,400,000	2,200,000	2,000,000	1,900,000	13,400,000
Citywide Projects								
Community Opportunities & Enhancement Program (COEP)	0	500,000	750,000	750,000	750,000	750,000	750,000	3,750,000
Total Citywide Projects	0	500,000	750,000	750,000	750,000	750,000	750,000	3,750,000
Wastewater Resource Recovery								
CBWTP Blower System/Building Improvements	28,709	680,000	600,000	800,000	2,000,000	5,000,000	5,000,000	13,400,000
CBWTP Digesters 1-4 Upgrade	106,442	500,000	1,000,000	2,000,000	2,000,000	4,200,000	4,725,000	13,925,000
CBWTP Fiber System Reliability	750,871	500,000	350,000	0	0	0	0	350,000
CBWTP Gas Piping Replacement	0	350,000	1,200,000	1,500,000	1,700,000	1,400,000	200,000	6,000,000
CBWTP Headworks Screens Improvements	2,616,933	1,937,000	7,479,000	5,983,000	2,877,000	156,000	0	16,495,000
CBWTP Lagoon Reconstruction	27,972,073	200,000	400,000	500,000	500,000	500,000	8,000,000	9,900,000
CBWTP Non-Conforming Upgrades	11,063	248,000	864,000	8,000	0	0	0	872,000
CBWTP Organic Waste Receiving Facility	1,166,465	2,700,000	1,500,000	7,000,000	700,000	0	0	9,200,000
CBWTP Outfall Diffusers	1,013,441	900,000	5,628,000	80,000	20,000	0	0	5,728,000
CBWTP Outfall Surge Modifications	0	0	0	0	0	50,000	900,000	950,000
CBWTP Residuals Handling Improvements	0	500,000	0	0	500,000	800,000	1,000,000	2,300,000
CBWTP Reuse System Replacement	0	0	0	0	0	80,000	785,000	865,000
CBWTP RNG Facility	19,449,754	250,000	50,000	0	0	0	0	50,000
CBWTP Secondary Treatment Expansion Program	21,232,647	41,149,000	70,000,000	107,000,000	100,000,000	20,000,000	0	297,000,000
CBWTP Substation Replacement	767,314	804,000	2,250,000	0	0	0	0	2,250,000
CBWTP WWCL Rehabilitation	0	800,000	1,000,000	1,000,000	1,231,000	6,700,000	4,800,000	14,731,000
Digester Gas Combustion System Replacement	720,240	1,500,000	3,000,000	400,000	0	0	0	3,400,000
Repair, Rehabilitation, and Modification - Shell	28,753,052	6,000,000	7,000,000	8,000,000	8,000,000	10,000,000	10,000,000	43,000,000
Total Wastewater Resource Recovery	104,589,004	59,018,000	102,321,000	134,271,000	119,528,000	48,886,000	35,410,000	440,416,000

Bureau of Environmental Services

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
Collection System Pumping								
Facilities Security Improvement - Shell	0	0	500,000	750,000	750,000	750,000	750,000	3,500,000
Fiber Expansion for Inverness PS & POSH Fiber Rings	50,590	1,000,000	0	0	0	1,650,000	0	1,650,000
Force Ave Pump Station Remodel	1,184,393	200,000	1,531,000	3,804,000	1,769,000	0	0	7,104,000
Inverness Pump Station Force Main Improvements	444,246	800,000	5,272,000	4,100,000	1,670,000	922,000	780,000	12,744,000
NE 47th Ave Pump Station	0	0	296,000	782,000	695,000	3,000,000	145,000	4,918,000
NE Marx & 105th Pump Station Rehab	433,826	500,000	500,000	2,900,000	150,000	0	0	3,550,000
Pump Station Improvement Program, FY20-FY24	1,455,705	0	10,000,000	11,000,000	12,000,000	17,000,000	23,000,000	73,000,000
SLRT/Vault Monitoring Install - Shell	1,332,063	100,000	600,000	100,000	600,000	100,000	600,000	2,000,000
Terwilliger Northgate Lift Station	0	200,000	700,000	1,400,000	0	0	0	2,100,000
Total Collection System Pumping	4,900,823	2,800,000	19,399,000	24,836,000	17,634,000	23,422,000	25,275,000	110,566,000
Sanitary and Combined Collection System								
CC Integrated RDII Pre-Design	390,705	0	700,000	1,200,000	0	0	0	1,900,000
Central Tanner	0	0	0	0	0	60,000	600,000	660,000
Downtown Old Town (DTOT) Pipe Rehab	13,216,698	2,750,000	7,400,000	9,500,000	3,500,000	7,200,000	8,000,000	35,600,000
ECOPIP Integrated Solutions Delivery	0	0	100,000	100,000	100,000	100,000	100,000	500,000
Fanno Creek Infiltration and Inflow	1,519,935	0	0	0	0	0	75,000	75,000
Hillsdale Crest RDII	1,343,285	5,500,000	2,040,000	0	0	0	0	2,040,000
Large Diameter Sewer Rehabilitation	6,657,374	3,000,000	12,150,000	24,863,000	6,000,000	4,000,000	5,000,000	52,013,000
Maintenance Capital - Construction - Shell	5,390,916	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
Maintenance Capital - Contract - Shell	18,800,815	790,000	997,000	0	0	0	0	997,000
Maintenance Capital Contract FY20-25 - Shell	1,851,575	2,664,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	15,000,000
NW Thurman St Sewer Reconstruction	1,586,648	4,270,000	1,386,000	0	0	0	0	1,386,000
NWN: East Nicolai	240	0	400,000	0	0	2,500,000	2,200,000	5,100,000
Oak A - Collectors	74	667,000	200,000	200,000	200,000	200,000	0	800,000
Oak A - Sandy Trunk	415,843	1,400,000	700,000	450,000	450,000	4,500,000	6,000,000	12,100,000
Party Sewers	11,562,629	4,380,000	4,421,000	3,824,000	2,543,000	1,508,000	2,732,000	15,028,000

Bureau of Environmental Services

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
PBOT Interagency Reimbursement - Shell	3,556,277	350,000	350,000	350,000	350,000	350,000	350,000	1,750,000
Permit Reimbursement - Shell	922,202	200,000	200,000	200,000	200,000	200,000	200,000	1,000,000
Phase 3 Pipe Rehabilitation	69,500,985	14,500,000	14,000,000	17,150,000	3,050,000	500,000	300,000	35,000,000
Phase 4 Small-Diameter Pipe Rehab	0	0	250,000	500,000	500,000	2,000,000	4,000,000	7,250,000
Public Works Permit Projects	0	850,000	848,000	848,000	851,000	1,000,000	1,000,000	4,547,000
Richmond Neighborhood Sewer Rehab/Green Streets	356,896	700,000	0	0	0	100,000	600,000	700,000
Sewer Easements on Existing Sewers - Shell	0	50,000	50,000	50,000	50,000	50,000	50,000	250,000
Sewer Extensions for High Risk Septic - Shell	2,890,099	2,927,000	500,000	500,000	500,000	500,000	500,000	2,500,000
Slabtown North Sewer Reconstruction	49,244	528,000	510,000	108,000	0	5,147,000	44,000	5,809,000
Small Urgent Capacity Projects - Shell	2,858,717	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000
South Tanner	332,739	400,000	400,000	200,000	200,000	3,200,000	4,000,000	8,000,000
Stark HSS-17	3,016,463	2,000,000	12,000,000	5,000,000	0	0	0	17,000,000
Sunnyside South Recon/Green Streets	1,051,112	800,000	5,300,000	2,700,000	0	0	0	8,000,000
Vermont RDII Reduction	22,102	0	0	0	0	0	90,000	90,000
Total Sanitary and Combined Collection System	147,293,573	51,226,000	70,402,000	73,243,000	23,994,000	38,615,000	41,341,000	247,595,000
Stormwater Management								
1% For Green - Shell	2,012,202	700,000	662,000	791,000	700,000	500,000	500,000	3,153,000
Balch Creek Trash Racks Retrofit	943,495	1,842,532	1,637,000	0	0	0	0	1,637,000
Basin 3/Tryon Headwaters Primary	461,838	930,000	350,000	0	0	0	0	350,000
Boise-Eliot Recon & Green Streets	50,261	350,000	0	50,000	100,000	750,000	5,478,000	6,378,000
Broadway Corridor Reconstruction	370,985	503,000	1,674,000	5,000,000	0	0	0	6,674,000
Citywide Sump Rehab & Replacement	337,575	700,000	1,250,000	0	0	0	0	1,250,000
CMP Culvert Replacement - Shell	0	0	0	700,000	700,000	700,000	700,000	2,800,000
Columbia Slough Outfalls	8,779,451	4,403,000	2,000,000	2,000,000	2,000,000	6,700,000	11,400,000	24,100,000
Drainage Improvement - Shell	171,630	250,000	250,000	250,000	250,000	250,000	250,000	1,250,000
Errol Heights Stormwater LID	71,041	1,500,000	1,000,000	65,000	0	0	0	1,065,000
Fanno/Tryon Drainage Shoulder Improvements	0	521,000	0	0	0	521,000	681,000	1,202,000
Revegetation Stormwater Establishment Umbrella	28,074	0	175,000	175,000	175,000	175,000	175,000	875,000

Bureau of Environmental Services

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
Stephens Creek Outfalls and Culvert	194,048	330,000	0	0	0	350,000	2,000,000	2,350,000
Stephens Creek Ph 1 Improvements	2,083,950	1,256,000	346,000	346,000	346,000	346,000	301,000	1,685,000
Stormwater Facilities Subsidence Repair	0	0	210,000	85,000	1,602,000	62,000	1,222,000	3,181,000
Stormwater Investments and Interbureau Projects	367,310	500,000	100,000	100,000	100,000	100,000	100,000	500,000
SW Capitol Hwy Stormwater Improvements	2,771,907	6,447,000	6,000,000	585,000	25,000	4,000	0	6,614,000
SW Corridor BES Systems Development Project	1,161,363	675,000	475,000	400,000	400,000	375,000	375,000	2,025,000
Upper Woods Outfall Improvement & Culvert Replacement	0	100,000	100,000	200,000	555,000	175,000	0	1,030,000
Total Stormwater Management	19,805,130	21,007,532	16,229,000	10,747,000	6,953,000	11,008,000	23,182,000	68,119,000
Restoration and Remediation								
Willamette R. and Columbia Sl. Water Resources Development	0	705,000	705,000	915,000	230,000	415,000	277,000	2,542,000
Culverts Phase 3	0	506,000	975,000	2,925,000	0	0	654,000	4,554,000
FT: Boones Ferry Culvert	6,266,708	3,000,000	50,000	0	0	0	0	50,000
JC: Brunkow	170,491	50,000	100,000	100,000	600,000	0	0	800,000
Johnson Creek Crossing Restoration Project	688,490	800,000	200,000	700,000	22,000	0	0	922,000
Johnson Creek Oxbow	828,401	495,000	500,000	1,500,000	550,000	1,900,000	249,000	4,699,000
Johnson Creek Willing Seller Phase 2	8,446,217	1,000,000	1,500,000	500,000	500,000	2,500,000	2,500,000	7,500,000
Marine Drive Levee Outfall Decommission	6,104	91,000	150,000	200,000	800,000	800,000	0	1,950,000
Revegetation Natural Area Establishment Umbrella	19,619	0	75,000	75,000	75,000	75,000	75,000	375,000
Springwater Wetland	624,421	650,000	1,000,000	2,000,000	3,750,000	50,000	20,000	6,820,000
SW Shattuck Rd Culvert Replacement	0	0	103,000	98,000	98,000	961,000	0	1,260,000
Watershed Investment Program - Shell	8,450,292	1,000,000	1,000,000	500,000	500,000	1,000,000	0	3,000,000
Watershed Land Acquisition Program	327,378	1,500,000	1,500,000	500,000	500,000	3,000,000	3,500,000	9,000,000
West Lents Floodplain Restoration	375,790	500,000	400,000	400,000	500,000	4,000,000	1,200,000	6,500,000
Willamette River Eastbank Crescent Restoration	0	0	1,550,000	1,550,000	4,650,000	8,750,000	642,000	17,142,000
Total Restoration and Remediation	26,203,911	10,297,000	9,808,000	11,963,000	12,775,000	23,451,000	9,117,000	67,114,000

Bureau of Environmental Services

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
Non-process Property and Facilities								
Capital Maintenance - Non-Process Facilities - Shell	5,614,753	700,000	500,000	500,000	500,000	500,000	500,000	2,500,000
Dodd Building Rehabilitation	0	0	200,000	500,000	500,000	2,000,000	500,000	3,700,000
Non-Process CBWTP/Pump Station Facilities Shell	0	0	500,000	500,000	500,000	500,000	500,000	2,500,000
Water Pollution Control Lab Site Work	588,248	0	2,900,000	420,000	0	0	0	3,320,000
WPCL Air Handler Replacement	0	0	200,000	400,000	400,000	0	0	1,000,000
Total Non-process Property and Facilities	6,203,001	700,000	4,300,000	2,320,000	1,900,000	3,000,000	1,500,000	13,020,000
Total Requirements	314,689,060	146,548,532	227,109,000	261,530,000	185,734,000	151,132,000	138,475,000	963,980,000

Fund Summaries



	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Base Budget FY 2021-22	Requested FY 2021-22
Resources					
External Revenues					
Miscellaneous	2,971,632	3,481,392	1,000,000	600,000	600,000
External Revenues Total	2,971,632	3,481,392	1,000,000	600,000	600,000
Internal Revenues					
Fund Transfers - Revenue	24,000,000	0	0	0	0
Internal Revenues Total	24,000,000	0	0	0	0
Beginning Fund Balance	138,446,143	165,417,775	124,899,167	112,000,000	112,000,000
Resources Total	165,417,775	168,899,167	125,899,167	112,600,000	112,600,000
Requirements					
Fund Expenditures					
Contingency	0	0	115,899,167	92,600,000	92,600,000
Fund Transfers - Expense	0	44,000,000	10,000,000	20,000,000	20,000,000
Fund Expenditures Total	0	44,000,000	125,899,167	112,600,000	112,600,000
Ending Fund Balance	165,417,775	124,899,167	0	0	0
Requirements Total	165,417,775	168,899,167	125,899,167	112,600,000	112,600,000

Fund Overview

The Sewer System Rate Stabilization Fund was created in 1987 to enable the Bureau of Environmental Services to smooth the forecasted rate increases by managing fluctuations in sewer system revenues over several years. To calculate debt service coverage ratios, the bureau's master bond ordinance requires that transfers from Sewer System Operating Fund to this fund are treated as operating expenditures; conversely, transfers to the Operating Fund from this fund are treated as operating revenues. Fund balances were built up from FY 2002-03 through FY 2007-08 and drawn down through FY 2012-13 to offset rate increases associated with financing construction of the Eastside Combined Sewer Overflow Tunnel. Since then, balances in the fund have grown to better align with financial best practices for comparably sized sewer/stormwater utilities.

Managing Agency Bureau of Environmental Services

Significant Changes from Prior Year

As a result of the bureau's long-term plan to use fund balances to keep rates from increasing beyond planned levels, the bureau will draw upon the Rate Stabilization Fund in FY 2020-21, thus reducing beginning fund balance from the \$124.9 million in the FY 2020-21 Revised budget to \$112.0 million.

Miscellaneous revenues, which are comprised of interest earnings, are budgeted at \$600,000, compared to the 1.0 million in the FY 2020-21 Revised budget, due to both lower cash balances and the City Treasurer's forecast of lower interest earnings rates on city funds.

Fund transfer expenses are budgeted at \$20.0 million to the Sewer System Operating Fund, an increase of \$10.0 million over the FY 2020-21 Revised Budget, in response to reduced rate revenue and cash collections in the Sewer Operating Fund resulting from the COVID-19 pandemic.

Finally, contingency (a proxy for ending funding balance) is budgeted to be \$92.6 million and is forecast to be used over time to keep rates from increasing beyond planned levels.

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Base Budget FY 2021-22	Requested FY 2021-22
Resources					
External Revenues					
Licenses & Permits	2,320,655	2,029,443	1,345,000	1,572,000	1,572,000
Charges for Services	373,937,327	377,689,790	357,128,038	362,623,350	362,623,350
Intergovernmental	181,530	179,642	220,000	227,500	227,500
Bond & Note	0	0	0	0	0
Miscellaneous	4,721,485	2,107,205	4,378,000	4,647,500	4,647,500
External Revenues Total	381,160,996	382,006,080	363,071,038	369,070,350	369,070,350
Internal Revenues					
Fund Transfers - Revenue	132,097,695	183,616,102	209,083,000	258,000,000	258,000,000
Interagency Revenue	3,014,754	1,429,141	1,809,646	1,723,170	1,723,170
Internal Revenues Total	135,112,449	185,045,242	210,892,646	259,723,170	259,723,170
Beginning Fund Balance	89,902,831	77,632,011	96,954,944	85,180,000	85,180,000
Resources Total	606,176,276	644,683,333	670,918,628	713,973,520	713,973,520
Requirements					
Bureau Expenditures					
Personnel Services	74,235,237	82,164,109	88,516,717	91,298,758	91,298,758
External Materials and Services	76,194,536	74,494,692	92,809,238	91,200,682	91,200,682
Internal Materials and Services	42,795,852	47,982,412	51,896,947	54,181,356	54,181,356
Capital Outlay	80,294,942	83,290,710	124,130,033	162,737,512	162,737,512
Bureau Expenditures Total	273,520,567	287,931,922	357,352,935	399,418,308	399,418,308
Fund Expenditures					
Debt Service	3,761,444	4,001,990	4,152,797	4,310,458	4,310,458
Contingency	0	0	90,241,829	76,687,478	76,687,478
Debt Service Reserves	0	0	180,000	180,000	180,000
Fund Transfers - Expense	251,262,254	255,974,480	218,991,067	233,377,276	233,377,276
Fund Expenditures Total	255,023,698	259,976,470	313,565,693	314,555,212	314,555,212
Ending Fund Balance	77,632,011	96,774,941	0	0	0
Requirements Total	606,176,276	644,683,333	670,918,628	713,973,520	713,973,520

Fund Overview

The purpose of the Sewer System Operating Fund is to account for revenues and expenses associated with the development, maintenance, and operation of the City's sanitary sewer and storm drainage system. Fund resources include: sanitary and drainage charges, connection charges and permit fees, wholesale contract revenues from other governmental jurisdictions, reimbursements for services provided to other bureaus, and reimbursements from the Sewer System Construction Fund for capital improvement program (CIP) expenses.

Managing Agency Bureau of Environmental Services

Significant Changes from Prior Year

Resources

Charges for services, which include sewer rate charges, connection charges, wholesale contract revenues, and other miscellaneous charges, are forecast to be \$362.6 million in FY 2021-22, an increase of 1.5% over the FY 2020-21 revised amount of \$357.1 million, the result of modest growth in rate revenues, systems development charges and other fees in response to the economic downturn resulting from the COVID-19 pandemic (detailed below.)

The bureau's largest source of revenue, sewer rate revenues, are budgeted at \$345.8 million compared to FY 2020-21 revised budget of \$338.0 million (+2.3%) reflecting a slow economic recovery from the pandemic. The FY 2021-22 projection is based, in part, upon the following assumptions: a typical single-family residential bill increase of 3.15%, a 0.5% decrease in the number of customer accounts, a 1.0% decrease in usage per single-family residential customer; a 0.5% increase and 0.75% decrease in multi-family accounts and volume, respectively; and a 0.5% increase and 11.0% decrease in commercial accounts and volume, respectively. System development charges are projected to be \$10.0 million in FY 2021-22, a 20.1% decrease from the FY 2020-21 revised budget of \$12.5 million, reflecting the pandemic-induced drop in the construction-sector economy.

Miscellaneous sources are budgeted at \$4.6 million, equal to a 6.2% increase from the FY 2020-21 revised budget of \$4.4 million, with increases in renewable compressed natural gas (+\$200,000), sale of property and vehicles (+\$60,000), SDC lien payments (+\$50,000), and other miscellaneous revenues (+74,500), offset by decreases in interest earnings (-\$115,000) resulting from projected lower earnings rates and cash balances.

License and permits are budgeted to increase 16.9% (+\$227,000), reflecting a lower impact on these revenues than was previously estimated in the FY 2020-21 budget.

Interagency revenues are budgeted to decrease 4.8% (-\$86,500) from the revised budget amounts due to reductions in most requested BES services (contaminated soils, laboratory and sampling services, material testing lab, and revegetation services, -\$216,400 total, -18.7%) but an increased request from PBOT for Engineering Services on joint projects (+\$130,000, +20.0%).

Beginning fund balance is projected to decrease \$11.8 million below the FY 2020-21 amount of \$97.0 million as the bureau draws balances down in the current fiscal year due to pandemic revenue impacts, carryover expense requests and additional cash funding of capital improvements.

Requirements

Personnel services increased 3.2% (\$2.9 million) as compared to the FY 2020-21 Revised Budget, nearly 84% of which is due to non-discretionary increases in FY 2020-21 COLA and merit increases, as no new positions have been requested, and the rest from increased retirement and wage-driven taxes and benefits.

The external materials and services budget decreased by \$1.6 million (-1.7%), with an increase in capital projects (+\$1.1 million, +3.1%) as operating expenses decreased by \$2.7 million (-4.6%). Some of the significant changes in the requested budget includes reduction in the utility license fee paid to the General Fund (-\$862,000) as a result of the lower rate revenues due to the pandemic not being reflected in the FY 2020-21 budget, reduced wholesale contract expenditures (-\$577,000) resulting from one-time carryover appropriations added in FY 2020-21, completion of one phase of condition assessment of force mains (-\$450,000), reduction in bureau-wide facilities management study (-\$400,000), as well as the delay of other studies and facilities plans. Within the capital program, the Pump Station Improvement shell is increasing professional services for design services by \$2.4 million, and the Rehab and Modification shell project is increasing its professional services by \$1.2 million.

Internal materials and services, services paid to other bureaus, will increase by \$2.3 million or 3.2%, of which \$1.3 million (+3.2%) of the increase is within the operating program, while the CIP increases by \$950,000 (+9.8%). Within the operating program, significant increases occurred in Bureau of Technology Services (\$681,000, +13%), Risk Management (\$605,000, +86% for property insurance), and Procurement Services (+\$208,000, +22%) for additional contract management services in support of the bureau's CIP program. The largest internal materials and services increase in the CIP is for the new Community Opportunities and Enhancements Program (COEP, +\$750,000) which assesses a 1 percent fee on public improvement contracts in order to support greater equity in public contracting through assistance to historically disadvantaged populations in areas of recruitment, training and retention of a diverse workforce.

Capital outlay is budgeted at \$162.7 million in the FY 2021-22 Requested Budget versus \$124.1 million in the FY 2020-21 Revised Budget, with the increase coming in the capital budget (+\$54.5 million, +51.4%), and a \$15.9 million decrease (-88.0%) in the operating budget primarily because the FY 2020-21 Revised Budget includes \$12.4 million for the final BES share of the Portland Building Renovation project and \$3.3 million of life-cycle replacement of operating vehicles, both carried over from the previous year. The increase in the capital budget is mostly the result of the Secondary Treatment Expansion Program (STEP) moving deeper into the construction phase, as capital outlay on these projects nearly tripling from \$15.7 million to \$45.7 million.

Cash Transfers and General Fund Overhead

Cash transfers to other funds are budgeted at \$233.4 million for FY 2021-22, compared to the FY 2020-21 Revised Budget of \$219.0 million. Transfers to the Sewer System Debt Redemption Fund are budgeted at \$172.5 million, a slight increase from the FY 2020-21 Revised Budget of \$167.0 million, in part due to the issue of the 2020 Series A bonds in the fall of 2020. Transfers to the Sewer System Construction Fund, cash contributions to the CIP, are budgeted to be \$53.8 million in FY 2021-22, compared to the FY 2020.21 Revised Budget of \$45.0 million. Other transfers include General Fund overhead of \$6.4 million (roughly -\$58,000) and \$711,000 (approximately +\$152,000) to the Pension Bonds Debt Fund.

Contingency, which is equivalent to estimated ending fund balance, is budgeted at \$76.6 million, which includes \$2.0 million reserved for the salary adjustment set-aside. This is a reduction of \$13.6 million (-15.1%), reflecting the use of existing fund balance to offset the effects of the pandemic impacting rate and development-related revenues. The majority of this full contingency amount consists of estimated non-cash receivables not truly available to fund expenditures.

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Base Budget FY 2021-22	Requested FY 2021-22
Resources					
External Revenues					
Bond & Note	0	264,600,279	5,000,000	0	0
Miscellaneous	1,459,849	1,090,012	350,000	200,000	200,000
External Revenues Total	1,459,849	265,690,291	5,350,000	200,000	200,000
Internal Revenues					
Fund Transfers - Revenue	180,330,710	179,454,149	167,000,000	172,542,735	172,542,735
Internal Revenues Total	180,330,710	179,454,149	167,000,000	172,542,735	172,542,735
Beginning Fund Balance	61,952,492	62,118,376	34,050,368	41,250,000	41,250,000
Resources Total	243,743,051	507,262,816	206,400,368	213,992,735	213,992,735
Requirements					
Fund Expenditures					
Debt Service	181,624,675	473,212,447	167,272,140	172,742,735	172,742,735
Debt Service Reserves	0	0	39,128,228	41,250,000	41,250,000
Fund Expenditures Total	181,624,675	473,212,447	206,400,368	213,992,735	213,992,735
Ending Fund Balance	62,118,376	34,050,369	0	0	0
Requirements Total	243,743,051	507,262,816	206,400,368	213,992,735	213,992,735

Fund Overview

The Sewer System Debt Redemption Fund pays the principal and interest on revenue bonds, notes, and state loans issued to finance sewer system improvements.

Managing Agency Bureau of Environmental Services

Significant Changes from Prior Year

The fund is managed on a cash basis with cash transfers from the Sewer System Operating Fund set to maintain a \$10,000 unrestricted ending cash balance plus any restricted cash balances that are required by bond and loan covenants. The majority of the beginning fund balance is the result of cash reserves of \$38.2 million from by the sale of sewer system revenue bonds. These reserves are required to be maintained until the affiliated bonds are fully paid.

Fund transfer revenue will increase by about \$5.5 million or +3.3% in the FY 2021-22 Requested Budget to reflect increased debt service payments resulting from the November 2020 sale of bonds. Miscellaneous revenues are also reduced as a result of lower interest earning rates projected by the City Treasurer. Bond and note proceeds are not budgeted as there is no bond sale needed in FY 2021-22.

Debt service expenditures for the FY 2020-21 Requested Budget are \$172.7 million, an increase of \$5.5 million or 3.3%, a result of the bond issue that occurred in the fall of 2020.

The total amount of sewer system debt outstanding at the beginning of FY 2021-22 will be \$249.1 million for the first lien bonded debt, \$995.5 million for subordinate lien bonded debt and loans, for total debt outstanding of \$1.24 billion.

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Base Budget FY 2021-22	Requested FY 2021-22
Resources					
External Revenues					
Charges for Services	650,661	802,025	350,000	350,000	350,000
Bond & Note	0	433,471	140,000,000	0	0
Miscellaneous	3,207,320	1,622,096	1,500,000	750,000	750,000
External Revenues Total	3,857,981	2,857,593	141,850,000	1,100,000	1,100,000
Internal Revenues					
Fund Transfers - Revenue	42,443,910	70,000,000	45,000,000	53,750,000	53,750,000
Internal Revenues Total	42,443,910	70,000,000	45,000,000	53,750,000	53,750,000
Beginning Fund Balance	199,228,642	113,611,212	48,051,153	204,500,000	204,500,000
Resources Total	245,530,534	186,468,805	234,901,153	259,350,000	259,350,000
Requirements					
Bureau Expenditures					
External Materials and Services	0	0	50,000	50,000	50,000
Bureau Expenditures Total	0	0	50,000	50,000	50,000
Fund Expenditures					
Debt Service	0	424,003	1,250,000	0	0
Contingency	0	0	34,718,153	21,500,000	21,500,000
Fund Transfers - Expense	131,919,321	137,993,650	198,883,000	237,800,000	237,800,000
Fund Expenditures Total	131,919,321	138,417,653	234,851,153	259,300,000	259,300,000
Ending Fund Balance	113,611,212	48,051,152	0	0	0
Requirements Total	245,530,533	186,468,805	234,901,153	259,350,000	259,350,000

Fund Overview

The Sewer System Construction Fund receives revenues to fund sewer system capital projects. Direct expenditures for capital projects are budgeted within the Sewer System Operating Fund and reimbursed by the Sewer System Construction Fund. The primary resources for the capital program are proceeds from the sale of sewer system revenue bonds, transfers from the Sewer System Operating Fund for cash financing of capital improvements, and line and branch charges from new sewer connections.

Managing Agency

Bureau of Environmental Services

Significant Changes from Prior Year

The beginning fund balance of \$204.5 million in FY 2021-22 (up from \$48.1 million in FY 2020-21 Revised) reflects remaining bond proceeds from the November 2020 bond sale of \$270 million, as well as cash contributed from sewer rate revenues to fund the bureau's capital investment program.

Charges for services of \$350,000 for line and branch charges remain the same as the FY 2020-21 Revised budget, reflecting the continued economic impact of the COVID-19 pandemic resulting in reduced sewer connections.

Revenue from fund transfers are budgeted to be \$53.8 million from the Sewer System Operating Fund, compared to the \$45.0 million in the FY 2020-21 Revised Budget.

Miscellaneous revenues of \$750,000 million are expected in FY 2021-22 and are composed primarily of interest earnings. This is down from \$1.5 million in the FY 2020-21 Revised Budget primarily due to lower balances from use of bond proceeds to fund CIP expenses, and due to the City Treasurer's estimate of lower interest earnings rates.

No bond and note proceeds are budgeted for FY 2021-21, compared to the \$140 million in the FY 2019-20 Revised Budget.

Fund transfer expenses of \$237.8 million reflect the reimbursement of operating fund CIP expenditures. This is an increase of \$38.9 million from FY 2020-21, as a result of the bureau's required expansion of the secondary treatment capacity at the Columbia Boulevard Treatment Plant.

The contingency projection for FY 2020-21 is \$21.5 million and reflects the balance of remaining non-bond cash. Another bond sale will be required in early in FY 2022-23.

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Base Budget FY 2021-22	Requested FY 2021-22
Resources					
External Revenues					
Charges for Services	5,212,649	5,196,875	7,274,650	6,822,765	6,822,765
Miscellaneous	574,030	153,414	50,500	25,600	25,600
External Revenues Total	5,786,679	5,350,289	7,325,150	6,848,365	6,848,365
Internal Revenues					
Fund Transfers - Revenue	0	704	4,965,000	4,390,000	4,390,000
Interagency Revenue	407,028	478,908	458,152	511,703	511,703
Internal Revenues Total	407,028	479,612	5,423,152	4,901,703	4,901,703
Beginning Fund Balance	9,546,653	12,661,581	5,859,409	5,110,000	5,110,000
Resources Total	15,740,360	18,491,482	18,607,711	16,860,068	16,860,068
Requirements					
Bureau Expenditures					
Personnel Services	596,550	667,561	632,169	662,460	662,460
External Materials and Services	1,371,509	3,994,542	9,954,893	9,329,893	9,329,893
Internal Materials and Services	1,005,981	2,012,614	1,370,501	1,441,120	1,441,120
Capital Outlay	0	0	0	0	0
Bureau Expenditures Total	2,974,040	6,674,717	11,957,563	11,433,473	11,433,473
Fund Expenditures					
Debt Service	1,662	1,774	1,844	1,918	1,918
Contingency	0	0	5,277,124	4,140,198	4,140,198
Fund Transfers - Expense	103,077	6,060,582	1,371,180	1,284,479	1,284,479
Fund Expenditures Total	104,739	6,062,356	6,650,148	5,426,595	5,426,595
Ending Fund Balance	12,661,581	5,754,409	0	0	0
Requirements Total	15,740,360	18,491,482	18,607,711	16,860,068	16,860,068

Fund Overview

The Environmental Remediation Fund was established by City Council in FY 1993-94 to provide funding to remediate former solid waste disposal sites for which the City is liable.

Portland Harbor Superfund

Beginning in FY 2005-06, funding for the Portland Harbor Superfund program moved to the Environmental Remediation Fund with resources provided by a dedicated Portland Harbor charge on utility bills and supplemented by revenues from the fund. Including the Portland Harbor Superfund program within the fund is consistent with the purposes of the fund and distinguishes the program from the routine sewer system operations that are budgeted for, and funded within, the Sewer System Operating Fund.

Land Acquisition and Remediation of the Guilds Lake Property

The Guilds Lake property is a former landfill operated by the City from 1910 through the late 1940s. The acquisition and remediation of this site was financed by the Environmental Remediation 1993 Series A Revenue Bonds issued in November 1993. The Guilds Lake remediation was completed in FY 1994-95. Property management, maintenance, and environmental monitoring of the site are funded as required by the Department of Environmental Quality.

Lease income from current tenants on the City-owned Guilds Lake site supports the fund's operating and capital expenditures. This revenue source, along with the fund's interest earnings and cash transfers, are used for remediation projects and the Portland Harbor Superfund program.

Managing Agency Bureau of Environmental Services

Significant Changes from Prior Year

Charges for Services are expected to increase by \$2.4 million in FY 2020-21, an increase of 43.6% over the FY 2019-20 Revised Budget of \$5.4 million. Rate revenues of \$7.2 million within Charges for Services will fund the majority of the Portland Harbor Superfund program (a \$2.4 million increase from the FY 2019-20 Revised Budget of \$4.8 million) and will support additional Post-Record of Decision appropriations. The fund also receives rental income of \$1.0 million from leases at the Guilds Lake facility, of which \$460,485 comes from private lessees and \$114,165 from BES' Revegetation and Construction Management groups (both of which are received in Charges for Services), and \$458,152 from the Portland Police Bureau within the Interagency Revenues line. FY 2020-21 beginning fund balance is projected to be \$6.1 million (\$6.6 million, or 52%, lower than the FY 2019-20 Revised Budget of \$11.5 million), resulting from the \$6.0 million transfer made in FY 2019-20 to the new Portland Harbor Superfund reserve account to fund citywide obligations jointly funded by the General Fund, Transportation and Water bureaus, and Prosper Portland.

Miscellaneous revenues are projected to be down \$77,200 (-41%) due to a lower interest earning rate assumption on lower cash balances. The cash balances were lower due to FY 2019-20 actions including \$1.1 million of ODOT funds returned to ODOT, and the one-time \$6 million transfer to the city's Portland Harbor Superfund reserve referenced above.

Fund Transfer revenue of nearly \$5.0 million is expected in FY 2020-21 and represents the first year of contributions from the Portland Harbor Superfund Reserve Fund to fund citywide obligations of the program.

Personnel services expenditures are budgeted higher (+7.4%) than the FY 2019-20 Revised Budget as a result of Cost of Living Allowance and merit increases as well as health and retirement benefits. This phase of the Superfund program, after EPA released their Record of Decision, will include partnering with other government agencies and City bureaus, community outreach, and working with other potentially responsible parties.

External materials and services are budgeted at \$10.0 million, almost entirely (96%) for Portland Harbor Superfund work, which is \$5.9 million (+147%) higher than the FY 2019-20 Revised Budget. This includes budget of approximately \$5.0 million to address the citywide obligation for the Remedy Design phase of the Superfund process, funded from an equal amount of cash transfer from the citywide reserve.

Another \$1.5 million is for post-Record of Decision (post-ROD) contractor support to respond to DEQ demands, and another \$400,000 for additional outside legal assistance. Both are partially offset from a reduction of \$1.1 million that was budgeted for joint City and ODOT remediation projects in FY 2019-20, with that agreement recently terminated and the funds returned to ODOT.

Internal materials and services expenditures decreased by \$440,361 (-23.4%) from the FY 2019-20 Revised Budget, due to the completion of the repaving of the Guilds Lake parking lot, which was budgeted at \$550,000 in FY 2019-20.

Funds Transfers expense are reduced by \$4.7 million in FY 2020-21 as transfers to the Portland Harbor Superfund reserve fund went down from \$6.0 million to \$1.32 million. The General Fund Overhead transfer was reduced by \$7,106 (-11.8%).

As a result of the above changes in revenues and expenses, Contingency (representing estimated ending fund balances) will remain fairly constant, decreasing by \$136,005 from the FY 2019-20 Revised Budget of \$6.1 million.



Capital Project Details



Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

Capital Program Project	Prior Years	Revised	Requested	Capital Plan					5-Year Total
		FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26		
Citywide Projects									
PROJECT NAME: NEW - Community Opportunities & Enhancement Program (COEP)									
				Total Project Cost	ongoing		Area	Citywide	
	Confidence	Low		Original Cost	ongoing		Objective	Mandated	
Project Description									
One percent of hard construction costs on all public improvement contracts executed are contributed to a Citywide social equity contracting initiative. The program increases workforce development opportunities and access to City contracts for D/M/ESB and COVID certified contractors.									
Revenue Source(s)									
Resources for this program come from rate payer fees and charges for sewer and stormwater services.									
Total Expenditures	0	500,000	750,000	750,000	750,000	750,000	750,000	750,000	3,750,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0	0
Collection System Pumping									
PROJECT NAME: NEW - Facilities Security Improvement - Shell									
				Total Project Cost	5,050,000		Area	Citywide	
	Confidence	Low		Original Cost	5,050,000		Objective	Efficiency	
Project Description									
This request will harden and provide security improvements for approximately 100 pump stations, Columbia and Tryon Creek Wastewater Treatment Plants and other BES properties/assets as need. Improvements would include but not limited to: lighting, cameras/monitors, gate automation, card access, fencing, door/window improvements , overall hardening of the perimeter assets, security patrol services and security assessment services. Additionally, the safety and health of our employees is a top priority and with the increase in vandalism, thefts and facility breaches the BLT recognizes and supports the need for such security improvements.									
Revenue Source(s)									
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.									
Total Expenditures	0	0	500,000	750,000	750,000	750,000	750,000	750,000	3,500,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0	0
PROJECT NAME: Fiber Expansion for Inverness PS & POSH Fiber Rings									
				Total Project Cost	2,116,000		Area	East	
	Confidence	Moderate		Original Cost	2,100,000		Objective	Expansion	
Project Description									
This project installs additional fiber optic components to make that network more complete and robust.									
Revenue Source(s)									
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.									
Total Expenditures	50,590	1,000,000	0	0	0	1,650,000	0	0	1,650,000

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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: Force Ave Pump Station Remodel

				Total Project Cost	8,366,000		Area	North
	Confidence	Low		Original Cost	5,127,000		Objective	Maintenance & Repair

Project Description

This project originated in the Pump Station Improvement Program and remodels the pump station for improved reliability and maintenance. The remodel includes wet well modification, new submersible pumps, onsite electrical controls building and generator shelter, and odor treatment.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	1,184,393	200,000	1,531,000	3,804,000	1,769,000	0	0	7,104,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Inverness Pump Station Force Main Improvements

				Total Project Cost	13,250,000		Area	Northeast
	Confidence	Low		Original Cost	10,030,000		Objective	Replacement

Project Description

This multi-phase project will first address deficiencies in the 24-inch force main, redirect flow from the 36-inch force main, and then address deficiencies in the 36-inch line.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	444,246	800,000	5,272,000	4,100,000	1,670,000	922,000	780,000	12,744,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - NE 47th Ave Pump Station

				Total Project Cost	4,918,000		Area	North
	Confidence	Low		Original Cost	4,918,000		Objective	Expansion

Project Description

The easement was granted in 2003 for the pump station. Project will be built on a 5,225-sf of permanent easement, located on the corner of NE Crystal Ln and NE 47th Ave.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	0	0	296,000	782,000	695,000	3,000,000	145,000	4,918,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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

PROJECT NAME: NEW - NE Marx & 105th Pump Station Rehab

				Total Project Cost	3,550,000			Area	Northeast
Confidence		Low	Original Cost		3,200,000	Objective		Maintenance & Repair	

Project Description

This project upgrades the pump station for projected future flows and improve reliability and maintenance. It is anticipated that the project will require the replacement of all mechanical, electrical, and control equipment.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	433,826	500,000	500,000	2,900,000	150,000	0	0	3,550,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Pump Station Improvement Program, FY20-FY24

				Total Project Cost	263,000,000			Area	Citywide
Confidence		Low	Original Cost		263,000,000	Objective		Replacement	

Project Description

Program to refurbish or upgrade pump stations that are not in compliance with present codes, are not operating in a reliable manner, need improvements because of growth in the receiving sewage basin, and/or are over 20 years old with out-of-date equipment. The approved Pump Station Improvement Plan guides the selection of projects. The City currently operates and maintains 98 pump stations. This program was developed to ensure these facilities are maintained in accordance with a scheduled plan to increase pump station reliability, reduce or avoid increases in maintenance costs, and avoid failures that could cause sewage to bypass to waterways. This program number replaces E11280 which was budgeted as an ongoing program. Going forward, this program will be budgeted in 5 year increments.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	1,455,705	0	10,000,000	11,000,000	12,000,000	17,000,000	23,000,000	73,000,000
Net Operations and Maintenance Costs	0	0	0	5,000	5,000	5,000	5,000	20,000

PROJECT NAME: SLRT/Vault Monitoring Install - Shell

				Total Project Cost	ongoing			Area	Citywide
Confidence		Moderate	Original Cost		4,900,000	Objective		Efficiency	

Project Description

The desired results of the program are to reduce the likelihood of CSO events by optimizing the existing network of sewer level remote telemetry (SLRT) stations in the city by adding leak detection alarm monitoring to air/vacuum valve installations and valve vaults located adjacent to water bodies in the city. This will update the monitoring capabilities of the existing SLRT network to match current storm and sanitary sewer flows and to minimize the severity of force main leaks at existing air/vacuum valves adjacent to water bodies.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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	
Total Expenditures	1,332,063	100,000	600,000	100,000	600,000	100,000	600,000	2,000,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - Terwilliger Northgate Lift Station								
				Total Project Cost	2,200,000	Area		
Confidence		Low	Original Cost		2,200,000	Objective		Efficiency

Project Description
 The objective of the project is to correct a failing sewage conveyance pipe by constructing a new lift station located on SW Terwilliger Blvd near SW Northgate Ave.

Revenue Source(s)
 Project is funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	0	200,000	700,000	1,400,000	0	0	0	2,100,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Capital Maintenance - Non-Process Facilities - Shell								
				Total Project Cost	Ongoing	Area		Citywide
Confidence		Moderate	Original Cost		Ongoing	Objective		Maintenance & Repair

Project Description
 This program is for capital maintenance of BES-owned non-process facilities including the Water Pollution Control Lab, administration buildings at treatment plants, and downtown office space.

Revenue Source(s)
 Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	5,614,753	700,000	500,000	500,000	500,000	500,000	500,000	2,500,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - Dodd Building Rehabilitation								
				Total Project Cost	3,700,000	Area		North
Confidence		Low	Original Cost		3,700,000	Objective		Maintenance & Repair

Project Description
 This project focuses on the rehabilitation of the Dodd Building, including the detached oil storage building. Repairs, replacements and improvements will be made to the roofs, HVAC systems, Maintenance Shop space, Electrical & Instrumentation Shop space, warehouse, oil storage building, 2nd floor office spaces, lunchroom/kitchen, locker room, restrooms and other spaces in the Dodd Building. Safety issues and undesirable working conditions will be improved, and spaces will be optimized for staff. This project will be addressing the failure and imminent failure of assets located in this building (roof, HVAC, other building systems.)

Revenue Source(s)

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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		
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.									
Total Expenditures	0	0	200,000	500,000	500,000	2,000,000	500,000	3,700,000	
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0	

PROJECT NAME: NEW - Non-Process CBWTP/Pump Station Facilities Shell

Confidence	NA	Total Project Cost	Ongoing	Area	North
		Original Cost	Ongoing	Objective	Maintenance & Repair

Project Description

Program is for capital maintenance of BES-owned non-process facilities at Columbia Blvd Wastewater Treatment Plants (CBWTP) and Pumpstations Citywide.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	0	0	500,000	500,000	500,000	500,000	500,000	2,500,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - Water Pollution Control Lab Site Work

Confidence	NA	Total Project Cost	3,320,000	Area	North
		Original Cost	3,320,000	Objective	Mandated

Project Description

Upgrade the Water Pollution Control Lab secure fleet parking lot, storage building, main parking lot and address accessibility needs to meet current ADA design standards.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	588,248	0	2,900,000	420,000	0	0	0	3,320,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - WPCL Air Handler Replacement

Confidence	Low	Total Project Cost	1,000,000	Area	North
		Original Cost	1,000,000	Objective	Replacement

Project Description

This project is to replace air handler units at the Water Pollution Control Lab. AHU-1 and AHU-2 service the lab area and office space on the West side of the building. Both units are past their service life and do not have any redundancy built into it. Replacing air handling units ensure the HVAC system at the Water Pollution Lab is operational without any interruption in service. Investment in these critical air handler units will secure the function of the air handlers for many years to come.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	0	0	200,000	400,000	400,000	0	0	1,000,000
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Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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: Willamette R. and Columbia Sl. Water Resources Development								
				Total Project Cost	2,532,000	Area		North
Confidence		Low	Original Cost		300,000	Objective		Mandated

Project Description
 This project is a feasibility study looking at improvements to the stormwater system function, water quality and habitat restoration projects in the Willamette River and Columbia Slough including Rivergate Quarry, NW 60th Place, and NW Saltzman Trash Rack. The package was approved as part of the Water Infrastructure Improvements for the Nation Act of 2016 (WIIN), which included the 2016 Water Resources Development Act (WRDA).

Revenue Source(s)
 Funded by Water Infrastructure Improvements for the Nation Act of 2016 (WIIN), which included the 2016 Water Resources Development Act (WRDA).

Total Expenditures	0	705,000	705,000	915,000	230,000	415,000	277,000	2,542,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

Restoration and Remediation								
PROJECT NAME: Culverts Phase 3								
				Total Project Cost	10,746,000	Area		Citywide
Confidence		Moderate	Original Cost		14,400,000	Objective		Replacement

Project Description
 This is the third phase of culverts replacements, consisting of five individual projects, to be constructed over multiple fiscal years.

Revenue Source(s)
 Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	0	506,000	975,000	2,925,000	0	0	654,000	4,554,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - FT: Boones Ferry Culvert								
				Total Project Cost	8,961,000	Area		Southwest
Confidence		Moderate	Original Cost		1,669,000	Objective		Efficiency

Project Description
 This program replaces the Boones Ferry Culvert on Tryon Creek to increase capacity and provide fish passage. The project will include channel enhancement work to control the grade of the creek and protect streambanks. This will protect an exposed 18-inch sewer line crossing the creek approximately 145 feet upstream of the culvert. In addition to limiting fish passage, the pipe is also in need of repair, and it does not convey water consistent with BES stormwater design manual standards.

Revenue Source(s)
 Funded by bond proceeds repaid by sanitary sewer and stormwater rates and a grant from Metro.

Total Expenditures	6,266,708	3,000,000	50,000	0	0	0	0	50,000
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Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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: NEW - JC: Brunkow

			Total Project Cost	688,000		Area	Southeast
	Confidence	Low	Original Cost	768,000		Objective	Expansion

Project Description

This project consists of Brunkow Floodplain, wetland, and riparian restoration per the 2001 Johnson Creek Restoration Plan.

Revenue Source(s)

Project is funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	170,491	50,000	100,000	100,000	600,000	0	0	800,000
Net Operations and Maintenance Costs	0	0	0	0	0	10,000	10,000	20,000

PROJECT NAME: Johnson Creek Crossing Restoration Project

			Total Project Cost	2,463,000		Area	Southeast
	Confidence	Moderate	Original Cost	2,000,000		Objective	Maintenance & Repair

Project Description

This project provides floodplain restoration on multiple parcels along Johnson Creek near river mile 9.6. Approximately 9.5 acres of floodplain will be restored to reduce flooding, improve water quality, and ESA habitat.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	688,490	800,000	200,000	700,000	22,000	0	0	922,000
Net Operations and Maintenance Costs	0	0	0	0	10,000	10,000	10,000	30,000

PROJECT NAME: Johnson Creek Oxbow

			Total Project Cost	5,495,000		Area	Southeast
	Confidence	Low	Original Cost	1,396,000		Objective	Expansion

Project Description

This program initiates improvements to increase flood storage and improve habitat at the Johnson Creek Oxbow.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	828,401	495,000	500,000	1,500,000	550,000	1,900,000	249,000	4,699,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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
PROJECT NAME: Johnson Creek Willing Seller Phase 2								
			Total Project Cost	43,000,000			Area	Southeast
	Confidence	High	Original Cost	40,000,000			Objective	Efficiency
Project Description								
This project acquires properties from willing sellers in four target areas of high value for Johnson Creek floodplain restoration. The properties are land banked until enough contiguous property has been acquired to proceed with restoration. Program allows residents in high risk areas to sell their property at fair market, creates projects that increase flood storage and conveyance capacity while enhancing fish and wildlife habitat, and creates wetlands and passive recreation activities.								
Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	8,446,217	1,000,000	1,500,000	500,000	500,000	2,500,000	2,500,000	7,500,000
Net Operations and Maintenance Costs	0	0	0	60,000	65,000	65,000	65,000	255,000
PROJECT NAME: NEW - Marine Drive Levee Outfall Decommission								
			Total Project Cost	1,951,000			Area	Citywide
	Confidence	Low	Original Cost	1,951,000			Objective	Maintenance & Repair
Project Description								
Increase community and ecological resilience by working with local, state and federal partners to update floodplain data, maps, policies and programs to reflect climate change projections and variability and improve floodplain function. The project includes up to 21 outfalls over 1.6 miles between North Portland Road and I-5 along North Marine Drive.								
Revenue Source(s)								
Project is funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	6,104	91,000	150,000	200,000	800,000	800,000	0	1,950,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0
PROJECT NAME: Revegetation Natural Area Establishment Umbrella								
			Total Project Cost	ongoing			Area	Citywide
	Confidence	Moderate	Original Cost	ongoing			Objective	Efficiency
Project Description								
Post-construction vegetation establishment implemented by Watershed Revegetation Program. Typical activities include irrigation, weed control, vegetation management, replanting and reseeding, other vegetation-related site maintenance during the establishment period.								
Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	19,619	0	75,000	75,000	75,000	75,000	75,000	375,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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: Springwater Wetland									
				Total Project Cost	7,470,000		Area	Southeast	
	Confidence	Moderate		Original Cost	535,000		Objective	Mandated	
Project Description									
This program mitigates damage from Springwater Wetland flooding greater than the 10-year event and provides water quality and habitat benefits by restoring existing wetlands in the area. Passive recreational trails and facilities will be incorporated and coordinated with Portland Parks and Recreation.									
Revenue Source(s)									
Funded by US Army Corps of Engineers and bond proceeds repaid by sanitary sewer and stormwater rates.									
Total Expenditures	624,421	650,000	1,000,000	2,000,000	3,750,000	50,000	20,000	6,820,000	
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0	0
PROJECT NAME: SW Shattuck Rd Culvert Replacement									
				Total Project Cost	1,260,000		Area	Southwest	
	Confidence	Low		Original Cost	1,214,000		Objective	Replacement	
Project Description									
This project replaces the culvert on Fanno Creek under SW Shattuck Road to increase hydraulic capacity and provide for fish passage.									
Revenue Source(s)									
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.									
Total Expenditures	0	0	103,000	98,000	98,000	961,000	0	1,260,000	
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0	0
PROJECT NAME: Watershed Investment Program - Shell									
				Total Project Cost	Ongoing		Area	Citywide	
	Confidence	Moderate		Original Cost	Ongoing		Objective	Efficiency	
Project Description									
This program funds watershed enhancements. Priority is given to projects that leverage other funding sources and/or address multiple watershed health goals.									
Revenue Source(s)									
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.									
Total Expenditures	8,450,292	1,000,000	1,000,000	500,000	500,000	1,000,000	0	3,000,000	
Net Operations and Maintenance Costs	0	0	0	10,000	10,000	10,000	10,000	40,000	
PROJECT NAME: Watershed Land Acquisition Program									
				Total Project Cost	10,750,000		Area	Citywide	

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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	Low	Original Cost	15,500,000		Objective	Efficiency	
Project Description								
This program targets the acquisition of 100 to 200 acres over five years to protect medium to high functioning natural resources in support of watershed health and stormwater management.								
Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	327,378	1,500,000	1,500,000	500,000	500,000	3,000,000	3,500,000	9,000,000
Net Operations and Maintenance Costs	0	0	0	35,000	40,000	40,000	40,000	155,000
PROJECT NAME: West Lents Floodplain Restoration								
			Total Project Cost	6,500,000		Area	Southeast	
	Confidence	Low	Original Cost	6,500,000		Objective	Expansion	
Project Description								
This project will restore the floodplain of Johnson Creek to address flooding, improve water quality, and restore habitat within West Lents. To date, the City has acquired approximately 15 acres of property within the West Lents area. Near term acquisition and ROW vacation would increase the area to approximately 19 acres. The initial phase of this project will develop and evaluate alternatives for restoring floodplains within the larger study area (approximately 36 acres) and identify immediate implementation opportunities and potential project phasing.								
Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	375,790	500,000	400,000	400,000	500,000	4,000,000	1,200,000	6,500,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0
PROJECT NAME: NEW - Willamette River Eastbank Crescent Restoration								
			Total Project Cost	17,142,000		Area	Southeast	
	Confidence	Low	Original Cost	17,142,000		Objective	Efficiency	
Project Description								
Project addresses FEMA BiOp regulatory deadline and important equity and racial justice opportunity, encompasses the eastern waterfront of the Willamette River from the Hawthorne Bridge to the Marquam Bridge. The project consists of: 1) restoration of approximately 4.4 acres and 1,380 feet of riparian and nearshore in-river habitat restoration including laying back the bank to provide additional flood storage and floodplain function, significant addition of large wood, revegetation of the riparian area, an educational overlook, and a redesigned greenway trail; 2) replacement of the Holman Dock; and 3) enhancement of the swimming area next to the Hawthorne Bridge.								
Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	0	0	1,550,000	1,550,000	4,650,000	8,750,000	642,000	17,142,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0
Sanitary and Combined Collection System								

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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: CC Integrated RDII Pre-Design									
				Total Project Cost	2,141,000		Area	Southwest	
	Confidence	Low		Original Cost	2,100,000		Objective	Maintenance & Repair	

Project Description

This project rehabilitates the public sanitary sewer system to eliminate overflows and enhance the storm water system.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	390,705	0	700,000	1,200,000	0	0	0	1,900,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Central Tanner

				Total Project Cost	10,160,000		Area	Northwest
	Confidence	Low		Original Cost	10,216,000		Objective	Maintenance & Repair

Project Description

The project replaces 9,300 linear feet of existing 100- to 120-year old clay combined sewer pipes with larger pipes to increase hydraulic capacity in the area generally bound by NW Overton, 11th, Kearny, and 21st. Project will reduce the risk of street flooding at 35 locations and basement sewer backup risk to 112 parcels.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	0	0	0	0	0	60,000	600,000	660,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Downtown Old Town (DTOT) Pipe Rehab

				Total Project Cost	69,161,000		Area	Southwest
	Confidence	Low		Original Cost	62,580,000		Objective	Maintenance & Repair

Project Description

This project is a programmatic approach to the repair and rehabilitation of sanitary and combined sewer and manholes in Downtown-Old Town.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	13,216,698	2,750,000	7,400,000	9,500,000	3,500,000	7,200,000	8,000,000	35,600,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - ECOPIP Integrated Solutions Delivery

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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	
				Total Project Cost	ongoing		Area	Citywide
	Confidence	Low		Original Cost	ongoing		Objective	Maintenance & Repair

Project Description

Shell program for ECOPIP (Education, Communication, Outreach, and Public Involvement Program) augments the established CIP Public Involvement processes with community-specific outreach, education, and engagement strategies that promote public awareness and community engagement with the work. Enhanced outreach begins 12-18 months or more before capital construction, bundles multiple grey and green projects together, and leverages multiple partnerships. ECOPIP provides coordinated watershed education, community outreach, and public involvement which produces better project outcomes by engaging and involving communities in the work.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	0	0	100,000	100,000	100,000	100,000	100,000	500,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Fanno Creek Infiltration and Inflow

				Total Project Cost	13,917,000		Area	Southwest
	Confidence	Low		Original Cost	13,917,000		Objective	Maintenance & Repair

Project Description

This project resolves known local basement and surface flooding and reduces the risk of sanitary sewer overflows at the Fanno Pump Station. The focus of the project is the detection and removal of infiltration and inflow (I&I) on private property. Targeted conveyance improvements will address pipe capacity problems that cannot be resolved with only I&I reductions.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	1,519,935	0	0	0	0	0	75,000	75,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Hillsdale Crest RDII

				Total Project Cost	7,183,000		Area	Southwest
	Confidence	Low		Original Cost	6,800,000		Objective	Mandated

Project Description

This project will address the implementation of sewer improvements to control the DeWitt Storm System Overflow (SSO) within the Burlingame Basin.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	1,343,285	5,500,000	2,040,000	0	0	0	0	2,040,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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: Large Diameter Sewer Rehabilitation									
				Total Project Cost	115,646,000			Area	Citywide
Confidence		Moderate			Original Cost	39,400,000	Objective		Maintenance & Repair

Project Description
 This project consists of whole pipe and spot rehabilitation of large diameter (36 inches) sanitary and combined sewers that are currently in poor structural condition.

Revenue Source(s)
 Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	6,657,374	3,000,000	12,150,000	24,863,000	6,000,000	4,000,000	5,000,000	52,013,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Maintenance Capital - Construction - Shell									
				Total Project Cost	Ongoing			Area	Citywide
Confidence		Moderate			Original Cost	Ongoing	Objective		Maintenance & Repair

Project Description
 The sewage and drainage collection systems develop structural and capacity problems as development occurs and the system ages. This program addresses small deficiencies in the collection system using City maintenance crews and equipment. Individual activities are determined in response to problems identified by inspection and field investigations during the year. Examples of work performed under this project include trash rack replacement, culvert replacement, sump and sediment manhole construction, manhole replacement, large spot repairs, small reconstructions, diversion modifications, deep underground repairs, and single-block sewer replacements.

Revenue Source(s)
 Project is funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	5,390,916	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Maintenance Capital - Contract - Shell									
				Total Project Cost	ongoing			Area	Citywide
Confidence		Moderate			Original Cost	14,500,000	Objective		Maintenance & Repair

Project Description
 This program supports privately-contracted maintenance repair and reconstruction projects throughout the collection system. Due to the age of much of the inventory, structural failures or near failures, localized flooding, and hydraulic capacity problems often occur during the year. Many of these are discovered through the routine sewer inspection program. During any given fiscal year, subprojects are prioritized based on the criticality and condition of the facility and the need to protect public health and property. This program number replaces E04863 which was budgeted as an ongoing program. Going forward, this program will be budgeted in five year increments.

Revenue Source(s)
 Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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
Total Expenditures	18,800,815	790,000	997,000	0	0	0	0	997,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - Maintenance Capital Contract FY20-25 - Shell

			Total Project Cost	ongoing	Area	Citywide
Confidence	Low	Original Cost	ongoing	Objective	Maintenance & Repair	

Project Description
 This is a shell program for the design and construction of relatively small-scale projects, urgent capital maintenance repair projects, and collection system reconstruction projects. It addresses structural failures, near failures, localized flooding, and hydraulic capacity problems.

Revenue Source(s)
 BES portion funded by bond proceeds repaid by sanitary sewer and stormwater rates in addition to PBOT, LID's, PP&R and TriMet.

Total Expenditures	1,851,575	2,664,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	15,000,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NW Thurman St Sewer Reconstruction

			Total Project Cost	6,349,000	Area	Northwest
Confidence	Moderate	Original Cost	2,542,000	Objective	Maintenance & Repair	

Project Description
 This project upsizes 3,100 linear feet of existing 100 year combined sewer pipes to increase hydraulic capacity in the vicinity of NW Savier, Franklin, and Thurman. Project will reduce the risk of street flooding at 16 locations and basement sewer backup risk to 35 parcels. Timing of project is in response to six reported basement sewer backups since 2008.

Revenue Source(s)
 Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	1,586,648	4,270,000	1,386,000	0	0	0	0	1,386,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - NWN: East Nicolai

			Total Project Cost	5,300,000	Area	Northwest
Confidence	Low	Original Cost	7,470,000	Objective	Maintenance & Repair	

Project Description

Project Detail - Bureau of Environmental Services

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 program reduces the risk of basement sewer backups to 192 parcels, addresses pipe condition and hydraulic capacity problems, and separates some stormwater. Located in NW Portland, the project area is generally bound by Kearney, 21st, Burnside, and Maywood. Project includes the repair and/or upsizing of approximately 11,500 linear feet of combined sewer pipe, construction of 2,000 linear feet of new stormwater pipe, and a new water quality facility. The project has a positive cost to benefit ratio (CBR) = 0.18.								
Revenue Source(s)								
Project is funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	240	0	400,000	0	0	2,500,000	2,200,000	5,100,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Oak A - Collectors									
				Total Project Cost	9,907,000			Area	Northeast
Confidence		Low		Original Cost	10,000,000	Objective		Replacement	

Project Description
 This project increases system capacity to relieve street flooding at 54 locations and basement sewer backups at 150 properties. Located in NE Portland, the project area is generally bound by 10th, I-84, Sandy Blvd, 22nd, and Davis.

Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	74	667,000	200,000	200,000	200,000	200,000	0	800,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Oak A - Sandy Trunk									
				Total Project Cost	13,700,000			Area	Northeast
Confidence		Low		Original Cost	13,500,000	Objective		Replacement	

Project Description
 This project constructs a new 42-inch/48-inch trunk line in NE Portland between the intersections of NE 29th Ave/Sandy Blvd and NE 12th Ave/Davis St.

Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	415,843	1,400,000	700,000	450,000	450,000	4,500,000	6,000,000	12,100,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Party Sewers									
				Total Project Cost	Ongoing			Area	Citywide
Confidence		Moderate		Original Cost	Ongoing	Objective		Efficiency	

Project Description

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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>The Party Sewers Program addresses existing "party sewers" – shared private sewer lines crossing private property (often without appropriate easements) or existing within the right-of-way. These sewers are older and generally have not been maintained. Over several years, this project will provide each property owner with direct access to a municipal sewer line or ensure that the property has acquired an easement for a separated private line.</p>								
Revenue Source(s)								
<p>Most of the construction costs up to a capped amount will be reimbursed by property owners to the City through an LID assessment, or through an in-lieu of assessment line charge.</p>								
Total Expenditures	11,562,629	4,380,000	4,421,000	3,824,000	2,543,000	1,508,000	2,732,000	15,028,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: PBOT Interagency Reimbursement - Shell						
			Total Project Cost	Ongoing	Area	Citywide
Confidence	Moderate	Original Cost	Ongoing	Objective	Expansion	

Project Description								
<p>The PBOT Interagency Reimbursement Program provides for stormwater facility and sanitary sewer design, design review, and construction inspection services associated with street improvement projects initiated by PBOT.</p>								
Revenue Source(s)								
<p>PBOT requests necessary services and reimburses BES for all costs of these services through an interagency agreement.</p>								
Total Expenditures	3,556,277	350,000	350,000	350,000	350,000	350,000	350,000	1,750,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Permit Reimbursement - Shell						
			Total Project Cost	Ongoing	Area	Citywide
Confidence	Optimal	Original Cost	Ongoing	Objective	Replacement	

Project Description								
<p>This project allows a developer to be reimbursed for making public sewer available to another property, per City Code Title 17.</p>								
Revenue Source(s)								
<p>Funded by bond proceeds repaid by sanitary sewer and stormwater rates.</p>								
Total Expenditures	922,202	200,000	200,000	200,000	200,000	200,000	200,000	1,000,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Phase 3 Pipe Rehabilitation						
			Total Project Cost	101,000,000	Area	Citywide
Confidence	Moderate	Original Cost	155,250,000	Objective	Maintenance & Repair	

Project Description						
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Project Detail - Bureau of Environmental Services

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 is a structural rehabilitation of critical combined and sanitary sewers that are at the end of their economic life and have the highest consequence of failure. This project is an outgrowth of the Phase 2 program.								
Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	69,500,985	14,500,000	14,000,000	17,150,000	3,050,000	500,000	300,000	35,000,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - Phase 4 Small-Diameter Pipe Rehab								
			Total Project Cost	ongoing			Area	Citywide
Confidence		Low	Original Cost	ongoing			Objective	Maintenance & Repair

Project Description
 Phase IV Small-Diameter Pipe Rehab will address the next suite of small-diameter pipeline risks. This primary job will eventually contain between six and ten neighborhood-scale mainline rehabilitation projects. Two to three projects will be located in SW Portland, in the King's Heights area. One to two projects will be in the St. John's area. The remaining projects will be identified at the completion of the E11333 Deferred Pipe Investigation. This project will prioritize unaddressed risk remaining from Phases 1-3 in the Large-Scale Sewer Rehabilitation Program (LSSRP) projects.

Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	0	0	250,000	500,000	500,000	2,000,000	4,000,000	7,250,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Public Works Permit Projects								
			Total Project Cost	Ongoing			Area	Citywide
Confidence		Low	Original Cost	Ongoing			Objective	Expansion

Project Description
 This ongoing, full-cost recovery program supports new development by providing for new public sewer system facilities through the public works permitting process. When proposed development creates the need for additional sewer system facilities, private developers are required to construct those facilities under this program. As part of the permit process, BES reviews and approves both plans and final construction for compliance with system standards. Facilities developed through this process are accepted as part of the City's sewerage system when completed and approved and thereafter maintenance and repair are provided by the City. Facilities must be developed to system standards to ensure that expensive future maintenance problems and service failures do not occur.

Revenue Source(s)								
All bureau costs are reimbursed by the developer.								
Total Expenditures	0	850,000	848,000	848,000	851,000	1,000,000	1,000,000	4,547,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Richmond Neighborhood Sewer Rehab/Green Streets								
			Total Project Cost	4,900,000			Area	Southeast

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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	Low	Original Cost	4,750,000			Objective	Maintenance & Repair

Project Description

This project rehabilitates approximately 1,300 feet of pipe in poor condition and upsize pipe segments. It installs street stormwater controls to reduce the risk of street flooding and basement sewer backup for 143 properties. The project is located in the Southeast in the area generally bound by Hawthorne, 48th, Division, and 36th. The project has a positive cost to benefit ratio (CBR) = 0.13.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	356,896	700,000	0	0	0	100,000	600,000	700,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Sewer Easements on Existing Sewers - Shell

			Total Project Cost	Ongoing		Area	Citywide
	Confidence	Low	Original Cost	Ongoing		Objective	Expansion

Project Description

This project constructs sewer easements on existing sewers for high priority acquisitions. The bureau regularly discovers locations where collection system assets are on private property, without benefit of appropriate easements or other property interests.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	0	50,000	50,000	50,000	50,000	50,000	50,000	250,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Sewer Extensions for High Risk Septic - Shell

			Total Project Cost	Ongoing		Area	Citywide
	Confidence	Moderate	Original Cost	Ongoing		Objective	Expansion

Project Description

This program funds small sanitary sewer extension projects to provide sanitary sewer service to developed residential properties with septic systems. Projects will be prioritized based on risk.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	2,890,099	2,927,000	500,000	500,000	500,000	500,000	500,000	2,500,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Slabtown North Sewer Reconstruction

			Total Project Cost	6,124,000		Area	Northeast
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Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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
	Confidence	Low	Original Cost	6,221,000			Objective	Maintenance & Repair

Project Description

This project replaces 5,900 linear feet of existing 100-120 year old clay combined sewer pipes with larger pipes to increase hydraulic capacity in the area generally bound by NW York, 14th, Thurman, and 21st. Project will reduce the risk of street flooding at 17 locations and basement sewer backup risk to 28 parcels.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	49,244	528,000	510,000	108,000	0	5,147,000	44,000	5,809,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Small Urgent Capacity Projects - Shell

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

Project Description

This program addresses combined sewer capacity in areas where property owners have reported basement sewer backups and are outside of the boundary of a project currently in the Capital Improvement Program (CIP).

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	2,858,717	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: South Tanner

			Total Project Cost	8,800,000		Area	Northwest
	Confidence	Low	Original Cost	8,400,000		Objective	Maintenance & Repair

Project Description

This project replaces pipes in poor structural condition to relieve street flooding and basement sewer backups in NW Portland. Area generally bound by Johnson, 9th, Everett, and 23rd.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	332,739	400,000	400,000	200,000	200,000	3,200,000	4,000,000	8,000,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Stark HSS-17

			Total Project Cost	17,500,000		Area	Southeast
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Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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	Low	Original Cost	13,242,000			Objective	Maintenance & Repair

Project Description

This project replaces pipes in poor structural condition, relieves street flooding, and reduces the risk of basement sewer backups to 304 properties in the area generally bound by NE Everett, SE/NE 32nd, SE Stark, and SE 21st. It replaces 400 linear feet of poor condition pipe, upsizes 10,500 linear feet of hydraulically deficient pipe, and constructs new green street facilities to collect stormwater runoff from approximately 21 acres of impervious area. The project has a positive cost to benefit ratio (CBR) = 0.47.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	3,016,463	2,000,000	12,000,000	5,000,000	0	0	0	17,000,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Sunnyside South Recon/Green Streets

			Total Project Cost	11,500,000			Area	Southeast
	Confidence	Moderate	Original Cost	6,855,000			Objective	Maintenance & Repair

Project Description

This project constructs improvement to upsize pipe segments. Install street, roof, and parking stormwater controls to relieve street flooding and basement sewer backup to 204 properties. Located in SE Portland, the project area is generally bound by Taylor, 45th, Hawthorne, and 29th. The project has a positive net benefit to cost ratio (nBCR) = 0.47.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	1,051,112	800,000	5,300,000	2,700,000	0	0	0	8,000,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - Vermont RDII Reduction

			Total Project Cost	6,645,000			Area	Southwest
	Confidence	Low	Original Cost	6,645,000			Objective	Maintenance & Repair

Project Description

This project reduces RDII in critical areas by lining leaky pipes and city laterals. A limited amount of pipe upsizing is also recommended. The pipe lining projects described involve lining all publicly owned main line sewer pipes located within each project area. All pipes proposed for lining within these three project areas are 8 inches in diameter.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	22,102	0	0	0	0	0	90,000	90,000
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Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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

Stormwater Management

PROJECT NAME: 1% For Green - Shell

		Total Project Cost	Ongoing	Area	Citywide
Confidence	Moderate	Original Cost	Ongoing	Objective	Efficiency

Project Description

Secondary projects included within this project support construction of green street facilities in the City of Portland that manage stormwater, enhance livability, and provide other environmental benefits, such as green streets swales, curb extensions, vegetated infiltration basins, porous paving, or other facility types defined by the Sustainable Stormwater Management Program.

Revenue Source(s)

Funded entirely from Offsite Stormwater Management Fees and the Percent for Green charges assessed against eligible capital improvements constructed within the right-of-way by BES, the Water Bureau, and PBOT; these projects have no bond or sewer rate funding.

Total Expenditures	2,012,202	700,000	662,000	791,000	700,000	500,000	500,000	3,153,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Balch Creek Trash Racks Retrofit

		Total Project Cost	5,028,000	Area	Northwest
Confidence	Moderate	Original Cost	100,000	Objective	Efficiency

Project Description

This project maintains existing trash racks adjacent to the heavily used Lower Macleay Trail in Forest Park. These large structures and bays keep the majority of sediment, rock, and floating debris from entering the low-pressure storm sewer that conveys Balch Creek from Forest Park (near NW 30th & Thurman) to the Willamette River at Outfall 17. Project was initially funded for pre-design only.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	943,495	1,842,532	1,637,000	0	0	0	0	1,637,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Basin 3/Tryon Headwaters Primary

		Total Project Cost	1,241,000	Area	Southwest
Confidence	Low	Original Cost	773,000	Objective	Efficiency

Project Description

This project gathers and analyzes data, and implements a combination of public and private actions and investments to address the stormwater management and conveyance deficiencies in a systematic approach.

Revenue Source(s)

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	461,838	930,000	350,000	0	0	0	0	350,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - Boise-Eliot Recon & Green Streets

			Total Project Cost	11,515,000		Area	North
	Confidence	Low	Original Cost	11,515,000		Objective	Maintenance & Repair

Project Description

This project consists of combined sewer improvements including: local pipe upsizing of pipes ranging from 8 to 18 inches in diameter, rehabilitation of pipes ranging from 39 to 49 inches in diameter, and roof parking and street stormwater control facilities.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	50,261	350,000	0	50,000	100,000	750,000	5,478,000	6,378,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - Broadway Corridor Reconstruction

			Total Project Cost	6,585,000		Area	Northwest
	Confidence	Low	Original Cost	6,585,000		Objective	

Project Description

This project provides stormwater and sanitary service support and coordinates the Broadway Corridor development located at NW Broadway and Kearny to NW 9th Ave and Hoyt.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	370,985	503,000	1,674,000	5,000,000	0	0	0	6,674,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Citywide Sump Rehab & Replacement

			Total Project Cost	1,560,000		Area	Citywide
	Confidence	Low	Original Cost	800,000		Objective	Maintenance & Repair

Project Description

This project replaces sumps failing in performance and replaces them with new sumps, adding sedimentation manholes where they are lacking.

Revenue Source(s)

Project Detail - Bureau of Environmental Services

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

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	337,575	700,000	1,250,000	0	0	0	0	1,250,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: CMP Culvert Replacement - Shell

			Total Project Cost	1,400,000		Area	Citywide
Confidence	Low	Original Cost	1,400,000		Objective	Replacement	

Project Description

This project consists of the design and construction of two culvert crossings. At 33rd, two crossing culverts will be replaced with one larger box culvert or bridge, depending on regulatory requirements. At 45th Avenue, the 24" culvert will be upsized to a 36" culvert.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	0	0	0	700,000	700,000	700,000	700,000	2,800,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Columbia Slough Outfalls

			Total Project Cost	38,115,000		Area	Northeast
Confidence	Low	Original Cost	28,631,000		Objective	Efficiency	

Project Description

This project constructs pollution controls for separated stormwater areas flowing through 220 city-owned Columbia Slough stormwater outfalls. It focuses on the highest priority outfalls – those draining the most city-owned impervious area.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	8,779,451	4,403,000	2,000,000	2,000,000	2,000,000	6,700,000	11,400,000	24,100,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Drainage Improvement - Shell

			Total Project Cost	Ongoing		Area	Citywide
Confidence	Moderate	Original Cost	Ongoing		Objective	Expansion	

Project Description

The Drainage Improvement Program provides assistance to projects initiated through Local Improvement District (LID) or Public Works Permits processes for oversizing of storm drainage facilities or upgrading of existing public downstream drainage systems. Oversizing increases capacity over the expected useful life of the facilities. It may also be used for small, urgent stormwater improvements.

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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	
Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	171,630	250,000	250,000	250,000	250,000	250,000	250,000	1,250,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Errol Heights Stormwater LID									
				Total Project Cost	2,049,000			Area	Southeast
Confidence		Moderate	Original Cost		2,049,000	Objective		Maintenance & Repair	

Project Description								
This project is an LID in Errol Heights to improve streets and add stormwater infrastructure.								
Revenue Source(s)								
BES portion funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	71,041	1,500,000	1,000,000	65,000	0	0	0	1,065,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Fanno/Tryon Drainage Shoulder Improvements									
				Total Project Cost	4,622,460			Area	Southwest
Confidence		Low	Original Cost		4,932,000	Objective		Efficiency	

Project Description								
Drainage shoulder improvements convert high priority City maintained roadside ditches to swales in the Fanno and Tryon Creek watersheds. Up to 60,000 feet of roadside ditches will be converted to swales to manage stormwater runoff from impervious roadway and adjacent development. These priority roads were identified in the Fanno/Tryon Water Quality and Total Maximum Daily Load (TMDL) Predesign.								
Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	0	521,000	0	0	0	521,000	681,000	1,202,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	5,000	5,000

PROJECT NAME: Revegetation Stormwater Establishment Umbrella									
				Total Project Cost	ongoing			Area	Citywide
Confidence		Moderate	Original Cost		ongoing	Objective		Efficiency	

Project Description								
Post-construction vegetation establishment in stormwater management facilities, implemented by Watershed Revegetation Program. Typical activities include irrigation, weed control, vegetation management, replanting and reseeding, other vegetation-related site maintenance during the establishment period.								

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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	
Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	28,074	0	175,000	175,000	175,000	175,000	175,000	875,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - Stephens Creek Outfalls and Culvert

				Total Project Cost	2,331,500		Area	
	Confidence	Low		Original Cost	2,331,500		Objective	Maintenance & Repair

Project Description

This project replaces culvert, repairs outfalls, and repairs roadside erosion on SW Taylors Ferry Rd.

Revenue Source(s)

BES portion funded by bond proceeds repaid by sanitary sewer and stormwater rates in addition to PBOT, LID's, PP&R, and TriMet.

Total Expenditures	194,048	330,000	0	0	0	350,000	2,000,000	2,350,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Stephens Creek Ph 1 Improvements

				Total Project Cost	5,543,000		Area	Southwest
	Confidence	Low		Original Cost	13,650,000		Objective	Efficiency

Project Description

This project addresses stormwater issues in the Stephens Creek sub-watershed: (1) unmanaged stormwater discharge from existing impervious surfaces; (2) pollution reduction and detention of stormwater; (3) restoration of ecological functions of riparian and wetland areas; (4) energy dissipation at outfalls causing erosion and excess sediment loading.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	2,083,950	1,256,000	346,000	346,000	346,000	346,000	301,000	1,685,000
Net Operations and Maintenance Costs	0	0	0	0	10,000	10,000	10,000	30,000

PROJECT NAME: NEW - Stormwater Facilities Subsidence Repair

				Total Project Cost	4,441,000		Area	Citywide
	Confidence	Low		Original Cost	4,441,000		Objective	Replacement

Project Description

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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
<p>Project addresses concerning trend of soil subsidence in a subset of green street facilities installed throughout the city. As some green street (GS) facilities age, the soil grade subsides, resulting in deviations from the original soil surface elevation, up to 18" below the top of original constructed grade. Often, this deviation occurs on the sidewalk side of the asset, resulting in an unintended drop into the asset from the sidewalk. Consequently, the sidewalk itself can be undermined. The soil subsidence can cause cavities underneath the sidewalk which poses a risk to the structural integrity of the sidewalk itself. These factors pose risks to pedestrian safety and compromise the function of the green street asset and surrounding and associated infrastructure.</p>								
Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	0	0	210,000	85,000	1,602,000	62,000	1,222,000	3,181,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Stormwater Investments and Interbureau Projects

		Total Project Cost	ongoing	Area	Citywide
Confidence	Low	Original Cost	ongoing	Objective	Expansion

Project Description

This project invests in integrated projects delivering multiple infrastructure and service improvements to Portlanders in a more integrated and efficient manner.

Revenue Source(s)

BES portion funded by bond proceeds repaid by sanitary sewer and stormwater rates in addition to PBOT, LID's, PP&R and TriMet.

Total Expenditures	367,310	500,000	100,000	100,000	100,000	100,000	100,000	500,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: SW Capitol Hwy Stormwater Improvements

		Total Project Cost	10,586,000	Area	Southwest
Confidence	High	Original Cost	10,587,000	Objective	Efficiency

Project Description

This project consists of stormwater improvements along SW Capitol Hwy and local side streets. The project also works within the Tryon, Falling, Woods, and Vermont Creek basins to address drainage and conveyance deficiencies, along with recurring nuisance flooding issues.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	2,771,907	6,447,000	6,000,000	585,000	25,000	4,000	0	6,614,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: SW Corridor BES Systems Development Project

		Total Project Cost	3,295,000	Area	
Confidence	Moderate	Original Cost	1,929,000	Objective	Expansion

Project Description

Project Detail - Bureau of Environmental Services

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

This project consists of BES infrastructure planning requirements in response to the development of the SW Corridor Plan and Light Rail Train (LRT). As part of the SW Corridor Plan developed by Metro, TriMet plans to construct a 12-mile LRT Max line from downtown Portland to Bridgeport Village. In addition to the light rail construction, Station Access Projects (SAPs) will be constructed where the train stops. The SAPs are designed for multi-modal access (bike, pedestrian, and vehicle) to the light rail and economic development. The train track alignment known as the Locally Preferred Alternative (LPA) will be finalized October of 2018 and project construction is scheduled to begin in 2023.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	1,161,363	675,000	475,000	400,000	400,000	375,000	375,000	2,025,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - Upper Woods Outfall Improvement & Culvert Replacement

			Total Project Cost	1,030,000		Area	Southwest
Confidence	Low		Original Cost	1,030,000		Objective	Maintenance & Repair

Project Description

Repairs and improvements are needed to reduce local erosion. Outfalls are the point of delivery for pollutants and a potential source of local erosion in streams. Replacing or repairing undercut and degraded pipes improves the function and life-span of BES infrastructure.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	0	100,000	100,000	200,000	555,000	175,000	0	1,030,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

Support

PROJECT NAME: NEW - CIP Planning Shell

			Total Project Cost	ongoing		Area	Citywide
Confidence	Low		Original Cost	ongoing		Objective	Efficiency

Project Description

Program supports the initial project scoping of the right mix of solutions to delivery pathways. Similar to other shell program and project approaches where defined capital project needs are typically only identified just prior to each fiscal year, however past practice shows there is an ongoing and continuous need year after year.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	0	0	1,000,000	1,000,000	1,200,000	1,400,000	1,600,000	6,200,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - Infor IPS Implementation

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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	
				Total Project Cost	3,850,000			Area Citywide
Confidence		Low	Original Cost		3,850,000	Objective		Efficiency

Project Description

The OWAM V1 system is over 20 years old and needs to be replaced with a new system by mid-year 2021 because Oracle is moving to OWAM V2. PWB and BES have selected Infor Public Sector (IPS) for their joint needs for asset management and maintenance management.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	0	0	1,900,000	1,600,000	350,000	0	0	3,850,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Owner Controlled Insurance Program Phase V

				Total Project Cost	7,061,000			Area Citywide
Confidence		Moderate	Original Cost		1,609,000	Objective		Efficiency

Project Description

This is an owner controlled insurance program for all construction projects over \$0.5 million.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	3,324,490	1,000,000	500,000	300,000	150,000	100,000	50,000	1,100,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - Owner Controlled Insurance Program Phase VI

				Total Project Cost	2,650,000			Area Citywide
Confidence		Moderate	Original Cost		2,650,000	Objective		Efficiency

Project Description

Owner Controlled Insurance Program Phase VI will run from FY21 through FY25. OCIP Phase VI will include all CIP projects over \$500,000 including: combined sewer, maintenance and reliability; sewage treatment plant; and surface water management projects that improve the sewerage system infrastructure and reduce combined sewer overflows.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	2,369,128	0	500,000	500,000	500,000	500,000	250,000	2,250,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

Wastewater Resource Recovery

PROJECT NAME: CBWTP Blower System/Building Improvements

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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		
				Total Project Cost	11,976,000		Area	Citywide	
Confidence		Low	Original Cost		12,056,000		Objective	Maintenance & Repair	
Project Description									
Replacement of blowers, building roof and HVAC system.									
Revenue Source(s)									
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.									
Total Expenditures	28,709	680,000	600,000	800,000	2,000,000	5,000,000	5,000,000	13,400,000	
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0	
PROJECT NAME: CBWTP Digesters 1-4 Upgrade									
				Total Project Cost	14,900,000		Area	Citywide	
Confidence		Low	Original Cost		14,900,000		Objective	Maintenance & Repair	
Project Description									
This project extends the useful life of digesters and associated equipment, along with increasing digester gas storage capacity and reliability.									
Revenue Source(s)									
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.									
Total Expenditures	106,442	500,000	1,000,000	2,000,000	2,000,000	4,200,000	4,725,000	13,925,000	
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0	
PROJECT NAME: CBWTP Fiber System Reliability									
				Total Project Cost	1,810,000		Area	Citywide	
Confidence		Low	Original Cost		790,000		Objective	Expansion	
Project Description									
This project replaces the electrical substation which has reached the end of its useful life.									
Revenue Source(s)									
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.									
Total Expenditures	750,871	500,000	350,000	0	0	0	0	350,000	
Net Operations and Maintenance Costs	0	0	0	5,000	5,000	5,000	5,000	20,000	
PROJECT NAME: NEW - CBWTP Gas Piping Replacement									
				Total Project Cost	6,150,000		Area	North	
Confidence		Low	Original Cost		6,150,000		Objective	Replacement	

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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 Description								
Condition assessment of the existing pipes indicated severe degradation to the piping walls and thickness. A failure of the piping could leak digester gas into the tunnels at CBWTP and create an explosive environment. To address the failed piping, RR&M project E111136 was initiated and is currently under construction. This project request is for a follow-on project to replace the failed pipeline in the tunnels with new digester gas piping between the primary and secondary digesters.								
Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	0	350,000	1,200,000	1,500,000	1,700,000	1,400,000	200,000	6,000,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: CBWTP Headworks Screens Improvements									
				Total Project Cost	20,702,000			Area	Citywide
		Confidence	Low	Original Cost	9,805,000			Objective	Replacement
Project Description									
This project replaces the five existing bar screens in the Headworks with screens of smaller openings to protect the downstream processes.									
Revenue Source(s)									
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.									
Total Expenditures	2,616,933	1,937,000	7,479,000	5,983,000	2,877,000	156,000	0	16,495,000	
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0	

PROJECT NAME: CBWTP Lagoon Reconstruction									
				Total Project Cost	34,600,000			Area	Citywide
		Confidence	High	Original Cost	19,539,000			Objective	Efficiency
Project Description									
This project constructs additional dikes in the existing Columbia Boulevard Waste Water Treatment Plant (CBWTP) lagoon to create more separation. The individual ponds will be lined with a monofill. Two separate phases are programmed in the Five-Year CIP.									
Revenue Source(s)									
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.									
Total Expenditures	27,972,073	200,000	400,000	500,000	500,000	500,000	8,000,000	9,900,000	
Net Operations and Maintenance Costs	0	0	0	50,000	50,000	50,000	50,000	200,000	

PROJECT NAME: NEW - CBWTP Non-Conforming Upgrades									
				Total Project Cost	1,120,000			Area	North
		Confidence	Moderate	Original Cost	1,120,000			Objective	Efficiency
Project Description									

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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

This project is needed to complete the Nonconforming Upgrades required by City Code and the interagency agreement with Developmental Services (BDS). BES and BDS entered an agreement in May, 2017 that requires BES to bring elements of the CBWTP site into compliance with Portland City Code Chapter 33.258 by June 19, 2022.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	11,063	248,000	864,000	8,000	0	0	0	872,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: CBWTP Organic Waste Receiving Facility

			Total Project Cost	7,877,000		Area	Citywide
Confidence	Low	Original Cost	4,838,000		Objective	Expansion	

Project Description

This project constructs a facility to accept organic waste (commercial food wastes, fats, oils, and grease) and process the waste in the anaerobic digesters to produce biogas at the Columbia Boulevard Waste Water Treatment Plant (CBWTP). The biogas can be converted to renewable energy-electricity, heat, or vehicle fuel.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	1,166,465	2,700,000	1,500,000	7,000,000	700,000	0	0	9,200,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: CBWTP Outfall Diffusers

			Total Project Cost	7,448,000		Area	Citywide
Confidence	Low	Original Cost	2,169,000		Objective	Expansion	

Project Description

This project extends the existing wet weather CBWTP outfall diffuser to alleviate sediment accumulation in outfall pipe.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary and stormwater rates.

Total Expenditures	1,013,441	900,000	5,628,000	80,000	20,000	0	0	5,728,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - CBWTP Outfall Surge Modifications

			Total Project Cost	11,200,000		Area	North
Confidence	Low	Original Cost	11,200,000		Objective	Efficiency	

Project Description

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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 consists of improvements to the CBWTP effluent pipeline ventilation system, air vacuum relief valves, goose-neck pipe risers, and sample vaults to reduce the risk of damage from surge events and effluent overflows. The project also includes scope to complete modifications that create a single point of NPDES permit compliance for CBWTP discharges.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	0	0	0	0	0	50,000	900,000	950,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: CBWTP Residuals Handling Improvements

			Total Project Cost	4,220,000			Area	Citywide
Confidence	Moderate		Original Cost	3,750,000			Objective	Replacement

Project Description

This project consists of modifications to the existing Septage Receiving Station and Tipping Berm for receiving and handling residual waste streams generated in the collection system and on-site. The intent is to make a permanent facility that is operations friendly and minimizes the risk of odor impacts to the community.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	0	500,000	0	0	500,000	800,000	1,000,000	2,300,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: CBWTP Reuse System Replacement

			Total Project Cost	4,310,000			Area	Citywide
Confidence	Low		Original Cost	4,310,000			Objective	Replacement

Project Description

This project replaces the reuse water system, installed in 1996, to provide reliable reuse treatment capacity at Columbia Boulevard Waste Water Treatment Plant (CBWTP). It upgrades the deep well pump controls and integrates them with the reuse system controls, providing more consistent water supply and pressure for plant processes.

Revenue Source(s)

Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Total Expenditures	0	0	0	0	0	80,000	785,000	865,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: CBWTP RNG Facility

			Total Project Cost	14,300,000			Area	Citywide
Confidence	Optimal		Original Cost	5,584,000			Objective	Expansion

Project Description

Project Detail - Bureau of Environmental Services

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 constructs a facility at Columbia Boulevard Waste Water Treatment Plant (CBWTP) to beneficially reuse remaining unused methane gas which is a byproduct of the treatment process. This project is expected to pay for itself in 10 to 20 years.

Revenue Source(s)								
Funded by ratepayer fees and charges for sanitary sewer and stormwater services.								
Total Expenditures	19,449,754	250,000	50,000	0	0	0	0	50,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: CBWTP Secondary Treatment Expansion Program

		Total Project Cost	340,000,000	Area	Citywide
Confidence	Low	Original Cost	62,802,000	Objective	Expansion

Project Description
 Expand secondary treatment capacity at the Columbia Boulevard Waste Water Treatment Plant (CBWTP) to provide reliable treatment for BOD and TSS, consistent with the NPDES permit for operating the plant. Mutual Agreement and Order (MAO) with Oregon Department of Environmental Quality requires the Wastewater Treatment plant to treat all the combined sewage while meeting water quality standards with the purpose of protecting water quality, public health, and the environment. This also includes the replacement of two secondary treatment clarifiers by 2024. This will provide long-term solutions by minimizing implementation risks in adjacent and joint process areas, provide more biological treatment, and increase operational resiliency during heavy rainfall.

Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	21,232,647	41,149,000	70,000,000	107,000,000	100,000,000	20,000,000	0	297,000,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: CBWTP Substation Replacement

		Total Project Cost	4,476,000	Area	Citywide
Confidence	Moderate	Original Cost	5,055,000	Objective	Replacement

Project Description
 This project consists of modifications to the existing Septage Receiving Station and Tipping Berm for receiving and handling residual waste streams generated in the collection system and on-site. The intent is to make a permanent facility that is operations friendly and minimizes the risk of odor impacts to the community.

Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	767,314	804,000	2,250,000	0	0	0	0	2,250,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: NEW - CBWTP WWCL Rehabilitation

		Total Project Cost	34,600,000	Area	North
Confidence	Low	Original Cost	34,600,000	Objective	Maintenance & Repair

Bureau of Environmental Services

Project Detail - Bureau of Environmental Services

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 Description								
This project consists of improvements to the CBWTP Wet Weather Primary Clarifiers (WWCL). The rehabilitation project includes replacement of mechanical equipment, electrical upgrades, structural rehabilitation, and demolition of the Sludge Thickening Process building and tanks that are no longer being used. The CBWTP WWCLs are a critical asset in achieving NPDES compliance, and these improvements and rehabilitation will improve their functionality and reliability.								
Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	0	800,000	1,000,000	1,000,000	1,231,000	6,700,000	4,800,000	14,731,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Digester Gas Combustion System Replacement

				Total Project Cost	3,260,000		Area	North
	Confidence	Moderate		Original Cost	2,385,000		Objective	Replacement

Project Description								
This project constructs Programmable Logic Controller (PLC) monitoring and controls of biogas at the plant, as well as replacement of the three existing flares.								
Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	720,240	1,500,000	3,000,000	400,000	0	0	0	3,400,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

PROJECT NAME: Repair, Rehabilitation, and Modification - Shell

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

Project Description								
Repair, Rehabilitation, and Modification Program is to protect capital investments and enhance system reliability at the Columbia and Tryon Creek sewage treatment facilities. The program provides best management practices to prevent violations of the NPDES permit. Both treatment plants are aging facilities and require regular repair, rehabilitation, and modifications. This program facilitates rapid, practical replacement of capital equipment and upgrade of aging facilities.								
Revenue Source(s)								
Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Expenditures	28,753,052	6,000,000	7,000,000	8,000,000	8,000,000	10,000,000	10,000,000	43,000,000
Net Operations and Maintenance Costs	0	0	0	0	0	0	0	0

Program Offers



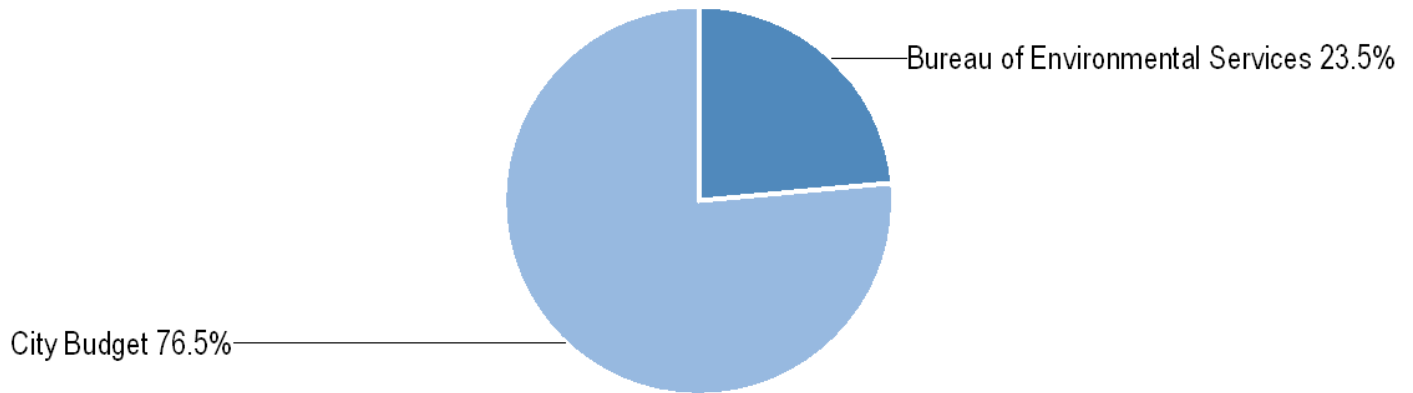
Bureau of Environmental Services

Public Utilities Service Area

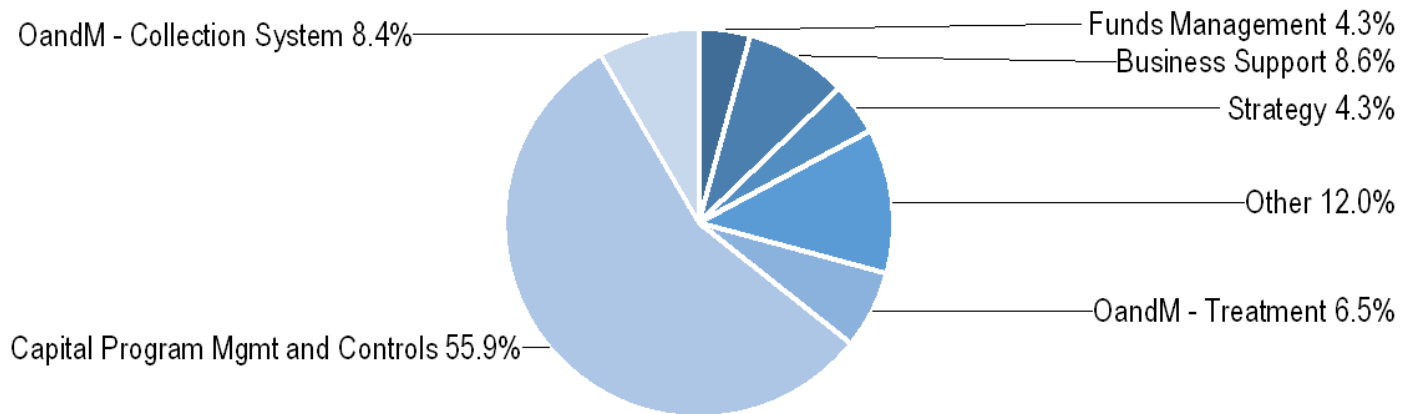
Mingus Mapps, Commissioner-in-Charge

Michael Jordan, 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	\$1,086,949,495	\$1,089,672,323	\$2,722,828	0%
Capital	\$170,544,532	\$227,109,000	\$56,564,468	33%
Total	\$1,257,494,027	\$1,316,781,323	\$59,287,296	5%
Authorized Positions	626.00	628.00	2.00	0.32%



Business Support

Program Description & Goals

The Business Support Program encompasses all the business and administrative needs of the bureau. The overarching goal of this program is to provide the administrative and support functions that guide employees toward efficient, cost-effective processes and practices; encourage accountability, consistency and transparency; comply with City business policies, standards and expectations; and align with the bureau’s strategic goals.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Amount of time loss, in hours per employee, due to injuries and illnesses	2.20	2.54	2.65	2.48	3.10
Percent of dollars awarded to disadvantaged, minority-owned and women-owned(D/M/W) firms in professional services	0%	25%	30%	30%	30%
Average single family household bill as a percent of median income	1.39%	1.34%	1.38%	1.34%	0.00%
Maintain bureaus combined first and second lien debt service coverage ratio at 1.3 or greater	1.35	1.66	1.44	1.35	1.40
Maintain the bureaus first lien debt service coverage ratio at 1.5 or greater	2.77	3.39	3.36	8.30	0.00

Explanation of Services

Business Support provides the basic administrative and support services required to facilitate smooth operations bureau wide. The majority of the Business Services Group is included in this Program, along with support resources that are housed organizationally within groups and programs bureau wide.

Key functions within the Business Support Program include:

- ◆ Finance, budget, financial planning and rate/fee development;
- ◆ Human resources support including recruitment, hiring and HR management/administration;
- ◆ Facilities management including security and property management responsibilities;
- ◆ Management of fleet vehicles;
- ◆ Training and workforce development;
- ◆ Contracting and procurement support that meets operating, capital, City Council and community objectives;
- ◆ Risk management, employee safety and the City’s Owner-Controlled Insurance Program;
- ◆ Emergency management for the bureau;
- ◆ Management of stores and buildings at the bureau’s treatment plants and process facilities;
- ◆ Administrative support resources within groups and programs bureau wide; and

- ◆ Centralized administrative coordination with partner bureaus and agencies, especially the Office of Management and Finance.

Equity Impacts

The Bureau Support Program includes management of the Contracting Opportunities Program, which works with prime contractors, sub-contractors, and Project Managers to promote equitable opportunity and utilization of minority-owned and women-owned businesses in bureau contracting. This aligns with Actions 2c and 2d of Goal 2 –Equitable Service Delivery and Business Practices –of the bureau’s 2016-2021 Equity Plan, which seek to increase bureau Project Manager participation in outreach activities for underutilized firms and evaluate opportunities in construction for projects that could increase Disadvantaged, Minority, and Women Business Enterprise (DBE/MBE/WBE) utilization. Equity considerations are written into grants, Intergovernmental Agreements, and contracts to encourage increased utilization of historically underutilized businesses. These efforts, including collecting and analyzing data on the Bureau’s utilization of the State of Oregon’s Certification Office for Business Inclusion and Diversity certified firms will continue in FY2021-22.

This program also works closely with Human Resources, the bureau’s Equity Team, and with hiring managers to promote and support recruitment and employee retention strategies. This aligns with bureau workforce equity goals, which specify action to diversify Environmental Services’ workforce to reflect the demographics of the region. Staff from the Business Support program actively participate in the bureau’s Committee for Equity and Diversity. These efforts, including the identification and tracking of performance metrics, will continue in FY2021-22.

This program will continue to work with the Equity Managers and the Employee Development Program to integrate equity priorities and workforce development/training opportunities. This aligns with Action 1e of Goal 1 –Equity Literacy –of the bureau’s equity plan, which provides for accountability to all Portland communities by means of performance management and the addition of equity-centered objectives on the Employee Annual Performance Review form.

Changes to Program

In prior years, the functions of this program were presented in the Bureau Support program. Information technology work previously performed under the Bureau Support program is now reported in the Technical Services – Information Systems and Mapping program. This program additionally includes support functions that were housed within other programs bureau wide. Additionally, all fund level transactions have been moved to the new Funds Management Program.

This program adds funding for pump station work within Peninsula Drainage District #1 per agreement (\$322,000), improvements to secure facilities (\$340,000), and additional facility costs (\$228,000).

Reductions to this program include rate study consultant fees (\$150,000), facilities planning (\$250,000), Portland Building relocation costs (\$150,000), and other miscellaneous reductions of (\$38,000).

Bureau of Environmental Services

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	0	0	0	8,009,203	8,009,203
External Materials and Services	0	0	0	7,192,297	7,192,297
Internal Materials and Services	0	0	0	19,819,922	19,819,922
Capital Outlay	0	0	0	159,500	159,500
Bureau Expenditures Total	0	0	0	35,180,922	35,180,922
Ending Fund Balance					
Requirements Total	0	0	0	35,180,922	35,180,922
<hr/>					
FTE	0.00	0.00	1.00	58.75	58.75

Budget Narrative

Resources

Resources for this program come from ratepayer fees and charges for sewer and stormwater services.

Expenses

The primary expenses for this program include personnel and capital outlay for fleet life-cycle replacements. External expenses for: facility repair and maintenance, leases, training, certain utility costs, and the multi-family eviction protection program. Internal service costs include bureau wide telecommunication charges, facility rental costs, network access and licenses, desktop support, share of the financial system, and payments to Risk Management for liability insurance, worker's compensation, and property insurance.

Staffing

61 positions support this program with approximately 2.25 positions allocated to the Capital Improvement Projects / Project Delivery Program. Positions include: Accountants (4), Administrative Specialists (5), Analysts (16), Business Systems Analysts (2), Coordinators (10), Managers (3), Office Support Specialists (9), a Records Specialist, Risk Specialists (3), Storekeepers (4), and Supervisors (4).

This program was initially seeking to add personnel to support bureau wide training, manage bureau wide facilities, and provide administrative support for the new Technical Services Group. With the revenue impacts of the pandemic, the bureau has delayed these position requests and working to reprioritize existing vacancies.

The prior year information reflecting one position is a reporting error unable to be corrected prior to budget submission. This position should be reflected in the expired Business Support Program.

Assets and Liabilities This program supports bureau-wide assets of \$15.2 billion.

Program Information

Program Contact: Ken Bartocci, Financial Planning Manager

Contact Phone: (503) 823-6022

Website: <https://www.portlandoregon.gov/bes/>

Capital Improvement Projects / Project Delivery

Program Description & Goals

The CIP/Project Delivery Program was created in 2019 with the formation of the BES Project Management Office and includes its operating budget as well as the bureau’s entire Capital Improvement Program (CIP) budget. As the program responsible for delivering the CIP, program directly or indirectly impacts many bureau performance measures related to capital projects, including measures for sewer overflows, water quality, and maintenance costs at the wastewater treatment plants. Measures for amount of pipe replaced, and amount of streambank restored are impacted by the PMO’s goals for efficient and effective delivery of CIP projects within scope, schedule and budget. A key measure of the PMO’s success with increasing project output to meet system needs is the CIP delivery rate (% of CIP budget expended). Ongoing process and organizational improvements are underway to support a more consistent and predictable delivery rate.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Construction management costs as a percentage of total construction costs	10%	12%	12%	12%	12%
Percent of CIP budget spent	0%	0%	0%	85%	95%
Linear feet of sanitary and combined sewer pipe repaired or replaced to improve condition and capacity	107,751	49,081	65,000	60,000	0

Explanation of Services

The CIP/Project Delivery Program consists of three work units and the bureau’s Capital Improvement Program (CIP), which is comprised of approximately 400 projects in various stages of development, design, and construction each year. The Project Management Office has overall responsibility for developing, monitoring, and delivering the annual and long-term CIP, resulting in reliable stormwater and wastewater infrastructure that serves the community, protects the environment, and meets the City’s regulatory obligations. In 2018, the bureau set a goal to significantly increase CIP output to ensure sustainable reinvestment in bureau infrastructure assets. The Project Management Office was formed with the goal of increasing and improving project delivery through the implementation of a new project management model and development of new capital project delivery processes and procedures.

The program plans and monitors the CIP, including developing the annual budget and five- and ten-year plans. The program is responsible for balancing the capital budget across a variety of project types and risk drivers (such as regulatory requirements, asset condition, system capacity) and developing a multi-year capital program that is within the bureau’s financial and operational capacity (see ‘Capital Summary’ information for additional information).

Project managers are responsible for overall capital project management via matrixed project teams of staff from other bureau programs and workgroups. For example, engineering design is performed by the Design Services Program, project construction is managed by the Construction & Inspection Program, and public outreach and involvement is performed by the Strategy Program. In addition to managing stormwater, collections (pipes), restoration, and pump station projects, the PMO provides overall program management for the Columbia Boulevard Wastewater Treatment Plant Secondary Treatment Expansion Program.

The program also administers project and program controls, including monitoring project scope, schedule, cost changes, and project status; tracking project delivery performance; and administering the bureau's project management software (e-Builder). The program manages a large suite of on-call professional, technical, and expert support contracts for capital projects, provides training and support related to project management for staff across the bureau, and collaborates with other bureaus around project delivery.

Equity Impacts

Equity considerations are built into capital project prioritization through the planning processes that advance projects to the CIP and PMO. More information is in the Capital Summary Section.

Equity impacts during the delivery of individual projects, including involvement of diverse communities in project design and consideration of construction impacts on vulnerable communities, are a shared responsibility between the project manager, public involvement staff, and other project team members. A benefit of the bureau's new focus on dedicated project management, distinct from project engineering, is the ability to focus on equity considerations during project delivery. The program is working to integrate explicit equity considerations in new tools and templates under development, such as project charters and work plans, to ensure those considerations carry through from project inception to completion.

A new project management governance structure was initiated in 2020 that provides clearer direction and oversight of CIP projects. At certain decision points, or 'stage gates,' a BES internal committee reviews and approves projects to move forward through the design process. The review focuses on many factors, including equity and the potential impacts of projects on BIPOC communities. This structure starts to build clearer decision-making paths and accountability in the bureau that will support deeper and more consistent examination of equity in project delivery across each decision point.

Significant CIP budget in FY2021-22 and subsequent years is for improvements at the Columbia Boulevard Wastewater Treatment Plant. The facility is located in North Portland and is a major asset serving (benefiting) the entire Portland community. The Secondary Treatment Expansion Program (STEP) will ensure continued protection of water quality discharged to the Columbia River with greater biological treatment capacity and more resilient assets. The bureau is leveraging STEP to advance equity in both professional services and construction contracting. This includes a pilot D/M/W/ESB/SDVBE development program on the largest professional, technical, and expert contract in the bureau and the City's first Community Benefits Agreement that focuses on setting out uniform standard working conditions for the efficient performance of construction work on STEP. This ensures that public money spent supports City goals of providing beneficial working conditions and increased workforce and contracting diversity on its construction projects, including in apprenticeship.

Beyond STEP, equity in contracting is also a key part of administering more than 40 on-call PTE contracts for project support services such as civil and structural engineering, permitting, and water quality expertise. Staff monitor and encourage D/M/W/ESB/SDVBE firm utilization, and provide one-on-one support to these firms regarding the City's contracting processes and BES project delivery processes.

Changes to Program

In years prior to the 2019 reorganization, content of this program was reported under the Project Management and Controls Program.

Bureau of Environmental Services

The COVID-19 crisis has shifted the CIP emphasis towards infrastructure projects addressing imminent threats or risk to human health and safety, asset failure, and projects addressing regulatory compliance. Projects to address longer-term needs, and those with less urgency, have been postponed where possible. Total CIP budget and expenditures have not been impacted.

See ‘Capital Summary’ information for additional information related to the CIP.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	13,449,107	15,679,868	21,997,481	22,623,983	22,623,983
External Materials and Services	23,109,584	26,841,946	34,883,576	35,748,365	35,748,365
Internal Materials and Services	17,611,054	18,389,379	9,754,807	10,704,188	10,704,188
Capital Outlay	78,009,279	62,761,300	105,547,715	160,566,512	160,566,512
Bureau Expenditures Total	132,179,024	123,672,493	172,183,579	229,643,048	229,643,048
Ending Fund Balance					
Requirements Total	132,179,024	123,672,493	172,183,579	229,643,048	229,643,048
<hr/>					
FTE	13.95	15.00	16.00	146.82	146.82

Budget Narrative

Resources Resources for this program come from ratepayer fees and charges for sewer and stormwater services which support both cash funded and financed capital improvement projects.

Expenses The primary expense for this program is the Bureau’s Capital Improvement Program (the ‘CIP’). Personnel are allocated from other programs to support the CIP. External Materials and Services costs include contract staff, outside design and construction consultants, and other services necessary to develop and complete capital projects. Internal Services reflects costs of partner bureaus that assist in the implementation of the CIP and include PBOT, Parks, and the Water Bureau. Expenses have increased as a result of the Secondary Treatment Plant Project expected to be completed by the end of calendar year 2024.

Staffing

18 positions support this program. Of those, 5.6 positions are allocated from this program and 128.82 are allocated from other programs to support the capital improvement projects portion of this program. Positions include: Analysts (6), Capital Project Managers (6), an Engineering Technician II, an Engineering Supervisor, an Environmental Supervisor, an Environmental Specialist, and Manager II (2).

This program was initially seeking to add multiple Capital Project Managers, a Project Controls Analyst and a STEP Project assistant to improve project delivery. With the revenue impacts of the pandemic, the bureau has delayed these position requests and is working to reprioritize existing vacancies.

Assets and Liabilities This program supports bureau-wide assets of \$15.2 billion.

Program Information

Program Contact: Ken Bartocci, Financial Planning Manager

Contact Phone: (503) 823-6022

Website: <https://www.portlandoregon.gov/bes/>

Delivery Programs - Community Partnerships

Program Description & Goals

Delivery Programs - Community Partnerships Program builds capacity and provides funding for environmental projects with individuals, underrepresented groups, established organizations, and other governmental entities. The team provides project outreach and development, planning, contracting and implementation through education programs, on-the-ground activities, grants, sponsorships, and technical assistance. Five matrixed teams ensure community engagement in completing private property stormwater retrofits, planting trees city-wide to expand and protect Portland's urban forest, stewarding stormwater assets, delivering integrated solutions to stormwater system needs, and partnering on planning and capital projects and compliance programs.

Explanation of Services

The City relies on community partnerships to meet system and regulatory compliance needs by including community values along with green infrastructure, while supporting internal processes from Integrated Planning, CIP/Project Management Office, Operations and Maintenance, Engineering Services, Technical Services and Strategy work groups. Responsibilities include:

- ◆ Delivers grey and green stormwater solutions designed to most effectively improve stormwater management, watershed health, and community engagement through an equity-focused, partnership-based, integrated delivery model.
- ◆ Works with private landowners to assess existing stormwater conditions and implement projects and programs on non-BES assets in support of capital and watershed enhancement projects that advance the City's stormwater goals.
- ◆ Provides technical assistance on stormwater facility design, operation and maintenance, and retrofit potential to City staff, consultants, and private property owners.
- ◆ Expands and protects Portland's urban forest; prioritizing work in areas with low tree canopy, low-income residents, and communities of color.
- ◆ Delivers enhanced outreach and education activities with communities and partners in the neighborhoods adjacent to the capital work improve outcomes for CIP projects and facilitate community engagement in green stormwater solutions.
- ◆ Provides services to manage and act on behalf of the City in meeting Oregon Department of Environmental Quality (DEQ) requirements to investigate and implement appropriate cleanup actions that restore Columbia Slough sediment quality and improve watershed health.
- ◆ Supports projects that integrate trees, green streets, and rain gardens into capital project areas, providing the benefits associated with green infrastructure into historically underserved communities.
- ◆ Delivers water quality focused environmental classroom instruction and hands on learning experience in the field. Develops programs and projects of interest to a wide variety of students K-12 throughout the five school districts within the City of Portland. Hosts a summer intern cohort for students from marginalized communities and supports activities to promote interest in environmental careers.

- ◆ Coordinates with Portland State University’s Indigenous Nations Studies Program to provide partnership outreach activities for Black, Indigenous, and other communities of color to lead community watershed enhancement projects.
- ◆ Works closely with the Native American community on protecting and restoring healthy fish populations of significant cultural importance, including salmon and lamprey, and on opportunity areas for traditional First Foods. This was identified in the 2005 DEQ Columbia Slough Sediment Record of Decision as the most significant source of human exposure to contaminants in the Columbia Slough.

Equity Impacts

In support of Equity Plan Goal 2 (Equitable Service Delivery and Business Practices) and Equity Plan Goal 3 (Workforce Equity) Community Partnerships Program recognizes past and present inequities and actively promotes inclusion through community engagement, participation, support, educational activities, and opportunities in the communities it serves. Learning from these activities will inform development of future equitable levels of service to be delivered.

Changes to Program

Formerly, the work of this new program was reported primarily in the Sustainable Stormwater and Watershed Management programs. The Community Education component of the program was formerly reported in the Communications Program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	0	0	0	1,954,229	1,954,229
External Materials and Services	0	0	0	3,502,904	3,502,904
Internal Materials and Services	0	0	0	455,203	455,203
Bureau Expenditures Total	0	0	0	5,912,336	5,912,336
Ending Fund Balance					
Requirements Total	0	0	0	5,912,336	5,912,336
FTE	0.00	0.00	0.00	13.95	13.95

Budget Narrative

Resources Resources for this program come from ratepayer fees and charges for Sewer and Stormwater services.

Bureau of Environmental Services

Expenses The Primary expenses supporting this program include personnel, external costs for the Private Property Retrofit Program, tree planting expenses, including Street Trees, and Neighborhood to River program, and internal services including laboratory and Field Operations for sampling and monitoring services.

Staffing 18 full-time positions support this program with approximately 4.05 positions allocated to the Capital Improvement Projects / Project Delivery Program. Positions include: Engineering Technicians (5), Environmental Technicians (4), Environmental Coordinators (3), Environmental Specialists (2), an Environmental Supervisor, Coordinators (2), and a Manager.

This program was initially seeking to add an Engineering Tech II position to better support the Private Property Retrofit program. With the revenue impacts of the pandemic, the bureau has delayed this position request and is working to reprioritize from existing vacancies.

Assets and Liabilities This program supports bureau-wide assets of \$15.2 billion.

Program Information

Program Contact: Ken Bartocci, Financial Planning Manager

Contact Phone: (503) 823-6022

Website: <https://www.portlandoregon.gov/bes/>



Delivery Programs - Environmental Compliance

Program Description & Goals

The Delivery Programs – Environmental Compliance program manages, interprets, and implements City-wide environmental permits and associated state and federal regulations. This program helps protect the City’s storm and sanitary assets, watershed health and local water quality through compliance inspections, investigations, technical analyses, data collection and management, program evaluations, and policy development.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Percentage of industrial enforcement tests in full compliance	99%	99%	99%	99%	0%

Explanation of Services

The Environmental Compliance Program manages citywide environmental programs, permits, and performs the associated activities of developing codes and rules, permitting private dischargers, investigating complaints and illicit discharges, inspecting commercial and industrial facilities, establishing and implementing user charges, and enforcing codes and rules. Responsibilities include:

- ◆ Oversight, evaluation, development, and revision of Bureau’s City Codes and Administrative Rules.
- ◆ Oversight and regulation of the Stormwater Management Manual (ENB 4.01) and the Source Control Manual (ENB-4.34).
- ◆ Regulation of industrial and commercial facilities through permitting, inspections, monitoring and enforcement of site practices, discharges to storm and sanitary systems, and direct discharges to surface waters. This includes the Pretreatment and Industrial Stormwater programs.
- ◆ Regulation of nonpermitted industrial, commercial, and residential facilities through complaint response, investigations, inspections, monitoring and enforcement of site practices, discharges to storm and sanitary systems and direct discharges to surface waters. This includes the Fats, Oils, and Grease (FOG), Maintenance Inspection (MIP), and Spill Prevention & Citizen Response (SPCR) programs.
- ◆ Maintenance of 24/7 complaint response hotline. Response and investigation of complaints, spills, and damages to city infrastructure and the environment.
- ◆ Oversight and assessment of monitored and class average Extra Strength sewer charges for the discharge of high-strength waste from commercial and industrial facilities.
- ◆ Oversight and billing associated with charge and credit submeters at commercial and industrial facilities.
- ◆ Oversight and administration of the Bureau’s Toxics and Pollution Prevention programs to minimize inputs of toxic substances entering the City’s collection system.

Bureau of Environmental Services

- ◆ Enforcement of Bureau’s City Codes and Administrative Rules related to use and damage of City infrastructure and compliance with City-held environmental permits.

Equity Impacts

In support of the bureau’s EquityGoal 2 (Equitable Service Delivery and Business Practices) the Environmental Compliance Program has a direct, mandated responsibility to ensure that environmental programs and permits result in positive equitable outcomes for all communities. The work performed in this program provides significant benefit to underrepresented communities, particularly those living near industrial facilities and those relying on direct contact with surface water (for example, through subsistence fishing).

Changes to Program

The Environmental Compliance Program was previously reported under the Pollution Prevention Services Group. With the bureau’s transition, the National Pollution Discharge Elimination System permit programs moved to the Strategy Group. The Codes, Rules, and Manual section that previously reported to the Sustainable Stormwater Program is now reported here. In addition, while toxics management is not new to Environmental Compliance, a Toxics Management Coordinator has been identified to manage pollution prevention practices and reduce toxic inputs to the city’s infrastructure.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	0	0	0	5,999,787	5,999,787
External Materials and Services	0	0	0	420,287	420,287
Internal Materials and Services	0	0	0	696,645	696,645
Bureau Expenditures Total	0	0	0	7,116,719	7,116,719
Ending Fund Balance					
Requirements Total	0	0	0	7,116,719	7,116,719
FTE	0.00	0.00	0.00	46.00	46.00

Budget Narrative

Resources Resources for this program come from ratepayer fees and charges for Sewer and Stormwater services. Additionally, this program receives revenue from permit fees and civil penalties for environmental contamination.

Expenses Expenses for this program include personnel, licenses and permit fees (including penalties), costs for contaminated site evaluation and reporting, Department of Environmental Quality cleanup oversight, contractor cleanup for biohazard and hazardous materials, staff training, and minor equipment and tools.

Staffing 46 full-time positions support this program and include: Environmental Technicians (23), Environmental Specialists (8), Environmental Program Coordinators (3), a Business Systems Analyst, Environmental Supervisors (4), a Manager II, Environmental Regulatory Coordinators (2), a Landscape Architect, a Civil Engineer, an Engineering Supervisor, and an Analyst II.

This program was initially seeking to add a Coordinator I position to better support the sub-meter program. With the revenue impacts of the pandemic, the bureau has delayed this position request and is working to reprioritize from existing vacancies.

Assets and Liabilities This program supports bureau-wide assets of \$15.2 billion.

Program Information

Program Contact: Ken Bartocci, Financial Planning Manager

Contact Phone: (503) 823-6022

Website: <https://www.portlandoregon.gov/bes/>



Delivery Programs - Systems Development

Program Description & Goals

Delivery Programs–Systems Development provides private development-related services on behalf of Environmental Services, including early assistance, land use review, building permit review, stormwater facility inspection, public works projects and source control review, to support City development goals and ensure consistency with regulatory requirements and the bureau’s infrastructure system needs. The Bureau of Development Services generates data monthly to track how many permit reviews are meeting stated turnaround goals. BES has identified a target of meeting or exceeding turnaround goals 95% of the time.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Percent of BES building permit reviews that meet the City’s turnaround goals for reviewing permits	0%	NA	95%	95%	95%

Explanation of Services

This program provides Environmental Services development review functions, which are critical to ensuring the continued issuance of land use reviews, building permits, and public works permits. The bureau ensures that adequate sanitary and stormwater services are available to serve proposed development and that the proposed development meets regulatory requirements.

Customer service to support applicants through the development review process is a critical component of the work of Systems Development, as is ensuring that projects are adequately protective of bureau infrastructure, human health, and the environment. Most Systems Development functions are co-located with Development Services and the other city development-related functions, allowing real-time coordination between bureaus and with customers.

Systems Development is responsible for the following activities:

- ◆ Review and evaluation of early assistance and land use reviews;
- ◆ Implementation of drainageway protection rules;
- ◆ Building permit review for sanitary connections, stormwater management, and pollution prevention/source controls;
- ◆ Permitting and design oversight of public works projects related to new development or redevelopment;
- ◆ Private stormwater facility inspection;
- ◆ Sewer connection and repair permits;
- ◆ Customer service to support the City’s unified and co-located permitting system;
- ◆ Work with the Nonconforming Sewer Program to resolve urgent issues with shared and private sewer issues; and

- ◆ Advocacy for Environmental Services and its ratepayers through participation in broader Citywide planning projects and negotiation of development agreements

Equity Impacts

The Systems Development Program is a customer service-focused division that provides permit review functions and customer support, both face-to-face and by phone. The structure of the permitting process is determined largely by Bureau of Development Services, however Environmental Services is currently participating in an initiative aimed at creating a transparent and inclusive process for inter-bureau decision-making. Division staff routinely attend customer service trainings, equity trainings, and seek ways to improve assistance to home and property owners impacted by inequities and who need support navigating the City’s permitting and land use systems. This aligns with Goal 2 (Equitable Service Delivery and Business Practices) in the bureau’s 2016-2021 Equity Plan.

Changes to Program

Systems Development Program was previously reported under the Engineering Services Group. With the bureau’s transition, the Transportation Interagency Program, the Sewer Extension Program, and the Nonconforming Sewer Program were moved to the Sewer, Stormwater & Restoration Design Division in Engineering Services. In addition, a small portion that was previously reported in the Environmental Compliance Program is now reported here (Source Control Plan Review).

As a result of lower permit activity, largely due to the pandemic, a reduction to the public works permitting staff interagency of \$77,362 is being recognized.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	0	0	0	3,427,214	3,427,214
External Materials and Services	0	0	0	389,960	389,960
Internal Materials and Services	0	0	0	737,646	737,646
Bureau Expenditures Total	0	0	0	4,554,820	4,554,820
Ending Fund Balance					
Requirements Total	0	0	0	4,554,820	4,554,820
FTE	0.00	0.00	0.00	23.55	23.55

Budget Narrative

Resources	Resources for this program come from ratepayer fees and charges for Sewer and Stormwater services offset by system development permit fees and connections charges.
Expenses	The primary expenses in this program are personnel, bank card fees for customer permit payments, ongoing costs related to the Portland Online Permitting System, and PBOT sewer connection inspection fees and permitting services.
Staffing	26 full-time positions support this program with approximately 2.45 positions allocated to the Capital Improvement Projects / Project Delivery Program. Positions include: Engineers (14), Environmental Technicians (2), an Environmental Specialist, Planners (5), an Administrative Specialist, Managers (2), and a Supervisor.
Assets and Liabilities	This program supports bureau-wide assets of \$15.2 billion.

Program Information

Program Contact:	Ken Bartocci, Financial Planning Manager
Contact Phone:	(503) 823-6022
Website:	https://www.portlandoregon.gov/bes/



Engineering Services - Construction Inspection Services & Materials Testing Lab

Program Description & Goals

The Engineering Services – Construction Services and Materials Testing Lab Program provides construction management and inspection services for bureau capital projects, development projects, and projects managed by other City bureaus for assets that become part of Environmental Services’ infrastructure. The Construction program ensures the construction of safe, high-quality, minimally disruptive, and cost-effective projects that aim for completion on schedule and within budget. The Construction program’s focus on job site safety impacts the bureau’s overall incident rate.

The Materials Testing Lab provides quality assurance and quality control of materials used in the construction of bureau assets. The group conducts materials testing, code-mandated special inspection, confined space entry, geotechnical services, and evaluation of emerging technologies and products for Environmental Services and other city bureaus. This program has close interconnectivity to the Capital Improvement Program (CIP)/Project Delivery Program, which provides overall project management for capital projects, and the Design Services Program provides engineering design for the projects. The MTL Program most directly impacts the performance measure for pipe repair and replacement, because of the MTL’s role in testing and evaluating materials in the design and construction of those capital projects.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Amount of time loss, in hours per employee, due to injuries and illnesses	2.20	2.54	2.65	2.48	3.10
Construction management costs as a percentage of total construction costs	10%	12%	12%	12%	12%
Feet of streambank restored (not cumulative)	22,340	5,100	12,000	12,000	12,000
Linear feet of sanitary and combined sewer pipe repaired or replaced to improve condition and capacity	107,751	49,081	65,000	60,000	0

Explanation of Services

The Engineering Services – Construction and Material Test Lab Services Program supports installation of capital infrastructure, such as pipes and stormwater facilities, to ensure that they are installed properly and safely. The bureau owns and maintains most constructed assets, so quality control during installation helps maximize asset life. The Construction Program has a comprehensive focus on safety for the protection of the public, City staff, and contractor’s workers and to reduce injury or disability claims. The Construction program is responsible for making progress payments to contractors, negotiating compensation for additional scopes of work added to existing contracts, and helping to resolve any disagreements that ensue between the City and contractor.

Key Construction activities include the following:

- ◆ Supporting development and management of project scopes, schedules, and budgets;
- ◆ Reviewing and determining the constructability of all projects during design;

- ◆ Developing and executing project construction work plans;
- ◆ Managing and documenting project decisions, meetings, and changes;
- ◆ Inspecting construction projects for safety and quality compliance;
- ◆ Making construction contract progress payments to contractors;
- ◆ Managing projects in accordance with BES's CIP Implementation Manual, Quality Control Manual, and project management/document control software and process;
- ◆ Contributing to cost estimating and budgeting functions; and
- ◆ Preparing Council documents as needed for construction-related procurement processes, contracts, and right-of-way acquisition and permits.

The MTL program provides industry-standard testing and evaluation services for construction materials to ensure that materials used in Environmental Services capital projects and other City bureau projects meet national and international standards. The MTL monitors the quality of pipe materials, asphalt mixes, concrete mixes, and precast concrete products to ensure that City projects are using appropriate products in the construction of long-term public assets. Testing and monitoring are performed in the field, for samples of actual products at the time of installation. The MTL program also provides geotechnical analyses for bureau and City projects and special inspections as required by local and state building codes.

Equity Impacts

As part of its management of construction contracts, the Construction program monitors contractors' compliance with minority subcontracting requirements, including D/M/W/ESB/SDVBE participation and other City equity-driven contracting opportunities. This aligns with Action 2d (Evaluate opportunities in construction for projects that could increase D/M/W/ESB/SDVBE utilization). This program utilizes D/M/W/ESB/SDVBE firms for contracting professional services when needed.

Work involves continuous interaction with the public, which provides program improvement opportunities by means of staff training, public outreach improvements to better engage people impacted by inequities, and possible changes to project prioritization to minimize impacts to core services and vulnerable community members.

The Materials Testing Lab program is part of BES's overall engineering design and construction approach for capital projects to ensure the same quality standards of design, construction, and materials for any capital project in the city, regardless of neighborhood or community demographics. The result is that no community bears a disproportionate burden because of inferior construction materials. This aligns with Goal 2 of the bureau's Equity Plan – Equitable Service Delivery and Business Practices.

Led by the Group's Chief Engineer and business operations program, the Construction and Materials Testing Lab Program supports implementation of the bureau's equity goals, which include the Equity Plan, the Strategic Plan, and the City's 2018-2022 Affirmative Action Plan initiatives to ensure positive racial equity outcomes on all activities and projects. For FY 2021-22, there is opportunity for the Program to further internally facing goals in the bureau's Equity Plan. Goal 1 (Equity Literacy) and Goal 3 (Workforce Equity), along with the tracking of related performance measures and outcomes, are most applicable to advancing equity internally within the bureau.

Changes to Program

In prior years, this program was reported under both the Construction Services and Materials Testing Lab programs. These programs have been combined based on the similar work functions that they perform for the bureau.

The budget change for Construction and Materials Testing Lab Program in FY 2021-22 includes a \$15,000 reduction for equipment and tools, purchased in the prior fiscal year, to outfit Damage Assessment Team trailers purchased for disaster response in the Construction program. The Bureau has purchased trailers and retains \$5,000 of the original \$20,000 authorization to continue to purchase equipment and tools to outfit them to incrementally prepare for field response in disasters.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	0	0	0	3,952,512	3,952,512
External Materials and Services	0	0	0	562,314	562,314
Internal Materials and Services	0	0	0	(1,002,500)	(1,002,500)
Bureau Expenditures Total	0	0	0	3,512,326	3,512,326
Ending Fund Balance					
Requirements Total	0	0	0	3,512,326	3,512,326
<hr/>					
FTE	0.00	0.00	0.00	27.46	27.46

Budget Narrative

Resources Resources for this program come from ratepayer fees and charges for sewer and stormwater services.

Expenses Primary expenses for this program are personnel. Supporting items construction managers include costs for protective equipment, uniforms, and parking permits for Inspector vehicles. Supporting items for the Materials Testing Lab include outside lab services, repair, maintenance and calibration of equipment, ongoing operating supplies for equipment, and license renewals.

Staffing 67 positions support this program with approximately 39.54 positions allocated to the Capital Improvement Projects / Project Delivery Program. Positions include: Engineers (24), Capital Project Managers (4), a Manager I, Materials Testing Technicians (6), an Office Support Specialist, Public Works Inspectors (29), and Supervisors I (2).

Assets and Liabilities This program supports bureau-wide assets of \$15.2 billion.

Program Information

Program Contact: Ken Bartocci, Financial Planning Manager

Contact Phone: (503) 823-6022

Website: <https://www.portlandoregon.gov/bes/>

Engineering Services - Design Services

Program Description & Goals

The Engineering Services –Design Services Program provides engineering design services for capital projects and includes Transportation interagency, sewer extension, and nonconforming sewer efforts with support from Business Services. The program includes two divisions: The Sewer, Stormwater and Restoration Design Division and the Treatment and Pumping Systems Division. The primary goal of the program is to plan and design capital projects that improve the reliability and capacity of the Bureau’s treatment infrastructure, wastewater conveyance, stormwater conveyance, and protect and improve water quality and watershed health. The program impacts every bureau performance measure related to capital project delivery and output. Most directly, project management and engineering for planned capital projects to address pipe repair and replacement and stream restoration impacts the output of those measures annually. Design and delivery of projects related to treatment plant assets impacts the cost of operations and maintenance of those assets, and the design and delivery of nearly all bureau projects impacts water quality measures and other measures, such as occurrences of combined and sanitary sewer overflows.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Watershed Health Index for water quality	5.60	5.60	5.50	5.50	8.00
Feet of streambank restored (not cumulative)	22,340	5,100	12,000	12,000	12,000
Amount of wastewater processed annually (in million gallons)	25,807	24,236	29,200	28,900	0
Linear feet of sanitary and combined sewer pipe repaired or replaced to improve condition and capacity	107,751	49,081	65,000	60,000	0

Explanation of Services

The Engineering Services –Design Services Program provides engineering design services for capital projects ranging from wastewater conveyance and treatment infrastructure to stormwater facilities and stream restoration. Activities include the following:

- ◆ Leading project scoping and work plans and managing projects through the design phase;
- ◆ Completing designs in accordance with professional and bureau standards;
- ◆ Completing engineering calculations;
- ◆ Meeting City and regulatory requirements;
- ◆ Requesting, coordinating, securing and incorporating information gathered and provided by internal and external stakeholders and service providers; and
- ◆ Preparing and professionally sealing contract documents, including technical specifications and design plans and details.

Bureau of Environmental Services

The Nonconforming Sewer Program (NSP), within the Sewer, Stormwater and Restoration Design Division, assists Portlanders by resolving shared and private sewer situations. This program is responsible for the following activities:

- ◆ Provision of broad liaison services to the regional transportation agencies while ensuring conformance with bureau stormwater management requirements and design standards;
- ◆ Design and project management of sewer service extensions; and
- ◆ Conversion of existing substandard sewer connections through customer service, outreach, permitting, design and construction of new sanitary sewers.

The Design Services Program also includes the Treatment & Pumping Systems Engineering Division, which manages planning efforts for the wastewater treatment plants; provides project management and engineering design services for treatment plant, pump station and force main projects; manages the construction phase of project delivery; and provides technical engineering support for plant Operations and Maintenance staff.

Equity Impacts

The Design Services Program delivers projects that benefit human health and safety and the environment and meets all federal and state regulations through design work to benefit today's customers and future generations, including vulnerable communities. Infrastructure investments are identified through planning efforts based on risk, condition and the consequence of failure for existing assets and on new requirements such as regulatory or capacity needs.

The Nonconforming Sewer Program identifies and supports potentially eligible candidates in accessing the available financial assistance and deferred payment options. Many properties this program works with are on older, smaller and subdivided lots, and some areas overlap with a high percentage of minority and/or low-income Census tracts. Helping existing property owners resolve issues related to nonconforming sewers can help those residents stay in their homes and/or reap full value of their property at the time of sale. This aligns with Action 2h (Examine bureau policies, practices, and procedures to assess the impact of institutionalized disparities on communities of color and the disabled community) in the bureau's 2016-2021 Equity Plan.

An equity lens is applied to all projects in the Design Services Program to inform bureau infrastructure decisions, which aligns with Action 2h in the Bureau's Equity Plan – Examine bureau policies, practices, and procedures to assess the impact of institutionalized disparities on communities of color and the disabled community. This primarily occurs during system planning (Asset Systems Management Program) and the project prioritization process (via the Project Management Office), but also occurs during project work planning and design done by the Design Services Program.

Equity can be considered during delivery of individual projects, including involvement of diverse communities in project design and consideration of impacts on vulnerable communities, and is a shared responsibility between the project designer and other project team members.

This program utilizes D/M/W/ESB/SDVBE firms for contracting professional services when needed. And will continue this practice in FY2021-22 as feasible.

In FY 2021-22, work will continue on further development of equity-centered performance measures and outcomes. Led by the Group’s Chief Engineer and business operations program, the Design Services Program supports implementation of the bureau’s equity goals, which include the Equity Plan, the Strategic Plan and the City’s 2018-2022 Affirmative Action Plan initiatives to ensure positive racial equity outcomes on all activities and projects.

Changes to Program

In prior years, this program was primarily reported in the Design Services Program, but also had a portion in the Systems Development Program.

Additionally, the Chief Engineer is now reflected in the Leadership Program and office, operational and software support are now reflected in the Business Support Program.

Budget changes to the Design Services Program in FY2021-22 include:

- ◆ Technical expert consultant support reduction of \$150,000 to reflect work expected to be completed on the Wastewater Communications and Controls System Plan in the prior fiscal year.
- ◆ Technical expert consultant support reduction of \$25,000 to reflect the portion expected to be completed on the update to the Pump Station Engineering Design Manual in the prior fiscal year.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	2,277,660	2,614,546	3,043,784	4,020,733	4,020,733
External Materials and Services	102,608	69,275	364,659	137,419	137,419
Internal Materials and Services	35,673	37,493	23,991	10,362	10,362
Capital Outlay	453,431	21,945	0	0	0
Bureau Expenditures Total	2,869,372	2,743,258	3,432,434	4,168,514	4,168,514
Ending Fund Balance					
Requirements Total	2,869,372	2,743,258	3,432,434	4,168,514	4,168,514
FTE	51.00	56.80	61.00	24.40	24.40

Budget Narrative

Resources Resources for this program come from ratepayer fees and charges for sewer and stormwater services.

Bureau of Environmental Services

Expenses Primary expenses for this program are personnel and consultant charges for the Pump Station Design Manual. Supporting items include costs for specialty computer supplies and software, office supplies, safety gear, and other allowances for repair and maintenance of equipment.

Staffing 61 positions support this program with approximately 36.60 positions allocated to the Capital Improvement Projects / Project Delivery Program. Positions include: Analysts (3), CAD Technicians (5), Capital Project Managers (2), a Coordinator I, Engineers (49), and a Landscape Architect.

This program was initially seeking to add a Business Systems Analyst to support building information management systems. With the revenue impacts of the pandemic, the bureau has delayed this position request and is working to reprioritize from existing vacancies.

Assets and Liabilities This program supports bureau-wide assets of \$15.2 billion.

Program Information

Program Contact: Ken Bartocci, Financial Planning Manager

Contact Phone: (503) 823-6022

Website: <https://www.portlandoregon.gov/bes/>

Funds Management

Program Description & Goals

The Funds Management Program segregates bureau wide financial transactions from program specific transactions. The transactions in this program are administrative in nature, benefit the entire bureau, and do not impact a particular program offer. There are no staff related to this program and any staff time spent recording and monitoring these transactions are reflected in the Business Support program.

Explanation of Services

The actions in this program serve to isolate bureau-wide financial transactions that do not affect one specific program. The financial transactions in this program include:

- ◆ Fund balances, reserves, and contingencies;
- ◆ Inter-fund cash transfers;
- ◆ Debt service payments, including pension obligation bonds, and bond issuance costs;
- ◆ Bureau-wide revenues such as rate revenue, wholesale contracts, interest, and bond sales; and
- ◆ Utility license fees.

Equity Impacts

Funds Management reflects bureau-wide transfers, revenues, and expenditures. There are minimal equity impacts related to fund balance, reserves, contingencies, inter-fund transfers, and interest earnings.

Rate revenue affects equity by determining how much each customer pays for sewer and stormwater service. Every year, BES calculates rates using cost of service ratemaking principles first adopted by City Council in 1977. The goal of these principles is to ensure that each customer class is equitably paying for what they use of the system. This does not impact racial equity or specific geographic locations but ensures that residential customers as a group are paying their fair share of rates. The BES rate schedule does not directly address benefit or burden on communities of color or people with disabilities. However, BES has low-income discounts which ensure lower income customers are less burdened than higher income customers. The low-income foregone revenue is reflected in the overall rate revenue calculation.

Issuing debt greatly affects the inter-generational equity of the sewer and stormwater system. Issuing debt allows customers in the future benefitting from capital projects to pay for the improvement via debt service and customers today to pay according to the benefit received. Additionally, issuing debt lowers rate increases in the short term.

Changes to Program

Changes to this program are typically administrative in nature and address fund balances, reserves, contingencies, and transfers among BES's family of funds. The various transfers and debt service are largely dependent on various legal requirements and vary from year to year.

Bureau of Environmental Services

Although this program is new, changes include:

- ◆ Transfer revenues from the Rate Stabilization Fund to the Sewer Operating Fund in the amount of \$20 million.
- ◆ Additional debt service of \$8.1 million for the sewer revenue bonds issued in November 2020.
- ◆ Addition of \$7.2 million for the reserve associated with the 2020 bonds.

BES does not intend to issue new debt 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
Requirements					
Bureau Expenditures					
External Materials and Services	0	0	0	17,560,000	17,560,000
Bureau Expenditures Total	0	0	0	17,560,000	17,560,000
Fund Expenditures					
Debt Service	0	0	0	177,055,111	177,055,111
Contingency	0	0	0	194,927,676	194,927,676
Fund Transfers - Expense	0	0	0	491,257,755	491,257,755
Debt Service Reserves	0	0	0	41,430,000	41,430,000
Fund Expenditures Total	0	0	0	904,670,542	904,670,542
Ending Fund Balance					
Requirements Total	0	0	0	922,230,542	922,230,542

Budget Narrative

Resources Resources for this program come from ratepayer fees and charges for sewer and stormwater services.

Expenses External Expenses for this program include debt service on all outstanding debt and the payment of the bureau's Utility License Fee. Internal expenses include cash transfers among the bureau's family of funds and contingency adjustments across all funds to reflect current expectations.

Staffing There are no staff positions

Assets and Liabilities This program supports bureau-wide assets of \$15.2 billion.

Program Information

Program Contact: Ken Bartocci, Financial Planning Manager

Contact Phone: (503) 823-6022

Website: <https://www.portlandoregon.gov/bes/>



Integrated Planning

Program Description & Goals

The Integrated Planning Program is responsible for planning functions that support all bureau assets and connect bureau strategic goals and community objectives to the prioritization and implementation of programs and projects. The group assesses risk across systems owned and managed by the bureau and develops integrated solutions which optimize opportunities and community benefits. The group also provides hydrologic and hydraulic modeling services for the Bureau to support city projects and combined sewer overflow compliance reporting. Integrated Planning oversees the bureau's resiliency efforts (climate and seismic), coordinates with other bureaus' resiliency planning, and recommends changes to standards and processes to achieve resiliency goals.

Explanation of Services

Integrated Planning is comprised of two divisions which provide the following services:

Risk Assessment

- ◆ Identifies and prioritizes bureau service categories and systems for strategic investment based on system risk, regulatory drivers, and community needs and opportunities.
- ◆ Performs asset system analysis, interpretation, and provides functional understanding of asset system and service interdependencies.
- ◆ Provides hydraulic and hydrologic modeling services for the bureau, which includes in-house model development, modeling services contract management, and technical oversight and review of contract modeling services work.

Priority Area Planning

- ◆ Identifies and provides planning project management and coordination services for priority areas based on system risk, regulatory drivers, and community needs and opportunities;
- ◆ Conducts characterization and analysis of solution options; Develops integrated solution plans which incorporate both programmatic and capital elements to address multiple risks and drivers and optimize benefits to the community.
- ◆ Ensures that the planning and delivery of Bureau projects and programs are responsive to seismic and climate risks.

Equity Impacts

Integrated Planning incorporates equity considerations into all levels of planning, including asset and system risk assessment, modelling services, the identification of priority areas, and the development of integrated solutions. Environmental Services' ability to deliver optimal and equitable solutions which address the greatest system and community risks in compliance with state and federal regulations is dependent on the planning services provided by the Integrated Planning Group.

Changes to Program

The Integrated Planning Group is a new group in the bureau created in 2020 to provide more comprehensive and consistent planning processes to serve all the bureau’s assets. Integrated Planning includes functions that were previously included in the Watershed Services, Asset Systems Management, Sustainable Stormwater, and Watershed Management programs.

Proposed changes for FY21-22 include:

- ◆ Reduction to funding for BPS staff working on BES initiatives by \$200K as agreed.
- ◆ Reduce support for Continuous Collection System Plan update as work nears completion.
- ◆ Discontinue internships during pandemic telework conditions by \$81,200 to offset expanding asset management analysis support in the same amount.
- ◆ Begin Treatment Plants Risk Assessments and Master Plan of \$250K.
- ◆

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	0	0	0	2,976,675	2,976,675
External Materials and Services	0	0	0	1,899,210	1,899,210
Internal Materials and Services	0	0	0	358,950	358,950
Capital Outlay	0	0	0	40,000	40,000
Bureau Expenditures Total	0	0	0	5,274,835	5,274,835
Ending Fund Balance					
Requirements Total	0	0	0	5,274,835	5,274,835
FTE	0.00	0.00	0.00	17.50	17.50

Budget Narrative

Resources Resources for this program come from ratepayer fees and charges for sewer and stormwater services.

Expenses Expenses for this program include personnel; technical and professional support for treatment plants risk assessment, the Stormwater System Plan, priority area integrated planning, and other risk assessment work; modeling software and licenses; internal service work for combined system flow monitoring; and, interagency work with the Bureau of Planning and Sustainability to support BES initiatives.

Bureau of Environmental Services

Staffing

33.5 full-time positions support this program with 16 positions allocated to the Capital Improvement Projects / Project Delivery Program. Positions include: Engineers (23), Landscape Architects (2), Water Resource Planner (2), Environmental Program Coordinators (3), and Environmental Specialists (3.5).

This program was initially seeking to add three Engineering positions to assist with risk assessment and modeling services for asset management. With the revenue impacts of the pandemic, the bureau has delayed these position requests and is working to reprioritize from existing vacancies.

Assets and Liabilities This program supports bureau-wide assets of \$15.2 billion.

Program Information

Program Contact: Ken Bartocci, Financial Planning Manager

Contact Phone: (503) 823-6022

Website: <https://www.portlandoregon.gov/bes/>



Leadership

Program Description & Goals

The Leadership Program provides the bureau with high-level leadership, guidance, and oversight. It leads and oversees implementation of the bureau’s strategic and equity plans, which identify specific service delivery, workforce, and community-centered goals and outcomes. Bureau leadership functions as the primary liaisons between bureau workgroups, City Council, and other City bureaus and strives to provide affordable, cost-effective services to the community.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
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

The Bureau of Environmental Services provides critical services through its management of the City’s wastewater and stormwater infrastructure and protection of public health and the environment. The bureau is highly regulated under the Clean Water Act, Safe Drinking Water Act, and Endangered Species Act and must ensure compliance with federal and state regulations. To facilitate regulatory compliance, Environmental Services must locally regulate, monitor, and enforce environmental policies. Ultimate oversight, accountability and coordination of this work is performed by a Bureau Leadership Team that includes the Director, Deputy Director, 2 Equity Managers, and 8 group managers.

The Leadership Program is responsible for implementing community-centered and data-informed strategies in all aspects of program development, planning, implementation, and decision making at the bureau. The Bureau Leadership Team is committed to centering and prioritizing equity, specifically racial equity, within and across bureau workgroups and functions to remedy disproportionate outcomes in communities of color and to ensure the bureau provides equitable services to all communities. This commitment includes acknowledging structural and organizational racism exists, with intentionality given to creating antiracist systems within Environmental Services that promote and establish racial equity at the bureau and the community. This requires purposeful action and accountability of the Bureau Leadership Team, making clear that creating equitable systems is an explicit responsibility of every BES employee.

Equity Impacts

The equity objectives of the Leadership Program are to provide equitable services to all communities and achieve equitable outcomes for communities of color, particularly Black and Indigenous communities, which have the greatest disparities across all community indicators of health, safety, and well-being. Primary equity-centered priorities for FY2021-22 include:

- ◆ Expanding racial equity literacy throughout the bureau at all levels of the organization to ensure that each BES employee understands their role in advancing the bureau toward racial equity.
- ◆ Building a strong foundation of continual growth around how to deliver our services more equitably is a sustained mission and responsibility that will allow the bureau to discover new ways to achieve equity. This includes strategies for managing equitably, using race-centered results-based accountability and community-centered racial equity principles, and development of program-specific strategies to address racial and disability disparities.
- ◆ Supporting and creating transformative equitable business practices that identify and reduce disproportionate impacts on and achieve equitable outcomes for Black, Indigenous, and other communities of color. This will include further integration and application of an equity lens to the bureau's budget development process across all of our service categories. The Equity Team developed tools like the Budget Equity Strategy Tool (BEST) and an associated guidebook to clarify the principles and components of integrating equity into program implementation and delivery of services. The tool and guidebook include a set of questions and actions to guide the bureau in assessing, prioritizing, and integrating equity in budget decisions and Program Offers.
- ◆ Establishing a bureau culture that advances workforce equity, supports the goals of our equity plan, and adopts and empowers a diverse and inclusive workforce bureau-wide. The Equity Team developed tools like the THRIVE: Tips to Hire, Recruit, and Interview for Equity resource, and enhanced practices and procedures that embed equity into the bureau's hiring and recruitment process and aim to guide and support the bureau in building a diverse, high-performing workforce. Additionally, the bureau is partnering with other City bureaus to develop workforce equity strategies, leadership training, and comprehensive recruitment and retention strategies for cross-bureau implementation.

Changes to Program

In prior years, the functions of this program were captured in the Admin/Admin Support and Employee Development programs. Additionally, the group manager positions were previously budgeted in the program they managed. All group manager positions are now reported in this program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	0	0	0	2,976,129	2,976,129
External Materials and Services	0	0	0	188,740	188,740
Internal Materials and Services	0	0	0	289,676	289,676
Bureau Expenditures Total	0	0	0	3,454,545	3,454,545
Ending Fund Balance					
Requirements Total	0	0	0	3,454,545	3,454,545
<hr/>					
FTE	0.00	0.00	0.00	14.00	14.00

Budget Narrative

- Resources** Resources for this program come from ratepayer fees and charges for sewer and stormwater services.
- Expenses** Primary expenses for this program include personnel for the bureau’s leadership and equity teams, regional and national association dues, and interagency charges for specialized legal services.
- Staffing** 14 full-time positions support this program and include: the Director, Deputy Director, Group Managers (8) an Administrative Specialist III, and Analysts (3).
- Assets and Liabilities** This program supports bureau-wide assets of \$15.2 billion.

Program Information

- Program Contact:** Ken Bartocci, Financial Planning Manager
- Contact Phone:** (503) 823-6022
- Website:** <https://www.portlandoregon.gov/bes/>



Operations & Maintenance - Collection System

Program Description & Goals

The Operations and Maintenance - Collection System Program oversees the operation, maintenance, and repair of the City’s wastewater and stormwater collection system to minimize service interruptions and potential hazards to public health, safety, property, and the environment. This program serves all Portlanders and is required to meet federal and state regulations. It works toward the bureau’s strategic goal of Service Delivery, to optimize how Environmental Services delivers sanitary services, stormwater services, and protects and recovers resources for the community. The Collection System Program is critical to achieving the goals of minimizing the number of stormwater flooding events due to insufficient system capacity and minimizing the number of combined sewer overflows (CSOs) and sanitary sewer overflows (SSOs), as well as meet bureau goals toward watershed health.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Number of combined sewer overflow events	1	1	4	4	0
Number of sanitary sewer overflows	187	174	135	135	0
Number of stormwater flooding events due to system capacity	49	38	100	100	0

Explanation of Services

The Operation and Maintenance – Collection System Program prioritizes the day-to-day management and performance of the City’s wastewater and stormwater collection and pumping facilities. The collection and pumping system includes 88 pump stations, 10 step systems, 58 air and vacuum structures, 3,088 miles of pipeline including 57 miles of force mains, 727 miles of lateral, 50,542 access structures, 8,643 stormwater sumps, 6,906 sedimentation manholes, 95 miles of ditches, 55,530 stormwater inlets, 328 trash racks, 155 manufactured stormwater facilities, and numerous other water quality assets.

Operation and maintenance activities include facility design, field inspections, preventative and predictive maintenance, repairs and the management of maintenance contractors and support for capital improvement program projects, public works permitting, and a variety of planning and implementation efforts related to the stormwater system. Environmental Services’ primary operation and maintenance service provider (via interagency agreement) is the Portland Bureau of Transportation Maintenance Operations.

Work units that provide critical, specialized operations and maintenance for the collection and pumping systems include the following.

- ◆ Sanitary and Combined Maintenance Engineering provides expertise on the application of asset management principles to sewer operation, maintenance, and repairs to ensure that individual infrastructure assets reach an optimal useful service life at an overall least cost. Maintenance Engineers provide guidance and coordination to make decisions rapidly so that service interruptions and hazards to public health, safety, property and the environment are minimized.

- ◆ Stormwater Maintenance Engineering provides expertise on the application of asset management principles to stormwater operation, maintenance, and repairs and provides inspection and condition assessment of surface stormwater facilities. Engineers provide guidance and coordination to make timely decisions so that service interruptions and hazards to public health, safety, property, and the environment are minimized.
- ◆ Pump Station Operation and Maintenance ensures the efficient, reliable operation and mechanical maintenance of pump stations and various other collection system assets including air/vac structures, odor control facilities and active controls (gates/valves).
- ◆ Electrical and Instrumentation installs, maintains, troubleshoots and repairs a variety of electrical equipment and instruments and develops and implements automation strategies and control systems for efficient and effective pumping and related system operations.

Equity Impacts

BES is required by state and federal regulators to ensure the equitable distribution of its basic, sanitary and stormwater services that protect public health, watershed health and the environment. Pollution prevention is multi-faceted and intended to be equitable service delivery, as level of service is aimed to address the needs of each sewer basin and ratepayer. The goal is to reduce pollution and conserve resources while employing best practices in mitigating the carbon footprint in Portland. Best practices will improve the health of the community and reduce the risks to the environment and economy from climate change and the high costs of pollution.

Collection System facilities are strategically distributed across the City and the program provides equitable service levels to all communities connected to the system. This aligns with Goal 2 – Equitable Service Delivery and Business Practices from the bureau’s Equity Plan.

The current updating of the Pump Station Design Manual will employ improved design equity factors.

The impact of system failures, reduced levels of service, and risks are disproportionately more significant to vulnerable communities, and further refinement and development of equity-centered mitigation strategies as well as related performance measures and outcomes are further planned for in FY 2021-22.

Changes to Program

This program remains largely unchanged from prior years and was previously reported under the Collection System Program.

Program budget reflects a reduction of \$450,000 for force main condition assessments.

Bureau of Environmental Services

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	0	0	0	4,429,916	4,429,916
External Materials and Services	0	0	0	4,560,719	4,560,719
Internal Materials and Services	0	0	0	23,922,950	23,922,950
Capital Outlay	0	0	0	1,734,000	1,734,000
Bureau Expenditures Total	0	0	0	34,647,585	34,647,585
Ending Fund Balance					
Requirements Total	0	0	0	34,647,585	34,647,585
<hr/>					
FTE	0.00	0.00	0.00	30.85	30.85

Budget Narrative

Resources	Resources for this program come from ratepayer fees and charges for sewer and stormwater services.
Expenses	Primary expenses for this program include personnel; Capital Outlay for vehicles and equipment; external costs for pipe inspection services and condition assessment, odor control, and electricity usage at certain pump stations. Internal services include the PBOT Maintenance Operations interagency agreement and right of way and survey services.
Staffing	<p>35 full-time positions support this program with approximately 3.15 positions allocated to the Capital Improvement Projects / Project Delivery Program. Positions include: CAD Technicians (3), Electricians (5), Engineers (7), Environmental Technicians (3), Industrial Maintenance Millwrights (14), an Instrument Technician, a Manager II, and a Supervisor II.</p> <p>This program was initially seeking to add a collection system Engineer to provide condition assessment coordination and other support. With the revenue impacts of the pandemic, the bureau has delayed this position request and is working to reprioritize from existing vacancies.</p>
Assets and Liabilities	This program supports bureau-wide assets of \$15.2 billion.

Program Information

Program Contact: Ken Bartocci, Financial Planning Manager

Contact Phone: (503) 823-6022

Website: <https://www.portlandoregon.gov/bes/>

Operations & Maintenance - Treatment

Program Description & Goals

The Operations and Maintenance – Treatment Program manages the operation and maintenance of two wastewater treatment plants that treat collected wastewater (sanitary & storm) from the City of Portland service area. This program serves all Portlanders connected to the sewer system and is required to meet federal and state regulations. It works toward the bureau’s Strategic Goal of Service Delivery, to optimize how Environmental Services delivers sanitary and stormwater services and protects and recovers resources for the community. The program, through resource recovery, also works toward accomplishing goals in the adopted Climate Action Plan by increasing the use of renewable energy and reducing greenhouse gas emissions from city operations. The Columbia Boulevard Wastewater Treatment Plant (CBWTP) treats both combined and separated sewers with an annual daily average of 68 million gallons per day of municipal wastewater, with a peak capacity of 450 mgd. The Tryon Creek Wastewater Treatment Plant (TCWTP) treats an annual daily average of 6 million gallons per day. The Treatment Program is critical to achieving the goals of effectively processing all wastewater that is conveyed to the treatment plants and transforming waste from treatment processes into valuable products.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Cost to operate and maintain the treatment plants per million gallons treated	\$1,071	\$912	\$860	\$870	\$0
Percent of methane beneficially used	0%	0%	0%	60%	100%
Percentage of urgent public health and safety related service requests responded to within two-hour timeframe	95%	98%	90%	90%	0%
Tons of biosolids beneficially used	0	0	0	12,000	15,000
Percentage of biochemical oxygen demand removed	96%	95%	85%	85%	0%
Amount of wastewater processed annually (in million gallons)	25,807	24,236	29,200	28,900	0

Explanation of Services

The Operations and Maintenance – Treatment Program plans, manages and performs the operations of Portland’s two wastewater treatment plants, the combined sewer overflow reduction system, and resource recovery of biogas and biosolids. It includes maintenance and condition assessment of approximately 10,000 registered treatment assets. The Treatment Program also prioritizes resource recovery, utilizing the treatment process to produce beneficial resources such as biosolids and biogas

Work units that provide critical, specialized operations, maintenance and resource recovery for treatment include the following:

- ◆ CBWTP Treatment and Process Control operates the largest wastewater treatment facility in the state of Oregon within a stringent regulatory environment. Operations requires 24/7 staffing and monitoring, with the technical expertise and ability to make real-time treatment process adjustments to dramatic changes in weather conditions and flows. Effective treatment involves coordinated efforts in processing both liquids and solids. It also includes the operation of the CSO reduction system.
- ◆ TCWTP Treatment operates a wastewater treatment facility located in Lake Oswego. This facility provides effective and stable 24/7 treatment services to Portlanders located in the Tryon Creek and Dunthorpe-Riverdale basins and is a long-standing example of cross-jurisdictional partnership. This facility relies on services from the CBWTP and is monitored at the CBWTP when not staffed.
- ◆ Mechanical Maintenance installs, maintains, troubleshoots and repairs mechanical equipment.
- ◆ Electrical and Instrumentation installs, maintains, troubleshoots and repairs a variety of electrical equipment and instruments and develops and implements automation strategies and control for efficient and effective treatment operations.
- ◆ Industrial Machining produces cost-effective fabrication of replacement parts and reconditioning of worn or damaged parts.
- ◆ Industrial Coatings provides corrosion and weathering protection of exposed surfaces and applies industrial labelling for proper identification of piping and equipment as well as the warning and elimination of hazardous conditions at pump stations.
- ◆ Condition Assessment & Maintenance Planning implements a community of practice to collect critical asset data. This information is used for decision making with maintenance strategies, integrated planning, and capital improvement projects. It optimizes maintenance and operation strategies and supports reliability-centered practices and goals by decreasing unforeseen asset failures and reducing overall business risk exposure. It also supports planning of preventative, predictive, and corrective maintenance.
- ◆ Biosolids Reuse recovers approximately 13,500 dry tons of biosolids each year. Biosolids are a nutrient rich by-product that is beneficially land applied.
- ◆ Biogas Utilization is possible through the recovery of methane during the treatment process. Biogas is used to generate renewable energy and transportation fuels that produce revenues, improve air quality, and reduce GHG emissions.

Equity Impacts

Environment Services is required by state and federal regulators to ensure the equitable distribution of its sanitary and stormwater services that protect public health and the environment. The Treatment Program provides core services benefitting all Portlanders. This aligns with Goal 2 – Equitable Service Delivery and Business Practices in the bureau’s Equity Plan.

Bureau of Environmental Services

The CBWTP is in a historically underserved area of Portland where community could experience some burden from the facility. Treatment plant investments are necessary to mitigate such impacts such as odors, noise and light migration and otherwise support being a good neighbor and provide community benefit to the surrounding area.

By performing energy conservation, recycling solids, water reuse, improved air quality, and other conservation/resource recovery programs, we are keeping lifetime costs lower than they would have otherwise been and better preserve the environment and planet for future generations.

Changes to Program

In prior years, content of this program was primarily reported in the Treatment Program, but portions were also presented in the Wastewater and Maintenance Programs.

Additional funding for this program include \$15,000 for required cleaning of the CBWTP campus-wide stormwater system, \$30,000 for cleaning of a treatment plant line used to move filtrate from solids processing to the lagoon, \$230,000 for increased utility expenses, \$74,288 for costs to operate and maintain new assets associated with renewal natural gas production, \$15,000 for additional automation system license fee, \$15,000 to test the quality of biogas, \$3,000 for subscribing to verify renewable identification number pricing for biogas, and one-time equipment purchase of \$39,000 for asset vibration monitoring.

Reductions for this program include \$22,000 used to purchase new treatment plant hoses and other small equipment used to operate the two treatment plants and \$40,000 for documentation associated with automation/process control systems.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	0	0	0	13,643,535	13,643,535
External Materials and Services	0	0	0	11,838,231	11,838,231
Internal Materials and Services	0	0	0	1,033,124	1,033,124
Capital Outlay	0	0	0	134,500	134,500
Bureau Expenditures Total	0	0	0	26,649,390	26,649,390
Ending Fund Balance					
Requirements Total	0	0	0	26,649,390	26,649,390
<hr/>					
FTE	0.00	0.00	0.00	101.05	101.05

Budget Narrative

- Resources** Resources for this program come from ratepayer fees and charges for sewer and stormwater services. Additional resources are expected to come from the renewal natural gas project when it comes online.
- Expenses** The primary expenses supporting this program include: personnel; external costs for biosolids land application and transportation; digester cleaning services; maintenance and repair, electricity, and natural gas costs to support renewal natural gas project; odor control; waste disposal; repair and maintenance supplies; treatment chemicals; and, other operating supplies and expenses. Internal expenses include Field Operations and laboratory services for Lagoon monitoring.
- Staffing** 112 full-time positions support this program with approximately 11.95 positions allocated to the Capital Improvement Projects / Project Delivery Program. Positions include: Analysts (3), an Equipment Operator II, Coordinators (7), Electricians (9), Engineers (4), an Industrial Machinist, Industrial Maintenance Millwrights (18), an Industrial Painter, Instrument Technicians (12), Managers (4), Supervisors (7), Wastewater Operations Specialists (4), Wastewater Operators (41).
- This program was initially seeking to add three positions to support treatment plant operations, maintenance, and provide condition assessment. With the revenue impacts of the pandemic, the bureau has delayed these position requests and is working to reprioritize from existing vacancies.
- Assets and Liabilities** This program supports bureau-wide assets of \$15.2 billion.

Program Information

- Program Contact:** Ken Bartocci, Financial Planning Manager
- Contact Phone:** (503) 823-6022
- Website:** <https://www.portlandoregon.gov/bes/>

Operations & Maintenance - Watershed

Program Description & Goals

The Operations and Maintenance – Watershed Program works toward the BES Strategic Goal of Service Delivery to optimize how BES delivers sanitary and stormwater services and protect and recover resources for the community. The Watershed Program is critical to achieving the goals of improving water quality, hydrology, and habitat values of the city’s rivers and streams.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Feet of streambank restored (not cumulative)	22,340	5,100	12,000	12,000	12,000
Number of green streets inspected	0	0	0	2,200	0
Number of trees planted	10,073	13,088	12,600	11,500	0

Explanation of Services

The Operation and Maintenance – Watershed Program includes vegetation management and natural area improvements, including maintenance of 2,283 green streets, 140 regional stormwater facilities, 390 acres of natural areas and 300 miles of rivers, streams, and riparian buffers.

Work units that provide critical, specialized operations and maintenance for the stormwater and natural systems include the following:

- ◆ Watershed Revegetation provides vegetation management and maintenance. Stormwater facility revegetation services City-owned stormwater management facilities and the growing portfolio of green street units. Services include facility inspections, vegetation maintenance, and general oversight and management of contractors responsible for performing field services related to maintenance, irrigation, pruning and planting. The program also provides support for capital improvement and public works permit projects, stormwater system planning efforts, and implementation of the Stormwater Management Manual. Natural area revegetation provides vegetation management services to maintain bureau property acquired for the purpose of advancing the bureau’s watershed health goals. The program collaborates with regional partners and the public to respond to emerging invasive species in Portland. The program may also enter into agreements to provide similar services on other public and private property. The program provides management and monitoring services on capital improvement projects related to vegetation services that are required to keep Environmental Services in compliance with local, state, and federal permits.

- ◆ Stormwater Asset Inventory and Condition Assessment implements a community of practice to collect critical asset data of the separated stormwater system. This information is used for decision-making in maintenance strategies, integrated planning, and capital improvement projects. The program optimizes maintenance and operation strategies and supports reliability-centered operations and maintenance practices and goals by decreasing asset failures and reducing overall business risk exposure.
- ◆ Surface Water Management is responsible for long-term management of bureau restoration and flood mitigation projects and collaborates on operational strategies with other stormwater jurisdictions. The program supports integrated planning for multi-benefit solutions and provides inspection, adaptive management, and reporting services on capital improvement projects that are required to keep BES in compliance with local, state, and federal permits.

Equity Impacts

Environmental Services is required by state and federal regulators to ensure the equitable distribution of sanitary and stormwater services that protect public health and the environment. The Watershed Program provides services benefitting all Portlanders. This aligns with Goal 2 – Equitable Service Delivery and Business Practices in the bureau’s Equity Plan.

Stormwater facilities are in all areas of the City and stormwater services are provided equitably to communities. Greenstreet units, vegetated stormwater facilities between the street and the sidewalk, are installed throughout north, northeast and east Portland, and when maintained are a valuable asset to neighborhoods and the transportation system.

Equity considerations are evaluated and applied to areas with vulnerable populations with regard to street flooding and riparian flooding. Land management practices are being revised to improve values to our indigenous communities.

Changes to Program

In prior years, the content of this program was reflected in the Watershed Revegetation, Sustainable Stormwater, and Watershed Management programs. When the Bureau reorganized according to function, the maintenance and operational aspects of the previous programs were combined into this program.

This program adds \$172,341 for contracted services for green street maintenance.

Reductions for this program include one-time \$50,000 joint process improvements with Portland Parks & Recreation, \$245,000 for an MOU with Portland Parks & Recreation that is set to end in July 1, 2021, and \$7,000 for aerial imaging and photo monitoring of flood conditions in Johnson Creek.

Bureau of Environmental Services

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	0	0	0	2,904,540	2,904,540
External Materials and Services	0	0	0	2,651,345	2,651,345
Internal Materials and Services	0	0	0	114,716	114,716
Capital Outlay	0	0	0	103,000	103,000
Bureau Expenditures Total	0	0	0	5,773,601	5,773,601
Ending Fund Balance					
Requirements Total	0	0	0	5,773,601	5,773,601
<hr/>					
FTE	0.00	0.00	0.00	22.87	22.87

Budget Narrative

Resources Resources for this program come from ratepayer fees and charges for sewer and stormwater services.

Expenses The Primary expenses supporting this program include personnel, external costs for stormwater maintenance and assessment, natural area maintenance, native plant acquisition, planting materials, and capital outlay for life-cycle vehicle replacement.

Staffing 24.5 full-time positions support this program with approximately 1.63 positions allocated to the Capital Improvement Projects / Project Delivery Program. Positions include: an Administrative Specialist, Botanic Specialists (8), Botanic Technicians (4), a Business Systems Analyst, an Engineer, Environmental Specialists – Generalists (2.5), an Environmental Supervisor, Environmental Technicians (3) a Manager II, a Supervisor I, and a Supervisor II.

This program was initially seeking to add multiple positions for Green Street maintenance to support the growing inventory and reduce reliance on outside assistance to meet the growing need. With the revenue impacts of the pandemic, the bureau has delayed these position requests, added minimal contract support, and is working to reprioritize existing vacancies.

Assets and Liabilities This program supports bureau-wide assets of \$15.2 billion.

Program Information

Program Contact: Ken Bartocci, Financial Planning Manager

Contact Phone: (503) 823-6022

Website: <https://www.portlandoregon.gov/bes/>

Strategy

Program Description & Goals

The Strategy Program ensures integrated strategies are developed, implemented, and monitored bureau wide. Key functions include regulatory strategy, Portland Harbor administration, communications, and portfolio management. The Strategy Program relies upon the goals and objectives identified in the bureau’s Strategic Plan (as that plan may be updated), direction from City Council, bureau leadership, and information from the community.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Watershed Health Index for water quality	5.60	5.60	5.50	5.50	8.00
Number of bureau education programs delivered	498	295	400	200	400
Number of education and engagement activities and events about Portland Harbor Superfund	0	19	25	30	22

Explanation of Services

The Strategy Program includes the following primary functions:

- ◆ **Oversee strategic asset management processes and tools to guide operations and maintenance, planning, investment decisions for service delivery.**
- ◆ **Develop and oversee implementation of bureau communications strategy. This includes internal and external engagement, outreach, and information distribution; public records; media relations; audience identification; message and content development; and advisory services on appropriate methods of distributing information to bureau employees, City Council, and community audiences.**
- ◆ **Portfolio Management is a new function established as a result of the bureau’s process improvement efforts this year. The goal is to collectively manage bureau investments and business processes to best meet our requirements and strategic objectives.**
- ◆ **Manage the bureau’s and city’s compliance with federal and state environmental regulations including the Clean Water Act for the stormwater and wastewater systems, Safe Drinking Water Act for the public Underground Injection Control (UIC) stormwater controls, Clean Air Act for the wastewater treatment plants, Endangered Species Act, environmental contamination and remediation regulations under Superfund and brownfields requirements, and numerous state requirements. This program guides the bureau in responding efficiently and effectively to federal and state legal requirements in a way that achieves the bureau’s mission, vision, and broader city goals.**

- ◆ The Portland Harbor Program manages and acts on behalf of the City in the Portland Harbor Superfund cleanup and the Natural Resource Damage Assessment settlement process and related restoration efforts. The program management includes legal services, policy and program administration, technical support, and public involvement coordination. Because of the City's significant economic, environmental and cultural interest, along with its status as a potentially responsible party, the Portland Harbor Program works closely with other City bureaus to be a leader in accomplishing a successful cleanup as soon as possible.
- ◆ Lead and support ongoing Strategic Plan implementation, including the Future Environmental Services Transition project; participate in or lead bureau-wide or city-wide groups that address policy, organizational, or legislative issues; and serve as the bureau's liaisons to other bureaus and external entities, unless otherwise designated by the bureau.

Equity Impacts

The Strategy Group leads and guides the strategic direction of the bureau. Ensuring equity is prioritized in the development and implementation of bureau-wide strategies is fundamental to that work. The bureau's approaches to activities such as asset management, regulatory policy, and the administration of the city's Portland Harbor obligations must be informed by our communities' priorities and needs.

In developing our program offer, we assessed our proposal using an equity lens that looks at people, place, process, and power. These four features help us to understand who is benefitting from our efforts; where are the benefits or harms being seen or felt throughout Portland; what communications and engagement processes are needed to meaningfully engage with our communities and whether we're using accessible and culturally- and linguistically-competent strategies and tactics; and how our work is genuinely involving BIPOC and marginalized communities in decision-making and building leadership in those communities.

The equity lens guides us not just in budget development, but in the ongoing development and implementation of bureau-wide strategies that guide the bureau's environmental and regulatory policies, asset management and investment, communications, social media, Portland Harbor cleanup, brownfield approaches, and collaborations with bureaus across the city organization, and at the summary level, ensuring that our services are delivered equitably to all. Notably the brownfield program has resulted in the development of affordable housing units on formerly environmentally contaminated lots. Other examples include an updated stormwater-related permit which is expected to include a new public process requirement for the Stormwater Management Plan revision. This will provide a new opportunity for the City to engage black, indigenous, and other people of color as well as other communities in building equity issues into stormwater management strategies. The development of a mitigation pilot project with OMSI is another example of a bureau-led effort that genuinely engages with the Tribes, who will partner with in the design and operation of the site.

Changes to Program

In prior years, the functions of the Strategy Program were reflected in various programs, including: Admin & Support; Communications; Portland Harbor; Environmental Compliance; Watershed; and Science Fish & Wildlife.

Bureau of Environmental Services

The budgetary changes in the Strategy group program are: \$100,000 being requested for community engagement for a rate study and \$300,000 for a NPDES mixing zone study that will meet federal and state regulations. These additions are expected to specifically address the Bureau's strategic initiative to evaluate existing service delivery and decision-making systems so that those systems align with the Strategic Plan and deliver services equitably.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	0	0	0	4,635,404	4,635,404
External Materials and Services	0	0	0	11,196,306	11,196,306
Internal Materials and Services	0	0	0	1,937,259	1,937,259
Bureau Expenditures Total	0	0	0	17,768,969	17,768,969
Fund Expenditures					
Fund Transfers - Expense	0	0	0	1,204,000	1,204,000
Fund Expenditures Total	0	0	0	1,204,000	1,204,000
Ending Fund Balance					
Requirements Total	0	0	0	18,972,969	18,972,969
<hr/>					
FTE	0.00	0.00	0.00	28.45	28.45

Budget Narrative

Resources

Resources for this program come from ratepayer fees and charges for sewer and stormwater services. Additionally, this program reflects revenue from the Port of Portland for cost sharing related to permit compliance and cash transfer revenues from the Citywide Portland Harbor Reserve Fund supporting city wide efforts being managed under this program.

Expenses

Expenses for this program include: personnel; inside and outside legal counsel for Portland Harbor activity; expense related to Portland Harbor city wide obligations supported by transfers from the city wide Portland Harbor Reserve; NPDES mixing zone study; monitoring and modeling watershed and water quality; technical assistance on implementation of the Underground Injection Control program; funding for ongoing implementation of the Strategic Plan; and, funding for public service, awareness, and outreach.

Staffing

36 full-time positions support this program with approximately 7.55 positions allocated to the Capital Improvement Projects / Project Delivery Program. Positions include: Analysts (6), Coordinators (11), Environmental Regulatory Coordinators (5), Environmental Specialists (7), a Graphics Designer, Managers (4), a Public Information Manager, and a Public Information Officer.

This program was initially seeking to add a position to support the newly created portfolio work and another to support the Brownfields program. With the revenue impacts of the pandemic, the bureau has delayed these position requests and is working to reprioritize from existing vacancies.

Assets and Liabilities This program supports bureau-wide assets of \$15.2 billion.

Program Information

Program Contact: Ken Bartocci, Financial Planning Manager

Contact Phone: (503) 823-6022

Website: <https://www.portlandoregon.gov/bes/>

Technical Services - Environmental Information

Program Description & Goals

The Technical Services – Environmental Information Program provides the City with cost-effective environmental assessment, monitoring, and laboratory services; biological expertise; data analysis and delivery; and technical consultation. The Program creates and implements plans to generate and harvest scientific data to answer defined questions and transforms data into information for decision-makers inside and outside of the bureau. Information provided by the program supports regulatory objectives and compliance requirements; infrastructure design, construction, and operation; watershed and system planning; beneficial use of land and water resources; ecosystem health; and property investments.

Performance	Actuals FY 2018-19	Actuals FY 2019-20	Target 2020-21	Target FY 2021-22	Strategic Target
Percentage of Level I/Phase I Environmental Assessments completed on time	0%	88%	80%	78%	90%
Number of lab analyses performed each year	59,577	58,026	60,000	60,000	0

Explanation of Services

The Technical Services – Environmental Information Program helps to protect and improve surface water, groundwater, stormwater, sediment, soil, and habitat quality by providing technical and scientific services to each major work group and portfolio. These services are essential to maintaining regulatory compliance, assessing watershed health, feeding the integrated planning processes, informing capital asset development and management, and stewarding the natural and built resources for the community. The program staff is specialized in the following areas:

- ◆ Monitoring Coordination and Analysis provides project design, project management, project effectiveness assessment, data analysis, reporting services for bureau monitoring projects, and project management for non-City agency partners that rely on the Water Pollution Control Laboratory for analytical services.
- ◆ Data Acquisition and Notification Services collects and communicates critical operational, environmental, and emergency information related to the City’s wastewater and stormwater collection and pumping systems to support the Combined Sewer Overflow program, asset management, and planning objectives.
- ◆ Coordinated Site Assessment provides on-call environmental engineering, investigation, characterization, and remediation services to the bureau and other city bureaus to support capital design and construction, the Brownfields Program, and property acquisition and management.
- ◆ Field Operations provides recurring environmental monitoring services to internal bureau stakeholders in support of the bureau’s regulatory, engineering, and scientific programs.

- ◆ The Water Pollution Control Laboratory analyzes wastewater, stormwater, groundwater, surface water, biosolids, sediment and soil in support of the City's regulatory requirements, wastewater operations, Capital Improvement Program, and other environmental programs, such as watershed management and restoration.
- ◆ Biological Sciences leads the City's Invasive Species Program integrates the Terrestrial Ecology and Enhancement Strategy into bureau operations and provides expert services to Environmental Services and other bureaus in botany, wetlands, wildlife, and fisheries.

Equity Impacts

Environmental Services is becoming more literate at applying an equity lens to all bureau programs and services and is required by state and federal regulators to ensure the equitable distribution of sanitary and stormwater services that protect public health and the environment. This aligns with the BES Strategic Plan and Goal 2 of the 2016-2021 Equity Plan – Equitable Service Delivery and Business Practices. In support of this goal, the program budget includes contractual resources that continue to utilize D/M/W/ESB firms for professional services.

Most work completed by the Technical Services - Environmental Information Program is identified by other program areas and conducted in support of other program objectives which have been developed within an equity framework. One example of this is the current study of COVID-19 in wastewater, for which the project was shaped in partnership with Black, Indigenous, and People of Color organizations to identify monitoring locations in neighborhoods with higher risk populations that would benefit most from early detection of rising infection. Citywide services, such as those provided by the Biological Sciences team, are designed to reflect interests of regional tribes and the Native American community on protecting and restoring healthy fish populations of significant cultural importance, including salmon and lamprey.

Changes to Program

In prior years, content of this program was reflected primarily in the Environmental Monitoring and Investigation Program. With recent reorganization of the bureau, those functions are now reflected in the Environmental Information Program along with the following other functions formerly reflected in other program areas:

- ◆ Consolidation of Monitoring Coordination – Former Science, Fish, and Wildlife Program: movement of one FTE and seasonal/intern funding dedicated to evaluating restoration effectiveness, to Monitoring Coordination and Analysis
- ◆ Consolidation of Biological Services – Former Science, Fish, and Wildlife Program: movement of five FTE and seasonal/intern funding to a new Biological Sciences work unit in the Environmental Information Program
- ◆ Correction of Coordinated Site Analysis Functional Location – Former Environmental Compliance Program: all Coordinated Site Analysis funding had been reflected in this program but already had been relocated to the former Environmental Monitoring and Investigation Program. This work unit (renamed as Coordinated Site Assessment) and all affiliated functions are now reflected in the Environmental Information Program

Bureau of Environmental Services

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	0	0	0	7,493,216	7,493,216
External Materials and Services	0	0	0	1,936,678	1,936,678
Internal Materials and Services	0	0	0	(3,455,665)	(3,455,665)
Bureau Expenditures Total	0	0	0	5,974,229	5,974,229
Ending Fund Balance					
Requirements Total	0	0	0	5,974,229	5,974,229
<hr/>					
FTE	0.00	0.00	0.00	51.35	51.35

Budget Narrative

- Resources** Resources for this program come from ratepayer fees and charges for sewer and stormwater services.
- Expenses** Primary expenses for this program include personnel, costs for external laboratory work, chemicals, repair and maintenance of equipment, contaminated media and hazardous waste disposal, traffic control support, and contaminated site evaluation support.
- Laboratory testing and Field Operations sampling and monitoring done for BES capital improvement projects and other internal bureau work are reported as negative expenses in in the Internal Materials and Services line item for this program.
- Staffing** 52 positions support this program with approximately .65 positions allocated to the Capital Improvement Projects / Project Delivery Program. Positions include: Business Systems Analysts (2), a Communications Engineer, Electronic Systems Technicians (3), Engineers (3), Environmental Regulatory Coordinators (2), Environmental Specialists (7), an Environmental Technician, Field Science Specialists (6), Field Science Technicians (5), a Hydrogeologist, Laboratory Analysts II (6), Laboratory Analytical Specialists (6), Laboratory Coordinators (3), a Laboratory Manager, Managers I (2), a Manager II, a Statistician, and a Supervisor II.
- Assets and Liabilities** This program supports bureau-wide assets of \$15.2 billion.

Program Information

- Program Contact:** Ken Bartocci, Financial Planning Manager
- Contact Phone:** (503) 823-6022

Website: <https://www.portlandoregon.gov/bes/>

Technical Services - Information Systems & Mapping

Program Description & Goals

The Technical Services – Information Systems and Mapping Program consists of three specific work units: Database and Application Services, Mapping and Geographic Information System (GIS) Data Services, and Data Strategy. These three work units provide centralized Information System and data-related strategy and support across the bureau.

Explanation of Services

The Technical Services - Information Systems and Mapping Program provides centralized IT and Data-related business process review and continuous improvement, IT and Data-related consulting, project management, application development, enhancements and maintenance, database administration, reporting services and the direct oversight of the bureau's IT Governance and Data Governance Committees. While the focus is primarily on run and maintain of current systems, innovations and proposed IT-related initiatives are typically evaluated and managed by staff in collaboration with the IT governance committee, the requesting group, and prioritized in accordance with the bureau's Strategic Plan and the guidance of our Bureau Leadership Team.

In addition to the sizable and complex Data Strategy and Application Services, the Mapping & GIS work-unit is the centralized GIS cohort across Environmental Services and creates and maintains the asset inventory (spatial and tabular data) related to the Sanitary/Stormwater Collection System and also performs / supports complex modeling, spatial analysis, web mapping, mobile apps, and GIS governance.

Equity Impacts

The Information Systems and Mapping Program aims to deliver services and data accessibility equitably Citywide, in alignment with the BES Strategic Plan and Goal 2 – Equitable Service Delivery and Business Practices of the bureau's 2016-2021 Equity Plan. The importance of data management and accessibility for tracking and performance is noted throughout the bureau's 2016-2021 Equity Plan, particularly Actions 1a, 1f, 1g, and 2d. Additionally, the bureau's IT Governance Committee reviews IT and Data-related project proposals and makes recommendations to our Bureau Leadership Team based on a scoring process that includes a 'Beneficial Impacts to Equity' category to evaluate to what extent proposed projects:

- ◆ Increase data access and transparency to the community;
- ◆ Increase the City's ability to quantify current and future equity impacts and services to the community;
- ◆ Increase the City's ability to identify potential solutions to disproportionate outcomes to the community; and
- ◆ Have measurable and positive impacts specific to historically underserved and vulnerable communities.

Changes to Program

In prior years, the functions of this program were primarily reflected in the Information Management Program. With recent reorganization of the bureau, some functions formerly reflected in other program areas are now housed in the Information Systems and Mapping Program, summarized as follows:

Consolidation of Mapping and GIS Support Services

- ◆ Former Asset Systems Management Program: movement of five FTE from Systems Analysis support and management to the Mapping and GIS Services work unit;
- ◆ Former Environmental Compliance Program: Movement of one FTE from Stormwater Regulatory Compliance to the Mapping and GIS Services work unit

Consolidation of Data Strategists

- ◆ Former Sustainable Stormwater Program: movement of one FTE from Stormwater Planning to Data Strategy

The FY 2021-22 budget includes funding adjustments to licensing and maintenance costs affiliated with desktop applications (such as Microsoft Office, Adobe) and new funding to support licensing of the Infor enterprise asset management system – a multiyear investment being made in collaboration with the Portland Water Bureau to replace Synergen which is no longer supported, and to consolidate linear and vertical assets in one system to enhance the BES asset management strategy and framework (\$617,000).

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	0	0	0	2,914,142	2,914,142
External Materials and Services	0	0	0	800,800	800,800
Bureau Expenditures Total	0	0	0	3,714,942	3,714,942
Ending Fund Balance					
Requirements Total	0	0	0	3,714,942	3,714,942
FTE	0.00	0.00	0.00	21.00	21.00

Budget Narrative

Resources Resources for this program come from ratepayer fees and charges for sewer and stormwater services.

Expenses Primary expenses for this program include personnel, external expenses for new enterprise asset management system project funded jointly by the Water Bureau and BES, access costs for Multnomah County property records, and other office supplies.

Bureau of Environmental Services

Staffing 24 positions support this program with 3 positions allocated to the Capital Improvement Projects / Project Delivery Program. Positions include: Business Systems Analysts (7), CAD Technicians (4), Engineering Technicians (3), GIS Technicians (8), a Manager II, and a Mapping and GIS Supervisor.

Assets and Liabilities This program supports bureau-wide assets of \$15.2 billion.

Program Information

Program Contact: Ken Bartocci, Financial Planning Manager

Contact Phone: (503) 823-6022

Website: <https://www.portlandoregon.gov/bes/>



Admin & Support

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Leadership (approximately 60%) and Strategy (approximately 40%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	1,720,499	1,847,830	1,740,448	0	0
External Materials and Services	266,942	646,093	505,150	0	0
Internal Materials and Services	320,714	411,514	429,384	0	0
Bureau Expenditures Total	2,308,154	2,905,436	2,674,982	0	0
Ending Fund Balance					
Requirements Total	2,308,154	2,905,436	2,674,982	0	0
FTE	11.00	10.83	10.00	0.00	0.00

Asset Systems Management

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Integrated Planning (approximately 65%), Business Support (approximately 3%), Technical Services – Information Delivery (approximately 15%), CIP Project Delivery (approximately 14%), and Engineering Services – Design Services (approximately 3%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	1,582,362	1,927,000	2,819,046	0	0
External Materials and Services	2,125,525	2,210,277	1,662,430	0	0
Internal Materials and Services	(11,641,409)	(12,188,647)	299,787	0	0
Capital Outlay	(1,418,138)	451,793	0	0	0
Bureau Expenditures Total	(9,351,660)	(7,599,577)	4,781,263	0	0
Ending Fund Balance					
Requirements Total	(9,351,660)	(7,599,577)	4,781,263	0	0
<hr/>					
FTE	24.00	24.50	25.00	0.00	0.00

Bureau Support

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Business Support Program (100%). Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	2,361,301	5,311,442	2,676,071	0	0
External Materials and Services	1,868,643	2,496,446	2,913,192	0	0
Internal Materials and Services	6,711,687	7,806,811	8,260,359	0	0
Capital Outlay	2,247,077	(2,406,902)	1,053,664	0	0
Bureau Expenditures Total	13,188,708	13,207,797	14,903,286	0	0
Ending Fund Balance					
Requirements Total	13,188,708	13,207,797	14,903,286	0	0
FTE	21.00	22.75	22.00	0.00	0.00

Collection System

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Operations and Maintenance – Collection System Program (100%). Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	4,197,510	4,223,166	4,331,420	0	0
External Materials and Services	3,561,641	3,593,422	5,504,007	0	0
Internal Materials and Services	22,003,771	23,071,533	23,936,610	0	0
Capital Outlay	238,579	2,032,651	3,361,676	0	0
Bureau Expenditures Total	30,001,501	32,920,772	37,133,713	0	0
Ending Fund Balance					
Requirements Total	30,001,501	32,920,772	37,133,713	0	0
FTE	32.60	35.00	36.00	0.00	0.00

Communications

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Strategy (approximately 63%), Delivery Programs – Community Partnerships (approximately 22%), and CIP Project Delivery (approximately 14%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	1,165,737	1,232,719	1,211,339	0	0
External Materials and Services	145,617	136,499	373,571	0	0
Internal Materials and Services	71,970	74,615	34,522	0	0
Capital Outlay	24,781	0	77,000	0	0
Bureau Expenditures Total	1,408,106	1,443,833	1,696,432	0	0
Ending Fund Balance					
Requirements Total	1,408,106	1,443,833	1,696,432	0	0
FTE	12.60	13.00	14.00	0.00	0.00

Construction Services

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Engineering Services – Construction and Materials Testing Lab (approximately 73%), Business Support (approximately 3%), Delivery Programs – Community Partnerships (approximately 3%), CIP Project Delivery (approximately 17%), and Engineering Services – Design Services (approximately 4%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	2,025,124	2,059,039	1,938,477	0	0
External Materials and Services	126,019	76,872	137,445	0	0
Internal Materials and Services	147,779	114,896	39,533	0	0
Capital Outlay	2,165	0	0	0	0
Bureau Expenditures Total	2,301,086	2,250,806	2,115,455	0	0
Ending Fund Balance					
Requirements Total	2,301,086	2,250,806	2,115,455	0	0
FTE					
	57.10	52.00	51.00	0.00	0.00

Employee Development

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Business Support Program (100%). Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	1,010,060	688,926	124,130	0	0
External Materials and Services	31,228	16,337	37,220	0	0
Internal Materials and Services	0	0	69,217	0	0
Bureau Expenditures Total	1,041,287	705,263	230,567	0	0
Ending Fund Balance					
Requirements Total	1,041,287	705,263	230,567	0	0

Engineering

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Leadership (approximately 17%) and Business Support (approximately 83%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	1,114,836	961,128	973,353	0	0
External Materials and Services	93,540	22,632	97,949	0	0
Internal Materials and Services	163,807	173,496	45,866	0	0
Capital Outlay	313,827	299,057	754,316	0	0
Bureau Expenditures Total	1,686,010	1,456,312	1,871,484	0	0
Ending Fund Balance					
Requirements Total	1,686,010	1,456,312	1,871,484	0	0
<hr/>					
FTE	9.00	7.00	7.00	0.00	0.00

Environmental Compliance

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Strategy (approximately 24%), Delivery Programs – Environmental Compliance (approximately 58%), and Delivery Programs – Environmental Information (approximately 16%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	5,363,479	5,645,198	6,976,912	0	0
External Materials and Services	2,003,217	1,459,166	1,624,937	0	0
Internal Materials and Services	749,197	575,134	816,233	0	0
Capital Outlay	34,971	96,772	75,000	0	0
Bureau Expenditures Total	8,150,865	7,776,271	9,493,082	0	0
Ending Fund Balance					
Requirements Total	8,150,865	7,776,271	9,493,082	0	0
FTE	55.00	51.00	53.00	0.00	0.00

Environmental Investigation and Monitoring

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Technical Services – Environmental Information (approximately 95%) and Business Support (approximately 5%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	4,584,681	5,074,138	5,565,491	0	0
External Materials and Services	939,748	1,052,830	1,098,162	0	0
Internal Materials and Services	(2,867,703)	(2,369,027)	(3,401,693)	0	0
Capital Outlay	167,683	132,888	323,589	0	0
Bureau Expenditures Total	2,824,409	3,890,829	3,585,549	0	0
Ending Fund Balance					
Requirements Total	2,824,409	3,890,829	3,585,549	0	0
<hr/>					
FTE	39.00	42.00	42.00	0.00	0.00

Finance

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau's reorganization. The key functions of this program are now reported in the new Funds Management (approximately 99%) and Business Support (approximately 1%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	2,270,305	2,484,203	2,592,541	0	0
External Materials and Services	19,278,427	19,467,678	22,058,266	0	0
Internal Materials and Services	3,672,913	5,431,238	4,627,489	0	0
Capital Outlay	0	21,700,035	12,400,000	0	0
Bureau Expenditures Total	25,221,645	49,083,154	41,678,296	0	0
Fund Expenditures					
Debt Service	185,387,780	477,640,214	172,676,781	0	0
Contingency	0	0	246,136,273	0	0
Fund Transfers - Expense	383,284,653	438,028,711	427,926,247	0	0
Debt Service Reserves	0	0	39,308,228	0	0
Fund Expenditures Total	568,672,433	915,668,926	886,047,529	0	0
Ending Fund Balance	431,440,955	309,530,038	0	0	0
Requirements Total	1,025,335,033	1,274,282,118	927,725,825	0	0
FTE	17.00	18.00	18.00	0.00	0.00

Information Management

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Business Support (approximately 72%), Technical Services – Information Delivery (approximately 26%), and CIP Project Delivery (approximately 2%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	2,519,188	2,496,652	2,388,159	0	0
External Materials and Services	803,224	907,886	1,144,134	0	0
Internal Materials and Services	3,494,223	4,060,196	4,159,277	0	0
Capital Outlay	67,341	71,507	450,000	0	0
Bureau Expenditures Total	6,883,976	7,536,242	8,141,570	0	0
Ending Fund Balance					
Requirements Total	6,883,976	7,536,242	8,141,570	0	0
FTE	19.00	18.00	21.00	0.00	0.00

Maintenance

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Operations and Maintenance – Treatment Program (100%). Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	597,302	641,009	788,718	0	0
External Materials and Services	40,990	33,525	811,650	0	0
Internal Materials and Services	25	0	0	0	0
Bureau Expenditures Total	638,317	674,534	1,600,368	0	0
Ending Fund Balance					
Requirements Total	638,317	674,534	1,600,368	0	0
FTE	4.00	4.00	4.00	0.00	0.00

Materials Testing Lab

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Business Support (approximately 3%), Engineering Services – Construction and Materials Testing Lab (approximately 88%), and CIP Project Delivery (approximately 10%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	1,612,537	1,580,821	1,831,821	0	0
External Materials and Services	483,337	334,565	483,072	0	0
Internal Materials and Services	(891,686)	(687,446)	(852,622)	0	0
Capital Outlay	75,410	200	0	0	0
Bureau Expenditures Total	1,279,598	1,228,140	1,462,271	0	0
Ending Fund Balance					
Requirements Total	1,279,598	1,228,140	1,462,271	0	0
FTE	13.00	13.00	13.00	0.00	0.00

Pollution Prevention Administration

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Leadership (approximately 35%), Business Support (approximately 39%), and Delivery Programs – Environmental Compliance (approximately 26%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	535,790	606,909	584,760	0	0
External Materials and Services	7,064	5,023	43,250	0	0
Internal Materials and Services	10,654	12,750	450	0	0
Bureau Expenditures Total	553,508	624,683	628,460	0	0
Ending Fund Balance					
Requirements Total	553,508	624,683	628,460	0	0
FTE	4.00	4.00	4.00	0.00	0.00

Portland Harbor

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Strategy Program (100%). Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	597,066	649,178	632,169	0	0
External Materials and Services	989,696	1,896,326	1,216,081	0	0
Internal Materials and Services	793,105	1,030,723	1,112,678	0	0
Bureau Expenditures Total	2,379,867	3,576,226	2,960,928	0	0
Fund Expenditures					
Fund Transfers - Expense	0	6,000,000	0	0	0
Fund Expenditures Total	0	6,000,000	0	0	0
Ending Fund Balance					
Requirements Total	2,379,867	9,576,226	2,960,928	0	0
<hr/>					
FTE	4.00	4.00	4.00	0.00	0.00

Portland Harbor CERCLA (Superfund)

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Strategy Program (100%). Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	1,266	90	0	0	0
External Materials and Services	143,365	1,586,263	8,375,812	0	0
Bureau Expenditures Total	144,631	1,586,353	8,375,812	0	0
Fund Expenditures					
Fund Transfers - Expense	0	0	1,319,000	0	0
Fund Expenditures Total	0	0	1,319,000	0	0
Ending Fund Balance					
Requirements Total	144,631	1,586,353	9,694,812	0	0

Portland Harbor NRDA

Program Offer Transition Information

This program expired in FY 2019-20. The key functions of this program are now reported in the new Strategy Program (100%). Please consult the FY 2019-20 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Ending Fund Balance					
Requirements Total					

Science, Fish and Wildlife

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Strategy (approximately 53%), CIP Project Delivery (approximately 3%), Technical Services – Environmental Information (approximately 38%), and Operations and Maintenance – Watershed Revegetation (approximately 6%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	1,884,264	1,999,165	1,766,559	0	0
External Materials and Services	422,689	320,948	446,002	0	0
Internal Materials and Services	508,925	395,029	443,656	0	0
Capital Outlay	29,684	0	0	0	0
Bureau Expenditures Total	2,845,563	2,715,142	2,656,217	0	0
Ending Fund Balance					
Requirements Total	2,845,563	2,715,142	2,656,217	0	0
FTE	13.00	13.00	13.00	0.00	0.00

Sustainable Stormwater

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Strategy (approximately 2%), CIP Project Delivery (approximately 3%), Technical Services – Information Systems and Mapping (approximately 2%), Leadership (approximately 2%), Operations and Maintenance – Watershed Revegetation (approximately 16%), Integrated Planning (approximately 18%), Delivery Programs – Community Partnerships (approximately 42%), and Delivery Programs – Environmental Compliance (approximately 13%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	3,311,352	3,852,011	3,539,240	0	0
External Materials and Services	1,601,298	1,686,810	4,195,164	0	0
Internal Materials and Services	119,439	558,677	519,714	0	0
Capital Outlay	0	26,000	0	0	0
Bureau Expenditures Total	5,032,090	6,123,498	8,254,118	0	0
Ending Fund Balance					
Requirements Total	5,032,090	6,123,498	8,254,118	0	0
<hr/>					
FTE	29.00	30.00	30.00	0.00	0.00

Systems Development

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Business Support (approximately 6%), Delivery Programs – Systems Development (approximately 85%), Delivery Programs – Environmental Compliance (approximately 3%), and Engineering Services – Design Services (approximately 7%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	3,739,073	4,492,004	3,771,466	0	0
External Materials and Services	693,881	510,742	387,896	0	0
Internal Materials and Services	1,283,462	1,305,828	1,066,212	0	0
Capital Outlay	0	0	719,773	0	0
Bureau Expenditures Total	5,716,416	6,308,574	5,945,347	0	0
Ending Fund Balance					
Requirements Total	5,716,416	6,308,574	5,945,347	0	0
FTE	27.00	31.80	33.00	0.00	0.00

Treatment

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Operations and Maintenance – Treatment Program (100%). Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	12,159,711	11,747,810	12,572,917	0	0
External Materials and Services	14,575,684	9,607,967	11,636,774	0	0
Internal Materials and Services	1,224,542	960,958	1,046,672	0	0
Capital Outlay	48,852	25,080	17,300	0	0
Bureau Expenditures Total	28,008,789	22,341,815	25,273,663	0	0
Ending Fund Balance					
Requirements Total	28,008,789	22,341,815	25,273,663	0	0
<hr/>					
FTE	97.75	103.00	107.00	0.00	0.00

Wastewater Services

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Business Support (approximately 77%), Leadership (approximately 16%) and Operations and Maintenance – Treatment (approximately 7%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	1,100,329	1,165,582	1,266,205	0	0
External Materials and Services	1,326,070	636,717	67,914	0	0
Internal Materials and Services	10,765	29,804	639	0	0
Bureau Expenditures Total	2,437,163	1,832,103	1,334,758	0	0
Ending Fund Balance					
Requirements Total	2,437,163	1,832,103	1,334,758	0	0
FTE	9.00	10.00	9.00	0.00	0.00

Watershed Management

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Leadership (approximately 4%), Operations and Maintenance – Watershed Revegetation (approximately 23%), Integrated Planning (approximately 22%), and Delivery Programs – Community Partnerships (approximately 49%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	1,721,102	1,804,691	1,951,095	0	0
External Materials and Services	739,284	750,526	1,268,332	0	0
Internal Materials and Services	136,713	347,808	384,823	0	0
Bureau Expenditures Total	2,597,099	2,903,025	3,604,250	0	0
Ending Fund Balance					
Requirements Total	2,597,099	2,903,025	3,604,250	0	0
<hr/>					
FTE	15.80	14.80	14.00	0.00	0.00

Watershed Revegetation

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Operations and Maintenance – Watershed Revegetation (approximately 99%), and Engineering Services – Design Services (approximately 1%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	1,226,571	1,385,959	1,461,460	0	0
External Materials and Services	2,238,708	2,345,682	1,478,646	0	0
Internal Materials and Services	202,817	454,349	425,920	0	0
Bureau Expenditures Total	3,668,096	4,185,989	3,366,026	0	0
Ending Fund Balance					
Requirements Total	3,668,096	4,185,989	3,366,026	0	0
<hr/>					
FTE	11.00	15.00	14.00	0.00	0.00

Watershed Services

Program Offer Transition Information

This program expired in FY 2020-21 due to the bureau’s reorganization. The key functions of this program are now reported in the new Business Support (approximately 22%), Leadership (approximately 28%), Integrate Planning (approximately 30%), and Operations and Maintenance – Watershed Revegetation (approximately 19%) programs. Please consult the FY 2020-21 Adopted Budget to reference narratives for this expired program.

Program Budget

	Actuals FY 2018-19	Actuals FY 2019-20	Revised FY 2020-21	Requested No DP FY 2021-22	Requested FY 2021-22
Requirements					
Bureau Expenditures					
Personnel Services	510,335	660,674	603,824	0	0
External Materials and Services	75,049	141,804	90,840	0	0
Internal Materials and Services	86,663	90,363	48,924	0	0
Capital Outlay	0	3,512	0	0	0
Bureau Expenditures Total	672,047	896,353	743,588	0	0
Ending Fund Balance					
Requirements Total	672,047	896,353	743,588	0	0
<hr/>					
FTE	4.00	4.00	4.00	0.00	0.00

Five-Year Financial Plan



**Fiscal Years 2021-22 through 2025-26
Preliminary
Financial Plan**

January 2021

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EXECUTIVE SUMMARY

The Bureau of Environmental Services (BES) has completed its Preliminary Five-Year Financial Plan for Fiscal Years (FYs) 2021-22 through 2025-26. The Preliminary Financial Plan describes the bureau's financial planning process including operating and capital projections, significant risks to the forecast, policies, and other considerations.

For much of the 1990s through 2010s, the bureau's Financial Plan was driven primarily by the need to complete and adjust operationally to the federally mandated Combined Sewer Overflow (CSO) controls. Since completion of the CSO, the bureau's priorities have shifted to needs in watershed health; asset management; maintenance and reinvestment; sustainable operations; and improving equity among stakeholders. Capital needs in the next five years will be largely driven by permit requirements due to the Secondary Treatment Expansion Program (STEP), in which BES will construct two additional secondary clarifiers by 2025. These additional clarifiers are expected to increase dry weather treatment capacity to 160 million gallons per day. Additional improvements within this suite of projects include solids treatment and non-process facilities, piping and electrical tunnel improvements, aeration basins surface repairs, demolition, and plant substation replacement at an estimated cost of between \$340 million to \$410 million.

In FY 2017-18, the bureau completed a comprehensive Strategic Plan to guide bureau priorities and decision-making over the long-term. As an initial result of the Strategic Plan work, the Bureau completed the Capital Improvement Plan Process Review and Enhancement Project (or CIP PREP), a thorough review of the capital prioritization and delivery systems needed to meet the future needs of the sewer/stormwater system and the Portland community, resulting in development of a Project Management Office (PMO) during FY 2018-19. The bureau implemented the next phase of organizational realignments in March of 2020. The new structure better integrates various operational groups and decision-making processes to improve efficiency and bureau-wide outcomes. The FY 2021-22 Requested Budget will be the first budget that reflects the changes to this phase of the organizational realignment. While it will be an ongoing effort to refine the new structure, any known impacts of the organizational transition effort are reflected in this Preliminary Financial Plan.

The COVID-19 pandemic and associated economic crisis has impacted every aspect of bureau operations and revenue. The impacts will last for several years. BES expects rate revenues in FY 2020-21 to be approximately 10% lower than pre-pandemic forecasts, rate revenues in FY 2021-22 to be approximately 6% lower than pre-pandemic forecasts, and expects a gradual return to pre-pandemic revenues by the middle of FY 2022-23. A responsible balance between usage of reserves and expenditure reductions will help to manage decreased revenue in the short term. Additionally, several capital projects were deferred resulting in a backlog that will be addressed over the next several years.

For FY 2021-22 through 2025-26, the bureau's revenue requirements continue to largely revolve around repair and maintenance of the collection system, addressing deferred maintenance needs and deficiencies in the stormwater system, major improvements at the two treatment plants, improving watershed health, and meeting applicable regulatory requirements.

Estimated annual rate-generated revenue requirement increases are \$67.0 million over the entire five-year forecast period, a compounded annual increase of approximately 4.7%, reflecting the pandemic-related impacts in FY 2021-22 and a forecast return to normal thereafter. Forecast monthly sewer and stormwater bills for an average single-family residential customer over the forecast interval are in the table below. Increases in forecast bills are due to cost increases partially offset by revenue growth

from the addition of new accounts (after factoring for assumed impacts of customer conservation efforts).

Bureau projections produce a range of outcomes due to the high number of interactive assumptions, variables and risks (both known and unknown). BES staff identify and review multiple input assumptions and select the scenario that most reasonably reflects known realities and anticipated risks at the time the forecast is updated. The rate forecast in the following chart – 3.15% in FY 2021-22-21 through FY 2024-25 and 3.25% annually thereafter – reflects the scenario that the bureau believes is most likely based upon current information.

**Comparison of Forecast Bill Increases
FY 2022-26 Preliminary Financial Plan vs. Prior FY 2021-25 Projections**

Fiscal Year Ending June 30	2021	2022	2023	2024	2025	2026
FY 2021-25 Plan % Bill Increase (Feb 2019 Preliminary Financial Plan)	3.00%	3.15%	3.15%	3.15%	3.15%	N/A
FY 2021-25 Adopted Rate Ordinance % Bill Increase (May 2020)	2.85%	3.15%	3.15%	3.15%	3.15%	N/A
FY 2022-26 Plan % Bill Increase⁽¹⁾	NA	3.15%	3.15%	3.15%	3.15%	3.25%
Single-Family Residential Forecast Monthly Bill⁽²⁾	\$77.85	\$80.30	\$82.83	\$85.44	\$88.13	\$90.99

(1) Preliminary as of January 6, 2021. Final FY 2021-22 and forecast increase amounts will be determined in May 2021 based upon City Council FY 2021-22 budget deliberations and direction.

(2) Excludes any portion of customer service and billing costs incurred solely in the Water Bureau and not charged to BES.

The bureau acknowledges a number of challenges over the next five years with uncertain cost impacts.

Regulatory Considerations

- National Pollutant Discharge Elimination System (NPDES) permit renewals and compliance;
- Willamette Basin Total Maximum Daily Load (TMDL) future conditions;
- Underground Injection Control (UIC) permit compliance; and
- Portland Harbor Superfund obligations.

System Asset Reinvestment and Risks

- Columbia Boulevard Wastewater Treatment Plant (CBWTP) STEP, including secondary treatment expansion, facility replacements, and biosolids handling;
- Tryon Creek Wastewater Treatment Plant (TCWTP) asset replacement;
- Natural infrastructure investments and operational impacts;
- Other collection system assets (pipes and pump stations); and
- Seismic resiliency and impacts of climate change.

When possible, the current financial forecast includes anticipated costs of meeting these challenges. However, there are potential costs associated with these risks that are currently unknown, uncertain, and/or subject to future increases. See the section titled “Risks to the Forecast” for further information.

INTRODUCTION TO THE BUREAU

BES serves the Portland community by protecting public health, water quality, and the environment. The bureau provides sewage and stormwater collection and treatment services to accommodate Portland’s current and future service expectations. The bureau protects the quality of surface and ground waters and conducts activities that plan and promote healthy ecosystems in our watersheds.

The bureau operates and maintains the City’s sanitary and stormwater collection and transport systems, providing service to nearly all the City’s 664,605 residents (as of the July 1, 2020 estimate), numerous commercial and industrial facilities, and six wholesale contract customers located adjacent to the City. The existing system (as of July 1, 2020) consists of a network of 1,007 miles of separated sanitary sewers and 441 miles of separated storm pipe, each dedicated to carrying separate waste streams. There are also 913 miles of combined sewer lines that carry both stormwater runoff and sanitary waste, 98 active pumping stations and 2 wastewater treatment plants with a combined secondary treatment capacity of 118 million gallons per day serve the system. The bureau also maintains 2,693 stormwater pollution reduction facilities, including 2,283 green street facilities, and continues to add to that inventory. The City relies on natural resources, including over 300 miles of inventoried streams and rivers, to receive and convey stormwater runoff.

Bureau priorities are identified in the 10-Year Strategic Plan completed in FY 2017-18.




ENVIRONMENTAL SERVICES
CITY OF PORTLAND
working for clean rivers

City of Portland
Bureau of Environmental Services
10-YEAR STRATEGIC PLAN
2018–2027

FINANCIAL STRUCTURE

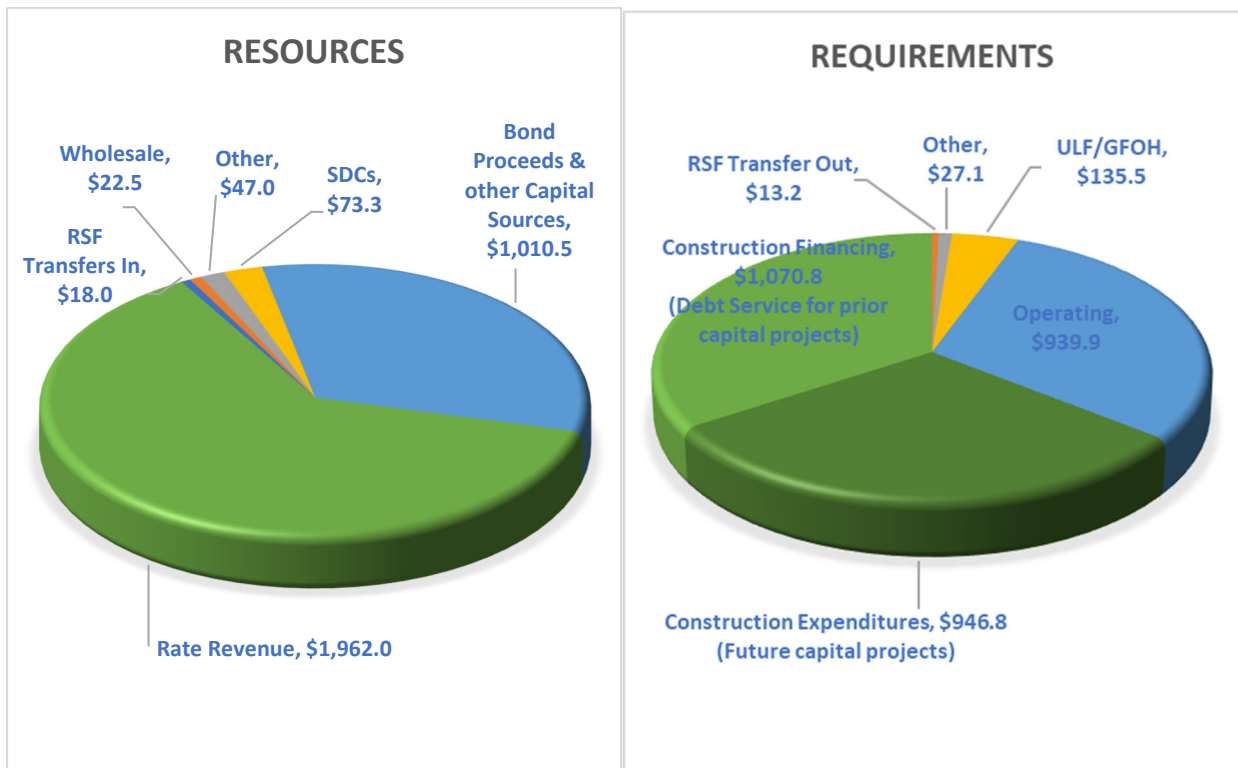
The Bureau's activities are supported by sewer and stormwater charges, System Development Charges (SDCs), wholesale contract revenues from other jurisdictions, charges for certain permits, fees, and reimbursements for services provided to other bureaus. Beginning in 2021, BES will collect revenue from generation of Renewable Compressed Natural Gas (RCNG).

The two charts below illustrate the bureau's financial status in terms of resources and requirements over the FY 2021-22 through FY 2025-26 interval. Sewer and stormwater rates totaling \$1.96 billion account for 63% of the Bureau's resources over the 5-year interval. The next largest category is Bond Proceeds and other Capital Sources at \$1.01 billion (or 32% of the total). SDCs, wholesale service charges, transfers from the Rate Stabilization Fund, and all other resources together make up about 5% of total projected resources.

Operating and capital construction expenditures (together totaling \$1.89 billion) account for about 60% of the bureau's requirements. The remainder is taken up largely by Construction Financing, primarily principal and interest payments on bonds sold to finance capital construction activity, which comprises 34% of the total requirements. Utility License Fee (ULF), General Fund Overhead (GFOH), transfers to the Rate Stabilization Fund (RSF), and Other expenditures total \$175.7 million, or approximately 6% of the total projected requirements over the five-year plan window.

Projected Bureau Cumulative Financial Resources and Requirements for FY 2021-22 through 2025-26 (in millions)

Total - \$3,133.2 million



THE FINANCIAL PLANNING PROCESS

The financial planning process has three key elements:

- 1) Development of the CIP;
- 2) Development of the 5-Year Operating Plan and FY 2021-22 Requested Budget; and
- 3) Development of Revenue Requirements and the Funding Plan.

The Capital Improvement Plan (CIP) Development Process

BES prepares a one-, five-, and ten-year CIP annually. The CIP is developed using a multi-step process to identify, develop, review, score, and rank projects for funding and scheduling priority. This process ensures that the core needs of the sewer and stormwater systems are appropriately funded and scheduled. Projects originate from recommendations in BES system plans, urgent and emergency projects to address asset failures, regulatory mandates, integrated planning, and inter-bureau collaborations. Development and delivery of the CIP is managed by the Project Management Office (PMO).

An internal BES stakeholder and subject matter expert review team investigates, scores, and ranks all proposed CIP projects in accordance with identified CIP criteria to evaluate relative priorities across all systems and project types. CIP weighting criteria, scoring instructions, scheduling guidelines, estimating procedures, and project request forms ensure each proposed project is reviewed and scored based on detailed and consistent information regardless of project origin. The CIP management team evaluates all the information from the process, works with bureau project and program managers to refine cost and schedule data, then submits a recommendation to the Bureau Director for approval of the CIP. The Portland Utility Review Board and Citizens Utility Board are provided with periodic updates through the CIP development process. Those community advisory bodies provide oversight and input as desired on the overall CIP as well as specific projects or programs. As a result of the recent CIP-PREP work, the CIP planning process now includes feasibility projects that are funded with initial pre-design budgets only in order to support more robust project scope and cost information to include in future CIP requests. Throughout the year, the PMO team reviews and monitors CIP performance and manages mid-year adjustments as necessary.

The Operating Plan and Requested Budget Development Process

The operating financial planning process begins by identifying routine utility operations and regulatory requirements followed by creation of a five-year operating plan (5YOP).

Routine Utility Operations and Regulatory Requirements

The bulk of expenditures for the bureau are routine utility operations. These include treatment plant operations, collection system maintenance and operations, laboratory and monitoring services, customer services, development permitting, and administrative support. Administrative support includes community relationships, workforce development, accounting, facilities, fleet, information technology, and financial management services. The bureau maintains a base level of service built into the financial plan and increase the level of service based on budget availability. These routine operations are regularly examined for innovation and cost savings.

The bureau's vision is to lead the City in preserving and restoring the health of Portland's watersheds. Many of the federal and state regulations have similar goals and drive several bureau priority actions reflected in the budget. As part of the bureau's recent reorganization, it is compiling all of the federal and state regulatory drivers, as well as the city code, rules, and policies that also guides how the city

responds to the regulations as well as activities not covered by regulations, to help achieve the bureau's vision. Together, these drivers will inform the integrated planning process and new portfolio framework for budgets and investments. The reorganization allows for more holistic guidance, planning, management, and investment in our stormwater system, response to regulatory drivers, and advancement of watershed health goals through robust and coordinated processes, equitable outcomes, and the highest quality service to our community.

Five-Year Operating Plan (5YOP)

The base budget includes the known existing level of service and regulatory budget requirements. At that point, budget prioritization occurs within each of the major bureau workgroups: Bureau Administration, Business Services, Capital Improvement Planning/Project Management Office (CIP/PMO), Delivery Programs, Engineering Services, Integrated Planning, Operations & Maintenance, Strategy, and Technical Services. Prioritization includes assessment of existing programs, staffing, and group-level priorities against strategic objectives and asset portfolios. This information is then compiled and reviewed by the Financial Planning team and bureau leadership comprehensively over multiple months within the context of bureau-wide priorities, the Strategic Plan, and the Budget Equity Tool. Input from the Mayor's Budget Guidance, Portland Utility Board, Citizen's Utility Board, City Budget Office, and any other public comment is considered prior to completion of this preliminary plan and the Requested Budget.

Development of Revenue Requirements and Funding Plan

The bureau collects revenues based upon operating and capital needs. Capital needs are funded by a combination of cash from rates and issuance of long-term debt (which requires annual payments). The magnitude of the capital program and the annual payments on the borrowings necessary to finance it continue to be the largest driver of revenue requirements.

Without annual rate increases, system and community priorities cannot be met. Funding of the highest priority CIP and Operating Plan requirements is projected to require annual rate increases of approximately 3.15%. The bureau aims to meet only the highest priority needs and to plan in a manner that creates level and consistent annual rate increases. Considering the general economic climate, and the bureau's commitment to keeping annual rate increases around 3.00%, the CIP and Operating Budgets are re-examined annually for opportunities to reduce or re-allocate expenditures before completing the Preliminary Financial Plan.

FINANCIAL REPORTING SYSTEM

The bureau's financial reporting system is organized into the five funds described below:

Sewer System Operating Fund

The Sewer System Operating Fund (Fund 600) provides for the day-to-day operation, maintenance, and management of bureau programs. All payments for Sewer System personnel and materials and services are made within the Sewer System Operating Fund, with reimbursement from the Sewer System Construction Fund for capital improvements.

Sewer System Construction Fund

The Sewer System Construction Fund (Fund 614) provides for the funding of Sewer System capital improvements and reimburses the Sewer System Operating Fund for these capital related expenditures.

Sewer System Debt Redemption Fund

The Sewer System Debt Redemption Fund (Fund 609) provides for the payment of principal and interest on revenue bonds, notes, and State loans issued to finance Sewer System improvements.

Sewer System Rate Stabilization Fund

The Rate Stabilization Fund (Fund 617) provides the bureau with the ability to smooth rate increases by forecasting and offsetting fluctuations in sewer system revenues over several years.

Environmental Remediation Fund

The Environmental Remediation Fund (Fund 608) is used to separate the budget of the Portland Harbor Superfund project and Guilds Lake, the site of a former municipal incinerator. Expenditures for the Portland Harbor Superfund project are financed through dedicated fees on City utility bills supplemented by Guilds Lake lease revenues and interest earnings within this fund. This allows the bureau to distinguish the Portland Harbor Superfund and Guilds Lake projects from routine sewer system operations, which are budgeted for and funded within the Sewer System Operating Fund.

FINANCIAL POLICIES, PRACTICES, AND OTHER ISSUES

BES funds its operations, maintenance, and capital expenditures primarily from rates, revenue bonds, SDCs, and fund balances (including the Rate Stabilization Fund, or RSF) when necessary. Key financial policies and forecast practices are described below.

Financial Policies and Practices

Rate Change Forecast Targets

One of the bureau's foundational financial planning objectives is to provide consistent rate adjustments over time in order to maintain financial stability and predictability for the bureau as well as our customers. BES is targeting projected annual rate increases that remain essentially flat over the long-term to avoid annual rate spikes and to facilitate efficient long-term planning. The bureau's maximum increase target for the typical single-family customer is approximately 3.25% in year five of the forecast, a proxy for estimated annual inflation. As described below, the RSF is a key tool for meeting this planning objective.

The bureau will continue to work to maintain out-year forecast increases at target levels around 3.00% but will be challenged to do so without compromising operations or prudent capital investment, which pushes cost and risk to future ratepayers.

Rate Stabilization Fund (RSF) Balance

The RSF balance was drawn down in FY 2007-08 through FY 2012-13 to help offset the effects of increasing debt service for completion of the Combined Sewer Overflow (CSO) project. The RSF balance increased from the low balance of \$4.9 million in FY 2012-13 to \$165.4 million at the end of FY 2018-19. A large reduction in the balance occurred in FY 2019-20 to fund CIP expenditures and delay debt issuance, and to offset revenues impacted by the pandemic. Modest reductions in future years will be used to smooth future rate increases. The forecast projects the RSF balance will be reduced by FY 2032-33 to a level that supports the policy minimum of 270 days of operating expenses (see below.)

Ending Fund Balances

Beginning in FY 2018-19, bureau planning targets were updated so that the combined ending fund balances within the Operating Fund and the RSF must be equal to or greater than 270 days, or 75%, of each year's anticipated operating expenses. This minimum level supports fiscal sustainability and resiliency, affirms the bureau's commitment to strong financial management, and aligns with industry standards for comparable utilities with strong credit ratings.

The Construction Fund minimum ending fund balance is targeted at 25% of the following year's estimated capital improvement expenditures for planning purposes, assuming CIP borrowings occur in the early fall. The actual ending fund balance will differ depending on the rate of expenditures within the capital program and the timing of CIP borrowings.

BES also maintains certain debt reserves, as described below. Changes in the total amount of debt reserves (as may be required related to revenue bond issuance) result in changes to fund balances.

Use of Long-Term Borrowing

Revenue Bonds

Targeting a long-term, stable payment structure spreads the costs, risks, and benefits of a reliable infrastructure system across many years – often referred to as intergenerational equity. When a project will benefit users over a long period of time, funding capital projects with long-term debt spreads costs over an extended period and aligns payment of costs with the benefits to the users of the financed assets over time. Most of the bureau’s CIP projects are financed by revenue bonds. The trade-off to long-term borrowing is that principal and interest payments on outstanding and projected debt are a substantial part of current and forecast revenue requirements. Covenants on outstanding first-lien and second-lien sewer revenue bonds contain coverage requirements that mandate a specified level of revenues that must be collected. The coverage requirements are defined for first-lien revenue bonds, as well as for first-lien and second-lien bonds on a combined basis. For outstanding first-lien bonds, the coverage requirements are:

- Net income without transfers to or from the Rate Stabilization Fund must be equal to, or greater than, 1.00 times the current year debt service.
- Net income including transfers to or from the Rate Stabilization Fund must be equal to, or greater than, 1.20 times the current year debt service.

For combined outstanding first-lien and second-lien bonds, the coverage requirements are:

- Net income without transfers to or from the Rate Stabilization Fund must be equal to, or greater than, 1.00 times the current year debt service.
- Net income including transfers to or from the Rate Stabilization Fund must be equal to, or greater than, 1.10 times the current year debt service.

The bureau’s planning standard is to set rates such that net income, including transfers to or from the Rate Stabilization Fund, is equal to or greater than 1.50 times the annual debt service requirement for first-lien bonds, and 1.30 times the annual debt service requirement for first-lien and second-lien bonds on a combined basis. This exceeds the 1.20 and 1.10 standards required by existing bond covenants, and serves three purposes:

- The absolute dollar difference between the planning standard and actual debt service coverage requirement provides a margin of safety for meeting coverage requirements.
- The 1.50 and 1.30 standards play a significant role in demonstrating the bureau's commitment to sound fiscal management of the sewer system. They also support the bureau's efforts to maintain strong credit ratings, which helps to minimize borrowing costs.
- The 1.50 and 1.30 standards strengthen the bureau’s financial position by providing ongoing cash contributions to the capital program.

The bureau’s coverage ratio on all bonds was 1.66 in FY 2019-20 (the result of bringing money in from the Rate Stabilization Fund) and projected to be 1.35 for FY 2020-21 and FY 2021-22. This financial plan maintains continued annual coverage at or above 1.40 beyond those years.

Debt Service Reserves

When issuing revenue bonds, BES typically uses either a debt reserve surety or cash reserves, depending on market preferences at the time of issue. In FY 2010-11 through FY 2012-13, cash reserves were required, which resulted in higher total fund balances until those bonds are repaid and

the reserves can be retired. In recent years, debt reserves (or bond insurance sureties) have not been required for new bond issues.

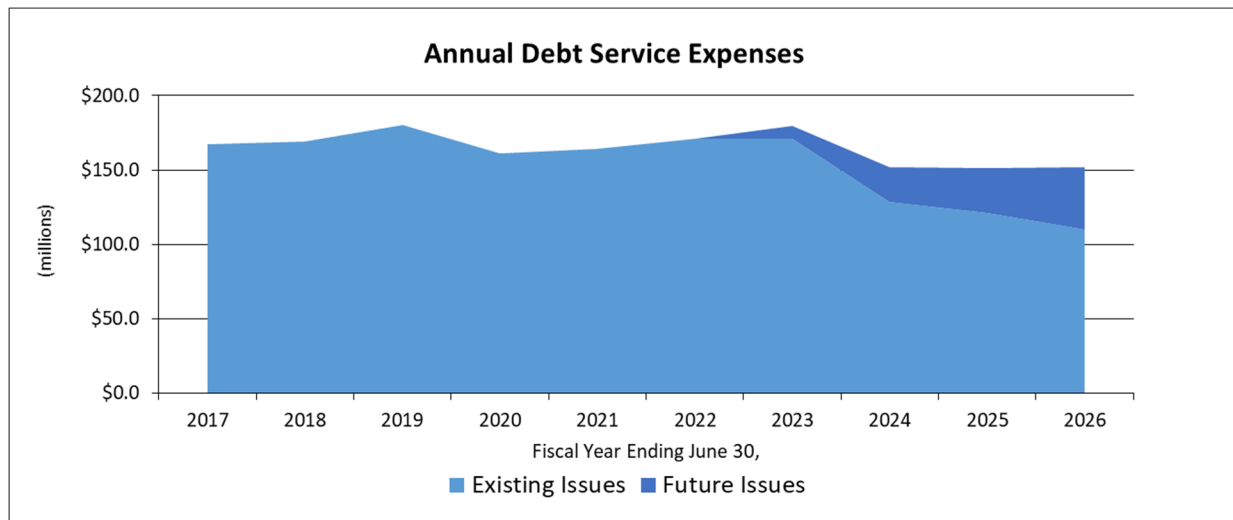
BES currently has approximately \$38.2 million in cash debt service reserves for outstanding bonds, increasing with the issuance of the 2020 bonds. The bureau also maintains a debt service reserve of \$180,000 for the nearly \$8.7 million of outstanding low-interest loans from the Oregon Department of Environmental Quality (ODEQ) State Revolving Fund.

Interest Rates

The earnings rates on projected cash balances have declined to less than 1% as a result of the pandemic, are projected to decrease to about 0.5% in FY 2021-22 (as estimated by the Office of Management and Finance, Bureau of Revenue and Financial Services), but are projected to increase 0.25% per year over the forecast interval. The projected long-term interest rates for sewer revenue bonds are estimated at 5.0% for the duration of the Financial Plan. This difference between long-term interest rates on borrowings and short-term earnings potential places upward pressure on the rate forecast.

Credit Ratings

The bureau’s revenue bonds carry ratings from both Moody’s Investors Service (Aa1 First Lien/ Aa2 Second Lien) and Standard & Poor’s (AA+ First Lien/AA Second Lien). The bureau received a credit rating upgrade from Standard & Poor’s in November 2019, and these ratings were reaffirmed in November 2020. These ratings compare very favorably to similarly sized sewer utilities. Strong credit ratings result in lower costs of borrowing, and therefore minimize cost impacts to ratepayers. Credit rating analysis considers many factors including financial condition, historical trends, long-term planning, regulatory compliance, asset condition, management strength, and response to climate change. The bureau carefully manages its finances, operations, and forecast to maintain favorable credit ratings.



Revenue Considerations

Projected Sewer Usage

The bureau actively monitors and considers the financial impacts of reduced sewer usage as continued increases in water and sewer rates offer stronger incentives for customers to either conserve water or separately meter irrigation and other non-sewer water use.

In a regular year, the financial forecast assumes annual changes in sewer usage per account to reflect assumed water conservation efforts as follows: a 1.00% reduction per single-family residential account, 0.75% reduction per multi-family residential account, and 1.00% reduction per commercial account. These assumptions are reviewed periodically during the financial planning process.

The COVID-19 pandemic and resulting economic crisis has affected sanitary usage with reductions primarily for commercial customers, partially offset by increases in the residential customers. In the first half of the current fiscal year, commercial sanitary volume appears to be down about 20% over the same period last fiscal year, while the residential sewer usage has increased by nearly 3%. But overall revenues for commercial customers is down about 11%, while residential revenues are up by 5%, as stormwater impervious area charges are not affected by sanitary usage.

System Development Charges (SDCs)

Sanitary and stormwater SDCs ensure customers pay for an equitable portion of the costs of building major Citywide sanitary and stormwater system facilities used by new development. Major facilities are generally considered to be facilities other than local collectors and include treatment plants, pump stations, trunk and interceptor sewers, Underground Injection Controls (UICs), and water quality facilities.

State law (ORS 223.307) allows the use of SDC revenues for capital construction or debt service payments. It is bureau policy to use cash SDC revenues to pay debt service, while SDC revenues received in the form of special assessment bond proceeds are used to fund the CIP. State law does not permit SDC revenues to be used to pay operating expenditures. However, by reducing the amount of debt service paid by rate revenues, SDC revenues help reduce the overall bureau revenue requirements from rates or other sources.

SDC revenues have been very robust during the prior recent economic recovery and period of rapid development within Portland, reaching a peak in FY 2017-18, resulting in larger-than-anticipated growth in fund balances (as described above). However, SDC revenues in FY 2019-20 were about 55% of that peak, in large part due to the pandemic's impact on development, and are projected to be less than a third of that peak in the current fiscal year. Projections during the Financial Plan period assume that development will remain at the current level next year before recovering slowly, but not return to those prior historical highs per typical recession/recovery cycles.

Extra Strength Charges

BES currently monitors and charges about 50 commercial/industrial customers for extra strength sanitary sewage discharges based upon samples taken and laboratory analysis of their sewage discharges (Measured Extra Strength). The majority of these facilities are large food/beverage processing plants. The number of Measured Extra Strength accounts has declined slightly over the past few years. The bureau collected approximately \$5.2 million from these Measured Extra Strength customers in FY 2019-20.

The bureau developed a class average system of strength-based rates to appropriately charge commercial and industrial customers that have discharge strength higher than the residential or baseline strength but do not require measurement and regular monitoring. The program provides an economic incentive to customers to reduce grease discharges, which is important for both regulatory compliance and reduced maintenance costs. As of January 1, 2021, about 2,800 Class Average Extra Strength customers currently have extra strength charges added to their accounts. Revenues from Class Average customers were about \$5.0 million in FY 2019-20.

Revenues from Renewable Compressed Natural Gas (RCNG)

The bureau's Renewable Compressed Natural Gas facility at CBWTP is scheduled to be completed in 2021, allowing for conversion of waste to produce biogas for vehicle fueling and for sale directly to NW Natural Gas. In FY 2019-20, the bureau hired a new position with responsibility to manage, coordinate, measure, track and optimize the delivery and sale of biogas and maximize potential for revenue generation. The Preliminary Financial Plan assumes that the RCNG facility will generate a minimum of \$3.5 million dollars in annual gross revenue, though annual revenues could increase if market conditions align and operating costs remain stable.

State and Federal Funding

Financial resources available from the state and federal level continue to be scarce, despite increasing regulatory expectations. Beyond very few, small grants for specific purposes, the financial forecast assumes no future funding from state or federal resources. Funding of state and federal mandates is expected to occur through standard rate collection and other existing revenue sources, which puts pressure on funding for other system and community priorities.

REGULATORY AND LEGAL ENVIRONMENT

The City is subject to an array of federal and state regulations involving the protection and restoration of the environment. The federal regulations most often stem from public laws administered by the United States Environmental Protection Agency (USEPA). State-specific regulations are managed, monitored, and enforced by the Oregon Department of Environmental Quality (ODEQ). Most of the services provided by the bureau through programs and projects are designed to respond to these regulations. Generally, the goal of such efforts is to protect human health and safety as well as the physical and biological health of area watersheds, streams, and rivers.

The Clean Water Act (CWA) was passed by Congress in 1972. The CWA requires all facilities that discharge to waters of the United States through a pipe to get a National Pollutant Discharge Elimination System (NPDES) permit. ODEQ is authorized by USEPA to administer the NPDES program in Oregon under state law. The bureau operates under three NPDES permits, one for each of the Wastewater Treatment Plants and one for the City's Municipal Separate Storm Sewer System (MS4). In 2000, Congress amended the CWA to require that subsequently issued permits and orders for wastewater discharges conform to a 1994 CSO Control Policy. As mentioned, BES completed construction of the CSO Control Program Facilities in December 2011. Operation of the CSO facilities and continued regulatory compliance requires ongoing investment in operations and capital.

Congress enacted Underground Injection Controls (UICs) rules in 1974 under the Safe Drinking Water Act (SDWA) and modified the rules in 1999. In part, the SDWA requires the USEPA to develop minimum federal requirements for UIC programs and other safeguards to protect public health by preventing UICs from contaminating underground sources of drinking water.

Water Quality Compliance

Willamette and Tualatin Basin Total Maximum Daily Load (TMDL) Orders

Section 303 (d) of the CWA requires states, every two years, to identify those waters “for which existing required pollution controls are not stringent enough to achieve that state’s water quality standards,” and to prepare a list for approval by the USEPA. This list serves as the basis for developing TMDLs. A TMDL is the calculated pollutant amount that a water body can receive and still meet Oregon water quality standards and allow for its designated uses.

The Tualatin Basin TMDL, which applies to a part of the Fanno Creek watershed and other small tributaries to the Tualatin River within Portland’s jurisdiction, was most recently revised in 2012. It includes parameters such as temperature, dissolved oxygen, phosphorus, and bacteria. The Willamette Basin TMDL was issued in 2006 and applies to the City of Portland’s portions of the Columbia Slough, Johnson Creek, Tryon Creek, and the Willamette River. In response, the City of Portland submitted an implementation plan in 2008, revised in 2014, and most recently revised in 2019 that covers both the Willamette Basin and Tualatin Basin TMDLs. The TMDLs have historically been the subject of numerous legal actions, including an ongoing suit related to temperature and mercury. Also, ODEQ’s and/or USEPA’s current and future 303(d) pollutant impairment listings will likely lead to future TMDLs and modifications to existing TMDLs. Most recently, the USEPA approved ODEQ’s 303(d) submission in 2020 and will likely lead to future TMDLs and modifications to existing TMDLs.

The City’s ODEQ-approved TMDL Implementation Plan identifies management strategies that the City will use to reduce pollutants from nonpoint sources to restore and protect water quality in local waterways and the Willamette River. It includes projects and programs in the bureau’s Five-Year

Operating Plan and Surface Water CIP. Projects and programs range from public involvement and education to natural resource protection and restoration. Many are based in combination on the City's Stormwater Management Plan for the MS4 Discharge Permit (below) and TMDL Implementation Plan.

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Discharge Permit

The City of Portland and its co-permittee, the Port of Portland, hold a joint NPDES MS4 Discharge Permit for discharges to waters of the State. The ODEQ issued the third-term permit on January 31, 2011. The five-year permit expired on January 30, 2016 and was administratively extended. Administrative extension of the permit requires the co-permittees to continue to implement the current stormwater management plan to reduce pollutant discharges "to the maximum extent practicable" from their respective municipal stormwater systems.

The 2011 permit includes assessments and program evaluation requirements beyond those required in previous permits. Permit requirements and program and technical evaluations are likely to be required in the next permit. The DEQ permit renewal process is almost complete with the new permit expected in early 2021. Technical resources and modeling services to meet the requirements of both NPDES MS4 permit and TMDL are expected to increase, potentially identify water quality improvement priority areas, and continue to impact future budgets.

Underground Injection Control (UIC) Water Pollution Control Facilities (WPCF) Permit

The City of Portland holds a WPCF Permit for a Class V UIC System authorizing the City to operate approximately 9,200 public UIC structures. The ODEQ issued the City's first ten-year UIC permit in 2005 and renewed the permit for a second term on May 19, 2015. The current permit expires on April 30, 2025.

The permit specifies the criteria for the construction, operation, and maintenance requirements for UICs (sumps). As part of the first permit term the City implemented a structural and nonstructural corrective action plan to address UICs out of compliance with the permit criteria. The renewal process required the City to re-evaluate its UIC system and submit an updated system wide assessment. The assessment did not identify any compliance issues that would significantly impact CIP funds. However, since the issuance of the current permit, there have been several items at the federal level that could impact the City's UIC program. The item most likely to impact the City relates to UICs located in areas of shallow groundwater. EPA is indicating policy changes that will require structural corrective actions to a number of UICs. This could impact the current service level and UIC stormwater management strategy within the next 5 years.

National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge Permits

The City of Portland holds a NPDES Wastewater Discharge Permit for both the Columbia Blvd. Wastewater Treatment Plant (CBWTP) and the Tryon Creek Wastewater Treatment Plant (TCWTP). The permits authorize discharge of fully treated and disinfected wastewater through designated outfalls to the Columbia and Willamette Rivers, respectively. The permits also authorize and specify criteria for the operation and maintenance of wastewater collection, treatment, control, and disposal systems.

The CBWTP permit was renewed on July 1, 2020 and expires April 30, 2025. In addition to the standard conditions for operation and maintenance of the collection system and treatment plant to meet the requirements of the CWA, the permit also includes special requirements identified during

the previous permit cycle that need to be completed within the current 5 year permit term. These conditions include upgrading the dechlorination system associated with the facility to meet updated permit limits for residual chlorine, rehabilitating outfalls 001 and 003 to increase dilution, developing and implementing a mercury minimization program, and completing the secondary expansion of the treatment system.

The Tryon Creek permit was issued on November 4, 2004 and expired on September 30, 2009. It is currently administratively extended by ODEQ. The City has continuing obligations to operate the treatment plant and implement an inflow and infiltration reduction program and reporting until the permit is either renewed by ODEQ or a new facility is completed under a new permit.

Endangered Species Act (ESA) Requirements

An updated final Endangered Species Act (ESA) listing for salmon and steelhead was issued on January 5, 2006 (71 FR 834). This includes eight species of salmon and five species of steelhead that spawn, rear, and migrate through watercourses in the Portland area. In addition, ESA-protected Pacific Eulachon (smelt), Bull Trout, and Green Sturgeon are present in the Columbia and Willamette Rivers and some local tributaries. Streaked Horned Lark (a bird found primarily in the Columbia Slough) was formally listed as a threatened species in October 2013 (78 FR 61451). Pacific Lamprey is an ESA candidate species as well and in 2012 the bureau signed a conservation agreement with the U.S. Fish and Wildlife Service and 15 other State and federal partners regarding Lamprey.

The basic requirements of the ESA are to avoid harming or harassing the listed species or adversely modifying their critical habitat, and to work to recover these species through the development and implementation of recovery plans. Critical habitat is federally identified and mapped. Portland's waterways are designated as protected critical habitat, which triggers specific requirements for any projects including City infrastructure projects that have a federal nexus such as funding or permitting. The bureau typically constructs 3-5 projects a year that require ESA review and permitting.

The National Oceanic and Atmospheric Administration (NOAA) Fisheries, the federal agency with jurisdiction over salmon and steelhead, adopted a federal recovery plan for salmon and steelhead in the Lower Columbia River, including Portland, in July 2013. The bureau participated with the State of Oregon and NOAA Fisheries on the development of the recovery plan. This plan includes many ongoing bureau programs and activities including stream restoration, green infrastructure investments, land acquisition, and code improvements. Their acknowledgement of City projects and programs in the recovery plan allows BES to leverage additional federal dollars to offset some planned costs. In addition, the inclusion of these projects in the recovery plan streamlines permitting review and authorizations thereby reducing costs. Funds for ESA response are included in the FY 2021-22 through 2025-26 operating and capital budget plans as a component of individual projects and programs as well as in other City bureaus' budgets.

Bond Covenants

In addition to revenue bond coverage covenants described above, the City has covenanted with bondholders to operate the sewer system in a safe, sound, efficient, and economic manner, and to "cause the System to be maintained, preserved, reconstructed, expanded, and kept, with all appurtenances and every part thereof, in good repair, working order and condition."

SYSTEM-RELATED CAPITAL AND OPERATING ISSUES

Sanitary and Combined Collection System Maintenance, Reliability, and Capacity

Much of Portland's nearly 2,000-mile sanitary and combined sewer pipe system is more than 80 years old. As important as age, however, is condition. While 85% of the collection system pipe is in good or fair condition, a significant amount of pipe is in poor or very poor condition. As aging pipes deteriorate, pipe failures can lead to sewage spilling onto public and private property, into streams, or backing up into basements. Undersized sewer pipes can also cause basement sewer backups or surface flooding during storm events due to lack of capacity. One of the bureau's major long-term capital priorities is to incrementally replace aging collection system infrastructure to reduce risk of failures. In addition to improving system reliability over the long-term, investment also minimizes the more expensive operating costs of unexpected repair and maintenance.

System planning for the combined and sanitary sewer systems provides short- and long-range plans for addressing structural condition and pipe capacity risk in the service area. Projects were evaluated and prioritized by their ability to cost-effectively reduce structural and capacity risk in the system. The most high-priority and cost-effective projects have been placed into the CIP for implementation over the next five to ten years, described below. BES continues to refine its reinvestment strategy for collection system capital improvements to enhance maintenance and reliability, and to continue to meet regulatory requirements. The bureau is updating the 2012 System Plan with an integrated, cross-system planning approach that incorporates newer data and address drivers such as development pressures, changes to the City's Comprehensive Plan, equity, climate and seismic resiliency and environmental goals and policies. This planning will impact CIP priorities in other categories as well (e.g., Wastewater Treatment and Pumping, Restoration)

Of the nearly \$964 million planned (in FY 2021-22 current dollars) for the total five-year CIP, approximately \$243 million is included to address the maintenance of the City's sanitary and combined sewer collection system, including the following.

- \$52 million for Large Diameter Pipe Rehabilitation Projects.
- \$42.3 million for Phase 3 and 4 Pipe Rehabilitation.
- \$35.6 million for Downtown Oldtown Pipe Rehabilitation.
- \$21 million for programmatic capital maintenance, which funds urgent capital repairs and reconstruction work in the collection system.
- Nearly \$92 million for other capacity and rehabilitation projects including green street facilities to reduce stormwater inflow to the combined sewer system, sewer system extension and party sewer program projects, and projects to reduce stormwater infiltration and inflow into the sanitary system.

Some of these projects, such as the Phase 4 Pipe Rehabilitation Program and the Large Diameter Pipe Rehabilitation, extend beyond FY 2025-26.

Stormwater Best Management Practices are used in the collection system where possible to manage stormwater as a natural resource and avoid unnecessary and more costly upsizing of pipes. The bureau's Neighborhoods to the River Program is an example of integrating capital improvements with programmatic (operating) approaches to address sewer capacity issues, minimize City costs, and maximize additional watershed and community benefits. Examples include the East Nicolai project, Sunnyside South and Stark basin projects.

Wastewater Treatment and Pumping

The FY 2021-22 through 2025-26 CIP also includes significant, high priority planned increases in reinvestment in the sewage treatment and pumping systems. Many facilities at the 68-year old CBWTP and 55-year old TCWTP are beyond their useful life, necessitating replacements or upgrades to avoid failure and meet regulatory requirements, including the City's National Pollution Discharge Elimination System (NPDES) permit. As with the collection system, failure to replace treatment assets in a timely fashion leads to greater asset deterioration, maintenance costs, operating inefficiencies, and risk of failure.

These urgent and highly complex projects comprise 57% of the five-year CIP. A total of nearly \$551 million is in the five-year CIP for treatment and pumping related projects, including the following.

- \$297 million for secondary treatment expansion at the CBWTP. This suite of projects is currently in design and slated for completion in 2024 to meet regulatory deadlines with DEQ to increase secondary wet weather treatment capacity for captured CSO flows sent to CBWTP during storm events. The program also includes long overdue solids processing upgrades for effective plant operation and to meet permit requirements.
- \$116 million for two ongoing programs to repair and replace existing assets as they reach the end of their useful life (the Pump Station Improvement Program and the Repair, Rehabilitation & Modification Program).
- Approximately \$100 million for other projects at CBWTP, such as improvements to the headworks and lagoon reconstruction.
- \$37.6 million for individual pump station and force main improvements, including security improvements at pump station facilities.

Major capital projects at the Tryon Creek Wastewater Treatment Plant (TCWTP) are not included in this five-year CIP, as they are on hold pending the City of Lake Oswego's pursuit of a public-private partnership to potentially shift to a new small footprint treatment plant owned by the City of Lake Oswego. While this evaluation is occurring, investment in TCWTP will focus on immediate reliability needs. If the replacement plant concept is not pursued, TCWTP is projected for over \$90 million in capital investment over the next ten years, including improvements to replace obsolete facilities, increase efficiency of the overall plant processes, and prepare the plant for meeting anticipated permit requirements.

Restoration, Remediation, and Stormwater Management

Formerly categorized as the Surface Water Program in the CIP, the bureau's work for watershed restoration, environmental remediation, and stormwater management comprises 14%, or \$135.7 million of the FY 2021-22 through 2025-26 CIP.

Capital projects in these portfolios protect and improve the function of surface water and natural areas to support watershed and ecologic health, address riverine flooding, reduce risks to people and the environment, and provide collection, conveyance, control and treatment of stormwater to protect public, ecologic, and watershed health and improve safety and livability. These projects advance numerous City plans, goals and regulatory obligations, including the *Portland Watershed Management Plan*, the Endangered Species Act, the City's Municipal Separate Storm Sewer System (MS4) Discharge Permit and Underground Injection Control (UIC) Permit, participation in the National Floodplain Insurance Program, DEQ and EPA requirements, and addressing inequitable impacts of system conditions. Significant projects in the 5-year CIP include the following.

- \$24 million for Columbia Slough Outfalls. This capital work is integrated with source control actions, maintenance and monitoring solutions to address an Intergovernmental Agreement with ODEQ to implement remedial action to improve sediment quality in the Columbia Slough.
- \$16.5 million for land acquisition. These multi-year programs (citywide and in the Johnson Creek watershed) purchase high priority natural area parcels for habitat and watershed health, which support the Bureau's efforts to protect and improve water quality and reduce impacts from riverine flooding. Funding often leverages that of other partners such as Metro and Portland Parks & Recreation. In Johnson Creek, BES manages the City of Portland's Community Rating System which provides discounts to FEMA flood insurance policy holders because of active floodplain management and other actions taken by the City to reduce risk.
- \$19.7 million for projects originating from the *Johnson Creek Restoration Plan*, such as the Springwater Wetlands project.
- \$6.6 million for the upcoming SW Capitol Highway Stormwater Improvement project. Stormwater improvements along SW Capitol Highway, local side streets, and elsewhere within Tryon, Falling, Woods, & Vermont Creek basins will address existing drainage and conveyance deficiencies that cause recurring local nuisance flooding issues, as well as additional stormwater generated by transportation improvements.
- \$16.5 million for other outfall and culvert replacement or improvement projects citywide, including funding for the Tryon Creek Highway 43 culvert replacement, the City's highest priority among projects awaiting matching federal funding through the Corps of Engineers Willamette Water Resources Development Act.
- Funding for design and construction of the Eastbank Crescent Willamette Riverbank Restoration project, in order to meet floodplain mitigation banking requirements.
- Funding for other stormwater system improvements, including drainage improvements, green street facilities, and system improvement or expansion related to development.

Non-Process Properties and Facilities

In the five-year CIP, \$13 million is dedicated to capital investments that support general function of the bureau (i.e., not including wastewater treatment processes). This includes capital upgrades to office spaces and other facilities, for example, security and storage improvements at the Water Pollution Control Lab.

Support/Miscellaneous

This CIP portfolio captures programmatic capital costs affecting multiple projects and programs discussed above, including the Bureau's Owner Controlled Insurance Program, software implementation, and project feasibility studies.

CIP-Related Operations and Maintenance

During the capital planning process, the bureau attempts to identify and document O&M costs associated with existing and forecasted capital improvements. To the extent available, forecast O&M costs are included in this Financial Plan. The recently created PMO is working to more rigorously connect O&M cost impacts to the long-term forecast and may result in adjustments to future forecast efforts.

OPERATING PROGRAM CONSIDERATIONS

Proposed Changes in Operating Program Expenditures and Customer Bill Impacts

The bureau's FY 2021-22 Requested Budget accounts for cost inflation (salary, benefits, materials, and services), contract adjustments, equipment replacement, regulatory requirements, and debt service associated with existing and future revenue bonds. The Financial Plan contains a total increase in revenue requirements of approximately \$70.0 million over the forecast interval, including \$41.2 million from increased operating expenditures, \$34.5 million from increased cash funding of the CIP, \$5.5 from increased General Fund overhead and utility license fees, and an offsetting reduction of \$19.6 million in debt service.

FIVE-YEAR FINANCIAL FORECAST

Forecast Assumptions

The following table shows the economic and other assumptions underlying the five-year forecast.

Economic and Other Assumptions – Current Year and Forecast Interval

	Current		Forecast			
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Economic Assumptions						
Inflation rates						
Personal Services (%)	2.90	2.49	3.34	3.34	3.34	3.34
External Materials & Services (%)	2.70	2.70	2.70	2.70	2.70	2.70
Internal Materials & Services (%)	2.65	2.51	2.51	2.51	2.51	2.51
Utilities (%)	2.40	2.24	2.24	2.24	2.24	2.24
Capital Outlay	2.57	2.61	2.61	2.61	2.61	2.61
Other (%)	2.56	2.60	2.60	2.60	2.60	2.60
Interest Earnings Rate (%)	0.75	0.50	0.75	1.00	1.25	1.50
Revenue Bond Interest Rate (%)	5.00	5.00	5.00	5.00	5.00	5.00
Bond Term (years)	25	25	25	25	25	25
Target Coverage - 1st Lien Debt	1.50	1.50	1.50	1.50	1.50	1.50
Target Coverage - 1st & 2 (Net Revenues/Debt Service)	1.30	1.30	1.30	1.30	1.30	1.30
Forecast Assumptions						
Minimum Operating Ending Fund Balance Target (# of Days' Operating Expenses)						
	270	270	270	270	270	270
City Overhead Growth Rate (%)	9.16	6.72	6.88	5.89	6.34	6.81
Utility License Fee (% of Rate Revenues)	5.00	5.00	5.00	5.00	5.00	5.00
Expenditure Rates (% of Budget)						
CIP	85.00	85.00	85.00	90.00	90.00	90.00
Personal Services	99.50	99.50	99.50	99.50	99.50	99.50
Materials and Services - External	97.00	97.00	97.00	97.00	97.00	97.00
Materials and Services - Internal	100.00	100.00	100.00	100.00	100.00	100.00
Other Assumptions						
Annual Customer Account Growth (%)	0.50	0.50	0.50	0.50	0.50	0.50
Single-Family Residential Account	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Annual Sewer Use Growth (%)						
Multi-Family Residential Account Sewer Use Growth (%)	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75
Commercial Account Sewer Use Growth (%)	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00

Forecast Sewer System Costs and Resources

Maintaining the current level of service within the operating program and funding requested capital improvements is projected to require typical annual single-family residential bill increases of 3.15% - 3.25% over the next five years. These increases are due to growth in annual system costs, partially offset by non-rate revenues and use of Rate Stabilization Fund balances.

System Costs

Annual system costs increase from \$580 million to \$639 million over the five-year financial forecast. These costs result from increased operating costs to support operation of system infrastructure, increased debt service from borrowings to fund CIP expenditures, and increased cash funding of CIP expenditures as the bureau achieves its goal of a 65/35 split between bond and cash funding in FY 2024-25.

- CIP expenditures are projected to total \$947 million over the forecast interval (including inflation and presumed under-expenditure rates). These expenditures are funded by sewer system revenue bonds, but also include substantial cash contributions (\$258 million over the five-year forecast interval) made possible by the retirement of some existing bond payments in FY 2022-23 and coverage requirements on sewer system revenue bonds (which generate cash above the annual bond payment amounts).
- The financial forecast includes the issuance of \$608 million in additional bonded indebtedness, resulting in \$42 million (+25%) of new annual debt service by the fifth year. However, as shown previously (see graph on page 10), retirement of existing debt issues in FY 2022-23 will actually reduce total debt service in FY 2023-24 and beyond, resulting in total annual debt service in FY 2023-24 that is \$27.5 million lower than total annual debt service in FY 2022-23. New bond sales are currently projected in FY 2022-23, and FY 2024-25.
- Total operations and maintenance expenditures increase by \$41.2 million over the forecast interval, an average annual increase of 5.9%.
- Utility License Fees are projected to rise an average of 4.8%, reflecting rate revenues rebounding after the pandemic reductions in FY 2020-21 and FY 2021-22.
- There are no cash transfers from the Operating Fund to the Rate Stabilization Fund projected during the first four years of this financial plan, as the forecast anticipates utilizing Rate Stabilization Fund balances through FY 2024-25.

System Resources

Forecast annual system revenues from all sources (excluding changes in the Operating Fund balance) increase by \$58.4 million over the five-year forecast interval. This is due primarily to the following:

- Annual revenues from rates increase by \$70.0 million during the forecast interval, an annual average increase of 4.7% per year. As mentioned previously, this exceeds the estimated single-family bill increase annual average of 3.17% as the commercial sector slowly recovers from the current economic recession.
- Reimbursements from the Construction Fund to the Operating Fund decrease by \$13.1 million over the forecast interval, as the capital improvement program is higher in the first two years of the forecast in response to completion of the Secondary Treatment Expansion Program (STEP) by the end of calendar year 2024.

- SDCs increase by \$4.3 million (approximately +7.6% annually) over the five-year forecast as the construction climate slowly recovers from the current pandemic-induced levels of activity.
- All other various revenues are forecast to increase \$2.3 million in total (+3.3% annually), resulting primarily from sale of Renewable Compressed Natural Gas upon completion of the CBWTP biogas fuel conversion project in calendar 2021.

The table on the following page shows forecast system costs and resources in more detail.

Forecast Revenue Requirement from Rates

In Thousands of Dollars

	2022	2023	2024	2025	2026
<u>O&M and CIP Expenses</u>					
Personal Services	\$73,058	\$77,932	\$86,006	\$90,974	\$97,266
Materials & Services - External	42,879	44,342	45,303	47,232	52,409
Materials & Services - Internal	42,022	43,864	46,911	47,902	49,157
Capital Outlay (non-CIP)	2,199	6,689	6,196	5,458	2,528
CIP	193,043	228,098	175,994	172,578	177,079
Cash Transfers:					
General Fund Overhead	6,830	7,300	7,730	8,220	8,780
Utility License Fees	17,250	18,872	19,558	20,147	20,794
Rate Stabilization Fund	-	-	-	-	13,150
Pension Obligation Bonds	4,984	5,183	5,391	5,606	5,831
Misc Other Expenses	38	30	23	16	8
Total O&M and CIP Expenses	\$382,302	\$432,313	\$393,113	\$398,134	\$427,002
Cash Transfers to Debt Redemption Fund:					
Existing First Lien Debt Service	\$27,782	\$27,790	\$35,961	\$35,976	\$25,030
Existing Second and Subordinate Lien Debt Service	144,961	144,940	93,996	86,462	86,465
Projected New Second Lien Debt Service	-	8,450	23,720	30,099	41,635
Cash Transfers to Construction Fund:					
Cash Contributed to CIP	24,830	28,530	74,274	70,625	59,313
Subtotal	197,573	209,710	227,951	223,163	212,443
Annual System Costs	\$579,875	\$642,022	\$621,065	\$621,297	\$639,445
<u>Less: Other System Resources</u>					
Reimbursement from Construction Fund	\$204,415	\$239,324	\$189,090	\$186,407	\$191,298
Systems Development Charges	12,824	12,626	15,248	15,404	17,165
Wholesale Sewer Contracts	4,279	4,387	4,497	4,610	4,726
Other Service Charges	1,750	2,622	2,689	2,765	2,835
Service Reimbursements	1,855	1,902	1,950	1,999	2,049
Rate Stabilization Fund Transfer	6,050	-	11,925	-	-
Other Cash Transfers	205	210	215	221	226
Product Sales	5,619	3,710	3,803	3,899	3,997
Inspections	273	559	573	588	602
Rents	171	175	180	184	189
Licenses and Permits	1,379	2,233	2,289	2,346	2,405
Interest on Investments	387	648	902	1,166	1,130
Miscellaneous	587	602	617	633	649
Others:					
less: Portland Harbor Rate Revenues	(6,995)	(5,787)	(5,580)	(5,583)	(5,586)
Accrued User Charge Revenues	1,800	3,100	1,500	1,200	1,300
Use/(Replenish) Fund Balance	(4,924)	(4,424)	(4,076)	(1,864)	(3,708)
Total Other Resources	\$229,677	\$261,888	\$225,823	\$213,973	\$219,278
Required Revenues from Rates (excluding accruals)	\$350,198	\$380,134	\$395,242	\$407,323	\$420,166

The following sections present more detailed revenue and cost information for the past five years ending with the current year and for the five-year forecast interval.

Financial Resources

Historical and Current-Year Projected Sewer System Financial Resources

In Thousands of Dollars

Fiscal Year Ending June 30					Projected	Five-Year
	2017	2018	2019	2020	2021	Totals
Revenues from Rates	\$330,533	\$344,178	\$346,938	\$354,020	\$328,274	\$1,703,943
System Development Charges	30,964	39,131	23,416	21,734	12,450	127,693
Wholesale Sewer Contracts	3,490	3,611	4,073	3,784	4,358	19,316
Rate Stabilization Fund Transfers	-	5,000	-	44,000	13,850	62,850
Other Revenues	11,846	21,520	15,815	11,474	7,218	67,873
Decrease/(Increase) in Fund Balance	507	(23,350)	12,271	(19,143)	27,241	(2,474)
Total	\$377,339	\$390,089	\$402,513	\$415,868	\$393,392	\$1,979,201

- Revenues from rates are projected to decrease 0.2% in FY 2020-21 compared to FY 2016-17 resulting from the pandemic-induced recession.
- SDC revenues peaked in FY 2017-18, as construction activity strongly rebounded from the 2010 recession, but has fallen since. As previously discussed, SDC increases contributed to larger fund balances which has allowed the bureau to meet the current recession with minimal rate impacts over the long-term forecast.
- Transfers from the Rate Stabilization Fund last fiscal year and this fiscal year were a result of responding to the current recession.
- Other revenues are also projected to decrease in the current fiscal year as the completion of the RCNG project has been delayed, along with its estimated revenue of \$3.3 million. Other reductions of about \$1 million are also occurring in most development-related revenues and interest earnings due to falling interest rates. The large increase in FY 2018-19 was from the sale of the property that was manufacturing and staging facility of the CSO Big Pipe project.

Forecast Sewer System Financial Resources

In Thousands of Dollars

Fiscal Year Ending June 30						Five-Year
	2022	2023	2024	2025	2026	Totals
Revenues from Rates (including accruals)	\$351,998	\$383,234	\$396,742	\$408,523	\$421,466	\$1,961,963
System Development Charges	12,824	12,626	15,248	15,404	17,165	73,267
Wholesale Sewer Contracts	4,279	4,387	4,497	4,610	4,726	22,500
Rate Stabilization Fund Transfers	6,050	-	11,925	-	-	17,975
Other Revenues	12,227	12,662	13,219	13,800	14,083	65,990
Decrease/(Increase) in Fund Balance	(4,924)	(4,424)	(4,076)	(1,864)	(3,708)	(18,996)
Total	\$382,454	\$408,485	\$437,555	\$440,472	\$453,732	\$2,122,698

- Revenues from rates, as shown above, are forecast to increase by an average of 4.6% per year over the forecast interval, mostly due to FY 2021-22 revenues still projected to be impacted by the current recession.
- Customer account growth is forecast to be at the historical average infill rate of 0.5% per year but is offset by assumed decreases in average billed volumes.

- SDC revenues are forecast to recover by a third (33.9% total, or 7.6% annually) but still half of what revenues were at their peak in FY 2017-18. Slower recovery, or further decreases in development activity than forecast would materially impact revenue collection and would likely compel adjustments to future year financial planning. (See *Other Factors Influencing the Forecast* section for additional information.)
- Transfers from the Rate Stabilization Fund to the Operating Fund are projected in two of the five years, FY 2021-22, and FY 2023-24, to smooth the additional debt service resulting from forecast bond sales.
- While a comprehensive rate study began during calendar year 2019, the total amount of financial resources required to meet system needs is not expected to materially change. Projections in this Preliminary Financial Plan reflect current rate structures. Future financial plans (beginning in FY 2021-22, or later) are expected to reflect results of the Comprehensive Rate Study.

Operating Expenditures by Expense Type

Historical and Current-Year Projected Operating Expenditures by Expense Type

In Thousands of Dollars

Fiscal Year Ending June 30						Projected	Five-Year
	2017	2018	2019	2020	2021	Totals	
Personal Services	\$50,809	\$55,308	\$60,481	\$67,047	\$69,850	\$303,495	
Materials & Services							
External	22,418	24,032	35,364	29,115	37,395	148,323	
Internal	33,384	34,073	36,904	42,296	42,759	189,417	
Capital Outlay (non-CIP)	2,569	4,718	4,409	26,529	17,351	43,176	
General Fund Overhead	6,064	6,170	6,602	5,863	6,400	30,868	
Utility License Fee	16,251	16,885	17,106	17,474	16,128	84,600	
Rate Stabilization Fund	31,500	34,000	24,000	-	-	123,500	
Pension Obligation Bonds	2,929	4,024	4,157	4,608	4,792	19,742	
Other	73	66	59	52	45	315	
Totals	\$165,996	\$179,275	\$189,081	\$192,983	\$194,719	\$909,655	

- Personal Services are projected to have increased an average of 8.3% per year over this five-year period, due to both additional operating staff positions (+3.9% annual growth, with salaries and wages increasing \$10.7 mil, 7.0% annually) and to large increases in pension and health care benefits (+\$8.3 mill, +10.8% annually.)
- External Materials and Services (excluding the Utility Franchise Fee) increased sizably in FY 2018-19, in part due to an increase in the base budget, increased biosolids hauling and disposal, and non-capital expenditures on the RCNG facility. FY 2019-20 subsequently dipped due to work disruptions from the pandemic and delayed contract billings but are projected to rebound in the current FY 2020-21 due to higher professional services, electricity costs, and resumption of nearly normal work processes.
- Internal Materials and Services grew by about 6.4% annually over the five years of the table above, but mostly due to a 14.6% increase in FY 2019-20 due to additional sewer maintenance services performed by the Bureau of Transportation's Maintenance Operations division (+\$1.1 million), the reclassification of cancelled capital projects (+\$1.6 million, the

largest being \$1.4 million from the Portland Building Renovation project which had to be reclassified as an operating expense to properly transfer the asset to the bureau), as well as other enhanced services approved in the budget process.

- Transfers from the Operating Fund to the Rate Stabilization Fund occurred in each of the first three years, mostly the result of additional SDC revenues reflecting the strong recovering economy after the 2010 recession.
- Capital Outlay (non-CIP) increased due to planned vehicle replacement schedules, with FY 2019-20 and FY 2020-21 reflecting the \$21.7 million and \$12.4 million, respectively, for the bureau’s portion of the \$195 million Portland Building Renovation project. The original budget for the bureau’s share of the project was \$37 million.
- General Fund Overhead charges remained relatively flat (+1.4% annual growth) over the five years, but not evenly due to a reduction in FY 2019-20 reflecting corrections from prior year overcharges.
- Utility License Fee expenditures decreased as rate revenues have decreased in FY 2020-21 as a result of the pandemic’s impact on the commercial sector.

Forecast Operating Expenditures by Expense Type

In Thousands of Dollars

Fiscal Year Ending June 30	2022	2023	2024	2025	2026	Five-Year Totals
Personal Services	\$73,058	\$77,932	\$86,006	\$90,974	\$97,266	\$425,236
Materials & Services						
External	42,879	44,342	45,303	47,232	52,409	232,166
Internal	42,022	43,864	46,911	47,902	49,157	229,857
Capital Outlay (non-CIP)	2,199	6,689	6,196	5,458	2,528	23,071
General Fund Overhead	6,830	7,300	7,730	8,220	8,780	38,860
Utility License Fee	17,250	18,872	19,558	20,147	20,794	96,622
Rate Stabilization Fund	-	-	-	-	13,150	13,150
Pension Obligation Bonds	4,984	5,183	5,391	5,606	5,831	26,995
Other	38	30	23	16	8	116
Totals	\$189,259	\$204,215	\$217,119	\$225,556	\$249,923	\$1,086,072

- Total operating expenditures are forecast to increase by approximately \$60.7 million, or 7.2% annually, but excluding the FY 2025-26 transfer to the Rate Stabilization Fund the increase is only \$47.5 million and 5.8% annual growth.
- Personal services expenditures are forecast to increase at an average annual rate of 7.4% based upon the projected average inflationary increase in wages and salaries of approximately 3.3%, an average annual increase in the number of positions of 3.4%, and an average annual increase for health care, PERS and other benefits of 9.7%. The City Economist has forecast that the PERS contribution rates (which have been weighted for the bureau’s mix of employees) will increase approximately 8% in FY 2021-22, 18% in FY 2023-24, and 14% in FY 2025-26, resulting in an estimated increase of \$6.9 million by the fifth year of the forecast.

- External Materials and Services are forecast to increase at an average annual rate of 5.1%, as continued emphasis on limited-duration planning, condition assessment, and biosolids application/inventory reduction increase in the later years.
- Expenses associated with Internal Materials and Services are forecast to increase at an average rate of 4.0%, compared to the 2.5% average annual increase projected for inflation over the same period, mostly the result of an additional maintenance crew projected to be added in FY 2022-23 and additional fish tissue and river sediment sampling services in FY 2025-26.
- Utility License Fee expenses will rise an average of 4.8%, reflecting the projected recovery in rate revenues over this period as a result of the pandemic.

Capital Expenditures by Program

Historical and Current-Year Projected Capital Improvement Expenditures by Program

In Thousands of Dollars

Fiscal Year Ending June 30					Projected	Five-Year
	2017	2018	2019	2020	2021	Totals
Maintenance and Reliability	\$54,457	\$56,016	\$72,403	\$50,115	\$49,085	\$282,077
Sewage Treatment Systems	13,890	21,173	33,935	36,392	60,395	165,785
Surface Water Management	10,875	10,875	10,875	10,875	10,875	54,374
Systems Development	8,269	1,371	4,266	7,270	8,541	29,717
Totals	\$87,491	\$89,436	\$121,479	\$104,652	\$128,896	\$531,953

- The Maintenance and Reliability portion of the CIP totaled \$282.0 million, or 53% of capital improvement expenditures over the five-year interval. Major expenditures included repair and rehabilitation work to address aging and failing pipes, and/or to address inadequate pipe capacity to mitigate sewage overflows. These projects are widely distributed throughout the older parts of the service area.
- Sewage Treatment Systems program expenditures at the Columbia Boulevard and Tryon Creek wastewater treatment plants totaled \$165.8 million over the interval, or 31% of capital improvement expenditures, and included the predesign on the Secondary Treatment Expansion project, the new SW 86th Ave pump station, RCNG, renovation of the sludge lagoons, and numerous pump station upgrades and improvements.
- The Surface Water Management program accounted for approximately \$54.4 million, or roughly 10% of capital improvement expenditures. Major expenditures in this program included the Bybee/Glenwood and Boones Ferry culvert replacements, flood plain restoration along Johnson Creek, the Grey to Green Initiative (including land acquisition and green street installations), UIC Improvements, and other culvert replacements to address water quality and fish passage.
- Systems Development projects totaled \$29.7 million, or roughly 6% of total capital improvements. Major expenditures included extension of sewers in the SW Terwilliger Blvd basin, stormwater improvements in association with streetcar and Milwaukie light rail projects, and the Party (non-conforming) Sewer abatement program.

Forecast Capital Improvement Expenditures by Program

In Thousands of Dollars

Fiscal Year Ending June 30	2022	2023	2024	2025	2026	Five-year Totals
Treatment & Resource Recovery	\$86,973	\$117,107	\$113,260	\$55,823	\$45,282	\$418,444
Collection System Pumping	16,489	21,661	16,709	26,746	32,321	113,926
San & Combo Collection System	59,757	63,793	22,641	43,980	52,738	242,909
Restoration & Remediation	8,337	10,434	12,105	26,779	11,659	69,313
Stormwater Management	13,880	9,460	6,683	12,684	29,773	72,480
Non-Process Prop & Facilities	3,655	2,023	1,800	3,426	1,918	12,823
Support/Miscellaneous	3,953	3,619	2,795	3,140	3,389	16,896
Totals	\$193,043	\$228,098	\$175,994	\$172,578	\$177,079	\$946,792

The table above reflects the new capital improvement programs recently introduced with the reorganization of the bureau. A brief description of each program's focus and projected costs are included below.

- Forecast total CIP expenditures for the five-year forecast interval are \$946.8 million.
- Forecast expenditures for the treatment & resource recovery program (assets that recover clean water and other resources from wastewater) of \$418.4 million are 44% of total capital expenditures over the five-year planning interval. Major projects include the CBWTP Secondary Treatment Expansion of nearly \$300 million, Rehab, Repair & Modifications shell project, CBWTP Headworks Screening Improvements, CBWTP Digesters 1-4 Upgrade, and CBWTP Wet Weather Clarifier Rehabilitation.
- Collection system pumping (assets that provide uphill pumping conveyance of wastewater) provides for the replacement and upgrade of the 98 pump stations and their pressure lines, and expenditures are forecast at \$113.9 million, or 12% of capital improvements over the five-year planning interval. Two-thirds of the work is within the Pump Station Improvement Program, which will respond to the most urgent rehab needs. Other projects include the Inverness Pump Station Force Main, Force Ave. Pump Station Remodel, and construction of the new NE 47th Ave. Pump Station that will open an area to new industrial development.
- Sanitary and combined collection system (assets that provide gravity collection and conveyance of wastewater) has expenditures that are forecast at \$242.9 million, or 26% of total capital expenditures over the five-year planning interval. This program rehabilitates or replaces segments of the system to protect the City's infrastructure investment in nearly all areas of the City. Major work will include the Large Diameter Sewer Rehabilitation projects, Pipe Rehabilitation Phase 3, Downtown Oldtown Pipe Rehabilitation, Hollywood-Stark-Sullivan Basin Replacement #17, and Party Sewers reconstruction, all of which will replace deficient pipes and prevent basement flooding. This program also supports construction of sewer and stormwater infrastructure required to support the private development efforts of others.
- The restoration and remediation program (assets that protect and improve aquatic and terrestrial natural features) is forecast at \$69.3 million, or about 7% of the total CIP. The largest projects include the Willamette River Eastbank Crescent Restoration, Watershed Land Acquisition Program, Johnson Creek Willing Seller Phase 2, Springwater Wetland, and the West Lents Floodplain Restoration.

- Forecast expenditures for stormwater management program (assets that provide water quality and conveyance for stormwater) total \$72.5 million and are 8% of the five-year CIP. This program includes built infrastructure projects in all of Portland's watersheds that address drainage and water quality issues while providing other watershed benefits such as flood management and fish and wildlife habitat. The largest projects include the Columbia Slough Outfalls, SW Capital Highway Stormwater Improvements, NW 9th/NW Hoyt System Improvements, Boise-Eliot Reconstruction & Green Streets, Stormwater Facilities Subsidence Repair program, stormwater retrofits, and numerous culvert replacement projects.
- The non-process property and facilities program (assets that provide property and facilities which support bureau operations) are forecast to expend \$12.8 million, or 1% of total capital expenditures over the five-year planning interval. Projects planned within the five-years window includes the CBWTP Dodd Building Rehab, the Water Pollution Control Lab (WPCL), WPCL Air Handler Replacement and two other capital maintenance and replacement shells for unspecified smaller projects.
- The support/miscellaneous program includes a total of \$16.9 million over the five-year planning period, or about 2% of the entire CIP. Projects included in this program provide benefits system-wide rather than to specific assets, such as the bureau's Owner-Controlled Insurance Program, where the bureau contracts for the insurance needs of all projects at a lower cost than any individual contractor could obtain, and partner with contractors to provide for incident prevention, worker safety and loss control. Other projects include implementation of a new asset management and maintenance management software system (a joint project to service both BES and the Water Bureau), and the new city-wide Community Opportunities and Enhancements Program dedicated to the support of greater equity in public contracting through enhanced technical assistance, recruitment, training and retention of a diverse workforce by firms seeking certification to bid on city contracts.
- Forecast capital expenditures will require additional debt issues totaling \$608 million between now and the end of the five-year interval, resulting in an additional \$42 million in annual debt service by FY 2025-26, an increase of 25% over current FY 2020-21 levels. However, retirement of existing debt issues in FY 2022-23 and FY 2023-24 will actually reduce total debt service in FY 2023-24 and beyond, as shown in the graph earlier in the document.

RISKS TO THE FORECAST

The following are considered risks to the forecast that could have a significant impact over the long-term. When possible, the forecast assumes some level of future cost and/or investment to address these risks. However potential costs are uncertain, and in some cases unknown.

Regulatory Considerations

National Pollutant Discharge Elimination System (NPDES) permit renewals and compliance

In January 2016, the ODEQ administratively extended the 2011 NPDES MS4 discharge permit. The new permit is expected to be issued in early 2021. The City's NPDES MS4 discharge permit includes requirements to evaluate program effectiveness at reducing applicable TMDL parameters. These requirements include developing pollutant load reduction estimates for any parameter with a stormwater TMDL Waste Load Allocation (WLA) approved by the USEPA. Every five years, the City is required to assess progress towards achieving each WLA that has not yet been met. As new TMDLs are developed and approved and with the issuance of the new NPDES MS4 permit, additional internal and external technical support will likely be required to address new requirements impacting operating budgets in FY 2020-21 and beyond.

Sanitary Sewer Overflows (SSOs) and combined sewer overflows (CSOs) are discharges of raw sewage from municipal sanitary and combined sewer systems at unapproved locations. The City's Columbia Boulevard Wastewater Treatment Plant NPDES Permit prohibits SSOs and dry weather CSOs. Wet-weather CSOs are allowable provided storm return frequency performance standards conditions are met and the City is operating and maintaining its combined system as specified in the permit and the EPA's Combined Sewer Overflow Policy. According to the Permit, ODEQ has enforcement authority for SSOs; however, ODEQ generally will not exercise this authority if the City is in compliance with the Capacity, Management, Operations, and Management (CMOM) Plan.

The CMOM Program Report, submitted to ODEQ in June 2013, identifies the work the bureau is currently implementing under the capital and operating funds to minimize SSOs and to properly operate and maintain the collection system. Annual reports document the performance of the CSO control and treatment system as well as the CMOM Program activities each fiscal year. The CBWTP NPDES Permit, renewed in July 2020, requires upgrades to the Hayden Island dechlorination facility by December 2022 to meet more stringent permit effluent limits for total residual chlorine. If the upgrades do not adequately lower total residual chlorine in the effluent, additional controls and/or projects will be required by ODEQ so that the CBWTP discharge meets water quality standards.

Willamette Basin Total Maximum Daily Load (TMDL) future conditions

The Willamette Basin TMDLs and temperature standard have been challenged under a series of suits which have yet to reach full resolution. Changes to the TMDLs could impact the City's future NPDES permits. The budgetary impact cannot be predicted at this time. Also, ODEQ's or USEPA's current and future 303(d) pollutant impairment listings will likely lead to future TMDLs and modifications to existing TMDLs.

Underground Injection Control (UIC) permit compliance

In May 2016, ODEQ issued the City a Water Pollution Control Facilities (WPCF) Permit for a second term authorizing the City to operate approximately 9,200 public UICs. The WPCF permit is a ten-year permit and expires in 2025. The City's WPCF UIC permit includes requirements to perform a

revised comprehensive system wide assessment every five years, perform stormwater monitoring, and evaluate emerging pollutants.

To meet these requirements, operations, monitoring, modeling, and technical resources will continue at current levels for FY 2021-22. Additional CIP funds are not expected in the near term however may impact CIP funds within the next five years if compliance status of UIC is impacted by pending federal decisions.

Portland Harbor Superfund obligations

In December 2000, the USEPA listed a portion of the Lower Willamette River, known as Portland Harbor, as a Superfund site under the Federal National Priorities Listing process. The City of Portland received General Notice Letters from the USEPA stating that the City may have liability for releases of hazardous substances, pollutants, or contaminants in the Willamette River.

The Portland Harbor Superfund investigation focused on a stretch of the Willamette River from approximately River Mile 2 to River Mile 12. The City, Port of Portland, and several Portland businesses entered into an Agreement on Consent with the USEPA which required that they perform and fund the investigation of the contaminated sediments. That investigation is complete. On January 6, 2017 the USEPA issued a remedy for the site via a Record of Decision.

The City's involvement with the Superfund site, which includes the anticipated cost for management, technical and legal work, is currently forecast at approximately \$44 million over the next five fiscal years, supported by special rates on the water/sewer utility bill and reimbursements from a city-wide Portland Harbor Reserve Fund funded by affected city bureaus. The required clean-up and restoration plan identified in the January 6, 2017 Record of Decision is estimated to cost \$1.0 billion (in current dollars) sitewide. However, the share of total implementation costs that will be allocated to the City and the bureau are currently unknown, and the City cannot at this time predict the financial impact on the bureau. Potential future capital costs associated with cleanup and natural resource restoration activities required by the Record of Decision are not yet reflected in the forecast. Forecast amounts will continue to be modified as more information becomes available.

System Asset Reinvestment and Risks

CBWTP secondary treatment expansion and facility replacements

The CBWTP NPDES Permit was reissued in July 2020. The Permit and the Mutual Agreement and Order (MAO) included the requirement to expand secondary capacity as described in the USEPA and ODEQ approved 2016. Updated Facilities Plan and No Feasible Alternative Analysis. by December 31, 2024. It is expected an evaluation of the secondary capacity expansion will be required for an updated Facilities Plan and No Feasible Alternatives Analysis in the next permit cycle (after 2025).

CBWTP biosolids handling

In FY 2018-19, the Bureau modified its strategy to reduce the biosolids inventory at the CBWTP solids lagoon. While this effort has stabilized, active evaluation for keeping up with incoming solids will continue to occur until the secondary process improvements project provides new solids handling process equipment. Operational cost increases to accelerate biosolids removal could develop in the next few years if biosolids inventories again exceed manageable levels prior to completion of the STEP (estimated FY 2025-26 or later).

Tryon Creek Wastewater Treatment Plant (TCWTP) asset replacement

The City of Lake Oswego, which shares in the cost of operations and maintenance of TCWTP, is exploring redevelopment of the TCWTP site by building and operating a new alternative treatment plant nearby. Implementation of such a plan would require significant unknown changes in the financial arrangements between the two cities. The current Financial Plan reflects expectations that TCWTP continues to operate under the current structure and agreement. Any future arrangement would need to be financially feasible and accommodable within the BES rate forecast prior to proceeding.

Natural infrastructure investments and operational impacts

The growing portfolio of green infrastructure assets, which includes natural areas and nearly 2,300 green street facilities, requires an increasing amount of operations and maintenance (O&M) funding to protect past capital investments and ensure stormwater management performance. Workload expectations of the Watershed Revegetation Program have increased significantly with the bureau's continued investment in green street assets and growing needs in vegetated natural areas. In FY 2019-20, BES began an incremental shift to a model that reduces currently contracted services in favor of in-house FTE to more efficiently address this challenge. If this strategy continues, increases in staffing costs are expected to be offset by more cost-effective maintenance and reductions to future capital reinvestment in these assets.

Other collection system assets (pipes and pump stations)

As discussed previously, BES has begun an ambitious plan to replace system collection and treatment infrastructure and to assess the need for increased investment in stormwater collection and management. Failure to complete these investments due to lack of revenue, major process delays, or competing priorities could result in increased risk and cost in years outside the forecast. Because the bureau's financial and rate plans extend beyond the five-year window of this report, increased costs/risks over the long-term could materially impact Five-Year Financial Plan development in future years.

In addition to upgrades at the two treatment plants, the bureau has committed to repairs of structurally deficient portions of the sewer collection system. The long-term financial forecast anticipates significant expenditures for capital maintenance of aging assets plus maintenance of new assets placed in service over the forecast interval. System cleaning, inspection, and repair are expected to remain a significant component of the operating budget over the next five years, accounting for nearly 12% of operating expenditures.

Seismic resiliency and impacts of climate change

The BES 10-year Strategic Plan includes a long-term commitment to improve system resiliency. This effort includes to develop a framework for incorporating resiliency into event response, system planning, facility design, and project implementation in order to improve resiliency of Portland's constructed and natural systems to climate change, emergencies, and other events. With this vision, the bureau has taken steps to prepare for such events, including taking actions to mitigate the potential effects of climate change and attempt to insulate the sewer and stormwater system against future seismic events.

The bureau completed a Resiliency Master Plan (RMP) to address resiliency to earthquakes and climate change by reducing the risk of infrastructure failure and improving the ability to provide critical services after a natural disaster. The RMP includes a range of capital and operating strategies

to address both seismic vulnerability and climate change over a 50-year timeframe. Costs to address seismic resiliency are beginning to impact capital project design and are reflected in the capital forecast when known. Future costs to further address seismic resiliency and address impacts of climate change will be added into the forecast as specific strategies are put into action.

COVID-19

The COVID-19 pandemic has impacted many aspects of the City's finances and operations as well as the local economy. Future impacts are expected to be significant and last for several years. Due to the COVID-19 pandemic and the business and social restrictions imposed to respond to it, the Bureau expects reduced demand for wastewater and stormwater services for an extended period of time.

In April 2020, in conjunction with the City's FY 2019-20 spring budget monitoring process and FY 2020-21 final budget submission, the Bureau undertook an in-depth review of the anticipated impact of COVID-19 on operations, including year-end revenue and expenses for FY 2019-20, projections for FY 2020-21, and assumptions underlying its financial forecast over the five-year interval FY 2021-22 through FY 2025-26. Between April 1, 2020 and December 30, 2020 billings were 5.5% below pre-pandemic expectations. During the same period, cash collections were 7.2% below pre-pandemic expectations. Low income discount participation has increased during the pandemic by approximately 15% compared to pre-pandemic levels.

The Bureau expects that impacts of the COVID-19 pandemic will continue during FY 2021-22 and beyond. Though current billings and collections are trending better than the originally anticipated 10% decline, the full revenue impact of the pandemic may not be evident yet as the breadth and depth of the economic impact continues to be uncertain.

The Bureau currently projects that FY 2020-21 Sewer System revenues, including rate revenues, SDCs, and other charges and fees, will decline relative to the most recent pre-pandemic forecast by approximately 14% (\$50 million). The current Bureau forecast assumes that rate revenues will return to more normal levels in November 2022, while SDC revenue will recover more slowly through FY 2023-24. Additionally, total capital spending targets have been reduced by 2-5% annually through FY 2024-25.

OTHER FACTORS INFLUENCING THE FORECAST

This financial forecast makes assumptions about factors internal to the bureau and the City such as program levels, and external factors such as inflation and borrowing costs. Changes to some of these factors may change the forecast. The following is a description of some of these factors, and the risks involved in unanticipated changes.

- The base financial forecast assumes a 1.0% decrease in average use per single-family residential customer, a 0.75% decrease in average use per multi-family customer, and a 1.0% decrease in average use per commercial and industrial customer, roughly consistent with recent history. But the impact of the pandemic health crisis has hit the commercial retail sector the hardest, as retail businesses have been required to remain closed or operate under significant restrictions. As such, commercial/industrial usage has declined such that revenues this fiscal-year-to-date as of December 31, 2020 are running about 11% under where they were over the same period last fiscal year. Meanwhile, residential consumption has increased by nearly 3%, with total residential revenues running slightly more than 5% above the same period last fiscal year. It is the combination of these two sectors that make up the forecast 10% revenue decline this year due to the pandemic. If consumption is lower than this assumption, adjustment to the forecast and future rate expectations could be required. Higher than projected consumption could facilitate a smaller increase in rates, increased capital investment, or an increase in the Rate Stabilization Fund balance to offset further unforeseen expenses or revenue reductions.
- Changes in interest rates will affect the cost of new debt. Any significant increase in interest rates over the forecast interval will increase the cost of new debt to fund capital improvements. New debt will account for slightly more than one-quarter of debt service requirements by the end of the five-year forecast interval. Lower than anticipated interest rates would reduce borrowing costs and therefore revenue requirements.
- Similarly, changes in interest rates also affect the interest earnings on the bureau's operating and capital cash balances. Increases in interest rates will also increase interest earnings, offsetting some of the impact of higher borrowing costs, while lower interest rates will erode some of the reduced borrowing costs.
- The forecast increases include best estimates of inflation over the forecast interval. An increase in the actual rate of inflation over the forecast inflation rate causes correspondingly higher rate increases.
- The last decade had seen a stark recovery from the Great Recession, with a strong rebound in all construction related fees and permits, most notably System Development Charges. The financial plan assumes construction activities will decline from levels experienced in recent years. If actual construction activity is less than the assumed level, System Development Charges and other construction related fees and permits would be lower than projected, putting pressure on other rates or requiring future expenditure reductions.
- BES has set a target of stable and consistent annual rate increases over the long-term. Decisions to reduce rates in a single year of the forecast (or material adjustments to strategic priorities) will alter the long-term path, impacting the bureau's risk profile, forecast assumptions, and future year revenue/rate requirements.

Equity Assessment Tool



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Bureau of Environmental Services

Requested Budget & Racial Equity Plan Update:

QUESTION: How does the Requested Budget advance the achievement of equity goals as outlined in the bureau's Racial Equity Plan?

BUREAU RESPONSE: The Bureau of Environmental Services ("The Bureau") operates and maintains Citywide sanitary sewer and stormwater collection systems. The Bureau is the City's lead agency for watershed protection and restoration and recovery of threatened salmon and steelhead species. The Bureau adopted its Equity Plan and 10-year Strategic Plan in 2016 and 2017, respectively, that include goals, desired outcomes, and strategic initiatives related to diversity, equity, and inclusion. Together, the Strategic and Equity Plans create a transparent framework to guide the Bureau's decision-making, activities, and investments, as well as how the Bureau delivers services to the community. The Bureau embarked on a journey toward transformational change and undertook a Transition Project to identify structures and processes bureau-wide to be improved to better position BES to achieve our strategic and equity plan goals and be more responsive to meet the needs of our community. The Transition Project resulted in recommendations for process improvements across the bureau, and a bureau-wide reorganization took place in February 2020.

Within weeks of reorganizing, most bureau members began working from home due to the COVID-19 pandemic, some for the first time. Since its inception in 1983, the Bureau has served Portland with an incredible passion for watershed health and public service. At its very core, the Bureau is a wastewater and stormwater utility built by industry leaders committed to excellence and innovation. Today, the Bureau's responsibilities related to public health, social justice, and shared governance are calling the Bureau to deliver services in radically new and important ways. In June of 2020 after the murder of George Floyd, which created public outcry and was but one in a long history of murders of Black and Indigenous community members nationwide, the Bureau's Leadership Team reassessed how the Bureau operates and agreed upon 3 priorities for the Bureau's work.

Below are the Leadership Team's agreed upon priorities, which are to be used to guide the work of the bureau and any budget request:

- i. Dismantling structural and organizational racism. This is an explicit responsibility of every BES employee and an important opportunity for everyone to learn more about history, increase our awareness around race and anti-racist practices, and enrich our ability to successfully interact with all customers/people/employees with different and diverse backgrounds.
- ii. Focusing on operational functions that are absolutely required to meet our regulatory and legal obligations, with an explicit commitment to the safety and well-being of our employees, our community, and the environment.

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iii. Continuing our in-progress priority process-improvement and organizational work, especially efforts related to clarifying roles and responsibilities, team-development, and governance (i.e. portfolio management).

The Bureau's work and, therefore, its FY 2021-22 Requested Budget are guided by its Strategic and Equity Plans, the impacts of COVID, and the abovementioned Bureau priorities, which include the Leadership Team's explicit commitment to dismantle structural and organizational racism, and, in so doing, embarking on a journey to become an organization that is racially equitable.

QUESTION: In what ways does the Requested Budget benefit Indigenous people, Black people, immigrants and refugees, people of color, and people with disabilities?

BURAU RESPONSE: Environmental Services' Requested Budget for FY 2021-22 has benefit to Indigenous people, Black people, immigrants and refugees, people of color, and people with disabilities because it aligns resources that allow programs to identify strategies and engage in activities to address equity related considerations impacting these various communities. The following are examples of budgeted programs and actions within the bureau that have benefits to Indigenous people, Black people, immigrants and refugees, people of color, and people with disabilities.

- As previously noted in the FY 2020-21 Budget Equity Assessment Tool, the Portland Harbor program is advancing Goal 2 of the Bureau's 2016-2021 Equity Plan – Equitable Service Delivery and Business Practices: Portlanders share the benefits and burdens of BES work equitably – by implementing Actions 2F and 2I, increasing public involvement interactions with communities of color and the disabled community and meeting regularly with organizations that support and represent historically underserved communities, respectively. The Portland Harbor Program recognizes past and current inequities and is actively promoting equity and environmental justice through meaningful involvement of Portland's diverse communities in the cleanup. Environmental Services developed the Portland Harbor Community Involvement Program in partnership with community groups to ensure that those who are disproportionately impacted by the contamination and/or cleanup itself have an opportunity to be meaningfully involved in the cleanup process. Among these communities are people who live near Portland Harbor or who have current or historical connections to it. This includes tribal members, urban Native peoples, Black people, other communities of color, immigrants, refugees, people experiencing homelessness, and people who are low-income. The Portland Harbor Program will also make funds available through dedicated community grants and sponsorships to build capacity, support public involvement, and ensure Superfund-affected communities have a voice in the remedy design phase through FY 2021-22.

- As previously noted in the FY 2020-21 Budget Equity Assessment Tool, the Portland Brownfield Program was created directly in response to an environmental justice initiative at the U.S. Environmental Protection Agency (EPA). From the Portland Brownfield Program's inception, a central goal has been to address the environmental burden that brownfields create in neighborhoods. This work aligns with Goal 2 of the

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burden that brownfields create in neighborhoods. This work aligns with Goal 2 of the Bureau's 2016-2021 Equity Plan around equitable service delivery and business practices. According to a recent Metro report, brownfields are three times more likely to exist in underserved communities. The program provides financial assistance to clean up sites that will provide benefit to existing community and has resulted in the development of affordable housing units on formerly environmentally contaminated lots.

- Also in support of Goal 2 of the Bureau's 2016-2021 Equity Plan around equitable service delivery and business practices, the Bureau's Strategy Program administers a National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm System (MS4) Discharge Permit that falls under the requirements of the federal Clean Water Act. The MS4 permit imposes requirements on the City relating to stormwater drainage, roadway infrastructure, municipal facilities, and other activities to protect and improve water quality of local waterways and is expected upon finalizing its renewal to include a new public process requirement for the Stormwater Management Plan revision. This will provide a new opportunity for the City to engage Black, Indigenous, and other people of color and communities in building equity issues into stormwater management strategies. In addition, the Bureau is also leading development of a mitigation pilot project with OMSI that genuinely engages with Tribes who will partner in the design and operation of the site.

- In support of Goals 2 and 3 of the Bureau's 2016-2021 Equity Plan regarding equitable service delivery and business practices and workforce equity, respectively, the Delivery Programs Community Partnerships program delivers water quality focused environmental classroom instruction and **[SEE ATTACHED ADDENDUM FOR CONTINUATION]**

Racial Equity Plan Link:

<https://www.portlandoregon.gov/oehr/70048>

Requested Budget Community Engagement:

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QUESTION: How has the bureau engaged with communities in the budget request to identify the priorities, particularly with Indigenous people, Black people, people of color, immigrants and refugees, multilingual, multicultural, and people with disabilities. How are these priorities reflected in this Proposed Budget?

BUREAU RESPONSE: Instituted on September 1, 2015, the Portland Utility Board (PUB) is a citizen oversight body for the Portland Water Bureau and Bureau of Environmental Services. The PUB also serves the budget advisory role for both utility bureaus. PUB's purpose is to advise the City Council, on behalf of and for the benefit of the Portland community, on the financial plans, capital improvements, annual budget development and rate setting for the City's water, sewer, stormwater and watershed services. The Board advises Council on the establishment of fair and equitable rates, consistent with balancing the goals of customer needs, legal mandates, existing public policies (such as protecting water quality and improving watershed health), operational requirements and the long-term financial stability and viability of the utilities. Environmental Services actively seeks input from the Portland Utility Board (PUB) to inform our communications, policy development, and budget decision-making. Additionally, the Bureau maintains an active relationship with the Oregon Citizens' Utility Board (CUB) as an advocate for residential ratepayers to advise on and inform Bureau priorities.

Base Budget Constraints:

QUESTION: What are the insufficiencies in the base budget that inhibit the bureau's achievement of equity or the goals outlined in the Racial Equity Plan?

BUREAU RESPONSE: Environmental Services' bureau-wide reorganization in 2020 presented a pivotal opportunity for the organization to prioritize action that reflects our values and vision of equity in service delivery and business practices across all service areas. While the Bureau's base budget includes funding for the Bureau's two Equity Managers, additional FTE with core equity and program competencies are needed across Bureau programs to properly capacitate, resource, and ensure that equity is included among the other drivers that inform investment decisions throughout the Bureau. Although there are encouraging signs that the Bureau is advancing toward the equity goals identified in its Strategic and Equity Plans, the Bureau's equity work would benefit from more dedicated funding and personnel embedded throughout Bureau programs to broaden implementation of the strategies that have been identified to move the work forward. COVID-19 has only exacerbated disparities for BIPOC communities and other vulnerable communities and underscores the importance of properly resourcing and elevating equity as an overarching principle to guide the Bureau's investment decisions.

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Notable Changes:

QUESTION: Have you made significant realignments or changes to the bureau's budget? If so, how/do these changes impact the community? Is this different for Indigenous people, Black people, immigrants and refugees, people of color, and/or people with disabilities?

BUREAU RESPONSE: Specific adjustments in the Bureau's FY 2021-22 Requested Budget that may have equity-focused impacts include:

- The Bureau's new organizational structure: BES shifted from 28 program offers to 16 that align to our new organizational chart. The new structure establishes connections across workgroups that allow Bureau teams to work more collaboratively, in an integrated manner that keeps work aligned with the Bureau's strategic objectives and aims to enhance the Bureau's approach to identifying risks, opportunities, and priorities, as well as project and program drivers that inform and clarify investment decisions.
- Creation of a new Delivery Programs Community Partnerships program: The Delivery Programs Community Partnerships program is a new program where a matrixed teams of community-facing programs, such as the Tree Program, Private Property Retrofit Program, and Columbia Slough Sediment Program, together with communications and engagement team members of the Community Watershed Stewards Program manage long-term partnerships and cultivate new relationships with individuals, underrepresented communities, and community-based organizations. This program's work includes expanding and protecting Portland's urban forest, prioritizing work in areas with low tree canopy, low-income residents, and communities of color; coordinating with Portland State University's Indigenous Nations Studies Program to provide partnership outreach activities for Black, Indigenous, and other communities of color to lead community watershed enhancement projects; and working closely with the Native American community on protecting and restoring healthy fish populations of significant cultural importance, including salmon and lamprey, and on opportunity areas for traditional First Foods.
- Continued support for the City's Financial Assistance Program and low-interest, deferred loans to qualifying low-income homeowners for mandatory and nonconforming sewer connections.
- Budget reductions in the Operations and Maintenance Collections Service Program that include \$6,637 for pump station operating supplies for odor control, and \$450,000 for force main condition assessments.
- Budget reductions in the Operations and Maintenance Watershed Program that include one-time \$50,000 joint process improvements with Portland Parks & Recreation. \$245,000 for a Memorandum of Understanding with Portland Parks &

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Recreation, \$270,000 for a memorandum of understanding with Portland Parks & Recreation that is set to end in July 1, 2021, and \$7,000 for aerial imaging and photo monitoring of flood conditions in Johnson Creek.

- Budget changes in the Strategy Program that entail the following: a request of \$100,000 for community engagement for a rate study and \$300,000 for a NPDES mixing zone study that will meet federal and state regulations. These additions are expected to specifically address the Bureau's strategic initiative to evaluate existing service delivery and decision-making systems so that those systems align with the Strategic Plan and deliver services equitably.
- Integrated Planning Program's discontinuation of internships during pandemic telework conditions by \$81,200 to offset expanding asset management analysis support in the same amount.
- CIP – Project Delivery Program where the COVID-19 crisis has shifted the CIP emphasis towards infrastructure projects addressing imminent threats or risk to human health and safety, asset failure, and projects addressing regulatory compliance. Projects to address longer-term needs, and those with less urgency have been postponed where possible.

Equity Manager Role in Budget Development

QUESTION: If the bureau has dedicated equity staff, such as an Equity Manager, how were they involved in developing the bureau's Requested Budget?

BUREAU RESPONSE: The Bureau's Equity Managers provided equity-centered feedback on the Equity Impact statements of the Bureau's Program Offers and drafted the Bureau's response to this Budget Equity Assessment Tool.

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ADA Title II Transition Plan:

QUESTION: If applicable, how is funding being prioritized to meet obligations related to Title II of the Americans with Disabilities Act and the bureau's Transition Plan barrier removal schedule?

BUREAU RESPONSE: As previously noted in the FY 2020-21 Budget Equity Assessment Tool, Environmental Services has prioritized funding to meet obligations related to Title II of the Americans with Disabilities Act through the Bureau's website re-design which is improving ADA accessibility and overall customer navigability for residential and commercial customers. The intent of this project is to address strategic initiatives related to communication improvements, providing equitable (ADA) access and making a community-oriented website where services are easier to find, access, and translate for all customers. In addition, the Bureau provides translation services, as needed, and ensures there is funding to maintain this service to community. An example of this can be found in the Strategy Program. In developing their program offer, the Strategy Program assessed its proposal using an equity lens that considered people, place, process, and power. These four features helped the Strategy Program to understand who is benefitting from their efforts; where are the benefits or harms being seen or felt throughout Portland; what communications and engagement processes are needed to meaningfully engage with communities and whether the Strategy Program is using accessible and culturally and linguistically-competent strategies and tactics; and how the work is genuinely involving BIPOC and marginalized communities in decision-making and building leadership in those communities. The Bureau continues to make advances in how funding is being prioritized to meet obligations related to Title II of the Americans with Disabilities Act, but more work is necessary.

The Bureau is continuing to address items on the ADA barrier removal schedule. A CIP project at the Water Pollution Control Lab will address most remaining issues when the parking lot is upgraded.

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Accommodations:

QUESTION: What funding have you allocated in the bureau's budget to meet the requirements of ADA (Americans with Disabilities Act) Title II and Civil Rights Title VI? This includes but is not limited to:

- Funding for translation, interpretation, video captioning, and other accommodations
- Translation of essential documents into safe harbor languages
- Engagement efforts with multilingual and multicultural communities

BUREAU RESPONSE: Environmental Services' Communications Division now sits within the Bureau Strategy Program. This is where there are supports for improved access to Bureau services and where funding has been allocated for language resources and culturally-specific outreach. The FY 2021-22 Requested Budget includes funding for continuation of these efforts.

Capital Assets & Intergenerational Equity

QUESTION: If the bureau has capital assets, how does the Requested Budget take into consideration intergenerational equity (ensuring that those who are currently benefiting from the service are paying for its upkeep versus placing the financial burden on future generations)?

BUREAU RESPONSE: As previously noted in the FY 2020-21 Budget Equity Assessment Tool, Environmental Services factors equity considerations into the risk evaluation and capital project prioritization processes, and infrastructure investments are identified through planning efforts based on risk, condition and the consequence of failure for existing assets, and new requirements such as regulatory or capacity needs. Aligning equity considerations across and throughout system planning, project delivery, and operations aims to address intergenerational equity by protecting current and future generations from environmental harms, such as system failures and climate change. The majority of the Bureau's CIP projects are financed by revenue bonds. Funding capital projects with long-term debt distributes the costs of the project over an extended period, aligning payment of costs with the users of the financed assets over time. This long-term financing option provides a stable payment structure that spreads the costs, risks, and benefits of a reliable infrastructure system across many years, and, in so doing, addresses intergenerational equity.

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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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	<p>QUESTION: How does the bureau use quantitative and qualitative data to track program access and service outcomes for different populations? Please provide the data source(s)</p> <p>BUREAU RESPONSE: Environmental Services (BES) uses quantitative and qualitative data to track program access and service outcomes through the use of several data frameworks and strategies as follows:</p> <ul style="list-style-type: none">• To evaluate community-focused programs like Portland’s residential Financial Assistance Program and Small Business Program for Utility Relief (SPUR), as well as community access to these programs. The Financial Assistance Program offers financial assistance to residential customers in the form of bill discounts for sewer and stormwater charges, crisis vouchers, payment arrangements, fixture repair services, and the Utility Safety Net program. In response to the financial burden of the COVID-19 pandemic, Environmental Services and the Portland Water Bureau allocated \$1.6 million dollars to provide financial support to Portland’s small businesses in the form of a one-time credit on City sewer, stormwater, and water bills. The SPUR prioritized businesses owned by Black, Indigenous, and all People of Color (BIPOC) and women, and the application and selection processes were driven by quantitative analysis of businesses’ City sewer, stormwater, and water charges and clear recognition that Black, Indigenous, and People of Color (BIPOC) communities are disproportionately affected by this crisis.• To monitor and track key recruitment and retention metrics and hiring outcomes through use of the Office of Equity and Human Rights workforce demographics dashboard and the Bureau of Human Resources’ dashboard. Continual analysis of workforce data to identify trends at each phase of the hiring process and each stage of the employee life cycle helps to inform enhancements to existing practices and processes, as well the development of new workforce equity strategies.• To identify system needs and prioritize investments in stormwater management to improve levels of service to customers. This allows BES to systematically and equitably allocate resources to address stormwater problems and				
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**Data Tracking
Methodology:**

allocate resources to address stormwater problems and prioritize solutions with the greatest system and community benefit.

- To strategically support DMWESB businesses on how to conduct business with Environmental Services and meet City business requirements. The Bureau has tracked DMWESB business utilization in contracting since 2009 and utilizes Procurement's Contract Compliance Reporting System (CCRS) to more thoroughly analyze contracting equity metrics and qualitatively assess this work.

BES also gathers qualitative data through focus groups and other outreach activities focused on BIPOC and other communities that have been marginalized by inequitable practices and systems. Based on the historic use of data to negatively impact Indigenous people, Black people, immigrants and refugees, people of color, and people with disabilities to the Bureau, the Bureau is mindful of the way in which data is collected, analyzed, used and reported.

The Bureau continues to build skill in race-centered Results-Based Accountability (RBA) and introduced a growing number of Bureau members to the RBA methodology. Environmental Services is working towards assembling a community of RBA champions to center racial equity in program development and implementation, planning, and decision making. The quantitative and qualitative data derived from the Bureau's application of the RBA methodology will help the Bureau create performance metrics that center racial equity, better understand the impact and success of its equity efforts, and guide future strategies or policies that bring about equitable outcomes and racial-equity systems change.

QUESTION: What additional disaggregated demographic data will the bureau collect, track, and evaluate to assess equity impacts in community moving forward, and inform future budget decisions?

BUREAU RESPONSE: With awareness that COVID-19 has only exacerbated disparities for communities of color – especially for Black and Indigenous communities – as well as other vulnerable communities, the Bureau's Equity Team introduced the Race, Equity, and Leadership (REAL)

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Framework for COVID-19 Response for Bureau use. As the bureau institutionalizes the use of tools and resources such as the REAL Framework for COVID-19 Response, the Budget Equity Strategy Tool (BEST), Tips to Hire, Recruit, and Interview for Equity (THRIVE), and the racial-equity-centered Results-Based Accountability framework, additional disaggregated demographic data will be collected, tracked and evaluated by the Bureau over time to evaluate equity impacts in community moving forward and inform future budget decisions.

QUESTION: What additional disaggregated demographic data will the bureau collect, track, and evaluate to assess equity impacts in community moving forward, and inform future budget decisions?

[SEE ATTACHED ADDENDUM FOR CONTINUATION]

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Hiring, Retention, & Employment Outreach:

QUESTION: Please take a look at the City of Portland's workforce demographic dashboard: <https://www.portlandoregon.gov/oehr/article/595121>. How does the bureau's Requested Budget support employee equity in hiring, retention, and inclusion, particularly for Indigenous people, Black people, immigrants and refugees, people of color, and people with disabilities?

BUREAU RESPONSE: As previously noted in the FY 2020-21 Budget Equity Assessment Tool, the Bureau employs an Equity and Workforce Development Manager to lead development of strategic analyses to embed equity into all Bureau workforce development policies, practices, and operations in effort to expand and support a diverse workforce throughout the breadth of positions in the Bureau. In 2020, the Equity and Workforce Development Manager presented THRIVE (Tips to Hire, Recruit, and Interview for Equity) to Leadership as a bureau-wide resource. Tools like the THRIVE are intended to enhance practices and procedures that embed equity into the bureau's hiring and recruitment process and aims to guide and support the bureau in building a diverse, high-performing workforce. The Equity and Workforce Development Manager also partnered with the Green Workforce Collaborative to introduce workforce development programs with a specific focus on Indigenous people, Black people, immigrants and refugees, people of color, and people with disabilities to the Bureau. In addition, the Equity and Workforce Development Manager partnered with the Bureau's Committee for Equity and Diversity's Recruitment and Retention Sub-Committee to design equity-focused interview questions that are accompanied by a complementary scoring rubric to help guide evaluation of candidates' responses.

As previously noted in the FY 2020-21 Budget Equity Assessment Tool, the Equity and Workforce Development Manager employs a holistic approach to advance equity in hiring, retention, and inclusion by leading the Bureau in proactive implementation of equitable workforce development policies, practices, and actions, as well as helping to influence culture and attitudes within the Bureau that will produce related equitable outcomes. The Equity and Workforce Development Manager aligns strategies and Bureau efforts with the City's equity goals and the Bureau's Strategic and Equity Plans, and partners Citywide on strategies, champions internal and inter-bureau workforce development initiatives, and works closely with internal Bureau members.

Although all strategies aim to diversify the Bureau's workforce in a manner that reflects the demographics of the region, the Bureau still has much work to do to ensure continued improvement in hiring outcomes, including equitable opportunities for professional growth and advancement. This work includes disaggregating demographic data, developing specific racial equity measures, and conducting additional racial equity analyses to inform and improve future efforts.

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Contracting Opportunities

QUESTION: If applicable, how does the bureau's budget create contracting opportunities for disadvantaged, minority, women, and emerging small businesses (D/M/W/ESB)?

BUREAU RESPONSE: Environmental Services supports the Contracting Opportunities Program, which encourages the utilization of State of Oregon-certified Disadvantaged, Minority, Women, and Emerging Small Businesses (DMWESB) in Bureau contracting. The following are examples of ways in which the Bureau creates contracting opportunities for D/M/W/ESB firms:

- CIP/ Delivery Program notes significant CIP budget in FY 2021-22 and subsequent years for improvements at the Columbia Boulevard Wastewater Treatment Plant (CBWTP). The facility is located in North Portland and is a major asset serving the entire Portland community. The CBWTP Secondary Treatment Expansion Program (STEP) will ensure continued protection of water quality discharged to the Columbia River with greater biological treatment capacity and more resilient assets. The bureau is leveraging STEP to advance equity in both professional services and construction contracting. This includes a pilot D/M/W/SDV/ESB development program on the largest professional, technical, and expert contract in the bureau and the City's first Community Benefits Agreement that focuses on setting out uniform standard working conditions for the efficient performance of construction work on STEP. This ensures that public money spent supports City goals of providing beneficial working conditions and increased workforce and contracting diversity on its construction projects, including in apprenticeship.
- Beyond STEP, equity in contracting is also a key part of administering more than 40 on-call PTE contracts for project support services such as civil and structural engineering, permitting, and water quality expertise. Staff monitor and encourage D/M/W/SDV/ESB firm utilization and provide one-on-one support to these firms regarding the City's contracting processes and BES project delivery processes.

Engaging Communities Most Impacted by Inequities

QUESTION: How does this budget build the bureau's capacity to engage with and include communities most impacted by inequities? (e.g., improved leadership opportunities, advisory committees, commissions, targeted community meetings, stakeholder groups, increased engagement, etc.)

BUREAU RESPONSE: The following are examples of how this budget builds the

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Requested Budget Equity Report

bureau's capacity to engage with and include communities most impacted by inequities:

- In March of 2020 when a significant number of bureau members began teleworking due to the global COVID-19 pandemic, the Bureau focused on creating a more person-centered work environment. This moved the Bureau away from a one-size-fits-all equality approach to a targeted universalism equity approach of using unique and varied supports to meet the needs of bureau member. The shift to a person-centric wellbeing approach supports the Bureau's equity work as it acknowledges the humanness of each employee, which involves enabling individuals to be acknowledged as being made up of many different and intersecting identities.
- In June of 2020 after the murder of George Floyd, which created public outcry and was but one in a long history of murders of Black and Indigenous community members nationwide, the Bureau's Leadership Team reassessed how the Bureau operates. From this reassessment, the Bureau started race-based affinity listening sessions and workshops bureau wide. The Bureau's Leadership Team began work exploring how they are complicit in marginalization and how they can lead an equitable bureau. The Bureau's Project Management Office piloted a program for exploring equity in their work. And coaching was made available to all managers and bureau members to unpack complicity in perpetuating racist structures.
- During 2020, the Bureau's Committee for Equity and Diversity (CED) began to take a particularly active role in employee education and peer support regarding race literacy and created the BES Racial Justice Literacy Library.
- The Technical Services Information System and Mapping Program is working to increase data access and transparency to the community. The Technical Services Environmental Information Program is engaged in a study of COVID-19 in wastewater, and the project was shaped in partnership with Black, Indigenous, and People of Color organizations to identify monitoring locations in neighborhoods with higher risk populations that would benefit most from early detection of rising infection.
- In addition, and as previously noted in the FY 2020-21 Budget Equity Assessment Tool, the Bureau's Portland Harbor Program recognizes past and current inequities and is actively promoting equity and environmental justice through meaningful involvement of Portland's diverse communities in the cleanup. This includes tribal members, urban Native peoples, Black people, communities of color, immigrants, refugees, people who are houseless, and people who are low-income.

Funding for the equity work that began in 2020 is budgeted for and continues into the FY 2021-22.

City of Portland
Requested Budget Equity Report

Empowering Communities Most Impacted by Inequities

QUESTION: How does this budget build community capacity and power in communities most impacted by inequities? (e.g., improved leadership opportunities within Bureau Advisory Committees, community meetings, stakeholder groups, increased engagement, etc.)

BUREAU RESPONSE: The FY 2021-22 Requested Budget enables Environmental Services to focus on building community capacity to empower awareness of communities most impacted by inequities as follows:

- The Community Watershed Stewardship Program coordinates with the City's New Portlander Program to provide partnership outreach activities to immigrant and refugee communities.
- The Columbia Slough Sediment Program coordinates with Community Engagement Liaisons to do outreach about sediment contamination and fish consumption to immigrant and houseless communities who fish in the slough.
- Watershed Management partners with the Johnson Creek and Columbia Slough Watershed Councils, which serve racially diverse and low-income neighborhoods in N, NE and SE Portland.
- The Portland Harbor Program actively promotes equity and environmental justice through meaningful involvement of Portland's diverse communities in the cleanup. Environmental Services developed the Portland Harbor Community Involvement Program in partnership with community groups to ensure that those who are disproportionately impacted by the contamination and/or cleanup itself have an opportunity to be involved in the cleanup process.



IDENTIFYING IMPACTS WORKSHEET

Please use the following chart as a template to name the potential burdens and benefits.

Populations Impacted	Potential Positive Impacts	Potential Negative Impacts
<p>Program/Initiative: Portland Harbor</p> <p>Populations Impacted: Tribal members, urban Native peoples, Black people, communities of color, immigrants, refugees, people who are experiencing houseless, and people who are low-income</p>	<p>Portland Harbor Program will also make funds available through dedicated community grants and sponsorships to build capacity, support public involvement, and ensure Superfund-affected communities have a voice in the remedy design phase through FY 2021-22.</p>	<p>Inadequate funding of this program will have negative impacts to public health, community partnerships and engagement.</p>
<p>Program/Initiative: Strategy Program administration of City's NPDES MS4 Permit</p> <p>Populations Impacted: Black, Indigenous, and other people of color, immigrants, refugees, people who are experiencing houseless, and people who are low-income</p>	<p>New opportunity for the City to engage black, indigenous, and other people of color as well as other communities in building equity issues into stormwater management strategies</p>	
<p>Program/Initiative: Bureau's Delivery Programs – Community Partnerships Program</p> <p>Populations Impacted: Youth K-12 and Tribal members, urban Native peoples.</p>	<p>The program coordinates with Portland State University's Indigenous Nations Studies Program to provide partnership outreach activities for Black, Indigenous, and other communities of color to lead community watershed enhancement projects. The program also works closely with the Native American</p>	<p>Reduced funding would contribute to increased loss of areas where first-foods are available; thus, further exacerbating and negatively impacting resilience for Tribes and urban Native peoples.</p>

	community on protecting and restoring healthy fish populations of significant cultural importance, including salmon and lamprey, and on opportunity areas for traditional First Foods.	
<p>Program/Initiative:</p> <p>Technical Services - Environmental Information Program</p> <p>Populations Impacted:</p> <p>Neighborhoods with higher risk populations, regional Tribes and the Native community</p>	<p>Monitoring of COVID-19 in wastewater and its impacts</p>	
<p>Program/Initiative:</p> <p>Nonconforming Sewer Program</p> <p>Populations Impacted:</p> <p>Minority or low-income homeowners</p>	<p>Helping existing property owners resolve issues related to nonconforming sewers can help those residents stay in their homes and/or reap full value of their property at the time of sale.</p>	

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Name of Staff Contact

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Name of Bureau Director

Date: January 26, 2021

Rev: December 2020

ADDENDUMS TO BES BUDGET EQUITY TOOL

There was insufficient space in the budget system to support the full responses from BES. Below are the completed responses.

Addendum #1 - continuation from “Requested Budget & Racial Equity Plan Update” section:

- *...hands-on learning experience in the field, and develops programs and projects of interest to a wide variety of K-12 students throughout the five school districts within the Portland area. This includes hosting a summer intern cohort for students from marginalized communities and supporting activities to promote interest in environmental careers. The Community Partnerships program also coordinates with Portland State University’s Indigenous Nations Studies Program to provide partnership outreach activities for Black, Indigenous, and other communities of color to lead community watershed enhancement projects. The program also works closely with the Indigenous community on protecting and restoring healthy fish populations of significant cultural importance, including salmon and lamprey, and on opportunity areas for traditional First Foods. This was identified in the 2005 DEQ Columbia Slough Sediment Record of Decision as the most significant source of human exposure to contaminants in the Columbia Slough.*
- *In support of the BES Strategic Plan and Goal 2 of the Bureau’s 2016-2021 Equity Plan related to equitable service delivery and business practices, the Technical Services Environmental Information Program is currently partnered and supporting a study of COVID-19 in wastewater, and the project was shaped in partnership with Black, Indigenous, and People of Color organizations to identify monitoring locations in neighborhoods with higher risk populations that would benefit most from early detection of rising infection. Citywide services, such as those provided by the Biological Sciences team, are designed to reflect interests of regional Tribes and the Native community on protecting and restoring healthy fish populations of significant cultural importance, including salmon and lamprey.*
- *The Nonconforming Sewer Division within the Engineering Services Design Services Program identifies and supports potentially eligible candidates in accessing the available financial assistance and deferred payment options to resolve issues related to nonconforming sewers. Many properties subject to this program are located on older, smaller and subdivided lots, and some areas overlap with a high percentage of minority and/or low-income Census tracts. Helping existing property owners resolve issues related to nonconforming sewers can help those residents stay in their homes and/or reap full value of their property at the time of sale. This aligns with Goal 2, Action 2h, of the Bureau’s 2016-2021 Equity Plan around examining bureau policies, practices, and procedures to assess the impact of institutionalized disparities on communities of color and the disabled community.*

QUESTION: In what ways does the Requested Budget negatively impact Indigenous people, Black people, immigrants and refugees, people of color, and people with disabilities?

BUREAU RESPONSE: During FY 2020-21, Environmental Services made active efforts to build equity literacy throughout the Bureau to enhance equity integration into Bureau programs and activities. Resources such as the BES Budget Equity Strategy Tool (“The BEST”) and an associated guidebook to clarify the principles and components of integrating equity into program implementation and delivery of services were adopted for use in developing the requested budget for FY 2021-22 and subsequent budgeting cycles. The BEST includes a set of questions and actions to guide the bureau in assessing, prioritizing, and integrating equity in budget decisions and Program Offers, and incorporates a racial-equity-centered Results-Based Accountability methodology.

As equity skills are further developed at the Bureau and use of the BEST tool and guidebook are comprehensively integrated into the Bureau’s budget development process, systematized equity integration into the Bureau’s budget development processes should improve in successive years. Recognizing that there is still work to be done internally to integrate equity as a guiding force in all the Bureau’s work, the Bureau’s FY 2021-22 Requested Budget is not fully developed to address or mitigate the scope of disparities impacting Indigenous people, Black people, immigrants and refugees, people of color, and people with disabilities.

The below-referenced programs and actions are ways in which the Bureau’s Requested Budget has the potential to negatively impact the above-described communities. While these programs offer benefit, the benefits they provide can also negatively impact Indigenous people, Black people, immigrants and refugees, people of color, and vulnerable communities by contributing to the displacement of those communities.

- The Bureau is working on establishing a bureau culture that advances workforce equity, supports the goals of our 2016-2021 Equity Plan, and adopts and empowers a diverse and inclusive workforce at the bureau by normalizing bureau-wide the use of tools like THRIVE: Tips to Hire, Recruit, and Interview for Equity, as well as the practices described therein. Tools like the THRIVE resource are intended to enhance practices and procedures that embed equity into the bureau’s hiring and recruitment process and aim to guide and support the bureau in building a diverse, high-performing workforce. However, the Bureau’s Transition Project, City’s hiring moratorium, revenue shortfalls, and budget constraints stemming from the impacts of COVID-19 have the potential to adversely impact the hiring of Indigenous people, Black people, immigrants and refugees, people of color, and vulnerable communities into the bureau. Although the Bureau will maintain a Current Service Level budget for 2021-22 without any staff reductions, BES is not requesting any new FTE for FY 2021-22 and proposes to discontinue internships in the Integrated Planning Program during pandemic telework conditions by \$81,200, which may limit the recruitment pathways for more diverse talent to join the Bureau. The Bureau’s existing workforce is 80% white, and the Bureau will need to continue work to diversify its workforce amid these constraints while actively prioritizing existing vacancies to fill the most critical personnel needs.*

The Bureau has a role to play in mitigating gentrification of neighborhoods. In 2020, the Bureau initiated a new project management governance structure within the CIP/Project Delivery Program to provide clearer direction and oversight of CIP projects. At certain decision points or “stage gates”, a BES internal committee reviews and approves projects to move

forward through the design process. The review focuses on many factors, including equity and the potential impacts of projects on BIPOC communities. While this structure starts to build clearer decision-making paths and accountability in the bureau that will support deeper and more consistent examination of equity in project delivery across each decision point, this governance structure may inadvertently lead to negative impacts for Indigenous people, Black people, immigrants and refugees, people of color, and vulnerable communities without the development of co-mitigation strategies to prevent contributing to the displacement of these communities.

Addendum #1 - continuation from “Performance Data” section:

...BUREAU RESPONSE: With awareness that COVID-19 has only exacerbated disparities for communities of color – especially for Black and Indigenous communities – as well as other vulnerable communities, the Bureau’s Equity Team introduced the Race, Equity, and Leadership (REAL) Framework for COVID-19 Response for Bureau use. As the bureau institutionalizes the use of tools and resources such as the REAL Framework for COVID-19 Response, the Budget Equity Strategy Tool (BEST), Tips to Hire, Recruit, and Interview for Equity (THRIVE), and the racial-equity-centered Results-Based Accountability framework, additional disaggregated demographic data will be collected, tracked and evaluated by the Bureau over time to evaluate equity impacts in community moving forward and inform future budget decisions.





ON THE COVER: The Taggart Outfall Sewer Project will repair the 114-year-old Taggart Outfall—a large, brick sewer tunnel located deep underground. This critical sewer line serves Southeast Portland. Repairs will increase the sewer’s resiliency, extend its service life for up to another 100 years, and help prevent sewage releases.



ENVIRONMENTAL SERVICES
CITY OF PORTLAND


working for clean rivers



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Traducción o interpretación | Chiakun mak me chiakun fos | Chuyển Ngữ hoặc Phiên Dịch
| 翻译或传译 | 翻訳または通訳 | Письменный или устный перевод |

Traducere sau Interpretare | Письмовий або усний переклад | Turjumida ama Fasiraadda |
الترجمة التحريرية أو الشفهية | ການແປພາສາ ຫຼື ການອະທິບາຍ | अनुवाद तथा दोभाषे सेवा

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