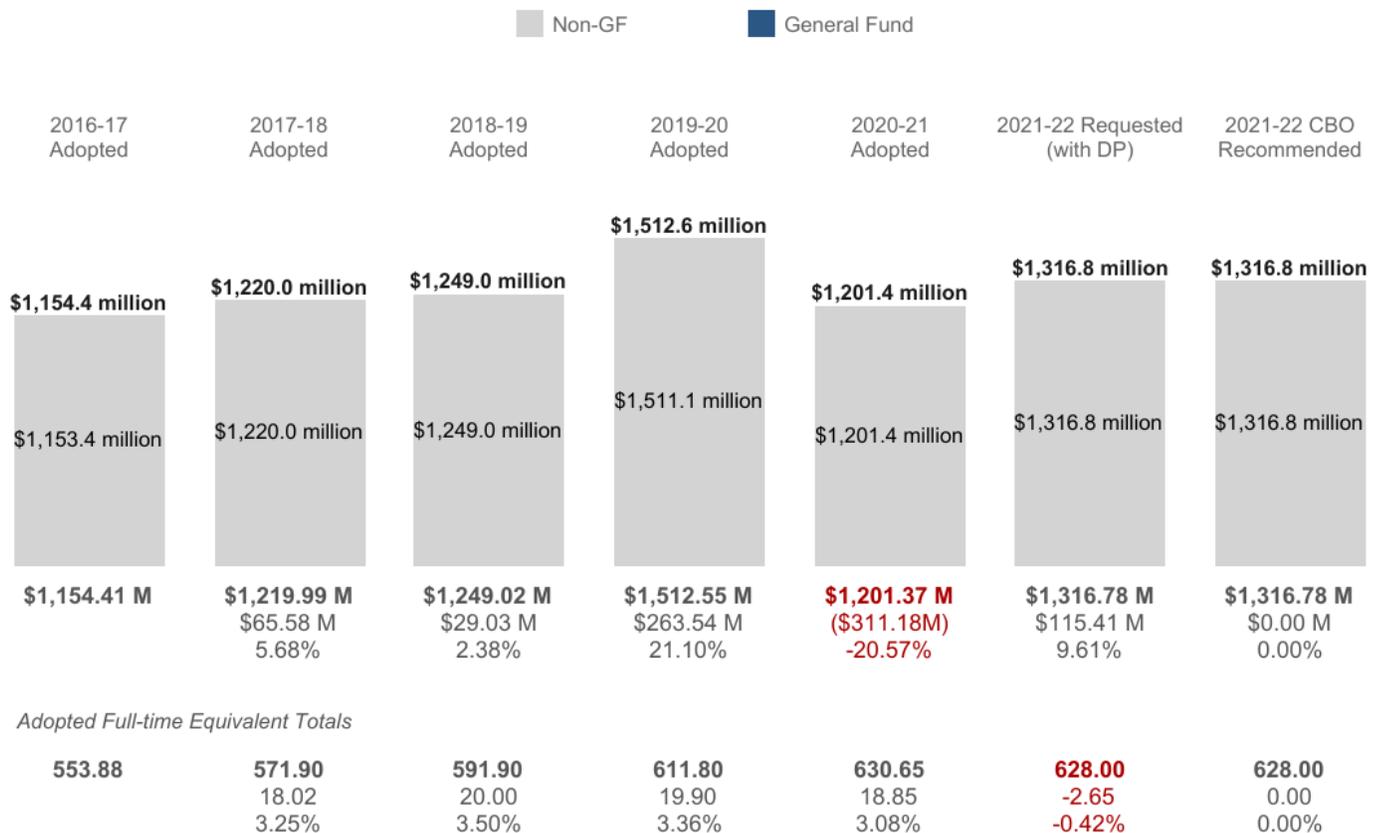




# Bureau of Environmental Services

*Analysis by Yung Ouyang*

## Adopted Budget Revenues | 5-Year Lookback



## INTRODUCTION

The Bureau of Environmental Services' (BES) FY 2021-22 Requested budget includes \$183.8 million in operating expenses and \$227.1 million in capital expenses for a total budget of \$410.9 million. This is a 11.0% increase from the FY 2020-21 Revised Budget of \$370.1 million. The bureau's Requested Budget includes \$448.0 million in beginning fund balance across all of its funds.

- There are no decision packages and no new positions in the FY 2021-22 Requested Budget,

leaving the bureau’s total number of FTEs authorized for FY 2021-22 at 628.

- The capital budget is increasing by 55.0% from the FY 2020-21 Revised Budget, with the most significant increase associated with a \$28.9 million increase to fund the expansion of secondary treatment at the Columbia Boulevard Wastewater Treatment Plant (CBWTP).

## BASE BUDGET KEY ISSUES

### Rate Forecast and Affordability

The FY 2021-22 Requested Budget for BES assumes a rate increase of 3.15% above the FY 2020-21 rates for the typical single-family household. This amounts to an average bill increase of approximately \$2.45 per month or \$7.35 per quarter. With this proposed increase, the typical single family residential monthly bill will be \$80.30 per month or \$240.90 per quarter. Combined with the Portland Water Bureau’s requested rate of increase of 7.8%, the typical single-family household would experience a 4.8% increase above FY 2020-21 rates for a typical total combined monthly bill of \$128.69, which equates to \$386.07 quarterly.

The rate of increase is consistent with the 3.15% rate of increase projected in the financial plan BES submitted during the FY 2020-21 budget development process. The table below provides the projected annual rates of increase for BES, currently at 3.15% each year for the next four years. By the end of the five-year forecast period, the typical single family residential bill is expected to increase by \$13.14 to \$90.99 per month or 16.9% above current (FY 2020-21) levels.

	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
<i>FY 2021-22 Plan</i>	3.15%	3.15%	3.15%	3.15%	3.25%
<i>FY 2020-21 Plan</i>	3.15%	3.15%	3.15%	3.15%	

Despite the somewhat stable trend in the rate of increase for BES over the next five years, the increase does exceed the 2.5% increase in consumer price index (CPI-W) forecasted by the Bureau of Labor Statistics.<sup>1</sup> One of the bureau’s Key Performance Measures (KPM) is a measure of affordability of service. This measure assesses the typical household bill as a percentage of median household income and currently shows that BES’s share of the typical bill is about 1.3% of the projected median household income. Combined with the Water Bureau portion of the bill, the total utility bill constitutes approximately 2.3% of median household income in Portland. Utility bills impact households in Portland differently. Compared to white households, communities of color, and particularly black households in Portland, typically devote a higher portion of their household income to the combined utility bill. For example, black households currently spend approximately 5.5% of their household income on their water and sewer bill compared to white households who spend about 2.3%. The FY 2021-22 requested rate would

<sup>1</sup> US Bureau of Labor Statistics. 2021. [https://www.bls.gov/regions/west/news-release/consumerpriceindex\\_west.htm](https://www.bls.gov/regions/west/news-release/consumerpriceindex_west.htm)

increase the portion of income spent on the combined utilities to about 5.8% for black households and 2.4% for white households.<sup>2</sup>

Citywide performance measures on utility bill affordability were recently added for the FY 2021-22 budget development process. These calculate the annual combined utility bill as a percentage of various income levels (mostly the lowest quintile), household types (single family residential vs. all households), and discount levels (Tiers 1 and 2). Customers receiving a Tier 1 discount have their bill reduced by 50%, while Tier 2 customers receive an 80% discount. Data on actuals for the last two years, the estimate for the current year, and the target for FY 2021-22 point towards slightly downward trends for all six of these new measures, which is an indication of positive performance.

<b>Annual combined utility bill as a percentage of .....</b>	<b>FY 2018-19 Actual</b>	<b>FY 2019-20 Actual</b>	<b>FY 2020-21 Estimate</b>	<b>FY 2021-22 Goal</b>
Median household income	2.44%	2.40%	2.25%	2.27%
Lowest quintile of household income	6.03%	6.22%	5.81%	5.55%
Lowest quintile of household income with Tier 1 discount	3.53%	3.46%	3.18%	3.09%
Lowest quintile of household income with Tier 2 discount	2.03%	1.81%	1.67%	1.61%
Lowest quintile of single family residential household income with Tier 1 discount	1.99%	2.11%	2.02%	1.88%
Lowest quintile of single family residential household income with Tier 2 discount	1.14%	1.10%	1.06%	0.98%

The lowest quintile is the income level that 20% of households make less than, or 80% of households make more than. The utility bureaus selected the lowest quintile of income based on work conducted by national organizations such as the National Association of Clean Water Agencies and the Federal Environmental Protection Agency. One of the conclusions from the data is that customers who receive bill discounts end up paying percentages of their income very similar to the median household. This means that, when accessed, the City’s financial assistance programs are helping low-income households pay their utility costs at roughly the same percent as higher-income households.

It is critical to determine the best ways to expand accessibility of the program, as the customers in the lowest quintile of income who cannot access financial assistance are paying twice the percent of their income as the median household. These customers are either unaware of the financial assistance program or are ineligible to access it based on current program constructs. Potentially eligible participants could be living in multifamily housing with units on a single meter, paying rent but not utilities. The City does have a voucher program for households living in multifamily housing which is administered by the Portland Housing Bureau and essentially mimics the Tier 1 discount, but very few customers are aware of its existence and therefore, have not utilized the vouchers. CBO recommends the utility bureaus continue to promote this program in order to further access in communities with the greatest need for affordability and payment

<sup>2</sup> US Census Bureau. 2018. <https://statisticalatlas.com/place/Oregon/Portland/Household-Income>

relief.

A primary, but not sole driver of the rate of increase continues to be the increasing debt service to support BES' capital program. The bureau's financial plan contains a total estimated increase of approximately \$70.0 million in rate revenue requirements over the forecast period. Forecasted 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 FY 2020-21 levels. However, the retirement of existing debt issues in FY 2022-23 is expected to 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 sale issuances are set to occur in FY 2022-23 and FY 2024-25.

Additional cost drivers are associated with wages and benefits, which are currently forecasted to increase at an average annual rate of 7.4% over the next five years.<sup>3</sup> External and internal materials and services costs are currently projected at increases comparable to inflation. Each of these cost pools places increased pressure on the forecasted rate growth to deliver the bureau's core services while minimizing the financial impact to the ratepaying customer. In order to ensure a consistent overall rate growth of 3.15%, BES must continue to assess the mechanisms within its rate structure to prepare and plan for well-timed debt management and CIP expenses, and appropriate utilization of the Rate Stabilization Fund (see section below for a discussion of the fund).

Work leading to the development of BES's Requested Budget identified a need for approximately 32 new positions in FY 2021-22 at a fully loaded cost of approximately \$4.5 million. However, due to the economic impacts of the COVID pandemic, the bureau ultimately decided to not add these new positions. If BES had in fact added these positions, the bureau states that it would have identified the highest priority ones and evaluated the personnel need against other competing needs for available resources within the bureau's long-term rate profile of 3.15%. This may suggest that the rate increase for next year does not need to be as high as 3.15% as no positions are proposed to be added, however, the bureau's position is that the resources from the 3.15% increase are ultimately required in the long-term to meet operational and capital needs. If a reduced rate of less than 3.15% is approved, then the bureau states it would need to raise rates above the forecasted level during the out-years of this financial plan. In addition, BES notes that higher than currently forecasted rates of increase in the future would disproportionately impact those least able to pay for the bureau's services, and the bureau is striving to keep rates low and predictable.

## **Rate Stabilization Fund**

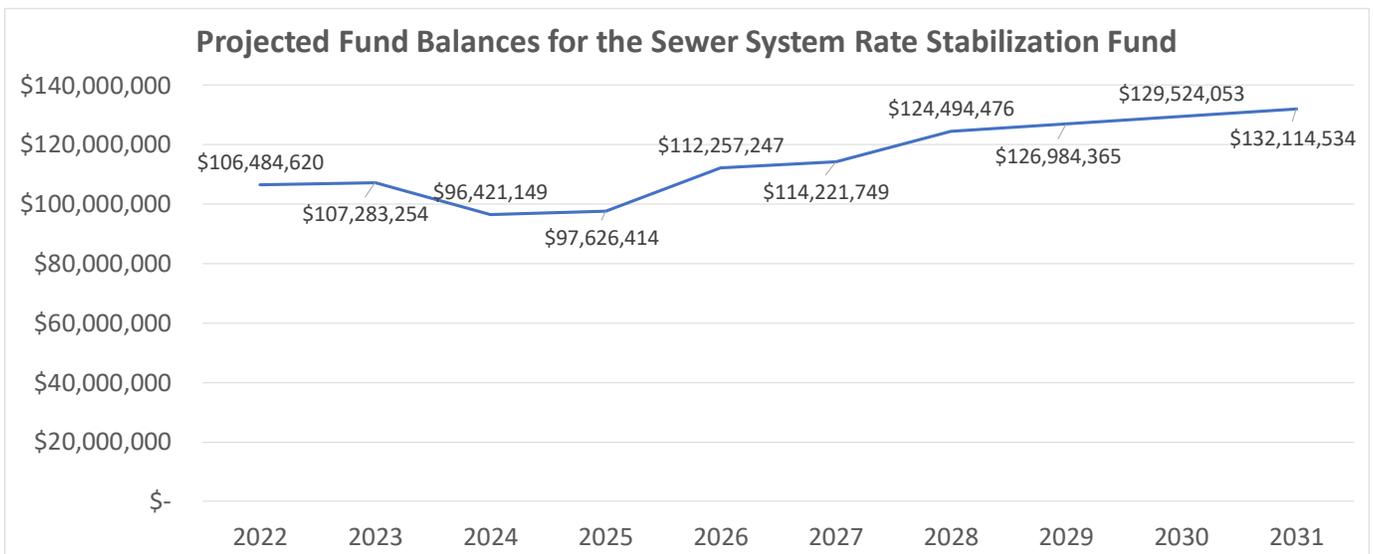
BES maintains a Sewer System Rate Stabilization Fund (RSF) that is used to smooth short-term

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<sup>3</sup> Based on a projected average inflationary increase in wages and salaries of about 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 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.

budget fluctuations and to phase in increases associated with large capital projects. Looking over the long-term, the balance in the fund may reach a high of \$132.1 million at the end of FY 2030-31 from the low balance of \$4.9 million in FY 2012-13. The growth of the RSF is due to many factors; and the primary drivers are robust retail revenue, growth in System Development Charges (SDCs), and utilizing conservative budget management practices. The FY 2021-22 Requested Budget does not include transfers from the operating fund, and this is in accordance with the bureau’s long-term plan to use fund balances to keep rates from increasing beyond planned levels. BES expects to incrementally utilize the RSF’s fund balance to smooth future rate increases over the long-term, and at the very least over the five-year forecast. A portion of the draws upon the fund last year (\$44.0 million) and this year (\$13.9 million) were due to the economic impacts of the pandemic and loss of planned revenues. The transfer to the operating fund from the RSF is \$6.1 million in FY 2021-22. Without the infusion of funds from the RSF, the rate increase next year would be higher than the 3.15% in the Requested Budget.

Beginning in FY 2018-19, BES updated planning targets so that the combined ending 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 was done to improve the bureau’s financial resiliency as well as its credit quality as assessed by rating agencies. Prior forecasts projected this measure to peak at more than 560 days of cash on hand in FY 2018-19, with a gradual drawdown over the years to 270 days by FY 2033-34. BES’s current forecast projects the RSF balance to be reduced by FY 2032-33 to a level that supports the policy minimum of 270 days of operating expenses, one year earlier than previous forecasts had indicated.



BES states that here are many factors that impact current and projected fund balances at any point in time, including debt service and bond coverage targets; cash contributions to the Capital Improvement Plan (CIP); CIP expenditure levels; operating expenditure levels; rate, fee, and SDC revenues under the long-term stable rate profile; and interest earnings. The bureau notes that these factors work together and are subject to adjustment at any point in time. This is typically a result of perceived or anticipated changes that are necessary in order to meet the 270-day planning standard over the long-term.

## **Changes to Forecasted Operating Expenditures**

BES's FY 2021-22 operating expenditures are estimated to decrease by 2.8% or \$5.5 million compared to projected total expenditures at the end of FY 2020-21. Increased expenditures are expected on personnel (\$3.2 million) and materials and services (\$4.7 million), and spending on non-CIP capital outlay is projected to decline by \$15.1 million. Personnel services expenditures are increasing due to non-discretionary increases in bargained COLA and step increases, non-rep COLA increases, an increase in retirement costs, and wage-driven taxes and benefits. Significant changes in materials and services include increases in interagency costs with the Bureau of Technology Services (\$681,000), Risk Management (\$605,000 for property insurance), and Procurement Services (\$208,000 for additional contract management services). The decrease in capital outlay results from the FY 2020-21 Revised Budget including \$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.

## **Portland Harbor Superfund Obligations**

BES is the lead agency tasked with addressing the City's responsibilities concerning the Portland Harbor Superfund site. The FY 2021-22 Requested Budget includes \$11.4 million for Superfund response costs including staffing, community relations, technical assistance, legal advice, consulting, and remedial design work. With the release of a Record of Decision (ROD) by the US Environmental Protection Agency (EPA) in 2017, focus has turned to working with other potentially responsible parties to design the needed in-water work and developing the partnerships with other agencies and City bureaus on community outreach needed to implement the work. Under a settlement agreement with the EPA, the City and the State of Oregon established a trust to help address City and State obligations as potentially responsible parties. This settlement is designed to reduce the City's risk of enforcement action by EPA, reduce transaction costs from negotiating and performing numerous separate design agreements, and encourage timely action.

Three remedial design efforts are currently being managed by the bureau and will continue into FY 2022-23 and FY 2023-24. Efforts to implement Superfund projects and to monitor the site will continue for years. As the remedial design phase of the project continues, program expenditures may increase in the near-term as costs are better refined.

BES's budget for the effort is housed in the Environmental Remediation Fund and is funded by a dedicated Portland Harbor charge on utility bills, funds from the Citywide Obligation Reserve Fund, and supplemented by property lease revenues and interest earnings. Specifically, rate revenues of \$6.2 million will fund the majority of the program in FY 2021-22 (this is a \$500,000 decrease over the FY 2020-21 Revised budget of \$6.7 million) and will support additional post-ROD appropriations. At present, BES has 4.0 FTEs dedicated to the program. In FY 2020-21 there is a \$1.3 million transfer to the new Portland Harbor Superfund reserve account, which jointly holds funds for Portland Harbor response work from BES, the General Fund, the Portland Bureau of Transportation, the Portland Water Bureau, and Prosper Portland. There is a similar transfer of

\$1.2 million planned for FY 2021-22. BES's FY 2021-22 Requested Budget includes about \$4.4 million to address the City's obligation for the remedy design phase of the Superfund process, and this is funded by an equal cash transfer from the Citywide Obligation Reserve Fund. There have been minor impacts, both financial and otherwise, to this work as a result of the COVID-19 pandemic, and these are primarily around disruptions to project timelines.

The City's involvement with the Portland Harbor Superfund site, which includes the anticipated costs for management, technical, and legal work, is currently forecasted at approximately \$44 million over the next five years. These costs are 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 cleanup plan identified in the ROD is estimated to cost \$1.0 billion sitewide. The share of total implementation costs ultimately borne by the City is currently unknown, and the City cannot at this time predict the total financial impact or the financial impact to BES. Potential future capital costs associated with cleanup and natural resource restoration activities required by the ROD are not yet reflected in the bureau's forecast. The bureau has indicated that forecast amounts will continue to be modified as more information becomes available.

## **Key Issues in Capital**

### **Improving Capital Throughput and the Project Management Office**

BES states that ongoing process and organizational improvements are underway to support a more consistent and predictable CIP project delivery rate. The bureau indicates that capital project delivery processes and procedures have been revamped with a focus on project development, design, and construction. This includes the formation of new project "stage gates" and a governance committee consisting of managers from Engineering, Operations & Maintenance, Portfolio Management, the Project Management Office (PMO), and Integrated planning. The purpose of the stage gates is to have consistent and transparent decision-making milestones to ensure the right projects are being properly planned and delivered throughout the project life cycle. BES believes that this consistency helps project managers and teams advance project work efficiently, whereas historically it may have taken an inordinate amount of time to schedule meetings with the right decision-makers, and there was inconsistency as to who had the final say in advancing a project, resulting in unnecessary delays and rework.

Additionally, bureau staff have developed new functionality and updated the project management software with new features and updates that help project teams more efficiently monitor projects, execute processes, and provide management with better project oversight. BES has indicated that project scheduling and estimating are core elements in establishing proper project baselines. The PMO is moving into a second phase of revamping the project scheduling practices within the bureau. Prior to phase one, only 20% of all active projects had properly maintained schedules in the project management software, making it impossible to track performance, trouble-shoot, and plan the annual CIP budget more accurately. BES notes that the percentage is now consistently around 90% of projects. Phase two will focus on improving scheduling methodology, educating staff on more advanced project scheduling, and

implementing new status reporting.

Indeed, the PMO was created specifically to advance the bureau's ability to increase capital throughput. It was formed with a small number of managers in March 2019, and the effort for the first two years has focused on process revamping and workgroup start-up. BES did not expect to immediately show reliable trends in CIP delivery, especially due to the broader bureau reorganization and constraints on the number of project managers and engineers. Full staffing build-out was initially planned for FY 2020-21, but this has been delayed by two-three years, limiting the number of CIP projects the bureau has been able to assign to dedicated project managers. Currently, six PMO staff are managing 30 of the hundreds of active projects in the CIP. These projects typically take three to four years from the start of design to construction completion. BES believes that the establishment of clearer roles and responsibilities on project teams and stage gate decision-making processes are having positive impacts on project delivery and effectiveness and efficiency, but the bureau also notes that it will take more time to confidently attribute trends in CIP delivery rates to the PMO and process improvements now underway.

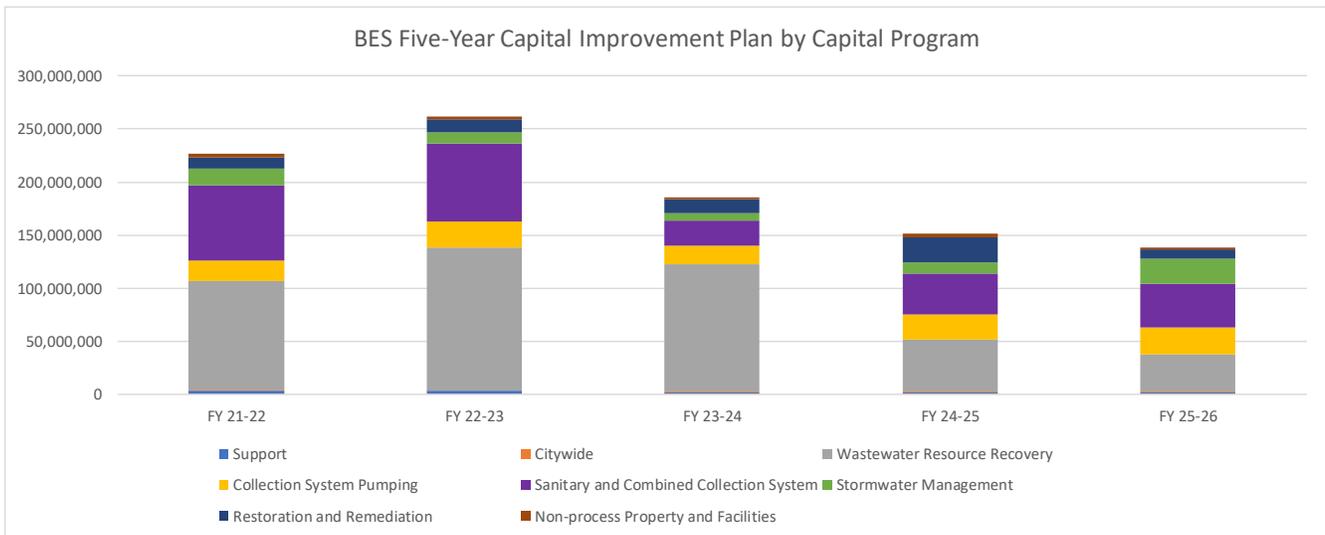
The bureau believes that its efforts are showing initial pay-off, though, as prior to the establishment of the PMO, CIP throughput averaged \$88 million annually, or approximately 80% of the capital budget, and in FY 2019-20, the first full year of the PMO, there was \$109 million delivered. The bureau states that capital delivery in FY 2020-21 is outpacing FY 2019-20 by \$8 million as of December 2020. BES cites the establishment of new and revamped processes and procedures, including detailed documentation, training, and ongoing support on these items, as some of the achievements of the PMO. These are captured in a new online Capital Project Delivery Manual that is a necessary resource for project staff across the bureau.

Next steps for further improvements in the work of the PMO include implementing a new system of performance metrics to track project and program delivery. BES has included a new performance measure in the FY 2021-22 Requested Budget to track capital project delivery: the percent of Adopted CIP budget spent, with 85% being the target for next year and an assumption of 90% starting in FY 2023-24. Another step involves improving and updating the bureau's project cost estimating practices to industry standards, which combined with scheduling improvements, will improve its ability to plan and forecast the annual and long-term CIP budget. Moreover, the PMO plans to overhaul the bureau's CIP prioritization and development processes, including how to best integrate equity into prioritization, by working with bureau staff responsible for Portfolio Management. BES states that continued implementation and institutionalization of new project management tools, templates, and processes are needed to make the new processes permanent within the bureau.

### **Current Five-Year Capital Improvement Plan (CIP)**

BES' requested budget includes \$964.0 million in capital expenditures over the next five years, reflecting the bureau's vision for a greatly expanded capital program to address aging assets and improve system reliability. Compared to the prior year's submitted five-year CIP, there are several changes resulting in a net increase of \$50.7 million or a 6.5% increase when comparing the capital plan between FY 2021-22 through FY 2024-25 (i.e. the four years shared by both

plans). While a program by program comparison of the plans is not easy to conduct due to BES’s reorganization of its CIP programs involving the creation of seven new ones, the bureau has noted the primary drivers of the increase between the common four years. First, BES updated its forecast based on a 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. Furthermore, new projects have been added to the CIP, including the \$17.1 million Eastbank Crescent Willamette Riverbank Restoration, and updated estimates for large programs such as the Secondary Treatment Expansion Project (STEP).



The City’s financial policies direct bureaus to develop financial plans that include investments necessary to manage existing and future capital assets and equipment, and to develop and maintain Capital Improvement Plans (CIP) that identify the individual capital acquisitions, projects, or procurements necessary to meet planned levels of service (FIN-2.03).<sup>4</sup> BES’s CIP is developed using a multi-step process to identify, develop, review, score, and rank projects for funding and scheduling priority. Projects originate from recommendations in BES system plans, 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, in order to evaluate relative priorities across all systems and project types. The Project Management Office’s (PMO) CIP program controls team evaluates all the information from the process, works with bureau project and program managers to refine costs and schedule data, and submits a recommendation to the Director for approval of the CIP. 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. The Five-Year Financial Plan also assumes that the final two years of the plan will

<sup>4</sup> <https://www.portlandoregon.gov/citycode/article/200789>

include additional projects, yet to be identified in the capital budget.

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. 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. In planning for both the combined sewer system and the stormwater system, projects within those systems are ranked and prioritized against each other based on multiple factors of risk, including equity impacts on vulnerable communities. While equity considerations are not yet explicitly and consistently factored into the scoring criteria, the ongoing organizational transition work within the bureau includes efforts to align equity considerations across system planning, portfolio management, and the CIP prioritization processes.

The FY 2021-22 Requested Budget includes five projects that are new to the CIP with estimated costs of \$28.5 million over the next five years and more than \$31.3 million in total new project costs. The procedure for adding new projects into the CIP was modified from the bureau's usual scoring and evaluation system to better align with Citywide concerns around the COVID-related budget impacts and to fit in with the peak delivery years of STEP. As noted above only projects fitting a specific profile were considered for the CIP - projects addressing imminent threats or risk to human health and safety, asset failure, and regulatory compliance - and all other projects recommended out of longer-term planning efforts were put on hold for now. Submissions were reviewed by the bureau's Leadership Team and scored, with only those projects scored to move forward and start in the first three years of the five-year plan added. The new projects in the CIP are:

- Facilities Security Improvement Shell (Five-year costs: \$3.5 million; life-time costs: ongoing)
- Eastbank Crescent Restoration (Five-year costs: \$17.1 million; life-time costs: \$17.1 million)
- Stormwater Facilities Subsidence Repair (Five-year costs: \$3.2 million; life-time costs: \$4.4 million)
- WPCL Air Handler Replacement (Five-year costs: \$1.0 million; life-time costs: \$1.0 million)
- Dodd Building Rehabilitation (Five-year costs: \$3.7 million; life-time costs: \$3.7 million)

### **Identifying Operations & Maintenance (O&M) Costs and Integration into the Forecast**

BES states that its 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. One example that the bureau provides concerns the Swan Island Pump Station, which was budgeted for, designed, and built, but the group that took over the completed facility did not have the budget for the substantial electrical bill this new asset generated.

Measures that BES are currently undertaking to address the challenge include identifying impacts on the operations budget during the first step of proposing new capital projects, which although involving the quantification of operating costs that may not be reliable at this stage, nevertheless serves as a starting point. Furthermore, in the project delivery process, long-term operating costs are considered in the cost-benefit analysis for different design alternatives, and these are brought to technical advisory committees that include O&M staff and managers. The bureau states that with the new model of overall project management, the expectation is that Project Managers will include O&M stakeholders early in the project concept development and throughout project delivery – rather than late in the design process.

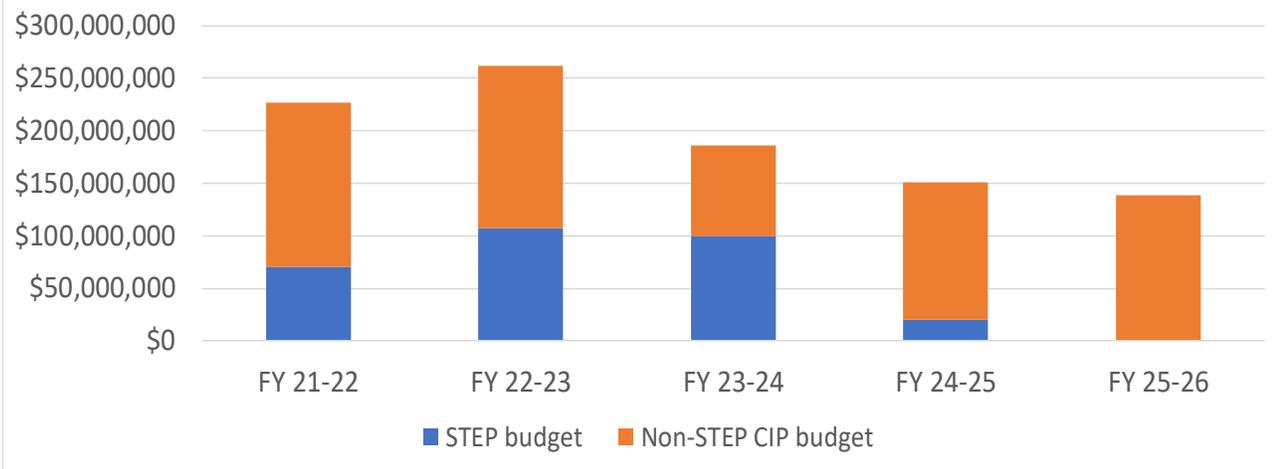
Future measures will be about better institutionalizing and systematizing how BES takes O&M estimates from project plans and integrates that information into the operating budget development process. The role of the bureau's new Portfolio Management is to bring together operating and capital budgets under dedicated portfolios so that bureau staff can look at the entirety of the projects and their budgets together. The costs of O&M impacts will be considered when a project reaches decision-makers at each of the three early milestones of the new Stage Gate process (see the section on Improving Capital Throughput and the Project Management Office above), creating an opportunity to more formally make a link to the operating budget and Five-Year Plan development. The PMO's effort to improve project cost estimating means and methods will also support how BES evaluates and incorporates operating costs.

### **Secondary Treatment Expansion and the De-prioritization of Other Projects**

The Wastewater Treatment and Resource Recovery program comprises 44% of the total CIP for the next five years, primarily due to facilities expansion through the Secondary Treatment Expansion Program (STEP) at the Columbia Boulevard Wastewater Treatment Plant (CBWTP), which may cost over \$400 million over the lifetime of the project.

The City's Mutual Agreement and Order (MAO) with the Oregon Department of Environmental Quality (ODEQ) requires the CBWTP to treat all the combined sewage while meeting water quality standards with the purpose of protecting water quality, public health, and the environment. Per the agreement, expansion of secondary wet weather treatment capacity is required for captured Combined Sewer Overflows (CSOs) sent to the CBWTP during storm events. The effort also includes the replacement of two secondary treatment clarifiers by 2024, as well as long overdue solids processing for effective plant operation and to meet permit requirements. The latest estimate for the project's total is \$391 million, but the bureau hopes to Value Engineer (VE) the total costs down to \$340 million. At this point, \$17 million in savings due to VE have been found, out of a possible savings estimate of \$40 million. This expansion to secondary treatment capabilities has been in the design phase, with construction occurring in FY 2021-22 and planned for completion by 2024 to meet regulatory deadlines.

*Secondary expansion at the Columbia Blvd Wastewater Treatment Plant (STEP) is expected to make up a significant portion of BES's CIP budget over the next four years.*



The FY 2021-22 Requested CIP budget is \$227.1 million, with STEP already making up \$70.0 million of that, or 30.8%. CIP budgets in future years are projected to peak at approximately \$260 million as STEP goes into construction in FY 2021-22 through FY 2023-24, before scaling back down to approximately \$138 million for work on known projects in FY 2025-26.

To accommodate the surge in spending and work on STEP, five system capacity-driven projects were identified where sewer backups are not as large or active of a concern compared to other scheduled projects. These projects were delayed until FY 2024-25 or FY 2025-26, with potential basement backups identified as the resulting risks. At the CBWTP, four projects that are unrelated to STEP have been slowed down or delayed:

- Lagoon Improvements have been slowed until FY 2025-26, with the risks being reduced backup storage capacity in the lagoons;
- Outfall Surge Modifications have begun but have also been pushed out to FY 2024-25, with a potential risk of release of treated effluent;
- WWCL Rehab construction has been pushed out to FY 2024-25, with risk being continued degradation of clarifiers and equipment failure requiring emergency repairs or replacement;
- The Reuse System Upgrade project start has been pushed out to FY 2024-25, with minimal risk.

In addition to these, the bureau has also postponed a couple more projects which have relatively low risks due to the delays.

BES states that its PMO engaged key project and program stakeholders to inform the project de-prioritizations, including representatives from various internal teams. Projects were recommended based on criteria such as: staff availability; the impact of delays; coordination and interaction with other projects, programs, and the community; and analyses of the costs and benefits of disruption in projects mid-cycle. Projects already in construction as well as those addressing imminent threats or risk to human health and safety, asset failure, and projects

addressing regulatory compliance were not considered for de-prioritization. The recommendations were then incorporated into the CIP budget and eventually presented to the bureau's Leadership Team.

## **DECISION PACKAGES**

The Bureau of Environmental Services does not have any decision packages for FY 2021-22 budget development.

# SUMMARY OF REQUESTS & RECOMMENDATIONS (ALL FUNDS)

## Bureau of Environmental Services

		2020-21 Adopted Budget	2021-22 Requested Base (A)	Bureau Decision Packages (B)	CBO Recommended Adjustments (C)	Total Recommended Budget (A+B+C)
Revenue	Miscellaneous	\$7,278,500	\$6,223,100	\$0	\$0	\$6,223,100
	Licenses & Permits	\$1,345,000	\$1,572,000	\$0	\$0	\$1,572,000
	Intergovernmental	\$987,000	\$232,500	\$0	\$0	\$232,500
	Interagency Revenue	\$2,267,798	\$2,234,873	\$0	\$0	\$2,234,873
	Fund Transfers - Revenue	\$413,648,000	\$488,682,735	\$0	\$0	\$488,682,735
	Charges for Services	\$364,568,950	\$369,796,115	\$0	\$0	\$369,796,115
	Bond & Note Proceeds	\$145,000,000	\$0	\$0	\$0	\$0
	Beginning Fund Balance	\$266,273,196	\$448,040,000	\$0	\$0	\$448,040,000
<b>Revenue</b>	<b>Sum:</b>	<b>\$1,201,368,444</b>	<b>\$1,316,781,323</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,316,781,323</b>
Expense	Personnel	\$89,148,886	\$91,961,218	\$0	\$0	\$91,961,218
	Internal Materials and Services	\$53,300,309	\$55,622,476	\$0	\$0	\$55,622,476
	Fund Transfers - Expense	\$416,845,247	\$492,461,755	\$0	\$0	\$492,461,755
	External Materials and Services	\$100,399,385	\$100,585,575	\$0	\$0	\$100,585,575
	Debt Service Reserves	\$36,246,056	\$41,430,000	\$0	\$0	\$41,430,000
	Debt Service	\$172,726,781	\$177,055,111	\$0	\$0	\$177,055,111
	Contingency	\$223,792,292	\$194,927,676	\$0	\$0	\$194,927,676
	Capital Outlay	\$108,909,488	\$162,737,512	\$0	\$0	\$162,737,512
<b>Expense</b>	<b>Sum:</b>	<b>\$1,201,368,444</b>	<b>\$1,316,781,323</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,316,781,323</b>