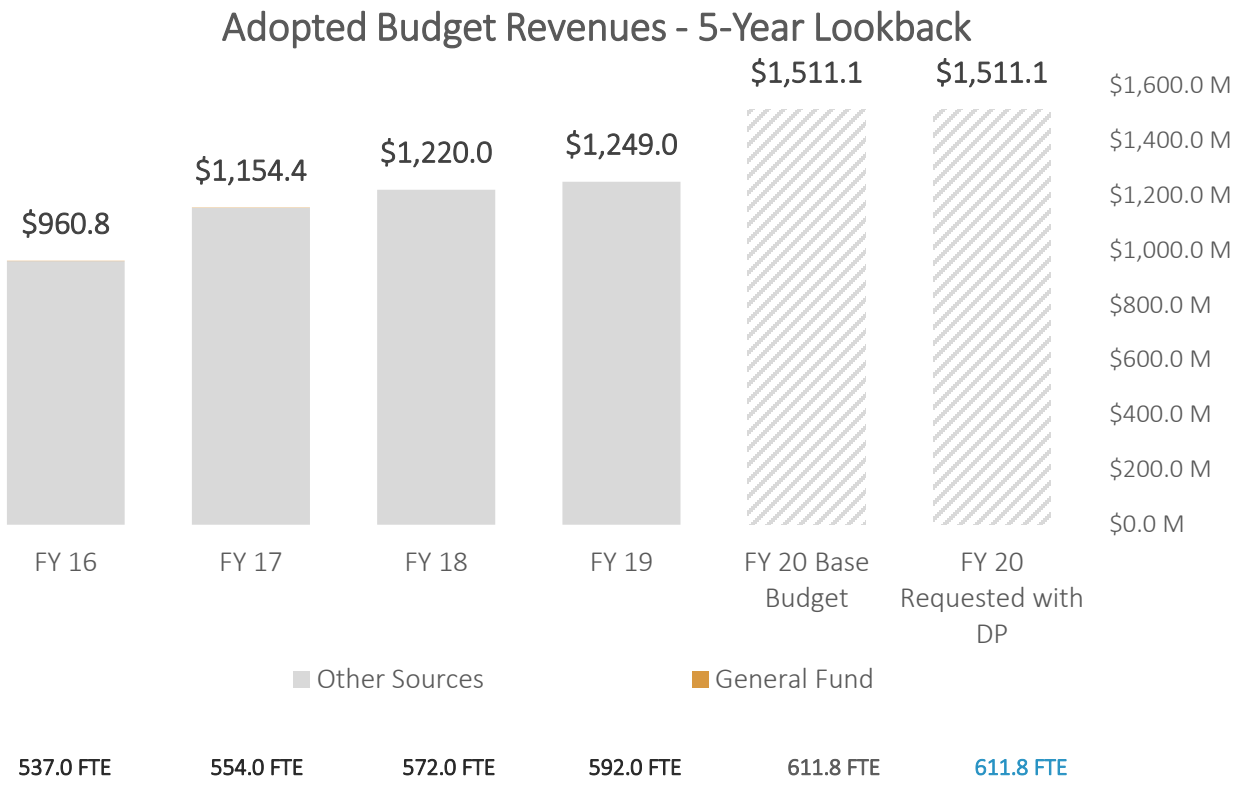
City Budget Office

Bureau of Environmental Services

Analysis by Elizabeth Gallagher



INTRODUCTION

The FY 2019-20 Bureau of Environmental Services (BES) Requested Budget was developed under direction from the Commissioner-in-Charge to submit a budget with a sewer/stormwater utility rate increase at 3.0% or lower. The Bureau of Environmental Services (BES) FY 2019-20 Requested Budget for operating and capital expenditures is $348.9 million. The Requested Budget is $49.8 million - or 16.7% - higher than the FY 2018-19 Revised Budget and includes 609.9 full-time equivalent positions and 1.9 limited-term full-time equivalent positions. Respective increases to operating and capital expenses are 8.0% and 34.2%. The typical single-family residential sewer and stormwater bill for FY 2019-20 is anticipated to increase by $2.21 per month, or 3.0%, to support this Requested Budget and the long-term forecast.

SUMMARY OF HIGH-LEVEL CHANGES

BES' capital plan increased in FY 2019-20 by $44.2 million, primarily due to the bureau's $37.0 million cost for its share of the Portland Building Renovation project occurring one year earlier than originally projected. The bureau is adding 20.0 new FTE for a total of 611.8 FTE. These positions and associated expenses are included in the budget put forth within the direction of rate increases at 3.0% or lower. Per Council's direction, budget increases that fit within the 3.0% rate increase are considered part of the bureau's base budget. As such, the bureau was able to augment programs and staff levels within its base budget.

KEY ISSUES

Rate Forecast

BES has built a requested budget around direction to stay at or lower than a 3.0% rate increase. This target is intended to provide a stable and reliable expectation that no ratepayer will be subject to a percentage increase higher than a comparable measure of inflation, barring changes in usage or other extenuating circumstances. The combined rate increase between BES and Water results in a 4.53% overall rate increase to customers. BES projects the annual rate of increase to stay consistent with the prior year's forecast, and then continuing the forecasted 3.1% increase into 2024, as illustrated in the table below.

Comparison of Forecast Bill Increases
FY 2020-24 Preliminary Financial Plan vs. Prior FY 2019-23 Projections

Fiscal Year Ending June 30	2019	2020	2021	2022	2023	2024
FY 2019-23 Plan % Bill Increase (Feb 2018 Preliminary Financial Plan)	3.00%	3.00%	3.00%	3.00%	3.00%	N/A
FY 2019-23 Adopted Rate Ordinance % Bill Increase (May 2018)	2.35%	3.00%	3.00%	3.00%	3.10%	N/A
FY 2020-24 Plan % Bill Increase(1)	N/A	3.00%	3.00%	3.00%	3.10%	3.10%
Single-Family Residential Forecast Monthly Bill(2)	$73.55	$75.76	$78.03	$80.37	$82.86	$85.43

(1) Preliminary as of January 11, 2019. Final FY 2019-20 and forecast increase amounts will be determined in May 2019 based upon City Council FY 2019-20 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.

Central to the discussion of rate increases is how the forecasted changes will impact different populations across the city. The Key Performance Measure looking at affordability of service – typical household bill as a percentage of median household income – indicates a bureau goal of 1.42%, which is roughly $882 annually.[1] This is an imperfect measurement, and has disproportionate effects on different groups:

[1] 2016 US Census Median Household Income for Portland, OR was $62,127.

Median Household Income by Race - Five Year Estimate 2012-2016 | 1.4% of total median household income: $882		
Race	Median Household Income	Increase on average household applied to racial group income
American Indian and Alaskan Native	$ 38,502	2.29%
Asian Alone	$ 76,667	1.15%
Black or African American alone	$ 36,651	2.41%
Hispanic or Latino	$ 44,254	1.99%
Native Hawaiian and Other Pacific Islander	$ 54,993	1.60%
Some other race alone	$ 41,927	2.10%
Two or more races	$ 50,513	1.75%
White alone, NH	$ 61,018	1.45%

Source Data: https://opendata.imspdx.org/dataset/median-household-income/resource/600f8420-c27a-41a0-9c31-30b1469ca644

The chart above shows that compared to white households, communities of color – particularly American Indian and Alaskan native and black households – apply a higher portion of their income to their utility bill. Assuming household income does not have bearing on water and sewer needs by population, and a residence of equal numbers of residents would have similar usage regardless of income, this goal – though it is consistent with standard, national benchmarks of affordability – could be reexamined with a view of impact in disaggregated groups within the city. In its Requested Budget, the bureau does note its intent to begin a comprehensive rate study – one consideration of which will be whether a new rate methodology could or should differently accommodate these and other equity considerations.

Currently, to help combat the impact on low-income customers (LINC) the bureau offers a low-income discount program. The bureau expanded eligibility and increased support resources for this program in FY 2018-19. Customers participating in this program have an opportunity to receive a bill reduced by roughly 50-70%. Though participant rates still increase at the same 3% target, it is an increase on a decreased amount. A typical LINC customer would experience an annual increase of under $15 per year, and an extremely-low LINC customer would experience an annual increase of under $8 per year. This discount is only applicable to homeowners and not customers in multifamily units; this further adds to the equity considerations the bureau reviews in its comprehensive rate study.

Rate Stabilization Fund

As with reviews of previous years, the Rate Stabilization Fund deserves a closer examination. 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. Most recently, the fund was drawn down between FY 2007-08 and FY 2012-13 to offset rate increases associated with financing construction of the Eastside Combined Sewer Overflow Tunnel. Since then, the balance has grown to ensure an ending fund balance within the Operating Funds and the Rate Stabilization Fund of 270 days' operating expenses. This target was instated in FY 2018-19 and supports fiscal sustainability and resiliency, affirms the bureau's commitment to strong financial management, and better aligns the bureau with industry standards for comparable utilities with strong credit ratings.

The projected total unrestricted cash balance for the end of FY 2018-19 is projected at 530 days – or nearly twice the targeted level – the majority of which is in the Rate Stabilization Fund at $176.72 million. This is a 24% compound annual growth rate since FY 2016-17, more than doubling the fund balance in that time. BES forecasts the Rate Stabilization Fund balance will reach $200 million and remain at that level for several years before BES begins to draw it down. The long-term balance goal is $150 million in FY 2033-34, and the fund balance ratio is considered by rating agencies when assessing credit quality. This reduces the bureau's cost of borrowing, which has a beneficial impact to ratepayers and provides stability, intergenerational equity, and long-term sustainability. The long-term financial plan assumes incremental annual draws from Rate Stabilization Fund balance in FY 2022-23 through FY 2033-34 to keep annual rate increases stable and predictable at the 3% or less target (while maintaining the minimum 270 days cash on hand target and minimum bond coverage targets).

That said, the bureau is currently sitting on large-enough reserves that it could reasonably afford to modestly draw upon Rate Stabilization Fund resources in the near term without serious risk of affecting the aforementioned long-term fund balance goals. Conservative revenue and expense budgeting may also increase Rate Stabilization Fund balance. Moreover, due to a number of factors, the bureau has been lagging in its implementation of its capital plan (discussed below), resulting in underspending in capital projects and corresponding increases in fund balance. The risk in drawing upon the fund in the short term, however, is the out-year result of higher rate increases to customers to effectively 'make up' for the missed revenue.

Capital Project Planning and Delivery

Process Improvements

Since FY 2011-12, actual spending in BES' capital program has decreased despite an increase in budgeted capital projects. To address this decline in capital output, BES began a multiphase, multiyear effort to better understand and improve how the bureau delivers CIP work. BES completed phase 1 of the Capital Improvement Program Process Review and Enhancement Project (CIP PREP), between March and August 2017. The Project Delivery Transition Team has evaluated the current state and is working on revising processes and procedures, as well as updating the CIP implementation procedures for uniformity and improved consistency/clarity. A phased approach to implementation will allow the bureau to test changes in progressively larger sample sizes before implementing across the bureau's entire capital program and reflects a careful consideration for deliberate change.

Numerous process improvements have already been implemented:

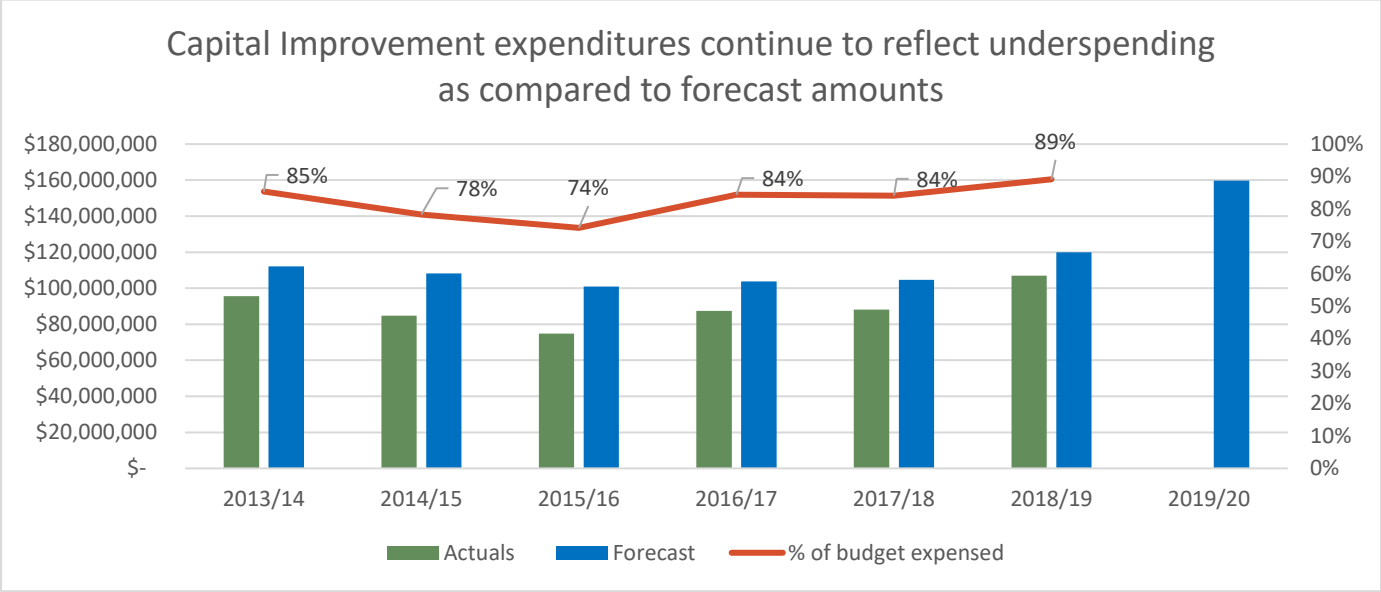
- All projects in the capital project management software solution Heron have been updated to include cash flow analysis. Having this high-level view will help BES better understand its CIP needs, performance, and future improvements.
- Automated and digitized the former paper processes into Heron, reducing execution time, ensuring consistent filing, improving tracking and accountability, and eliminating the need for chasing paper files.

- Updated CIP Implementation Procedures to address issues and reduce execution time. Recent updates include:
    - Required criteria to change project phases was clarified to eliminate redundancy and repetition.
    - Procedures for setting up urgent and Emergency projects: Process now takes a day compared to a week plus.
    - Maintenance Project setup: Process updated to better inform all parties involved to address unique nature of maintenance work.
    - CIP Adjustment Committee (CIPAC) Procedures: Conditions requiring approval from the CIPAC have been adjusted to better match the demands of current practice in the Bureau, and to avoid delays due to unnecessary approval requests.

These internal efforts are likely to improve the bureau's delivery of its CIP. To quantify the effectiveness of these changes, CBO recommends establishing metrics that allow the bureau to better manage the performance of its CIP implementation. These metrics should be created alongside other bureau performance metrics, of which there are currently few, so that the bureau can better convey its progress towards strategic targets for both programs and bureau-wide.

Program Growth

While realizing efficiencies through the CIP PREP, the bureau has maintained aggressive targets through capital program budgets. As the chart below shows, capital improvement expenditures have maintained a modest growth rate, though bureau plans reflect again a double-digit increase from the previous year's plan. Comparing FY 2018-19 projected actuals to the FY 2019-20 expense forecast, the bureau would need to increase capital expenditures by 49% to achieve this goal. Of note: $37.0 of next year's forecast is for the Portland Building Reconstruction project. With this removed from the FY 2019-20 forecast, expenditures would only need to increase by 15% to meet targets.



Nearly half of forecasted expenditures over the next five years are for the sewage treatment systems of $362.3 million. Major projects include the Columbia Boulevard Water Treatment Plant (WTP) Secondary Treatment Expansion, the Tryon Creek WTP Headworks, and Tryon Creek Interceptor Replacement. Other major expenditures within the forecast are for Maintenance and Reliability (32% of total), surface water management (12%), and systems development (7%). Of particular note: the forecast reflects expectations that the Tryon Creek WTP continues to operate under the current structure and agreement. However, the City of Lake Oswego is exploring redevelopment of the site by building and operating a new alternative treatment plant nearby. This would have significant implications to the Financial Plan.

Personnel Growth

A key component affecting the bureau's ability to complete CIP projects is employee capacity. In the FY 2019-20 Requested Budget, the bureau has requested an additional 20.0 FTE. This is in addition to 72.0 FTE added to the bureau since FY 2015-16, bringing the total addition to 92.0 FTE over five years, representing an 18% increase in staff levels over this time. In FY 2018-19, seven new FTE were added to the Engineering Group to help address the staffing gap between position capacity and forward progress on CIP projects. To date, the bureau has filled three of these seven positions, which is reflective of a competitive market for this work.

According to the bureau's assessment of unassigned project work, filling these positions but adding no new FTE would result in an estimated unassigned project gap of $148.0 million spread across 50 projects. This is out of a $746.0 million total CIP for the next five years. This measurement signifies that the bureau is currently lacking the FTE capacity to make forward progress on all available projects. Although this dollar value in unassigned projects is much larger than last year, it does not equate to a significantly larger staffing gap. Project dollars do not neatly correspond to staffing needs, as assignments vary depending on project size, complexity, use of consultants, and other factors – though there is still an unmet need due to staffing constraints, it has not increased significantly.

Of the positions being added in FY 2019-20, four of them are in the Engineering Services group. One is for direct project management and will directly help offset the unassigned project gap; the other three are critical project support positions and will offset expensive and constrained consultant resources that are currently being tasked with those bodies of work. Many of the positions added in the FY 2019-20 Requested Budget represent a shift away from contract services. Though some service and maintenance jobs are most efficiently performed by contractors, other positions benefit from cumulative knowledge and understanding of environment and City policies. Additionally, committing ongoing City resources through personnel expense rather than PTE contract expense nets minimal change in total CIP project cost.

Another group affected by new ongoing positions is the revegetation team working on the City's Green Streets facilities. There are currently 2,000 facilities in long-term maintenance. These facilities keep water out of the combined and stormwater systems and are an essential component to the City's sewer and stormwater management. The City currently spends about

$600,000 on outside contracting services within this group. Some of these services will be maintained for peak seasonal work, but BES is adding 4.0 FTE Botanic Technician I positions to help with revegetation service delivery improvements. In-house crews will have more opportunity to become familiar with project sites and provide the City greater control over work crew priorities should the need arise (as it often does with seasonal demands). Additionally, many green street facilities abut residential properties, making them highly susceptible to public complaints. Having City employees respond to residents helps the City maintain a better work relationship with its customers.

PROGRAM OFFER REVIEW

The Bureau of Environmental Services presents 28 program offers. The bureau completed a comprehensive update of its strategic plan in FY 2017-18, and the resulting plan is being used to guide organizational changes currently underway. In future years, the bureau's requested budget will more closely connect program outcomes to robust performance metrics (currently under development) and priorities identified in the bureau's Strategic Plan and Equity Plan.

Select Program Offer Analysis

Engineering

The Engineering Program is comprised of the leadership, administration, and operations functions for the Engineering Services Group and is an integral nexus connecting other programs through project development and implementation. The group is over five separate programs that manage the planning, design, and construction of sewer and stormwater projects to protect public health and watersheds. The Chief Engineer and the five groups provide the analysis, design, construction management, technical standards and best practices, and CIP implementation and budget management to produce projects that improve, protect, and enhance the bureau's infrastructure.

Goals and performance metrics within this program reflect output performance ('feet restored' and 'feet repaired') as well as outcome (number of overflows). Another metric – Construction management costs as a percentage of total construction costs – illustrates how much is spent on management vs. materials and implementation. In particular, this metric's presence shows the bureau's consideration and measurement of efficiency in the project process. CBO recommends the strategic targets associated with this metric be set with various process improvements in mind.

This program has already implemented a handful of process improvements to improve productivity, communication, and records management. Automating paper processes into Heron reduces execution time, improves tracking and accountability, and eliminates the need for chasing paper files. This has been developed within the following processes within the Engineering program's purview:

- Project work plan approvals.

- Project document archiving within TRIM (now interfaced with Heron).

Aside from process improvements, the organization has also been restructured to improve efficiency – the Systems Development Program, which was formerly within the Engineering program, now directly reports to the BES Director's Office. After that move, the five remaining groups under the Chief Engineer are: Asset Systems Management, Capital Program Management and Controls, Design Services, Construction Services, and the Materials Testing Lab. Each of these programs has a direct effect on CIP plan implementation, and the new CIP-PREP process has built other efficiencies into this work as well. A Project Management Office (an identified need of the CIP-PREP team) is approaching implementation and will likely have a critical nexus to the efforts of this program. As the bureau continues to reorganize to better align with these strategic goals, CBO recommends that specific performance metrics be developed and used to track and manage improvements.

NOTABLE CHANGES

As addressed above, the base budget is built upon a 3.0% rate increase and is inclusive of capital improvement plan changes, increased FTE, and increases in existing costs (i.e. personnel costs due to cost of living adjustments and merit pay increases). Personnel costs associated with individual FTE continue to rise regardless of available revenue. CBO cautions against adding additional FTE in out years, as this may potentially be at the risk of reducing available resources for project implementation in favor of said personnel costs. That said, overall the bureau's growth reflects a careful consideration of allowable rate increases and, in many instances, 'additions' are actually trade-offs from existing costs.

Resources are projected to be approximately $16.4 million less overall in the coming year nearly completely because of a decrease in fund balance. Bureau expenditures are increasing by $44.2 million, $37.0 million of which is the bureau's contribution to the Portland Building Renovation project. Additional information can be found throughout the review narrative.

Notable changes to performance metrics are addressed above; the lack of strategic targets in the FY 2019-20 Requested Budget is claimed to be because metrics will be overhauled in the coming year. True though this may be, the bureau should be able to quantify at least some strategic targets or call out the specific upcoming changes in the budget narrative. The strategic goals and future direction of the bureau are being driven by the recently-reviewed strategic plan, as well as the bureau's equity plan. CBO recommends additional organizational structure changes in the coming year be linked to performance goals and metrics to best track process and delivery improvements from these changes.

The five-year forecast is not markedly different from the FY 2018-19 Adopted Budget; continued skepticism over the bureau's forecasted Capital Expenditures is highlighted in earlier sections of this review.

DIRECTIONS TO DEVELOP

The bureau has no Directions to Develop for the FY 2019-20 Requested Budget.

SUMMARY OF REQUESTS AND RECOMMENDATIONS

Below is a summary of the Bureau of Environmental Services' total budget.

	Adopted FY 2018-19	Request Base (A)	Bureau Decision Packages (B)	CBO Recommended Adjustments (C)	Total Recommended Revised (A+B+C)
Resources					
Budgeted Beginning Fund Balance	$ 473,696,000	$ 459,698,500	$ -	$ -	$ 459,698,500
Licenses & Permits	2,157,000	1,995,000	-	-	$ 1,995,000
Charges for Services	390,528,608	402,272,800	-	-	$ 402,272,800
Intergovernmental Revenues	380,775	180,000	-	-	$ 180,000
Interagency Revenue	2,614,676	2,470,471	-	-	$ 2,470,471
Fund Transfers - Revenue	372,025,000	395,450,000	-	-	$ 395,450,000
Bond and Note	-	235,100,000	-	-	$ 235,100,000
Miscellaneous	7,613,000	13,926,800	-	-	$ 13,926,800
Total Resources	**$1,249,015,059**	**$1,511,093,571**	**$0**		**$1,511,093,571**
Requirements					
Personnel Services	$ 74,864,323	$ 85,475,839	$ -	$ -	$ 85,475,839
External Materials and Services	75,157,857	81,170,691	-	-	$ 81,170,691
Internal Materials and Services	45,068,983	50,285,174	-	-	$ 50,285,174
Capital Outlay	95,473,260	131,982,170	-	-	$ 131,982,170
Bond Expenses	247,639,460	258,183,714	-	-	$ 258,183,714
Fund Transfers - Expense	378,284,621	401,565,826	-	-	$ 401,565,826
Contingency	332,526,555	502,430,157	-	-	$ 502,430,157
Total Requirements	**$1,249,015,059**	**$1,511,093,571**	**$0**		**$1,511,093,571**