Bureau of Environmental Services

FY 2014–2015 Requested Budget

February 2014

ENVIRONMENTAL SERVICES
CITY OF PORTLAND
working for clean rivers

NICK FISH, COMMISSIONER • DEAN MARRIOTT, DIRECTOR

Commissioner Nick Fish
City of Portland

Date: February 3, 2014

To: Mayor Charlie Hales
Commissioner Amanda Fritz
Commissioner Steve Novick
Commissioner Dan Saltzman

From: Commissioner Nick Fish NF

Subject: Bureau of Environmental Services FY 2014-15 Budget Request

Today, I submit my first budgets as the Commissioner-in-Charge of our public utilities. The Bureau of Environmental Services budget request for FY 2014-15 meets regulatory requirements, sustains capital investments and ensures the effective operation of our sanitary sewer and stormwater infrastructure.

In order to continue to stabilize rates, I directed the bureau to develop a 2.5% cut to the operating budget. This has reduced the requested rate increase to the typical residential customer bill from last year's 5.3% to 4.0% for next year.

The bureau's capital projects will continue to focus on protection and rehabilitation of the City's aging infrastructure using the cost-effective integration of green solutions to protect public health and preserve the capacity of existing sewer and stormwater systems. We estimate that the proposed capital expenditures next year will create more than 1,500 jobs in the local economy.

I am grateful to the Budget Advisory Committee for their careful review and support of this budget submission.

Thank you for your consideration.

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January 28, 2014

To Portland City Council:

The Budget Advisory Committee (BAC) thanks Commissioner Nick Fish and the Portland City Council (City) for the opportunity to work with the Bureau of Environmental Services (BES) on the development of their 2014-2015 budget request. The BAC appreciates the time BES has taken to describe programs, policies, and projects, and feels that the agency was very transparent and diligent in providing information we have requested. Attached you will find the results of our discussions in the form of ranked cut and add packages. In addition, this letter also includes our overall observations and recommendations about the BES budget.

The BAC met with Bureau staff four times since November 2013 to discuss and review the BES 2014-2015 fiscal year proposed budget. During these meetings, the BAC received overview presentations on Bureau finances, operating programs, operating budget, capital improvement program, and BES's recommended cut and add packages. Although BAC members represent many different perspectives – residential ratepayers, major utility users, environmental organizations, and organized labor – we shared many of the same conclusions:

- While the BAC is very interested in minimizing costs to the ratepayer, there are no silver bullets to reducing rates. Portland was one of the first cities required by the federal government to resolve environmental problems associated with combined sewer overflow (CSO) systems and our rates reflect that. That said, our rates are comparable to other mid- to large size older NW cities with CSO systems, such as Olympia and Tacoma, Washington, and are well below Seattle's rates.

- In addition to CSO requirements, BES rates reflect other federal requirements, including compliance with the Endangered Species Act and Clean Water Act as well as costs for addressing Superfund issues along the Willamette River.

- We appreciate recent City efforts to realign programs to ensure a clear nexus between bureau efforts and funding sources, be they ratepayer or general funds. We urge the City to continue to work diligently to ensure new programs are funded from appropriate sources.

- The City must protect our collective investment in infrastructure otherwise we face larger costs when system failures occur. BES is currently only budgeted to replace/extensively repair infrastructure that is predicted to fail within 2 years, and emergency repairs cost 3 times as much as scheduled repairs.

- Cost aside, inadequate investment in sewer and stormwater infrastructure has a direct impact on community livability. Portlanders expect a high level of service from their government, and system failures, including sink holes and sewage backing up into basements, are unacceptable.

- The City has asked bureaus to look at their operations and projects through an equity lens. We ask BES to report out – before the next budget cycle – how they are meeting this objective.

- The City has faced layoffs in past years as the economy has lagged. To the extent that BES increases staffing in future years, they should carefully balance and examine the cost effectiveness of hiring permanent staff, providing existing staff with professional development and contracting externally. Hiring additional permanent staff and increased professional development can be cost-effective in many instances.

- We acknowledge that there is some subjectivity in assigning costs to the fixed and variable portions of the sewer, stormwater, and water rates. That said, we encourage the City to continually strive to ensure the mix of base and volume rates most accurately reflect the City's costs of providing service. This is important for public transparency as well as to provide a natural incentive for conservation.

- We appreciate the efforts BES has made to think outside the box by providing green infrastructure solutions, such as on-street stormwater quality facilities. There are great examples where this approach has saved money and led to greater environmental outcomes – such as the Tabor to the River program which allowed the City to replace a failing stormwater conveyance system with smaller pipes. We encourage BES to seek additional opportunities for greenfrastructure investment on a landscape scale where both goals – lower costs and better environmental outcomes – can be achieved.

- Lastly, although we have appreciated being asked to weigh in on the BES budget, we feel there are limits to what the BAC can achieve because the limited duration in which we serve impacts the depth and breadth of our analysis. We applaud the City's hiring of the Citizens Utility Board to provide an ongoing, external, impartial outside perspective on BES investments. Now that the CUB is on board, it is important for the City to clarify the roles of the CUB, PURB and BAC before the next budget review cycle to maximize the effectiveness of public engagement.

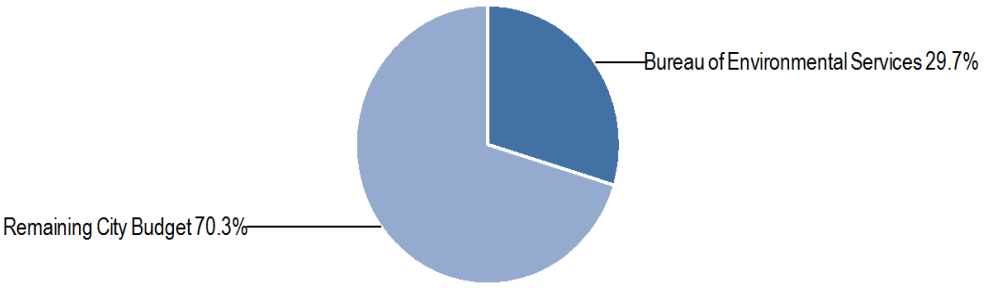
Thank you again for the opportunity to review the BES proposed budget. We appreciate the recent announcement that the City Council may set rates and release the draft bureau budgets earlier in the budget process, increasing the amount of time available to the public to provide comment. However, we have an additional recommendation to improve the feedback process. Because the BAC meets before critical budget information is known and decisions are made, we feel our advisory role would be strengthened if our group was given standing to testify as a committee at the Mayor's draft budget review. Please let us know if we can engage in the budget process in this manner.

Bureau of Environmental Services

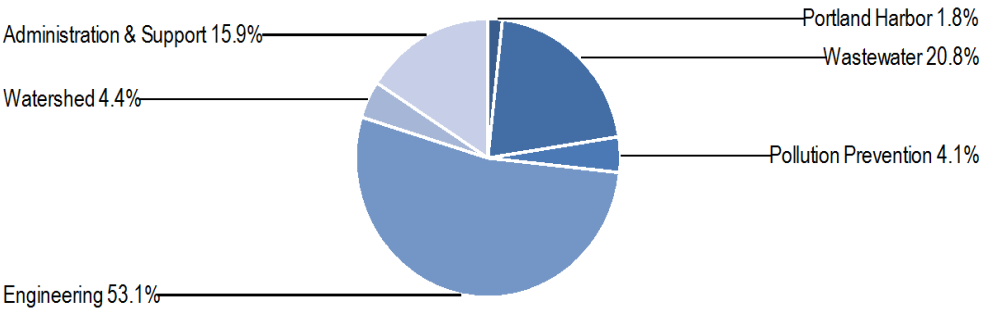
Public Utilities Service Area

Nick Fish, Commissioner-in-Charge
Dean Marriott, Director

Percent of City Budget

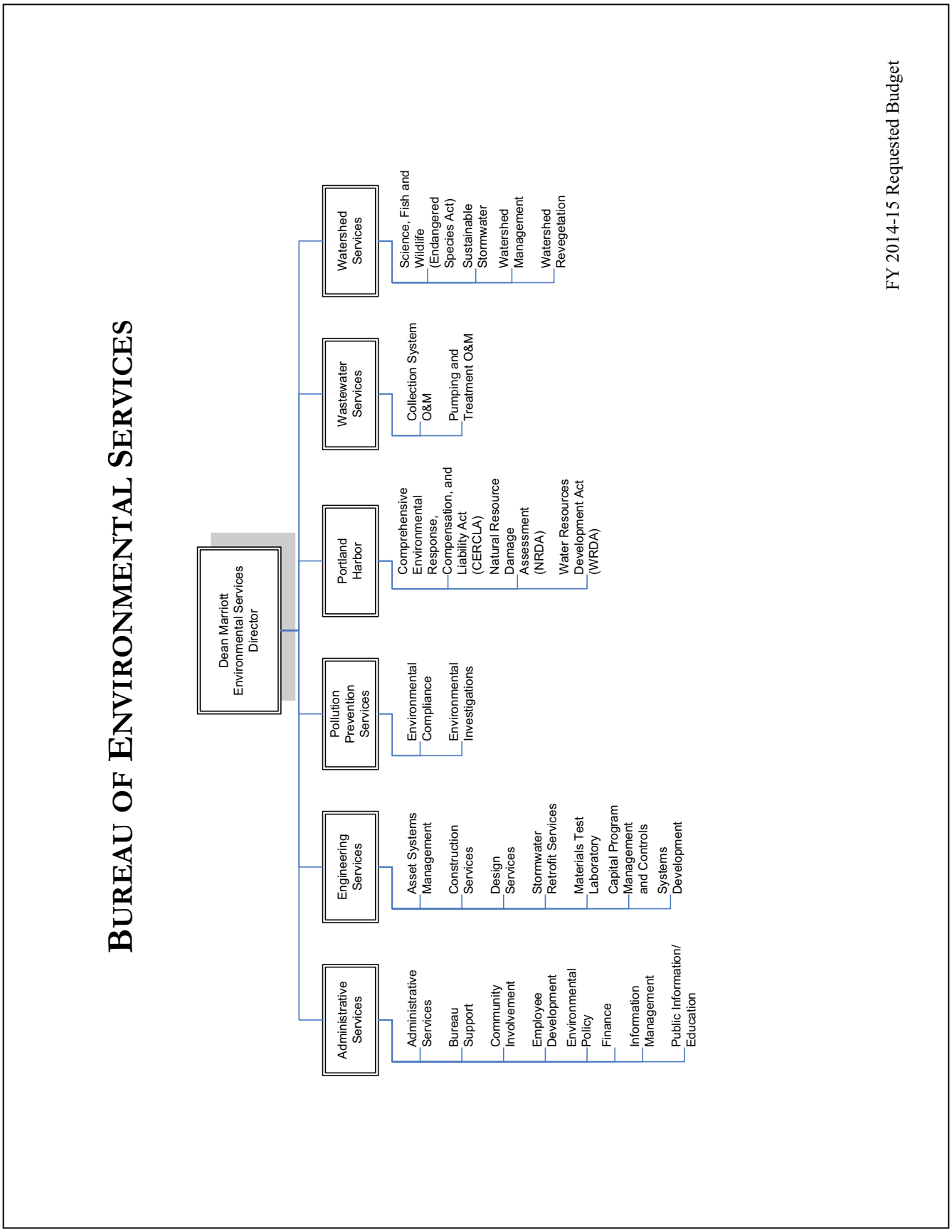


Bureau Programs



Bureau Overview

Expenditures	Revised FY 2013-14	Requested FY 2014-15	Change from Prior Year	Percent Change
Operating	817,238,169	875,157,313	57,919,144	7.09
Capital	119,062,570	111,908,000	(7,154,570)	(6.01)
Total Requirements	**936,300,739**	**987,065,313**	**50,764,574**	**5.42**
Authorized Positions	521.08	518.67	(2.42)	(0.46)


BUREAU OF ENVIRONMENTAL SERVICES
Dean Marriott
Environmental Services
Director
Administrative Services
Administrative Services
Bureau Support
Community Involvement
Employee Development
Environmental Policy
Finance
Information Management
Public Information/ Education
Engineering Services
Asset Systems Management
Construction Services
Design Services
Stormwater Retrofit Services
Materials Test Laboratory
Capital Program Management and Controls
Systems Development
Pollution Prevention Services
Environmental Compliance
Environmental Investigations
Portland Harbor
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
Natural Resource Damage Assessment (NRDA)
Water Resources Development Act (WRDA)
Wastewater Services
Collection System O&M
Pumping and Treatment O&M
Watershed Services
Science, Fish and Wildlife (Endangered Species Act)
Sustainable Stormwater
Watershed Management
Watershed Revegetation
FY 2014-15 Requested Budget

Bureau Summary

Bureau Mission

The Bureau of Environmental Services, Portland's clean river agency, serves the Portland community by protecting public health, water quality, and the environment.

Environmental Services provides sewage and stormwater collection and treatment services to accommodate Portland's current and future needs.

Environmental Services protects the quality of surface and ground waters and conducts activities that plan and promote healthy ecosystems in our watersheds.

Bureau Overview

The bureau has six major functional program areas and serves a population of approximately 592,000. The bureau operates and maintains sanitary sewer and stormwater collection systems with retail sewer and stormwater charges, wholesale contract revenues from surrounding jurisdictions, and reimbursements for services provided to other bureaus. The bureau is also the City's lead agency for watershed protection and restoration. The bureau's six primary functional program areas are: Engineering Services, Pollution Prevention Services, Watershed Services, Wastewater Services, Portland Harbor, and Administrative Services.

The FY 2014-15 Requested Budget for operating and capital expenditures is $235.5 million, which is $4.5 million or 1.9% lower than the Revised Budget for FY 2013-14 and includes 518.67 full-time equivalent positions. The Capital Improvement Plan (CIP) will decrease $6.4 million from FY 2013-14 which is primarily due to a higher revised budget due to prior year construction lags. The operating portion of the Requested Budget is 1.5% higher or $1.9 million higher than the FY 2013-14 Revised Budget. Increases are the result of the Utility Franchise Fee ($780,000), inflation on service interagencies and reduced internal services requests from the CIP ($319,000) and the planned purchases of replacement vehicles and equipment ($700,000). The average single-family residential sewer and stormwater bill will increase by $2.51 per month, a 4.0% increase for FY 2014-15.

Strategic Direction

System Operations

The FY 2014-15 Requested Budget includes $29.8 million to support the operation and maintenance, inspection, cleaning and repair of 86 active pumping stations, 11 step systems, 2,339 miles of pipeline, 39,760 sewer access structures (manholes), 8,019 storm access structures, 8,587 stormwater sumps (Underground Injection Control), 174,303 laterals, 484,085 linear feet of ditches, 401,227 linear feet of culverts, 50,281 stormwater inlets and catch basins, 334 trash racks, 153 manufactured stormwater facilities, and 1,563 green stormwater facilities.

Infrastructure

The Requested Budget includes $75.4 million to support capital repair and replacement of sewer system assets to prevent catastrophic failures. More than 30% of the collection system is over 80 years old and maintenance needs are anticipated to increase significantly in the near future. The bureau has committed to providing funds for repair of structurally deficient portions of the sewer collection system, and the long-term financial forecast anticipates significant capital maintenance expenditures.

Watershed Protection, Restoration and Remediation

The Requested Budget includes $1.8 million in FY 2014-15 and $1.5 million for years two through five of the five-year CIP to fund watershed protection and restoration projects. Priority will be given to projects that leverage other funding sources, demonstrate new technologies, and/or address multiple watershed health goals (which include water quality, hydrology, physical habitat, and biological communities). The CIP also includes ongoing funding for acquiring and protecting high-priority natural areas, completion of the Crystal Springs culvert replacement program and restoration projects in each of the city's watersheds. Funding is continued for flood management and water quality improvements in Johnson Creek and for the identification, characterization, and possible cleanup of contaminated sediment sites in the Columbia Slough, pursuant to a consent order between the City and Department of Environmental Quality (DEQ).

Water Quality Compliance

The Requested Budget contains water quality compliance related funding across a variety of bureau program areas, including Watershed Services, Pollution Prevention Services, and Engineering Services. Compliance with the City's National Pollutant Discharge Elimination System (NPDES) stormwater permit along with the total maximum daily load regulations issued by the DEQ requires the bureau to engage in modeling as well as the evaluation of citywide pollutant loads, stormwater runoff volumes, and the effectiveness of stormwater management program implementation. The bureau must also comply with underground injection control (UIC) regulations issued by DEQ for the City's 8,587 stormwater sumps.

Portland Harbor Superfund

The bureau represents the City's interests on the Portland Harbor Superfund site by both working with DEQ to identify and reduce sources of contamination conveyed to the Willamette River via stormwater outfalls, and as a member of the Lower Willamette Group funding and participation in the Portland Harbor Remedial Investigation and Feasibility Study. This information will be used in the Superfund process over the next several years to assess the City's potential liability for cleanup activities. The Requested Budget includes $4.1 million 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 ESA 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. A number of the recovery plan requirements are necessary for the bureau's compliance with permits under the Clean Water Act.

Budget Direction

The Requested Budget was developed with direction to submit budget reductions for consideration and prioritization by the bureau's Budget Advisory Committee (BAC). The Bureau submitted a list of reductions across all bureau programs, which was refined and prioritized in consultation with the BAC. The eighteen decision packages below represent a reduction of $2.3 million to the base budget for FY 2013-14, and reflect permanent cuts from FY 2013-14.

Reductions in the Budget

The following items are reductions to the bureau's budget:

- $411,354, for elimination of resources for the Tryon Creek Facilities Plan. The plan is complete. The Tryon Creek Wastewater Treatment Plant Facilities Plan will guide future capital construction at the plant, which must serve growing populations in both Lake Oswego and Portland.
- $10,000 for the reduction of funding required to purchase new Audio/Visual equipment at the Water Pollution Control Laboratory. The purchase was made in FY 2013-14 and equipment was installed.
- $75,000 for elimination of resources for the Stormwater Management Manual. The manual is complete. The Stormwater Manual provides policy and design requirements for stormwater management throughout the City of Portland for all development, redevelopment, and improvement projects within the City of Portland on private and public property and in the public right-of-way.
- $101,748 to reduce resources for one-time software upgrades. A required upgrade of the bureaus MS Office software from Office 2003 to Office 365, plus training, is budgeted at $251,748 for the current year. Given the one-time nature of the expense, the FY 2014-15 budget would ordinarily show a reduction by that amount. This reduction would leave $150,000 of (one-time) upgrade and training expenses for any potential upgrade and training costs that would occur in FY 2014-15.
- $150,000 reduction in one-time FY 2013-14 expenses. Updated schedule for implementation makes it more likely that software installation will be completed in FY 2013-14. Eliminating this partial carryover of a one-time expense will leave no budget for staff training.
- $345,538 to adjust the budget to historical and projected usage and rates, and represents about 16% of the current FY 2013-14 pump station adopted budget of $2,129,538.
- $119,000 transfer of funding for maintenance and repairs of the Portland Loos to the General Fund. Although they serve a public purpose, maintenance and repair of the loos is not core to the bureau's mission. If this cut is taken further maintenance of the loos would require alternate funding, which could be partially offset by royalty revenues from loo sales to other agencies.
- $60,000 to eliminate funding for a one-time equipment purchase at the Water Pollution Control Laboratory. This one-time purchase of gas chromatography mass spectrometry equipment equipped with a flame ionization detector at the Water Pollution Control Laboratory was completed in FY 2013-14, so additional funding is not needed.
- $47,400 to reduce vector control services by 20%. The Intergovernmental Agreement with Multnomah County for services (#52771, June 2006) provides that Vector Control provides Rat Abatement and Control and Mosquito Abatement and Control and related services. This proposal reduces the $237,000 intergovernmental agreement by 20% or $47,400. The primary focus of the reduction should be in mosquito control, monitoring and mitigation and related activities with specific areas of reduction to be negotiated between the parties.

- $73,000 to end support that Environmental Services provides to Southwest Neighborhood Inc. (SWNI) for staffing the Watershed Resource Center (WRC). There are a number of challenging water quality and watershed health issues that impact southwest Portland, but there is no watershed council for the area to address them. Environmental Services' Municipal Separate Storm Sewer System Discharge Permit includes these types of outreach as best management practices which are included in the bureau's compliance report. Continuing the WRC staff position would require that SWNI backfill the loss of funding from other sources. There is potential for reduced community engagement in activities to protect and enhance watershed health (i.e., invasive plant removal, native plant landscaping, habitat restoration projects, water quality protection), reduced ability to get work accomplished on private property, and lost opportunities to leverage resources (i.e. get grants) to develop cost-effective watershed restoration projects.
- $425,000 to eliminate the remaining contribution to the Portland Bureau of Transportation Street Cleaning program. Street cleaning is a common and expensive practice undertaken by most urban municipalities. Street sweeping, essentially the operation of large trucks for cleaning street surfaces, is primarily performed for aesthetic purposes. It is often perceived to lead to improvements in the environmental conditions of urban waterways by preventing pollutants deposited on street surfaces from reaching the stormwater system, and subsequent to that, urban streets. There is, however, little available evidence to quantify the extent to which street sweeping can improve stormwater quality. Portland also has a few key features that make the questionable benefit of street sweeping even more marginalized. Portlands street runoff in most of the City is captured in another treatment facility; either the combined sanitary and stormwater pipes that flow to the wastewater treatment plant, or to stormwater facilities that capture sediments and allow for their mechanical removal in a more efficient manner. An ongoing cut of $425,000 equals approximately 100% of Environmental Services contribution and an estimated 20% reduction of total City street cleaning budget. Eliminating Environmental Services contribution to the Bureau of Transportations provision of street sweeping services would have a negligible and/or immeasurable effect on the water quality of urban streams and pose a lower risk reduction to the budget than other programs of its size.
- $60,000 to reduce janitorial and operations and maintenance services at the Water Pollution Control Laboratory. The Water Pollution Control Laboratory (WPCL), in North Portland includes both office and industrial space with a full service laboratory. Additionally, the facility has two meeting rooms for Bureau staff that have also been made available for after-hours use by neighborhood associations, community groups and other non-profit organizations. The building is seventeen years old with increased maintenance needs for floors, furniture and restroom facilities This proposal reduces the interagency agreement for maintenance and janitorial services from $276,000 to $200,000. These reductions will include specialized and preventative maintenance and repair services provided by a facilities technician as well as reductions in daily janitorial services necessary to meet the needs of the workforce and the expectations of the public using the facilities evenings and weekends. This proposal reduces the level of service provided for a depreciating building. Cuts to the maintenance and cleaning schedules will require either a reduction in public usage of the building or the institution of charges for the use of the facility.

- $8,000 reduction for the elimination of funding for the FY 2013-14 purchase of electronic records management software licenses. The licenses are required if bureau staff are to access the City Auditor's Records Management Services. Funding for these purchases is not required in FY 2014-15.
- $100,000 reduction for City support for engineering assistance for ecoroof design since the city no longer has an incentive program to facilitate ecoroof development for stormwater management purposes. This decision package has minimal impact to service delivery, since the existing budget is historically under spent.
- $100,000 reduction for Natural Resource Trustees support, representing approximately 35% of funding natural resource trustees. The Natural Resource Trustees (Native American Tribes, National Oceanic and Atmospheric Administration/National Marine Fisheries Service, US Fish and Wildlife Service, Oregon Department of Fish and Wildlife) are tasked with determining the damage to natural resource caused by the contamination at the Portland Harbor Superfund Site. The City, as are other parties, is involved, and helps fund, the trustees as they determine the extent of the damage and identify options to correct or mitigate for the damage. The City expects that involvement with the Trustees will require more of their expertise as the extent of the City's liability for natural resource damages is determined, and an approach for correcting those damages is agreed upon. The City will be expected to fund the efforts of the trustees as they work with the City on these issues. There is some risk in reducing the funds available for supporting the Trustees as it could impact the Citys ability to efficiently come to an agreed upon resolution to its liability, thus potentially creating significant financial uncertainty.
- $100,000 reduction for technical contract support. This reduction represents approximately 13% of the technical assistance contract budget. The technical assistance contracts provide support for the City's participation in the ongoing Portland Harbor Superfund liability allocation process. This process will ultimately determine the amount of financial liability the City is assigned in the cleanup of Portland Harbor. This reduction will limit the Citys ability to review information developed by other parties and respond to statements about City properties or operations, thus affecting the ability to defend City positions in the allocation process. As a result of this reduction, there may be an increase in risk that Environmental Services may not be able to provide the technical support for preparation of the necessary information, which may affect the City's ability to meet its obligations under the agreed settlement procedure.
- $100,000 reduction for legal support for the City's participation in the Portland Harbor Superfund site is critical. The ongoing allocation process will determine the ultimate financial liability for the cleanup. This reduction represents about 10% of the legal services budget. There is some risk in reducing legal support as it will impact the City's ability to participate in the liability allocation process - from both a strategic positioning and on the ground review of questions and statements from other parties regarding City liability. Again, the reduction may affect the City's ability to meet its obligations under the agreed to settlement process.

Realignment in the Budget

There is one realignment package included in this budget request:

- $60,000 for lease revenue from Multnomah County. The City and Multnomah County reached an agreement dated May 9, 1968 that, among other stipulations, allows the county to occupy and beneficially use City of Portland property and structures on the Columbia Boulevard Wastewater Treatment Plant campus without compensation. The agreement does allow for modification or amendment, but not termination of the agreement. Environmental Services proposes to modify the agreement such that Environmental Services becomes the landlord and the County becomes the tenant of property and structures mentioned herein, and Environmental Services provides security, sewer, garbage, janitorial and other typical services in return for the County as tenant to pay a $5,000 per month lease to the bureau for beneficial use. The lease revenue will replace sewer and stormwater utility charges.

Capital Budget

CIP Highlights

Environmental Services successfully met its December 2011 deadline for Combined Sewer Overflow (CSO) commitments mandated by the requirements of the Amended Stipulation and Final Order (ASFO). This program area has been eliminated from the CIP, leaving four program areas. The majority of the five-year CIP is in the Maintenance and Reliability program, 68%. The balance is divided among Sewage Treatment Systems program, 11%, Surface Water Management program, 16%, and Systems Development program, 5%.

Environmental Services operates and maintains an extensive array of capital facilities that include both sanitary and storm water collections systems, pumping and treatment facilities, and watershed enhancements. In order to manage the Bureau's extensive infrastructure investment, Environmental Services is developing an asset management approach to prioritize future investment.

Major Issues

Environmental Services has a regular inspection program to determine pipe condition and utilizes capital projects and operational activities to rehabilitate or replace failing pipe. Much of the collection system pipe in the City's older neighborhoods is more than 100 years old. The March 2012 system plan element for the sanitary and combined collection systems, identified an estimated $123 million in priority pipe maintenance needs.

The Sewage Treatment Systems program is to maintain and upgrade the two wastewater treatment plants (Columbia Boulevard and Tryon Creek) and nearly 100 pump stations located throughout the collection system. A number of major upgrades are wrapping up at the Columbia Boulevard plant. These upgrades are required in order to continue to meet permit requirements and to handle the increased flow from the CSO projects.

Changes from Prior Year

In comparing this proposed five-year CIP to last year's 2014-2018 CIP, the four common years (2015-2018) have increased $4 million or less than 1%. The increase can be attributed to a combination of minor shifts in project schedules and project priorities and a 3.45% escalation factor for future projects. While all projects in the five-year CIP are in FY 2014-15 dollars, escalation assumptions are incorporated into the five-year financial forecast.

Maintenance and Reliability

Proposed spending in this program is slightly higher than anticipated in the prior year CIP primarily due to construction schedule adjustments.

Sewage Treatment System

Proposed spending in this program is slightly higher than anticipated in the prior year CIP primarily due to construction schedule adjustments.

Surface Water Management

Proposed spending in this program is lower than anticipated as compared to the prior year CIP primarily due to schedule adjustments.

Systems Development

Proposed spending in this program is higher than anticipated in the prior year CIP primarily due to a proposed sewer extension project.

Council Goals and Priorities

Over the past few years, citizens and neighborhood committees have been more involved in the planning and development of the Bureau's capital projects. This involvement has included interest in specific construction projects such as the stream restoration work and sewer replacement projects. Public involvement has also come in the forums of policy advisory groups for work elements like the update to the Portland Watershed Management Plan. In addition, there are a number of standing committees including the Stormwater Advisory Committee, the Watershed Science Advisory Committee, the Portland Utility Review Board, and the Columbia Boulevard Wastewater Treatment Plant Citizens Advisory Committee. In 2006, the Bureau convened a citizen task group to review the CIP project selection criteria and CIP development strategy. This task group recommended that the Bureau focus on reducing maintenance and reliability backlogs, addressing serious sewer back up problems, and advancing best management practices that have the potential to avoid future regulatory mandates. As in past years, the Bureau convened a Budget Advisory Committee (BAC) as part of the FY 2014-15 budget development process. The BAC was briefed on the proposed CIP and its impact on sewer rates and endorsed the CIP.

The CIP development strategy is consistent with the City's goal to improve water quality and the overall well being of its citizens. It is focused on strategic and comprehensive program delivery and environmental protection and restoration within a prescribed regulatory framework. Priority is given to those projects mandated by federal and state laws and those projects that address City Council goals and objectives.

Capital Planning & Budgeting

Capital Planning Process

The CIP is developed utilizing 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 sewerage, drainage, and surface water systems and the community they serve are appropriately funded and scheduled. A Bureau-wide stakeholder review team investigates, scores, and ranks all CIP projects in accordance with identified CIP Criteria. CIP weighted criteria, scoring instructions, scheduling guidelines, estimating procedures, and project request forms are used to ensure each project is developed, reviewed, and scored based on detailed and

consistent information. A CIP development strategy guides project selection and scheduling. Projects are reviewed by managers in finance, program areas, operations, and engineering to insure financial resources are expended effectively and appropriately. The CIP management team evaluates all the information from the process, meets with selected Bureau project and program managers to refine cost and schedule data, and submits a recommendation to the Bureau Director. The Bureau Director reviews the findings and approves the CIP plan.

City Comprehensive Plan

The City's 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. The sanitary and stormwater facilities goal and policies state that facilities be provided in an efficient and adequate manner to support the needs of the public while also meeting federal, state, and local clean water requirements. Specific policies address preventative maintenance, control of combined sewer overflows, sewer connection priorities, operation of treatment plants, master planning for stormwater management, and the limit of impervious surfaces. The CIP reflects a commitment to improving the water quality in Portland and to meeting the Comprehensive Plan's sanitary and stormwater facilities policies.

The Maintenance and Reliability Program continues to repair and replace segments of the system in order to protect the City's infrastructure investment for current and future system users. Reliability is critical to effective service and protection of public health and the environment. Increased application of internationally accepted utility asset management principles has focused the bureaus attention on assets with the highest risk and highest likelihood of failure.

The Systems Development program is intended to support the implementation of the 2040 Plan. Using asset management principles, the bureau has identified neighborhoods where sewer service is unavailable and where the existing on-site disposal facilities are at risk of failure.

In the last few years, the bureau has built multi-objective systems to address stormwater management, enhance fish and wildlife habitat, and create recreational benefits to the surrounding waters. Historically, drainage systems were constructed only to address flooding and standing water problems. Now, stormwater management projects are developed in a manner that integrates watershed health and system infrastructure needs. Increasingly this multi-objective approach is being incorporated into the wider CIP program.

Management Direction

In 2011, the Bureau updated its Strategic Plan, incorporating an increased emphasis on asset management principles. The CIP development strategy is built on the Bureau's strategic plan, input from the 2006 Citizen Task Group, updates to the systems plan, and the regulatory framework. The CIP is shaped by the strategic directives and further shaped by the regulatory environment and stresses the need for comprehensive, multi-objective solutions and reflects the objectives of River Renaissance, the Comprehensive Plan, and the Portland Watershed Management Plan.

Collection System Maintenance and Reliability

Improve and maintain the collection system to provide accepted levels of service. The March 2012 Systems Plan (for sanitary and combined sewers) recommends projects with a favorable benefit/cost ratio that reduce bureau risk. These include pipe rehabilitation projects, projects to address the highest risk of basement sewer backup, and projects to address Rainfall Derived Inflow and Infiltration in the separated system.

Sewage Treatment Systems

Regulations, primarily through the NPDES Waste Discharge permits, require investments in the ten year planning horizon at the two treatment plants: Columbia Boulevard Wastewater Treatment Plant (CBWTP) and Tryon Creek Wastewater Treatment Plant (TCWTP). The draft update to the TCWTP Facilities Plan recommends major improvements to comply with permit and address anticipated growth. Funding is shared with Lake Oswego. The balance of this program area addresses small capital maintenance needs at the two plants through the Repair, Rehabilitation and Modification program and for the pumping system through the Pump Station Improvement program.

Systems Development

In support of the 2040 plan, fund projects that cost effectively and incrementally expand the sewer collection system. Fund sewer improvements in association with public works projects by others, primarily road and transit transportation projects. In response to Council action, the Bureau has developed a program to address non-conforming sewer connections. Most of the work to date has been in response to either a service failure or a property sale. Some work has been accomplished in conjunction with planned pipe rehabilitation projects. As resources permit, the Bureau hopes to address these in a more proactive manner.

Surface Water Management

In collaboration with other program areas and community partners, systematically protect and restore surface water assets and insure overall watershed health. Prioritize projects that protect, enhance, or restore the most critical existing watershed functions and/or preserve those locations at the greatest risk of damage. This is accomplished by implementing the Watershed Plan recommendations for systematically restoring important natural functions and/or using green infrastructure to reduce or avoid stormwater impacts. The Bureau is developing a stormwater system plan as part of its overall system planning and asset management implementation. The pilot project for the Stephens Creek subwatershed will serve as a model for continued systems planning work and will inform future CIP development. Near-term priorities for this program area including continuing restoration on Johnson Creek; stormwater projects in Fanno/Tryon and the Columbia Slough; and restoration and enhancement projects along the main stem Willamette River, tributaries, and the Columbia Slough.

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, regulatory body orders, and court orders. Revenues from rates and other sources must be sufficient to fund the necessary operation and capital programs. The bureau forecasts annual rate increases of 4.0% for next year, 4.5% in the second year, 4.0% in the third and fourth years, and 3.35% for the fifth year. These increases are due to growth in annual debt service costs resulting from the CIP, partially offset by transfers from the Rate Stabilization Fund and increases in non-rate revenues. As mentioned previously, all CIP expenditures in the financial forecast include an estimate for inflation.

Asset Management and Replacement Plans

For the 2013 Citywide Assets Report, the bureau reported an annual funding gap of $12.4 million. This gap includes rehabilitation and capacity needs in two major systems: combined sewers, and stormwater conveyance and water quality facilities. The estimated gap is based:

- The capacity projects in the combined system with positive benefit/cost ratios which were not included in the financial plan as identified in the System Plan.
- The extent of stormwater system needs is unknown. The estimate makes very broad assumptions from the Stephens Creek pilot for both rehabilitation and capacity needs.

Public Facilities Plan Overview

Major elements of the Bureau's 1999 Public Facilities Plan (PFP) have recently been updated including the CBWTP plan and the combined and sanitary sewer system plan. An update to the TCWTP facilities plan is in final draft form. The stormwater system plan is in early development. An update to the pump station plan is also needed, but not underway. Projects are based on an analysis of the capacity of the existing system as compared to the densities in the Comprehensive Plan. Capacity is determined from hydraulic analysis and a review of existing structural conditions. The current PFP addresses significant or major facilities for the Bureau's four types of infrastructure systems:

- The combined sewer system includes the network of pipelines and pump stations that collect and convey combined stormwater and wastewater.
- The sanitary sewer system includes the network of pipelines and pump stations that collect and convey wastewater.
- The stormwater system includes the swales, ponds, channels, creeks, sloughs, ditches, culverts, sumps, and pipe systems that convey and/or treat stormwater runoff from the land.
- The wastewater treatment system includes two secondary wastewater treatment plants: the Columbia Boulevard and the Tryon Creek Wastewater Treatment Plants.

The PFP uses an integrated watershed approach to assess facilities needs. In this approach, an entire watershed is analyzed as a unit to identify interrelated problems and coordinate all plans, activities, and programs. This avoids solving a problem in one area while creating another problem elsewhere. It also leverages limited funds to solve multiple problems with a single integrated solution. There are four major watersheds within the City of Portland: the Willamette River, Fanno and Tryon Creeks, Johnson Creek, and Columbia Slough/Columbia River.

Capital Programs and Projects

Capital Program Description

The Capital Improvement Program is divided into four program areas: Maintenance and Reliability, Sewage Treatment Systems, Surface Water Management, and Systems Development.

Maintenance and Reliability

Projects in this program area address major maintenance requirements of the sewerage collection system including collector sewers, trunk sewers, and interceptor sewers. The City's sewerage collection and transportation system includes approximately 1,885 miles of sewer line ranging in diameter from four inches to 14 feet and over 450 miles of stormwater pipes. Much of the collection system pipe in the City's older neighborhoods is more than 100 years old. In some areas of the City, recurrent basement flooding is a major problem creating health and environmental hazards as well as property damage. This program addresses those problems using a multi-objective approach which includes pipe replacement or rehabilitation, on-site drainage controls, street inflow controls, and up-sizing undersized public facilities that are causing backup of sewage into basements. Funding in this program area is focused on rehabilitation/reconstruction of the most structurally deficient portions of the collection system.

Sewage Treatment Systems

This program funds projects located at the Columbia Boulevard Wastewater Treatment Plant (CBWTP) and the Tryon Creek Wastewater Treatment Plant (TCWTP) as well as maintenance and repair or rehabilitation of the 97 active pump stations located system wide. 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 (NPDES) permit for each plant. High priority is given to projects that provide operating efficiency, reliability, and longevity of the facilities. Most of these improvements include replacement and reconstruction of aging and unreliable plant or pump station components. A new project to upgrade the TCWTP is proposed to begin in FY 2014-15, consistent with the recommendations of the draft Facilities Plan.

Surface Water Management

The primary objective of this program is to protect the quality of surface and ground waters by addressing watershed health and public safety concerns associated with flooding, stream erosion, and urban pollution. Water quality and flood control projects are located in the Columbia Slough, Fanno Creek, Johnson Creek, Tryon Creek, and along the main stem of the Willamette River. Projects are developed to meet the provisions of the Watershed Management Plan adopted by City Council in 2005 and updated in 2012. The Watershed Management Plan promotes techniques that incorporate natural systems into the built environment. By protecting and restoring natural functions, the City can provide a stormwater management system more resilient to impacts and more responsive to federal and state regulatory mandates related to surface and groundwater protection. This program is also guided by the Endangered Species Act Resolution adopted in 1998,

the Clean River Plan finalized in 2000, and the River Renaissance Vision adopted in 2001. This program is also responsible for meeting certain conditions of the Water Pollution Control Facilities Permit issued by the Oregon Department of Environmental Quality (DEQ) in June 2005. The specific areas covered by the Surface Water Management Program are the conditions placed on the City associated with owning and operating 9,000 active Underground Injection Control Systems (UICs). As part of this permit, the City is required to identify any UIC that will not meet conditions of the permit and retrofit or decommission them. Projects proposed under this program include construction of various types of water quality facilities (ponds, swales, green streets), sump retrofits, and stream restoration including culvert replacement. By addressing water quality and flooding issues, these projects aim to protect fish, enhance wildlife habitat, and enhance community livability through the greening of urban areas.

Systems Development

The primary focus of this program area is to expand the city's sewer collection system in support of the implementation of the 2040 Plan. This program carries out the Bureau's commitment to provide an efficient sewerage system to residents and businesses within our service area, to support new development, and to protect public health and the environment. This program also includes other capital projects that do not fall under the scope of other CIP program areas relating to sewer system expansion and privately funded development.

Funding Sources

Planned CIP outlays total $530 million (excluding inflation) over the five-year forecast interval FY 2014-15 through FY 2018-19. 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 in the form of cash and in the form of proceeds from special assessment bonds issued for property owners who elect to finance their line and branch charges. Total revenues from these charges are projected to be approximately $11.8 million over the five-year forecast interval.
- **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 is the result of meeting debt service coverage requirements on outstanding bonds. For planning purposes, the Bureau maintains coverage ratios of 1.50 on first lien debt, 1.30 on combined first and second lien debt, and an ongoing reserve of 10% of operating expenses for unforeseen financial needs. After making debt service payments, funds in excess of those required for the 10% operating reserve are available to fund capital improvements. Cash transfers from the Operating Fund to the Construction Fund are projected to total $114.4 million over the five-year forecast interval.

- **Bond Proceeds**. Based on current planning assumptions, the Bureau's five-year CIP request will require $527 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 5.75% for the bonds sold in FY 2014-15, and 6.5% for the bonds sold in FY 2016-17 and FY 2018-19, with the Bureau's planning standard debt service coverage ratios of 1.50 and 1.30, as mentioned previously.

Major Projects

Major CIP projects include the following highlights:

Maintenance and Reliability

- **Pipe Rehabilitation Projects**: This suite of projects address failed pipe and pipes with the highest risk of failure. Nearly one-third of the pipe system is over 80 years old. A large percentage of this program area is focused on projects to reduce risks from failed or failing pipes. Projects and program in this suite of projects include Maintenance Capital Contract, Phase 2 and 3 Pipe Rehab, Tryon Sanitary Sewer Protection, Structural Rehab Taggart Outfall 30, SE Interceptor Rehab, and the Large Diameter Sewer Rehab.
- **Capacity Projects**: suite of projects to relieve risk of sewer backup and street flooding in various basins using a combination of pipe upsizing and stormwater infiltration facilities. Projects also rehab pipe in very poor condition. Priority is given to projects with the highest net benefit/cost ratio. Each year, more green street facilities are added to the inventory, creating increased pressure on the operation budget. Projects in the five-year CIP are located in a number of basins, primarily in close-in neighborhoods including: Hollywood, Northwest Neighborhoods, the Taggart Basins (Brooklyn Creek), Alder Basin, Wheeler Basin, and Piedmont-Woodlawn-King.
- **Fanno Basin Improvements:**This group of projects is addressing deficiencies in the Fanno Basin Pump Station Pressure Line system. Remaining work includes the expansion of the existing pump station and improvements to major trunk lines.
- **Westside Rainfall Derived Inflow and Infiltration:** In the separated sanitary system, stormwater is entering the sytem which is not sized to accommodate stormwater flows. This program is for projects to prevent stormwater from entering the sanitary system, primarily in the Fanno and Burlingame Basins.

Sewage Treatment Systems

- **Pump Station Improvement Program:** This is an ongoing program to refurbish and upgrade pump stations to meet current codes, to operate more reliably, to upgrade facilities to meet increased demand, and to replace out dated equipment. The Bureau operates 97 pump stations.
- **Treatment Facilities - Rehabilitation and Modification:** Both the CBWTP and TCWTP are major capital assets that require ongoing investment for repair, rehabilitation, and maintenance work to protect the capital investment and enhance system reliability. This program is key to preventing violations of our NPDES permit. It facilitates small capital projects for the replacement of capital equipment and upgrading of aging facilities.

- **CBWTP Lagoon Reconstruction:** To provide for better management of solids, this project will construct additional dikes in the existing lagoon to create more separation. The individual ponds will be lined with a monofill.
- **TCWTP Headworks, Dry Weather Clarifier & Odor Control Improvements:** recommended upgrades from the draft Facilities Plan to meet future demand and continue to meet permit requirements. Jointly funded with Lake Oswego.

Surface Water Management

- **Johnson Creek Restoration Program:** This program is implementing the recommendations of the Johnson Creek Restoration Plan, 2001. The plan identifies a number of projects to mitigate flooding, improve water quality, and improve fish and wildlife habitat. This program includes willing seller land acquisition in four target areas. It also includes restoration of floodplain areas along Johnson Creek with the goals of increased flood storage, increased habitat for fish and other wildlife, and improved water quality. A series of projects are included in the five-year CIP.
- **Columbia Slough projects**: This series of projects will provide infrastructure to restore habitat, and to improve water quality and sediment quality. Sediment projects include working with DEQ for regulatory compliance.
- **Fanno/Tryon projects:** This group of projects will implement the recommendations of the Fanno/Tryon Watershed Plan and the objectives of the TMDL.
- **UIC Improvements**: In June 2005, DEQ issued a permit pursuant to ORS 468B.050 to implement the Federal Safe Drinking Water Act requirements. The permit covers the city's over 8,500 active UICs. UICs (sumps) provide drainage for many rights of way on the east side of the Willamette River. Approximately 60 UICs have been identified for corrective action due to inadequate vertical separation distance between the bottom of the UIC and groundwater, or otherwise be determined to be "non-compliant" by DEQ.
- **Green Infrastructure:** This multi-year program includes three capital improvement program elements: land acquisition for habitat and watershed health, replacement of culverts for fish passage, and development of greenstreets for more sustainable stormwater enhancement.
- **Watershed Investment Fund:** This program funds innovated watershed enhancements. Priority is given to projects that leverage other funding sources, demonstrate new technologies, and/or address multiple watershed health goals.
- **Stephens Creek Improvements:** This series of projects were recommended in the stormwater systems plan pilot study for this sub-watershed.

Systems Development Major Projects

- **Party Sewers:** This program will address shared private sewer lines. Over several years, the program will provide property owners direct access to a municipal sewer line or ensure that appropriate easements have been acquired.

Net Operating and Maintenance Costs

Each project includes estimated Operating and Maintenance costs (or savings) to be included in the operating budget once the facility comes on line. The Operating and Maintenance estimates for costs or savings were prepared by the Wastewater Group. The basis for the estimates depended upon the type of expected impact. The four major components for treatment plant Operating and Maintenance are labor,

energy, chemicals, and materials. Energy and chemicals are more easily predicted. The equipment projected for installation has design parameters that more clearly dictate the resource demands. If there is a direct labor application which will have changed as a result of a project, that estimate would be accurate. However, labor and material costs are more commonly based on experienced estimates with similar projects and facilities from either the City of Portland or others.

Administration & Support

Description

The Administrative Services program area manages the Bureau of Environmental Services, coordinates the activities of the bureau's five service provider groups, and ensures timely and appropriate response to the public, ratepayers, and regulatory agencies. Coordination includes overseeing the development of the bureau's budget and managing review of programs, projects, and services offered by the bureau. The program provides supervision of the following specific service areas:

- Public Information and Community Outreach and Involvement provides public information, communication planning, public involvement, environmental education, and internal communication services required to meet the mandates of several state and federal requirements.
- Environmental Policy is responsible for developing environmental policies, rules and codes, and coordinating that work within the bureau and with other city bureaus, interest groups, and federal, state, and local agencies involved in environmental planning and implementation affecting the City.
- Employee Development includes identifying training needs and solutions for managers and employees, coordinating internal and external education and training, and maintaining the bureau's database of employee training and development activities.
- Finance includes budget development, accounting, financial planning and forecasting, debt management, rate development, grants management, project tracking and year-end financial reporting, wholesale service contract development and administration, management of the Clean River Rewards stormwater discount program and administration of the Nonconforming Sewer Conversion program.
- Information Management activities include administering the bureau's data management software and software needs.

Goals

Public Information and Community Outreach and Involvement support the City goal to protect and enhance the natural and built environment by communicating the importance of these goals to City residents and ratepayers through public information, education, and involvement in bureau programs and projects.

Environmental Policy provides indirect support to the city goal of protecting the natural and built environment by working with legislation and regulations that protect the environment.

Bureau Support, Employee Development, and Finance provide indirect support to the City goal of protecting the natural and built environment by performing necessary business processes, helping to enhance employee skills, acquiring the necessary equipment, and securing necessary financing for bureau operating programs and capital construction.

Information Management supports the City goal of protecting the natural and built environment by developing and maintaining the data to support the bureau's asset management efforts.

Performance

Communication performance measures focus on increasing community awareness of the Environmental Services programs and services, engaging citizens in the decision making processes for bureau projects and programs that impact the community, and providing clean river education opportunities for grades K-12. The bureau education programs reached 11,434 students in FY 2012-13. The goal for FY 2013-14 was reduced to 6,000, as a result of the elimination of an environmental educator position. For FY 2014-15, the goal is 12,000 students, to be achieved with temporary part time position support.

The bureau's debt service coverage ratio for all revenue bonds was 1.29 for FY 2011-12 and 1.30 for FY 2012-13. The goal is to maintain the financial planning standard of 1.30 over the coming five years. The bureau's current bond rating is Aa3/ AA, a strong rating for sewer revenue credit. The goal is to maintain this rating.

The bureau's accident/injury incident rate (recordable incidents per 100 workers) is 3.5 for FY 2011-12, up from 3.0 for the previous year. The incident rate for FY 2012-13 was 2.96. The goal for FY 2013-14 is 3.8, and 3.50 for FY 2014-15.

Changes to Services and Activities

The program has a net reduction of $282,748. Changes include reductions to Information Management for one-time software upgrades ($251,748) and the transfer of the Portland Loo Program to the General Fund ($119,000). Increases include $88,000 for three scheduled vehicle replacements for the bureaus facility, risk management and public involvement programs.

There are no service delivery impacts resulting from these changes.

FTE & Financials	Actual FY 2011-12	Actual FY 2012-13	Revised FY 2013-14	Requested No DP FY 2014-15	Requested FY 2014-15
FTE	68.50	78.80	69.90	60.00	60.00
Expenditures					
Administration	1,292,639	1,178,448	1,233,567	1,284,447	1,284,447
Administration & Support	5,801	2,928	0	0	0
Bureau Support	7,496,267	7,931,489	8,195,182	8,594,697	8,405,697
Communications	1,074,603	919,728	829,836	957,619	957,619
Employee Development	434,476	570,918	114,407	37,220	37,220
Finance	6,209,227	20,412,981	20,738,425	21,646,827	21,646,827
Information Management	5,722,405	4,939,528	5,272,394	5,359,021	5,107,273
Total Expenditures	**22,235,418**	**35,956,020**	**36,383,811**	**37,879,831**	**37,439,083**

Performance	Actual FY 2011-12	Actual FY 2012-13	Yr End Est. FY 2013-14	Base FY 2014-15	Target FY 2014-15
Effectiveness					
Maintain the bureau's first lien debt service coverage ratio at 1.5 or greater	1.93	1.94	1.95	2.10	2.10
Maintain bureau's combined first and second lien debt service coverage ratio at 1.3 or greater	1.29	1.30	1.30	1.30	1.30
Efficiency					
Amount of time loss, in hours, due to injury	3.50	2.96	2.20	3.50	3.50

Performance	Actual FY 2011-12	Actual FY 2012-13	Yr End Est. FY 2013-14	Base FY 2014-15	Target FY 2014-15
Workload					
Number of students provided with bureau education programs	13,473	14,793	8,000	12,000	12,000

Engineering

Description

Engineering Services serves the community by managing the planning, design, and construction of public improvements necessary to protect public health and watersheds. Engineering Services provides analyses, design, construction management, technical standards, documentation of best management practices, protection and enhancement of the system, development review and permitting, CIP program and budget management, and implementation of programs to protect infrastructure. Engineering develops and revises the City's Stormwater Manual and implements system plans and policies that protect water resources and stream integrity. Engineering Services is divided into six divisions that include the following:

- Capital Program Management & Controls develops the bureau's annual capital budget and five-year capital improvement plan, monitors the budget and program, and provides support functions for program delivery.
- Asset Systems Management provides short- and long-term engineering analyses and planning for combined, sanitary, and stormwater facilities and watersheds using an asset management framework. It is responsible for developing and leading improvement to the bureau's asset management program.
- Design Services provides project management and engineering design services, and is responsible for ensuring each assigned project accomplishes its intended purpose on schedule, within budget, at best value, and in a manner consistent with City and bureau missions and values.
- Construction Services provides construction management and inspection services for bureau projects, development projects and projects managed by other City bureaus for assets that become part of the bureau's infrastructure.
- Materials Test Laboratory provides materials testing, inspection, and geotechnical services for both bureau projects and projects managed by other City bureaus.
- Systems Development assists developers and other customers and supports City development goals by reviewing and approving plans, issuing permits and inspecting private stormwater facilities
- Stormwater Retrofit Program manages partnerships with private property owners to increase on-site stormwater management at targeted locations.

Goals

Engineering Services supports the City goal of protecting and enhancing the natural and built environment by preserving, protecting, and enhancing infrastructure. Engineering Services develops and improves wastewater and stormwater assets to preserve and enhance the value of the community's investment; aggressively controls sewer overflows and basement flooding; explores and evaluates innovative technologies and solutions; and integrates natural system concepts into design, construction, and maintenance of systems that retain or improve the current service level.

Performance

Construction management costs are forecasted to be 12% of total construction costs. More than 99% of pipe identified as highest priority for repair or replacement is incorporated into funded CIP or operating projects.

Changes to Services and Activities

The program has a net reduction of $367,354. Changes include reductions for consulting contract to update the Stormwater Manual ($75,000) and the Tryon Creek Facilities Plan ($411,354). These plans have been completed and funding is no longer needed. Increases include $90,000 for modeling services and $29,000 in additional funding for scheduled vehicle replacements.

There are no service delivery impacts resulting from these changes.

FTE & Financials	Actual FY 2011-12	Actual FY 2012-13	Revised FY 2013-14	Requested No DP FY 2014-15	Requested FY 2014-15
FTE	195.88	169.80	170.38	193.98	193.98
Expenditures					
Asset Systems Management	63,712,637	37,011,160	2,693,519	3,146,068	3,071,068
Capital Program Mgmt & Controls	42,630,086	57,639,348	119,926,860	112,767,427	112,767,427
Construction Services	1,580,417	1,558,555	982,869	699,055	699,055
Design	1,876,597	2,007,516	1,411,788	1,606,500	1,195,146
Downspout Disconnection	120,940	116,593	422,156	117,749	117,749
Engineering	941,884	1,271,073	1,269,843	1,343,632	1,343,632
Materials Test Lab	703,219	1,321,302	1,742,566	1,543,000	1,543,000
Stormwater Retrofit	501,892	515,032	1,094,884	1,276,339	1,276,339
Systems Development	4,173,696	4,976,781	2,726,708	2,984,071	2,984,071
Total Expenditures	**116,241,368**	**106,417,360**	**132,271,193**	**125,483,841**	**124,997,487**

Performance	Actual FY 2011-12	Actual FY 2012-13	Yr End Est. FY 2013-14	Base FY 2014-15	Target FY 2014-15
Effectiveness					
Percentage of pipe identified as highest priority for repair or replacement incorporated into funded Capital Improvement Plan or Op. proj.	99%	99%	99%	99%	99%
Efficiency					
Construction management costs as a percentage of total construction costs	11%	12%	12%	12%	12%

Pollution Prevention

Description

Pollution Prevention Services includes two programs: Environmental Investigations and Environmental Compliance. This service area also includes the Portland Brownfield Program.

- Environmental Investigations provides wastewater, stormwater, surface water, groundwater, industrial wastewater, gases, soils and sediment sampling and monitoring services. It provides a full-service environmental laboratory, conducts environmental site analysis as well as environmental project management. The group provides consultation, data analysis, and reporting for the bureau, other City bureaus, and outside agencies.
- Environmental Compliance manages the bureau's regulatory enforcement process including industrial pretreatment, stormwater, and other environmental regulations under the bureau's authority. This service area also ensures bureau compliance with its state and federal regulatory obligations including permits governing wastewater collection and treatment, influences environmental policy and regulations developed by other entities; and manages the City's stormwater and groundwater permits under the Clean Water Act and the Safe Drinking Water Act.
- Portland Brownfield Program provides assistance for assessment and cleanup of contaminated properties through use of federal brownfield grants, matching funds from public agencies, and investment by private sector partners. Program services address soil and water contaminants to protect human and watershed health. Brownfield Program projects return contaminated sites to productive economic and community use through partnership with neighborhoods and businesses.

Goals

Pollution Prevention Services supports the City goal of protecting and enhancing the natural and built environment by increasing innovative pollution prevention strategies. Pollution Prevention Services achieves this goal by providing technical assistance to City staff and to industrial and commercial operators and homeowners to prevent pollution through effective permit management, installation and maintenance of best management practices, technical assistance and education, and establishing partnerships with individuals and organizations to control pollution at the source to prevent impacts to water quality and the City storm and sewer collection systems.

Performance

In FY 2013-14, 99% of industrial enforcement tests are expected to be in full compliance, which is the same level of performance as in prior years. The goal for FY 2014-15 is to work with customers to maintain this level of performance. Site investigations and remediation will require an average expenditure of $13,000 per site in FY 2014-15. Total costs per project ranges from around $3,000 to $100,000, with an average of $13,000.

The Water Pollution Control Laboratory estimates it will perform 48,000 lab analyses in FY 2014-15. This figure is approximately the same as the actual number of testing performed during FY 2010-11. In FY 2011-12, 56,504 tests were performed, which was a significant increase from the previous years. The bureau is projecting approximately the same results as FY 2010-11 because of a decrease in the types of tests required for the Underground Injection Control (UIC) Program and an increase in the number of tests coming from outside agencies.

Changes to Services and Activities

The program has a net increase of $46,000. Changes include reductions for a decrease in janitorial services ($60,000) and one-time purchases for equipment ($70,000). Increases include one scheduled vehicle replacement ($30,000) and a new vehicle purchase ($30,000) for Environmental Compliance activities. Other increases are also equipment purchases for upgrades of the radio communications and data collection components of the HYDRA (HYdrological Data Retrieval and Alarm) system ($89,000), ventilation and temperature control system maintenance and repairs to the HVAC (Heating, Ventilation and Air Conditioning) system to the Water Pollution Control Lab ($17,000) and the replacement of continuous flow monitors ($10,000) for sampling and monitoring efforts within Environmental Investigations.

There are no significant service delivery impacts resulting from these changes. Reduction for janitorial services may result in less public usage of the facility or place the bureau in a position to charge for the use of the facility.

FTE & Financials	Actual FY 2011-12	Actual FY 2012-13	Revised FY 2013-14	Requested No DP FY 2014-15	Requested FY 2014-15
FTE	85.17	87.33	85.50	82.67	82.67
Expenditures					
Env. Monitoring & Investigation	2,350,646	2,194,485	1,948,766	1,882,440	1,822,440
Environmental Compliance	3,168,193	4,239,833	7,830,491	7,454,447	7,454,447
Pollution Prevention	283,890	214,626	25,524	417,800	417,800
Source Control	3,191,188	3,091,044	0	0	0
Total Expenditures	**8,993,917**	**9,739,988**	**9,804,781**	**9,754,687**	**9,694,687**

Performance	Actual FY 2011-12	Actual FY 2012-13	Yr End Est. FY 2013-14	Base FY 2014-15	Target FY 2014-15
Effectiveness					
Percentage of industrial enforcement tests in full compliance	99.5%	99.5%	99.0%	99.0%	99.0%
Efficiency					
Average resources spent in site investigations and cleanup, per site investigated or remediated	$12,596	$11,212	$13,594	$13,000	$13,000
Workload					
Number of lab analyses performed each year	56,504	53,300	46,000	48,000	48,000

Portland Harbor

Description

The Portland Harbor Superfund program is managed through the Office of the Director and is funded within the Environmental Remediation Fund. The existence of the bureau's Superfund program is recognition by City Council that a strong City presence in the Superfund cleanup is critical. The Bureau's Environmental Policy Manager oversees the Portland Harbor Superfund Program, and reports to the bureau director. The Environmental Policy Manager represents the City in the Lower Willamette Group (LWG), and with the tribal governments, and federal and state agencies, and coordinates with City council on the progess of the work.

The City is a member of the LWG, composed of private and public entities who have signed a formal Consent Order agreement with the Environmental Protection Agency (EPA) to fund a contaminated sediment investigation. The City has dual roles as a party potentially responsible for cleaning up contaminated sediments and as a government with strong stewardship obligations and commitments. As such, the City values our strong working relationship with EPA, Oregon Department of Environmental Quality (DEQ) .The City, working closely with DEQ is assessing the potential of the City's stormwater conveyance system to carry contamination from upland sources to the river sediments.

Program staff work with Natural Resource Trustee agencies and tribal governments on natural resource restoration efforts, and have developed government-to-government relationships with several tribal governments involved in the project. Staff are also working with watershed staff on a Lower Willamette Ecosystem Restoration Project with the Army Corps of Engineers under the authority of the federal Water Resources Development Act (WRDA).

Goals

The Superfund program supports the City goal of protecting and enhancing the natural and built environment by actively participating in the Superfund cleanup. This involvement will also ultimately promote economic vitality and opportunities as Superfund cleanup issues are resolved. The City is helping to fund and coordinate the investigation and potential cleanup activities to ensure that the Lower Willamette River is fully evaluated in a timely and cost effective manner, the Lower Willamette is restored to protect human health and the environment, and liability is fairly allocated among all responsible parties.

Performance

The Portland Harbor program continues to represent the City's interests in the Superfund cleanup as a government looking to improve watershed health as well as a potentially responsible party that is interested in a fair and effective cleanup. As a member of the Lower Willamette Group, the bureau is working with other parties to finalize technical documents related to the contaminated sediment investigation that will ultimately determine how the contamination will be managed. The program is also working with Oregon Department of Environmental Quality to document investigations of upland properties that could convey contaminants to the City's stormwater conveyance system and, ultimately, the river.

Changes to Services and Activities

The program has a net reduction of $200,000. Changes include reductions for outside legal support ($100,000), support for Natural Resource Trustee ($100,000) and contractual program technical support ($100,000). The program includes investigation activities ($500,000) at River Mile 11E to allow design and construction of project after Record of Decision. This project is 80% funded by the Water and Transportation Bureaus.

There are no significant service delivery impacts resulting from these changes. The reductions could have an effect on the Citys role in cleanup or resource restoration. The investigation for River Mile 11E project is in the FY 2013-14 budget, thus a continuing effort within this program.

FTE & Financials	Actual FY 2011-12	Actual FY 2012-13	Revised FY 2013-14	Requested No DP FY 2014-15	Requested FY 2014-15
FTE	5.00	4.00	3.00	3.00	3.00
Expenditures					
CERCLA (Superfund)	1,305	181	900,000	1,400,000	1,400,000
Portland Harbor	4,032,361	2,750,602	3,022,308	3,034,173	2,734,173
Total Expenditures	**4,033,666**	**2,750,783**	**3,922,308**	**4,434,173**	**4,134,173**

Wastewater

Description

Wastewater Services protects public health, water quality, and the environment by effectively administering, operating and maintaining wastewater and stormwater collection, pumping and treatment facilities and by managing related programs in a manner that assures compliance with all applicable permits, regulations, and contracts. In addition to two wastewater treatment plants, the system includes 86 active pumping stations, 11 step systems, 2,339 miles of pipeline, 39,760 manholes, 8,019 stormwater sumps, 174,303 laterals, 484,085 linear feet of ditches, 50,281 stormwater inlets and catch basins, 334 trash racks, 153 manufactured stormwater facilities, and 1,563 "green" stormwater facilities. Additional services provided by Wastewater include biosolids reuse, residuals management, odor control, methane utilization, vector control, and emergency response repairs.

Inspection, cleaning, maintenance, and repair for most sewer and stormwater collection facilities, as well as collection system customer response and utility locating services are provided through an interagency agreement with the Portland Bureau of Transportation Maintenance Operations Environmental Services Division.

This program also manages services that support the operation, maintenance and engineering needs of wastewater infrastructure. These services include administrative support, work and asset management system administration/data management, reporting and analysis, facilities and property management, inventory management and procurement services.

Goals

Wastewater Services supports the bureau and City goal of operating infrastructure in a way that meets regulatory requirements and protecting, rehabilitating and maintaining existing assets for long-term reliability.

Performance

The treatment process at each of the two treatment plants continue to achieve removal of 97% of total suspended solids and biochemical oxygen demand from the wastewater, compared with the 85% regulatory performance required in the NPDES permits. The Wastewater Group plans to sustain this level of performance in FY 2014-15.

Collection and treatment facilities delivered and processed 28.5 billion gallons of wastewater during FY 2012-13 - a 7.8% decrease from the previous year. Factors affecting total volume include the degree of water conservation by customers, how much stormwater and groundwater was kept out of the system, the volume of captured CSO, and rainfall in the service area. Low rainfall during FY 2012-13 drove the total flow lower than originally anticipated. It is expected that wastewater conveyed and treated will total approximately 30.6 billion gallons in FY 2013-14.

The operating and maintenance cost of wastewater treatment was approximately $582 per million gallons treated for FY 2012-13, driven up by lower-than-expected rainfall. This is projected to increase in FY 2013-14 to about $595 per million gallons treated and then increase again for FY 2014-15 to about $655 per million gallons treated.

In an effort to continue to preserve system capacity and prevent sanitary sewer overflows in the collection system, nearly 900,000 feet of sewers were inspected and 1.7 million feet cleaned, totaling over 2.5 million feet that was inspected and cleaned in FY 2012-13. This is projected to remain approximately the same in FY 2013-14.

Changes to Services and Activities

The program has a net increase of $302,002. Changes include reductions for Multnomah County Vector Control Service Agreement ($47,400), electronic records management licensing costs ($8,000), elimination of the street sweeping contribution ($425,000) to the Transportation Bureau and electricity for pump stations ($345,538).

Additional resources to sustain current service levels include $50,000 for pump repairs to the CBWTP influent pump station, $65,000 to complete a regulatory arc flash study at the treatment plants, $31,000 for blower maintenance at TCWTP, $50,000 for facility related condition assessment at treatment plants and pump stations, $195,704 for green street maintenance, $98,956 for biosolids transportation, and $60,000 for a one-time study required by the NPDES permit.

Costs for capital outlay replacements include $46,280 for a portable motor testing unit, $420,000 for fleet replacements, and $51,000 for inspection and liner equipment.

The increases of $1,067,940 are offset through various reductions totaling $825,938 and additional revenue of $60,000.

There are no significant service delivery impacts resulting from these changes. Reduction for vector control services may result in some reduction in mosquito control.

FTE & Financials	Actual FY 2011-12	Actual FY 2012-13	Revised FY 2013-14	Requested No DP FY 2014-15	Requested FY 2014-15
FTE	128.95	135.00	135.00	127.95	127.95
Expenditures					
Collection System	32,151,232	30,136,468	29,618,214	30,604,450	29,786,512
Treatment	16,163,156	16,741,429	18,094,515	18,214,210	18,214,210
Wastewater	795,788	815,834	485,350	981,850	973,850
Total Expenditures	**49,110,176**	**47,693,731**	**48,198,079**	**49,800,510**	**48,974,572**

Performance	Actual FY 2011-12	Actual FY 2012-13	Yr End Est. FY 2013-14	Base FY 2014-15	Target FY 2014-15
Effectiveness					
Percentage of biochemical oxygen demand removed	96.2%	97.0%	85.0%	85.0%	85.0%
Efficiency					
Cost to operate and maintain the treatment plants in million gallons per day	$525	$582	$650	$655	$655
Workload					
Amount of wastewater processed in million gallons annually	30,911	28,569	28,000	28,000	28,000

Watershed

Description

Watershed Services plans, implements, and monitors projects and programs to improve watershed health. The group works closely with Engineering Services and other Environmental Services groups on the design and construction of capital projects, and with other City bureaus and local, regional, state and federal agencies to protect and restore our rivers, streams, and watersheds. Watershed Services also fosters community stewardship of watersheds and partners with other organizations and agencies to leverage resources.

These actions, implemented under guidance from the Portland Watershed Management Plan (PWMP), enable the City to protect water quality, manage stormwater sustainably, protect and restore habitat, and maintain public health and safety through built and natural infrastructure. Watershed Services provides scientific and technical expertise and implemention to help the City to comply with regulations under the Clean Water Act, the Safe Drinking Water Act, the Endangered Species Act, and the Comprehensive Environmental Response Compensation Liability Act (Superfund), as well as addressing stormwater management needs and meeting local environmental and livability goals.

Watershed Services includes four programs:

- Watershed Management leads geographically-based watershed planning and implementation for Portlands five watersheds: Columbia Slough, Fanno Creek, Tryon Creek, Johnson Creek, and the Willamette River and tributaries. It supports the Bureau's stormwater and sanitary system planning, leads implementation of watershed enhancement, protection, and restoration projects under the Watershed Investment Fund and other capital projects, and monitors post-construction performance. The division spearheads the Watershed Health Index, a data-driven tool designed to communicate city-wide progress toward watershed health goals. Watershed Management also oversees implementation of the City's adopted Invasive Species Strategy, the Columbia Slough Sediment Program, and works with a variety of community partners on environmental protection and stewardship activities, including the Community Watershed Stewardship grant program and the Urban Canopy Program.
- Sustainable Stormwater Management provides policy and technical assistance, education and outreach, project design, and implementation for sustainable stormwater projects including green street facilities, rain gardens, and ecoroofs. Due to these efforts, Environmental Services is recognized as a national leader for developing approaches to integrate green infrastructure into the design of urban built environments as a way to cost-effectively reduce the volume of stormwater entering the sewer system, mitigate impacts to sensitive habitats, and reduce stormwater pollutants while benefiting overall environmental and community health. Sustainable Stormwater Management tests and implements new technologies and demonstrates effective approaches for public and private property that can be integrated into large-scale stormwater system improvements.

- Science, Fish and Wildlife provides the scientific data, analysis, and policy recommendations essential to the bureau's compliance with state and federal regulations and city environmental mandates. This information supports program and project requirements for PWMP implementation, best management practices, and adaptive management of Bureau assets. Using the services of the Environmental Services Pollution Prevention Services, it monitors changes in watershed health over time to inform policy, program, and project decisions. It coordinates federal, state and local environmental permitting and compliance for in-water construction permits for all City bureaus. It also is responsible for citywide compliance with the Endangered Species Act.
- Watershed Revegetation Program reforests city natural areas and adjacent lands, plants and maintains City greenstreets and stormwater management facilities, and plants street trees to improve the urban forest canopy and enhance the functional ability of urban watersheds.

Goals

Watershed Services supports the City goal of protecting and enhancing the natural and built environment by improving and protecting watershed health within the urban area. Watershed Services leads the City's response to compliance with relevant regulations using a natural systems approach and green infrastructure to meet multiple objectives, minimize costs, and provide maximum benefits. The group's work supports the Climate Action Plan, climate adaptation planning, the River Plan, the Portland Plan and the update to the City's Comprehensive Plan.

Performance

Watershed Services and the Watershed Revegetation Program restored 29,587 feet of stream bank during FY 2012-13. The bureau's target for FY 2013-14 and FY 2014-15 is to restore an additional 25,000 feet each year. The annual amount of stream bank restoration reported each year varies based on timing of project completion and the varying size and nature of capital projects.

In FY 12-13, 10,634 people contributed thousands of volunteer hours in projects organized or catalyzed by the Community Watershed Stewardship Program and other watershed stewardship programs. For FY 2013-14 and FY 2014-15 the number of participants is expected to be around 9,000 per year, with some variances in participation levels due to the type of volunteer projects that are selected for funding.

The bureau and partners planted 41,223 trees in FY 2012-13. The bulk of those were seedlings planted as part of natural area revegetation projects, while 6,755 were planted as new street and yard trees planted through the Urban Canopy program. In FY 2013-14, approximately 33,000 trees will be planted. The reduced target is due to reductions in the Urban Canopy budget with the end of the Grey to Green initiative and reductions in the Watershed Revegetation Program budget.

Between 2008 and June 2013, programs under the Grey to Green initiative also accomplished: over 478,000 square feet of ecoroofs constructed (nearly 11 acres); over 4,900 new acres treated for invasive plant control in parks, private property and public right-of-way; 867 new green street facilities constructed; and 406 acres of natural area purchased to protect water quality and restore watershed function. Of the nine culverts targeted for replacement in Crystal Springs Creek, seven are completed and the final two are scheduled for construction in 2014

Changes to Services and Activities

The program has a net decrease of $143,000. Changes include a reduction for a decrease in Ecoroof on-call engineering ($100,000), as this activity has been historically under spent. In FY 2013-14 the Ecoroof Incentive Program was eliminated. Support for the Southwest Neighborhood Inc. (SWNI) organization is eliminated in this budget for $73,000. There is an increase for a scheduled vehicle replacement at $30,000.

There are no significant service delivery impacts resulting from these changes.

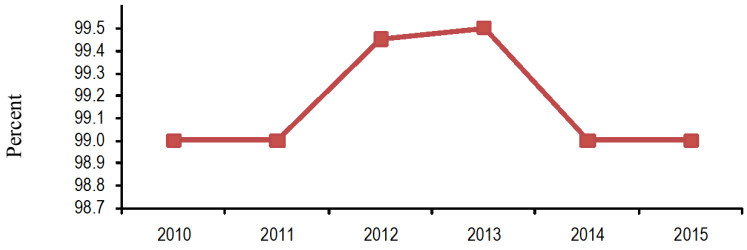
FTE & Financials	Actual FY 2011-12	Actual FY 2012-13	Revised FY 2013-14	Requested No DP FY 2014-15	Requested FY 2014-15
FTE	54.53	58.80	57.30	51.07	51.07
Expenditures					
Environmental Policy	14,759	0	0	0	0
Science, Fish & Wildlife	1,247,557	1,080,291	1,181,551	1,155,046	1,155,046
Sustainable Stormwater	2,023,154	2,092,172	1,799,793	1,585,416	1,485,416
Watershed	363,518	479,065	351,564	559,604	559,604
Watershed Management	4,753,755	4,629,878	6,013,897	4,402,041	4,329,041
Watershed Revegetation	3,820,506	3,057,683	860,855	2,714,596	2,714,596
Total Expenditures	**12,223,249**	**11,339,089**	**10,207,660**	**10,416,703**	**10,243,703**

Performance	Actual FY 2011-12	Actual FY 2012-13	Yr End Est. FY 2013-14	Base FY 2014-15	Target FY 2014-15
Workload					
Number of individual participants in projects catalyzed or hosted by the Stewardship Program	10,101	10,634	9,000	9,000	9,000
Number of trees planted	46,099	41,223	33,000	34,200	34,200
Feet of streambank restored (not cumulative)		29,587	25,000	25,000	25,000

Performance Measures

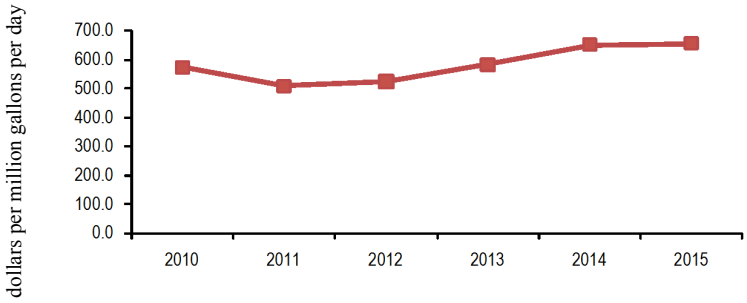
Enforcement Tests

Percent of industrial enforcement tests in full compliance.



Wastewater Processing Cost

Cost to operate and maintain the wastewater treatment plants reflected in costs per million gallons. When flow is low, as in a "dry year," cost per unit increases.



	Actual FY 2011-12	Actual FY 2012-13	Revised FY 2013-14	Requested No DP FY 2014-15	Requested FY 2014-15
Resources					
External Revenues					
Licenses & Permits	1,428,987	1,405,704	1,506,314	1,511,314	1,511,314
Charges for Services	251,097,655	279,135,507	292,265,820	310,267,540	307,981,500
Intergovernmental	3,210,001	2,510,150	2,197,077	945,678	945,678
Bond & Note	17,967,882	78,912,308	225,650,000	135,000,000	135,000,000
Miscellaneous	2,087,030	2,177,940	1,415,000	1,495,000	1,495,000
Total External Revenues	**275,791,555**	**364,141,609**	**523,034,211**	**449,219,532**	**446,933,492**
Internal Revenues					
Fund Transfers - Revenue	265,070,305	246,357,393	308,846,807	309,935,545	309,935,545
Interagency Revenue	2,798,664	3,800,540	3,131,667	1,849,276	1,849,276
Total Internal Revenues	**267,868,969**	**250,157,933**	**311,978,474**	**311,784,821**	**311,784,821**
Beginning Fund Balance	208,370,567	103,633,639	101,288,054	228,347,000	228,347,000
Total Resources	**$752,031,091**	**$717,933,181**	**$936,300,739**	**$989,351,353**	**$987,065,313**
Requirements					
Bureau Expenditures					
Personnel Services	57,292,951	58,134,233	59,182,991	59,414,064	59,414,064
External Materials and Services	45,885,706	64,415,851	53,215,385	53,316,859	51,585,819
Internal Materials and Services	41,435,998	43,067,578	39,679,682	41,642,933	41,157,933
Capital Outlay	68,886,421	48,883,406	88,709,774	83,395,889	83,325,889
Total Bureau Expenditures	**213,501,076**	**214,501,068**	**240,787,832**	**237,769,745**	**235,483,705**
Fund Expenditures					
Debt Service	150,798,606	150,813,205	156,559,679	164,047,027	164,047,027
Contingency	0	0	173,222,319	208,490,916	208,490,916
Fund Transfers - Expense	284,097,770	254,726,062	314,031,232	312,063,665	312,063,665
Debt Service Reserves	0	0	51,699,677	66,980,000	66,980,000
Total Fund Expenditures	**434,896,376**	**405,539,267**	**695,512,907**	**751,581,608**	**751,581,608**
Ending Fund Balance	103,633,639	97,892,846	0	0	0
Total Requirements	**$752,031,091**	**$717,933,181**	**$936,300,739**	**$989,351,353**	**$987,065,313**
Programs					
Administration & Support	22,235,418	35,956,020	36,383,811	37,879,831	37,439,083
Pollution Prevention	8,993,917	9,739,988	9,804,781	9,754,687	9,694,687
Engineering	116,241,368	106,417,360	132,271,193	125,483,841	124,997,487
Watershed	12,223,249	11,339,089	10,207,660	10,416,703	10,243,703
Healthy Working Rivers	663,241	604,097	0	0	0
Assessments & Improvements	41	0	0	0	0
Wastewater	49,110,176	47,693,731	48,198,079	49,800,510	48,974,572
Portland Harbor	4,033,666	2,750,783	3,922,308	4,434,173	4,134,173
Total Programs	**213,501,076**	**$214,501,068**	**$240,787,832**	**$237,769,745**	**$235,483,705**

This table summarizes project expenses by capital programs. Only projects that are budgeted within the five-year capital plan are displayed.

Bureau Capital Program / Project	Prior Years	Revised FY 2013-14	Requested FY 2014-15	Capital Plan FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	5-Year Total
Maintenance and Reliability								
Alder: Buckman East Reconstruction/ Grst	0	0	0	0	285,000	844,000	2,820,000	3,949,000
Alder: Easide Industrial Recon/ Greenstreets	0	0	0	0	236,000	1,522,000	3,485,000	5,243,000
Alder: Ladd's Addition South Reconstruction/GreenStreets	0	0	0	222,000	526,000	1,869,000	1,902,000	4,519,000
Alder: Sunnyside East South Recon Green Streets	0	0	103,000	365,000	2,411,000	0	0	2,879,000
Alder: Sunnyside North Recon/ Green Street	0	0	0	809,000	1,053,000	5,127,000	4,266,000	11,255,000
Alder: Sunnyside South Recon/ Green Street	0	0	0	252,000	801,000	2,629,000	2,675,000	6,357,000
Beech Essex CP-K	0	0	53,000	289,000	1,104,000	0	0	1,446,000
Beech-Essex CP-J	0	0	0	55,000	868,000	4,304,000	3,026,000	8,253,000
Bike Boulevard Green Streets	0	5,255,000	258,000	0	0	0	0	258,000
Burlingame Basin Infiltration and Inflow	0	2,100,000	2,934,000	2,100,000	4,000,000	3,000,000	1,000,000	13,034,000
Capital Maintenance - non-process facilities	0	0	250,000	1,000,000	1,000,000	1,000,000	1,000,000	4,250,000
Combined Sewer Overflow Transients Relief	0	55,000	165,000	300,000	500,000	0	0	965,000
East Nicolai Repair & Upsizing	0	0	0	0	507,000	3,290,000	3,040,000	6,837,000
Eastside Combined Sewer Overflow System Startup	0	605,000	291,000	0	0	0	0	291,000
Fanno Basin System Improvement	791,615	10,143,000	11,730,000	1,145,000	0	0	0	12,875,000
Fanno Creek Infiltration and Inflow	0	300,000	1,056,000	2,570,000	4,000,000	2,000,000	2,000,000	11,626,000
Hollywood Stormwater & Sewer Solutions	0	500,000	105,000	190,000	0	0	0	295,000
Large Diameter Sewer Rehabilitation	0	0	100,000	300,000	1,000,000	2,000,000	3,000,000	6,400,000
Maintenance Capital - Construction	8,689,526	230,000	230,000	230,000	240,000	240,000	240,000	1,180,000
Maintenance Capital - Contract	30,911,265	2,700,000	2,700,000	2,800,000	3,000,000	3,000,000	3,000,000	14,500,000
NE 13th Piedmont-Woodland-King Sewer Reconstruction	0	500,000	1,934,000	5,000,000	9,229,000	95,000	0	16,258,000
NWN: BCC Support Project	0	2,000,000	1,581,000	0	0	0	0	1,581,000
NWN: Far North Nicolai	0	702,000	2,090,000	739,000	0	0	0	2,829,000
NWN: North Tanner Pipe Construction	0	0	0	700,000	1,684,000	3,619,000	3,618,000	9,621,000
NWN: Southeast Tanner	0	0	0	615,000	1,912,000	1,161,000	0	3,688,000
NWN: Southwest Tanner	0	0	0	0	503,000	655,000	2,896,000	4,054,000
OAK:SE Oak St Sewer Repair	0	2,000,000	50,000	0	0	0	0	50,000
Owner Controlled Insurance Program Phase IV	0	800,000	800,000	500,000	300,000	0	0	1,600,000
Phase 2 Pipe Rehabilitation	0	29,516,000	41,028,000	37,384,000	18,639,000	1,746,000	0	98,797,000
Pipe Rehab Phase 3	0	0	0	250,000	2,000,000	4,000,000	11,000,000	17,250,000
Richmond Neighborhood Sewer Rehabilitation	0	0	0	155,000	593,000	3,766,000	0	4,514,000

This table summarizes project expenses by capital programs. Only projects that are budgeted within the five-year capital plan are displayed.

Bureau Capital Program / Project	Prior Years	Revised FY 2013-14	Requested FY 2014-15	Capital Plan FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	5-Year Total
SE Interceptor Rehabilitation	0	295,000	495,000	1,000,000	5,955,000	0	0	7,450,000
Stark HSS-17	0	0	0	0	953,000	1,237,000	7,900,000	10,090,000
Structural Rehab Taggart Outfall 30	0	711,000	1,405,000	9,227,000	54,000	0	0	10,686,000
Taggart Basin Relief & Reconstruction TG-3	0	0	0	186,000	93,000	2,897,000	6,000	3,182,000
TGD: SE 41st & SE Madison	0	500,000	24,000	23,000	0	0	0	47,000
TGD: SE Division Stormwater & Pipe Reconstruction	0	5,000,000	500,000	50,000	50,000	0	0	600,000
TGD: SE Hawthorne Green Street and Pipe Replacement	0	489,000	898,000	22,000	6,000	6,000	0	932,000
TGD: SE Powell Green Street and Pipe Reconstruction	0	561,000	1,600,000	2,320,000	90,000	92,000	0	4,102,000
TGD: SE Salmon Green Street and Pipe Reconstruction	0	0	1,462,000	13,000	27,000	10,000	0	1,512,000
TGD:SE Clinton-Caruthers System Improvements	0	950,000	950,000	50,000	50,000	0	0	1,050,000
Tryon SS Protection 1A TCWTP to Hwy 43	0	400,000	640,000	2,003,000	0	0	0	2,643,000
Wheeler WHE-04	0	400,000	0	0	815,000	7,845,000	569,000	9,229,000
Total Maintenance and Reliability	**40,392,406**	**66,712,000**	**75,432,000**	**72,864,000**	**64,484,000**	**57,954,000**	**57,443,000**	**328,177,000**
Sewage Treatment Systems								
Ankeny Pump Station Upgrade	218,002	1,000,000	96,000	0	0	0	0	96,000
CBWTP Cogeneration	0	400,000	435,000	2,325,000	2,459,000	0	0	5,219,000
CBWTP Dewatering Improvements	0	0	0	0	0	824,000	1,347,000	2,171,000
CBWTP Lagoon Reconstruction	2,069,545	3,500,000	2,598,000	1,031,000	4,124,000	4,274,000	980,000	13,007,000
CBWTP Outfall Diffuser	0	0	100,000	585,000	1,484,000	0	0	2,169,000
CBWTP Reuse System Replacement	0	0	0	392,000	398,000	2,293,000	867,000	3,950,000
CBWTP Secondary Treatment Expansion	0	0	0	516,000	3,100,000	3,348,000	7,078,000	14,042,000
CBWTP Seismic Improvements	0	0	0	206,000	516,000	1,640,000	1,308,000	3,670,000
CBWTP Selector Performance Enhancement	0	3,400,000	165,000	0	0	0	0	165,000
CBWTP Thickened Waste Activated Sludge Piping	0	150,000	120,000	400,000	400,000	0	0	920,000
Pump Station Improvements	25,443,646	3,600,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	20,000,000
Repair, Rehabilitation, and Modification	19,778,780	2,000,000	2,000,000	2,000,000	2,000,000	2,500,000	2,500,000	11,000,000
TCWTP Headworks, Dry Weather Clarifier & Odor Control	0	0	2,588,000	3,017,000	3,590,000	9,014,000	10,107,000	28,316,000
Tryon Creek Wastewater Treatment Plant Improvements	0	216,000	268,000	11,000	424,000	0	0	703,000
Total Sewage Treatment Systems	**47,509,973**	**14,266,000**	**12,370,000**	**14,483,000**	**22,495,000**	**27,893,000**	**28,187,000**	**105,428,000**
Surface Water Management								

This table summarizes project expenses by capital programs. Only projects that are budgeted within the five-year capital plan are displayed.

Bureau Capital Program / Project	Prior Years	Revised FY 2013-14	Requested FY 2014-15	Capital Plan FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	5-Year Total
Balch Creek Trash Racks Predesign	0	0	100,000	0	0	0	0	100,000
Columbia Slough Outfalls	0	0	150,000	1,002,000	1,000,000	2,000,000	2,000,000	6,152,000
Culvert Replacement Phase 2	0	1,301,000	1,207,000	1,431,000	0	0	0	2,638,000
FT: Boones Ferry Culvert	0	231,000	1,277,000	1,706,000	0	0	0	2,983,000
FT: Fanno BvrtnHills Hwy	0	386,000	161,000	1,150,000	1,000,000	0	0	2,311,000
FT: Fanno Tryon Drainage Shoulder Improvements	0	0	220,000	1,236,000	1,232,000	1,232,000	1,012,000	4,932,000
FT: Fanno/Tryon Outfall	0	100,000	175,000	50,000	0	0	0	225,000
FT: Fanno/Tryon WQF 2	0	0	0	36,000	278,000	278,000	72,000	664,000
FT: FannoTryon StrmRetro	0	0	0	0	0	0	0	0
FT: I5/SW 26 WQF	0	2,000,000	2,578,000	131,000	0	0	0	2,709,000
FT: Jackson Middle School Creek Daylight	0	0	0	173,000	958,000	304,000	0	1,435,000
FT: SW 45th Ave Culvert	0	65,000	329,000	32,000	1,507,000	0	0	1,868,000
Green Infrastructure - Green Street Projects	0	400,000	319,000	0	0	0	0	319,000
Green Infrastructure: Culverts	0	780,000	300,000	0	0	0	0	300,000
Green Infrastructure: Land Acquisition	0	2,004,000	2,000,000	2,500,000	0	0	0	4,500,000
Green Streets/Bikeways	0	200,000	410,000	0	0	0	0	410,000
JC: Brunkow	0	256,000	100,000	200,000	470,000	0	0	770,000
JC: Community Restoration Partnership	0	450,000	150,000	500,000	500,000	500,000	500,000	2,150,000
JC: Freeway Land Floodplain Restoration	0	50,000	0	50,000	800,000	700,000	1,000,000	2,550,000
JC: Johnson Creek Willing Seller Phase 2	0	500,000	500,000	500,000	500,000	500,000	500,000	2,500,000
JC: Oxbox	0	100,000	142,000	182,000	972,000	50,000	0	1,346,000
JC: Springwater Wetland	0	20,000	50,000	100,000	600,000	1,700,000	170,000	2,620,000
JC: West Lents Flood Mitigation	428,108	0	0	312,000	562,000	2,843,000	2,903,000	6,620,000
JC:Luther Road Habitat Restoration	97,021	500,000	3,000,000	200,000	0	0	0	3,200,000
Stephens Creek Ph 1 Improvements	0	965,000	1,162,000	996,000	800,000	200,000	200,000	3,358,000
Underground Injection Controls Improvements	0	0	1,217,000	11,000	0	0	0	1,228,000
Watershed Investment	0	1,500,000	1,800,000	1,500,000	1,500,000	1,500,000	1,500,000	7,800,000
Watershed Land Acquisition Prog Ph 2	0	0	0	0	1,500,000	2,000,000	2,000,000	5,500,000
Total Surface Water Management	**525,129**	**11,808,000**	**17,347,000**	**13,998,000**	**14,179,000**	**13,807,000**	**11,857,000**	**71,188,000**
Systems Development								
Drainage Improvement	2,232,967	250,000	250,000	250,000	250,000	250,000	250,000	1,250,000
Milw Light Rail Ext	0	594,570	226,000	42,000	0	0	0	268,000
Party Sewers	0	2,450,000	2,400,000	2,000,000	2,000,000	2,000,000	1,000,000	9,400,000
PBOT Interagency Reimbursement	7,578,004	350,000	350,000	350,000	350,000	350,000	350,000	1,750,000
Permit Reimbursement	950,027	45,000	45,000	45,000	45,000	45,000	45,000	225,000
Public Works Permit Projects	11,194,271	570,000	500,000	500,000	500,000	500,000	500,000	2,500,000

This table summarizes project expenses by capital programs. Only projects that are budgeted within the five-year capital plan are displayed.

Bureau Capital Program / Project	Prior Years	Revised FY 2013-14	Requested FY 2014-15	Capital Plan FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	5-Year Total
Sewer Easements on Existing Sewers	0	50,000	50,000	50,000	50,000	50,000	50,000	250,000
Sewer Extensions to Properties with High Risk Septic Systems	0	200,000	638,000	870,000	2,562,000	1,500,000	1,600,000	7,170,000
SW Terwilliger Blvd & Powers Ct Sewer Extension	0	2,750,000	2,300,000	0	0	0	0	2,300,000
Total Systems Development	**21,955,269**	**7,259,570**	**6,759,000**	**4,107,000**	**5,757,000**	**4,695,000**	**3,795,000**	**25,113,000**
Total Requirements	**110,382,777**	**100,045,570**	**111,908,000**	**105,452,000**	**106,915,000**	**104,349,000**	**101,282,000**	**529,906,000**

		Salary Range		Revised FY 2013-14		Requested No DP FY 2014-15		Requested FY 2014-15	
Class	Title	Minimum	Maximum	No.	Amount	No.	Amount	No.	Amount
30000063	Accountant II	51,397	64,688	4.00	253,776	4.00	256,335	4.00	256,335
30000064	Accountant III	56,597	71,178	1.00	71,184	1.00	71,184	1.00	71,184
30000434	Administrative Assistant	46,571	71,739	4.00	250,148	4.00	257,304	4.00	257,304
30000433	Administrative Specialist, Sr	43,368	66,768	5.00	301,194	5.00	306,549	5.00	306,549
30000436	Administrative Supervisor I	56,534	75,338	1.00	75,336	1.00	75,336	1.00	75,336
30000437	Administrative Supervisor II	59,342	79,123	1.00	79,080	1.00	79,128	1.00	79,128
30000104	Automotive Equip Oper II: Tractor-Trailr	44,782	53,934	1.00	53,940	1.00	53,940	1.00	53,940
30000671	Biosolids/Reuse Program Manager	72,134	96,928	1.00	96,216	1.00	96,924	1.00	96,924
30000315	Botanic Spec I-Generalist	53,498	68,286	1.00	67,680	1.00	68,292	1.00	68,292
30000320	Botanic Spec II-Generalist	56,326	71,843	2.00	131,008	2.00	135,231	2.00	135,231
30000321	Botanic Spec II-Ntrl Resource Ecologist	56,326	71,843	6.00	427,176	6.00	431,064	6.00	431,064
30000441	Business Operations Manager	77,584	103,355	3.00	256,249	3.00	261,911	3.00	261,911
30000442	Business Operations Manager, Sr	96,366	134,597	1.00	134,592	1.00	134,592	1.00	134,592
30000440	Business Operations Supervisor	68,806	92,040	2.00	180,963	2.00	184,080	2.00	184,080
30000447	Business Systems Analyst, Assistant	46,571	71,739	1.00	71,736	1.00	71,736	1.00	71,736
30000449	Business Systems Analyst, Sr	65,478	87,422	4.00	345,336	4.00	347,892	4.00	347,892
30000329	CAD Technician II	52,832	67,413	14.00	922,320	14.00	936,678	14.00	936,678
30000330	CAD Technician III	64,189	81,973	5.00	406,200	5.00	409,860	5.00	409,860
30000689	Capital Program Mgmt & Controls Manager	89,710	121,576	1.00	111,531	1.00	116,106	1.00	116,106
30000399	Capital Project Manager I	64,189	81,973	2.00	162,480	2.00	163,944	2.00	163,944
30000686	Capital Project Manager II	68,806	92,040	1.00	66,600	1.00	68,808	1.00	68,808
30000700	Communications Engineer	69,430	92,872	2.00	163,656	2.00	165,584	2.00	165,584
30000491	Community Outreach & Informtn Assistant	46,571	71,739	2.00	94,098	2.00	97,479	2.00	97,479
30000492	Community Outreach & Informtn Rep	56,534	75,338	2.00	150,672	2.00	150,672	2.00	150,672
30000493	Community Outreach & Informtn Rep, Sr	62,338	83,138	2.00	142,116	2.00	145,476	2.00	145,476
30000455	Contracts Dev & Review Administrator	68,806	92,040	1.00	92,040	1.00	92,040	1.00	92,040
30000672	Data Acquisition & Mgmt Supervisor	72,134	96,928	1.00	96,924	1.00	96,924	1.00	96,924
30000733	Development Services Manager	83,450	111,114	1.00	108,516	1.00	110,676	1.00	110,676
30000333	Development Services Technician II	52,832	67,413	1.00	66,816	1.00	67,416	1.00	67,416
30000836	Development Supervisor II	72,134	96,928	2.00	175,076	2.00	181,450	2.00	181,450
30000576	Economist, Sr	68,806	92,040	1.00	92,040	1.00	92,040	1.00	92,040
30000635	Electrical/Instrumentation Supervisor	72,134	96,928	1.00	96,924	1.00	96,924	1.00	96,924
30000116	Electrician	66,498	71,781	7.00	491,928	7.00	491,928	7.00	491,928
30000121	Electrician/Instrument Technician	68,515	73,965	6.00	443,808	6.00	443,808	6.00	443,808
30000401	Electronic Systems Technician	54,912	70,034	3.00	208,224	3.00	210,096	3.00	210,096
30000683	Engineer, Chief	106,038	151,798	1.00	151,800	1.00	151,800	1.00	151,800
30000682	Engineer, Principal	96,886	129,189	3.00	387,576	3.00	387,576	3.00	387,576
30000680	Engineer, Sr	83,866	111,821	12.00	1,302,484	12.00	1,319,113	12.00	1,319,113
30000681	Engineer, Supervising	90,147	120,203	10.00	1,167,420	10.00	1,171,848	10.00	1,171,848
30000365	Engineer-Civil	84,365	102,544	28.00	2,810,982	28.00	2,843,684	28.00	2,843,684
30000366	Engineer-Electrical	84,365	102,544	3.00	286,872	3.00	289,440	3.00	289,440
30000368	Engineer-Mechanical	84,365	102,544	1.00	101,628	1.00	102,540	1.00	102,540
30000358	Engineering Associate, Sr-Civil	72,946	93,018	10.00	898,176	10.00	914,812	10.00	914,812
30000359	Engineering Associate, Sr-Electrical	72,946	93,018	0.58	42,175	1.00	75,034	1.00	75,034
30000360	Engineering Associate, Sr-Geotechnical	72,946	93,018	1.00	92,184	1.00	93,024	1.00	93,024
30000353	Engineering Associate-Civil	59,966	80,350	11.00	794,834	11.00	820,765	11.00	820,765
30000324	Engineering Technician I	39,437	52,832	1.00	49,920	1.00	52,836	1.00	52,836
30000325	Engineering Technician II	52,832	67,413	23.00	1,506,324	23.00	1,528,593	23.00	1,528,593
30000326	Engineering Technician III	64,189	81,973	8.00	622,482	8.00	634,078	8.00	634,078
30001659	Env Svcs OCIP, Risk & Safety Officer	77,584	103,355	1.00	103,356	1.00	103,356	1.00	103,356

Class	Title	Salary Range Minimum	Salary Range Maximum	Revised FY 2013-14 No.	Revised FY 2013-14 Amount	Requested No DP FY 2014-15 No.	Requested No DP FY 2014-15 Amount	Requested FY 2014-15 No.	Requested FY 2014-15 Amount
30001736	Environmental Compliance Mgr	83,450	111,114	1.00	111,108	1.00	111,108	1.00	111,108
30001735	Environmental Investigations Mgr	83,450	111,114	1.00	111,108	1.00	111,108	1.00	111,108
30000669	Environmental Monitoring Svcs Group Mgr	96,366	134,597	1.00	134,592	1.00	134,592	1.00	134,592
30000459	Environmental Policy Analyst	66,061	88,213	1.00	87,420	1.00	88,212	1.00	88,212
30000678	Environmental Policy Manager	89,710	121,576	1.00	121,452	1.00	121,572	1.00	121,572
30000662	Environmental Program Coordinator	62,899	83,886	7.00	559,092	7.00	575,840	7.00	575,840
30000663	Environmental Program Manager	68,806	92,040	10.00	874,926	10.00	885,820	10.00	885,820
30000664	Environmental Program Manager, Sr	77,584	103,355	4.00	382,783	4.00	389,010	4.00	389,010
30000661	Environmental Program Specialist	56,534	75,338	2.00	145,376	2.00	148,248	2.00	148,248
30000419	Environmental Services Director	134,118	192,192	1.00	192,192	1.00	192,192	1.00	192,192
30000339	Environmental Specialist-Generalist	64,189	81,973	25.00	1,956,926	25.00	1,992,547	25.00	1,992,547
30001359	Environmental Svcs Public Affairs Mgr	77,584	103,355	1.00	103,020	1.00	103,356	1.00	103,356
30000337	Environmental Technician I	39,437	52,832	1.00	41,016	1.00	42,963	1.00	42,963
30000338	Environmental Technician II	52,832	67,413	30.00	1,943,799	30.00	1,979,378	30.00	1,979,378
30000712	Facilities Services Specialist	56,534	75,338	1.00	66,225	1.00	68,935	1.00	68,935
30002037	Field Science Specialist	64,189	81,973	1.00	81,240	1.00	81,972	1.00	81,972
30002038	Field Science Technician	52,832	67,413	7.00	438,945	7.00	448,932	7.00	448,932
30000569	Financial Analyst, Principal	77,584	103,355	3.00	310,068	3.00	315,240	3.00	315,240
30000342	GIS Technician II	52,832	67,413	2.00	127,392	2.00	130,324	2.00	130,324
30000343	GIS Technician III	64,189	81,973	3.00	239,904	3.00	244,628	3.00	244,628
30000373	Graphics Designer III	64,189	81,973	1.00	70,200	1.00	73,434	1.00	73,434
30000340	Hydrogeologist	72,779	92,830	1.00	92,004	1.00	92,832	1.00	92,832
30000126	Industrial Machinist	53,685	60,091	1.00	60,096	1.00	60,096	1.00	60,096
30000157	Industrial Maintenance Millwright	53,685	60,091	28.00	1,661,704	28.00	1,672,734	28.00	1,672,734
30000114	Industrial Painter	53,144	59,467	1.00	59,472	1.00	59,472	1.00	59,472
30000218	Inf Syst Analyst, Principal-Gen	78,291	104,291	2.00	208,584	2.00	208,584	2.00	208,584
30000880	Inf Syst Analyst, Principal-GIS,Vertical	78,291	104,291	1.00	77,580	1.00	78,288	1.00	78,288
30000606	Inf Syst Mgr-Enterprise Database Mgr	83,450	111,114	1.00	100,349	1.00	104,456	1.00	104,456
30001510	Inf Syst Tech Analyst VI-Vertical GIS	69,430	92,872	1.00	92,868	1.00	92,868	1.00	92,868
30000239	Instrument Technician	66,498	71,781	9.00	640,776	9.00	644,736	9.00	644,736
30001283	Laboratory Analyst II	47,278	62,379	6.00	359,160	6.00	366,341	6.00	366,341
30001284	Laboratory Analytical Specialist	53,893	71,552	5.00	340,116	5.00	346,648	5.00	346,648
30001285	Laboratory Coordinator	55,931	78,915	3.00	219,088	3.00	227,964	3.00	227,964
30000670	Laboratory Manager	77,584	103,355	1.00	103,356	1.00	103,356	1.00	103,356
30000644	Maintenance Planner/Scheduler	56,534	75,338	5.00	355,868	5.00	361,190	5.00	361,190
30000451	Management Analyst	59,342	79,123	1.00	79,128	1.00	79,128	1.00	79,128
30000453	Management Analyst, Principal	77,584	103,355	1.00	93,658	1.00	97,490	1.00	97,490
30000452	Management Analyst, Sr	65,478	87,422	3.00	224,880	3.00	230,014	3.00	230,014
30000450	Management Assistant	46,571	71,739	1.00	71,736	1.00	71,736	1.00	71,736
30000692	Maps & Records Supervisor	62,338	83,138	1.00	75,708	1.00	78,816	1.00	78,816
30000345	Materials Testing Technician II	52,832	67,413	4.00	255,594	4.00	260,724	4.00	260,724
30000346	Materials Testing Technician III	64,189	81,973	1.00	81,240	1.00	81,972	1.00	81,972
30000012	Office Support Specialist II	32,552	46,758	4.00	180,521	4.00	183,614	4.00	183,614
30000013	Office Support Specialist III	41,642	55,203	4.00	220,800	4.00	220,800	4.00	220,800
30000677	Portland Harbor Superfund Technical Mgr	77,584	103,355	1.00	103,356	1.00	103,356	1.00	103,356
30000464	Program Coordinator	62,338	83,138	3.00	217,112	3.00	222,608	3.00	222,608
30000465	Program Manager	65,478	87,422	4.00	342,300	4.00	345,303	4.00	345,303
30000466	Program Manager, Sr	77,584	103,355	1.00	103,356	1.00	103,356	1.00	103,356
30000463	Program Specialist	56,534	75,338	2.00	144,012	2.00	146,362	2.00	146,362
30000462	Program Specialist, Assistant	46,571	71,739	2.00	134,984	2.00	137,572	2.00	137,572

Class	Title	Salary Range		Revised FY 2013-14		Requested No DP FY 2014-15		Requested FY 2014-15	
		Minimum	Maximum	No.	Amount	No.	Amount	No.	Amount
30000698	Property Acquisition & Services Manager	65,478	87,422	1.00	87,420	1.00	87,420	1.00	87,420
30000495	Public Information Officer	65,478	87,422	1.00	87,420	1.00	87,420	1.00	87,420
30000691	Public Works Inspection Manager	68,806	92,040	1.00	92,040	1.00	92,040	1.00	92,040
30000690	Public Works Inspection Supervisor	65,478	87,422	1.00	87,420	1.00	87,420	1.00	87,420
30000228	Public Works Inspector	58,760	67,142	16.00	1,063,890	16.00	1,070,640	16.00	1,070,640
30000229	Public Works Inspector, Sr	63,731	75,088	11.00	822,020	11.00	825,924	11.00	825,924
30000828	Records Specialist	32,552	46,758	1.00	45,634	1.00	46,764	1.00	46,764
30000481	Risk Specialist	56,534	75,338	1.00	60,900	1.00	62,772	1.00	62,772
30000482	Risk Specialist, Sr	62,338	83,138	1.00	83,136	1.00	83,136	1.00	83,136
30000485	Safety & Risk Officer I	65,478	87,422	1.00	87,420	1.00	87,420	1.00	87,420
30001958	Statistician	65,478	87,422	1.00	84,636	1.00	86,724	1.00	86,724
30000054	Storekeeper/Acquisition Specialist II	44,554	54,475	3.00	163,440	3.00	163,440	3.00	163,440
30000056	Storekeeper/Acquisition Specialist III	50,315	62,566	1.00	62,568	1.00	62,568	1.00	62,568
30000468	Stores System Supervisor II	59,342	79,123	1.00	78,024	1.00	79,128	1.00	79,128
30001078	Sustainable Stormwater Division Mgr	83,450	111,114	1.00	83,448	1.00	86,013	1.00	86,013
30000675	Wastewater Collections System Manager	89,710	121,576	1.00	121,572	1.00	121,572	1.00	121,572
30000676	Wastewater Operations Group Manager	96,366	134,597	1.00	134,592	1.00	134,592	1.00	134,592
30000163	Wastewater Operations Specialist	55,390	64,563	5.00	309,264	5.00	310,720	5.00	310,720
30000161	Wastewater Operator II	48,235	60,091	41.00	2,350,797	41.00	2,385,701	41.00	2,385,701
30000674	Wastewater Treatment Manager	89,710	121,576	2.00	209,568	2.00	217,671	2.00	217,671
30000673	Wastewater Treatment O&M Supervisor	68,806	92,040	4.00	341,841	4.00	348,307	4.00	348,307
30000656	Water Resources Program Manager	68,806	92,040	5.00	443,304	5.00	446,382	5.00	446,382
30000659	Watershed Division Manager	83,450	111,114	1.00	111,108	1.00	111,108	1.00	111,108
30000667	Watershed Revegetation Program Manager	68,806	92,040	1.00	75,276	1.00	77,846	1.00	77,846
30000666	Watershed Revegetation Program Supvr	62,338	83,138	1.00	83,136	1.00	83,136	1.00	83,136
30000660	Watershed Services Group Manager	96,366	134,597	1.00	106,578	1.00	110,946	1.00	110,946
TOTAL FULL-TIME POSITIONS				513.58	39,280,438	514.00	39,836,543	514.00	39,836,543
30000321	Botanic Spec II-Ntrl Resource Ecologist	56,326	71,843	0.90	64,080	0.90	64,656	0.90	64,656
30000367	Engineer-Geotechnical	84,365	102,544	0.90	88,197	0.90	92,292	0.90	92,292
30000358	Engineering Associate, Sr-Civil	72,946	93,018	0.90	79,678	0.90	83,712	0.90	83,712
30000339	Environmental Specialist-Generalist	64,189	81,973	0.90	73,116	0.90	73,776	0.90	73,776
30000464	Program Coordinator	62,338	83,138	0.90	61,291	0.90	63,807	0.90	63,807
TOTAL PART-TIME POSITIONS				4.50	366,362	4.50	378,243	4.50	378,243
30000662	Environmental Program Coordinator	62,899	83,886	1.00	83,136	0.00	0	0.00	0
30000338	Environmental Technician II	52,832	67,413	2.00	104,712	0.17	8,806	0.17	8,806
TOTAL LIMITED TERM POSITIONS				3.00	187,848	0.17	8,806	0.17	8,806
GRAND TOTAL				521.08	39,834,648	518.67	40,223,592	518.67	40,223,592

	Actual FY 2011-12	Actual FY 2012-13	Revised FY 2013-14	Requested No DP FY 2014-15	Requested FY 2014-15	Proposed FY 2014-15
Resources						
Licenses & Permits	1,428,987	1,405,704	1,506,314	1,511,314	1,511,314	
Charges for Services	244,854,401	274,678,578	288,539,820	306,950,540	304,964,500	
Intergovernmental	1,037,872	758,091	316,570	205,000	205,000	
Bond & Note	1,267,882	0	0	0	0	
Miscellaneous	1,266,596	1,305,005	685,000	750,000	750,000	
Total External Revenues	**249,855,738**	**278,147,378**	**291,047,704**	**309,416,854**	**307,430,814**	
Fund Transfers - Revenue	115,219,479	97,755,072	129,632,984	120,621,895	120,621,895	
Interagency Revenue	2,363,095	3,390,534	2,724,667	1,434,276	1,434,276	
Total Internal Revenues	**117,582,574**	**101,145,606**	**132,357,651**	**122,056,171**	**122,056,171**	
Beginning Fund Balance	53,098,679	42,132,215	58,067,054	56,180,000	56,180,000	
Total Resources	**420,536,991**	**421,425,199**	**481,472,409**	**487,653,025**	**485,666,985**	
Requirements						
Personnel Services	56,564,993	57,398,210	58,654,266	59,034,560	59,034,560	
External Materials and Services	42,299,326	61,630,666	49,330,256	49,479,250	48,048,210	
Internal Materials and Services	40,413,515	42,140,407	38,675,456	40,672,209	40,187,209	
Capital Outlay	67,993,737	48,348,795	88,069,774	83,137,889	83,067,889	
Total Bureau Expenditures	**207,271,571**	**209,518,078**	**234,729,752**	**232,323,908**	**230,337,868**	
Debt Service	2,093,647	2,249,719	2,543,236	2,757,169	2,757,169	
Contingency	0	0	58,140,301	59,973,906	59,973,906	
Fund Transfers - Expense	169,039,558	156,353,152	185,859,120	192,418,042	192,418,042	
Debt Service Reserves	0	0	200,000	180,000	180,000	
Total Fund Expenditures	**171,133,205**	**158,602,871**	**246,742,657**	**255,329,117**	**255,329,117**	
Ending Fund Balance	42,132,215	53,304,250	0	0	0	
Total Requirements	**420,536,991**	**421,425,199**	**481,472,409**	**487,653,025**	**485,666,985**	

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 sewer and drainage charges, wholesale contract revenues from other governmental jurisdictions, reimbursements for services provided to other bureaus, and reimbursements from the Sewer System Construction Fund for capital expenses.

Managing Agency Bureau of Environmental Services

Significant Changes from Prior Year

Resources The largest source of revenues are sewer rate revenues. Charges for services, which include sewer rate revenues, connection charges, wholesale contract revenues, and other miscellaneous charges are forecast to increase to $305.0 million in FY 2014-15. Sewer rate revenues are based upon the following assumptions: an average single family residential bill increase of 4.0%, an increase of 0.25% in the number of customer accounts, a 1.5% decrease in usage per single-family residential customer, a 0.75% decrease in multi-family and 1.0% decrease in commercial customer usage. System development charges are projected to be $11.0 million in FY 2014-15.

Requirements

Personnel services increased 0.6% as compared to the FY 2014-15 Revised Budget. The Requested Sewer Operating Fund Budget includes 515.67 FTEs . The external materials and services budget decreased by 2.6%, or $1.3 million. This is primarily due to shifts from design to construction within the Capital Improvement Program (CIP) and reduction decision packages within the operating budget totaling $1.4 million.

Internal materials and services, services paid to other bureaus, increased by $1.5 million or 3.9%. Of the increase, 2.5% is attributable to operating program increases primarily in the Bureau of Transportation services for the sewer and stormwater collection system. The CIP increases 11.9% due to survey and transportation engineering service requirements within the CIP program There are two reduction decision packages totalling $0.485 million of which $0.425 million is related to the Bureau of Transportation street sweeping program

Capital outlay is $83.1 million in FY 2014-15 versus $88.1 million in the FY 2013-14 Revised Budget, reflecting a decrease of $5.6 million within the the CIP program.

Cash Transfers and General Fund Overhead

Cash transfers to other funds are budgeted at $195.4 million for FY 2014-15, compared to the FY 2013-14 Revised Budget of $155.9 million. General Fund overhead will decrease $3.3 million, or -47.0%, reflecting lower allocable costs in the General Fund, a revised allocation methodology, and a one-time correction in excess of $1.8 million from prior years' calculations. The General Fund overhead charge will thus go back up in the following year, but still not as high as the FY 2013-14 level. Transfers to the Sewer System Debt Redemption Fund are budgeted at $160.7 million, up $7.5 million from the FY 2013-14 Revised Budget of $153.2 million, due to the sale of sewer system revenue bonds in September 2013. Transfers to the Sewer Construction Fund, cash contributions to the CIP, are budgeted to decrease slightly from $21.0 million to $20.0 million in FY 2014-15. Transfers to the Sewer Rate Stabilization Fund are budgeted at $8.0 million in FY 2014-15, up from $4.0 million in the FY 2013-14 Revised Budget.

Environmental Remediation Fund

	Actual FY 2011-12	Actual FY 2012-13	Revised FY 2013-14	Requested No DP FY 2014-15	Requested FY 2014-15	Proposed FY 2014-15
Resources						
Charges for Services	5,456,615	3,648,843	2,976,000	2,617,000	2,317,000	
Bond & Note	0	295,000	0	0	0	
Miscellaneous	40,176	28,652	15,000	20,000	20,000	
Total External Revenues	**5,496,791**	**3,972,495**	**2,991,000**	**2,637,000**	**2,337,000**	
Fund Transfers - Revenue	0	702	323,823	400,000	400,000	
Interagency Revenue	435,569	410,006	407,000	415,000	415,000	
Total Internal Revenues	**435,569**	**410,708**	**730,823**	**815,000**	**815,000**	
Beginning Fund Balance	2,681,951	4,040,948	3,371,000	3,367,000	3,367,000	
Total Resources	**8,614,311**	**8,424,151**	**7,092,823**	**6,819,000**	**6,519,000**	
Requirements						
Personnel Services	393,006	344,242	346,700	356,788	356,788	
External Materials and Services	3,002,377	1,924,236	2,942,609	3,427,609	3,127,609	
Internal Materials and Services	746,640	811,435	888,264	920,762	920,762	
Total Bureau Expenditures	**4,142,023**	**3,079,913**	**4,177,573**	**4,705,159**	**4,405,159**	
Debt Service	295,892	977	1,120	1,208	1,208	
Contingency	0	0	2,742,018	1,967,010	1,967,010	
Fund Transfers - Expense	135,448	1,824,905	172,112	145,623	145,623	
Total Fund Expenditures	**431,340**	**1,825,882**	**2,915,250**	**2,113,841**	**2,113,841**	
Ending Fund Balance	4,040,948	3,518,356	0	0	0	
Total Requirements	**8,614,311**	**8,424,151**	**7,092,823**	**6,819,000**	**6,519,000**	

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 cash transfers from the Sewer System Operating Fund and supplemented by interest earnings 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 Portland Harbor Superfund program.

Managing Agency Bureau of Environmental Services

Significant Changes from Prior Year

Rate revenues of $1.8 million in charges for services will fund the majority of the Portland Harbor Superfund program. This represents $0.670 million or 27.1% decrease from the FY 2013-14 Revised Budget of $2.47 million. The fund also receives rental income of $932,000 from leases at the Guilds Lake facility of which $415,000 comes from the Portland Police Bureau that appears in the interagency revenue line. Beginning Fund Balance is relatively unchanged when compared to the Revised Budget.

Personnel services expenditures are budgeted 2.9% higher than the FY 2013-14 Revised Budget due to general salary and benefit increases.

External materials and services for Portland Harbor Superfund work are budgeted at $3.1 million, $185,000 or 6.3% higher, than the FY 2013-14 Revised Budget. Increases include funding for additional restoration work within the Portland Harbor Program. Internal materials and services expenditures, when compared with the FY 2012-13 Revised Budget, are 3.7% higher due to increases in facility operations and maintenance related to the Guilds Lake facility.

	Actual FY 2011-12	Actual FY 2012-13	Revised FY 2013-14	Requested No DP FY 2014-15	Requested FY 2014-15	Proposed FY 2014-15
Resources						
Bond & Note	0	0	20,650,000	10,000,000	10,000,000	
Miscellaneous	195,710	148,633	200,000	275,000	275,000	
Total External Revenues	**195,710**	**148,633**	**20,850,000**	**10,275,000**	**10,275,000**	
Fund Transfers - Revenue	148,174,520	148,259,870	153,190,000	160,213,650	160,213,650	
Total Internal Revenues	**148,174,520**	**148,259,870**	**153,190,000**	**160,213,650**	**160,213,650**	
Beginning Fund Balance	30,846,938	30,808,101	30,850,000	56,800,000	56,800,000	
Total Resources	**179,217,168**	**179,216,604**	**204,890,000**	**227,288,650**	**227,288,650**	
Requirements						
Total Bureau Expenditures	**0**	**0**	**0**	**0**	**0**	
Debt Service	148,409,067	148,451,237	153,390,323	160,488,650	160,488,650	
Debt Service Reserves	0	0	51,499,677	66,800,000	66,800,000	
Total Fund Expenditures	**148,409,067**	**148,451,237**	**204,890,000**	**227,288,650**	**227,288,650**	
Ending Fund Balance	30,808,101	30,765,367	0	0	0	
Total Requirements	**179,217,168**	**179,216,604**	**204,890,000**	**227,288,650**	**227,288,650**	

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 bulk of the beginning fund balance is the result of a cash reserve of $56.8 million required by the sale of sewer system revenue bonds. These reserves are required to be maintained until the bonds are fully paid. In anticipation of the sale of another $125.0 million of sewer bonds, another cash reserve in the amount of $10.0 million is budgeted to be received in FY 2014-15.

Debt service expenditures for FY 2014-15 are budgeted at $160.5 million which are paid from the following sources: sewer and stormwater user charges and other revenues of the Sewer System Operating Fund; cash transfers from the operating fund, totaling $160.2 million in FY 2014-15; and estimated interest earnings in the fund of $0.3 million.

The total amount of sewer system debt outstanding at the beginning of FY 2014-15 is estimated to be $772.9 million for first lien bonded debt and $988.3 million for second lien bonded debt, notes, and loans.

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	Actual FY 2011-12	Actual FY 2012-13	Revised FY 2013-14	Requested No DP FY 2014-15	Requested FY 2014-15	Proposed FY 2014-15
Resources						
Charges for Services	786,639	808,086	750,000	700,000	700,000	
Intergovernmental	9,295	0	0	0	0	
Bond & Note	0	78,617,308	205,000,000	125,000,000	125,000,000	
Miscellaneous	392,778	638,035	500,000	400,000	400,000	
Total External Revenues	**1,188,712**	**80,063,429**	**206,250,000**	**126,100,000**	**126,100,000**	
Fund Transfers - Revenue	1,676,306	341,749	21,700,000	20,700,000	20,700,000	
Total Internal Revenues	**1,676,306**	**341,749**	**21,700,000**	**20,700,000**	**20,700,000**	
Beginning Fund Balance	108,819,727	15,286,981	7,000,000	100,000,000	100,000,000	
Total Resources	**111,684,745**	**95,692,159**	**234,950,000**	**246,800,000**	**246,800,000**	
Requirements						
Total Bureau Expenditures	**0**	**0**	**0**	**0**	**0**	
Debt Service	0	111,272	625,000	800,000	800,000	
Contingency	0	0	108,325,000	126,500,000	126,500,000	
Fund Transfers - Expense	96,397,764	88,998,005	126,000,000	119,500,000	119,500,000	
Total Fund Expenditures	**96,397,764**	**89,109,277**	**234,950,000**	**246,800,000**	**246,800,000**	
Ending Fund Balance	15,286,981	6,582,882	0	0	0	
Total Requirements	**111,684,745**	**95,692,159**	**234,950,000**	**246,800,000**	**246,800,000**	

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 $100.0 million in FY 2014-15 reflects the depletion of the bond proceeds, necessitating another $125.0 million of bonds issued in one or more sales throughout the year, as shown in bond and note revenues.

Charges for services decreased from $0.75 million to $0.70 million for line and branch charges into the construction fund.

Revenues from fund transfers have remained stable from $21.7 million to $20.7 million, a decrease of $1.0 million, consisting of $20.0 million transfer from the Sewer System Operating Fund and a $0.7 million transfer from the Local Improvement District Fund for a special assessment bond sale.

Miscellaneous revenues of $0.4 million are slightly lower than in FY 2013-14 based on estimated spend-down of proceeds and an projected interest earnings rate of 0.50%.

Other cash transfer expenses of $119.5 million reflect the reimbursement of the operating fund for CIP expenditures, which is slightly less than in FY 2013-14.

The contingency projection for FY 2014-15 is $126.5 million which is $18.2 million higher than the FY 2013-14 Revised Budget, reflecting an anticipate bond sale in late spring 2015.

Sewer System Rate Stabilization Fund

	Actual FY 2011-12	Actual FY 2012-13	Revised FY 2013-14	Requested No DP FY 2014-15	Requested FY 2014-15	Proposed FY 2014-15
Resources						
Bond & Note	16,700,000	0	0	0	0	
Miscellaneous	191,771	57,615	15,000	50,000	50,000	
Total External Revenues	**16,891,771**	**57,615**	**15,000**	**50,000**	**50,000**	
Fund Transfers - Revenue	0	0	4,000,000	8,000,000	8,000,000	
Total Internal Revenues	**0**	**0**	**4,000,000**	**8,000,000**	**8,000,000**	
Beginning Fund Balance	13,990,074	12,356,845	2,000,000	12,000,000	12,000,000	
Total Resources	**30,881,845**	**12,414,460**	**6,015,000**	**20,050,000**	**20,050,000**	
Requirements						
Total Bureau Expenditures	**0**	**0**	**0**	**0**	**0**	
Contingency	0	0	4,015,000	20,050,000	20,050,000	
Fund Transfers - Expense	18,525,000	7,550,000	2,000,000	0	0	
Total Fund Expenditures	**18,525,000**	**7,550,000**	**6,015,000**	**20,050,000**	**20,050,000**	
Ending Fund Balance	12,356,845	4,864,460	0	0	0	
Total Requirements	**30,881,845**	**12,414,460**	**6,015,000**	**20,050,000**	**20,050,000**	

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. Fund balances will be increased in FY 2014-15 for use in subsequent years to smooth increases in rates.

Managing Agency Bureau of Environmental Services

Significant Changes from Prior Year

Fund transfer revenues are budgeted at $8.0 million from the Sewer System Operating Fund up from $4.0 million in FY 2013-14, to balance debt service coverage ratios and to replenish balances for future use.

Miscellaneous revenues, which are comprised of interest earnings, are budgeted at $50,000 due to increased cash balances, as shown in the FY 2014-15 beginning fund balance of $12.0 million.

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Bureau of Environmental Services

Capital Improvement Plan Summaries

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Maintenance and Reliability								
Maintenance Capital - Construction (E04861)								
Total Requirements	8,689,526	230,000	230,000	230,000	240,000	240,000	240,000	1,180,000
Operating and Maintenance Costs			0	0	0	0	0	
Maintenance Capital - Contract (E04863)								
Total Requirements	30,911,265	2,700,000	2,700,000	2,800,000	3,000,000	3,000,000	3,000,000	14,500,000
Operating and Maintenance Costs			0	0	0	0	0	
NEW - Taggart Basin Relief & Reconstruction TG-3 (E07165)								
Total Requirements	0	0	0	186,000	93,000	2,897,000	6,000	3,182,000
Operating and Maintenance Costs			0	0	0	0	0	
Hollywood Stormwater & Sewer Solutions (E07818)								
Total Requirements	0	500,000	105,000	190,000	0	0	0	295,000
Operating and Maintenance Costs			0	0	0	0	0	
Eastside Combined Sewer Overflow System Startup (E08107)								
Total Requirements	0	605,000	291,000	0	0	0	0	291,000
Operating and Maintenance Costs			0	0	0	0	0	

Maintenance Capital - Construction (E04861)

Confidence Level: Moderate | **Total Project Cost:** Ongoing | **Original Project Cost:** Ongoing | **Area:** Citywide | **Objective:** Maintenance & Repa

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 course of 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 and small reconstructions, diversion modifications, deep underground repairs, and single-block sewer replacements. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Maintenance Capital - Contract (E04863)

Confidence Level: Low | **Total Project Cost:** Ongoing | **Original Project Cost:** Ongoing | **Area:** Citywide | **Objective:** Maintenance & Repa

Project Description

The Maintenance Capital-Contract 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. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

NEW - Taggart Basin Relief & Reconstruction TG-3 (E07165)

Confidence Level: Low | **Total Project Cost:** 3,182,000 | **Original Project Cost:** 3,182,000 | **Area:** Southeast | **Objective:** Maintenance & Repa

Project Description

Located in SE Portland – adjacent to the TGD projects, the project area is generally bound by Milwaukie, Powell, 17th, and Bush. Project will upsize pipes and construct green street facilities. The project has a positive cost to benefit ratio (CBR) = 0.13. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Hollywood Stormwater & Sewer Solutions (E07818)

Confidence Level: High | **Total Project Cost:** 992,000 | **Original Project Cost:** 14,473,000 | **Area:** Undetermined | **Objective:** Replacement

Project Description

Mitigate sewer backup risk to 28 properties in the Hollywood area: NE 46th, NE 47th, and NE 49th. Construct green street facilities, sumps, and two spot repairs on existing sewer mains. Reduce flows to the Sullivan Gulch Trunk Sewer (adjacent to I-84) improving its operations by reducing surcharge conditions. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Eastside Combined Sewer Overflow System Startup (E08107)

Confidence Level: High | **Total Project Cost:** 2,650,000 | **Original Project Cost:** 3,309,854 | **Area:** East | **Objective:** Mandated

Project Description

Maximize the additional storage available for a combined sewer overflow event by starting with an empty force main. It will reduce the need to use Bioxite to control odors. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Maintenance and Reliability								
Beech Essex CP-K (E08386)								
Total Project Cost: 1,446,000								
Area: Northeast								
Confidence Level: Moderate								
Original Project Cost: 1,446,000								
Objective: Maintenance & Repa								
Project Description								
Construct approximately 1,540 linear feet of new pipe ranging in size from 12" to 30" to relieve basement flooding in a 33-acre project area of NE Portland generally bound by Russell, Vancouver, Thompson, and Borthwick. The project has a positive cost to benefit ratio (CBR) = 0.41. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	0	53,000	289,000	1,104,000	0	0	1,446,000
Operating and Maintenance Costs			0	0	0	0	0	
NWN: Far North Nicolai (E08401)								
Total Project Cost: 3,657,000								
Area: Northwest								
Confidence Level: Moderate								
Original Project Cost: 3,770,000								
Objective: Maintenance & Repa								
Project Description								
Construct approximately 8,000 linear feet of pipe ranging in size from 8" to 30" to relieve basement sewer back ups and address pipe condition and hydraulic capacity problems. Located in NW Portland, the project area is generally bound by Reed, Hwy 30, Thurman, and 28th. The project has a positive cost to benefit ratio (CBR) = 1.04. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	702,000	2,090,000	739,000	0	0	0	2,829,000
Operating and Maintenance Costs			0	0	0	0	0	
NWN: North Tanner Pipe Construction (E08402)								
Total Project Cost: 9,621,000								
Area: Northwest								
Confidence Level: Moderate								
Original Project Cost: 9,621,000								
Objective: Maintenance & Repa								
Project Description								
Construct approximately 12,400 linear feet of pipe ranging in size from 10" to 42" to relieve basement sewer back ups and address pipe condition and hydraulic capacity problems. Located in NW Portland, the project area is generally bound by Pettygrove, 11th, Kearny, and 21st. The project has a positive cost to benefit ratio (CBR) = 0.33. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	0	0	700,000	1,684,000	3,619,000	3,618,000	9,621,000
Operating and Maintenance Costs			0	0	0	0	0	
Beech-Essex CP-J (E08656)								
Total Project Cost: 8,253,000								
Area: Northeast								
Confidence Level: Moderate								
Original Project Cost: 8,253,000								
Objective: Replacement								
Project Description								
Reduce the risk of basement back up to 351 parcels by constructing 11,800 linear feet of new capacity pipe, and replace 3,700 linear feet of pipe in poor condition. Located in N/NE Portland, the project area is generally bound by Fargo, 7th, Sacramento, and Williams. The project has a positive cost to benefit ratio (CBR) = 0.51. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	0	0	55,000	868,000	4,304,000	3,026,000	8,253,000
Operating and Maintenance Costs			0	0	0	0	0	
East Nicolai Repair & Upsizing (E08658)								
Total Project Cost: 6,837,000								
Area: Northwest								
Confidence Level: Moderate								
Original Project Cost: 6,837,000								
Objective: Maintenance & Repa								
Project Description								
The project will relieve basement sewer backups to 192 parcels, address pipe condition and hydraulic capacity problems, and separate 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. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	0	0	0	507,000	3,290,000	3,040,000	6,837,000
Operating and Maintenance Costs			0	0	0	0	0	

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Maintenance and Reliability								
TGD: SE Powell Green Street and Pipe Reconstruction (E08659)								
Total Requirements	0	561,000	1,600,000	2,320,000	90,000	92,000	0	4,102,000
Operating and Maintenance Costs			0	0	0	0	3,000	

Total Project Cost: 4,535,000 **Area:** Southeast
Confidence Level: Moderate **Original Project Cost:** 7,026,000 **Objective:** Replacement

Project Description

Reconstruct approximately 5,300 linear feet of pipe including 1,790 LF in poor condition and 3,130 LF with inadequate capacity, and 365 LF of sewer extensions. Also construct 50 vegetated stormwater infiltration facilities. This project is a combination of three prior projects. Located in SE, there are two project areas generally bound (1) between Taggart & 7th and Rhone & 15th and (2) between 24th & 25th and Cora & Reynolds. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

TGD:SE Clinton-Caruthers System Improvements (E08662)								
Total Requirements	0	950,000	950,000	50,000	50,000	0	0	1,050,000
Operating and Maintenance Costs			0	0	0	2,000	2,000	

Total Project Cost: 2,753,000 **Area:** Southeast
Confidence Level: Moderate **Original Project Cost:** 612,000 **Objective:** Replacement

Project Description

Construct improvements to relieve sewer backups. Located in SE Portland, the project area is bound by Caruthers and Woodward between 20th and 40th. Project includes 25 green street facilities, two blocks of pervious pavement, and approximately 3,000 linear feet of pipe replacement. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

TGD: SE Division Stormwater & Pipe Reconstruction (E08665)								
Total Requirements	0	5,000,000	500,000	50,000	50,000	0	0	600,000
Operating and Maintenance Costs			0	0	0	4,000	4,000	

Total Project Cost: 6,458,000 **Area:** Southeast
Confidence Level: Optimal **Original Project Cost:** 8,478,000 **Objective:** Replacement

Project Description

Construct improvements to relieve sewer backups and rehabilitate pipe. Located in SE Portland, the project area is generally bound by Division and Woodward between 13th and 40th. Project includes an estimated 7,076 linear feet of mainline sewer pipe replacement. Construction is managed through PBOT. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

TGD: SE Hawthorne Green Street and Pipe Replacement (E08668)								
Total Requirements	0	489,000	898,000	22,000	6,000	6,000	0	932,000
Operating and Maintenance Costs			0	0	0	0	2,000	

Total Project Cost: 1,517,000 **Area:** Southeast
Confidence Level: Moderate **Original Project Cost:** 2,216,000 **Objective:** Replacement

Project Description

Construct 12 stormwater infiltration facilities. Plant 134 street trees. Rehab or upsize 2,418 linear feet of pipe. This project will reduce the risk of basement sewer backups for 51 parcels and street flooding at 11 manholes. Located in SE Portland, the project area is generally bound by Madison, 41st, Clay, and 50th. The project has a positive cost to benefit ratio (CBR) = 0.34. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

TGD: SE 41st & SE Madison (E08670)								
Total Requirements	0	500,000	24,000	23,000	0	0	0	47,000
Operating and Maintenance Costs			0	0	2,000	2,000	2,000	

Total Project Cost: 800,000 **Area:** Southeast
Confidence Level: Optimal **Original Project Cost:** 158,000 **Objective:** Replacement

Project Description

Install 22 stormwater infiltration facilities and 12 street trees. This project will reduce the risk of basement sewer backups to 11 parcels and street flooding/ sewer surcharge at three locations. Project is located in 2 areas of SE Portland: (1) generally bound by Division, 41st, Taggart, and 43rd and (2) generally bound by 55th, 58th and Madison. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Maintenance and Reliability								
NEW - TGD: SE Salmon Green Street and Pipe Reconstruction (E08671)								
Total Requirements	0	0	1,462,000	13,000	27,000	10,000	0	1,512,000
Operating and Maintenance Costs			0	0	0	0	2,000	
NWN: BCC Support Project (E09017)								
Total Requirements	0	2,000,000	1,581,000	0	0	0	0	1,581,000
Operating and Maintenance Costs			0	0	0	0	0	
NWN: Southeast Tanner (E09019)								
Total Requirements	0	0	0	615,000	1,912,000	1,161,000	0	3,688,000
Operating and Maintenance Costs			0	0	0	0	0	
Fanno Basin System Improvement (E09045)								
Total Requirements	791,615	10,143,000	11,730,000	1,145,000	0	0	0	12,875,000
Operating and Maintenance Costs			0	0	100,000	180,000	180,000	
OAK:SE Oak St Sewer Repair (E09095)								
Total Requirements	0	2,000,000	50,000	0	0	0	0	50,000
Operating and Maintenance Costs			0	0	0	0	0	

NEW - TGD: SE Salmon Green Street and Pipe Reconstruction (E08671)
Total Project Cost: 1,512,000 **Area:** Southeast
Confidence Level: High **Original Project Cost:** 1,512,000 **Objective:** Replacement

Project Description

Install 16 stormwater infiltration facilities, 143 street trees, and 2,395 linear feet of pipe including the replacement of 890 linear feet in poor structural condition. This project will reduce the risk of basement sewer backups for 60 parcels and street flooding at 10 manholes. Located in SE Portland, the project area is generally bound by Yamhill, 46th, Main, and 49th. The project has a positive cost to benefit ratio (CBR) = 0.52. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

NWN: BCC Support Project (E09017)
Total Project Cost: 2,060,000 **Area:** Northwest
Confidence Level: High **Original Project Cost:** 5,912,000 **Objective:** Maintenance & Repa

Project Description

Construct improvements to replace pipes in poor structural condition; relieve street flooding and basement sewer backups. Located in NW Portland, the project area is generally bound by Yeon, 29th, Nicolai, and St. Helens Road. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

NWN: Southeast Tanner (E09019)
Total Project Cost: 3,688,000 **Area:** Northwest
Confidence Level: Moderate **Original Project Cost:** 3,688,000 **Objective:** Replacement

Project Description

Construct improvements to replace pipes in poor structural condition and relieve street flooding and basement sewer backups. Located in NW Portland, the project area is generally bound by Overton, 9th, Everett, and 15th. The project is a hydraulic dependency for the Southwest Tanner Project. The two projects have a combined positive cost to benefit ratio (CBR) = 0.36. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Fanno Basin System Improvement (E09045)
Total Project Cost: 63,800,000 **Area:** Southwest
Confidence Level: High **Original Project Cost:** 59,179,424 **Objective:** Maintenance & Repa

Project Description

This group of projects will repair, replace, and expand the conveyance system in the Fanno Basin in SW Portland. Remaining work elements include expansion of the pump station and improvements to the main gravity sewer. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

OAK:SE Oak St Sewer Repair (E09095)
Total Project Cost: 2,809,000 **Area:** Southeast
Confidence Level: Optimal **Original Project Cost:** 1,294,000 **Objective:** Replacement

Project Description

Replace existing 24" combined sewer pipe in SE Oak from 10th to 11th and 12th to 16th. Connect sewers at SE 14th, 15th and 16th to correct non-conforming sewer issues. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Maintenance and Reliability								
NWN: Southwest Tanner (E10028)								
Total Requirements	0	0	0	0	503,000	655,000	2,896,000	4,054,000
Operating and Maintenance Costs			0	0	0	0	0	

Total Project Cost: 7,001,000 **Area:** Southwest
Confidence Level: Moderate **Original Project Cost:** 7,001,000 **Objective:** Replacement

Project Description

Construct improvements to replace pipes in poor structural condition and relieve street flooding and basement sewer backups through pipe upsizing and stormwater separation to reduce the risk of basement sewer backups to 117 properties. Located in NW Portland, the project area is generally bound by Johnson, Interstate 405, Couch, and 23rd. This project is hydraulically dependent upon the Southeast Tanner Project. The project has a positive cost to benefit ratio (CBR) = 0.59. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

SE Interceptor Rehabilitation (E10030)								
Total Requirements	0	295,000	495,000	1,000,000	5,955,000	0	0	7,450,000
Operating and Maintenance Costs			0	0	0	0	0	

Total Project Cost: 8,111,000 **Area:** Southeast
Confidence Level: Moderate **Original Project Cost:** 8,322,000 **Objective:** Maintenance & Repa

Project Description

Rehabilitate two sections of the SE Interceptor: 2,038 linear feet of 72-in by 74-in horseshoe monolithic concrete sewer constructed in 1954, located at a depth of 41 to 53 feet, from the intersection of SE Grand and Pine north to NE Davis and west in NE Davis to NE 3rd; and 1,330 lineal feet of 66 x 54 inches at a depth of approximately 30 feet located between SE Caruthers and SE 12th. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Phase 2 Pipe Rehabilitation (E10031)								
Total Requirements	0	29,516,000	41,028,000	37,384,000	18,639,000	1,746,000	0	98,797,000
Operating and Maintenance Costs			0	0	0	0	0	

Total Project Cost: 131,007,000 **Area:** Citywide
Confidence Level: Moderate **Original Project Cost:** 123,000,000 **Objective:** Maintenance & Repa

Project Description

This program includes structural rehabilitation of critical combined and sanitary sewers that are at the end of their economic life and have the highest consequence of failure. The pipes have been prioritized based on their business risk exposure so that the pipes with the highest benefit (risk reduction) to cost ratios are to be done first.

Fanno Creek Infiltration and Inflow (E10035)								
Total Requirements	0	300,000	1,056,000	2,570,000	4,000,000	2,000,000	2,000,000	11,626,000
Operating and Maintenance Costs			0	0	0	0	0	

Total Project Cost: 19,307,000 **Area:** Southwest
Confidence Level: Low **Original Project Cost:** 13,917,000 **Objective:** Maintenance & Repa

Project Description

Resolve known local basement and surface flooding and reduce 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. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Bike Boulevard Green Streets (E10179)								
Total Requirements	0	5,255,000	258,000	0	0	0	0	258,000
Operating and Maintenance Costs			6,000	6,000	6,000	6,000	6,000	

Total Project Cost: 15,000,000 **Area:** Citywide
Confidence Level: Moderate **Original Project Cost:** 17,000,000 **Objective:** Maintenance & Repa

Project Description

Projects in this program address bureau priorities associated with system capacity or water quality regulatory issues. Projects will be located on designated bike streets. The majority of the projects will construct green street facilities to address pipe capacity to reduce the risk of basement sewer backup. Green streets may also be located to address compliance issues associated with UICs or in the Fanno/Tryon watershed to address TMDL issues. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Maintenance and Reliability								
Stark HSS-17 (E10216)								
Total Project Cost: 13,242,000 **Area:** Southeast								
Confidence Level: Low **Original Project Cost:** 13,242,000 **Objective:** Replacement								
Project Description								
Replace pipes in poor structural condition and relieve street flooding and the risk of basement sewer backups to 304 properties in an area generally bound by NE Everett, SE/NE 32nd, SE Stark, and SE 21st. Replace 400 linear feet of poor condition pipe, upsize 10,500 linear feet of hydraulically deficient pipe, and construct new green street facilities to collect stormwater runoff from approximately 21.0 acres of impervious area. The project has a positive cost to benefit ratio (CBR) = 0.47. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	0	0	0	953,000	1,237,000	7,900,000	10,090,000
Operating and Maintenance Costs			0	0	0	0	0	
Wheeler WHE-04 (E10219)								
Total Project Cost: 9,445,000 **Area:** Northeast								
Confidence Level: Moderate **Original Project Cost:** 10,016,000 **Objective:** Replacement								
Project Description								
Construct improvements to relieve street flooding and basement sewer backups in an area generally bound by NE Brazee, NE 7th, NE San Rafael, and the Willamette River. The project will reduce the risk of basement sewer backup to 247 properties. The project has a positive cost to benefit ratio (CBR) = 1.18. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	400,000	0	0	815,000	7,845,000	569,000	9,229,000
Operating and Maintenance Costs			0	0	0	0	0	
Structural Rehab Taggart Outfall 30 (E10220)								
Total Project Cost: 11,291,000 **Area:** Southeast								
Confidence Level: Moderate **Original Project Cost:** 14,805,000 **Objective:** Maintenance & Repa								
Project Description								
Structural rehabilitation of the Taggart outfall, a 1906 combined sewer. The sewer ranges in size from 64 to 118 inches in diameter at depths of 20 to 65 feet. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	711,000	1,405,000	9,227,000	54,000	0	0	10,686,000
Operating and Maintenance Costs			0	0	0	0	0	
Owner Controlled Insurance Program Phase IV (E10222)								
Total Project Cost: 3,850,000 **Area:** Citywide								
Confidence Level: Moderate **Original Project Cost:** 3,850,000 **Objective:** Maintenance & Repa								
Project Description								
Owner controlled insurance program for all construction projects over $0.5 million. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	800,000	800,000	500,000	300,000	0	0	1,600,000
Operating and Maintenance Costs			0	0	0	0	0	
Tryon SS Protection 1A TCWTP to Hwy 43 (E10251)								
Total Project Cost: 3,404,000 **Area:** Undetermined								
Confidence Level: Moderate **Original Project Cost:** 1,900,000 **Objective:** Replacement								
Project Description								
Upgrade the Tryon Creek Sewer from the Tryon Creek wastewater treatment plant approximately 1,850 feet upstream into Tryon Creek State Park. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	400,000	640,000	2,003,000	0	0	0	2,643,000
Operating and Maintenance Costs			0	0	0	0	0	

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Maintenance and Reliability								
NE 13th Piedmont-Woodland-King Sewer Reconstruction (E10331)								
Total Requirements	0	500,000	1,934,000	5,000,000	9,229,000	95,000	0	16,258,000
Operating and Maintenance Costs			0	0	0	0	0	
Alder: Easide Industrial Recon/Greenstreets (E10366)								
Total Requirements	0	0	0	0	236,000	1,522,000	3,485,000	5,243,000
Operating and Maintenance Costs			0	0	0	0	0	
Alder: Sunnyside North Recon/Green Street (E10367)								
Total Requirements	0	0	0	809,000	1,053,000	5,127,000	4,266,000	11,255,000
Operating and Maintenance Costs			0	0	0	0	0	
Alder: Sunnyside South Recon/ Green Street (E10368)								
Total Requirements	0	0	0	252,000	801,000	2,629,000	2,675,000	6,357,000
Operating and Maintenance Costs			0	0	0	0	0	
Alder: Ladd's Addition South Reconstruction/GreenStreets (E10369)								
Total Requirements	0	0	0	222,000	526,000	1,869,000	1,902,000	4,519,000
Operating and Maintenance Costs			0	0	0	0	0	

NE 13th Piedmont-Woodland-King Sewer Reconstruction (E10331)

Total Project Cost: 17,498,000 **Area:** North

Confidence Level: Moderate **Original Project Cost:** 17,498,000 **Objective:** Maintenance & Repa

Project Description

Rehabilitate 23,000 lf of pipe, perform 140 spot repairs, upsize 5,700 lf of pipe to reduce the risk of basement sewer backup to 139 properties and the risk of street flooding at 32 locations, and install 2,300 lf of new pipe to re-route flow. Located in N/NE, the area is generally bound by Lombard Place, 17th, Going, and Williams. The project has a positive net benefit to cost ratio (nBCR) = 1.60. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Alder: Easide Industrial Recon/Greenstreets (E10366)

Total Project Cost: 10,398,000 **Area:** Southeast

Confidence Level: Moderate **Original Project Cost:** 10,398,000 **Objective:** Maintenance & Repa

Project Description

The project will upsize pipe segments and install street, roof and parking stormwater controls to relieve street flooding and basement sewer backup to 146 properties. Located in SE, the area is generally bound by Madison, 10th, Sherman, and 6th. The project has a positive cost to benefit ratio (CBR) = 0.29. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Alder: Sunnyside North Recon/Green Street (E10367)

Total Project Cost: 11,255,000 **Area:** Southeast

Confidence Level: Moderate **Original Project Cost:** 11,255,000 **Objective:** Replacement

Project Description

Construct improvements to rehabilitate pipe segments in poor condition, upsize pipe segments and install street, roof and parking stormwater controls to relieve street flooding and basement sewer backup to 318 properties. Located in SE Portland, the project area is generally bound by Stark, 37th, Taylor, and 20th. This project must be completed prior to Sunnyside South and East. The three projects have a combined positive cost to benefit ratio (CBR) = 0.18. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Alder: Sunnyside South Recon/ Green Street (E10368)

Total Project Cost: 6,357,000 **Area:** Southeast

Confidence Level: Moderate **Original Project Cost:** 6,357,000 **Objective:** Replacement

Project Description

Construct improvement to upsize pipe segments, and 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. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Alder: Ladd's Addition South Reconstruction/GreenStreets (E10369)

Total Project Cost: 4,519,000 **Area:** Southeast

Confidence Level: Moderate **Original Project Cost:** 4,519,000 **Objective:** Replacement

Project Description

Construct improvements to rehabilitate pipe segments that are in poor condition, upsize pipe segments and install street, roof and parking stormwater controls to relieve street flooding and basement sewer backup to 76 properties. Located in SE Portland, the project area is generally bound by Market, 20th, Division, and 12th. The project has a positive cost to benefit ratio (CBR) = 0.20. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Maintenance and Reliability								
Alder: Sunnyside East South Recon Green Streets (E10370)								
Total Requirements	0	0	103,000	365,000	2,411,000	0	0	2,879,000
Operating and Maintenance Costs			0	0	0	0	0	
Alder: Buckman East Reconstruction/ Grst (E10371)								
Total Requirements	0	0	0	0	285,000	844,000	2,820,000	3,949,000
Operating and Maintenance Costs			0	0	0	0	0	
Burlingame Basin Infiltration and Inflow (E10474)								
Total Requirements	0	2,100,000	2,934,000	2,100,000	4,000,000	3,000,000	1,000,000	13,034,000
Operating and Maintenance Costs			0	0	0	0	0	
Richmond Neighborhood Sewer Rehabilitation (E10489)								
Total Requirements	0	0	0	155,000	593,000	3,766,000	0	4,514,000
Operating and Maintenance Costs			0	0	0	0	4,000	
Combined Sewer Overflow Transients Relief (E10490)								
Total Requirements	0	55,000	165,000	300,000	500,000	0	0	965,000
Operating and Maintenance Costs			0	0	0	0	0	

Alder: Sunnyside East South Recon Green Streets (E10370)

Total Project Cost: 2,879,000 **Area:** Southeast

Confidence Level: Moderate **Original Project Cost:** 2,879,000 **Objective:** Replacement

Project Description

Construct improvements to upsize pipe segments, and install street, roof and parking stormwater controls to relieve street flooding and basement sewer backup to 90 properties. Located in SE Portland, the project area is generally bound by Stark, 45th, Taylor, and 37th. The project has a positive cost to benefit ratio (CBR) = 0.56. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Alder: Buckman East Reconstruction/ Grst (E10371)

Total Project Cost: 6,819,000 **Area:** Southeast

Confidence Level: Moderate **Original Project Cost:** 6,819,000 **Objective:** Maintenance & Repa

Project Description

The project will rehabilitate pipe segments that are in poor condition, upsize pipe segments and install street, roof and parking stormwater controls to relieve street flooding and basement sewer backup to 189 properties. Located in SE, the area is generally bound by Stark, 29th, Hawthorne, and 14th. The project has a positive cost to benefit ratio (CBR) = 0.28. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Burlingame Basin Infiltration and Inflow (E10474)

Total Project Cost: 23,408,000 **Area:** Southwest

Confidence Level: Moderate **Original Project Cost:** 13,950,000 **Objective:** Maintenance & Repa

Project Description

Reduce the stormwater flow into the sanitary sewers and eliminate sanitary sewer overflows in the Burlingame basin. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Richmond Neighborhood Sewer Rehabilitation (E10489)

Total Project Cost: 4,514,000 **Area:** Southeast

Confidence Level: Moderate **Original Project Cost:** 4,514,000 **Objective:** Maintenance & Repa

Project Description

Rehabilitate approximately 1,300 feet of pipe in poor condition, upsize pipe segments and install street stormwater controls to relieve street flooding and basement sewer backup for 143 properties. Located in SE, the area is generally bound by Hawthorne, 48th, Division, and 36th. The project has a positive cost to benefit ratio (CBR) = 0.13. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Combined Sewer Overflow Transients Relief (E10490)

Total Project Cost: 1,020,000 **Area:** West

Confidence Level: Moderate **Original Project Cost:** 1,020,000 **Objective:** Efficiency

Project Description

The completed Willamette CSO System is susceptible to hydraulic transients or pressure waves that can cause geysers well above ground level, causing public safety risks and damage to sewer and surrounding structures. This project will construct transient relief structures at the two remaining susceptible locations. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Maintenance and Reliability								
Pipe Rehab Phase 3 (E10500)								
Total Project Cost: 155,250,000	**Area:** Citywide							
Confidence Level: Low	**Original Project Cost:** 155,250,000	**Objective:** Maintenance & Repa						
Project Description								
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. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	0	0	250,000	2,000,000	4,000,000	11,000,000	17,250,000
Operating and Maintenance Costs			0	0	0	0	0	
NEW - Large Diameter Sewer Rehabilitation (E10576)								
Total Project Cost: 39,400,000	**Area:** Citywide							
Confidence Level: Low	**Original Project Cost:** 39,400,000	**Objective:** Maintenance & Repa						
Project Description								
This program will perform spot and whole pipe rehabilitation of large diameter (> 36 inches in diameter) sanitary and combined sewers that are currently in poor structural condition. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	0	100,000	300,000	1,000,000	2,000,000	3,000,000	6,400,000
Operating and Maintenance Costs								
NEW - Capital Mintenance - non-process facilities (E10594)								
Total Project Cost:	**Area:** Citywide							
Confidence Level:	**Original Project Cost:** 11,250,000	**Objective:**						
Project Description								
This program is for capital maintenance of BES-owned non-process facilities including the Water Pollution Control Lab, Materials Testing Lab, administration buildings at the Treatment Plants, and downtown office space. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	0	250,000	1,000,000	1,000,000	1,000,000	1,000,000	4,250,000
Operating and Maintenance Costs								
Sewage Treatment Systems								
Pump Station Improvements (E04661)								
Total Project Cost: Ongoing	**Area:** Citywide							
Confidence Level: Moderate	**Original Project Cost:** Ongoing	**Objective:** Maintenance & Repa						
Project Description								
This is a continuing 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 97 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 will cause sewage to bypass to waterways. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	25,443,646	3,600,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	20,000,000
Operating and Maintenance Costs			50,000	50,000	50,000	50,000	50,000	

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Sewage Treatment Systems								
Repair, Rehabilitation, and Modification (E04891)								
Total Requirements	19,778,780	2,000,000	2,000,000	2,000,000	2,000,000	2,500,000	2,500,000	11,000,000
Operating and Maintenance Costs			0	0	0	0	0	
CBWTP Lagoon Reconstruction (E06072)								
Total Requirements	2,069,545	3,500,000	2,598,000	1,031,000	4,124,000	4,274,000	980,000	13,007,000
Operating and Maintenance Costs			0	0	25,000	25,000	25,000	
CBWTP Seismic Improvements (E06077)								
Total Requirements	0	0	0	206,000	516,000	1,640,000	1,308,000	3,670,000
Operating and Maintenance Costs			0	0	0	0	0	
CBWTP Outfall Diffuser (E06923)								
Total Requirements	0	0	100,000	585,000	1,484,000	0	0	2,169,000
Operating and Maintenance Costs			0	0	0	0	0	
Ankeny Pump Station Upgrade (E07833)								
Total Requirements	218,002	1,000,000	96,000	0	0	0	0	96,000
Operating and Maintenance Costs			0	125,000	125,000	125,000	125,000	

Repair, Rehabilitation, and Modification (E04891)

Total Project Cost: Ongoing **Area:** Citywide

Confidence Level: Moderate **Original Project Cost:** Ongoing **Objective:** Maintenance & Repa

Project Description

The Repair, Rehabilitation, and Modifications program is to protect capital investments and to enhance system reliability at the Columbia and Tryon Creek sewage treatment facilities. It provides for best management practices to prevent violations of the NPDES permit. Both the treatment plants are aging facilities and therefore require regular repair, rehabilitation, and modifications. This program facilitates rapid and practical replacement of capital equipment and upgrade of aging facilities. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

CBWTP Lagoon Reconstruction (E06072)

Total Project Cost: 19,539,000 **Area:** North

Confidence Level: High **Original Project Cost:** 19,539,000 **Objective:** Mandated

Project Description

Construct additional dikes in the existing lagoon to create more separation. The individual ponds will be lined with a monofill. Two separate phases are programmed in the 5-year CIP. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

CBWTP Seismic Improvements (E06077)

Total Project Cost: 4,588,000 **Area:** Citywide

Confidence Level: Low **Original Project Cost:** 3,670,000 **Objective:** Replacement

Project Description

Construct seismic improvements to the treatment plant infrastructure. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

CBWTP Outfall Diffuser (E06923)

Total Project Cost: 2,104,000 **Area:** North

Confidence Level: Low **Original Project Cost:** 2,169,000 **Objective:** Replacement

Project Description

Extend the existing wet weather outfall diffuser. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Ankeny Pump Station Upgrade (E07833)

Total Project Cost: 12,604,000 **Area:** Central City

Confidence Level: Optimal **Original Project Cost:** 14,078,376 **Objective:** Maintenance & Repa

Project Description

Modernize the aging Ankeny Pump Station. Work includes replacement of four sewage pumps and associated systems and addition of upgraded instrumentation, control, and communication to operate with the Willamette River CSO Control System during storm events. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Sewage Treatment Systems								
CBWTP Secondary Treatment Expansion (E07947)								
Total Requirements	0	0	0	516,000	3,100,000	3,348,000	7,078,000	14,042,000
Operating and Maintenance Costs			0	0	0	0	0	
CBWTP Selector Performance Enhancement (E08909)								
Total Requirements	0	3,400,000	165,000	0	0	0	0	165,000
Operating and Maintenance Costs			0	75,000	125,000	125,000	125,000	
CBWTP Thickened Waste Activated Sludge Piping (E09022)								
Total Requirements	0	150,000	120,000	400,000	400,000	0	0	920,000
Operating and Maintenance Costs			0	0	0	0	0	
CBWTP Cogeneration (E10033)								
Total Requirements	0	400,000	435,000	2,325,000	2,459,000	0	0	5,219,000
Operating and Maintenance Costs			0	0	0	(50,000)	(50,000)	
Tryon Creek Wastewater Treatment Plant Improvements (E10234)								
Total Requirements	0	216,000	268,000	11,000	424,000	0	0	703,000
Operating and Maintenance Costs			0	0	0	0	0	

CBWTP Secondary Treatment Expansion (E07947)

Total Project Cost: 60,000,000 **Area:** North
Confidence Level: Moderate **Original Project Cost:** 62,802,000 **Objective:** Mandated

Project Description

Expand secondary treatment capacity at the CBWTP to provide reliable treatment for BOD and TSS consistent with the NPDES permit for operating the plant. The project will add two new secondary clarifiers per the recommended phasing in the 1995 Facilities Plan and 2009 update. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

CBWTP Selector Performance Enhancement (E08909)

Total Project Cost: 18,576,000 **Area:** North
Confidence Level: High **Original Project Cost:** 18,116,146 **Objective:** Efficiency

Project Description

Construct upgrades to aeration basins and instrumentation and controls to improve the settling of solids produced in the secondary treatment process to allow the existing secondary clarifiers to better remove solids. Improvements are needed to continue to meet the requirements of the NPDES permit. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

CBWTP Thickened Waste Activated Sludge Piping (E09022)

Total Project Cost: 1,000,000 **Area:** North
Confidence Level: Moderate **Original Project Cost:** 948,000 **Objective:** Replacement

Project Description

Construct a new Thickened Waste Activated Sludge (TWAS) pipeline from the solids processing building to the digester complex to relieve an existing hydraulic bottleneck. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

CBWTP Cogeneration (E10033)

Total Project Cost: 5,583,000 **Area:** North
Confidence Level: Moderate **Original Project Cost:** 5,584,000 **Objective:** Efficiency

Project Description

Construct a facility to beneficially reuse the remaining unused methane gas that is a bi-product of the treatment process. This project is expected to pay for itself over a 10 to 20 year period. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Tryon Creek Wastewater Treatment Plant Improvements (E10234)

Total Project Cost: 34,375,000 **Area:** Southwest
Confidence Level: Low **Original Project Cost:** 34,375,000 **Objective:** Maintenance & Repa

Project Description

A series of upgrades are planned for Tryon Creek Wastewater Treatment Plant including seismic improvements and replacement of the controls that allow the plant to be controlled remotely from CBWTP. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Sewage Treatment Systems								
CBWTP Dewatering Improvements (E10365)								
Total Project Cost: 15,065,000 **Area:** Citywide								
Confidence Level: Low **Original Project Cost:** 15,481,000 **Objective:** Efficiency								
Project Description The 2010 Columbia Boulevard Wastewater Treatment Plant Facilities Plan recommends improvements to the existing dewatering process to increase capacity and eliminate process bottlenecks. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	0	0	0	0	824,000	1,347,000	2,171,000
Operating and Maintenance Costs			0	0	0	0	0	
CBWTP Reuse System Replacement (E10483)								
Total Project Cost: 3,831,000 **Area:** North								
Confidence Level: Low **Original Project Cost:** 3,950,000 **Objective:** Replacement								
Project Description Replace the reuse water system, installed in 1996, to provide reliable reuse treatment capacity at CBWTP. Upgrade the deep well pump controls and integrate them with the reuse system controls providing more consistent water supply and pressure for plant processes. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	0	0	392,000	398,000	2,293,000	867,000	3,950,000
Operating and Maintenance Costs			0	0	0	0	0	
NEW - TCWTP Headworks, Dry Weather Clarifier & Odor Control Improvements (E								
Total Project Cost: 28,316,000 **Area:** Citywide								
Confidence Level: Moderate **Original Project Cost:** 38,524,000 **Objective:** Replacement								
Project Description The TCWTP Facilities Plan Update has identified key improvements. These improvements are driven by a need to bring the headworks process up to current treatment and efficiency standards, increase peak flow hydraulic capacity, community needs, and an opportunity to improve the plant hydraulic profile. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	0	2,588,000	3,017,000	3,590,000	9,014,000	10,107,000	28,316,000
Operating and Maintenance Costs								
Surface Water Management								
JC: West Lents Flood Mitigation (E06941)								
Total Project Cost: 6,206,000 **Area:** Southeast								
Confidence Level: Low **Original Project Cost:** 6,313,108 **Objective:** Replacement								
Project Description Located in SE Portland, the project was identified in the Johnson Creek Restoration Plan as one of the 21 high priority projects. Land acquisition is ongoing. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	428,108	0	0	312,000	562,000	2,843,000	2,903,000	6,620,000
Operating and Maintenance Costs			0	0	0	0	0	
JC:Luther Road Habitat Restoration (E06947)								
Total Project Cost: 4,915,000 **Area:** Southeast								
Confidence Level: Moderate **Original Project Cost:** 4,915,000 **Objective:** Replacement								
Project Description Stabilize the Johnson Creek channel to limit excessive erosion around the sewer pipe, create fish habitat; create constructed wetlands and enhance existing wetlands for flood storage and water quality benefits; and protect an existing bridge structure over the creek at risk from structural damage. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	97,021	500,000	3,000,000	200,000	0	0	0	3,200,000
Operating and Maintenance Costs			0	0	0	0	0	

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Surface Water Management								
JC: Community Restoration Partnership (E07158)								
Total Requirements	0	450,000	150,000	500,000	500,000	500,000	500,000	2,150,000
Operating and Maintenance Costs			0	0	0	0	0	
JC: Springwater Wetland (E07383)								
Total Requirements	0	20,000	50,000	100,000	600,000	1,700,000	170,000	2,620,000
Operating and Maintenance Costs			0	0	0	0	0	
JC: Brunkow (E08247)								
Total Requirements	0	256,000	100,000	200,000	470,000	0	0	770,000
Operating and Maintenance Costs			0	0	0	0	0	
JC: Freeway Land Floodplain Restoration (E08382)								
Total Requirements	0	50,000	0	50,000	800,000	700,000	1,000,000	2,550,000
Operating and Maintenance Costs			0	0	0	0	0	
JC: Oxbox (E08406)								
Total Requirements	0	100,000	142,000	182,000	972,000	50,000	0	1,346,000
Operating and Maintenance Costs			0	0	0	0	0	

JC: Community Restoration Partnership (E07158)

Total Project Cost: 2,900,000 **Area:** Southeast

Confidence Level: Moderate **Original Project Cost:** 2,000,000 **Objective:** Replacement

Project Description

Construct approximately 25 acre-feet of additional flood storage in Johnson Creek between SE 111th Ave and 158th Ave. The project will also maximize floodplain reconnection, bank stabilization efforts and revegetation efforts. This project is unique in that this is an opportunity based project whose success lies in the voluntary participation of property owners. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

JC: Springwater Wetland (E07383)

Total Project Cost: 2,640,000 **Area:** Southeast

Confidence Level: Low **Original Project Cost:** 535,000 **Objective:** Replacement

Project Description

Mitigate damage from flooding greater than the 10-year event and provide water quality and habitat benefits by restoring existing wetlands in the area. Passive recreational trails/facilities wil be incorporated into its design by coordinating with Portland Parks and Recreation. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

JC: Brunkow (E08247)

Total Project Cost: 794,000 **Area:** Southeast

Confidence Level: Low **Original Project Cost:** 768,000 **Objective:** Replacement

Project Description

Floodplain, wetland and riparian restoration per the 2001 Johnson Creek Restoration Plan. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

JC: Freeway Land Floodplain Restoration (E08382)

Total Project Cost: 8,630,000 **Area:** Southeast

Confidence Level: Low **Original Project Cost:** 9,587,000 **Objective:** Efficiency

Project Description

Approximately 100 acres are required south of SE Foster Road to manage the 10-year nuisance flood and provide fish and wildlife habitat along approximately 1.5 miles of Johnson Creek. This project addresses the portion of the nuisance flood footprint on Freeway Land Company - the western portion of the 100 acres. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

JC: Oxbox (E08406)

Total Project Cost: 1,396,000 **Area:** Southeast

Confidence Level: Low **Original Project Cost:** 1,396,000 **Objective:** Replacement

Project Description

Improvements needed to increase flood storage and improve habitat at the Johnson Creek Oxbow. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Surface Water Management								
FT: Fanno BvrtnHills Hwy (E08675)								
Total Project Cost: 1,040,000 **Area:** Southwest								
Confidence Level: Moderate **Original Project Cost:** 1,040,000 **Objective:** Mandated								
Project Description								
Construct stormwater treatment facilities to control flow and pollutants flowing into Fanno Creek from the 2.6 mile section of Beaverton-Hillsdale Hwy between SW Sunset and 65th Ave. Pollutants targeted for removal will be total suspended solids and phosphorous. This project will significantly address the City's regulatory obligations and benefit native cutthroat trout found in Fanno Creek. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	386,000	161,000	1,150,000	1,000,000	0	0	2,311,000
Operating and Maintenance Costs			0	0	0	0	0	
FT: SW 45th Ave Culvert (E08676)								
Total Project Cost: 610,000 **Area:** Citywide								
Confidence Level: Moderate **Original Project Cost:** 610,000 **Objective:** Mandated								
Project Description								
Construct a replacement for the 45th Ave culvert on Fanno Creek to increase capacity and provide fish passage. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	65,000	329,000	32,000	1,507,000	0	0	1,868,000
Operating and Maintenance Costs			0	0	0	0	0	
FT: Fanno/Tryon Outfall (E08677)								
Total Project Cost: 1,540,000 **Area:** Southwest								
Confidence Level: Moderate **Original Project Cost:** 1,540,000 **Objective:** Replacement								
Project Description								
Rehab/replacement of two degraded stormwater outfalls on Fanno Creek draining 38 acres and one stormwater outfall in Tryon Creek draining 24 acres in SW Portland. Project will improve water quality by stabilizing eroding stream banks and will protect downstream spawning gravels for species listed as threatened under the Endangered Species Act (ESA) by reducing inputs of suspended sediments into the creek system. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	100,000	175,000	50,000	0	0	0	225,000
Operating and Maintenance Costs			0	0	0	0	0	
FT: I5/SW 26 WQF (E08679)								
Total Project Cost: 2,158,000 **Area:** Citywide								
Confidence Level: Moderate **Original Project Cost:** 2,158,000 **Objective:** Mandated								
Project Description								
Construct water quality and detention facilities to treat stormwater runoff in the highly developed Upper Tryon corridor between I-5 and Barbur Blvd. Funded by Oregon Department of Transportation and bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	2,000,000	2,578,000	131,000	0	0	0	2,709,000
Operating and Maintenance Costs			0	0	3,000	3,000	3,000	
FT: Jackson Middle School Creek Daylight (E08680)								
Total Project Cost: 1,392,000 **Area:** Southwest								
Confidence Level: Moderate **Original Project Cost:** 1,435,000 **Objective:** Replacement								
Project Description								
Daylight a segment of Falling Creek and provide stormwater treatment for 100,000 square feet of impervious area. The project will help to restore riparian and floodplain habitat conditions. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.								
Total Requirements	0	0	0	173,000	958,000	304,000	0	1,435,000
Operating and Maintenance Costs			0	0	0	0	0	

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Surface Water Management								
FT: Boones Ferry Culvert (E08682)								
Total Requirements	0	231,000	1,277,000	1,706,000	0	0	0	2,983,000
Operating and Maintenance Costs			0	0	0	0	0	
FT: Fanno/Tryon WQF 2 (E08687)								
Total Requirements	0	0	0	36,000	278,000	278,000	72,000	664,000
Operating and Maintenance Costs			0	0	0	0	0	
Watershed Investment (E08782)								
Total Requirements	0	1,500,000	1,800,000	1,500,000	1,500,000	1,500,000	1,500,000	7,800,000
Operating and Maintenance Costs			0	0	0	0	0	
Green Infrastructure: Land Acquisition (E08905)								
Total Requirements	0	2,004,000	2,000,000	2,500,000	0	0	0	4,500,000
Operating and Maintenance Costs			0	0	0	0	0	
Green Infrastructure: Green Street Projects (E08941)								
Total Requirements	0	400,000	319,000	0	0	0	0	319,000
Operating and Maintenance Costs			0	0	0	0	0	

FT: Boones Ferry Culvert (E08682)

Total Project Cost: 2,165,000 **Area:** Southwest

Confidence Level: Moderate **Original Project Cost:** 1,669,000 **Objective:** Replacement

Project Description

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

FT: Fanno/Tryon WQF 2 (E08687)

Total Project Cost: 628,000 **Area:** Southwest

Confidence Level: Moderate **Original Project Cost:** 664,000 **Objective:** Mandated

Project Description

Construct four water quality facilities: 2 in Fanno Creek receiving stormwater runoff from nearly 14 acres and 2 in Tryon Creek receiving stormwater runoff from 35 acres. The Fanno Creek facilities will be located along Beaverton-Hillsdale Hwy. The Tryon facilities will be located along Barbur Blvd near SW 35th and north of I-5 near SW 30th. These facilities will improve water quality and provide flow attenuation. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Watershed Investment (E08782)

Total Project Cost: Ongoing **Area:** Citywide

Confidence Level: Moderate **Original Project 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. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Green Infrastructure: Land Acquisition (E08905)

Total Project Cost: 30,509,900 **Area:** Citywide

Confidence Level: Moderate **Original Project Cost:** 30,509,900 **Objective:** Efficiency

Project Description

This program is focused on protection and restoration of Portland's rivers and watersheds reflecting City Council's vision of how Portland should reduce its stormwater footprint. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Green Infrastructure: Green Street Projects (E08941)

Total Project Cost: 1,470,000 **Area:** Citywide

Confidence Level: Moderate **Original Project Cost:** 1,470,000 **Objective:** Replacement

Project Description

Program funds green street projects implemented by BES Sustainable Stormwater, BES Fanno/Tryon Watershed, and collaborative projects with other city bureaus / agencies. Some funds were diverted from this program to E10146 – Green Streets/Bikeways. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Surface Water Management								
Green Infrastructure: Culverts (E08967)								
Total Requirements	0	780,000	300,000	0	0	0	0	300,000
Operating and Maintenance Costs			0	0	0	0	0	
JC: Johnson Creek Willing Seller Phase 2 (E10040)								
Total Requirements	0	500,000	500,000	500,000	500,000	500,000	500,000	2,500,000
Operating and Maintenance Costs			0	0	0	0	0	
Green Streets/Bikeways (E10146)								
Total Requirements	0	200,000	410,000	0	0	0	0	410,000
Operating and Maintenance Costs			0	0	4,000	4,000	4,000	
Culvert Replacement Phase 2 (E10372)								
Total Requirements	0	1,301,000	1,207,000	1,431,000	0	0	0	2,638,000
Operating and Maintenance Costs			0	0	0	0	0	
FT: Fanno Tryon Drainage Shoulder Improvements (E10373)								
Total Requirements	0	0	220,000	1,236,000	1,232,000	1,232,000	1,012,000	4,932,000
Operating and Maintenance Costs			0	0	0	0	0	

Green Infrastructure: Culverts (E08967)
Total Project Cost: 3,560,000 **Area:** Citywide
Confidence Level: Moderate **Original Project Cost:** 3,560,000 **Objective:** Replacement

Project Description

Many stream culverts in Portland block passage for native fish, including Endangered Species Act listed fish, movement and migration. Improving these passage impediments will provide access to upstream spawning and rearing habitat. G2G implementation requires replacement of eight high priority culverts. BES funds have been leveraged with grants. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

JC: Johnson Creek Willing Seller Phase 2 (E10040)
Total Project Cost: 43,000,000 **Area:** Southeast
Confidence Level: Moderate **Original Project Cost:** 40,000,000 **Objective:** Efficiency

Project Description

Acquisition of properties in four target areas of high value for 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. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Green Streets/Bikeways (E10146)
Total Project Cost: 5,000,000 **Area:** Citywide
Confidence Level: Moderate **Original Project Cost:** 5,000,000 **Objective:** Maintenance & Repa

Project Description

Program will construct green street facilities on bikeways in various locations in coordination with PBOT. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Culvert Replacement Phase 2 (E10372)
Total Project Cost: 5,964,000 **Area:** Citywide
Confidence Level: Moderate **Original Project Cost:** 3,800,000 **Objective:** Replacement

Project Description

Replace the two remaining culverts in Crystal Springs Creek in support of watershed health goals and commitments under the Endangered Species Act. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

FT: Fanno Tryon Drainage Shoulder Improvements (E10373)
Total Project Cost: 4,625,000 **Area:** Southwest
Confidence Level: Moderate **Original Project Cost:** 4,932,000 **Objective:** Replacement

Project Description

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 are selected in the Fanno/Tryon Water Quality and TMDL Pre-Design. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Surface Water Management								
Watershed Land Acquisition Prog Ph 2 (E10486)								
Total Requirements	0	0	0	0	1,500,000	2,000,000	2,000,000	5,500,000
Operating and Maintenance Costs			0	0	0	0	0	
Stephens Creek Ph 1 Improvements (E10488)								
Total Requirements	0	965,000	1,162,000	996,000	800,000	200,000	200,000	3,358,000
Operating and Maintenance Costs			0	0	0	0	0	
Columbia Slough Outfalls (E10563)								
Total Requirements	0	0	150,000	1,002,000	1,000,000	2,000,000	2,000,000	6,152,000
Operating and Maintenance Costs								
Underground Injection Controls Improvements (E10570)								
Total Requirements	0	0	1,217,000	11,000	0	0	0	1,228,000
Operating and Maintenance Costs								
NEW - Balch Creek Trash Racks Predesign (E10583)								
Total Requirements	0	0	100,000	0	0	0	0	100,000
Operating and Maintenance Costs								

Watershed Land Acquisition Prog Ph 2 (E10486)

Total Project Cost: 10,750,000 **Area:** Citywide

Confidence Level: Low **Original Project Cost:** 15,500,000 **Objective:** Efficiency

Project Description

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

Stephens Creek Ph 1 Improvements (E10488)

Total Project Cost: 13,650,000 **Area:** Undetermined

Confidence Level: Moderate **Original Project Cost:** 13,650,000 **Objective:** Efficiency

Project Description

Address stormwater issues in the Stephens Creek subwatershed: (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; and (4) energy dissipation at outfalls causing erosion and excess sediment loading. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Columbia Slough Outfalls (E10563)

Total Project Cost: 6,152,000 **Area:** Northeast

Confidence Level: Moderate **Original Project Cost:** 24,708,000 **Objective:**

Project Description

This program is for construction of pollution controls for separated stormwater areas flowing through 220 city-owned Columbia Slough stormwater outfalls. Program will focus on the highest priority outfalls – those draining the most city-owned impervious area. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Underground Injection Controls Improvements (E10570)

Total Project Cost: **Area:** East

Confidence Level: **Original Project Cost:** 1,428,000 **Objective:**

Project Description

This is a federally mandated program under the Safe Drinking Water Act (SDWA). To protect underground sources of drinking water, the SDWA regulates subsurface injection of stormwater. BES applied for and received a Water Pollution Control Facility (WPCF) permit in 2004 that allows BES to operate Underground Injection Controls (UICs). This project addresses UICs that are not in compliance with the City's WPCF permit. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

NEW - Balch Creek Trash Racks Predesign (E10583)

Total Project Cost: **Area:** Northwest

Confidence Level: Moderate **Original Project Cost:** 100,000 **Objective:**

Project Description

Capital maintenance of 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. Initial funding is to determine the most effective solution. Future budgets will request design and construction funds. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Systems Development								
Drainage Improvement (E04894)								
Total Requirements	2,232,967	250,000	250,000	250,000	250,000	250,000	250,000	1,250,000
Operating and Maintenance Costs			0	0	0	0	0	
PBOT Interagency Reimbursement (E04895)								
Total Requirements	7,578,004	350,000	350,000	350,000	350,000	350,000	350,000	1,750,000
Operating and Maintenance Costs			0	0	0	0	0	
Permit Reimbursement (E05219)								
Total Requirements	950,027	45,000	45,000	45,000	45,000	45,000	45,000	225,000
Operating and Maintenance Costs			0	0	0	0	0	
Party Sewers (E08748)								
Total Requirements	0	2,450,000	2,400,000	2,000,000	2,000,000	2,000,000	1,000,000	9,400,000
Operating and Maintenance Costs			0	0	0	0	0	
Milw Light Rail Ext (E09163)								
Total Requirements	0	594,570	226,000	42,000	0	0	0	268,000
Operating and Maintenance Costs			0	0	0	0	0	

Drainage Improvement (E04894)

Total Project Cost: Ongoing **Area:** Citywide

Confidence Level: Low **Original Project Cost:** Ongoing **Objective:** Expansion

Project Description

The Drainage Improvement Project (DIP) 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. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

PBOT Interagency Reimbursement (E04895)

Total Project Cost: Ongoing **Area:** Citywide

Confidence Level: Moderate **Original Project Cost:** Ongoing **Objective:** Expansion

Project Description

This program provides for stormwater facility and sanitary sewer design, design review, and construction inspection services associated with street improvement projects initiated by PBOT. PBOT requests necessary services and reimburses BES for all costs of these services through an interagency agreement.

Permit Reimbursement (E05219)

Total Project Cost: Ongoing **Area:** Citywide

Confidence Level: Low **Original Project Cost:** Ongoing **Objective:** Expansion

Project Description

This project allows a developer to be reimbursed for making public sewer available to another property, per City Code Title 17. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Party Sewers (E08748)

Total Project Cost: Ongoing **Area:** Citywide

Confidence Level: Moderate **Original Project Cost:** Ongoing **Objective:** Efficiency

Project Description

This program addresses existing "party sewers" – shared private sewer lines crossing private property (often without appropriate easements) or exist 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. 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. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Milw Light Rail Ext (E09163)

Total Project Cost: 1,350,000 **Area:** Southeast

Confidence Level: Moderate **Original Project Cost:** 1,313,000 **Objective:** Maintenance & Repa

Project Description

This project provides staff support for sewer rehabilitation/relocation associated with the extension of light rail to Milwaukie. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Capital Program / Project	Prior Years Capital	FY 2013-14 Revised Budget	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	5-Year Total
Systems Development								
Sewer Easements on Existing Sewers (E10263)								
Total Requirements	0	50,000	50,000	50,000	50,000	50,000	50,000	250,000
Operating and Maintenance Costs			0	0	0	0	0	
SW Terwilliger Blvd & Powers Ct Sewer Extension (E10413)								
Total Requirements	0	2,750,000	2,300,000	0	0	0	0	2,300,000
Operating and Maintenance Costs			0	0	0	0	0	
Sewer Extensions to Properties with High Risk Septic Systems (E10491)								
Total Requirements	0	200,000	638,000	870,000	2,562,000	1,500,000	1,600,000	7,170,000
Operating and Maintenance Costs			0	0	0	0	0	
Public Works Permit Projects (EP0000)								
Total Requirements	11,194,271	570,000	500,000	500,000	500,000	500,000	500,000	2,500,000
Operating and Maintenance Costs			0	0	0	0	0	

Sewer Easements on Existing Sewers (E10263)

Total Project Cost: Ongoing **Area:** Citywide

Confidence Level: Moderate **Original Project Cost:** Ongoing **Objective:** Replacement

Project Description

This project is for high priority sewer easement acquisition for existing sewers. The bureau regularly discovers locations where collection system assets are on private property without benefit of appropriate easements or other property interests. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

SW Terwilliger Blvd & Powers Ct Sewer Extension (E10413)

Total Project Cost: 3,368,000 **Area:** Southwest

Confidence Level: Moderate **Original Project Cost:** 3,368,000 **Objective:** Expansion

Project Description

Eliminate the failing private pump station at Terwilliger and Powers by constructing approximately 6,400 feet of 8-inch gravity sanitary sewer from the existing pump station to a connection with the 30-inch concrete sewer near Hwy 43. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Sewer Extensions to Properties with High Risk Septic Systems (E10491)

Total Project Cost: 9,600,000 **Area:** Citywide

Confidence Level: Moderate **Original Project Cost:** 9,600,000 **Objective:** Expansion

Project Description

This program will fund several projects for construction of numerous small sanitary sewer extension projects to provide sanitary sewer service to developed residential properties with septic systems. Projects will be prioritized based on risk. Funded by bond proceeds repaid by sanitary sewer and stormwater rates.

Public Works Permit Projects (EP0000)

Total Project Cost: Ongoing **Area:** Southeast

Confidence Level: Low **Original Project Cost:** Ongoing **Objective:** Expansion

Project Description

This ongoing, full-cost recovery project 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 in order to ensure that expensive future maintenance problems and service failures do not occur. All bureau costs are reimbursed by the developer.

CITY OF PORTLAND OREGON
1851

Bureau of Environmental Services

FY 2014-15 Requested Budget Decision Package List

Decision Package	Priority	Budget Proposal	Ongoing	One-time	FTE
		Reduction Proposals			
ES_02	1	Eliminate Tryon Creek Facilities Plan Update	($411,354)		0.0
ES_17	2	Reduce Audio Visual Upgrades at Water Pollution Control Lab		($10,000)	0.0
ES_11	4	Reduction of Stormwater Manual Update	($75,000)		0.0
ES_06	5	Replacement of MS Office Pro	($101,748)		0.0
ES_04	6	Replacement of MS Office Pro - Training	($150,000)		0.0
ES_03	7	Reduce Electricity Needed for Pump Stations	($345,538)		0.0
ES_05	8	Transfer Maintenance and Repair of the Portland Loos to General Fund	($119,000)		0.0
ES_14	9	Reduce Lab Equipment		($60,000)	0.0
ES_16	10	Reduce Multnomah County Vector Control Service Agreement	($47,400)		0.0
ES_12	11	Eliminate Contributions to SW Neighborhood Inc.	($73,000)		0.0
ES_01	12	Eliminate Street Sweeping Contribution	($425,000)		0.0
ES_15	13	Reduce Janitorial Maintenance Services at Water Pollution Control Laboratory	($60,000)		0.0
ES_18	14	Reduce Electronics Records Management	($8,000)		0.0
ES_10	15	Reduction of Ecoroof Engineering Support	($100,000)		0.0
ES_09	16	Reduction in Portland Harbor Natural Resource Trustee Support	($100,000)		0.0
ES_07	17	Reduction in Portland Harbor Technical Contract Support	($100,000)		0.0
ES_08	18	Reduction of Portland Harbor Legal Support	($100,000)		0.0
		Subtotal Reduction Proposals	**($2,216,040)**	**($70,000)**	**0.0**
		Revenue Proposal			
ES_13	3	Renegotiate Vector Control Lease Agreement	$60,000		
		Subtotal Reduction Proposals	**$60,000**		

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 01 **Type:** Reductions

Decision Package: ES_02 - Eliminate Tryon Creek Facilities Plan Update **Program:** Design Services

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
External Materials and Services	0	(411,354)	(411,354)	0	0	0	0	0
TOTAL EXPENDITURES	**0**	**(411,354)**	**(411,354)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	0	(411,354)	(411,354)	0	0	0	0	0
TOTAL REVENUES	**0**	**(411,354)**	**(411,354)**	**0**	**0**	**0**	**0**	**0**

Description:

Plan is complete.

Expected Results:

The Tryon Creek Wastewater Treatment Plant Facilities Plan will guide future capital construction at the plant, which must serve growing populations in both Lake Oswego and Portland.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 02 **Type:** Reductions

Decision Package: ES_17 - Reduce A/V Equipment Upgrades at WPCL **Program:** Bureau Support

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
Capital Outlay	(10,000)	0	(10,000)	0	0	0	0	0
TOTAL EXPENDITURES	**(10,000)**	**0**	**(10,000)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	(10,000)	0	(10,000)	0	0	0	0	0
TOTAL REVENUES	**(10,000)**	**0**	**(10,000)**	**0**	**0**	**0**	**0**	**0**

Description:

New Audio Visual equipment in Smith-Bybee conference rooms at the Water Pollution Control Laboratory was purchased in FY 2013-14 to replace old and outdated equipment. Budget for this equipment is no longer needed.

Expected Results:

Audio Visual equipment was purchased and installed.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 03 **Type:** Realignments

Decision Package: ES_13 - Renegotiate Vector Control Lease Agreement **Program:** Bureau Support

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
REVENUES								
Charges for Services	0	0	0	0	0	0	0	0
TOTAL REVENUES	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Description:

The City and Multnomah County reached an agreement dated May 9, 1968 that, among other stipulations, allows the county to occupy and beneficially use City of Portland property and structures on the Columbia Boulevard Wastewater Treatment Plant campus without compensation. The agreement does allow for modification or amendment, but not termination of the agreement. BES proposes to modify the agreement such that BES becomes the landlord and the County becomes the tenant of property and structures mentioned herein, and BES provides security, sewer, garbage, janitorial and other typical services in return for the County as tenant to pay a $5,000 per month lease to the Bureau for beneficial use.

Expected Results:

The Revenue “Charges for Services,” above, reflects $0 as an increase in lease income will be offset by a decrease in sewer and stormwater utility charges.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 04 **Type:** Reductions

Decision Package: ES_11 - Reduction of Stormwater Manual Update **Program:** Asset Systems Management

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
External Materials and Services	0	(75,000)	(75,000)	0	0	0	0	0
TOTAL EXPENDITURES	**0**	**(75,000)**	**(75,000)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	0	(75,000)	(75,000)	0	0	0	0	0
TOTAL REVENUES	**0**	**(75,000)**	**(75,000)**	**0**	**0**	**0**	**0**	**0**

Description:

Stormwater Management Manual update complete.

Expected Results:

The Stormwater Manual provides policy and design requirements for stormwater management throughout the City of Portland for all development, redevelopment, and improvement projects within the City of Portland on private and public property and in the public right-of-way.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 05 **Type:** Reductions

Decision Package: ES_06 - Replacement of MS Office Pro **Program:** Information Management

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
External Materials and Services	0	(101,748)	(101,748)	0	0	0	0	0
TOTAL EXPENDITURES	**0**	**(101,748)**	**(101,748)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	0	(101,748)	(101,748)	0	0	0	0	0
TOTAL REVENUES	**0**	**(101,748)**	**(101,748)**	**0**	**0**	**0**	**0**	**0**

Description:

A required upgrade of the Bureau's MS Office software from Office 2003 to Office 365, plus training, is budgeted at $251,748 for the current year. Given the one-time nature of the expense, next year's budget would ordinarily show a reduction by that amount. This reduction would leave $150,000 of (one-time) upgrade and training expenses for any potential upgrade and training costs that would occur next fiscal year.

Expected Results:

Minimal impact on service delivery.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 06 **Type:** Reductions

Decision Package: ES_04 - Replacement of MS Office Pro - Training **Program:** Information Management

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
External Materials and Services	0	(150,000)	(150,000)	0	0	0	0	0
TOTAL EXPENDITURES	**0**	**(150,000)**	**(150,000)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	0	(150,000)	(150,000)	0	0	0	0	0
TOTAL REVENUES	**0**	**(150,000)**	**(150,000)**	**0**	**0**	**0**	**0**	**0**

Description:

FY 2013-14 expenses are one-time. Updated schedule for implementation makes it more likely that software installation will be complete this fiscal year. Eliminating this partial carryover of a one-time expense will leave no budget for staff training.

Expected Results:

Minimal impact on service delivery.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 07 **Type:** Reductions

Decision Package: ES_03 - Reduce Electricity Needed for Pump Stations **Program:** Collection System O&M

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
External Materials and Services	0	(345,538)	(345,538)	0	0	0	0	0
TOTAL EXPENDITURES	**0**	**(345,538)**	**(345,538)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	0	(345,538)	(345,538)	0	0	0	0	0
TOTAL REVENUES	**0**	**(345,538)**	**(345,538)**	**0**	**0**	**0**	**0**	**0**

Description:

This reduction in budget is based on historical and projected usage and rates, and represents about 16% of the current FY 2013-14 pump station adopted budget of $2,129,538.

Expected Results:

No impact on level of service, based on historical usage and projected rates.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 08 **Type:** Reductions

Decision Package: ES_05 - Transfer Portland Loos to the General Fund **Program:** Bureau Support

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
External Materials and Services	0	(119,000)	(119,000)	0	0	0	0	0
TOTAL EXPENDITURES	**0**	**(119,000)**	**(119,000)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	0	(119,000)	(119,000)	0	0	0	0	0
TOTAL REVENUES	**0**	**(119,000)**	**(119,000)**	**0**	**0**	**0**	**0**	**0**

Description:

Although they serve a public purpose, maintenance and repair of the Loos is not core to the bureau's mission. If this cut is taken further maintenance of the Loos would require alternate funding, which could be partially offset by royalty revenues from Loo sales to other agencies.

Expected Results:

No impacts to level of service.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 09 **Type:** Reductions

Decision Package: ES_14 - Reduce Lab Equipment **Program:** Environmental Investigations

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
Capital Outlay	(60,000)	0	(60,000)	0	0	0	0	0
TOTAL EXPENDITURES	**(60,000)**	**0**	**(60,000)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	(60,000)	0	(60,000)	0	0	0	0	0
TOTAL REVENUES	**(60,000)**	**0**	**(60,000)**	**0**	**0**	**0**	**0**	**0**

Description:

This one-time purchase of gas chromatography mass spectrometry (GC/MS) equipment equipped with an FID (Flame Ionization Detector) at the Water Pollution Control Laboratory was completed in FY 2013-14, so additional funding is not needed.

Expected Results:

Increased internal process efficiencies and lower outside lab costs.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 10 **Type:** Reductions

Decision Package: ES_16 - Reduce Mult Co Vector Control Agreement **Program:** Collection System O&M

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
External Materials and Services	0	(47,400)	(47,400)	0	0	0	0	0
TOTAL EXPENDITURES	**0**	**(47,400)**	**(47,400)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	0	(47,400)	(47,400)	0	0	0	0	0
TOTAL REVENUES	**0**	**(47,400)**	**(47,400)**	**0**	**0**	**0**	**0**	**0**

Description:

The Intergovernmental Agreement with Multnomah County for services (#52771 June 2006) provides that Vector Control does Rat Abatement and Control and Mosquito Abatement and Control and related services. This proposal reduces the $237,000 intergovernmental agreement by 20% or $47,400. The primary focus of the reduction should be in mosquito control, monitoring and mitigation and related activities with specific areas of reduction to be negotiated between the parties.

Expected Results:

Some reduction in mosquito control activities.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 11 **Type:** Reductions

Decision Package: ES_12 - Eliminate Contributions to SW Neighborhood Inc **Program:** Watershed Management

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
External Materials and Services	0	(73,000)	(73,000)	0	0	0	0	0
TOTAL EXPENDITURES	**0**	**(73,000)**	**(73,000)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	0	(73,000)	(73,000)	0	0	0	0	0
TOTAL REVENUES	**0**	**(73,000)**	**(73,000)**	**0**	**0**	**0**	**0**	**0**

Description:

This reduction would end support that BES provides to SWNI for staffing the Watershed Resource Center (WRC). There are a number of challenging water quality and watershed health issues that impact southwest Portland, but there is no watershed council for the area to address them. BES's MS4 permit includes these types of outreach as best management practices which are included in the Bureau's compliance report. This support also provides for a trusted non-city representative to work with SW communities to facilitate BES projects and priorities and thus avoiding potential additional costs/ controversy.

Expected Results:

Continuing the WRC staff postion would require that SWNI backfill the loss of funding from other sources. There is potential for reduced community engagement in activities to protect and enhance watershed health (i.e., invasive plant removal, native plant landscaping, habitat restoration projects, water quality protection), reduced ability to get work accomplished on private property, and lost opportunities to leverage resources (i.e. get grants) to develop cost-effective watershed restoration projects.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 12 **Type:** Reductions

Decision Package: ES_01 - Eliminate Street Sweeping Contribution **Program:** Collection System O&M

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
Internal Materials and Services	0	(425,000)	(425,000)	0	0	0	0	0
TOTAL EXPENDITURES	**0**	**(425,000)**	**(425,000)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	0	(425,000)	(425,000)	0	0	0	0	0
TOTAL REVENUES	**0**	**(425,000)**	**(425,000)**	**0**	**0**	**0**	**0**	**0**

Description:

Street Cleaning - Street Cleaning is a common and expensive practice undertaken by most urban municipalities. Street sweeping, essentially the operation of large trucks for cleaning street surfaces, is primarily performed for aesthetic purposes. It is often perceived to lead to improvements in the environmental conditions of urban waterways by preventing pollutants deposited on street surfaces from reaching the stormwater system, and subsequent to that, urban streets. There is, however, little available evidence to quantify the extent to which street sweeping can improve stormwater quality. Portland also has a few key features that make the questionable benefit of street sweeping even more marginalized. Portland's street runoff in most of the City is captured in another treatment facility; either the combined sanitary and stormwater pipes that flow to the wastewater treatment plant, or to stormwater facilities that capture sediments and allow for their mechanical removal in a more efficient manner. An ongoing cut of $425,000 equals approximately 100% of BES' contribution and an estimated 20% reduction of total City street cleaning budget.

Expected Results:

Eliminating BES' contribution to PBOT's provision of street sweeping services would have a negligible and/or immeasurable effect on the water quality of urban streams and pose a lower risk reduction to the budget than other programs of its size.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 13 **Type:** Reductions

Decision Package: ES_15 - Reduce Janitorial-Maintenance Srvcs at WPCL **Program:** Bureau Support

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
Internal Materials and Services	0	(60,000)	(60,000)	0	0	0	0	0
TOTAL EXPENDITURES	**0**	**(60,000)**	**(60,000)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	0	(60,000)	(60,000)	0	0	0	0	0
TOTAL REVENUES	**0**	**(60,000)**	**(60,000)**	**0**	**0**	**0**	**0**	**0**

Description:

The Water Pollution Control Laboratory (WPCL), in North Portland includes both office and industrial space with a full service laboratory. Additionally, the facility has two meeting rooms for Bureau staff that have also been made available for after-hours use by neighborhood associations, community groups and other non-profit organizations. The building is seventeen years old with increased maintenance needs for floors, furniture and restroom facilities This proposal reduces the interagency agreement for maintenance and janitorial services from $276,000 to $200,000. These reductions will include specialized and preventative maintenance and repair services provided by a facilities technician as well as reductions in daily janitorial services necessary to meet the needs of the workforce and the expectations of the public using the facilities evenings and weekends.

Expected Results:

This proposal reduces the level of service provided for a depreciating building. Cuts to the maintenance and cleaning schedules will require either a reduction in public usage of the building or the institution of charges for the use of the facility.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 14 **Type:** Reductions

Decision Package: ES_18 - Reduce Electronics Records Management **Program:** Wastewater

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
External Materials and Services	0	(8,000)	(8,000)	0	0	0	0	0
TOTAL EXPENDITURES	**0**	**(8,000)**	**(8,000)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	0	(8,000)	(8,000)	0	0	0	0	0
TOTAL REVENUES	**0**	**(8,000)**	**(8,000)**	**0**	**0**	**0**	**0**	**0**

Description:

This reduction reflects the FY 2013-14 purchase of licenses for TRIM, which is electronic records management software. TRIM licenses are required if bureau staff are to access the City Auditor's Records Management Services.

Expected Results:

Access to City electronic records. Funding not required in FY 2013-14.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 15 **Type:** Reductions

Decision Package: ES_10 - Reduction of Ecoroof Engineering Support **Program:** Sustainable Stormwater

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
External Materials and Services	0	(100,000)	(100,000)	0	0	0	0	0
TOTAL EXPENDITURES	**0**	**(100,000)**	**(100,000)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	0	(100,000)	(100,000)	0	0	0	0	0
TOTAL REVENUES	**0**	**(100,000)**	**(100,000)**	**0**	**0**	**0**	**0**	**0**

Description:

This reduces City support for engineering assistance for ecoroof design since the city no longer has an incentive program to facilitate ecoroof development for stormwater management purposes.

Expected Results:

Minimal impact to service delivery, since the existing budget is historically underspent.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 16 **Type:** Reductions

Decision Package: ES_09 - Reduction in Portland Harbor Nat Res Trustee Sup **Program:** Portland Harbor

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
External Materials and Services	0	(100,000)	(100,000)	0	0	0	0	0
TOTAL EXPENDITURES	**0**	**(100,000)**	**(100,000)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	0	(100,000)	(100,000)	0	0	0	0	0
TOTAL REVENUES	**0**	**(100,000)**	**(100,000)**	**0**	**0**	**0**	**0**	**0**

Description:

The Natural Resource Trustees (Native American Tribes, NOAA/NMFS, USFWS, ODFW) are tasked with determining the damage to natural resource caused by the contamination at the Portland Harbor Superfund Site. The City, as are other parties, is involved, and helps fund, the trustees as they determine the extent of the damage and identify options to correct or mitigate for the damage. We expect that eventually our involvement with the Trustees will require more of their expertise as we determine the extent of the City's liability for natural resource damages, and how we agree to correct those damages. The City will be expected to fund the efforts of the trustees as they work with the City on these issues. This represents approximately 35% of our budget item for funding natural resource trustees.

Expected Results:

There is some risk in reducing the funds available for supporting the Trustees as it could impact our ability to efficiently come to an agreed upon resolution to City liability, thus potentially creating significant financial uncertainty.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 17 **Type:** Reductions

Decision Package: ES_07 - Reduction of Portland Harbor Tech Ct Support **Program:** Portland Harbor

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
External Materials and Services	0	(100,000)	(100,000)	0	0	0	0	0
TOTAL EXPENDITURES	**0**	**(100,000)**	**(100,000)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	0	(100,000)	(100,000)	0	0	0	0	0
TOTAL REVENUES	**0**	**(100,000)**	**(100,000)**	**0**	**0**	**0**	**0**	**0**

Description:

The technical assistance contracts provide support for the city's participation in the ongoing Portland Harbor Superfund liability allocation process. This process will ultimately determine the amount of financial liability the City is assigned in the cleanup of Portland Harbor. This reduction represents approximately 13% of the technical assistance contract budget. This reduction will limit our ability to review information developed by other parties and respond to statements about City properties or operations, thus affecting our ability to defend City positions in the allocation process.

Expected Results:

An increase in risk that BES may not be able to provide the technical support for preparation of the necessary information, which may affect the City's ability to meet its obligations under the agreed settlement procedure.

Decision Package Summary

Bureau: Bureau of Environmental Services **Priority:** 18 **Type:** Reductions

Decision Package: ES_08 - Reduction of Portland Harbor Legal Support **Program:** Portland Harbor

	FY 2014-15 Requested 1 Time DP	FY 2014-15 Requested Ongoing DP	FY 2014-15 Requested Budget	FY 2015-16 Estimated Budget	FY 2016-17 Estimated Budget	FY 2017-18 Estimated Budget	FY 2018-19 Estimated Budget	
EXPENDITURES								
External Materials and Services	0	(100,000)	(100,000)	0	0	0	0	0
TOTAL EXPENDITURES	**0**	**(100,000)**	**(100,000)**	**0**	**0**	**0**	**0**	**0**
REVENUES								
Charges for Services	0	(100,000)	(100,000)	0	0	0	0	0
TOTAL REVENUES	**0**	**(100,000)**	**(100,000)**	**0**	**0**	**0**	**0**	**0**

Description:

Legal support for the City's participation in the Portland Harbor Superfund site is critical. The ongoing allocation process will determine the ultimate financial liability for the cleanup. This reuction represents about 10% of our legal services budget.

Expected Results:

There is some risk in reducing our legal support as it will impact the City's ability to participate in the liability allocation process - from both a strategic positioning and on the ground review of questions and statements from other parties regarding City liability. Again, the reduction may affect the City's ability to meet its obligations under the agreed to settlement process.

CITY OF PORTLAND OREGON
1851

FY 2015-19
Preliminary
Financial Plan

February 2014

CITY OF PORTLAND OREGON
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EXECUTIVE SUMMARY

The Bureau has completed its preliminary five year financial plan for Fiscal Years 2014-15 through 2018-19. Until recently, the Bureau's financial plan was influenced by the need to complete the Combined Sewer Overflow (CSO) controls. CSO control facilities, undertaken to eliminate CSO discharges that violate of applicable water quality standards, became operational on December 1, 2011. For FY 2015-2019, the Bureau's revenue requirements will largely revolve around the need to repair and maintain the enlarged collection system, address upcoming and deferred maintenance needs, address deficiencies in the stormwater system, continue to improve watershed health and meet applicable regulatory requirements.

Estimated annual rate-generated revenue requirement increases are $64.2 million over the forecast period. Forecast monthly sewer and stormwater bills for an average single-family residential customer over the forecast interval are shown in the table below. Increases in forecast bills reflect cost increases partially offset by revenue growth from the addition of new accounts. Rates will grow at a slightly higher rate because customer conservation efforts partially offset the positive effects of the additional revenue on rates.

Comparison of Forecast Bill Increases
FY 2015-19 Financial Plan vs. FY 2014-18 Preliminary Financial Plan

Percentage Bill Increase	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
FY 2014-18 Plan	5.10%	5.00%	4.75%	4.60%	n/a
FY 2015-19 Plan	4.00%	4.50%	4.00%	4.00%	3.35%
Forecast Monthly Bill[(1)] (Single Family Residential)	$65.25	$68.18	$70.91	$73.75	$76.22

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

The forecast rate increases reflect certain challenges anticipated over the next five years as follows:

- The Bureau has committed to providing funds for repair of structurally deficient portions of the sewer collection system, and the long-term financial forecast anticipates significant increases in the capital maintenance budget beyond completion of the CSO program. System cleaning, inspection, and repair are expected to represent a growing proportion of the capital budget over the next five years.
- In addition, the Bureau's growing portfolio of green infrastructure assets, which includes natural areas and approximately 1,500 green street facilities, requires an increasing amount of operations and maintenance funding to protect past capital investments and ensure stormwater management performance. Reduced funding from other bureaus and the end of the State's revolving fund money in spring 2012 (a loss of approximately $400,000/year) for the bureau's Watershed Revegetation Program further presents challenges in funding maintenance needs for natural areas and stormwater facilities.

- The plan includes approximately $5.7 million of rate revenues to fund the City's share of costs for the investigation and feasibility study associated with the Portland Harbor Superfund site. A record of decision is expected no earlier than 2015. As a result, the total costs associated with the cleanup and restoration activities and the City's ultimate share of those costs are unknown at this time.

These changes and other factors are discussed more fully in the "Risks to the Forecast" section of this document.

INTRODUCTION

The Bureau of Environmental Services (BES or Bureau) 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 needs. The Bureau also 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 of the City's 592,000 residents, numerous commercial and industrial facilities, and six wholesale contract customers located adjacent to the City. The existing system consists of a network of approximately 1,000 miles of separated sanitary sewers and 445 miles of separated storm pipe, each dedicated to carrying separate waste streams. There are also 885 miles of combined sewer lines that carry both stormwater runoff and sanitary waste and over 300 miles of inventoried streams and rivers that receive and convey stormwater runoff. Ninety-seven active pumping stations and two wastewater treatment plants with a combined secondary treatment capacity of 110 million gallons per day serve the system. The Bureau also maintains over 1,500 stormwater pollution reduction facilities, including green street facilities, and continues to add to that inventory.

FINANCIAL STRUCTURE

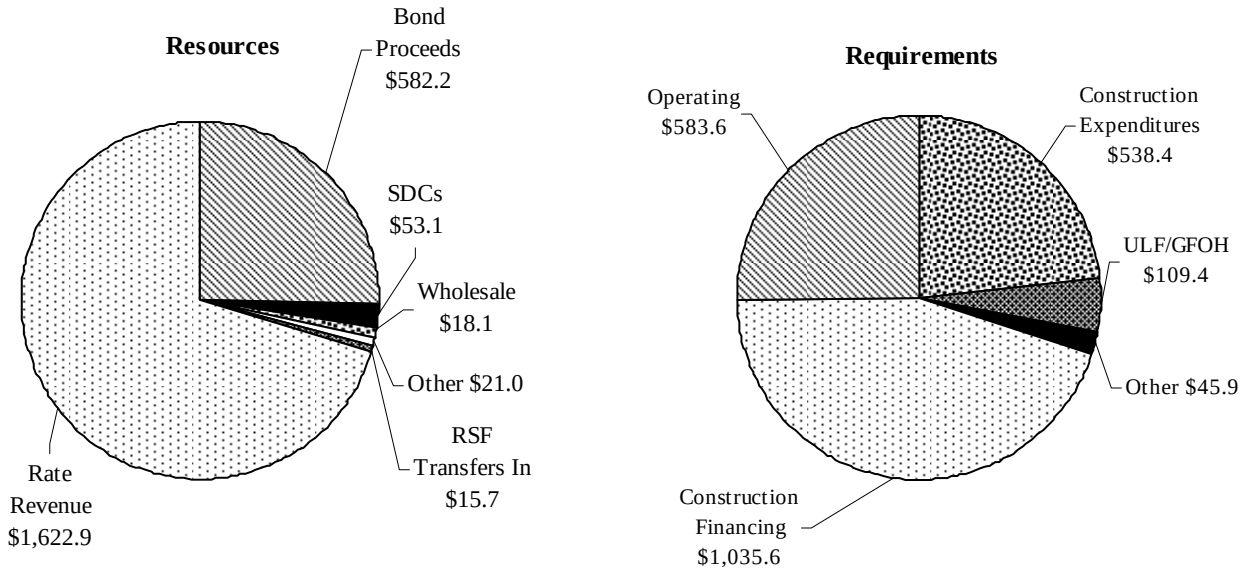
The Bureau's activities are supported through sewer and stormwater charges, System Development Charges (SDCs), wholesale contract revenues from other jurisdictions, and reimbursements for services provided to other bureaus.

The two charts below illustrate the Bureau's financial status in terms of resources and requirements over the FY15-19 interval. As can be seen, sewer and stormwater rates make up the majority of the Bureau's resources. At $1,622.9 million, rates account for 70% of the Bureau's resources over the interval. The next largest category is Bond Proceeds at $582.2 million (or 25% of the total). System Development Charges, wholesale service charges, transfers from the Rates Stabilization Fund and all other resources together make up about 5% of total resources.

The Bureau's operating and capital construction expenditures together account for about 49% of the Bureau's requirements. The remainder is taken up largely by Construction Financing, primarily principal and interest payments on the revenue bonds sold to finance capital construction activity, which comprises 45% of the total. At $1,035.6 million, Construction Financing requirements are slightly less than the Bureau's $1,122.0 million expected for the combined operating and construction expenditures.

Bureau Cumulative Financial Resources and Requirements for FY 2015-19 (in millions)

Total - $2,312.9 million



THE FINANCIAL PLANNING PROCESS

The financial planning process has three key elements: 1) Development of the CIP; 2) Development of the Operating Plan; and 3) Development of Revenue Requirements and the Funding Plan.

The Capital Improvement Planning (CIP) Process

The CIP is developed annually using a multi-step process to identify, develop, review, score, and rank projects for funding and scheduling priority. A Bureau-wide stakeholder review team investigates, scores, and ranks all Bureau proposed CIP projects in accordance with identified CIP criteria. 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 where the project originated.

The CIP management team evaluates all of the information from the process and submits final recommendations to the Bureau Director. The Bureau Director reviews the findings, makes further refinements as needed, and approves the CIP plan that is then presented to the City Council for their consideration and adoption.

The Operating Planning Process

The Bureau's Operating Planning Process addresses two areas. The first includes the routine functions of the City's sanitary and stormwater utility, including day-to-day operations and the maintenance of collection, transportation, treatment, and disposal systems. The second includes

costs for activities and services that respond to the regulatory requirements or that specifically promote water quality and watershed health. The two areas are closely interrelated: regulatory actions impose requirements on routine system operations, and a large share of day-to-day operations focus beyond the basic municipal infrastructure toward watershed protection and environmental improvement to prevent future, more restrictive or expensive regulatory requirements.

Routine Utility Operations

The bulk of expenditures for the Bureau's routine utility operations are for treatment plant operations, collection system maintenance and operations, laboratory and monitoring services, customer services, development permitting, and administrative support. Administrative support includes accounting, facilities, fleet, information technology, and financial management services.

Planning for routine utility operations generally focuses on incremental improvements to programs and services and does not include a complete review and reprioritization of all activities and costs. However, there are on-going efforts to review and assess the effectiveness and efficiency of these basic operations and services.

Regulatory Response and Watershed Health

Regulatory response and watershed health activities are less related to on-going operations and more directly related to anticipating and responding to environmental regulations, including the development of plans for protecting and enhancing water quality within Portland's watersheds. This occurs under the umbrella of the 2006 Portland Watershed Management Plan (PWMP), which guides the City's watershed approach in addressing regulations. Planning for these activities begins with an assessment of the current regulatory environment. The status of rulemaking, recent guidance issued by state and federal environmental agencies, relevant court cases, and input from environmental trade associations is reviewed and evaluated in terms of the potential impact to Bureau programs and services. Data from Bureau research and monitoring activities are also considered.

From this information and related discussions, the incremental impact of new or changing regulatory requirements and watershed protection needs is reviewed. Existing priorities are also examined and may be reprioritized, to the extent that changing regulations or new data can lead to shifts in program schedules or necessary outcomes. Reassessing program priorities and funding needs for this area is also necessary because there isn't sufficient funding to give all regulatory requirements equal weight.

Development of Revenue Requirements and Funding Plan

The magnitude of the capital program and the borrowings necessary to finance it continue to put considerable pressure on operating expenditures. To fund the proposed CIP and high-priority operating requirements requires rate increases higher than the overall inflation rate. In light of the general economic climate, and the Bureau's commitment to keeping annual rate increases over the forecast interval near the increases forecast in the previous year's plan, the CIP and operating budget were reexamined for opportunities to reduce expenditures before completing this preliminary plan.

FINANCIAL REPORTING SYSTEM

The Bureau's financial reporting system is organized into the seven 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, 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) has in the past supported remediation activities on the site of a former City solid waste incinerator facility. Beginning in FY 2005-06, the Bureau moved the budget for the Portland Harbor Superfund project to this fund. Expenditures for the Portland Harbor Superfund project are financed through dedicated fees on City utility bills, and supplemented by lease revenues and interest earnings within this fund. This allows the Bureau to distinguish the Portland Harbor Superfund project from routine sewer system operations, which are budgeted for and funded within the Sewer System Operating Fund.

FINANCIAL POLICIES AND PRACTICES

The Bureau funds its operations, maintenance, and capital expenditures from rates, revenue bonds, ending fund balances, and system development charges. Key financial policies for each source of funding are described below.

Rates

One of the Bureau's financial planning objectives is to provide smooth price changes over time in order to maintain financial stability and predictability for the Bureau as well as our customers. This objective increases customer satisfaction by providing consistent price changes from year to year. The Rate Stabilization Fund has been a key tool for meeting this planning goal. The Rate Stabilization Fund balance reached a peak of $76.5 million in FY 2007-08 and has been subsequently drawn down through FY 2012-13 to help offset the effects of increasing debt

service for the completion of the Combined Sewer Overflow (CSO). The Rate Stabilization Fund balance is expected to increase from the balance of $4.9 million in FY 2012-13 to about $16.9 million by the end of FY 2014-15 for the purpose of smoothing future rate increases.

Revenue Bonds

The bulk of the Bureau's CIP projects are financed by revenue bonds, and for this reason, principal and interest payments on outstanding debt are a substantial part of the Bureau's current and forecast revenue requirements. Covenants on the Bureau's outstanding first-lien and second-lien bonds contain coverage requirements that have a direct effect on revenue requirements. These 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, 1.0 times the current year debt service.
- Net income including transfers to or from the Rate Stabilization Fund must be equal to, or greater than, 1.2 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, 1.0 times the current year debt service.
- Net income including transfers to or from the Rate Stabilization Fund must be equal to, or greater than, 1.1 times the current year debt service.

The Bureau's planning standard is to set rates adequate to provide net income, including transfers to or from the Rate Stabilization Fund, equal to or greater than 1.5 times the annual debt service requirement for first-lien bonds, and 1.3 times the annual debt service requirement for first-lien and second-lien bonds on a combined basis. This exceeds the 1.2 and 1.1 standards required by existing bond covenants, and serves three purposes:

- The absolute dollar difference between the planning standard and the Bureau's actual debt service coverage requirement provides a margin of safety for meeting coverage requirements.
- The 1.5 and 1.3 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 the highest possible bond rating which helps to hold down borrowing costs.
- The 1.5 and 1.3 standards further strengthen the Bureau's financial position by providing ongoing equity contributions to the capital program.
- The Bureau's coverage ratio on all bonds has been 1.30 in the most recently completed year and projected to be the same for the current year. This financial plan maintains coverage at the planning standard levels over the forecast interval.

Ending Fund Balances

The combined ending fund balances within the Operating Fund and the Rate Stabilization Fund must be equal to or greater than 10% of each year's operating expenses, as defined by the Bureau's financial policies. The combined 10% is consistent with industry standards and is a reasonable

amount to meet cash flow requirements and fund minor budget adjustments. It also reflects the City's commitment to strong fiscal management of its sewer utility. The Bureau also maintains a debt service reserve of $180,000 for the nearly $17.6 million of outstanding low-interest loans from the ODEQ State Revolving Fund.

Beginning in FY 2010-11, the Bureau was required to maintain debt service reserves in the Debt Redemption Fund for each new issuance of revenue bonds. In prior years, the Bureau was able to purchase a bond surety in lieu of cash reserves. Changes in the capital markets since 2008 have made those sureties unavailable, requiring the sale of additional bonds to fund the debt service reserves.

The Construction Fund minimum ending fund balance is targeted at 35% of the following year's estimated capital improvement expenditures for planning purposes. The actual ending fund balance will differ depending on the rate of expenditures within the Bureau's capital program and the timing of CIP borrowings.

System Development Charges (SDCs)

Sanitary and stormwater SDCs ensure that new customers pay their equitable portion of the costs (net of grant revenues) of major sanitary and stormwater system facilities that serve the entire community. Major facilities are generally considered to be facilities other than local collectors, and include treatment plants, pump stations, trunk and interceptor sewers, 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 in funding the CIP. State law does not permit SDC revenues to be used to pay operating expenditures. However, SDC revenues do still help reduce the revenue requirement.

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, which most often stem from public laws administered by the EPA, are typically managed, monitored, and enforced by the DEQ by way of delegation from the EPA. State-specific regulations also are managed by the DEQ. 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. In 2000, Congress amended the CWA to require that subsequently issued permits and orders "conform" to a 1994 CSO Control Policy. As mentioned, the Bureau completed construction of the CSO Control Program Facilities in December 2011.

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 develop that a Total Maximum Daily Load (TMDL). A TMDL is the calculated pollutant amount that a water body can receive and still meet Oregon water quality standards. In 1986, the Northwest Environmental Defense Center brought suit against the U.S. Environmental Protection Agency (EPA). The lawsuit resulted in a consent decree under which the ODEQ and all jurisdictions within the Tualatin Basin were required to develop and implement plans to control nutrient sources and comply with the Tualatin Basin phosphorus TMDL. The City of Portland is included in this order since part of the Fanno Creek watershed and other small tributaries to the Tualatin River are within Portland. The Tualatin Basin TMDL was revised in 2001 and 2012, and now includes additional parameters such as temperature and bacteria.

The consent decree also required the ODEQ to develop TMDLs for other water quality limited stream segments within the City of Portland's portion of the Willamette Basin, including the Columbia Slough, Johnson Creek, Tryon Creek, and the Willamette River. The Willamette Basin TMDL Order was issued in 2006, and the City of Portland submitted an implementation plan in 2008 that covers both the Willamette Basin and Tualatin Basin TMDLs.

The City's ODEQ-approved implementation plan comprises projects and programs in the bureau's five-year Surface Water CIP and operating budget. The CIP estimate to address the TMDLs is approximately $71.2 million for FY 2015-19. Many of these are projects and programs that also achieve broader watershed goals and other regulatory objectives. Implementation planning and reporting costs are also included in the operating budget. The bureau works to ensure it is meeting TMDL requirements to improve water quality while also achieving other goals and objectives with the same projects. The PWMP and the MS4 SWMP (below) form the cornerstone of the TMDL implementation. The City's fifth annual report to ODEQ was submitted in 2013. This report covers water quality trend analyses for all TMSL streams, among other information.

An update to the City's TMDL implementation plan for both the Willamette and Tualatin basins will be submitted in February 2014. Any changes in ODEQ requirements may affect both operating programs and CIP projects. Ultimate costs of the revised implementation plan activities are unknown at this time but are not expected to significantly change the forecast.

National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System (MS4) Discharge Permit

The City of Portland and its co-permittee, the Port of Portland, hold a joint National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Discharge Permit. The Oregon Department of Environmental Quality (DEQ) issued the City's first MS4 discharge permit in 1995 and renewed it for a second term in 2004 (with modifications in 2005). DEQ issued the third-term permit on January 31, 2011. The permit is in effect for five years (until January 30, 2016). The permit requires that the City, and its co-permittee, the Port of Portland, implement stormwater management programs 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. To meet these requirements, technical resources and internal modeling services increased during FY 2012-13 and will remain at this increased level through FY 2015-16.

Underground Injection Control (UIC) Water Pollution Control Facilities (WPCF) Permit

The City's UIC WPCF permit was first issued on June 1, 2005. The permit establishes construction, operation and maintenance requirements for UICs (sumps). It requires the City to develop and implement a UIC management plan (UICMP) to protect groundwater as a drinking water resource. The permit expires May 31 2015.

The UIC Program activities affect operating programs as well as the capital improvement program (CIP). Identified capital costs necessary to comply with the WPCF permit are included within the UIC CIP Program.

Technical work to perform an updated system assessment and program evaluation will increase in FY 2013-14 through FY 2014-15 in preparation for submittal of the WPCF permit renewal application in November 2014.

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 BES recently signed a conservation agreement with the USFWS 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 involves federal actions such as funding or permitting. DES typically constructs 3-5 projects a year that require ESA review and permitting.

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. BES participated for years with the State of Oregon and NOAA Fisheries on the development of the recovery plan.

The recovery plan includes many ongoing BES programs and activities including stream restoration, green infrastructure investments, land acquisition, and code improvements. The costs associated with these programs are currently included in the BES and other bureau budgets. Their acknowledgement in the recovery plan allows the Bureau to leverage additional federal dollars to offset some of the planned BES costs, such as the $5.5 million of federal appropriations to match BES' investment of $2 million in improving stormwater management, flood management and habitat access for salmon and steelhead in Crystal Springs Creek. In addition, the inclusion of these projects in the recovery plan streamlines permitting review and authorizations thereby reducing costs to the bureau and making the Streamlining Team more efficient. Funds for the ESA response are included in the FY 2014-2018 operating and capital budget plans as a component of individual projects and programs.

Bond Covenants

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."

OPERATING, CAPITAL, AND FINANCIAL ISSUES

Operating and Capital Issues

CIP-Related Operations and Maintenance

The Bureau has made special efforts to identify and document operating and maintenance (O&M) costs associated with forecast capital improvements. These forecast O&M costs are included in this financial plan.

Collection System Maintenance and Reliability

Over 30% (700 miles) of Portland's sewer system is more than 80 years old. As aging pipes deteriorate, pipe failures can lead to sewage spilling onto public and private property, into streams or backing up into basements. The Bureau continues to examine operating requirements for collection system capital improvements to enhance maintenance and reliability.

In March 2012, Bureau staff completed the Executive Report for the "System Plan" for the Combined and Sanitary Sewer Systems. The System Plan 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. Highly cost-effective projects have been placed into the CIP for implementation over the next 5 to 10 years.

The Bureau's CIP includes $321 million for FY 2015-19 to address the maintenance of the City's sewer system, distributed as follows: Phase 2 and Small Diameter Urgent (large area projects and distributed projects) Pipe Rehabilitation Plan of $131 million, Phase 3 Pipe Rehabilitation $17 million; Large Diameter Pipe Rehab Projects, $27 million; Fanno/Tryon Capacity Rehab and Inflow Reduction $38 million; and large area capacity and rehab projects $108 million. Most of these projects were developed and recommended as priority projects in the 2012 System Plan. Some of these projects, such as the Phase 3 Program and the Large Diameter Sewer Rehabilitation, extend into the 10-year CIP window.

The Bureau also launched the "Stormwater System Program" in 2012 to integrate stormwater system planning with the development and application of the Stormwater Management Manual.

Stormwater System Planning

As the bureau moves forward with implementation of the sanitary and combined sewer system plan recommendations, the planning focus is shifting to the stormwater system. Existing bureau resources already dedicated to stormwater management and system planning were repositioned into a small program team to coordinate across bureau workgroups to update the Stormwater Management Manual and continue citywide stormwater system planning. The Stormwater System Program team is responsible for refining bureau stormwater policy, improving system performance and updating stormwater design guidelines. Building off the Stephens Creek Stormwater System Plan, this innovative approach incorporates improvements needed in the stormwater collection and conveyance system with watershed health goals. It is anticipated that the resulting plan will recommend stormwater system improvements for CIP funding over the next 2-20 years. Updated approaches to stormwater management will likely have implications for the Operating budget as well.

Watershed Plan Implementation

In 2006, the City Council adopted the Portland Watershed Management Plan (PWMP). The PWMP lays out a comprehensive and integrated approach for meeting many of the bureau's regulatory drivers by improving watershed health, and provides scientifically based strategies to address the sources and causes of environmental problems. The PWMP includes actions for the protection and restoration of water quality and habitat, the development of green infrastructure and other strategies to manage stormwater sustainably. The Plan also provides direction for integrating activities to achieve multiple objectives.

While the PWMP is a citywide plan that influences work in many bureaus, BES plays the lead role in implementation as it relates to the bureau's mission. An updated Five-Year Strategy for PWMP implementation was endorsed by City Council in 2012. Using a watershed approach to address the regulations discussed above remains an efficient and cost-effective way to simultaneously meet other city and community goals, including those in the Portland Plan, the City's Comprehensive Plan, Urban Forestry Management Plan, Climate Action Plan, and

Climate Change Preparation Strategy. Implementation projects and programs are included in both the five-year operating and capital budgets. They include both citywide and watershed-specific sustainable stormwater efforts, such as ecoroofs, green streets and tree planting, and natural resource protection efforts, such as invasive species management, land acquisition and stream restoration and enhancement projects.

Johnson Creek

This financial plan includes funding for continued work to address water quality, hydrology and habitat impacts in the Johnson Creek watershed, including projects to address frequent flooding, stream restoration, ESA recovery plan implementation, TMDLs, stormwater management and other issues.

Addressing Johnson Creek flooding and related watershed problems are recommended in the Johnson Creek Restoration Plan. To date, BES has acquired over 260 acres for flood management and watershed restoration through the Willing Seller Program and recently completed a significant floodplain restoration project on the 70-acre East Lents site. Over the next five to 15 years, BES will work on acquiring another 80 acres of frequently flooded property and implementing the next priority floodplain restoration projects. Funding for ongoing operations and maintenance of the restoration areas will need to be identified. BES is also conducting comprehensive sub-watershed planning to identify future actions outside the floodplain to address water quality, stormwater and habitat issues in the Johnson Creek watershed. Restoration efforts in Crystal Springs are nearly complete and have leveraged approximately $7 million in non-BES funding towards water quality, flooding and ESA recovery projects.

Cooperation and financial investment among jurisdictions outside Portland's boundaries, including Clackamas and Multnomah Counties, and the Cities of Gresham, Milwaukee, and Happy Valley continues through collaboration with the USGS, Oregon DEQ, the Johnson Creek Watershed Council, the East Multnomah Soil and Water Conservation District and the Johnson Creek Interjurisdictional Committee.

Columbia Slough

In 2010, the City updated the 2006 Intergovernmental Agreement (IGA) with ODEQ in order to implement the watershed approach to improve sediment quality in the Columbia Slough. The City is meeting the deadlines specified in the 2010 IGA and is continuing to further characterize other identified potential problem areas throughout the Slough as well as conducting extensive source investigations and source control actions throughout the watershed. Sampling and assessment of fish tissue and sediments is required every 10 years and is scheduled in 2015-16 and 2016-17. The cost of environmental remediation for all contaminated sediment sites in the Columbia Slough is unknown at this time.

Ongoing watershed health projects and programs in the Columbia Slough are aimed at addressing water quality TMDLs, ESA recovery plan implementation and PWMP goals. Projects in the FY2015-2019 CIP include construction of the NE 148th Ave. water quality facility and design and construction of the Lower Slough Refugia project. Temperature standards in the Columbia Slough are being addressed by tree canopy restoration and hydrology improvements, many of which are implemented in partnership with other agencies. Source reduction, revegetation, land acquisition and related activities and projects needed to address these issues

are in the current CIP and operating projects. Additional projects will be proposed as needs are identified.

Fanno/Tryon Creek

Projects and programs in Fanno and Tryon Creek watersheds in the next five to 20 years focus on addressing water quality, hydrology and habitat impacts in the watersheds, including projects to address TMDLs, stormwater system needs and ESA recovery plan implementation. The Bureau's Five-Year CIP and operating plan contains a variety of projects to address these goals, including stormwater projects that focus on managing runoff, primarily from streets. This work includes conducting stormwater system assessments to support efforts to reduce the inflow and infiltration of stormwater into the sanitary sewer system.

Scheduled CIP projects include facilities now in design to manage runoff from Beaverton-Hillsdale Highway. Additional green streets and roadside drainage ditch improvements are underway and planned. Rehabilitation of stormwater outfalls to Fanno Creek and Tryon Creek is underway to reduce bank erosion and improve stormwater system assets. Culvert replacements are underway in Tryon Creek at Boones Ferry Road and in Fanno Creek at SW 45th to improve conveyance and fish passage. Planned daylighting of a piped headwater tributary of Tryon Creek will help enhance the drainage system.

Willamette Watershed

Several areas within the Willamette watershed experience flooded basements and streets during storm events. Eliminating or greatly reducing these occurrences in the future is a focus for the Bureau. The Tabor to the River Program, in the Taggart Basin uses an integrated approach to addressing stormwater, and watershed issues in the area between Mt. Tabor and the Willamette River between Hawthorne and Powell boulevards. This sewer system consists of a network of pipes, some close to 100 years old, leading to a single outfall. The City is replacing and upgrading pipes, in addition to utilizing sustainable stormwater infrastructure such as green street facilities and trees to manage stormwater. This results in a program that is less expensive and less intrusive to the neighborhood, while also meeting PWMP goals and objectives. Operation and maintenance dollars for these new systems remain a critical consideration in the near term.

Several projects related to hydrology, habitat and water quality in the mainstream Willamette River and tributary watersheds are included in the Five-Year CIP. Environmental Services continues to identify opportunities to protect and improve conditions in priority sub-watersheds within the Willamette Watershed, particularly those on the west side that are outside the combined sewer system and relate to the City's TMDL, MS4 and ESA requirements. The FY 2015-2019 CIP includes projects to implement recommendations from the Stephens Creek sub-watershed stormwater system plan, which was completed in 2012.

Financial Issues

Rate Stabilization Fund (RSF) Balance

The Rate Stabilization Fund balance is estimated to be approximately $9.8 million at the beginning of FY 2014-15, having been drawn down from a peak of $76.5 million in FY 2007-08 to a low of $4.9 million in FY 2012-13. As discussed previously, the Bureau attempts to smooth

price changes over the five-year forecast interval, or other length of interval as determined by the peak funding needs, and the Rate Stabilization Fund is a key tool for meeting this planning goal.

Projected Sewer Usage

The Bureau remains concerned about the financial impacts of reduced sewer usage, for several reasons:

- Continued increases in water and sewer rates offer stronger incentives for customers to conserve water.
- Sewer rate increases offer stronger incentives for sewer customers to meter irrigation, cooling, and other non-sewer water use more closely.

The financial forecast assumes a 1.5% annual reduction in sewer usage per single-family residential account, and 0.75% annual reduction for multi-family residential and commercial accounts.

Extra Strength Charges

The Bureau currently monitors and charges about 60 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 by about 10 over the past two years. This is mostly due to conversions to the Class Average system described in the next paragraph. A few customers have also gone out of business. About 4-5 additional conversions are foreseen for FY14-15. The Bureau collected approximately $4.7 million from these customers in FY 2013.

As many as 3,000 other customers may have discharge strength significantly higher than the residential or baseline strength. The cost of treatment for the added loading from these customers has been born by others. The Bureau has developed a Class Average system of strength-based rates for commercial and industrial customers that will improve both customer equity and pollution prevention incentives. Apart from implementation and administrative costs, this is a revenue neutral program. The estimated $3.2 million collected annually at the end of implementation will result in rate reductions for other customers. The program is also intended to provide an economic incentive to customers to reduce grease discharges, which is important to the Bureau for both regulatory compliance and reduced maintenance costs.

The Bureau finalized its administrative rules for the Class Average Extra Strength Program and began implementation on January 1, 2012. As of January 1, 2014, nearly 2,000 Class Average Extra Strength customers have had extra strength charges added to their accounts. Revenues from Class Average customers were about $2.1 million in FY 2013.

Debt Service Reserve

The turmoil in capital markets the past five years has made municipal bond insurance impractical to obtain for new debt issues. As a result, the Bureau will instead plan to fund debt service reserve accounts from future bond proceeds. The reserve must be in an amount equal to annual debt service on the bonds issued, and must be retained until the bonds are retired or otherwise

defeased. The Bureau currently has approximately $45.8 million in required debt service reserves, which should grow to nearly $82 million by the end of the forecast planning window due to additional borrowings.

Interest Rates

Low interest rates have lowered forecast earnings on projected cash balances. Due to uncertainty in capital markets, however, rates for revenue bonds have not moved lower by the same degree. This divergence places upward pressure on forecast rates.

OPERATING PROGRAM CONSIDERATIONS

Proposed Reductions in Operating Program Expenditures and Customer Bill Impacts

The Bureau has developed a set of decision packages for the FY 2014-15 Requested Budget, each associated with specific service levels and rate impacts. The decision packages together represent reductions of approximately $2.3 million from the current FY 2013-14 Adopted Budget. They are offset by inflationary costs and increases in debt service payments associated with recently issued revenue bonds. Taken together, these factors require an increase of 4.0% in the average single family residential bill.

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				
Economic Assumptions	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Inflation rates						
Personal Services (%)	0.9	1.80	2.83	2.83	2.83	2.83
External Materials & Services (%)	2.43	2.63	2.63	2.63	2.63	2.63
Internal Materials & Services (%)	3.21	3.10	3.10	3.10	3.10	3.10
Utilities (%)	2.32	1.04	1.04	1.04	1.04	1.04
Capital Outlay	2.69	2.40	2.40	2.40	2.40	2.40
Other (%)	2.67	2.38	2.38	2.38	2.38	2.38
Interest Earnings Rate (%)	0.50	0.50	0.60	0.60	0.60	0.60
Revenue Bond Interest Rate (%)	4.74	5.75	6.00	6.50	6.50	6.50
Bond Term (years)	25	25	20	20	20	20
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						
Net Ending Fund Balances (% of Operating Expenses)						
Sewer Operating Fund	2.00	2.00	2.00	2.00	2.00	2.00
Rate Stabilization Fund	8.00	8.00	8.00	8.00	8.00	8.00
City Overhead Growth Rate (%)	-7.22	-46.98	61.48	2.75	2.75	2.75
Utility License Fee (% of Rate Revenues)	5.00	5.00	5.00	5.00	5.00	5.00
Expenditure Rates (% of Budget)						
CIP	95.00	97.00	97.00	97.00	97.00	97.00
Personal Services	99.50	99.50	99.50	99.50	99.50	99.50
Materials and Services - External	95.00	95.00	95.00	95.00	95.00	95.00
Materials and Services - Internal	100.00	100.00	100.00	100.00	100.00	100.00
Other Assumptions						
Annual Customer Account Growth (%)	0.25	0.25	0.25	0.50	0.50	0.50

A key assumption in our planning is sewer usage. As mentioned previously, sewer usage is forecast to decrease 1.5% annually for single-family residential accounts and by 0.75% annually for multi-family accounts. This reflects water conservation and pollution prevention efforts, the effects of rising rates on consumption patterns, increases in the number of customers who use less than their winter average during non-winter months, and continued expansion of submetering by commercial customers.

Forecast Sewer System Costs and Resources

To maintain the current level of service within the operating program while funding requested capital improvements will require annual bill increases averaging 4.0% over the next five years. These increases are due to growth in annual system costs, partially offset by increases in non-rate revenues. Identified reductions and recommended additions to operating expenditures will be discussed separately.

System Costs

Annual system costs increase from $424 million to $491 million over the five-year financial forecast, largely dependent on the amount of CIP expenditures in any year.

- CIP expenditures are projected to total $538.4 million over the forecast interval (including inflation). These expenditures are funded by sewer system revenue bonds, but also include substantial cash contributions ($118.0 million over the five-year forecast interval) made possible by coverage requirements on sewer system revenue bonds.
- Costs other than CIP and cash transfers to the Construction Fund increase by $62.8 million over the forecast interval, of which 57% ($35.7 million) is new debt service from issuance of sewer system revenue bonds to finance capital construction activity. The financial forecast includes nearly $632 million in additional bonded indebtedness through the five-year forecast interval. Bond sales are planned in FYs 2013-14, 2014-15, 2016-17 and 2018-19.
- Total operations and maintenance expenditures increase by $17.3 million over the forecast interval, an average annual increase of 3.9%.
- Utility License Fees (ULF) are projected to rise an average of 5.1%, mirroring the average annual increase of utility rate revenues.
- Cash transfers from the Operating Fund to the Rate Stabilization Fund are projected to be necessary in the years FY 2014-15, FY 2016-17 and FY 2018-19, for a total of $22.7 million.

System Resources

Forecast annual system revenues from sources other than rates (excluding changes in the Operating Fund balance) increase by $2.9 million over the five-year forecast interval. This is due primarily to the following:

- Reimbursements from the Construction Fund to the Operating Fund remain relatively flat over the forecast interval, reflecting the CIP program remaining flat over the five-year forecast following completion of the CSO capital program.
- Transfers from the Rate Stabilization Fund to the Operating Fund total a modest $15.7 million during the five-year forecast interval in order to smooth rate increases as the debt service from continued capital financing, considerably reduced from the $65 million transferred in the prior 5 years.
- Annual revenues from rates increase by $63.3 million from over the forecast interval, an annual average increase of 5.0% per year.

The table on the following page shows forecast system costs and resources in more detail.

Forecast Revenue Requirement from Rates

(In Thousands of Dollars)

Fiscal Year Ending June 30	2015	2016	2017	2018	2019
O&M and CIP Expenses					
Personal Services	$46,982	$48,993	$50,010	$52,986	$55,190
Materials & Services – External	23,652	24,371	24,822	25,196	25,585
Materials & Services – Internal	33,602	35,181	36,467	37,546	38,569
Capital Outlay (non-CIP)	1,822	2,908	6,162	3,737	4,059
CIP	108,301	104,739	108,736	108,669	108,002
Cash Transfers:					
General Fund Overhead	3,693	5,963	6,127	6,296	6,469
Utility License Fees	14,484	15,383	16,269	17,022	17,701
Rate Stabilization Fund	7,100	0	7,650	0	7,900
Pension Obligation Bonds	3,201	3,614	3,927	4,173	4,399
Misc Other Expenses	67	132	200	1,769	1,762
Total O&M and CIP Expenses	$242,904	$241,286	$260,371	$257,393	$269,635
Cash Transfers to Debt Redemption Fund:					
Existing Senior Debt Service	97,802	100,038	100,060	100,905	92,625
Existing Junior Debt Service	62,686	62,679	62,680	62,695	67,996
Projected New Junior Debt Svc.	0	18,491	17,473	35,703	35,701
Cash Transfers to Construction Fund:					
Cash Contributed towards CIP	20,604	24,535	20,244	27,322	25,339
Annual System Costs	$423,997	$446,029	$460,827	$484,018	$491,297
Less: Other					

System Resources					
	$116,713	$113,313	$117,474	$117,574	$117,077
Reimbursement from Constr. Fund					
Systems Development Charges	10,460	9,909	10,494	10,773	11,415
Wholesale Sewer Contracts	3,400	3,505	3,614	3,726	3,842
Other Service Charges	1,382	1,424	1,467	1,512	1,557
Service Reimbursements	1,600	1,650	1,701	1,753	1,808
Rate Stabilization Fund Transfer	0	9,125	0	6,600	0
Other Cash Transfers	1,097	1,131	1,166	1,202	1,239
Product Sales	420	433	446	460	475
Inspections	200	206	213	219	226
Rents	140	144	149	153	158
Licenses and Permits	1,511	1,558	1,580	1,629	1,679
Interest on Investments	328	424	477	527	577
Miscellaneous	430	443	457	471	486
Over/(Under) Collected on Rates	(8,953)	(9,492)	(10,028)	(10,495)	(10,910)
Portland Harbor Rate Revenues	(1,809)	(1,481)	(1,113)	(846)	(497)
Accrued User Charge Revenues	2,013	2,252	2,246	1,949	1,747
Use/(Replenish) Fund Balance	(3,356)	(3,905)	(3,7828)	(3,026)	(3,261)
Total Other Resources	$125,578	$130,640	$126,560	$134,182	$127,618
Revenue Required from Rates	**$298,419**	**$316,389**	**$334,267**	**$349,267**	**$363,679**

The following sections present more detailed revenue and cost information for the five years ending with the current year, and for the five-year forecast interval.

Financial Resources

Historical and Current Sewer System Financial Resources
(In Thousands of Dollars)

Fiscal Year Ending June 30	2010	2011	2012	2013	Current 2014	Five-Year Totals
Revenues from Rates (after Stormwater Discounts, Accruals, and Uncollectibles)	$216,137	$231,964	$233,174	$260,196	$276,370	$1,217,841
System Development Charges	2,266	5,665	7,634	13,020	9,910	$38,495
Wholesale Sewer Contracts	3,206	3,378	3,727	3,927	3,445	$17,683
Rate Stabilization Fund Transfers	9,750	29,500	18,525	7,550	0	$65,325
Other Revenues	11,008	11,674	9,737	10,113	7,762	$50,295
Decrease/(Increase) in Fund Bal.	(6,770)	(7,836)	13,633	(11,199)	(6,785)	($18,957)
Total	$235,597	$274,346	$286,429	$283,607	$290,702	$1,370,681

- The relatively minor increase in Revenues from Rates in FY 2011-12 is the result of a $7.4 million audit adjustment to change treatment of Bad Debt Expense and Allowance for Uncollectibles in FY 2010 through FY 2012. This adjustment reduced revenues, but also reduced bad debt expense, and thus had no impact on coverage calculation in FY 2011-12.
- SDC revenues increased dramatically from FY 2009-10 through FY 2012-13, as construction activity rebounded from the recent recession.
- Cash transfers from the Rate Stabilization Fund smoothed the rate increases in FY 2010-13 associated with completion of the Eastside CSO project.
- The decrease in fund balance (shown as a positive) in FY 2011-12 is the result, in part, from the same $7.4 million year-end audit adjustment mentioned above.
- Revenues from rates increased at an average of 6.3% per year from FY 2009-10 through FY 2013-14 (current).

Forecast Sewer System Financial Resources
(In Thousands of Dollars)

Fiscal Year Ending June 30	2015	2016	2017	2018	2019	Five-Year Totals
Revenues from Rates (after Stormwater Discounts, Accruals and Uncollectibles)	$291,480	$309,150	$326,485	$341,290	$354,516	$1,622,921
System Development Charges	10,460	9,909	10,494	10,773	11,415	$53,051
Wholesale Sewer Contracts	3,400	3,505	3,614	3,726	3,842	$18,087
Rate Stabilization Fund Transfers	0	9,125	0	6,600	0	$15,725
Other Revenues	7,109	7,413	7,656	7,927	8,206	$38,310
Decrease/(Increase) in Fund Bal.	(3,356)	(3,905)	(3,782)	(3,026)	(3,261)	($17,331)
Total	$309,093	$335,197	$344,467	$367,290	$374,717	$1,730,764

- Revenues from rates, as shown above, are forecast to increase by an average of 5.0% per year over the forecast interval. The revenue forecast is higher than the average bill increase due to the assumed growth in customer accounts and certain customer classes.
- Customer account growth is forecast to be 0.25% for FY 2014-15, and FY 2015-16, then at the "infill" rate of 0.5% per year.
- SDC revenues are forecast to increase modestly, resulting in an average annual growth rate of 2.2%.
- Transfers from the Rate Stabilization Fund to the Operating Fund are planned in two of the five years in order to smooth rate increases from year to year.

Operating Expenditures by Expense Type

Historical and Current Operating Expenditures by Expense Type
(In Thousands of Dollars)

Fiscal Year Ending June 30	2010	2011	2012	2013	Current 2014	5-Year Totals
Personal Services	$40,207	$40,981	$44,245	$46,773	$46,149	$218,355
Materials & Services						
External	22,120	20,406	19,926	23,432	23,687	$109,570
Internal	29.348	31,688	31,399	34,245	32,868	$159,547
General Fund Overhead	5,517	5,449	6,901	7,507	6,965	$32,338
Utility License Fee	12,809	12,809	12,809	12,672	13,713	$64,813
Rate Stabilization Fund	0	0	0	0	4,9000	$4,900
Environ'l Remediation Fund	0	63	0	0	0	$63
Pension Obligation Bonds (Oper portion)	1,714	1,663	1,836	2,056	2,271	$9,542
Capital Outlay (non-CIP)	(1,498)	581	5,914	404 2,838	1,021	$8,856
Other	428	114	104	215	46	$906
Total Operating Expenditures	$110,646	$113,754	123,134	129,738	131,619	$608,892

- Personal Services increased an average of 3.5% per year over this 5 year period, due mostly to double-digit increases in pension and health care benefits, whereas the number of positions allocated in Operating fell 1.5%.
- External Materials and Services increased slightly in this period, approximately 1.7% per year on average.
- The only transfers from the Operating Fund to the Rate Stabilization Fund will occur in FY 2013-14, reflecting the planned draw on the Rate Stabilization Fund balances previously built up to smooth rate increases resulting from completing the final phase of the CSO "Big Pipe" Project in FY2011-12.
- ULF expenditures remained constant from FY 2006-07 through FY 2012-13 due to the Council setting a $12.8 million cap on payments in FY 2005-06 until the effective ULF rate reached 5%. The slight reduction in the amount shown in FY 2012-13 reflects the change in accounting practice to allocate the ULF to the Environmental Remediation Fund, where the Portland Harbor rate revenues are deposited.

Forecast Operating Expenditures by Expense Type
(In Thousands of Dollars)

Fiscal Year Ending June 30	2015	2016	2017	2018	2019	Five-Year Totals
Personal Services	$46,982	$48,993	$50,010	$52,986	$55,190	$254,162
Materials & Services						
External	23,652	24,371	24,822	25,196	25,585	$123,626
Internal	33,602	35,181	36,467	37,546	38,569	$181,366
General Fund Overhead	3,693	5,963	6,127	6,296	6,469	$28,548
Utility License Fee	14,484	15,383	16,269	17,022	17,701	$80,859
Rate Stabilization Fund	7,100	0	7,650	0	7,900	$22,650
Pension Obligation Bonds (Oper portion)	2,469	2,796	3,033	3,244	3,430	$14,971
Capital Outlay (non-CIP)	1,822	2,908	6,162	3,737	4,059	$18,687
Other	67	132	200	1,769	1,762	$3,930
Total Operating Expenditures	$133,870	$135,728	$150,740	$147,796	$160,664	$728,799

- Total operating expenditures are forecast to increase by approximately 4.7% annually or by about $26.8 million over the five-year forecast interval.
- Personal services expenditures are forecast to increase at an average annual rate of 4.1%, with the projected average inflationary increase in wages and salaries of approximately 2.4%, while health care, PERS and other benefits are forecast to increase at an average rate of 7.7% per year.
- External materials and services are forecast to increase at an average annual rate of 2.0%, less than the 2.6% average annual increase projected for inflation over this forecast interval.
- Expenses associated with internal materials and services are forecast to increase at an average rate of 3.5%.
- Transfers to the Rate Stabilization Fund are projected for the first, third, and fifth years of the plan, as fund balances are being replenished in those years for rate smoothing the following years.
- ULF expenses will rise an average of 5.1%, mirroring the increase in rate revenues over this period.

Capital Expenditures by Program

Historical and Current Capital Improvement Expenditures by Program
(In Thousands of Dollars)

Fiscal Year Ending June 30	2010	2011	2012	2013	Current 2014	Five-year Totals
Combined Sewer Overflow	$127,730	$138,037	$70,132	$3,247	$3,400	$342,547
Maintenance and Reliability	31,194	33,711	17,128	35,088	68,100	$185,221
Sewage Treatment Systems	15,994	17,284	8,782	33,390	17,000	$92,450
Surface Water Management	10,521	11,370	5,777	15,572	16,100	$59,339
Systems Development	5,126	5,539	2,814	3,384	7,500	$24,364
Totals	$190,565	$205,942	$104,633	$90,681	$112,100	$703,920

- The CSO program accounted for $343 million or 49% of the capital improvement expenditures during the interval FY 2009-10 through FY 2013-14 (current). Major expenditures included the completion of the Eastside CSO Tunnel, the Swan Island CSO Pump Station, UICs and sewer separation projects.
- The Maintenance and Reliability portion of the CIP totaled $185.2 million, or 26% of capital improvement expenditures over the five-year interval. Major expenditures included repair and rehabilitation work in the following areas of the city: NW Central Business District, Alder Basin, Insley/Taggart Basin, Sullivan/Stark/Holladay Basins, Beech/Essex/Oak Basins, as well as Basement Flooding Relief projects in the areas served by combined sewers.
- Sewage Treatment Systems program expenditures at the CBWTP totaled $92.5 million over the interval, or 13% of capital improvement expenditures, and included the addition of new primary clarifiers, conversion of existing clarifiers to allow for wet weather treatment, renovation of the sludge lagoon, and ongoing pump station improvements .
- The Surface Water Management program accounted for approximately $59.3 million, or roughly 8% of capital improvement expenditures. Major expenditures in this program include Johnson Creek Willing Seller Program, SW Texas Green Street, and the Grey to Green Initiative.
- Systems Development projects totaled $24.4 million, or roughly 4% of total capital improvement expenditures. Major expenditures included extension of sewers in the South Airport basin, SE Lents basin, SE 60th & Steele, and also the Bureau's share of the new Water/Sewer Billing System.

Forecast Capital Improvement Expenditures by Program
(In Thousands of Dollars)

Fiscal Year Ending June 30	2015	2016	2017	2018	2019	Five-year Totals
Combined Sewer Overflow	$0	$0	$0	$0	$0	$0
Maintenance and Reliability	72,919	72,371	65,582	60,353	61,254	$332,479
Sewage Treatment Systems	11,999	14,385	22,878	29,048	30,057	$108,367
Surface Water Management	16,827	13,903	14,421	14,379	12,644	$72,174
Systems Development	6,556	4,079	5,855	4,889	4,047	$25,426
Totals	$108,301	$104,738	$108,736	$108,669	$108,002	$538,446

- Forecast total CIP expenditures for the five-year forecast interval are $538.4 million.
- Maintenance and reliability expenditures are forecast at $332 million, or 62% of total capital expenditures over the five year planning interval. This program rehabilitates or replaces segments of the system in order to protect the City's infrastructure investment. Projects will include nearly all areas of the city. Major work will include the Pipe Rehabilitation Phase 3, the Piedmont-Woodlawn-King neighborhoods, the Fanno Basin, the Grant Park-Hollywood and Rose City Park Sewer Rehabilitation projects, Sunnyside North Reconstruction, Taggart, Burlingame and Stark Basins, all of which will replace deficient pipes and prevent basement flooding.
- Forecast expenditures for the sewage treatment systems of $108.4 million are 20% of total capital expenditures over the five year planning interval. Major projects include the Columbia Blvd. Wastewater Treatment Plant (CBWTP) Secondary Treatment Expansion, Tryon Creek WTP Headworks, Clarifiers and Odor Control Improvements, CBWTP Digester Expansion, CBWTP Lagoon Reconstruction, and projects within the Pump Station Improvement and the Treatment Facilities Rehabilitation & Modification programs.
- Forecast expenditures for surface water management of $72.2 million are 13% of the five-year CIP. This program includes projects in all of Portland's watersheds that address drainage and water quality issues while providing other watershed benefits such as flood management, fish and wildlife habitat and recreational opportunities. Projects for land acquisition, Johnson Creek floodplain restoration, stormwater retrofits, Columbia Slough outfalls, and culvert replacement projects make up the largest of the planned expenditures.
- Systems development program expenditures comprise $25.4 million, or 5% of total capital expenditures over the five year planning interval. Systems Development is the program that extends sewers to areas that are currently not served, such as the SE Claybourne/134th and SW Terwilliger Sewer Extension projects, and for the elimination of shared "party sewers". This program also supports construction of BES infrastructure required to support the private

development efforts of others, including sewer relocation related to the Portland-Milwaukie Light Rail line.

- Forecast capital expenditures will require additional debt issues totaling $523 million between now and the end of the five-year interval, requiring an additional $36 million in annual debt service by FY 2018-19, an increase of 33% over current FY 2013-14 levels.

RISKS TO THE FORECAST

The following are considered risks to the forecast as their potential effects were not explicitly included in the financial forecast. Potential costs are not known in all cases.

Portland Harbor

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 Portland Harbor Superfund investigation is currently focused on a stretch of the Willamette River from River Mile 2 to River Mile 12. The City is one of the potentially responsible parties actively engaged in assessment and planning work for cleanup and restoration in this section of the river. The City's potential liabilities are likely to be associated principally with stormwater discharges from the municipal conveyance system and with some upland sites owned and operated by different City bureaus. ODEQ and the City are working to assess whether discharges to the City stormwater collection system are significant source of sediment contamination.

The City's involvement with the Superfund site, which includes the anticipated cost for management, technical and legal staffing; sediment investigation; investigation of discharges to the collection system; assessment of source control measures; and early natural resource projects, is currently forecast at approximately $16.4 million over the next five fiscal years. The total costs associated with the cleanup and natural resource restoration activities after the Record of Decision are unknown and the City cannot at this time predict the financial impact on the sewer system rates.

Willamette Basin TMDLs

The Willamette Basin TMDLs include a phased approach to a mercury TMDL. On December 23, 2010, ODEQ issued a mercury monitoring directive that requires the City to conduct mercury monitoring as part of the MS4 permit. By 2015, the ODEQ intends to finalize a mercury TMDL that will apply to all water bodies within the City. The budgetary impact of the future mercury TMDL cannot be predicted at this time. An update of the Willamette River temperature TMDL is also pending, as are lawsuits challenging the ODEQ temperature standard. Changes to the temperature TMDL may affect the Tryon Creek wastewater treatment plant but specific implications are unclear at this time. Additional listings of stream segments as water quality limited for additional pollutants are currently proposed by DEQ and may lead to additional TMDLs in the future.

National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System (MS4) Discharge Permit

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 allocations (WLA) approved by USEPA. Every five years, the City is required to assess progress towards achieving each WLA. As new TMDLs are developed and approved, technical work and associated budgets will likely increase. To meet these requirements, modeling and technical resources will continue at FY12-13 levels through FY 2015-16.

Sanitary Sewer Overflows

Sanitary Sewer Overflows ("SSOs") are discharges of raw sewage into the waters of the State from municipal sanitary sewer systems. On January 24, 2001, the EPA Administrator signed a draft notice of proposed rulemaking regarding SSOs that was later withdrawn.

The proposed rules prohibited SSOs except in extreme cases such as tsunamis and other "disaster level" situations. In addition, they required a comprehensive process to assess, implement, and document the planning, operations, and maintenance measures taken to eliminate SSOs as described earlier for the CMOM Program.

State and federal regulators continue to study the operations and maintenance of municipal sewer systems and potential guidelines regarding SSOs. Should SSO rules similar to those proposed in 2001 eventually become effective, the Bureau's sewer system would be affected. Such rules could have significant financial impacts to both capital (via upsizing of facilities) and operating (increased system oversight) budgets.

The Bureau's 2013 CMOM Program Report, submitted to Oregon DEQ in June 2013, identifies the work the Bureau is currently implementing under the capital and operating funds to control SSO's and to properly operate and maintain the collection system.

Underground Injection Control (UIC) Water Pollution Control Facilities (WPCF) Permit

In June 2005, the Oregon Department of Environmental Quality (DEQ) issued the City a Water Pollution Control Facilities (WPCF) Permit authorizing the City to operate approximately 9,000 public Underground Injection Control (UIC) structures classified as Class V Injection wells. The permit required the Bureau to implement a comprehensive citywide evaluation of all city-owned UIC Structures.

This evaluation was conducted in 2006 and identified approximately 700 UICs that required further evaluation to determine permit compliance. Initially 29 of the 700 UICs were confirmed non-compliant in December 2006. Structural corrections bringing the 29 UICs into compliance were completed by the November 1, 2011 permit deadline.

Continued evaluation confirmed an additional 186 non-compliant UICs in November 2007, revised to 191 non-compliant UICs in early 2009. These UICs were originally targeted for correction by July 2011 as required by the permit. A permit modification issued on December 10, 2009 extended the schedule to May 31, 2015. Corrective actions and a permit modification allowing for direct discharges to groundwater for existing UICs has reduced the number of UICs to be corrected to 54. These UICs are on target to meet the required corrective action completion date of May 31, 2015.

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 financial forecast is based on a 1.5% 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. If consumption is lower than this, there could be the need for an upward adjustment in rates. Higher than projected consumption would make possible a reduction in rates, 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 revenue requirements for interest on new debt. New debt will account for roughly 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.
- The forecast rate increases include best estimates of inflation over the forecast interval. An increase in the actual rate of inflation over the forecast inflation rate will require correspondingly higher rate increases.
- The economic recession that began in 2008 resulted in a drastic drop in all construction related fees and permits, most notably System Development Charges. Whereas the financial plan assumes construction activities continuing at the levels seen the last few years, the risk of another recession during the forecast period continues to be of concern. If construction activity should indeed slow down from current levels, and reducing Systems Development Charges and other construction related fees and permits, higher rate increases would be required.

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