

Seattle Public Utilities

Drainage and Wastewater

SPU – Drainage and Wastewater

Overview

Seattle Public Utilities (SPU) maintains the network of sewer and drainage systems throughout the City of Seattle. These systems include approximately:

- 448 miles of sanitary sewers
- 968 miles of combined sewers
- 68 Pump Stations
- 5.5 miles of wastewater force mains
- 87 City-owned and permitted Combined Sewer Overflow points
- 38 Combined Sewer Overflow control detention tanks/pipes
- 477 miles of storm drains / 295 storm drain outfalls
- 36,500 catch basins
- 65 miles of ditches, 121 miles of culverts
- 3.7 miles of green stormwater infrastructure
- 12 detention/treatment ponds
- 145 flow control facilities
- 189 water quality structures

The Drainage and Wastewater (DWF) CIP is the vehicle for rehabilitating, replacing, improving, and expanding this infrastructure, as well as constructing projects that protect, conserve, and enhance our region's environmental resources. Planned spending in the DWF CIP is approximately \$1.07 billion over the next six years, from 2017 to 2022.

CIP Revenue Sources

Historically, the DWF CIP has been funded primarily by revenue bonds serviced by ratepayers. However, DWF financial policies adopted in 2003 gradually increase cash contributions from SPU to fund the CIP. By 2007, 25% of total CIP costs were funded by a cash contribution, with the remaining capital needs being debt financed.

SPU's DWF CIP is funded largely by Drainage and Sewer ratepayers. SPU issues bonds, serviced by ratepayers that cover approximately 75% of the CIP, with the remainder funded by cash. DWF rates were approved by the Executive and City Council in 2015 for the three-year period of 2016-2018.

SPU also actively seeks grants and low-interest loans. Loans like this offer a lower interest rate than what SPU can borrow/issue debt and offset the need to draw down extra dollars from the construction fund. SPU also receives Remedial Action Grants from the Washington State Department of Ecology for up to 50% of sediments cleanup project costs.

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CIP Highlights

2017-2022 Proposed Drainage and Wastewater Fund CIP by BCL (In '000s; total may not sum due to rounding)

BCL	2017	2018	2019	2020	2021	2022	Total
Protection of Beneficial Uses	9,897	10,284	17,532	13,204	13,506	15,450	79,874
Sediments	6,855	6,553	7,337	8,757	6,182	15,712	51,396
Combined Sewer Overflows	37,291	39,483	61,451	93,062	90,572	74,343	396,202
Rehabilitation and Heavy Equipment	29,775	36,603	31,567	31,242	30,030	29,000	188,218
Flooding, Sewer Backups, and Landslides	18,646	32,179	21,372	24,353	22,158	51,604	170,311
Shared Cost Projects	23,446	33,005	49,181	17,676	14,356	8,201	145,866
Technology	11,185	6,161	4,255	3,908	4,298	4,298	34,104
Total	137,095	164,267	192,697	192,202	181,102	198,607	1,065,970

Protection of Beneficial Uses: This program makes improvements to the City’s drainage system to reduce the harmful effects of stormwater runoff on creeks and receiving water bodies by improving water quality and protecting or enhancing creek habitat. The program includes projects to meet regulatory requirements. Funding in the DWF CIP is focused on cost effective stormwater and water quality projects such as the Venema Creek Natural Drainage System (NDS), NDS Partnering Projects (a key component of Seattle’s Plan to Protect Seattle’s Waterways), Capitol Hill Water Quality project, and the Taylor Creek Culvert Replacement project.

Sediments: The City of Seattle is a Potentially Responsible Party (PRP) for cleanup liabilities for contaminated sediments at the Lower Duwamish Waterway Superfund Site, the Harbor Island Superfund Site, and Gas Works Park because of alleged contributions from Combined Sewer Overflows (CSO) and storm drain discharges. The City continues to work with EPA, the Washington State Department of Ecology, King County, and other PRPs on an assessment of contaminants and sources. The Sediments program provides funding for preliminary studies and analysis for cleanup of contaminated sediment sites in which the City is a participant, for actual cleanup of contaminated sites, for preliminary engineering for future cleanup efforts, and for liability allocation negotiations. The study phase of sediment remediation projects often requires multiple years before specific cleanup actions are defined. Current projections reflect actual cleanup on the Duwamish Waterway beginning in 2020.

Combined Sewer Overflows: This program consists of projects that are mandated by State and Federal regulations to control CSOs into the City’s receiving waters. Projects include large infrastructure projects (e.g., storage structures, pipes, tunnels, wet weather treatment plants,

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stormwater separation, pump stations), smaller retrofits, construction of Green Stormwater Infrastructure (GSI) for CSO control, and development and implementation of regulatory required plans such as the Plan to Protect Seattle's Waterways. Key projects in the DWF CIP include the Henderson CSO projects and the Ship Canal Water Quality Project. In 2014, SPU began work on two of the projects in the Long Term Control Plan (LTCP), the largest of which is to construct tunnel storage along the Ship Canal. Planning work is underway and will continue through the coming years to review potential sites and perform initial geotechnical investigations. This work is starting early in order to meet CSO Consent Decree compliance date requirements, which are described later in this section. Negotiations have not been completed, but current estimates have King County paying for 35% of the project cost.

Rehabilitation: This program consists of projects that rehabilitate or replace existing drainage and wastewater assets to maintain or improve the current functionality level of the system.

Assets that are addressed include:

- Pump station structures, major mechanical and electrical components, and force mains;
- Drainage and wastewater control structures and appurtenances;
- Drainage and wastewater pipes.

Individual projects are defined by the type and method of rehabilitation and/or replacement and include emergency rehabilitation, maintenance and no-dig pipe rehabilitation, point sewer pipe and structure rehabilitation by crews, and point sewer pipe and structure rehabilitation by contract.

The SPU Strategic Business Plan includes a large action plan to increase the amount of rehabilitation done in the city. This will allow SPU to evaluate and fund additional rehabilitation work on gravity sewer pipes and facilities (control structures, pump stations, and outfalls) and significantly reduce the risk of exceeding the Consent Decree target of four sanitary sewer overflows per 100 miles of sewer pipe.

Flooding, Sewer Back-up, and Landslides: This program is responsible for preventing and alleviating flooding and sewer backups in the City of Seattle, with a primary focus on the protection of public health, safety, and property. The program area is focused on planning, design, and construction of pipes, ditches, culverts, detention ponds, and natural drainage systems that control and/or convey storm runoff to receiving bodies. This program also involves protecting SPU drainage and wastewater infrastructure from landslides and providing drainage improvements where surface water generated from the City right-of way is contributing to landslides. Finally, this program includes sewer capacity projects that reduce the risk of exceeding the Consent Decree target of four sanitary sewer overflows per 100 miles of sewer pipe. Major projects in this program include the Broadview Long Term Plan and the South Park Water Quality and Pump Station project, both of which are action plans in the SPU Strategic Business Plan. South Park Water Quality Facility is also a regulatory commitment within the Plan to Protect Seattle's Waterways.

Shared Cost Projects: This program includes individual capital improvement projects which typically benefit multiple Lines of Business (LOB) (e.g., the Water LOB and the Drainage and Wastewater LOB) and whose costs are "shared," or paid for by more than one of SPU's utility funds.

In 2017 and 2018, the proposed budget for the Shared Cost program includes funding for a number of interdepartmental projects including the Alaskan Way Viaduct and Seawall Replacement, Move Seattle, and Sound Transit Link Light Rail. Funding is also included for

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SPU's Heavy Equipment Purchases, the Integrated Control Monitoring Program, SPU Operational Facility Improvements, and a number of smaller projects.

Technology: The Technology capital portfolio is managed in six program areas, which provide a department-wide view of technology investments to address SPU's strategic, business, and City-wide priorities. These areas are:

- Customer Contact and Billing
- Enterprise Information Management
- IT Infrastructure
- Project Delivery & Performance
- Science & System Performance
- Asset Information Management

Investments in 2017 address several of SPU's key initiatives, including:

- Financial Management and Internal Controls
- Operational Excellence and Performance Management
- Easy, engaged Customer Experience
- Data-driven Decision Support
- Project Delivery/Project Controls

SPU will focus 2017 technology spending on the highest priority business needs, primarily within the Customer Contact and Billing and Project Delivery and Performance program areas.

Changes in the New Customer Information System (NCIS) project schedule are driving the increased cost estimates for 2017 within the Customer Contact and Billing program area. Anticipated costs for SPU's portion of the Summit Re-Implementation project as well as the significant expenditure to integrate SPU financial side-systems are driving increased costs within the Project Delivery and Performance program area. Other planned projects deferred from 2015 and 2016 are driving higher costs in the Tech CIP for 2017. Examples include the Science Information Management System (SIMS) 2.0 Reimplementation, Drainage and Wastewater Environmental Compliance Investigations, and the CMOM Program Applications Upgrades.

Thematic Priorities

The goal of the DWF CIP is to construct facilities that reduce the frequency of flooding and sewer backups for customers and improve water quality and habitat in the environment by reducing sewage overflows and the impacts of stormwater pollution. Projects in the DWF CIP are guided by various Federal regulations, City policies, long-term plan documents, and the SPU Asset Management Committee (AMC) benefit criteria. Many DWF CIP projects are outlined in the Wastewater System Plan, the Comprehensive Drainage Plan, and the Plan to Protect Seattle's Waterways. The DWF primarily considers three main criteria when prioritizing work: public health and safety, environmental protection/regulatory requirements, and Mayor/Council priorities. Project timing can be influenced by opportunities or requirements to combine construction activity with other projects.

- Public Health and Safety: The overriding priority for the DWF is maintaining public health and safety. This will be accomplished through capital programs and projects including the 14th and Concord Combined Sewer System (CSS) Improvement project, the

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Localized Flood Control Program, the Broadview Sanitary Sewer Overflow (SSO) reduction program and the South Park Pump Station project. The sewer and drainage rehabilitation program is another key aspect of achieving our public health and safety goals. The program is focused on identifying and correcting defective or deteriorating infrastructure, including drainage and wastewater pipes, before failure which could result in sewer backups, roadway collapses or landslides.

- Environmental Protection/Regulatory Requirements: The City of Seattle/SPU must meet State and Federal regulatory requirements in order to comply with the Clean Water Act (CWA) and the Consent Decree that was entered in court on July 3, 2013, between the City, the U.S. Environmental Protection Agency (EPA), and the U.S. Department of Justice (DOJ). The two most significant regulatory drivers associated with the CWA are the National Pollutant Discharge Elimination System (NPDES) Waste Discharge Permit (aka NPDES CSO Permit) and the NPDES Phase I Municipal Stormwater Permit (aka NPDES MS4 Permit).
- Mayor/Council Priorities: Projects in the DWF CIP that address Mayor and/or Council priorities include projects and programs that help achieve the Green Stormwater Infrastructure (GSI) Strategy target to manage 400MG of stormwater annually with GSI by 2020. Projects that will help achieve this goal include the Capitol Hill Water Quality Facility and the Natural Drainage Systems (NDS) Partnering program which will use GSI to reduce stormwater pollution in creeks and to improve neighborhoods.
 - The Capitol Hill Water Quality project will result in an innovative regional scale stormwater facility. The facility will include vegetated bioswales, which will provide stormwater treatment for a portion of the largest sub-basin draining to South Lake Union while providing a vibrant pedestrian-friendly streetscape. This project will be constructed in partnership with an adjacent land development and includes new sidewalks and road surfaces.
 - The NDS Partnering Program will build natural drainage systems along approximately 66 blocks (330' block equivalents) in the Longfellow, Thornton, and Pipers Creek watersheds. The systems will include curb cuts and landscaped shallow depressions with associated structures (weirs, clean outs, etc.) in the planting strip area between back-of-curb or pavement edge and the sidewalk or walkway area. The NDS facilities will intercept, slow, and clean polluted roadway runoff before it reaches the creek. The program will partner other City programs such as SPU's localized flooding program, SDOT's sidewalk and Neighborhood Greenways programs, and OPCD's neighborhood planning efforts to identify opportunities for synergy with existing City capital plans and community-identified neighborhood improvement goals. Projects that will achieve co-benefits such as traffic calming or flood prevention will be prioritized. All projects will include protection of existing mature street trees, optimizing new street tree planting, and equitable community engagement to solicit block nominations, particularly from RSJ communities. Some sub-set of built projects may also include a new sidewalk and new ADA infrastructure such as new curb ramps, as required by site-specific needs.

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Project Selection Criteria

SPU identifies candidate capital projects from several sources – planning (e.g., comprehensive plans, program plans), external projects and opportunities, and emergencies or other unexpected events. Under SPU's Asset Management System, projects must be justified through a business case process that establishes that a problem or opportunity is timely and important and that the proposed solution is superior to alternatives based on a triple bottom line analysis (economic, environmental, and social) of life-cycle benefits and costs. The process also recognizes that a project may be a “must do” project (e.g., required by regulations).

SPU prioritizes its capital projects into three categories – Priorities 1, 2 and 3, with 1 being the most important and critical. Some of these projects are part of an externally-driven project. Typically, SPU lacks control over the timing of such projects.

Priority rankings are based on the following set of criteria:

- **Regulatory Mandates, Legal Agreements:** The degree to which the project is driven by Federal, State, and local laws, permit and regulatory requirements, and consent decrees; as well as by legal agreements with public and private parties. Examples of highly ranked projects in this category include the Ship Canal Water Quality Project, Henderson CSO, and CSO Retrofits.
- **External Drivers:** SPU's responsiveness to, or engagement with, the projects of other Departments or Jurisdictions, and the specific mandates of the City Council and Mayor. Examples of highly ranked projects in this category include the Alaskan Way Viaduct and Move Seattle projects.
- **Infrastructure:** How a project addresses infrastructure conditions or vulnerabilities. Examples of highly ranked projects in this category include the Pipe Rehabilitation and Pump Station improvement programs.
- **Level of Service:** The importance of this project in providing or improving services to customers. Examples of highly ranked projects in this category include the South Park Pump Station, Localized Flood Control program, Sanitary Sewer Overflow Capacity program, and the Pipe Rehabilitation program.
- **Other Factors:** Other important factors include high net present value or cost-effectiveness, social or environmental benefits not otherwise captured, a project already in progress or near completion, limited time opportunity, demonstration projects, community visibility, and outside funding. An example of a highly ranked project in this category is the Capital Hill Water Quality Project.

Every project is rated against each criterion. Criteria ratings are then considered in determining an overall project priority ranking, using expert judgment (rather than a formula). Priority rankings for the CIP are determined by the leads for each LOB, with reviews by key internal stakeholders. The ranking scheme and criteria are the same for all LOBs, and are approved by the SPU Director and Asset Management Committee. Project priority rankings are used to clarify and document which projects are most important and why, to help determine which projects at the margin will be included, excluded or deferred from the CIP, and which projects should receive priority attention if a staff or financial resource constraint should arise.

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Summary of Upcoming Budget Issues and Challenges

The biggest challenge for DWF will be continuing to manage large priority projects while still accomplishing Mayoral priorities and complying with regulatory requirements from the EPA, Washington State Department of Ecology (DOE), and NPDES permits - all within the financial limitations of the Fund.

The City negotiated a Consent Decree between the City, the EPA, and the DOJ for compliance with the CWA and State regulations. The Consent Decree was entered in court on July 3, 2013, and includes deadlines for development and implementation of the LTCP and will drive spending in the CSO Reduction Program over the next several years. The Consent Decree also includes requirements to implement a Capacity Management, Operations and Maintenance (CMOM) Program, which drives operations and maintenance spending and CIP spending in the Rehabilitation Program. Additionally, an NPDES permit for stormwater was renewed by the State in 2013. This permit includes requirements to help protect local waterways and the Puget Sound from damaging pollutants and excessive runoff. This increased regulatory emphasis on protecting and improving water quality has resulted in the need for the City to make substantial investments in detention, water quality treatment (e.g., GSI), CSO retrofits, pipe and pump station rehabilitation, and inflow/infiltration reduction.

- Detention: This focuses on storing stormwater and/or sewage during a rainfall event and can be accomplished through detention ponds (for stormwater), GSI (for stormwater) or underground tanks (for both wastewater and stormwater). Detention can be added to the drainage system to offset the impacts of larger storms that overwhelm the conveyance capacity of the combined sewer system and can result in backups of sewage, localized flooding and releases of untreated sewage.
- Water Quality Treatment: This focuses on removing pollutants and can be accomplished through GSI or the use of technology such as specialized media filters. GSI is the use of green solutions to help reduce overflows by allowing stormwater to infiltrate slowly into the ground and cutting the volume of stormwater entering the system. GSI includes specific treatments that rely on specialized soils and plants that provide flow control and/or water quality benefits. The use of GSI is required through Seattle's NPDES permit and Stormwater Code.
- CSO Retrofits: This focuses on optimizing the existing collection, pumping and storage systems, using low-cost repairs and modifications to reduce overflows to waterways.
- Pipe and Pump Station Rehabilitation: This consists of repairing, rehabilitating, or replacing existing gravity sewer pipes, wastewater pump stations, and/or force mains that have deficiencies or have reached the end of their useful life.
- Inflow/Infiltration Reduction: This focuses on filling in cracks in sewer lines that allow groundwater to enter the system. It also addresses parts of the system where there are direct stormwater connections to the sanitary sewer system which can/should be directed to a separated stormwater system. By reducing inflow/infiltration, it is possible to reduce the frequency and volume of SSOs and sewer backups.

DWF CIP funding is also needed to improve the existing drainage system so that residents experience less flooding and fewer sewage backups. Sewer backups are prohibited and considered by our regulators to be a violation of our State permits and Federal Consent Decree.

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Through prudent investment in capital projects and maintenance, SPU will be closer to meeting this standard. This performance level benefits ratepayers by avoiding costly fines and damages.

The CSO Reduction Program constitutes one of the major investments and challenges for the DWF in upcoming years. During heavy rainfall events, the combination of stormwater (about 90% of the volume) and sewage may exceed the capacity of the CSS and overflow into our waterways – causing a combined sewer overflow. CSOs spill a mixture of raw sewage and stormwater into local waterways at 90 outfalls throughout the city. These spills violate water quality standards, create unacceptable risk to public health, contaminate sediment and habitat for endangered species and pollute the Puget Sound.

Annual CSOs have been reduced from 20-30 billion gallons per year by both the City and the County in 1970 to about 1 billion gallons per year, today. The City's overflows account for 100-200 million gallons per year. SPU currently does not meet regulatory mandates that limit CSOs to one untreated overflow per outfall location per year. SPU is required by State and Federal law to achieve control of CSOs by 2025 through the LTCP. The LTCP, also called the Plan to Protect Seattle's Waterways was approved by regulators in May of 2015. Ultimately the Consent Decree requires completion of construction of all CSO reduction projects by December 2025. CSOs must be proven to be controlled, one year after completion of construction. Continuing investments in CSO control will enable SPU to achieve compliance with the 2025 milestone.

While cost estimating is dependent on many factors, SPU currently expects to spend approximately \$396 million over the next six years on CSO reduction projects. The projects will include a combination of underground storage tanks, GSI, system retrofits, and the development of a long-range plan for CSO projects to be constructed from 2017-2025. One of the biggest challenges of the program is finding sites for wastewater facilities in a dense urban environment. SPU is addressing that challenge through an early and active community/stakeholder involvement process on each of its projects. Another challenge revolves around SPU's relationship with King County and maintaining an active partnership to operate the wastewater system and plan for potential joint CSO reduction projects.

Another challenge for the DWF is ensuring that basic service level programs, such as flooding and system capacity, continue to receive necessary investments as regulatory requirements continue to grow. The separated drainage and wastewater system is at capacity during storm events at various locations across the city. The impacts can range from very serious (basement sewer back-ups) to nuisance (limited street or yard flooding) issues. SPU is moving forward to address the highest priority locations with capital improvements using available funding and staff resources. These highest priority projects include the South Park Pump Station project, and Broadview Sewer and Stormwater Improvements project.

- The South Park Pump Station Project: This project will construct a pump station and water quality facility in South Park. The pump station will allow the existing storm drain trunk to meet the level of service adopted in the 2004 Comprehensive Drainage Plan. This allows for future projects to expand the collection system to address flooding complaints. The water quality facility will treat most stormwater flows from the basin, reducing pollutant loading to the Duwamish River. The project's engineering design is complicated by the tidal flows present in the Duwamish. The South Park Pump Station will be integral to the South Park Water Quality Facility, which is a regulatory commitment within the Plan to Protect Seattle's Waterways.
- Broadview Sewer and Stormwater Improvements Project: The Broadview neighborhood has experienced a long history of capacity-related backups and overflows. This project

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will test non-traditional solutions to these longstanding issues, with a goal of reducing sewer backups and stormwater flooding in the Broadview basin.

When making investments in capital facilities that will last decades, it makes financial sense to understand and consider incorporating the potential impacts of climate change on local precipitation and sea levels in the Puget Sound. Major storms in 2006, 2007, 2010, 2012, and 2014 have resulted in serious drainage and wastewater impacts related to capacity. Scientists indicate that there is a potential that storms will become more intense and more frequent in the near future. This variability requires the utility to have a much more in-depth understanding of how the system functions under different weather conditions. SPU will need to forecast impacts to the stormwater and combined systems on a much more localized level. This type of work will require more fully developed system models than in the past.

Future Projects/What is on the Horizon

Over the next 10 years the DWF CIP will be driven largely by regulatory requirements, major transportation projects such as AWV replacement and Move Seattle, and Operations Crew Facilities. Major projects include the completion of the Ship Canal Water Quality Project, sediment remediation, and other CSO projects necessary under the LTCP/Plan to Protect Seattle's Waterways, which include SSO reduction and localized flooding reduction in Broadview, and flood reduction and water quality improvements in South Park.

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Project Summary

BCL/Program Name/ Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Protection of Beneficial Uses									C333B
Best Management Practice Program (C3313)	16	0	0	0	0	0	0	0	16
Creek Culvert Replacement Program (C3314)	2,609	1,463	2,811	3,063	4,454	1,020	3,000	6,000	24,419
GSI for Protection of Beneficial Uses (C3316)	16,064	2,737	6,077	6,221	11,579	8,184	7,506	9,350	67,717
Protection of Beneficial Uses Program (C3317)	7,158	420	1,000	1,000	1,500	4,000	3,000	100	18,178
Street Sweeping for Water Quality (C3363)	311	200	10	0	0	0	0	0	521
Protection of Beneficial Uses	26,158	4,820	9,897	10,284	17,532	13,204	13,506	15,450	110,852
Sediments									C350B
Sediment Remediation - DWF (C3503)	28,219	4,963	6,855	6,553	7,337	8,757	6,182	15,712	84,578
Sediments	28,219	4,963	6,855	6,553	7,337	8,757	6,182	15,712	84,578
Combined Sewer Overflows									C360B
Combined Sewer Overflow Facility Retrofit (C3611)	32,793	5,096	7,033	11,360	2,460	2,400	4,400	10,000	75,542
Future CSO Projects (C3612)	0	0	0	1,356	1,356	2,542	7,145	11,486	23,884
Green Stormwater Infrastructure Program (C3610)	13,228	6,936	2,600	2,125	1,750	1,650	1,000	1,000	30,289
Long Term Control Plan (C3604)	38,099	1,282	500	250	0	0	0	0	40,131
S Genesee Combined Sewer Overflow (C3608)	42,487	2,564	0	0	0	0	0	0	45,051
S Henderson Combined Sewer Overflow Storage (C3609)	37,786	26,448	5,340	590	0	0	0	0	70,164
Ship Canal Water Quality Project (C3614)	20,102	17,690	21,732	23,803	55,886	86,470	78,027	51,856	355,567
Windermere Combined Sewer Overflow Storage (C3605)	50,012	162	86	0	0	0	0	0	50,260
Combined Sewer Overflows	234,507	60,177	37,291	39,483	61,451	93,062	90,572	74,343	690,886
Rehabilitation									C370B
Outfall Rehabilitation Program (C3708)	2,140	2,325	1,550	1,600	2,100	1,500	1,500	1,500	14,215
Pipe Renewal Program (C3710)	13,114	13,520	22,800	23,603	20,019	22,500	22,500	22,500	160,555
Pump Station and Force Main Improvements (C3703)	13,033	4,074	5,425	11,400	9,449	7,242	6,030	5,000	61,653
Rehabilitation	28,287	19,919	29,775	36,603	31,567	31,242	30,030	29,000	236,423

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

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Project Summary

BCL/Program Name/ Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total	
Flooding, Sewer Back-up, and Landslides		BCL/Program Code:							C380B	
Broadview Long Term Plan (C3812)	4,565	3,122	4,348	8,579	9,200	3,300	2,610	11,800	47,524	
Densmore Basin Drainage Improvements (C3803)	7,587	128	0	0	0	0	0	0	7,715	
Localized Flood Control Program (C3802)	15,227	2,678	1,996	2,067	2,916	1,766	4,120	17,020	47,789	
Madison Valley Long Term Solution (C3805)	37,597	454	0	0	0	0	0	0	38,051	
Meadowbrook Pond Sediment Management (C3808)	4,025	0	0	0	0	0	0	0	4,025	
Sanitary Sewer Overflow Capacity (C3804)	4,539	4,766	7,035	11,139	6,020	5,000	5,000	22,000	65,499	
South Park Pump Station (C3806)	8,478	2,897	5,267	10,394	3,236	14,287	10,428	784	55,771	
Thornton Confluence Improvement (C3811)	8,087	50	0	0	0	0	0	0	8,137	
Flooding, Sewer Back-up, and Landslides	90,105	14,094	18,646	32,179	21,372	24,353	22,158	51,604	274,510	
Shared Cost Projects		BCL/Program Code:							C410B	
1% for the Arts - DWF (C4118-DWF)	4,173	947	625	890	988	1,008	930	1,050	10,610	
Alaskan Way Viaduct & Seawall Replacement Program - DWF (C4102-DWF)	18,804	7,313	7,321	4,853	10,506	1,161	178	15	50,152	
Bridging the Gap - DWF (C4119-DWF)	184	127	1,551	1,496	883	1,976	1,993	672	8,883	
Emergency Storms - DWF (C4120-DWF)	1	135	100	100	100	100	0	0	536	
First Hill Streetcar - DWF (C4130-DWF)	139	446	502	4,888	3,868	0	0	0	9,843	
Heavy Equipment Purchases - DWF (C4116-DWF)	15,833	4,032	2,310	2,500	2,600	2,400	2,000	2,220	33,895	
Integrated Control Monitoring Program - DWF (C4108-DWF)	13,903	575	250	250	250	250	0	0	15,478	
Mercer Corridor Project East Phase - DWF (C4114-DWF)	6,290	0	0	0	0	0	0	0	6,290	
Mercer Corridor Project West Phase - DWF (C4133-DWF)	1,371	317	0	0	0	0	0	0	1,688	
Meter Replacement - DWF (C4101-DWF)	5,826	637	552	554	561	567	481	491	9,669	
Operational Facility - Construction - DWF (C4106-DWF)	3,516	9,630	9,510	16,575	28,438	9,987	8,478	3,086	89,220	
Operational Facility - Other - DWF (C4115-DWF)	261	293	0	0	0	0	0	0	554	

** Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.*

2017 - 2022 Proposed Capital Improvement Program

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Project Summary

BCL/Program Name/									
Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Operations Control Center - DWF (C4105-DWF)	623	28	182	56	0	0	185	555	1,629
Other Major Transportation Projects - DWF (C4123-DWF)	954	300	175	600	750	55	0	0	2,834
Security Improvements - DWF (C4113-DWF)	349	128	109	113	147	113	113	113	1,182
Sound Transit - North Link - DWF (C4135-DWF)	114	359	155	79	65	58	0	0	830
Sound Transit University Link - DWF (C4110-DWF)	339	51	0	0	0	0	0	0	390
Sound Transit-East Link (C4122-DWF)	13	20	105	50	25	0	0	0	213
Yesler Terrace-DWF (C4136-DWF)	2,800	0	0	0	0	0	0	0	2,800
Shared Cost Projects	75,493	25,336	23,446	33,005	49,181	17,676	14,356	8,201	246,695
Technology							BCL/Program Code:		C510B
Asset Information Management (C5407)	134	1,223	764	924	974	1,028	860	860	6,766
Customer Contact & Billing (C5402)	11,196	5,041	3,037	942	678	1,025	430	430	22,779
Enterprise Information Management (C5403)	3,346	2,418	402	290	858	199	860	860	9,233
IT Infrastructure (C5404)	3,284	1,309	330	566	504	750	729	729	8,199
Project Delivery & Performance (C5405)	4,022	5,873	5,584	3,299	743	406	731	731	21,388
Science & System Performance (C5406)	3,060	618	1,069	141	500	500	688	688	7,264
Technology	25,042	16,483	11,185	6,161	4,255	3,908	4,298	4,298	75,629
Department Total*:	507,811	145,791	137,095	164,267	192,697	192,202	181,102	198,607	1,719,572

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Fund Summary

Fund Name & Code	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Drainage and Wastewater Fund (44010)	507,811	145,791	137,095	164,267	192,697	192,202	181,102	198,607	1,719,572
Department Total*:	507,811	145,791	137,095	164,267	192,697	192,202	181,102	198,607	1,719,572

**Amounts in thousands of dollars*

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

1% for the Arts - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2001
Project ID:	C4118-DWF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides the Drainage & Wastewater funding for Seattle Public Utilities' 1% for Arts contribution. Eligibility is determined at the individual project level, with payment occurring from this project. Funds contributed to the 1% for Art project allow the commission, purchase, and installation of art in City-owned properties that is accessible to the public. The Municipal Arts Plan, which is prepared annually, describes the status of ongoing art projects and establishes the scope of work and allocations for new art projects.

		LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources										
Drainage and Wastewater Rates		4,173	947	625	890	988	1,008	930	1,050	10,610
Total:		4,173	947	625	890	988	1,008	930	1,050	10,610
Fund Appropriations/Allocations										
Drainage and Wastewater Fund		4,173	947	625	890	988	1,008	930	1,050	10,610
Total*:		4,173	947	625	890	988	1,008	930	1,050	10,610
O & M Costs (Savings)				0	0	0	0	0	0	0
Spending Plan by Fund										
Drainage and Wastewater Fund			689	483	735	625	446	423	712	4,114
Total:			689	483	735	625	446	423	712	4,114

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Alaskan Way Viaduct & Seawall Replacement Program - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Facility	Start Date:	Q1/2004
Project ID:	C4102-DWF	End Date:	Q4/2021
Location:	SR 99 / Battery St		
Neighborhood Plan:	In more than one Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project relocates, replaces, and protects drainage and wastewater infrastructure affected by the replacement of the Alaskan Way Viaduct and Seawall. This project encompasses many sub-projects which are collectively known as the Alaskan Way Viaduct and Seawall Replacement project (AWVSR project.) The Washington State Department of Transportation (WSDOT) is the lead for the SR-99 replacement, while the City of Seattle is the lead on development of the waterfront public space, implementation of the new surface Alaskan Way, and design and construction of the seawall.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	18,804	7,313	7,321	4,853	10,506	1,161	178	15	50,152
Total:	18,804	7,313	7,321	4,853	10,506	1,161	178	15	50,152
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	18,804	7,313	7,321	4,853	10,506	1,161	178	15	50,152
Total*:	18,804	7,313	7,321	4,853	10,506	1,161	178	15	50,152
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		6,861	7,321	4,853	10,506	1,161	178	15	30,896
Total:		6,861	7,321	4,853	10,506	1,161	178	15	30,896

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Best Management Practice Program

BCL/Program Name:	Protection of Beneficial Uses	BCL/Program Code:	C333B
Project Type:	New Facility	Start Date:	Q2/2000
Project ID:	C3313	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project provides high priority water quality improvement projects in the Norfolk, South Park, and Densmore drainage basins. Incorporating Best Management Practices (BMP), projects are identified, developed, and implemented. The results will be improved quality of stormwater runoff from City-owned storm drains, discharged to nearby receiving water bodies such as streams and lakes.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	16	0	0	0	0	0	0	0	16
Total:	16	0	0	0	0	0	0	0	16
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	16	0	0	0	0	0	0	0	16
Total*:	16	0	0	0	0	0	0	0	16
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		6	0	0	0	0	0	0	6
Total:		6	0	0	0	0	0	0	6

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Bridging the Gap - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2008
Project ID:	C4119-DWF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This multi-year project funds assessments, repairs, and improvements to SPU's drainage and wastewater utility infrastructure at sites chosen by the Seattle Department of Transportation (SDOT) for bridge improvements and pedestrian and bicycle safety improvements within its "Bridging the Gap" project. SPU assesses the condition of its utility infrastructure at SDOT's project sites and conducts repairs and improvements as needed.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	184	127	1,551	1,496	883	1,976	1,993	672	8,883
Total:	184	127	1,551	1,496	883	1,976	1,993	672	8,883
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	184	127	1,551	1,496	883	1,976	1,993	672	8,883
Total*:	184	127	1,551	1,496	883	1,976	1,993	672	8,883
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		1,028	1,551	1,496	883	1,976	1,993	672	9,600
Total:		1,028	1,551	1,496	883	1,976	1,993	672	9,600

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Broadview Long Term Plan

BCL/Program Name:	Flooding, Sewer Back-up, and Landslides	BCL/Program Code:	C380B
Project Type:	Rehabilitation or Restoration	Start Date:	ONGOING
Project ID:	C3812	End Date:	ONGOING
Location:	Broadview		
Neighborhood Plan:	Broadview-Bitter Lake-Haller Lake	Council District:	5
Neighborhood District:	Northwest	Urban Village:	Not in an Urban Village

This ongoing program will develop and implement a plan with the goal of restoring sanitary sewer system capacity. Portions of the Broadview neighborhood suffer from significant capacity limitations of the sanitary sewer resulting in numerous sewer backups into residences during wet weather events upon which the City has paid numerous claims dating to at least 1996. It is thought that this results from a combination of infiltration and inflow into the sanitary sewer system during wet weather.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	4,565	3,122	4,348	8,579	9,200	3,300	2,610	11,800	47,524
Total:	4,565	3,122	4,348	8,579	9,200	3,300	2,610	11,800	47,524
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	4,565	3,122	4,348	8,579	9,200	3,300	2,610	11,800	47,524
Total*:	4,565	3,122	4,348	8,579	9,200	3,300	2,610	11,800	47,524
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		1,327	4,348	8,579	9,200	3,300	2,610	11,800	41,163
Total:		1,327	4,348	8,579	9,200	3,300	2,610	11,800	41,163

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Combined Sewer Overflow Facility Retrofit

BCL/Program Name:	Combined Sewer Overflows	BCL/Program Code:	C360B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2002
Project ID:	C3611	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing project retrofits, upgrades, and modifies existing Combined Sewer Overflows (CSO) reduction facilities in Seattle CSO basins. Retrofit projects cost-effectively optimize system operation and storage, mitigate the extent of CSOs, and postpone and/or downsize large CSO reduction projects. This project assists in achieving State Department of Ecology's requirement of an average of no more than one wet-weather overflow event per outfall per year.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	32,793	5,096	7,033	11,360	2,460	2,400	4,400	10,000	75,542
Total:	32,793	5,096	7,033	11,360	2,460	2,400	4,400	10,000	75,542
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	32,793	5,096	7,033	11,360	2,460	2,400	4,400	10,000	75,542
Total*:	32,793	5,096	7,033	11,360	2,460	2,400	4,400	10,000	75,542
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		6,363	7,033	11,360	2,460	2,400	4,400	10,000	44,015
Total:		6,363	7,033	11,360	2,460	2,400	4,400	10,000	44,015

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Creek Culvert Replacement Program

BCL/Program Name:	Protection of Beneficial Uses	BCL/Program Code:	C333B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2016
Project ID:	C3314	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project provides for the repair and replacement of stream culverts that are part of SPU's critical drainage infrastructure. Culverts will be repaired or replaced based on risks and benefits of the project, including flooding, risk of failure, operations and maintenance needs and benefits and importance for addressing fish passage. Replacements and significant repairs will be addressed as part of this capital project, while retrofits will be covered within the Operations and Maintenance budget.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	2,609	1,463	2,811	3,063	4,454	1,020	3,000	6,000	24,419
Total:	2,609	1,463	2,811	3,063	4,454	1,020	3,000	6,000	24,419
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	2,609	1,463	2,811	3,063	4,454	1,020	3,000	6,000	24,419
Total*:	2,609	1,463	2,811	3,063	4,454	1,020	3,000	6,000	24,419
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		1,108	2,811	3,063	4,454	1,020	3,000	6,000	21,455
Total:		1,108	2,811	3,063	4,454	1,020	3,000	6,000	21,455

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2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Densmore Basin Drainage Improvements

BCL/Program Name:	Flooding, Sewer Back-up, and Landslides	BCL/Program Code:	C380B
Project Type:	New Facility	Start Date:	Q1/2009
Project ID:	C3803	End Date:	Q2/2014
Location:	Densmore Basin		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	5
Neighborhood District:	Northwest	Urban Village:	Bitter Lake Village

This program reduces surface water flooding and stormwater pollutant loading within the Densmore Basin. Improvements may include increasing the detention volume of the existing Stone Pond facility in order to address stormwater flow, and using traditional storage facilities and/or low impact development techniques to reduce flooding impacts at key locations in the upper Densmore Basin.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	7,587	128	0	0	0	0	0	0	7,715
Total:	7,587	128	0	0	0	0	0	0	7,715
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	7,587	128	0	0	0	0	0	0	7,715
Total*:	7,587	128	0	0	0	0	0	0	7,715
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		0	0	0	0	0	0	0	0
Total:		0	0	0	0	0	0	0	0

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Emergency Storms - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Rehabilitation or Restoration	Start Date:	Q3/2007
Project ID:	C4120-DWF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project funds Drainage & Wastewater infrastructure capital improvement projects resulting from previous and possible future storm events. These projects are potentially Federal Emergency Management Agency (FEMA) reimbursable and need to be separated out for tracking and reimbursement purposes. Typical improvements include, but are not limited to, repairing and mitigating landslides, restoring detention ponds, and replacing culverts and detention walls. All projects resulting from previous storms events have been completed. This project will now serve as a placeholder for any future storm events.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	1	135	100	100	100	100	0	0	536
Total:	1	135	100	100	100	100	0	0	536
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	1	135	100	100	100	100	0	0	536
Total*:	1	135	100	100	100	100	0	0	536
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		100	100	100	100	100	0	0	500
Total:		100	100	100	100	100	0	0	500

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

First Hill Streetcar - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2010
Project ID:	C4130-DWF	End Date:	Q4/2018
Location:	First Hill		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project plans and relocates drainage and wastewater facilities that will be impacted by the SDOT-led First Hill Streetcar project, which will connect major employment centers on First Hill to the regional light rail system stations on Capitol Hill and in the International District. Currently this project is in the planning phase and no specific capitalizable betterments have been identified for the 2014-2019 timeframe but if they are, necessary funding will be requested.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	139	446	502	4,888	3,868	0	0	0	9,843
Total:	139	446	502	4,888	3,868	0	0	0	9,843
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	139	446	502	4,888	3,868	0	0	0	9,843
Total*:	139	446	502	4,888	3,868	0	0	0	9,843
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		883	502	4,888	3,868	0	0	0	10,141
Total:		883	502	4,888	3,868	0	0	0	10,141

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Future CSO Projects

BCL/Program Name:	Combined Sewer Overflows	BCL/Program Code:	C360B
Project Type:	Improved Facility	Start Date:	Q1/2015
Project ID:	C3612	End Date:	Q4/2025
Location:	N/A		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project is for future combined sewer overflow (CSO) reduction projects that will be identified through the CSO Long-Term Control Plan (LTCP). Future projects are most likely to include underground storage projects, wastewater lift station improvements, and/or wastewater conveyance system improvements. Planning for the projects began in 2015, and the projects should complete their construction by 2025.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	0	1,356	1,356	2,542	7,145	11,486	23,884
Total:	0	0	0	1,356	1,356	2,542	7,145	11,486	23,884
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	0	0	0	1,356	1,356	2,542	7,145	11,486	23,884
Total*:	0	0	0	1,356	1,356	2,542	7,145	11,486	23,884
O & M Costs (Savings)			0	0	0	0	0	0	0

** Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.*

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Green Stormwater Infrastructure Program

BCL/Program Name:	Combined Sewer Overflows	BCL/Program Code:	C360B
Project Type:	New Facility	Start Date:	Q1/2011
Project ID:	C3610	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing program provides construction of Green Stormwater Infrastructure (GSI) as a component of combined sewer overflow (CSO) reduction within the uncontrolled CSO basins. Work includes roadside bioretention and the RainWise program. RainWise provides financial incentives to private property owners within our uncontrolled CSO basins for construction of properly sized and installed raingardens or cisterns. The program supports the City's current regulatory strategy for compliance with CSO National Pollutant Discharge Elimination System (NPDES) permit.

		LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources										
Drainage and Wastewater Rates		13,228	6,936	2,600	2,125	1,750	1,650	1,000	1,000	30,289
Total:		13,228	6,936	2,600	2,125	1,750	1,650	1,000	1,000	30,289
Fund Appropriations/Allocations										
Drainage and Wastewater Fund		13,228	6,936	2,600	2,125	1,750	1,650	1,000	1,000	30,289
Total*:		13,228	6,936	2,600	2,125	1,750	1,650	1,000	1,000	30,289
O & M Costs (Savings)				0	0	0	0	0	0	0
Spending Plan by Fund										
Drainage and Wastewater Fund			8,027	2,600	2,125	1,750	1,650	1,000	1,000	18,152
Total:			8,027	2,600	2,125	1,750	1,650	1,000	1,000	18,152

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

GSI for Protection of Beneficial Uses

BCL/Program Name:	Protection of Beneficial Uses	BCL/Program Code:	C333B
Project Type:	New Facility	Start Date:	Q1/2016
Project ID:	C3316	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing program provides construction of Green Stormwater Infrastructure (GSI) within the separated stormwater system. Work includes right-of-way retrofits with bioretention and/or biofiltration for water quality treatment and flow control, as well as potential expansion of private property incentives for construction of properly sized and installed rain gardens or cisterns (RainWise program) into creek watersheds. The Natural Drainage Systems Projects within this program will achieve the water quality goals for the NDS Partnering Program identified in Seattle's Plan to Protect Seattle's Waterways (the Long Term Control Plan requirement within our Consent Decree) while coordinating with SDOT and community groups to deliver co-benefits such as sidewalks.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	16,064	2,737	6,077	6,221	11,579	8,184	7,506	9,350	67,717
Total:	16,064	2,737	6,077	6,221	11,579	8,184	7,506	9,350	67,717
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	16,064	2,737	6,077	6,221	11,579	8,184	7,506	9,350	67,717
Total*:	16,064	2,737	6,077	6,221	11,579	8,184	7,506	9,350	67,717
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		1,837	6,077	6,221	11,579	8,184	7,506	9,350	50,754
Total:		1,837	6,077	6,221	11,579	8,184	7,506	9,350	50,754

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Heavy Equipment Purchases - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Investment	Start Date:	ONGOING
Project ID:	C4116-DWF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides SPU's Drainage and Wastewater Utility crews with new and replacement heavy equipment that is used throughout Seattle. Typical purchases include vactors, backhoes, loaders, service trucks, "TV" trucks and dump trucks, as well as retrofitting existing equipment to meet SPU operational needs and initiatives. This equipment transports work crews and tools to jobsites and supports the safe and efficient replacement, repair, and maintenance of Seattle's Drainage and Wastewater system. This project is one of three SPU fund-specific heavy equipment CIP projects.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	15,833	4,032	2,310	2,500	2,600	2,400	2,000	2,220	33,895
Total:	15,833	4,032	2,310	2,500	2,600	2,400	2,000	2,220	33,895
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	15,833	4,032	2,310	2,500	2,600	2,400	2,000	2,220	33,895
Total*:	15,833	4,032	2,310	2,500	2,600	2,400	2,000	2,220	33,895
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		2,628	2,310	2,500	2,600	2,400	2,000	2,220	16,658
Total:		2,628	2,310	2,500	2,600	2,400	2,000	2,220	16,658

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Integrated Control Monitoring Program - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Investment	Start Date:	Q1/2002
Project ID:	C4108-DWF	End Date:	Q4/2020
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project funds improvements to the centralized monitoring and control of the drainage and wastewater portion of the overall Supervisory Control and Data Acquisition (SCADA) system infrastructure throughout Seattle. Infrastructure affected may include, but is not limited to, pipes related to potential combined sewer overflows, rain gauges, and wastewater pump stations. This project enhances and protects the quality and condition of lakes and streams, and addresses the Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) permit requirements.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	13,903	575	250	250	250	250	0	0	15,478
Total:	13,903	575	250	250	250	250	0	0	15,478
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	13,903	575	250	250	250	250	0	0	15,478
Total*:	13,903	575	250	250	250	250	0	0	15,478
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		0	250	250	250	250	0	0	1,000
Total:		0	250	250	250	250	0	0	1,000

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2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Localized Flood Control Program

BCL/Program Name:	Flooding, Sewer Back-up, and Landslides	BCL/Program Code:	C380B
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	C3802	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	5
Neighborhood District:	Northwest	Urban Village:	Bitter Lake Village

This ongoing program provides flood control and local drainage and wastewater projects in under-served parts of Seattle to improve system capacity or increase the existing level of service. Candidate projects are identified through claims, complaints, studies, and field investigations. Drainage and Landslide Spot projects are also included within this program. The Localized Flood Control Program improves Drainage and Wastewater levels of service.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	15,227	2,678	1,996	2,067	2,916	1,766	4,120	17,020	47,789
Total:	15,227	2,678	1,996	2,067	2,916	1,766	4,120	17,020	47,789
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	15,227	2,678	1,996	2,067	2,916	1,766	4,120	17,020	47,789
Total*:	15,227	2,678	1,996	2,067	2,916	1,766	4,120	17,020	47,789
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		3,592	1,996	2,067	2,916	1,766	4,120	17,020	33,477
Total:		3,592	1,996	2,067	2,916	1,766	4,120	17,020	33,477

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2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Long Term Control Plan

BCL/Program Name:	Combined Sewer Overflows	BCL/Program Code:	C360B
Project Type:	New Facility	Start Date:	Q3/2008
Project ID:	C3604	End Date:	Q4/2030
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project creates a Long Term Control Plan (LTCP) in accordance with SPU's Combined Sewer Overflow (CSO) National Pollutant Discharge Elimination System (NPDES) permit and the Federal CSO Control Policy. On May 1, 2012, the Environmental Protection Agency/Department of Justice issued a draft Consent Decree to the City of Seattle which requires the development and submission of a Long-Term Control Plan for approval by May 30, 2015. It further stipulates that all CSO Control Measures are to be constructed as expeditiously as practicable, and in no event later than December 31, 2025. The Consent Decree also allows the City to propose storm water control project(s) as part of an Integrated Plan, in addition to the CSO Control Measures. If approved, the storm water projects can be constructed first and the CSO Control Measures deferred beyond the December 2025 due date. The LTCP will reduce the number and volume of its CSO overflows, meet receiving water quality standards, and protect designated beneficial uses. The LTCP includes, flow characterization, monitoring, and hydraulic modeling; development CSO control alternatives; development of control alternatives that takes into consideration costs and performance; operational plan revisions; public participation; implementation schedule; and post-construction monitoring. The project also includes a projectmatic SEPA EIS (Note: includes the Alaskan Way Viaduct & Seawall project C4102). The Plan and EIS was submitted to EPA/ Washington State Department of Ecology for approval in 2015 and included all City of Seattle CSO basins except existing CSO Projects at Windermere, Genesee, Henderson and Central Waterfront (except as noted).

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	38,099	1,282	500	250	0	0	0	0	40,131
Total:	38,099	1,282	500	250	0	0	0	0	40,131
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	38,099	1,282	500	250	0	0	0	0	40,131
Total*:	38,099	1,282	500	250	0	0	0	0	40,131
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		120	500	250	0	0	0	0	870
Total:		120	500	250	0	0	0	0	870

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2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Madison Valley Long Term Solution

BCL/Program Name:	Flooding, Sewer Back-up, and Landslides	BCL/Program Code:	C380B
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	C3805	End Date:	Q2/2015
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	4
Neighborhood District:	Central	Urban Village:	Not in an Urban Village

This project provides stormwater flood control facilities to greatly reduce the potential for flooding in the Madison Valley area, especially in the vicinity of 30th Ave E. and E. John St, and in the area of 29th Ave E. and E. Madison St. Work will include construction of a large stormwater pipe in the NW section of the Madison Valley basin, a new stormwater storage facility in Washington Park, and an expanded stormwater retention area at 30th Ave E. and E. John St.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	37,597	454	0	0	0	0	0	0	38,051
Total:	37,597	454	0	0	0	0	0	0	38,051
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	37,597	454	0	0	0	0	0	0	38,051
Total*:	37,597	454	0	0	0	0	0	0	38,051
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		2	0	0	0	0	0	0	2
Total:		2	0	0	0	0	0	0	2

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2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Meadowbrook Pond Sediment Management

BCL/Program Name:	Flooding, Sewer Back-up, and Landslides	BCL/Program Code:	C380B
Project Type:	Improved Facility	Start Date:	Q1/2012
Project ID:	C3808	End Date:	Q3/2015
Location:	35th AVE NE/NE 105th ST/NE 110th ST		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	5
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

The project provides for dredging of sediment in Meadowbrook Pond and modifying existing structures to improve functionality of the facility. These tasks will improve the maintenance operations and the cost efficiency and management of Meadowbrook Pond by reducing flow volume, sediments, and contaminants; capturing sediments more efficiently to improve maintenance and worker safety; improving dredging methods; developing definitive maintenance triggers; modifying structures to manage debris, improving flood control; expanding bypass capacity; and increasing water quality in the pond and downstream.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	4,025	0	0	0	0	0	0	0	4,025
Total:	4,025	0	0	0	0	0	0	0	4,025
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	4,025	0	0	0	0	0	0	0	4,025
Total*:	4,025	0	0	0	0	0	0	0	4,025
O & M Costs (Savings)			0	0	0	0	0	0	0

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2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Mercer Corridor Project East Phase - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2007
Project ID:	C4114-DWF	End Date:	Q3/2016
Location:	South Lake Union		
Neighborhood Plan:	South Lake Union	Council District:	More than one
Neighborhood District:	Lake Union	Urban Village:	South Lake Union

This project funds the repair, relocation, protection, and upgrade of drainage and wastewater infrastructure related to the redevelopment of the South Lake Union neighborhood. project work includes, but is not limited to, flow modeling and development of green roofs. This effort identifies SPU drainage and wastewater system direct impacts, opportunities for system improvements, and cost responsibility. This project also funds planning-level coordination with other city departments on projects within the South Lake Union area.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	6,290	0	0	0	0	0	0	0	6,290
Total:	6,290	0	0	0	0	0	0	0	6,290
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	6,290	0	0	0	0	0	0	0	6,290
Total*:	6,290	0	0	0	0	0	0	0	6,290
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		1	0	0	0	0	0	0	1
Total:		1	0	0	0	0	0	0	1

** Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.*

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Mercer Corridor Project West Phase - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2010
Project ID:	C4133-DWF	End Date:	Q4/2016
Location:	Mercer St Mercer St/Elliot Ave W/Dexter Ave N		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project provides drainage and wastewater utility improvements and relocations related to the Mercer Corridor project, West phase. The project will convert Mercer Street to a two-way street between Dexter Ave. and Elliott Ave. West. The Mercer underpass at Aurora Ave will be widened to allow for six travel lanes and a bicycle/pedestrian shared-use path between Dexter Ave and 5th Ave North. Roy Street, between Aurora and Queen Anne Ave., will also be converted to a two-way street with on road bicycle lanes.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	1,371	317	0	0	0	0	0	0	1,688
Total:	1,371	317	0	0	0	0	0	0	1,688
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	1,371	317	0	0	0	0	0	0	1,688
Total*:	1,371	317	0	0	0	0	0	0	1,688
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		3	0	0	0	0	0	0	3
Total:		3	0	0	0	0	0	0	3

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2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Meter Replacement - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2004
Project ID:	C4101-DWF	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project funds replacement of existing water meters when they fail or become obsolete. Meters measuring up to two inches are replaced when they stop running. Meters measuring three inches or more are repaired when possible, but are replaced when repair costs exceed replacement costs. Accurate water meters ensure that customers are billed fairly for the water they use. Since water meters also are used to bill customers for their wastewater discharges, 48 percent of the funding is allocated to the Drainage and Wastewater line of business.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	5,826	637	552	554	561	567	481	491	9,669
Total:	5,826	637	552	554	561	567	481	491	9,669
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	5,826	637	552	554	561	567	481	491	9,669
Total*:	5,826	637	552	554	561	567	481	491	9,669
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		483	552	554	561	567	481	491	3,690
Total:		483	552	554	561	567	481	491	3,690

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Operational Facility - Construction - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2004
Project ID:	C4106-DWF	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing facilities project renovates, rehabilitates, and replaces existing buildings and constructs new facilities at various locations within the city limits to address deficiencies, failures, and functional changes in the SPU Lines of Business. Typical improvements include, but are not limited to, roof replacements, exterior wall or cladding replacements, and improvements to administrative office space, crew and shop space, lighting, heating and ventilation systems, and facilities structures. These improvements increase the useful life of the facilities, preserve the value of the assets, and provide a safe working environment.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	3,516	9,630	9,510	16,575	28,438	9,987	8,478	3,086	89,220
Total:	3,516	9,630	9,510	16,575	28,438	9,987	8,478	3,086	89,220
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	3,516	9,630	9,510	16,575	28,438	9,987	8,478	3,086	89,220
Total*:	3,516	9,630	9,510	16,575	28,438	9,987	8,478	3,086	89,220
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		16,350	9,510	16,575	28,438	9,987	8,478	3,086	92,423
Total:		16,350	9,510	16,575	28,438	9,987	8,478	3,086	92,423

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Operational Facility - Other - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2006
Project ID:	C4115-DWF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing facilities project provides funding to purchase, replace, or install new building materials or building equipment within the city limits to address deficiencies, failures, and functional changes in the SPU Lines of Business. Typical improvements include, but are not limited to, drainage systems, prefabricated buildings, storage buildings, and fencing.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	261	293	0	0	0	0	0	0	554
Total:	261	293	0	0	0	0	0	0	554
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	261	293	0	0	0	0	0	0	554
Total*:	261	293	0	0	0	0	0	0	554
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		29	0	0	0	0	0	0	29
Total:		29	0	0	0	0	0	0	29

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Operations Control Center - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2003
Project ID:	C4105-DWF	End Date:	ONGOING
Location:	2700 Airport Way S		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	2
Neighborhood District:	Greater Duwamish	Urban Village:	Duwamish

This ongoing facilities project renovates, rehabilitates, replaces existing buildings, and constructs new facilities at the Operations Control Center located at 2700 Airport Way South to improve the efficiency and effectiveness of the field crews delivering utility services to customers. Typical improvements include, but are not limited to, roof and other exterior replacements, improvements to public spaces, office and crew spaces and lighting, and heating and ventilation systems. These improvements increase the useful life of the facility, preserve the value of the asset, and provide a safe work and public space environment.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	623	28	182	56	0	0	185	555	1,629
Total:	623	28	182	56	0	0	185	555	1,629
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	623	28	182	56	0	0	185	555	1,629
Total*:	623	28	182	56	0	0	185	555	1,629
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		32	182	56	0	0	185	555	1,010
Total:		32	182	56	0	0	185	555	1,010

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Other Major Transportation Projects - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Rehabilitation or Restoration	Start Date:	Q2/2008
Project ID:	C4123-DWF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project funds Drainage and Wastewater projects that mitigate undesirable impacts from, and takes advantage of opportunities generated by, capital transportation projects of the Washington State Department of Transportation (WSDOT) and the Seattle Department of Transportation (SDOT) throughout the city. Work may include, but is not limited to, physically protecting the infrastructure during the transportation construction process, repairing and replacing damaged infrastructure, and improving existing infrastructure to meet higher standards. Project sites may include, but are not limited to, State Route 520, Interstate 5, and Interstate 90.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	954	300	175	600	750	55	0	0	2,834
Total:	954	300	175	600	750	55	0	0	2,834
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	954	300	175	600	750	55	0	0	2,834
Total*:	954	300	175	600	750	55	0	0	2,834
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		312	175	600	750	55	0	0	1,892
Total:		312	175	600	750	55	0	0	1,892

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Outfall Rehabilitation Program

BCL/Program Name:	Rehabilitation	BCL/Program Code:	C370B
Project Type:	Rehabilitation or Restoration	Start Date:	Q4/2010
Project ID:	C3708	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project provides rehabilitation of outfalls throughout Seattle Public Utilities service area. Typical improvements may include, but are not limited to, repair, rehabilitation or replacement of outfall structures. This project will investigate the condition of each of the outfalls and complete an options analysis, followed by design, construction, and closeout activities.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	2,140	2,325	1,550	1,600	2,100	1,500	1,500	1,500	14,215
Total:	2,140	2,325	1,550	1,600	2,100	1,500	1,500	1,500	14,215
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	2,140	2,325	1,550	1,600	2,100	1,500	1,500	1,500	14,215
Total*:	2,140	2,325	1,550	1,600	2,100	1,500	1,500	1,500	14,215
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		639	1,550	1,600	2,100	1,500	1,500	1,500	10,389
Total:		639	1,550	1,600	2,100	1,500	1,500	1,500	10,389

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Pipe Renewal Program

BCL/Program Name:	Rehabilitation	BCL/Program Code:	C370B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2016
Project ID:	C3710	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project includes SPU operates and maintains approximately 1,400 miles of wastewater conveyance (combined and separated) pipe. The age of this infrastructure varies; however, significant portions of the system were constructed prior to 1950. This ongoing project completes projects to repair, replace, rehabilitate and renew the collection system by various contracting and construction methods.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	13,114	13,520	22,800	23,603	20,019	22,500	22,500	22,500	160,555
Total:	13,114	13,520	22,800	23,603	20,019	22,500	22,500	22,500	160,555
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	13,114	13,520	22,800	23,603	20,019	22,500	22,500	22,500	160,555
Total*:	13,114	13,520	22,800	23,603	20,019	22,500	22,500	22,500	160,555
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		17,344	22,800	23,603	20,019	22,500	22,500	22,500	151,265
Total:		17,344	22,800	23,603	20,019	22,500	22,500	22,500	151,265

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Protection of Beneficial Uses Program

BCL/Program Name:	Protection of Beneficial Uses	BCL/Program Code:	C333B
Project Type:	New Facility	Start Date:	Q1/2016
Project ID:	C3317	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project develops drainage related projects to improve the water quality, stream function and habitat in the streams and receiving waters of Seattle. Projects include stream and habitat restoration to reduce flooding, culvert repair and replacements to protect public safety, capital purchases to support street sweeping and green stormwater infrastructure projects to address flooding and control and clean runoff to streams.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	7,158	420	1,000	1,000	1,500	4,000	3,000	100	18,178
Total:	7,158	420	1,000	1,000	1,500	4,000	3,000	100	18,178
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	7,158	420	1,000	1,000	1,500	4,000	3,000	100	18,178
Total*:	7,158	420	1,000	1,000	1,500	4,000	3,000	100	18,178
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		773	1,000	1,000	1,500	4,000	3,000	100	11,373
Total:		773	1,000	1,000	1,500	4,000	3,000	100	11,373

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Pump Station and Force Main Improvements

BCL/Program Name:	Rehabilitation	BCL/Program Code:	C370B
Project Type:	New Facility	Start Date:	Q1/2008
Project ID:	C3703	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing project provides for improvements and upgrades to the 68 SPU-owned wastewater pump stations and force mains. Typical improvements may include, but are not limited to, replacement of existing pump station assets including pumps, motors, and valves, and installation of new assets such as SCADA systems, generators, and emergency plugs. This project enhances and extends the useful life of the existing pump stations which, in turn, protects water quality.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	13,033	4,074	5,425	11,400	9,449	7,242	6,030	5,000	61,653
Total:	13,033	4,074	5,425	11,400	9,449	7,242	6,030	5,000	61,653
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	13,033	4,074	5,425	11,400	9,449	7,242	6,030	5,000	61,653
Total*:	13,033	4,074	5,425	11,400	9,449	7,242	6,030	5,000	61,653
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		2,826	5,425	11,400	9,449	7,242	6,030	5,000	47,372
Total:		2,826	5,425	11,400	9,449	7,242	6,030	5,000	47,372

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

S Genesee Combined Sewer Overflow

BCL/Program Name:	Combined Sewer Overflows	BCL/Program Code:	C360B
Project Type:	New Facility	Start Date:	Q1/2005
Project ID:	C3608	End Date:	Q4/2016
Location:	S. Genesee St.		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Southeast	Urban Village:	Not in an Urban Village

This project provides construction of combined sewer overflows (CSO) facilities in the Genesee area in the southeast part of Seattle. Facilities will be built to meet level of service requirements for CSOs and comply with state and federal regulations. The project will meet requirements of the City's current National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge Permit.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	42,487	2,564	0	0	0	0	0	0	45,051
Total:	42,487	2,564	0	0	0	0	0	0	45,051
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	42,487	2,564	0	0	0	0	0	0	45,051
Total*:	42,487	2,564	0	0	0	0	0	0	45,051
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		451	0	0	0	0	0	0	451
Total:		451	0	0	0	0	0	0	451

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

S Henderson Combined Sewer Overflow Storage

BCL/Program Name:	Combined Sewer Overflows	BCL/Program Code:	C360B
Project Type:	New Facility	Start Date:	Q1/2005
Project ID:	C3609	End Date:	Q4/2018
Location:	S Henderson St.		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	2
Neighborhood District:	Southeast	Urban Village:	Not in an Urban Village

This project provides construction of combined sewer overflows (CSO) facilities in the Henderson area in the southeast part of Seattle. Facilities will be built to meet level of service requirements for CSOs and comply with state and federal regulations. The project will meet requirements of the City's current National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge Permit. Maintenance costs will not begin until after 2020, when the project completes construction.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	37,786	26,448	5,340	590	0	0	0	0	70,164
Total:	37,786	26,448	5,340	590	0	0	0	0	70,164
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	37,786	26,448	5,340	590	0	0	0	0	70,164
Total*:	37,786	26,448	5,340	590	0	0	0	0	70,164
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		19,754	5,340	590	0	0	0	0	25,684
Total:		19,754	5,340	590	0	0	0	0	25,684

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Sanitary Sewer Overflow Capacity

BCL/Program Name:	Flooding, Sewer Back-up, and Landslides	BCL/Program Code:	C380B
Project Type:	New Investment	Start Date:	Q2/2002
Project ID:	C3804	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing program is designed to enhance sanitary sewer service to Seattle customers by addressing current and projected capacity limitations of the wastewater system through structural (CIP) improvements. Such improvements may include demand management measures such as infiltration and inflow (I/I) reduction, increased conveyance capacity, and individual customer measures such as installation of backflow preventers or grinder pumps to reduce the risk that customers will experience backups of sewage into their homes and businesses during storm events.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	4,539	4,766	7,035	11,139	6,020	5,000	5,000	22,000	65,499
Total:	4,539	4,766	7,035	11,139	6,020	5,000	5,000	22,000	65,499
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	4,539	4,766	7,035	11,139	6,020	5,000	5,000	22,000	65,499
Total*:	4,539	4,766	7,035	11,139	6,020	5,000	5,000	22,000	65,499
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		5,347	7,035	11,139	6,020	5,000	5,000	22,000	61,541
Total:		5,347	7,035	11,139	6,020	5,000	5,000	22,000	61,541

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2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Security Improvements - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2007
Project ID:	C4113-DWF	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing project provides physical integrated security system components throughout the City of Seattle. Typical improvements may include, but are not limited to, fences, gates, access control card readers, intercoms, lighting, door and hatch contacts, CCTV cameras, motion detection devices, and fiber and conduit.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	349	128	109	113	147	113	113	113	1,182
Total:	349	128	109	113	147	113	113	113	1,182
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	349	128	109	113	147	113	113	113	1,182
Total*:	349	128	109	113	147	113	113	113	1,182
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		147	109	113	147	113	113	113	853
Total:		147	109	113	147	113	113	113	853

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Sediment Remediation - DWF

BCL/Program Name:	Sediments	BCL/Program Code:	C350B
Project Type:	Rehabilitation or Restoration	Start Date:	Q4/2000
Project ID:	C3503	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing program provides for City of Seattle participation in cleanup of contaminated sediment sites at multiple locations across the city for which the City's drainage and wastewater utilities may have some liability. Typical phases of such projects include preliminary studies and analyses, preliminary engineering for actual cleanup efforts, and liability allocation negotiations. This program enhances the natural environment of Seattle and addresses both state and federal regulatory agency requirements.

		LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources										
Drainage and Wastewater Rates		28,219	4,963	6,855	6,553	7,337	8,757	6,182	15,712	84,578
Total:		28,219	4,963	6,855	6,553	7,337	8,757	6,182	15,712	84,578
Fund Appropriations/Allocations										
Drainage and Wastewater Fund		28,219	4,963	6,855	6,553	7,337	8,757	6,182	15,712	84,578
Total*:		28,219	4,963	6,855	6,553	7,337	8,757	6,182	15,712	84,578
O & M Costs (Savings)				0	0	0	0	0	0	0
Spending Plan by Fund										
Drainage and Wastewater Fund			4,575	6,855	6,553	7,337	8,757	6,182	15,712	55,971
Total:			4,575	6,855	6,553	7,337	8,757	6,182	15,712	55,971

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Ship Canal Water Quality Project

BCL/Program Name:	Combined Sewer Overflows	BCL/Program Code:	C360B
Project Type:	New Facility	Start Date:	Q1/2016
Project ID:	C3614	End Date:	Q4/2025
Location:	West Ship Canal		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project includes the City of Seattle (the City) has prepared a comprehensive strategy, called The Plan to Protect Seattle's Waterways (the Plan); to reduce overflows and discharge of pollutants from combined sewers and the storm drain system. The City must control sewer discharges to protect public health, the environment, to comply with the Clean Water Act, the United States District Court Consent Decree, and state regulations. On May 29, 2015, the City submitted the plan to EPA and Ecology for approval. The Plan recommends a Shared West Ship Canal Project (or the "Ship Canal Water Quality Project") between SPU and King County to provide offline storage of Combined Sewer Overflows for SPU Ballard CSO basins (outfalls 150/151 and 152), Fremont/Wallingford CSO basins (outfalls 147 and 174), King County's 3rd Ave West regulator (DSN 008) and King County's avenue NW Regulator (DSN 004). The Project has a storage capacity of 15.24 million gallons and will bring the seven CSO basins into compliance with the State's control standard of one untreated overflow per year per outfall on a 20-year moving average.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	20,102	17,690	21,732	23,803	55,886	86,470	78,027	51,856	355,567
Total:	20,102	17,690	21,732	23,803	55,886	86,470	78,027	51,856	355,567
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	20,102	17,690	21,732	23,803	55,886	86,470	78,027	51,856	355,567
Total*:	20,102	17,690	21,732	23,803	55,886	86,470	78,027	51,856	355,567
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		21,050	21,732	23,803	55,886	86,470	78,027	51,856	338,824
Total:		21,050	21,732	23,803	55,886	86,470	78,027	51,856	338,824

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Sound Transit - North Link - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Facility	Start Date:	Q1/2012
Project ID:	C4135-DWF	End Date:	Q4/2020
Location:	Various		
Neighborhood Plan:	In more than one Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project funds relocation, replacement, and protection of drainage and wastewater infrastructure affected by the development of Sound Transit's Link Light Rail System. Sound Transit is constructing the third segment of their electrical light rail transit system that includes 4.3 mile light rail extension, three additional stations, and other supporting facilities from the University of Washington to Northgate.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	114	359	155	79	65	58	0	0	830
Total:	114	359	155	79	65	58	0	0	830
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	114	359	155	79	65	58	0	0	830
Total*:	114	359	155	79	65	58	0	0	830
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		121	155	79	65	58	0	0	478
Total:		121	155	79	65	58	0	0	478

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Sound Transit University Link - DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	C4110-DWF	End Date:	Q2/2016
Location:	Various		
Neighborhood Plan:	In more than one Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project funds relocation, replacement, and protection of drainage and wastewater infrastructure affected by the development of Sound Transit's Link Light Rail System. Sound Transit is constructing the second segment of their electrical light rail transit system that includes 3.15 miles of tunnel, two additional stations, and other supporting facilities from downtown to the University of Washington.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	339	51	0	0	0	0	0	0	390
Total:	339	51	0	0	0	0	0	0	390
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	339	51	0	0	0	0	0	0	390
Total*:	339	51	0	0	0	0	0	0	390
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		13	0	0	0	0	0	0	13
Total:		13	0	0	0	0	0	0	13

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Sound Transit-East Link

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Facility	Start Date:	Q2/2013
Project ID:	C4122-DWF	End Date:	Q4/2020
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project funds relocation, replacement, and protection of drainage and wastewater infrastructure affected by the development of Sound Transit's Link Light Rail System. Sound Transit is constructing the next segment of their electrical light rail transit system that includes 14 mile light rail extension, 10 additional stations total (one in Seattle) and other supporting facilities from the International District (ID) across I-90 to Bellevue/Redmond.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	13	20	105	50	25	0	0	0	213
Total:	13	20	105	50	25	0	0	0	213
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	13	20	105	50	25	0	0	0	213
Total*:	13	20	105	50	25	0	0	0	213
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		9	105	50	25	0	0	0	188
Total:		9	105	50	25	0	0	0	188

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

South Park Pump Station

BCL/Program Name:	Flooding, Sewer Back-up, and Landslides	BCL/Program Code:	C380B
Project Type:	New Facility	Start Date:	Q3/2008
Project ID:	C3806	End Date:	Q4/2025
Location:	698 S Riverside DR/Holden/Austin		
Neighborhood Plan:	South Park	Council District:	1
Neighborhood District:	Greater Duwamish	Urban Village:	Duwamish

This project constructs a pump station (PS), a water quality facility (WQF), and additional drainage conveyance in South Park. The PS allows the existing storm drain trunk to meet the 2004 Comprehensive Drainage Plan level of service and allows future projects expanding the collection system to address flooding complaints. The WQF will treat most stormwater flows from the basin, reducing pollutant loading to the Duwamish. Flows over 11 CFS will bypass the WQF and be pumped directly to the river.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	8,478	2,897	5,267	10,394	3,236	14,287	10,428	784	55,771
Total:	8,478	2,897	5,267	10,394	3,236	14,287	10,428	784	55,771
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	8,478	2,897	5,267	10,394	3,236	14,287	10,428	784	55,771
Total*:	8,478	2,897	5,267	10,394	3,236	14,287	10,428	784	55,771
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		2,705	5,267	10,394	3,236	14,287	10,428	784	47,102
Total:		2,705	5,267	10,394	3,236	14,287	10,428	784	47,102

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Street Sweeping for Water Quality

BCL/Program Name:	Protection of Beneficial Uses	BCL/Program Code:	C333B
Project Type:	New Investment	Start Date:	Q1/2011
Project ID:	C3363	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project provides for a cost-effective, significant reduction in the potentially toxic pollutant load carried by stormwater runoff discharged by SPU's storm drain system to Puget Sound using new, high efficiency street sweeping technology. The project is a partnership between Seattle Public Utilities, who sets the project direction, provides water quality expertise, and funding for the portion of routes that drain to the municipal separate storm sewer system (MS4), which discharges directly to our receiving waters and Seattle Department of Transportation, who provides operational expertise, street sweeping services, and funding for the portion of the routes that drain to the combined sewer system (CSS).

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	311	200	10	0	0	0	0	0	521
Total:	311	200	10	0	0	0	0	0	521
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	311	200	10	0	0	0	0	0	521
Total*:	311	200	10	0	0	0	0	0	521
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		7	10	0	0	0	0	0	17
Total:		7	10	0	0	0	0	0	17

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Thornton Confluence Improvement

BCL/Program Name:	Flooding, Sewer Back-up, and Landslides	BCL/Program Code:	C380B
Project Type:	Improved Facility	Start Date:	Q1/2008
Project ID:	C3811	End Date:	Q3/2016
Location:	Thornton Creek	Council District:	More than one
Neighborhood Plan:	Not in a Neighborhood Plan	Urban Village:	Not in an Urban Village
Neighborhood District:	Not in a Neighborhood District		

This project provides creek realignment, floodplain excavation, culvert replacement, and riparian plantings at the confluence of the north and south branches of Thornton Creek. SPU has acquired a number of flood prone properties in this area over the last decade. Using these properties, this project increases culvert capacity, floodplain area and flood storage, and provides stream habitat benefits. The project will help alleviate flooding and reduce maintenance at Meadowbrook Pond.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	8,087	50	0	0	0	0	0	0	8,137
Total:	8,087	50	0	0	0	0	0	0	8,137
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	8,087	50	0	0	0	0	0	0	8,137
Total*:	8,087	50	0	0	0	0	0	0	8,137
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		275	0	0	0	0	0	0	275
Total:		275	0	0	0	0	0	0	275

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Windermere Combined Sewer Overflow Storage

BCL/Program Name:	Combined Sewer Overflows	BCL/Program Code:	C360B
Project Type:	New Facility	Start Date:	Q2/2002
Project ID:	C3605	End Date:	Q3/2016
Location:	NE 65th St. and Sand Point Way NE		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	4
Neighborhood District:	Northeast	Urban Village:	Not in an Urban Village

This project provides construction of off-line storage and best management practice combined sewer overflow (CSO) facilities in the Windermere area in the northeast part of Seattle. Facilities will be built to meet water quality standards for Lake Washington in accordance with state and federal regulations. The project also intends to meet requirements of the City's current CSO National Pollutant Discharge Elimination System (NPDES) permit.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	50,012	162	86	0	0	0	0	0	50,260
Total:	50,012	162	86	0	0	0	0	0	50,260
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	50,012	162	86	0	0	0	0	0	50,260
Total*:	50,012	162	86	0	0	0	0	0	50,260
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Drainage and Wastewater Fund		187	86	0	0	0	0	0	273
Total:		187	86	0	0	0	0	0	273

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Yesler Terrace-DWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Facility	Start Date:	Q1/2014
Project ID:	C4136-DWF	End Date:	Q4/2014
Location:	Yesler and Broadway		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	3
Neighborhood District:	Central	Urban Village:	Not in an Urban Village

This project provides funding for SPU Drainage and Wastewater infrastructure investments in association with this project. Seattle Housing Authority (SHA) is leading a major project to replace Yesler Terrace's aging public housing buildings with a new mixed-income community.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Drainage and Wastewater Rates	2,800	0	0	0	0	0	0	0	2,800
Total:	2,800	0	0	0	0	0	0	0	2,800
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	2,800	0	0	0	0	0	0	0	2,800
Total*:	2,800	0	0	0	0	0	0	0	2,800
O & M Costs (Savings)			0	0	0	0	0	0	0

** Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.*

2017 - 2022 Proposed Capital Improvement Program

Seattle Public Utilities

Solid Waste

Overview

Seattle Public Utilities (SPU) collects and disposes of solid waste generated within the City of Seattle. To fulfill this responsibility, the City owns and manages the following significant infrastructure:

- Two transfer stations
- One recycling and re-use facility
- Two household hazardous waste facilities
- A fleet of trucks and heavy equipment
- Three closed landfills previously used by the City

The Solid Waste Fund (SWF) CIP is the planning tool for rehabilitating, replacing, improving and expanding infrastructure, as well as constructing projects that protect, conserve, and enhance our region's environmental resources. Planned spending in the SWF CIP is approximately \$71 million over the next six years, from 2017 through 2022.

Major anticipated projects include:

- Constructing a recycling/re-use facility at the South Transfer Station (2015-2020)
- Cleanup of the historic South Park Landfill (2015-2020) at the South Park Development Project.

These projects comprise roughly 65% of the CIP. Other significant projects include the possible enhancements to the South Household Hazardous Waste facility and the SPU's annual fleet and equipment investment.

CIP Revenue Sources

The majority of the SWF CIP is funded through bonds and current cash contributions, the mix of which is determined by SWF financial policies, the overall financial health of the SWF, and the best value and equity to ratepayers. SPU issued debt in 2014, 2015, and 2016. No further bond issues are anticipated to complete these projects. Cash contributions to construction and repayment of debt come from rate-based charges to customers whose solid waste services are handled by the City's solid waste infrastructure and services.

SPU also actively seeks grants, low-interest loans, and other funding sources whenever possible and prudent. The Solid Waste Utility is currently in the middle of a capital intensive historic landfill rehabilitation process and South Transfer Station Rebuild (STS2) project. These projects are the primary drivers of CIP spending and have required rate increases for financing.

CIP Highlights

2017-2022 Proposed Solid Waste Fund CIP by BCL

(In '000s; total may not sum due to rounding)

BCL	2017	2018	2019	2020	2021	2022	Total
New Facilities	7,824	19,673	8,527	4,529	150	150	40,853
Rehabilitation and Heavy Equipment	400	120	75	40	35	45	715
Shared Cost Projects	2,922	2,344	2,002	3,219	2,121	2,866	15,474
Technology	5,864	2,751	1,336	1,078	1,511	1,511	14,050
Total	17,010	24,887	11,940	8,866	3,817	4,572	71,092

New Facilities: This program plans, designs, and constructs new facilities to enhance solid waste operations. In 2017, SPU will continue to implement its Solid Waste Facilities Master Plan. The key project drivers of the New Facilities Budget Control Level (BCL) are the South Transfer Station Rebuild (STS2) and South Park Development projects.

The changes in this BCL are mainly on the STS2 Rebuild project and schedule changes. Now that design is underway both the scope and schedule have changed as the project develops. The changes also reflect programmatic reductions in the South Park Development project to reflect the results of the Remedial Investigation/Feasibility Study and the draft Cleanup Action Plan defining the scope of the anticipated site cleanup and STS2 schedule changes.

Rehabilitation and Heavy Equipment: This program designs and constructs projects to repair and/or upgrade solid waste facilities. The key driver of this BCL is the Midway Flare Improvements to fully fund replacement of the Landfill remote alarm system.

Shared Cost Projects: This program includes individual capital improvement projects which typically benefit multiple Lines of Business (LOB) (e.g. the Water LOB and the Drainage and Wastewater LOB) and whose costs are "shared," or paid for by more than one of SPU's utility funds.

The proposed budget for this BCL will increase in 2017. The key driver is the scope and schedule change in operational facility construction that will address shortages of adequate space for operational functions for multiple Lines of Business and SPU staff. The changes in Heavy Equipment Purchases reflect the best estimated of the required fleet of trucks and heavy equipment for the North and South transfer stations.

Technology: The Technology capital portfolio is managed in six program areas, which provide a department-wide view of technology investments to address SPU's strategic, business, and City-wide priorities. These areas are:

- Customer Contact and Billing

- Enterprise Information Management
- IT Infrastructure
- Project Delivery & Performance
- Science & System Performance
- Asset Information Management

Investments in 2017 address several of SPU's key initiatives, including:

- Financial Management and Internal Controls
- Operational Excellence and Performance Management
- Easy, engaged Customer Experience
- Data-driven Decision Support
- Project Delivery/Project Controls

SPU will focus 2017 technology spending on the highest priority business needs, primarily within the Customer Contact and Billing and Project Delivery and Performance program areas.

Changes in the New Customer Information System (NCIS) project schedule are driving the increased cost estimates for 2017 within the Customer Contact and Billing program area. Anticipated costs for SPU's portion of the Summit Re-Implementation project as well as the significant expenditure to integrate SPU financial side-systems are driving increased costs within the Project Delivery and Performance program area.

Thematic Priorities

The SWF places a high priority on managing environmental issues and addressing regulatory requirements related to current and historic solid waste facilities while protecting employees and customer health and safety.

- Managing environmental issues and regulations: SPU is required to improve former landfill sites and take action as necessary when conditions change. For example, underground gas levels at these sites are monitored. When increasing gas levels are detected, SPU implements improvements to extract the excess gas or otherwise mitigate the environmental impacts of the gas increase. Also, the new transfer stations will greatly reduce the environmental impacts of the existing stations on neighboring communities.

Project Selection Criteria

SPU identifies candidate capital projects from several sources – planning (e.g., comprehensive plans, program plans), external projects and opportunities, and emergencies or other unexpected events. Under SPU's Asset Management System, projects must be justified through a business case process that establishes that a problem or opportunity is timely and important and that the proposed solution is superior to alternatives based on a triple bottom line analysis (economic, environmental, and social) of life-cycle benefits and costs. The process also recognizes that a project may be a “must do” project (e.g., required by regulations).

SPU prioritizes its capital projects into three categories – Priorities 1, 2 and 3, with 1 being the most important and critical. Some of these projects are part of an externally-driven project. Typically, SPU lacks control over the timing of such projects.

Priority rankings are based on the following set of criteria:

- **Regulatory Mandates, Legal Agreements:** The degree to which the project is driven by Federal, State, and local laws, permit and regulatory requirements, and consent decrees; as well as by legal agreements with public and private parties. Examples of highly ranked projects in this category include the South Park Development project and Kent Highlands and Midway Landfills programs.
- **External Drivers:** SPU's responsiveness to, or engagement with, the projects of other Departments or Jurisdictions, and the specific mandates of the City Council and Mayor. Examples of projects in this category include the 1% for Arts program.
- **Infrastructure:** How a project addresses infrastructure conditions or vulnerabilities. Examples of highly ranked projects in this category include the South Transfer Station Rebuild (STS2) project.
- **Level of Service:** The importance of this project in providing or improving services to customers. Examples of highly ranked projects in this category include the South Transfer Station Rebuild (STS2) project.
- **Other Factors:** Other important factors include high net present value or cost-effectiveness, social or environmental benefits that were not otherwise recognized, a project already in progress or near completion, limited time opportunity, demonstration projects, community visibility, or outside funding.

Every project is rated against each criterion. Criteria ratings are then considered in determining an overall project priority ranking, using expert judgment (rather than a formula). Priority rankings for the CIP are determined by the leads for each LOB, with reviews by key internal stakeholders. The ranking scheme and criteria are the same for all LOBs, and are approved by the SPU Director and Asset Management Committee. Project priority rankings are used to clarify and document which projects are most important and why, to help determine which projects at the margin will be included, excluded or deferred from the CIP, and which projects should receive priority attention if a staff or financial resource constraint should arise.

Summary of Upcoming Budget Issues and Challenges

Solid Waste faces logistical and financial issues as it reconstructs its primary facilities and addresses site cleanup efforts.

- **Logistics:** SWF is focusing on redevelopment the South Transfer Station Rebuild (STS2) and must continue to utilize the site for trailer parking and HHW collection during construction.
- **Financial Challenges:** Reconstruction of the South Transfer Station Rebuild (STS2) along with site remediation efforts puts considerable short-term financial strain on the SWF. At the same time that SWF is funding and building these major projects, it is working to address environmental stewardship by encouraging waste reduction and recycling, which results in declining demand for services.

To address the funding needed to reconstruct and remediate the transfer stations, SPU issued bonds in 2014, 2015, and 2016. The cost to repay or service these bonds will be paid through rate-based revenues, which also support SPU operations, maintenance, administration, and

contract costs. To assure that SWF has adequate revenues to support debt service and core functions while demand declines, SPU anticipates using a combination of rate increases and existing cash balances.

Future Projects/What is on the Horizon

Historically, the SWF CIP budget averaged \$3.2 million annually outside years of heavy capital construction. Once the South Transfer Station rebuild is completed, the core SWF CIP is expected to approximate the lower spending levels, factoring in cost inflation and additional shared costs utility costs.

Once the South Transfer Station is rebuilt, annual costs for repairs and upkeep are projected to decrease initially and then increase as equipment replacement/renewal projects are required. Part of the South Transfer Station rebuild (STS2) is to retain enough space to construct a Material Recovery Facility (MRF) in the future to increase the recycling rate. No decisions have been made about the MRF at this time.

Project Summary

BCL/Program Name/ Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
New Facilities					BCL/Program Code:				C230B
Miscellaneous Station Improvements (C2303)	2,838	100	800	150	150	600	150	150	4,938
North Transfer Station Rebuild (C2306)	88,524	18,949	241	20	0	0	0	0	107,733
South Park Development (C2304)	4,273	4,535	1,608	3,771	3,294	1,580	0	0	19,060
South Recycling Disposal Station Household Hazardous Waste Relocation (C2305)	0	236	50	265	200	300	0	0	1,051
South Transfer Station Rebuild (C2302)	79,091	6,732	5,125	15,467	4,883	2,050	0	0	113,348
New Facilities	174,726	30,552	7,824	19,673	8,527	4,529	150	150	246,131
Rehabilitation and Heavy Equipment					BCL/Program Code:				C240B
Kent Highlands Landfill (C2402)	1,120	15	50	50	25	15	15	25	1,315
Midway Landfill (C2403)	111	415	350	70	50	25	20	20	1,061
Rehabilitation and Heavy Equipment	1,231	430	400	120	75	40	35	45	2,376
Shared Cost Projects					BCL/Program Code:				C410B
1% for the Arts - SWF (C4118-SWF)	1,713	324	66	165	56	28	8	7	2,367
Heavy Equipment Purchases - SWF (C4116-SWF)	7,340	650	1,503	1,051	1,146	2,358	1,223	2,031	17,303
Integrated Control Monitoring Program - SWF (C4108-SWF)	0	624	0	0	0	0	0	0	624
Operational Facility - Construction - SWF (C4106-SWF)	175	372	1,197	1,010	678	733	790	728	5,681
Operational Facility - Other - SWF (C4115-SWF)	20	2,770	0	0	0	0	0	0	2,790
Operations Control Center - SWF (C4105-SWF)	200	1,093	59	18	0	0	0	0	1,370
Security Improvements - SWF (C4113-SWF)	687	787	98	100	123	100	100	100	2,095
Shared Cost Projects	10,135	6,620	2,922	2,344	2,002	3,219	2,121	2,866	32,229
Technology					BCL/Program Code:				C510B
Asset Information Management (C5407)	33	906	140	299	210	190	300	300	2,378
Customer Contact & Billing (C5402)	10,204	4,757	3,396	942	353	375	150	150	20,326
Enterprise Information Management (C5403)	1,639	888	140	101	319	78	300	300	3,765
IT Infrastructure (C5404)	807	859	87	140	191	281	266	266	2,898

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Project Summary

BCL/Program Name/ Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Project Delivery & Performance (C5405)	1,657	2,291	2,101	1,237	263	154	255	255	8,212
Science & System Performance (C5406)	467	53	0	31	0	0	240	240	1,031
Technology	14,807	9,753	5,864	2,751	1,336	1,078	1,511	1,511	38,610
Department Total*:	200,899	47,355	17,010	24,887	11,940	8,866	3,817	4,572	319,346

** Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.*

2017 - 2022 Proposed Capital Improvement Program

SPU-Solid Waste

Fund Summary

Fund Name & Code	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Solid Waste Fund (45010)	200,899	47,355	17,010	24,887	11,940	8,866	3,817	4,572	319,346
Department Total*:	200,899	47,355	17,010	24,887	11,940	8,866	3,817	4,572	319,346

**Amounts in thousands of dollars*

2017 - 2022 Proposed Capital Improvement Program

SPU-Solid Waste

1% for the Arts - SWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2001
Project ID:	C4118-SWF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides the Solid Waste funding for Seattle Public Utilities' 1% for Arts contribution. Eligibility is determined at the individual project level, with payment occurring from this project. Funds contributed to the 1% for Art project allow the commission, purchase, and installation of art in City-owned properties that are accessible to the public. The Municipal Arts Plan, prepared annually, describes the status of ongoing art projects and establishes the scope of work and allocations for new art projects.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Solid Waste Rates	1,713	324	66	165	56	28	8	7	2,367
Total:	1,713	324	66	165	56	28	8	7	2,367
Fund Appropriations/Allocations									
Solid Waste Fund	1,713	324	66	165	56	28	8	7	2,367
Total*:	1,713	324	66	165	56	28	8	7	2,367
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Solid Waste Fund		194	66	165	56	28	8	7	524
Total:		194	66	165	56	28	8	7	524

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Solid Waste

Heavy Equipment Purchases - SWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Investment	Start Date:	ONGOING
Project ID:	C4116-SWF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides SPU's Solid Waste Utility crews with new and replacement heavy equipment that is used throughout Seattle and in parts of King County. Typical purchases include loaders, dozers, class 8 trucks, rail container chassis, yard waste and metal trailers, backhoes, and yard "goats" (a type of tractor.) These equipment purchases provide safe and efficient loading, transfer and short haul transportation of garbage, yard waste, metal, and other recyclables to the rail yard for "long haul" to the landfill and to contracted recycling processors. This project is one of four SPU fund-specific heavy equipment CIP projects.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Solid Waste Rates	7,340	650	1,503	1,051	1,146	2,358	1,223	2,031	17,303
Total:	7,340	650	1,503	1,051	1,146	2,358	1,223	2,031	17,303
Fund Appropriations/Allocations									
Solid Waste Fund	7,340	650	1,503	1,051	1,146	2,358	1,223	2,031	17,303
Total*:	7,340	650	1,503	1,051	1,146	2,358	1,223	2,031	17,303
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Solid Waste Fund		883	1,503	1,051	1,146	2,358	1,223	2,031	10,196
Total:		883	1,503	1,051	1,146	2,358	1,223	2,031	10,196

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Solid Waste

Integrated Control Monitoring Program - SWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Investment	Start Date:	Q1/2013
Project ID:	C4108-SWF	End Date:	Q4/2014
Location:	Kent, WA		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project includes the current telemetry used to monitor the environmental control systems at the Kent Highlands Landfill and the Midway Landfill, both Superfund sites, are nearly obsolete and the equipment is no longer supported. In addition, the current system only transmits alarm conditions and does not have any data acquisition functionality. This project funds a replacement system that will allow remote data acquisition as well as alarm functionality.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Solid Waste Rates	0	624	0	0	0	0	0	0	624
Total:	0	624	0	0	0	0	0	0	624
Fund Appropriations/Allocations									
Solid Waste Fund	0	624	0	0	0	0	0	0	624
Total*:	0	624	0	0	0	0	0	0	624
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Solid Waste Fund		0	0	0	0	0	0	0	0
Total:		0	0	0	0	0	0	0	0

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2017 - 2022 Proposed Capital Improvement Program

SPU-Solid Waste

Kent Highlands Landfill

BCL/Program Name:	Rehabilitation and Heavy Equipment	BCL/Program Code:	C240B
Project Type:	Improved Facility	Start Date:	Q1/2005
Project ID:	C2402	End Date:	Q4/2022
Location:	Kent Highlands		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This program funds compliance activities related to the Kent Highlands landfill closure project. These activities include environmental and feasibility studies to demonstrate the effectiveness of the Kent Highlands landfill closure project, as well as various landfill improvements. The environmental and feasibility studies are required under the existing Consent Decree with the State Department of Ecology and validate that current environmental controls are effective and reduce the likelihood of additional capital or O&M expenditures. The landfill improvements include replacement of existing flares, drainage improvements, groundwater protection and water treatment.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Solid Waste Rates	1,120	15	50	50	25	15	15	25	1,315
Total:	1,120	15	50	50	25	15	15	25	1,315
Fund Appropriations/Allocations									
Solid Waste Fund	1,120	15	50	50	25	15	15	25	1,315
Total*:	1,120	15	50	50	25	15	15	25	1,315
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Solid Waste Fund		50	50	50	25	15	15	25	230
Total:		50	50	50	25	15	15	25	230

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Solid Waste

Midway Landfill

BCL/Program Name:	Rehabilitation and Heavy Equipment	BCL/Program Code:	C240B
Project Type:	Improved Facility	Start Date:	Q1/2005
Project ID:	C2403	End Date:	Q4/2022
Location:	Kent		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This program funds compliance activities related to the Midway landfill closure project. These activities include environmental and feasibility studies to demonstrate the effectiveness of the Midway landfill closure project. The studies are required under the existing Consent Decree with the State Department of Ecology and validate that current environmental controls are effective and reduce the likelihood of additional capital or O&M expenditures. The flare improvements are also a regulatory requirement. To ensure that SPU maintains regulatory compliance, a smaller flare or new technology will be required. The current telemetry used to monitor the environmental control systems at the Kent Highlands Landfill and the Midway Landfill, both Superfund sites, are nearly obsolete and the equipment is no longer supported. In addition, the current system only transmits alarm conditions and does not have any data acquisition functionality. This program funds a replacement system that will allow remote data acquisition as well as alarm functionality.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Solid Waste Rates	111	415	350	70	50	25	20	20	1,061
Total:	111	415	350	70	50	25	20	20	1,061
Fund Appropriations/Allocations									
Solid Waste Fund	111	415	350	70	50	25	20	20	1,061
Total*:	111	415	350	70	50	25	20	20	1,061
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Solid Waste Fund		450	350	70	50	25	20	20	985
Total:		450	350	70	50	25	20	20	985

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Solid Waste

Miscellaneous Station Improvements

BCL/Program Name:	New Facilities	BCL/Program Code:	C230B
Project Type:	Improved Facility	Start Date:	Q4/2003
Project ID:	C2303	End Date:	Q1/2022
Location:	2nd Ave S		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	1
Neighborhood District:	Greater Duwamish	Urban Village:	Duwamish

This project provides modifications, upgrades and wear replacement for the two new City Transfer Stations. The new facilities will require periodic capital upgrades and replacement to extend the useful life of these assets. Examples of this work include improvements to the STS wheelwash and floor drain system to meet regulatory requirements and replacement of the wear surface on the STS tipping floor. When NTS begins operation in 2016 there will likely be some additional modifications required to optimize the facility.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Solid Waste Rates	2,838	100	800	150	150	600	150	150	4,938
Total:	2,838	100	800	150	150	600	150	150	4,938
Fund Appropriations/Allocations									
Solid Waste Fund	2,838	100	800	150	150	600	150	150	4,938
Total*:	2,838	100	800	150	150	600	150	150	4,938
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Solid Waste Fund		200	800	150	150	600	150	150	2,200
Total:		200	800	150	150	600	150	150	2,200

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Solid Waste

North Transfer Station Rebuild

BCL/Program Name:	New Facilities	BCL/Program Code:	C230B
Project Type:	New Facility	Start Date:	Q4/2006
Project ID:	C2306	End Date:	Q4/2018
Location:	N 34th St		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	4
Neighborhood District:	Lake Union	Urban Village:	Not in an Urban Village

The project constructs a new North Recycling and Disposal Station to replace the existing, aging facility. The new facility will meet customer and employee needs, regulatory requirements, and waste management goals for at least the next 50 years. Safety, operational, and capacity concerns at the existing transfer station necessitate building a new facility. The new facility will benefit the public by providing reliable transfer of solid waste from the City and preventing the accumulation of waste and unsanitary conditions within the City.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Solid Waste Rates	88,524	18,949	241	20	0	0	0	0	107,733
Total:	88,524	18,949	241	20	0	0	0	0	107,733
Fund Appropriations/Allocations									
Solid Waste Fund	88,524	18,949	241	20	0	0	0	0	107,733
Total*:	88,524	18,949	241	20	0	0	0	0	107,733
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Solid Waste Fund		16,722	241	20	0	0	0	0	16,982
Total:		16,722	241	20	0	0	0	0	16,982

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Solid Waste

Operational Facility - Construction - SWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2004
Project ID:	C4106-SWF	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing facilities project renovates, rehabilitates, replaces existing buildings, and constructs new facilities at various locations within the city limits to address deficiencies, failures, and functional changes in the SPU Lines of Business. Typical improvements include, but are not limited to, roof replacements, exterior wall or cladding replacements, and improvements to administrative office space, crew and shop space, lighting, heating and ventilation systems, and facilities structures. These improvements increase the useful life of the facilities, preserve the value of the assets, and provide a safe working environment.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Solid Waste Rates	175	372	1,197	1,010	678	733	790	728	5,681
Total:	175	372	1,197	1,010	678	733	790	728	5,681
Fund Appropriations/Allocations									
Solid Waste Fund	175	372	1,197	1,010	678	733	790	728	5,681
Total*:	175	372	1,197	1,010	678	733	790	728	5,681
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Solid Waste Fund		746	1,197	1,010	678	733	790	728	5,880
Total:		746	1,197	1,010	678	733	790	728	5,880

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Solid Waste

Operational Facility - Other - SWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q4/2006
Project ID:	C4115-SWF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing facilities project provides funding to purchase, replace, or install new building materials or building equipment within the city limits to address deficiencies, failures, and functional changes in the SPU Lines of Business. Typical improvements include, but are not limited to, water systems, prefabricated buildings, storage buildings, and fencing. Specific projects have been identified through 2016. As future projects are identified, necessary funding will be requested.

		LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources										
Solid Waste Rates		20	2,770	0	0	0	0	0	0	2,790
Total:		20	2,770	0	0	0	0	0	0	2,790
Fund Appropriations/Allocations										
Solid Waste Fund		20	2,770	0	0	0	0	0	0	2,790
Total*:		20	2,770	0	0	0	0	0	0	2,790
O & M Costs (Savings)				1	1	0	0	0	0	2
Spending Plan by Fund										
Solid Waste Fund			10	0	0	0	0	0	0	10
Total:			10	0	0	0	0	0	0	10

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Solid Waste

Operations Control Center - SWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	ONGOING
Project ID:	C4105-SWF	End Date:	ONGOING
Location:	2700 Airport Way S		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	2
Neighborhood District:	Greater Duwamish	Urban Village:	Duwamish

This ongoing facilities project renovates, rehabilitates, replaces existing buildings, and constructs new facilities at the Operations Control Center located at 2700 Airport Way South to improve the efficiency and effectiveness of the field crews delivering utility services to customers. Typical improvements include, but are not limited to, roof and other exterior replacements, improvements to public spaces, office and crew spaces and lighting, and heating and ventilation systems. These improvements increase the useful life of the facility, preserve the value of the asset, and provide a safe work and public space environment.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Solid Waste Rates	200	1,093	59	18	0	0	0	0	1,370
Total:	200	1,093	59	18	0	0	0	0	1,370
Fund Appropriations/Allocations									
Solid Waste Fund	200	1,093	59	18	0	0	0	0	1,370
Total*:	200	1,093	59	18	0	0	0	0	1,370
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Solid Waste Fund		10	59	18	0	0	0	0	87
Total:		10	59	18	0	0	0	0	87

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Solid Waste

Security Improvements - SWF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2007
Project ID:	C4113-SWF	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing project funds physical, integrated security system components at Solid Waste infrastructure sites throughout the City. Components may include, but are not limited to, fences, gates, access control card readers, intercoms, lighting, door and hatch contacts, CCTV cameras, motion detection devices, and fiber and conduit.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Solid Waste Rates	687	787	98	100	123	100	100	100	2,095
Total:	687	787	98	100	123	100	100	100	2,095
Fund Appropriations/Allocations									
Solid Waste Fund	687	787	98	100	123	100	100	100	2,095
Total*:	687	787	98	100	123	100	100	100	2,095
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Solid Waste Fund		141	98	100	123	100	100	100	762
Total:		141	98	100	123	100	100	100	762

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Solid Waste

South Park Development

BCL/Program Name:	New Facilities	BCL/Program Code:	C230B
Project Type:	Improved Facility	Start Date:	Q1/2007
Project ID:	C2304	End Date:	Q1/2020
Location:	8100 2nd Ave S		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	1
Neighborhood District:	Greater Duwamish	Urban Village:	Duwamish

This project studies, plans, designs and constructs remediation of the historic South Park Landfill site to minimize environmental impacts. SPU owns a portion of the site on which the landfill once operated, and was an historic operator of the landfill at one time. This project will meet the requirements of a Washington Department of Ecology Agreed Order for study of and cleanup planning for the historic South Park Landfill.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Solid Waste Rates	4,273	4,535	1,608	3,771	3,294	1,580	0	0	19,060
Total:	4,273	4,535	1,608	3,771	3,294	1,580	0	0	19,060
Fund Appropriations/Allocations									
Solid Waste Fund	4,273	4,535	1,608	3,771	3,294	1,580	0	0	19,060
Total*:	4,273	4,535	1,608	3,771	3,294	1,580	0	0	19,060
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Solid Waste Fund		190	1,608	3,771	3,294	1,580	0	0	10,442
Total:		190	1,608	3,771	3,294	1,580	0	0	10,442

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Solid Waste

South Recycling Disposal Station Household Hazardous Waste Relocation

BCL/Program Name:	New Facilities	BCL/Program Code:	C230B
Project Type:	Improved Facility	Start Date:	Q1/2015
Project ID:	C2305	End Date:	Q4/2020
Location:	8105 5th Ave S		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	1
Neighborhood District:	Greater Duwamish	Urban Village:	Duwamish

This project provides relocation for the South Household Hazardous Waste (SHHW) facility and allows for facility improvements as required by code. This project and timeline is tied to the redevelopment of the existing South Recycling and Disposal Station (SRDS) site.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Solid Waste Rates	0	236	50	265	200	300	0	0	1,051
Total:	0	236	50	265	200	300	0	0	1,051
Fund Appropriations/Allocations									
Solid Waste Fund	0	236	50	265	200	300	0	0	1,051
Total*:	0	236	50	265	200	300	0	0	1,051
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Solid Waste Fund		0	50	265	200	300	0	0	815
Total:		0	50	265	200	300	0	0	815

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Solid Waste

South Transfer Station Rebuild

BCL/Program Name:	New Facilities	BCL/Program Code:	C230B
Project Type:	New Facility	Start Date:	Q1/2012
Project ID:	C2302	End Date:	Q1/2020
Location:	8100 2nd AVE S		
Neighborhood Plan:	Duwamish	Council District:	1
Neighborhood District:	Greater Duwamish	Urban Village:	Duwamish

This project transforms the existing South Recycling and Disposal Station to a recycling and reuse area. The existing transfer station building and associated facilities will be demolished and replaced with new recycling facilities, a reuse facility, parking and storage area for transfer trailers, and other solid waste facilities.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Solid Waste Rates	79,091	6,732	5,125	15,467	4,883	2,050	0	0	113,348
Total:	79,091	6,732	5,125	15,467	4,883	2,050	0	0	113,348
Fund Appropriations/Allocations									
Solid Waste Fund	79,091	6,732	5,125	15,467	4,883	2,050	0	0	113,348
Total*:	79,091	6,732	5,125	15,467	4,883	2,050	0	0	113,348
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Solid Waste Fund		2,535	5,125	15,467	4,883	2,050	0	0	30,061
Total:		2,535	5,125	15,467	4,883	2,050	0	0	30,061

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Seattle Public Utilities

Technology Projects

Project Summary

BCL/Program Name/									
Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Technology							BCL/Program Code:		C510B
Asset Information Management (C5407)	262	3,424	1,709	1,770	2,050	2,300	2,000	2,000	15,516
Customer Contact & Billing (C5402)	33,156	15,175	9,549	2,855	1,750	2,500	1,000	1,000	66,985
Enterprise Information Management (C5403)	10,279	6,082	934	675	2,100	500	2,000	2,000	24,570
IT Infrastructure (C5404)	7,177	3,340	666	1,105	1,250	1,850	1,750	1,750	18,888
Project Delivery & Performance (C5405)	10,611	14,768	13,765	8,100	1,750	1,000	1,700	1,700	53,395
Science & System Performance (C5406)	4,519	942	2,159	1,817	1,800	1,000	1,600	1,600	15,437
Technology	66,004	43,732	28,783	16,322	10,700	9,150	10,050	10,050	194,791
Department Total*:	66,004	43,732	28,783	16,322	10,700	9,150	10,050	10,050	194,791

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

SPU-Technology

Fund Summary

Fund Name & Code	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Drainage and Wastewater Fund (44010)	25,042	16,483	11,185	6,161	4,255	3,908	4,298	4,298	75,629
Solid Waste Fund (45010)	14,807	9,753	5,864	2,751	1,336	1,078	1,511	1,511	38,610
Water Fund (43000)	26,155	17,496	11,734	7,410	5,109	4,165	4,241	4,241	80,552
Department Total*:	66,004	43,732	28,783	16,322	10,700	9,150	10,050	10,050	194,791

**Amounts in thousands of dollars*

2017 - 2022 Proposed Capital Improvement Program

Asset Information Management

BCL/Program Name:	Technology	BCL/Program Code:	C510B
Project Type:	New Investment	Start Date:	ONGOING
Project ID:	C5407	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	7
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides applications, upgrades and data management tools in support of SPU's work and asset management projects. Several new and updated technology solutions designed to enhance the efficiency and effectiveness of drinking water, sewer, drainage, and solid waste operations are planned. These include the development of an Asset Data Register in support of performance analytics, and dispatch and emergency response systems. Other related, but as yet undetermined projects will be undertaken to further enhance safety and improve responsiveness of SPU's utility operations.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	95	1,295	806	547	866	1,082	840	840	6,372
Drainage and Wastewater Rates	134	1,223	764	924	974	1,028	860	860	6,766
Solid Waste Rates	33	906	140	299	210	190	300	300	2,378
Total:	262	3,424	1,709	1,770	2,050	2,300	2,000	2,000	15,516
Fund Appropriations/Allocations									
Water Fund	95	1,295	806	547	866	1,082	840	840	6,372
Drainage and Wastewater Fund	134	1,223	764	924	974	1,028	860	860	6,766
Solid Waste Fund	33	906	140	299	210	190	300	300	2,378
Total*:	262	3,424	1,709	1,770	2,050	2,300	2,000	2,000	15,516
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		344	806	547	866	1,082	840	840	5,325
Drainage and Wastewater Fund		389	764	924	974	1,028	860	860	5,798
Solid Waste Fund		83	140	299	210	190	300	300	1,522
Total:		816	1,709	1,770	2,050	2,300	2,000	2,000	12,646

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Technology

Customer Contact & Billing

BCL/Program Name:	Technology	BCL/Program Code:	C510B
Project Type:	New Investment	Start Date:	ONGOING
Project ID:	C5402	End Date:	ONGOING
Location:	N/A		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	7
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides technology solutions and business application upgrades in support of SPU's Customer Contact Center and activities carried out by the Customer Service Branch. Planned projects include, but are not limited to, a replacement of the Consolidated Customer Service System and new technology solutions for enhanced customer contact management. This ongoing project is intended to enhance customer service, customer contact, and ensure accurate Utility billing.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	11,756	5,377	3,116	971	720	1,100	420	420	23,879
Drainage and Wastewater Rates	11,196	5,041	3,037	942	678	1,025	430	430	22,779
Solid Waste Rates	10,204	4,757	3,396	942	353	375	150	150	20,326
Total:	33,156	15,175	9,549	2,855	1,750	2,500	1,000	1,000	66,985
Fund Appropriations/Allocations									
Water Fund	11,756	5,377	3,116	971	720	1,100	420	420	23,879
Drainage and Wastewater Fund	11,196	5,041	3,037	942	678	1,025	430	430	22,779
Solid Waste Fund	10,204	4,757	3,396	942	353	375	150	150	20,326
Total*:	33,156	15,175	9,549	2,855	1,750	2,500	1,000	1,000	66,985
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		9,638	3,116	971	720	1,100	420	420	16,384
Drainage and Wastewater Fund		9,377	3,037	942	678	1,025	430	430	15,919
Solid Waste Fund		9,088	3,396	942	353	375	150	150	14,454
Total:		28,103	9,549	2,855	1,750	2,500	1,000	1,000	46,757

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Enterprise Information Management

BCL/Program Name:	Technology	BCL/Program Code:	C510B
Project Type:	New Investment	Start Date:	ONGOING
Project ID:	C5403	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	7
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides integrated technology solutions in support of the management of SPU's corporate knowledge, including data, information, documents, and web content. Typical improvements may include, but are not limited to, replacement of shared file storage, new online collaboration tools, introduction of workflow, tracking & reporting applications, web content management systems, and an enterprise document management solution. This ongoing project enhances SPU's ability to retrieve, share, distribute and manage corporate information.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	5,294	2,776	392	283	923	224	840	840	11,572
Drainage and Wastewater Rates	3,346	2,418	402	290	858	199	860	860	9,233
Solid Waste Rates	1,639	888	140	101	319	78	300	300	3,765
Total:	10,279	6,082	934	675	2,100	500	2,000	2,000	24,570
Fund Appropriations/Allocations									
Water Fund	5,294	2,776	392	283	923	224	840	840	11,572
Drainage and Wastewater Fund	3,346	2,418	402	290	858	199	860	860	9,233
Solid Waste Fund	1,639	888	140	101	319	78	300	300	3,765
Total*:	10,279	6,082	934	675	2,100	500	2,000	2,000	24,570
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		1,001	392	283	923	224	840	840	4,503
Drainage and Wastewater Fund		396	402	290	858	199	860	860	3,865
Solid Waste Fund		98	140	101	319	78	300	300	1,336
Total:		1,495	934	675	2,100	500	2,000	2,000	9,704

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Technology

IT Infrastructure

BCL/Program Name:	Technology	BCL/Program Code:	C510B
Project Type:	New Investment	Start Date:	ONGOING
Project ID:	C5404	End Date:	ONGOING
Location:	N/A		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	7
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing IT asset management project ensures the availability, reliability, and security of SPU's corporate computing infrastructure. The project acquires and maintains SPU-owned and managed servers, local networks, shared storage and backup systems, operating software, and communications infrastructure.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	3,086	1,172	249	399	555	819	755	755	7,791
Drainage and Wastewater Rates	3,284	1,309	330	566	504	750	729	729	8,199
Solid Waste Rates	807	859	87	140	191	281	266	266	2,898
Total:	7,177	3,340	666	1,105	1,250	1,850	1,750	1,750	18,888
Fund Appropriations/Allocations									
Water Fund	3,086	1,172	249	399	555	819	755	755	7,791
Drainage and Wastewater Fund	3,284	1,309	330	566	504	750	729	729	8,199
Solid Waste Fund	807	859	87	140	191	281	266	266	2,898
Total*:	7,177	3,340	666	1,105	1,250	1,850	1,750	1,750	18,888
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		1,359	249	399	555	819	755	755	4,892
Drainage and Wastewater Fund		1,720	330	566	504	750	729	729	5,326
Solid Waste Fund		481	87	140	191	281	266	266	1,713
Total:		3,560	666	1,105	1,250	1,850	1,750	1,750	11,931

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Project Delivery & Performance

BCL/Program Name:	Technology	BCL/Program Code:	C510B
Project Type:	New Investment	Start Date:	ONGOING
Project ID:	C5405	End Date:	ONGOING
Location:	N/A		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	7
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides technology applications and application upgrades in support of improvements to project delivery and performance. Planned projects include continued development of an Enterprise Project Management System, replacement of the Engineering Support Contract Payments system, and SPU's share of costs for the City's central financial system upgrades. Future projects may include development of new Enterprise Resource Planning systems such as HR provisioning and financial reporting. This project will result in an improved ability to plan and deliver projects on schedule and within budget.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	4,932	6,605	6,081	3,565	745	440	714	714	23,795
Drainage and Wastewater Rates	4,022	5,873	5,584	3,299	743	406	731	731	21,388
Solid Waste Rates	1,657	2,291	2,101	1,237	263	154	255	255	8,212
Total:	10,611	14,768	13,765	8,100	1,750	1,000	1,700	1,700	53,395
Fund Appropriations/Allocations									
Water Fund	4,932	6,605	6,081	3,565	745	440	714	714	23,795
Drainage and Wastewater Fund	4,022	5,873	5,584	3,299	743	406	731	731	21,388
Solid Waste Fund	1,657	2,291	2,101	1,237	263	154	255	255	8,212
Total*:	10,611	14,768	13,765	8,100	1,750	1,000	1,700	1,700	53,395
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		3,098	6,081	3,565	745	440	714	714	15,357
Drainage and Wastewater Fund		2,790	5,584	3,299	743	406	731	731	14,283
Solid Waste Fund		1,073	2,101	1,237	263	154	255	255	5,337
Total:		6,962	13,765	8,100	1,750	1,000	1,700	1,700	34,978

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

SPU-Technology

Science & System Performance

BCL/Program Name:	Technology	BCL/Program Code:	C510B
Project Type:	New Investment	Start Date:	ONGOING
Project ID:	C5406	End Date:	ONGOING
Location:	N/A		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	7
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project will provide new and improved technology applications and accompanying data management tools to support the gathering, monitoring, tracking and analysis of science and engineering information. Several planned projects include replacement of obsolete regulatory compliance tracking applications, upgrades to field monitoring equipment, and the integration of SCADA data with other data systems. This project enhances SPU's ability to control water quality and comply with environmental and health regulations.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	992	272	1,090	1,645	1,300	500	672	672	7,142
Drainage and Wastewater Rates	3,060	618	1,069	141	500	500	688	688	7,264
Solid Waste Rates	467	53	0	31	0	0	240	240	1,031
Total:	4,519	942	2,159	1,817	1,800	1,000	1,600	1,600	15,437
Fund Appropriations/Allocations									
Water Fund	992	272	1,090	1,645	1,300	500	672	672	7,142
Drainage and Wastewater Fund	3,060	618	1,069	141	500	500	688	688	7,264
Solid Waste Fund	467	53	0	31	0	0	240	240	1,031
Total*:	4,519	942	2,159	1,817	1,800	1,000	1,600	1,600	15,437
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		248	1,090	1,645	1,300	500	672	672	6,126
Drainage and Wastewater Fund		226	1,069	141	500	500	688	688	3,812
Solid Waste Fund		487	0	31	0	0	240	240	998
Total:		960	2,159	1,817	1,800	1,000	1,600	1,600	10,936

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Seattle Public Utilities

Water

Overview

SPU delivers an average of approximately 126 million gallons of drinking water per day to 1.4 million people and businesses in Seattle and 18 surrounding cities and water districts, plus the Cascade Water Alliance. The water system infrastructure includes:

- The Cedar and South Fork Tolt supply sources;
- Three groundwater wells;
- Two primary water treatment plants;
- 11 booster chlorination facilities;
- 354.5 million gallons of treated water storage;
- 30 pump stations;
- Approximately 1,873 miles of transmission and distribution system pipelines;
- Over 188,000 meters and service connections;
- More than 21,000 distribution system valves;
- About 18,000 hydrants;
- Monitoring and control systems; and,
- Various buildings and other related facilities.

In addition replacing and improving the supply, treatment, transmission and distribution systems, the capital program includes investments in watershed stewardship projects, Cedar River Watershed Habitat Conservation Plan implementation, water conservation programs, vehicles, heavy equipment, and technology.

Planned spending in the Water Capital Improvement Program (CIP) is \$557 million over the next six years. Major projects include:

- Water system improvements associated with transportation projects, including Move Seattle;
- Operational and Regional Facility construction;
- Replacement of the Bitter Lake and Lake Forest Park Reservoirs floating covers
- Addressing a slide area through which the Tolt Pipelines pass, upstream of the Tolt Treatment Plant.

The 2017-2022 Proposed CIP also includes many ongoing programs, such as improving the distribution and transmission system water mains, valves, steel storage tanks, and pump stations; watershed stewardship and conservation projects and programs; and facilities, vehicles, and heavy equipment investments.

SPU funds Water capital projects through a combination of cash and issuance of bonds. The primary source of cash and debt repayment funds come from sale of water charged to retail and wholesale customers in the region. SPU has updated the Water System Plan through 2018, a Washington Department of Health (WDOH) regulatory requirement due every 6 years.

CIP Revenue Sources

SPU's Water CIP is funded largely by Water ratepayers. About 72% of the Water Fund's Operating revenues come from retail ratepayers, split approximately evenly between residential and commercial customers. Another 21% of the Water Fund's overall revenues come from

2017-2022 Proposed Capital Improvement Program

wholesale purveyors who serve surrounding jurisdictions. The remaining 7% consists of non-rate revenue, which includes such items as tap fees received. SPU issues bonds, serviced by ratepayers, which in the current period covers 49% of the CIP, with the remainder funded by cash and loan, i.e.: directly by ratepayer revenue.

SPU actively seeks grants, low interest loans, and other funding sources whenever possible. And, as mentioned above, SPU also receives payments from developers that are intended to offset the cost of installing new taps when they connect newly constructed buildings to the SPU water mains. These “tap fees” are a volatile revenue source, trending with the construction-related sectors of the economy.

CIP Spending by Major Category

(In ‘000s; total may not sum due to rounding)

Water Fund	2017	2018	2019	2020	2021	2022	Total
Distribution	28,545	28,145	30,058	29,441	27,483	28,045	171,718
Transmission	5,529	22,431	23,925	6,361	4,435	2,390	65,071
Watershed Stewardship	66	977	84	165	105	65	1,463
Water Quality & Treatment	8,444	385	1,430	3,470	17,210	19,420	50,359
Water Resources	8,266	8,776	3,754	3,731	4,284	4,188	33,000
Habitat Conservation Program	2,106	2,606	2,599	2,036	1,597	1,490	12,434
Shared Cost Projects	35,634	38,399	39,352	23,476	23,496	25,580	185,936
Technology	11,734	7,410	5,109	4,165	4,241	4,241	36,900
Grand Total	100,325	109,131	106,312	72,844	82,851	85,420	556,882

Distribution: Projects and programs in this category relate to rehabilitation and improvements to the City's water mains and appurtenances, water storage tanks, pump stations, and other facilities that are part of the system that distributes treated water throughout the City of Seattle and to retail customers outside of the City.

Increases in the **Distribution BCL** in 2017 and 2018 primarily due to increased demand for New Taps which is projected to continue going forward as well as water main rehabilitation packages that include multiple worksites across the city. Also, noted that New Taps expenses are offset by new tap revenues. Additionally, recently completed assessments have identified

the need for interior/exterior recoating and structural upgrades at two of SPU's steel storage tanks, Beverly Park elevated tank and Volunteer Park Standpipe.

Transmission: The purpose of this program category is to rehabilitate and improve the City's large transmission pipelines that bring untreated water to the treatment facilities, and convey treated water from the treatment facilities to Seattle and to other local utilities that purchase a portion of SPU's supply for their customers.

Reductions in the **Transmission BCL** in 2017 is due primarily to delaying work on Tolt Slide Improvements while engineering studies are being completed. Additional shifts in cash flows from 2018 to 2017 are anticipated for Cathodic Protection as the program moves to bundling projects for design and construction in every other year for more efficient project delivery.

Watershed Stewardship: Projects and programs in this category improve protection of our sources of drinking water, provide habitat protection and restoration, sustain the environment, and enhance environmental quality, both locally and regionally. Most of the projects in this program category are located within the Cedar and Tolt River municipal watersheds. Three of these projects are being carried out in response to the Endangered Species Act's designation of the Chinook salmon as a threatened species.

- The Cedar River Municipal Watershed is 90,638 acres of land owned by the City of Seattle and provides about 70% of the drinking water used by 1.4 million people in the greater Seattle area. The City of Seattle is required by law to maintain a clean drinking water supply. To that end, the City restricts public access and management is guided by a Habitat Conservation Plan. The Cedar River Watershed is an unfiltered surface water supply which produces some of the best water in the world.
- The South Fork Tolt River Watershed is the smaller and lesser known but still essential second supply watershed in SPU's freshwater supply system. Located in the foothills of the Cascades in east King County, it first came on-line in 1964, and since 1989 has also supported a small Seattle City Light hydro-electric facility. The Tolt Treatment Facilities, which includes filtration, can provide up to 120 million gallons of drinking water per day.

Reduction in 2017 in the **Watershed Stewardship BCL** is due postponement from 2017 to 2018 of the Taylor Creek Railroad and Bridge project that removes a failing trestle containing creosote-contaminated elements. That change was made early this year because work priority has shifted to other projects such as Morse Lake Pump Plant due to limitations in staffing resources.

Water Quality and Treatment: The purpose of this program category is to construct, rehabilitate or improve water treatment facilities, and cover the remaining open water reservoirs. State and federal drinking water regulations and public health protection are key drivers of investments in this program category. To comply with regulations, SPU has invested hundreds of millions of dollars in building two new primary treatment facilities and covering two and burying five reservoirs that contain already treated water that is distributed directly to Seattle residents and wholesale customers for drinking purposes.

Increases in the **Water Quality & Treatment BCL** includes \$19.4M in 2022 for the replacement of the Bitter Lake and Lake Forest Park Reservoirs floating covers, including preliminary engineering work planned for 2017 and 2018. Also, a proposed increase in cost projections for

2017 is based on recently completed engineering studies for correcting seismic design flaws at the newly buried Beacon Reservoir.

Water Resources: The purpose of this program category is to manage our water resources to meet anticipated demands and in-stream flow requirements – the amount of water provided to the river to support aquatic habitat, wetlands, riparian vegetation, and water quality – and to promote residential and commercial water conservation. The requirements for in-stream flows are detailed in agreements with state and federal agencies and include provisions for minimum stream flows in the Cedar and South Fork Tolt Rivers. Examples of the types of projects in this category include the Dam Safety Program, the Morse Lake Pump Plant, and Sockeye Brookstock Weir and other improvements associated with the hatchery and fish ladder.

Increases in the **Water Resources BCL** in 2017 and 2018 are due to a change of scope for the Tolt Ring Gate System Rehabilitation and additional work identified for the Dam Safety program. Additionally, a shift in the timing from 2017 to 2018 of the Sockeye Brookstock Weir that accounts for an increase in 2018.

Habitat Conservation Program: This program category includes projects and programs directly related to implementation of the Cedar River Watershed Habitat Conservation Plan. The Habitat Conservation Plan benefits the utility and the ratepayers it serves by providing legal certainty under the Endangered Species Act for the City's continued operations within the Cedar River Watershed, which supplies 70% of the region's drinking water. The Habitat Conservation Program requires SPU to invest \$100 million over 50 years, with \$60 million in the first decade, on approximately 30 capital projects and 60 O&M activities in three areas: management of in-stream flows for people and fish, forest and land conservation activities, and mitigation for the blockage of salmon and steelhead fish as they return to the Cedar River to spawn. The Water Fund's CIP projects in this area are grouped into eight categories: road improvements and decommissioning, stream and riparian restoration, upland forest restoration, Landsburg fish passage, Cedar River sockeye hatchery, improvements to the Ballard Locks for fish passage and water conservation, fish habitat protection and restoration in the lower Cedar River below the municipal watershed boundary, and evaluation of Cedar permanent dead storage in Chester Morse Lake.

Increases in 2017 and 2018 in the **Habitat Conservation Program BCL** result from new grant funding (\$2.1M) to supplement the Downstream Habitat salmon habitat land acquisition program.

Shared Cost Projects: This program includes individual capital improvement projects which typically benefit multiple lines of business (e.g. the water line of business and the drainage and wastewater line of business) and whose costs are "shared," or paid for, by more than one of SPU's utility funds. For the next six years, the Shared Cost program includes funding for a number of interdepartmental programs and projects including projects necessitated by the Move Seattle levy, Alaskan Way Viaduct and Seawall Replacement, Mercer Corridor and Sound Transit Link Light Rail. Funding is also included for SPU's Heavy Equipment Purchases and a number of smaller projects.

The **Shared Cost Projects BCL** increases in 2017 and 2018 is primarily due to the Move Seattle Levy projects. Additional increases are due to the Alaskan Way Viaduct & Seawall, Seattle Municipal Tower Relocation program and other Regional Facility projects. This is offset by lower projections in the Water Fund's Integrated Control Monitoring Program, delays in other transportation projects.

Technology: The Technology capital portfolio is managed in six program areas, which provide a department-wide view of technology investments to address SPU's strategic, business, and City-wide priorities. These areas are:

- Customer Contact and Billing
- Enterprise Information Management
- IT Infrastructure
- Project Delivery & Performance
- Science & System Performance
- Asset Information Management

Investments in 2017 address several of SPU's key initiatives, including:

- Financial Management and Internal Controls
- Operational Excellence and Performance Management
- Easy, engaged Customer Experience
- Data-driven Decision Support
- Project Delivery/Project Controls

SPU will focus 2017 technology spending on the highest priority business needs, primarily within the Customer Contact and Billing and Project Delivery and Performance program areas.

Changes in the New Customer Information System (NCIS) project schedule are driving the increased cost estimates for 2017 within the Customer Contact and Billing program area. Anticipated costs for SPU's portion of the Summit Re-Implementation project as well as the significant expenditure to integrate SPU financial side-systems are driving increased costs within the Project Delivery and Performance program area.

Thematic Priorities

The overarching goal of the Water CIP is to ensure that the water system is properly maintained, upgraded, and expanded to reliably deliver high-quality, safe drinking water to customers, protect the environment, and comply with regulations. The primary themes driving the CIP in the next six years are asset preservation, health and human safety, environmental sustainability, and race and social justice.

- SPU is committed to making **asset preservation** investments to create or enhance operational efficiency. SPU uses asset management principles to determine the timing of rehabilitation or replacement of its infrastructure. Projects that fall into this category vary, ranging from water main replacement related to transportation projects to decommissioning of steel storage facilities.
- SPU's commitment to **health and human safety** is also addressed through SPU's reservoir covering projects. Consistent with Ordinance 120899 and required by state regulators, SPU has been replacing its open finished drinking water reservoirs with underground structures that will improve water quality and system security. Seismic retrofits are planned for four of the buried reservoirs that have design flaws. SPU plans to decommission Roosevelt Reservoir, and further evaluate the possibility of decommissioning Volunteer Reservoir. However, permanent actions at these two reservoirs are not expected to occur until enough time has elapsed to observe the water

system's performance without them. Additionally, by 2019, SPU will begin constructing new covers on the Lake Forest Park and Bitter Lake reservoirs to replace the existing floating covers that will have reached the end of their useful life.

- SPU is committed to **environmental sustainability**. This can best be seen in SPU's responsibilities as outlined in the 50-year Habitat Conservation Plan (HCP), an agreement between local, state and federal agencies. The HCP seeks to ensure the long-term ecological integrity of the Cedar River Watershed, which supplies the majority of the City's drinking water. It simultaneously addresses the needs of protected wildlife species in and along the Cedar River. Investments in the regional conservation and low-income conservation programs also help in management of our natural resources, while helping customers reduce their utility bills.
- SPU is also committed to **race and social justice**. One example of this commitment is the Low Income Water Conservation Program. This ongoing program provides water use efficiency resources to the City's low-income customers to implement water conservation measures. Typical improvements consist of, but are not limited to, installing water-efficient fixtures, such as aerating showerheads and faucets, low water-use toilets and efficient clothes washers. The program is cooperatively managed by SPU and the City's Human Services Department.

Project Selection Criteria

SPU identifies candidate capital projects from several sources – planning (e.g. comprehensive plans, program plans), external projects and opportunities, and emergencies or other unexpected events. Under SPU's Asset Management system, projects must be justified through a business case process that establishes that a problem or opportunity is timely and important, and that the proposed solution is superior to alternatives based on a triple bottom line analysis (economic, environmental and social) of life cycle costs and benefits. The process also recognizes that a project may be a "must do" project (e.g. required by regulation).

SPU prioritizes its capital projects into three categories – Priorities 1, 2 and 3, with 1 being the most important and critical. Some projects are part of an externally driven project. Typically, SPU lacks control over the timing of externally driven projects.

Priority rankings are based on the following set of criteria:

- **Regulatory Mandates, Legal Agreements:** The degree to which a project is driven by federal, state, and local laws, permit and regulatory requirements, and consent decrees; as well as by legal agreements with public and private parties. Examples of highly ranked projects in this category include the reservoir covering programs and the Habitat Conservation Program.
- **External Drivers:** SPU's responsiveness to, or engagement with, projects of other Departments or Jurisdictions, and the specific mandates of the City Council and Mayor. Examples of highly ranked projects in this category include the Alaskan Way Viaduct and Mercer Corridor projects.

- **Infrastructure:** How a project addresses infrastructure conditions or vulnerabilities. Examples of highly ranked projects in this category include the Watermain Rehabilitation, Distribution System Improvements and Tank Improvements programs.
- **Level of Service:** The importance of a project in providing or improving services to customers. Examples of highly ranked projects in this category include the Water Infrastructure – New Taps and Service Renewals programs.
- **Other Factors:** Other important factors include high net present value or cost-effectiveness, social or environmental benefits not otherwise captured, a project already in progress or near completion, limited time opportunity, demonstration projects, community visibility, outside funding. An example of a highly ranked project in this category includes Rattlesnake Lake Sanitary Facilities.

Every project is rated against each criterion. Criteria ratings are then considered in determining an overall project priority ranking, using expert judgment (rather than a formula). Priority rankings for the CIP are determined by the leads for each Line of Business (LOB), with review by key internal stakeholders. The ranking scheme and criteria are the same for all LOBs and are approved by the SPU Director and Asset Management Committee. Project priority rankings are used to clarify and document which projects are most important (and why), to help determine which projects at the margin will be included or excluded (or deferred) from the CIP, and which projects should receive priority attention if a staff or financial resource constraint should arise.

In recent years, this prioritization process and business case analysis has resulted in decisions to defer some capital projects and retire or downsize some facilities, primarily finished water reservoirs. Retiring facilities reduces capital expenditures since these facilities are in need of major improvements (such as seismic retrofits) that are avoided, as well as reduces annual operating costs since the level of maintenance is greatly reduced. Downsizing or retiring storage facilities is possible because the need for storage has changed over time as the system has been reconfigured, transmission and treatment has become more reliable, and demands, particularly for fire flows, have declined.

Summary of Upcoming Budget Issues and Challenges

These important issues create financial challenges and opportunities for the Water Fund in the future.

Water Conservation: The City of Seattle, Seattle residents, and Seattle's wholesale water partners have worked together to reduce water consumption. As a result, consumption has declined since the 1980's and is projected to flatten out. In 2014, consumption was 30% below the peak of 1984, despite serving a larger population. Seattle currently has some of the lowest per capita water consumption in the nation. While this accomplishment helps contribute to a sustainable future for the region, it puts financial pressure on the utility because fixed costs, including the costs of the CIP, need to be distributed across fewer units of water sold. This trend also puts pressure on SPU management and employees to deliver services as efficiently as possible.

Transitioning from Major Projects toward Asset Management: The Water Fund is transitioning from a period of building large capital projects, in response to regulatory requirements, to a time of physical infrastructure rehabilitation. Past investments include water treatment facilities for

the Tolt and Cedar water supplies, coverings for seven open reservoirs in response to federal/state regulations, construction of a second pipeline for the Tolt system, and investments to meet federal requirements embodied in the Cedar River Watershed Habitat Conservation Plan (HCP). These investments helped secure the supply and distribution of high-quality drinking water and provide appropriate stewardship of the watersheds consistent with federal and state requirements.

The City of Seattle is now better positioned than many water utilities in the nation in terms of regulatory compliance. Residents, businesses and rate payers will benefit from these investments for years to come. Although the focus will shift from major projects to physical infrastructure rehabilitation, the utility will be paying debt service over the next several budget cycles on the bonds that were issued for major projects.

Against the backdrop of these trends, the 2017-2022 Adopted Water CIP has been developed to:

- Provide for water system modifications associated with various Seattle and regional transportation projects.
- Recognize the need to look harder at the water system's resiliency in a major earthquake event, and begin to make strategic investments to reduce risk.
- Preserve the transmission and distribution systems through careful investment in aging infrastructure renewal,
- Provide stewardship of the watersheds, to ensure a reliable source of high-quality drinking water;
- Comply with federal and state regulations governing water quality, system reliability, and habitat protection in the watersheds in which SPU operates; and,
- Prioritize projects to deliver on infrastructure and regulatory requirements within the limited resources of the Water Fund.

Aligning Infrastructure with Planned Growth

In its Water System Plan updates, SPU forecasts water demands to meet the growth projections as planned for in Seattle's most recent Comprehensive Plan and ensures that there will be adequate water supply for at least the next 20 years. These growth projections include expected residential and commercial growth into designated Urban Centers and Urban Villages. The 2013 Water System Plan indicates that new sources of supply would not be needed until sometime after 2060.

Growth-based infrastructure needs in Urban Centers and Urban Villages are addressed through specific programs in the Water CIP, including water main extensions, new water connections for new construction, fire flow improvements, and water main rehabilitations. The water distribution system in these areas is fairly robust, and needed improvements are generally located within areas where the land use is changed from single family zoning to a more intensive use needing higher flows for firefighting. Projects containing these improvements are evaluated through a business case process and are prioritized among the other projects in the CIP.

Future Projects/What is on the Horizon

The Water CIP has completed a multi-decade period of investments in major infrastructure projects. These projects have positioned SPU to meet drinking water quality and environmental regulations. Projects have included the Tolt and Cedar Water Treatment Facilities, Tolt Pipeline

2, Reservoir Covering Program, the Cedar River Watershed HCP, and a new Water Quality Laboratory. SPU has also made a major reinvestment in the Supervisory Control and Data Acquisition System which is used to monitor and control the regional and retail water system. However, these investments have also led to increasing debt service payments that constrain future budgets.

The 6-year CIP includes completion of the Morse Lake Pump Plant, work to replace floating covers or construct new buried reservoirs at the Lake Forest Park and Bitter Lake reservoirs, and addressing the Tolt Pipelines slide area. Beyond these projects, emphasis will be on asset management based rehabilitation and replacement of distribution system infrastructure (e.g. mains, valves, hydrants, meters), as well as water system infrastructure improvements related to transportation projects, such as the Move Seattle levy.

As noted above, SPU recognizes the need to look harder at the water system's resiliency in a major earthquake event, and begin to make strategic investments to reduce risk. SPU will be developing a plan that will define recovery time to agreed levels of service and develop a prioritized list of recommended investments to improve resiliency.

Project Summary

BCL/Program Name/									
Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Distribution					BCL/Program Code:				C110B
Chamber Upgrades - Distribution (C1137)	236	28	28	29	29	30	30	30	440
Distribution System Improvements (C1128)	7,075	3,030	2,010	3,000	3,500	4,000	4,000	4,000	30,615
Distribution System In-Line Gate Valves (C1136)	1,172	417	338	345	351	359	366	373	3,721
Multiple Utility Relocation (C1133)	5,810	1,524	500	501	500	500	500	500	10,335
Pump Station Improvements (C1135)	264	746	800	600	250	250	500	500	3,910
Tank Improvements (C1134)	2,472	750	265	1,875	4,452	3,000	450	1,000	14,264
Water Infrastructure - Distribution System Modifications (C1138)	279	0	104	106	108	110	113	115	936
Water Infrastructure - Hydrant Replacement/Relocation (C1110)	4,643	217	212	216	221	225	230	235	6,198
Water Infrastructure - New Hydrants (C1112)	312	25	13	13	13	14	14	14	418
Water Infrastructure - New Taps (C1113)	64,195	6,630	8,843	9,020	9,201	9,385	9,572	9,764	126,610
Water Infrastructure - Service Renewal (C1109)	114,679	7,807	7,722	5,837	5,953	6,072	6,193	6,317	160,581
Water Infrastructure - Watermain Extensions (C1111)	2,513	1,127	845	862	879	897	915	897	8,935
Watermain Rehabilitation (C1129)	4,413	5,182	6,865	5,742	4,600	4,600	4,600	4,300	40,302
Distribution	208,063	27,483	28,545	28,145	30,058	29,441	27,483	28,045	407,264
Transmission					BCL/Program Code:				C120B
Cathodic Protection Program (C1208)	723	1,527	1,889	633	2,112	616	2,320	624	10,444
Purveyor Meters Replace - SPU (C1206)	771	363	208	213	218	223	100	100	2,196
Replace Air Valve Chambers (C1209)	1,088	125	125	127	130	133	130	130	1,987
Transmission Pipelines Rehabilitation (C1207)	3,088	2,568	3,283	21,431	21,435	5,356	1,850	1,500	60,511
Water System Dewatering (C1205)	59	54	25	27	30	33	35	36	299
Transmission	5,729	4,638	5,529	22,431	23,925	6,361	4,435	2,390	75,438
Watershed Stewardship					BCL/Program Code:				C130B
Cedar Bridges (C1307)	498	1	1	901	1	100	15	0	1,517

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Project Summary

BCL/Program Name/									
Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Environmental Stewardship (C1301)	127	390	64	75	82	65	90	65	959
Kerriston Road (C1314)	0	0	0	0	0	0	0	0	0
Tolt Bridges (C1308)	0	450	1	1	1	0	0	0	453
Tolt Watershed Restoration (C1310)	292	0	0	0	0	0	0	0	292
Transmission Right-of-Way Improvements (C1316)	272	0	0	0	0	0	0	0	272
Watershed Stewardship	1,189	841	66	977	84	165	105	65	3,493
Water Quality & Treatment									BCL/Program Code: C140B
Landsburg Chlorination Upgrades (C1417)	0	0	0	0	0	0	0	0	0
Reservoir Covering-Bitter Lake (C1419)	0	0	25	75	590	1,790	7,310	18,650	28,440
Reservoir Covering - Beacon (C1408)	1,936	135	8,153	10	0	0	0	0	10,234
Reservoir Covering - Maple Leaf (C1411)	45,500	2,117	6	0	0	0	0	0	47,624
Reservoir Covering - Myrtle (C1410)	1,547	199	0	0	0	0	0	0	1,746
Reservoir Covering - West Seattle (C1409)	42,364	866	0	0	0	0	0	0	43,230
Reservoir Covering-Lake Forest Park (C1418)	0	0	25	50	590	1,200	9,750	620	12,235
Treatment Facility/Water Quality Improvements (C1413)	449	322	234	250	250	480	150	150	2,286
Water Quality Equipment (C1414)	249	176	0	0	0	0	0	0	425
Water Quality & Treatment	92,045	3,815	8,444	385	1,430	3,470	17,210	19,420	146,219
Water Resources									BCL/Program Code: C150B
Dam Safety Program (C1506)	5,934	2,080	2,763	995	1,025	875	1,175	1,175	16,021
Hatchery Works (C1511)	0	300	2,379	5,330	380	500	500	250	9,639
Morse Lake Pump Plant (C1508)	32,455	8,324	272	0	0	0	0	0	41,051
Regional Water Conservation Program (C1504)	21,964	2,177	1,406	1,439	1,570	1,610	1,746	1,883	33,795
Seattle Direct Service Additional Conservation (C1505)	3,297	681	697	713	729	746	863	880	8,606
Water Supply Flexibility Program (C1507)	316	1,441	250	0	0	0	0	0	2,007

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2017 - 2022 Proposed Capital Improvement Program

Project Summary

BCL/Program Name/ Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Water System Plan - 2019 (C1510)	0	0	500	300	50	0	0	0	850
Water Resources	63,966	15,003	8,266	8,776	3,754	3,731	4,284	4,188	111,969
Habitat Conservation Program									C160B
Ballard Locks Improvements (C1606)	459	236	140	145	150	155	160	165	1,610
Cedar Sockeye Hatchery (C1605)	10,058	70	0	0	0	0	0	0	10,128
Downstream Fish Habitat (C1607)	8,647	724	650	1,175	1,125	532	0	0	12,853
Instream Flow Management Studies (C1608)	2,110	220	142	147	152	157	160	165	3,253
Stream & Riparian Restoration (C1602)	3,836	250	215	217	219	220	244	245	5,446
Upland Reserve Forest Restoration (C1603)	6,926	93	82	82	83	82	82	82	7,513
Watershed Road Improvement/Decommissioning (C1601)	4,604	1,265	876	840	871	889	951	833	11,130
Habitat Conservation Program	36,640	2,857	2,106	2,606	2,599	2,036	1,597	1,490	51,932
Shared Cost Projects									C410B
1% for the Arts - WF (C4118- WF)	1,548	2,994	187	293	382	172	130	97	5,803
Alaskan Way Viaduct & Seawall Replacement Program - WF (C4102-WF)	22,671	5,548	3,891	2,548	1,343	509	200	21	36,733
Bridging the Gap - WF (C4119 -WF)	5,399	8,086	11,791	13,784	14,459	9,050	9,000	9,000	80,568
Emergency Storms - WF (C4120-WF)	323	150	100	100	100	100	0	0	873
First Hill Streetcar - WF (C4130-WF)	679	676	1,021	6,541	4,674	0	0	0	13,590
Heavy Equipment Purchases - WF (C4116-WF)	10,505	2,297	2,700	2,500	2,000	2,400	2,300	2,800	27,502
Integrated Control Monitoring Program - WF (C4108-WF)	1,270	231	360	360	360	360	360	360	3,661
Mercer Corridor Project East Phase - WF (C4114-WF)	3,428	175	0	0	0	0	0	0	3,603
Mercer Corridor Project West Phase - WF (C4133-WF)	1,416	293	11	0	0	0	0	0	1,721
Meter Replacement - WF (C4101-WF)	6,312	900	598	601	608	615	521	531	10,686

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Project Summary

BCL/Program Name/									
Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Operational Facility - Construction - WF (C4106- WF)	3,207	1,753	4,466	4,259	13,186	7,834	6,832	3,237	44,774
Operational Facility - Other - WF (C4115-WF)	864	215	0	0	0	0	0	0	1,079
Operations Control Center - WF (C4105-WF)	1,401	140	670	716	10	0	315	945	4,197
Other Major Transportation Projects - WF (C4123-WF)	199	422	50	250	500	500	0	0	1,921
Regional Facility - WF (C4107 -WF)	21,332	1,570	8,509	5,449	541	925	2,900	7,650	48,875
Security Improvements - WF (C4113-WF)	5,406	788	934	838	1,060	938	938	938	11,838
Sound Transit - North Link - WF (C4135-WF)	872	485	192	112	105	73	0	0	1,838
Sound Transit - Water Betterment (C4125)	1,502	886	0	0	0	0	0	0	2,388
Sound Transit University Link - WF (C4110-WF)	408	106	0	0	0	0	0	0	514
Sound Transit-East Link (C4122-WF)	13	421	155	50	25	0	0	0	663
Yesler Terrace-WF (C4136- WF)	236	845	0	0	0	0	0	0	1,081
Shared Cost Projects	88,991	28,981	35,634	38,399	39,352	23,476	23,496	25,580	303,908
Technology							BCL/Program Code:		C510B
Asset Information Management (C5407)	95	1,295	806	547	866	1,082	840	840	6,372
Customer Contact & Billing (C5402)	11,756	5,377	3,116	971	720	1,100	420	420	23,879
Enterprise Information Management (C5403)	5,294	2,776	392	283	923	224	840	840	11,572
IT Infrastructure (C5404)	3,086	1,172	249	399	555	819	755	755	7,791
Project Delivery & Performance (C5405)	4,932	6,605	6,081	3,565	745	440	714	714	23,795
Science & System Performance (C5406)	992	272	1,090	1,645	1,300	500	672	672	7,142
Technology	26,155	17,496	11,734	7,410	5,109	4,165	4,241	4,241	80,552
Department Total*:	522,778	101,114	100,325	109,131	106,312	72,844	82,851	85,420	1,180,774

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Fund Summary

Fund Name & Code	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Water Fund (43000)	522,778	101,114	100,325	109,131	106,312	72,844	82,851	85,420	1,180,774
Department Total*:	522,778	101,114	100,325	109,131	106,312	72,844	82,851	85,420	1,180,774

**Amounts in thousands of dollars*

1% for the Arts - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2001
Project ID:	C4118-WF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides the Water funding for Seattle Public Utilities' 1% for Arts contribution. Eligibility is determined at the individual project level, with payment occurring from this project. Funds contributed to the 1% for Art project allow the commission, purchase, and installation of art in City-owned properties that are accessible to the public. The Municipal Arts Plan, prepared annually, describes the status of ongoing art projects and establishes the scope of work and allocations for new art projects.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	1,548	2,994	187	293	382	172	130	97	5,803
Total:	1,548	2,994	187	293	382	172	130	97	5,803
Fund Appropriations/Allocations									
Water Fund	1,548	2,994	187	293	382	172	130	97	5,803
Total*:	1,548	2,994	187	293	382	172	130	97	5,803
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		101	186	295	382	172	130	97	1,363
Total:		101	186	295	382	172	130	97	1,363

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Alaskan Way Viaduct & Seawall Replacement Program - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Facility	Start Date:	Q1/2004
Project ID:	C4102-WF	End Date:	Q4/2021
Location:	SR 99 / Battery St		
Neighborhood Plan:	In more than one Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project relocates, replaces, and protects water infrastructure affected by the replacement of the Alaskan Way Viaduct and Seawall. This project encompasses many sub-projects which are collectively known as the Alaskan Way Viaduct and Seawall Replacement project (AWVSR project.) The Washington State Department of Transportation (WSDOT) is the lead for the SR 99 replacement, while the City of Seattle is the lead on development of the waterfront public space, implementation of the new surface Alaskan Way, and design and construction of the seawall.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	22,671	5,548	3,891	2,548	1,343	509	200	21	36,733
Total:	22,671	5,548	3,891	2,548	1,343	509	200	21	36,733
Fund Appropriations/Allocations									
Water Fund	22,671	5,548	3,891	2,548	1,343	509	200	21	36,733
Total*:	22,671	5,548	3,891	2,548	1,343	509	200	21	36,733
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		10,698	3,891	2,548	1,343	509	200	21	19,211
Total:		10,698	3,891	2,548	1,343	509	200	21	19,211

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Ballard Locks Improvements

BCL/Program Name:	Habitat Conservation Program	BCL/Program Code:	C160B
Project Type:	Improved Facility	Start Date:	Q1/2000
Project ID:	C1606	End Date:	Q4/2020
Location:	NW 54th St 30th Ave NW		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	6
Neighborhood District:	Ballard	Urban Village:	Ballard Interbay

This project provides improvements at the Ballard Locks to upgrade conditions for salmon. Improvements are focused on conserving the amount of freshwater needed to operate the locks to reduce the demand for freshwater from the Cedar River and increase the availability of freshwater for salmon. This project is a requirement of the Cedar River Habitat Conservation Plan (HCP.)

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	459	236	140	145	150	155	160	165	1,610
Total:	459	236	140	145	150	155	160	165	1,610
Fund Appropriations/Allocations									
Water Fund	459	236	140	145	150	155	160	165	1,610
Total*:	459	236	140	145	150	155	160	165	1,610
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		100	140	145	150	155	160	165	1,015
Total:		100	140	145	150	155	160	165	1,015

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Bridging the Gap - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2008
Project ID:	C4119-WF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This multi-year project funds assessments, repairs, and improvements to SPU's drinking water utility infrastructure at sites chosen by the Seattle Department of Transportation (SDOT) for bridge improvements and pedestrian and bicycle safety improvements within its "Bridging the Gap" project. SPU assesses the condition of its utility infrastructure at SDOT's project sites and conducts repairs and improvements as needed.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	5,399	8,086	11,791	13,784	14,459	9,050	9,000	9,000	80,568
Total:	5,399	8,086	11,791	13,784	14,459	9,050	9,000	9,000	80,568
Fund Appropriations/Allocations									
Water Fund	5,399	8,086	11,791	13,784	14,459	9,050	9,000	9,000	80,568
Total*:	5,399	8,086	11,791	13,784	14,459	9,050	9,000	9,000	80,568
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		3,546	11,791	13,784	14,459	9,050	9,000	9,000	70,629
Total:		3,546	11,791	13,784	14,459	9,050	9,000	9,000	70,629

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Cathodic Protection Program

BCL/Program Name:	Transmission	BCL/Program Code:	C120B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2004
Project ID:	C1208	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing project installs corrosion protection systems that prevent external corrosion of water transmission pipelines located in Seattle and throughout King County. The cathodic protection systems extend the life of buried pipelines made of ductile iron, steel, and concrete cylinder pipe.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	723	1,527	1,889	633	2,112	616	2,320	624	10,444
Total:	723	1,527	1,889	633	2,112	616	2,320	624	10,444
Fund Appropriations/Allocations									
Water Fund	723	1,527	1,889	633	2,112	616	2,320	624	10,444
Total*:	723	1,527	1,889	633	2,112	616	2,320	624	10,444
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		1,385	1,889	633	2,112	616	2,320	624	9,579
Total:		1,385	1,889	633	2,112	616	2,320	624	9,579

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Cedar Bridges

BCL/Program Name:	Watershed Stewardship	BCL/Program Code:	C130B
Project Type:	Improved Facility	Start Date:	Q1/2007
Project ID:	C1307	End Date:	ONGOING
Location:	Cedar River Watershed		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project replaces aging bridges and related structures, such as abutments, asphalt approaches, and guardrails in the Cedar River Watershed. This project improves aging bridge assets on priority roads in the watershed transportation system to provide City employees, City contractors, and visitors with safe and adequate access to City water supply and hydroelectric assets while minimizing and reducing environmental impacts over time. Work in this project also maintains compliance with state laws, safety and environmental regulations, and tribal access agreements including Washington Department of Natural Resources (WDNR) forest practice regulations, and Washington Department of Health (DOH) Watershed Protection Plan regulations.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	498	1	1	901	1	100	15	0	1,517
Total:	498	1	1	901	1	100	15	0	1,517
Fund Appropriations/Allocations									
Water Fund	498	1	1	901	1	100	15	0	1,517
Total*:	498	1	1	901	1	100	15	0	1,517
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		2	1	901	1	100	15	0	1,020
Total:		2	1	901	1	100	15	0	1,020

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Cedar Sockeye Hatchery

BCL/Program Name:	Habitat Conservation Program	BCL/Program Code:	C160B
Project Type:	New Facility	Start Date:	Q1/2000
Project ID:	C1605	End Date:	Q2/2016
Location:	Cedar River Watershed		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project provides a sockeye salmon hatchery to replace the interim hatchery on the Cedar River at Landsburg Dam, and includes a broodstock collection facility in Renton near the I-405 overpass, and a state-of-the-art hatchery facility located near the Landsburg Dam. These facilities are a requirement of the Cedar River Habitat Conservation Plan (HCP).

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	10,058	70	0	0	0	0	0	0	10,128
Total:	10,058	70	0	0	0	0	0	0	10,128
Fund Appropriations/Allocations									
Water Fund	10,058	70	0	0	0	0	0	0	10,128
Total*:	10,058	70	0	0	0	0	0	0	10,128
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		0	0	0	0	0	0	0	0
Total:		0	0	0	0	0	0	0	0

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Chamber Upgrades - Distribution

BCL/Program Name:	Distribution	BCL/Program Code:	C110B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2003
Project ID:	C1137	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	In more than one Urban Village

This ongoing project improves access to the chambers throughout the water distribution system. The replacement and/or enlargement of the entrance to distribution chambers improves the health and safety of workers who need to access chambers and meets Occupational, Safety, and Health Administration (OSHA) and Washington Safety and Health Administration (WSHA) safety and health requirements.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	236	28	28	29	29	30	30	30	440
Total:	236	28	28	29	29	30	30	30	440
Fund Appropriations/Allocations									
Water Fund	236	28	28	29	29	30	30	30	440
Total*:	236	28	28	29	29	30	30	30	440
O & M Costs (Savings)			0	0	0	0	0	0	0

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Dam Safety Program

BCL/Program Name:	Water Resources	BCL/Program Code:	C150B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2008
Project ID:	C1506	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project maintains the safety of SPU's water supply dams in the Cedar River and South Fork Tolt River Municipal Watersheds and the in-town reservoir dams. Typical improvements may include, but are not limited to, upgrades to the dams' failure warning systems, spillways, outlet works, piping, and other civil, mechanical, and structural systems. This project ensures the continuing safe functioning, operation and monitoring of SPU's water supply dams and associated facilities per Federal Energy Regulatory Commission (FERC), state and local regulations, and SPU requirements to prevent loss of life and/or property damage and loss of SPU's ability to deliver reliable drinking water supply to its customers.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	5,934	2,080	2,763	995	1,025	875	1,175	1,175	16,021
Total:	5,934	2,080	2,763	995	1,025	875	1,175	1,175	16,021
Fund Appropriations/Allocations									
Water Fund	5,934	2,080	2,763	995	1,025	875	1,175	1,175	16,021
Total*:	5,934	2,080	2,763	995	1,025	875	1,175	1,175	16,021
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		1,113	2,763	995	1,025	875	1,175	1,175	9,120
Total:		1,113	2,763	995	1,025	875	1,175	1,175	9,120

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Distribution System Improvements

BCL/Program Name:	Distribution	BCL/Program Code:	C110B
Project Type:	Improved Facility	Start Date:	Q1/2003
Project ID:	C1128	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project improves service reliability, pressure, capacity, and fire flow in the City's water distribution system. Typical improvements may include, but are not limited to, booster pump station installation, creation of new service zones, and tank elevation or replacement, as well as additional water main pipelines and pressure reducing valves. These improvements to service levels meet Washington Department of Health (DOH) regulations and SPU's Distribution System Pressure Policy to provide greater than 20 psi service pressure. These improvements provide higher flow of water for fire protection which improves public safety and results in smaller and shorter fires.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	7,075	3,030	2,010	3,000	3,500	4,000	4,000	4,000	30,615
Total:	7,075	3,030	2,010	3,000	3,500	4,000	4,000	4,000	30,615
Fund Appropriations/Allocations									
Water Fund	7,075	3,030	2,010	3,000	3,500	4,000	4,000	4,000	30,615
Total*:	7,075	3,030	2,010	3,000	3,500	4,000	4,000	4,000	30,615
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		2,984	2,010	3,000	3,500	4,000	4,000	4,000	23,494
Total:		2,984	2,010	3,000	3,500	4,000	4,000	4,000	23,494

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Distribution System In-Line Gate Valves

BCL/Program Name:	Distribution	BCL/Program Code:	C110B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1999
Project ID:	C1136	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project replaces line valves in the water distribution system throughout the City of Seattle that fail or are obsolete due to age or lack of replacement parts. The replacement of these gate valves extends the useful life of the water main and restores the performance of the water distribution system. This ongoing project also adds valves within the system to enhance system performance, enhance operational control, and reduce the number of customers whose service is interrupted during a water main shut down.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	1,172	417	338	345	351	359	366	373	3,721
Total:	1,172	417	338	345	351	359	366	373	3,721
Fund Appropriations/Allocations									
Water Fund	1,172	417	338	345	351	359	366	373	3,721
Total*:	1,172	417	338	345	351	359	366	373	3,721
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		331	338	345	351	359	366	373	2,463
Total:		331	338	345	351	359	366	373	2,463

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Downstream Fish Habitat

BCL/Program Name:	Habitat Conservation Program	BCL/Program Code:	C160B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2001
Project ID:	C1607	End Date:	Q4/2017
Location:	Cedar River Watershed		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project provides protection and restoration of fish habitat along the lower Cedar River, below the City's municipal watershed boundary at the Landsburg Dam and includes both acquisition of habitat lands and habitat restoration on the main stem of the Cedar River. Although this is an ongoing project, no work is currently planned for 2018. This project is a requirement of the Cedar River Habitat Conservation Plan (HCP).

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	8,647	724	650	1,175	1,125	532	0	0	12,853
Total:	8,647	724	650	1,175	1,125	532	0	0	12,853
Fund Appropriations/Allocations									
Water Fund	8,647	724	650	1,175	1,125	532	0	0	12,853
Total*:	8,647	724	650	1,175	1,125	532	0	0	12,853
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		850	650	1,175	1,125	532	0	0	4,332
Total:		850	650	1,175	1,125	532	0	0	4,332

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Emergency Storms - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Rehabilitation or Restoration	Start Date:	Q3/2007
Project ID:	C4120-WF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project funds water infrastructure capital improvement projects resulting from previous and possible future storm events. Projects within this project are potentially Federal Emergency Management Agency (FEMA) reimbursable and need to be separated for tracking and reimbursement purposes. Typical improvements include, but are not limited to, repairing and improving roads, bridges, and other stream crossing structures in the City's Municipal Watersheds, as well as replacing damaged equipment, such as pumps and security gates, and stabilizing debris slide areas and stream banks.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	323	150	100	100	100	100	0	0	873
Total:	323	150	100	100	100	100	0	0	873
Fund Appropriations/Allocations									
Water Fund	323	150	100	100	100	100	0	0	873
Total*:	323	150	100	100	100	100	0	0	873
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		100	100	100	100	100	0	0	500
Total:		100	100	100	100	100	0	0	500

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Environmental Stewardship

BCL/Program Name:	Watershed Stewardship	BCL/Program Code:	C130B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2014
Project ID:	C1301	End Date:	Q4/2017
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This project provides improvements to facilities and remediation for identified soil contamination at various locations in City watershed areas, railroad right-of-way, and transmission pipelines.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	127	390	64	75	82	65	90	65	959
Total:	127	390	64	75	82	65	90	65	959
Fund Appropriations/Allocations									
Water Fund	127	390	64	75	82	65	90	65	959
Total*:	127	390	64	75	82	65	90	65	959
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		341	64	75	82	65	90	65	782
Total:		341	64	75	82	65	90	65	782

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

First Hill Streetcar - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2010
Project ID:	C4130-WF	End Date:	Q4/2018
Location:	First Hill		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project plans and relocates water facilities that will be impacted by the SDOT-led First Hill Streetcar project, which will connect major employment centers on First Hill to the regional light rail system stations on Capitol Hill and in the International District. It is currently in the planning phase.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	679	676	1,021	6,541	4,674	0	0	0	13,590
Total:	679	676	1,021	6,541	4,674	0	0	0	13,590
Fund Appropriations/Allocations									
Water Fund	679	676	1,021	6,541	4,674	0	0	0	13,590
Total*:	679	676	1,021	6,541	4,674	0	0	0	13,590
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		955	1,021	6,541	4,674	0	0	0	13,191
Total:		955	1,021	6,541	4,674	0	0	0	13,191

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Hatchery Works

BCL/Program Name:	Water Resources	BCL/Program Code:	C150B
Project Type:	Improved Facility	Start Date:	Q1/2016
Project ID:	C1511	End Date:	Q4/2021
Location:	Cedar River Watershed		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project provides improvements to the sockeye salmon hatchery, including improvements to the Broodstock collection facility, improvements to the hatchery spring water pumps, improvements to adult holding ponds ,and additions for water redundancy. These facilities are a requirement of the Landsburg Mitigation Agreement and the Muckleshoot Settlement Agreement.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	0	300	2,379	5,330	380	500	500	250	9,639
Total:	0	300	2,379	5,330	380	500	500	250	9,639
Fund Appropriations/Allocations									
Water Fund	0	300	2,379	5,330	380	500	500	250	9,639
Total*:	0	300	2,379	5,330	380	500	500	250	9,639
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		314	2,379	5,330	380	500	500	250	9,653
Total:		314	2,379	5,330	380	500	500	250	9,653

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Heavy Equipment Purchases - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Investment	Start Date:	ONGOING
Project ID:	C4116-WF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides SPU's Water Utility crews with new and replacement heavy equipment that is used throughout Seattle and King County. Typical purchases include backhoes, graders, loaders, dozers, service trucks, and dump trucks. This equipment transports work crews and tools to jobsites and supports the safe and efficient replacement, repair, and maintenance of infrastructure that delivers high quality drinking water to 1.5 million customers in King County. This project is one of four SPU fund-specific heavy equipment CIP projects.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	10,505	2,297	2,700	2,500	2,000	2,400	2,300	2,800	27,502
Total:	10,505	2,297	2,700	2,500	2,000	2,400	2,300	2,800	27,502
Fund Appropriations/Allocations									
Water Fund	10,505	2,297	2,700	2,500	2,000	2,400	2,300	2,800	27,502
Total*:	10,505	2,297	2,700	2,500	2,000	2,400	2,300	2,800	27,502
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		3,857	2,700	2,500	2,000	2,400	2,300	2,800	18,557
Total:		3,857	2,700	2,500	2,000	2,400	2,300	2,800	18,557

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Instream Flow Management Studies

BCL/Program Name:	Habitat Conservation Program	BCL/Program Code:	C160B
Project Type:	Improved Facility	Start Date:	Q4/2003
Project ID:	C1608	End Date:	ONGOING
Location:	Cedar River Watershed		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides research and monitoring to examine the effects of instream flows on salmon species in the Cedar River. This ongoing project monitors flow compliance, verifies accretion flows downstream of Landsburg, improves flow-switching criteria, and develops a better understanding of relationships between stream flow and aquatic habitat. This ongoing project is a requirement of the Cedar River Habitat Conservation Plan (HCP).

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	2,110	220	142	147	152	157	160	165	3,253
Total:	2,110	220	142	147	152	157	160	165	3,253
Fund Appropriations/Allocations									
Water Fund	2,110	220	142	147	152	157	160	165	3,253
Total*:	2,110	220	142	147	152	157	160	165	3,253
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		102	142	147	152	157	160	165	1,025
Total:		102	142	147	152	157	160	165	1,025

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Integrated Control Monitoring Program - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Investment	Start Date:	Q1/2002
Project ID:	C4108-WF	End Date:	Q4/2022
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project provides for electronic and mechanical system upgrades as required at various City facilities. The drinking water Supervisory Control and Data Acquisition (SCADA) system was installed in 2005 (C195008) throughout King County. System components include, but is not limited to, treatment/flow/pressure sensors, remote control pumps/valves used in the conveyance and quality of drinking water and the delivery of water to fire hydrants, also known as "fire flow".

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	1,270	231	360	360	360	360	360	360	3,661
Total:	1,270	231	360	360	360	360	360	360	3,661
Fund Appropriations/Allocations									
Water Fund	1,270	231	360	360	360	360	360	360	3,661
Total*:	1,270	231	360	360	360	360	360	360	3,661
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		313	360	360	360	360	360	360	2,473
Total:		313	360	360	360	360	360	360	2,473

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Kerriston Road

BCL/Program Name:	Watershed Stewardship	BCL/Program Code:	C130B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2009
Project ID:	C1314	End Date:	Q4/2013
Location:	Cedar River Watershed		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project acquires properties adjacent to the lower Cedar River Municipal Watershed that are accessed via Kerriston Road which runs through the lower municipal watershed. Acquisition of these lands minimizes the risk to water quality from access through the watershed by the public. No funding has been requested for the 2013-2018 time frame but once specific acquisitions are identified, appropriate budget authority will be sought.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	0	0	0	0	0	0	0	0	0
Total:	0	0	0	0	0	0	0	0	0
Fund Appropriations/Allocations									
Water Fund	0	0	0	0	0	0	0	0	0
Total*:	0	0	0	0	0	0	0	0	0
O & M Costs (Savings)			0	0	0	0	0	0	0

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Landsburg Chlorination Upgrades

BCL/Program Name:	Water Quality & Treatment	BCL/Program Code:	C140B
Project Type:	Improved Facility	Start Date:	Q1/2011
Project ID:	C1417	End Date:	Q4/2016
Location:	Cedar River Watershed		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project constructs new sodium hypochlorite (liquid) chlorination facilities at the Landsburg Cedar River Diversion Facilities. The project will enhance safety and site security through replacement of the aging gas chlorine facilities at the site.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	0	0	0	0	0	0	0	0	0
Total:	0	0	0	0	0	0	0	0	0
Fund Appropriations/Allocations									
Water Fund	0	0	0	0	0	0	0	0	0
Total*:	0	0	0	0	0	0	0	0	0
O & M Costs (Savings)			0	0	0	0	0	0	0

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Mercer Corridor Project East Phase - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2007
Project ID:	C4114-WF	End Date:	Q3/2016
Location:	South Lake Union		
Neighborhood Plan:	South Lake Union	Council District:	More than one
Neighborhood District:	Lake Union	Urban Village:	South Lake Union

This project funds the repair, relocation, protection, and upgrade of water infrastructure related to the redevelopment of the South Lake Union neighborhood. This effort identifies SPU water system direct impacts, opportunities for system improvements, and cost responsibility. This project also funds planning-level coordination with other City departments on projects within the South Lake Union area.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	3,428	175	0	0	0	0	0	0	3,603
Total:	3,428	175	0	0	0	0	0	0	3,603
Fund Appropriations/Allocations									
Water Fund	3,428	175	0	0	0	0	0	0	3,603
Total*:	3,428	175	0	0	0	0	0	0	3,603
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		0	0	0	0	0	0	0	0
Total:		0	0	0	0	0	0	0	0

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Mercer Corridor Project West Phase - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2010
Project ID:	C4133-WF	End Date:	Q4/2016
Location:	Mercer ST Mercer ST/Elliot AVE W/Dexter AVE N		
Neighborhood Plan:	In more than one Plan	Council District:	7
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project provides water utility improvements and relocations related to the Mercer Corridor Project, West phase. Work in this project will convert Mercer Street to a two-way street between Dexter Ave and Elliott Ave West. The Mercer underpass at Aurora Ave will be widened to allow for six travel lanes and a bicycle/pedestrian shared use path between Dexter Ave and 5th Ave North. Roy Street, between Aurora and Queen Anne Ave., will also be converted to a two-way street with on-road bicycle lanes.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	1,416	293	11	0	0	0	0	0	1,721
Total:	1,416	293	11	0	0	0	0	0	1,721
Fund Appropriations/Allocations									
Water Fund	1,416	293	11	0	0	0	0	0	1,721
Total*:	1,416	293	11	0	0	0	0	0	1,721
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		30	11	0	0	0	0	0	41
Total:		30	11	0	0	0	0	0	41

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Meter Replacement - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2004
Project ID:	C4101-WF	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project funds replacement of existing water meters when they fail or become obsolete. Meters measuring up to two inches are replaced when they stop running. Meters measuring three inches or more are repaired when possible, but are replaced when repair costs exceed replacement costs. Accurate water meters ensure that customers are billed fairly for the water they use. Since water meters also are used to bill customers for their wastewater discharges, 48 percent of the funding is allocated to the Drainage and Wastewater line of business.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	6,312	900	598	601	608	615	521	531	10,686
Total:	6,312	900	598	601	608	615	521	531	10,686
Fund Appropriations/Allocations									
Water Fund	6,312	900	598	601	608	615	521	531	10,686
Total*:	6,312	900	598	601	608	615	521	531	10,686
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		524	598	601	608	615	521	531	3,997
Total:		524	598	601	608	615	521	531	3,997

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Morse Lake Pump Plant

BCL/Program Name:	Water Resources	BCL/Program Code:	C150B
Project Type:	Improved Facility	Start Date:	Q1/2003
Project ID:	C1508	End Date:	Q4/2017
Location:	Cedar River Watershed		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project includes funding to replace the existing barge-mounted pump plants at Chester Morse Lake. The pump plants at Chester Morse Lake are nearing the end of their useful lives. These pumps are designed for drought situations to access so-called "dead storage" at the lake, which is at or below the level that drains by gravity. The improvements enhance the ability to provide reliable water supply and in-stream flows in the Cedar River during drought conditions and to address requirements of the Habitat Conservation Plan. Most pre-2012 costs are deferred costs that will be amortized over ten years.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	32,455	8,324	272	0	0	0	0	0	41,051
Total:	32,455	8,324	272	0	0	0	0	0	41,051
Fund Appropriations/Allocations									
Water Fund	32,455	8,324	272	0	0	0	0	0	41,051
Total*:	32,455	8,324	272	0	0	0	0	0	41,051
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		11,844	272	0	0	0	0	0	12,116
Total:		11,844	272	0	0	0	0	0	12,116

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Multiple Utility Relocation

BCL/Program Name:	Distribution	BCL/Program Code:	C110B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	C1133	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project provides funding for necessary modifications to the location and depth of water pipes when they come into conflict with street improvements or other utility projects. The benefit is continued water service to customers while accommodating transportation and other needs in the street right-of-way.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	5,810	1,524	500	501	500	500	500	500	10,335
Total:	5,810	1,524	500	501	500	500	500	500	10,335
Fund Appropriations/Allocations									
Water Fund	5,810	1,524	500	501	500	500	500	500	10,335
Total*:	5,810	1,524	500	501	500	500	500	500	10,335
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		113	500	501	500	500	500	500	3,114
Total:		113	500	501	500	500	500	500	3,114

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Operational Facility - Construction - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2004
Project ID:	C4106-WF	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing facilities project renovates, rehabilitates, and replaces existing buildings and constructs new facilities at various locations within the city limits to address deficiencies, failures, and functional changes in the SPU Lines of Business. Typical improvements include, but are not limited to, roof replacements, exterior wall or cladding replacements, and improvements to administrative office space, crew and shop space, lighting, heating and ventilation systems, and facilities structures. These improvements increase the useful life of the facilities, preserve the value of the assets, and provide a safe working environment.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	3,207	1,753	4,466	4,259	13,186	7,834	6,832	3,237	44,774
Total:	3,207	1,753	4,466	4,259	13,186	7,834	6,832	3,237	44,774
Fund Appropriations/Allocations									
Water Fund	3,207	1,753	4,466	4,259	13,186	7,834	6,832	3,237	44,774
Total*:	3,207	1,753	4,466	4,259	13,186	7,834	6,832	3,237	44,774
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		2,740	4,466	4,259	13,186	7,834	6,832	3,237	42,554
Total:		2,740	4,466	4,259	13,186	7,834	6,832	3,237	42,554

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Operational Facility - Other - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q4/2006
Project ID:	C4115-WF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing facilities project provides funding to purchase, replace, or install new building materials or building equipment within the city limits to address deficiencies, failures, and functional changes in the SPU Lines of Business. Typical improvements include, but are not limited to, water systems, prefabricated buildings, storage buildings, and fencing. Specific projects have been identified through 2016. As future projects are identified, necessary funding will be requested.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	864	215	0	0	0	0	0	0	1,079
Total:	864	215	0	0	0	0	0	0	1,079
Fund Appropriations/Allocations									
Water Fund	864	215	0	0	0	0	0	0	1,079
Total*:	864	215	0	0	0	0	0	0	1,079
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		81	0	0	0	0	0	0	81
Total:		81	0	0	0	0	0	0	81

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Operations Control Center - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2003
Project ID:	C4105-WF	End Date:	ONGOING
Location:	2700 Airport Way S		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	2
Neighborhood District:	Greater Duwamish	Urban Village:	Duwamish

This ongoing facilities project renovates, rehabilitates, and replaces existing buildings and constructs new facilities at the Operations Control Center located at 2700 Airport Way South to improve the efficiency and effectiveness of the field crews delivering utility services to customers. Typical improvements include, but are not limited to, roof and other exterior replacements, improvements to public spaces, office and crew spaces and lighting, and heating and ventilation systems. These improvements increase the useful life of the facility, preserve the value of the asset, and provide a safe work and public space environment.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	1,401	140	670	716	10	0	315	945	4,197
Total:	1,401	140	670	716	10	0	315	945	4,197
Fund Appropriations/Allocations									
Water Fund	1,401	140	670	716	10	0	315	945	4,197
Total*:	1,401	140	670	716	10	0	315	945	4,197
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		471	670	716	10	0	315	945	3,126
Total:		471	670	716	10	0	315	945	3,126

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Other Major Transportation Projects - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Rehabilitation or Restoration	Start Date:	Q2/2008
Project ID:	C4123-WF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project funds Water projects that mitigate undesirable impacts and take advantage of opportunities generated by the capital transportation projects of the Washington State Department of Transportation (WSDOT) and the Seattle Department of Transportation (SDOT) throughout the City. Work may include, but is not limited to, physically protecting the infrastructure during the transportation construction process, repairing and replacing damaged infrastructure, and improving existing infrastructure to meet higher standards. Project sites may include, but are not limited to, State Route 520, Interstate 5, and Interstate 90.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	199	422	50	250	500	500	0	0	1,921
Total:	199	422	50	250	500	500	0	0	1,921
Fund Appropriations/Allocations									
Water Fund	199	422	50	250	500	500	0	0	1,921
Total*:	199	422	50	250	500	500	0	0	1,921
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		120	50	250	500	500	0	0	1,420
Total:		120	50	250	500	500	0	0	1,420

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Pump Station Improvements

BCL/Program Name:	Distribution	BCL/Program Code:	C110B
Project Type:	Rehabilitation or Restoration	Start Date:	Q3/2008
Project ID:	C1135	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project makes improvements to water pump stations by replacing electric motors, starters, control systems, and other elements. The benefit is improved reliability of water pump stations which in turn reduces the likelihood of large scale water outages.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	264	746	800	600	250	250	500	500	3,910
Total:	264	746	800	600	250	250	500	500	3,910
Fund Appropriations/Allocations									
Water Fund	264	746	800	600	250	250	500	500	3,910
Total*:	264	746	800	600	250	250	500	500	3,910
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		300	800	600	250	250	500	500	3,200
Total:		300	800	600	250	250	500	500	3,200

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Purveyor Meters Replace - SPU

BCL/Program Name:	Transmission	BCL/Program Code:	C120B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2000
Project ID:	C1206	End Date:	ONGOING
Location:	Regional		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing project installs new meters for Seattle's wholesale customers at the customer's request. In addition, existing meters are upgraded to current safety standards. The benefits are accurate metering and billing for Seattle's wholesale customers while meeting their water needs.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	771	363	208	213	218	223	100	100	2,196
Total:	771	363	208	213	218	223	100	100	2,196
Fund Appropriations/Allocations									
Water Fund	771	363	208	213	218	223	100	100	2,196
Total*:	771	363	208	213	218	223	100	100	2,196
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		204	208	213	218	223	100	100	1,266
Total:		204	208	213	218	223	100	100	1,266

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Regional Facility - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2007
Project ID:	C4107-WF	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing facilities project renovates, rehabilitates, replaces existing buildings, and constructs new facilities at various locations outside of City limits to address deficiencies, failures, and functional changes in the drinking water system.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	21,332	1,570	8,509	5,449	541	925	2,900	7,650	48,875
Total:	21,332	1,570	8,509	5,449	541	925	2,900	7,650	48,875
Fund Appropriations/Allocations									
Water Fund	21,332	1,570	8,509	5,449	541	925	2,900	7,650	48,875
Total*:	21,332	1,570	8,509	5,449	541	925	2,900	7,650	48,875
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		1,405	8,509	5,449	541	925	2,900	7,650	27,378
Total:		1,405	8,509	5,449	541	925	2,900	7,650	27,378

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Regional Water Conservation Program

BCL/Program Name:	Water Resources	BCL/Program Code:	C150B
Project Type:	Improved Facility	Start Date:	Q1/1999
Project ID:	C1504	End Date:	ONGOING
Location:	Citywide and Regional		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project provides customer incentives for residential, commercial, institutional, and industrial water efficiency capital improvements. Typical examples include, but are not limited to, water efficient toilets and urinals, clothes washers, landscape irrigation devices, upgrades in industrial process water, and replacing water-cooled equipment with air-cooled versions. The project benefits both existing and future ratepayers. Water conservation provides low-cost options for meeting potential challenges from climate change, managing Seattle's drinking water resources, and customer efficiency and potential cost savings on water bills.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	21,964	2,177	1,406	1,439	1,570	1,610	1,746	1,883	33,795
Total:	21,964	2,177	1,406	1,439	1,570	1,610	1,746	1,883	33,795
Fund Appropriations/Allocations									
Water Fund	21,964	2,177	1,406	1,439	1,570	1,610	1,746	1,883	33,795
Total*:	21,964	2,177	1,406	1,439	1,570	1,610	1,746	1,883	33,795
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		1,358	1,406	1,439	1,570	1,610	1,746	1,883	11,012
Total:		1,358	1,406	1,439	1,570	1,610	1,746	1,883	11,012

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Replace Air Valve Chambers

BCL/Program Name:	Transmission	BCL/Program Code:	C120B
Project Type:	Rehabilitation or Restoration	Start Date:	Q3/1999
Project ID:	C1209	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing project improves access to the chambers located throughout the transmission water system. The replacement and enlargement of the entrance to transmission chambers increase the safety for workers that need to enter the chambers twice per year.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	1,088	125	125	127	130	133	130	130	1,987
Total:	1,088	125	125	127	130	133	130	130	1,987
Fund Appropriations/Allocations									
Water Fund	1,088	125	125	127	130	133	130	130	1,987
Total*:	1,088	125	125	127	130	133	130	130	1,987
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		125	125	127	130	133	130	130	899
Total:		125	125	127	130	133	130	130	899

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Reservoir Covering-Bitter Lake

BCL/Program Name:	Water Quality & Treatment	BCL/Program Code:	C140B
Project Type:	Improved Facility	Start Date:	Q1/2019
Project ID:	C1419	End Date:	Q4/2020
Location:	N 143rd St and Linden Ave N		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	5
Neighborhood District:	Northwest	Urban Village:	Not in an Urban Village

This project addresses the need for a new cover on Bitter Lake Reservoir once the existing floating cover has reached the end of its useful life. Replacing the existing structure with a new hard covered structure within the same footprint will be one of the options considered. A new cover will be designed and constructed to improve and maintain the water quality protection and security enhancement functions of the existing cover.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	0	0	25	75	590	1,790	7,310	18,650	28,440
Total:	0	0	25	75	590	1,790	7,310	18,650	28,440
Fund Appropriations/Allocations									
Water Fund	0	0	25	75	590	1,790	7,310	18,650	28,440
Total*:	0	0	25	75	590	1,790	7,310	18,650	28,440
O & M Costs (Savings)			0	0	0	0	0	0	0

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Reservoir Covering - Beacon

BCL/Program Name:	Water Quality & Treatment	BCL/Program Code:	C140B
Project Type:	Improved Facility	Start Date:	Q1/2001
Project ID:	C1408	End Date:	Q4/2018
Location:	S Spokane St and Beacon Ave S		
Neighborhood Plan:	North Beacon Hill	Council District:	2
Neighborhood District:	Greater Duwamish	Urban Village:	Not in an Urban Village

This project includes Seismic Retrofits at Beacon Reservoir using the Soil-Structure Interaction Seismic Analysis approach for design to determine its seismic performance during ground shaking and to assess whether or not a seismic deficiency exists.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	1,936	135	8,153	10	0	0	0	0	10,234
Total:	1,936	135	8,153	10	0	0	0	0	10,234
Fund Appropriations/Allocations									
Water Fund	1,936	135	8,153	10	0	0	0	0	10,234
Total*:	1,936	135	8,153	10	0	0	0	0	10,234
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		1,382	8,153	10	0	0	0	0	9,545
Total:		1,382	8,153	10	0	0	0	0	9,545

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Reservoir Covering - Maple Leaf

BCL/Program Name:	Water Quality & Treatment	BCL/Program Code:	C140B
Project Type:	Improved Facility	Start Date:	Q4/2001
Project ID:	C1411	End Date:	Q4/2016
Location:	NE 86th St and Roosevelt Wy NE		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	5
Neighborhood District:	North	Urban Village:	Not in an Urban Village

This project includes Seismic Retrofits at Maple Leaf Reservoir using the Soil-Structure Interaction Seismic Analysis approach for design to determine its seismic performance during ground shaking and to assess whether or not a seismic deficiency exists.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	45,500	2,117	6	0	0	0	0	0	47,624
Total:	45,500	2,117	6	0	0	0	0	0	47,624
Fund Appropriations/Allocations									
Water Fund	45,500	2,117	6	0	0	0	0	0	47,624
Total*:	45,500	2,117	6	0	0	0	0	0	47,624
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		424	6	0	0	0	0	0	430
Total:		424	6	0	0	0	0	0	430

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Reservoir Covering - Myrtle

BCL/Program Name:	Water Quality & Treatment	BCL/Program Code:	C140B
Project Type:	Improved Facility	Start Date:	Q4/2001
Project ID:	C1410	End Date:	Q4/2016
Location:	SW Myrtle St and 35th Ave SW		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	1
Neighborhood District:	Southwest	Urban Village:	Not in an Urban Village

This project includes Seismic Retrofits at Myrtle Reservoir using the Soil-Structure Interaction Seismic Analysis approach for design to determine its seismic performance during ground shaking and to assess whether or not a seismic deficiency exists.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	1,547	199	0	0	0	0	0	0	1,746
Total:	1,547	199	0	0	0	0	0	0	1,746
Fund Appropriations/Allocations									
Water Fund	1,547	199	0	0	0	0	0	0	1,746
Total*:	1,547	199	0	0	0	0	0	0	1,746
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		68	0	0	0	0	0	0	68
Total:		68	0	0	0	0	0	0	68

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Reservoir Covering - West Seattle

BCL/Program Name:	Water Quality & Treatment	BCL/Program Code:	C140B
Project Type:	Improved Facility	Start Date:	Q4/2001
Project ID:	C1409	End Date:	Q1/2015
Location:	SW Henderson St and 8th Ave SW		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	1
Neighborhood District:	Delridge	Urban Village:	Not in an Urban Village

This project includes Seismic Retrofits at West Seattle Reservoir using the Soil-Structure Interaction Seismic Analysis approach for design to determine its seismic performance during ground shaking and to assess whether or not a seismic deficiency exists.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	42,364	866	0	0	0	0	0	0	43,230
Total:	42,364	866	0	0	0	0	0	0	43,230
Fund Appropriations/Allocations									
Water Fund	42,364	866	0	0	0	0	0	0	43,230
Total*:	42,364	866	0	0	0	0	0	0	43,230
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		35	0	0	0	0	0	0	35
Total:		35	0	0	0	0	0	0	35

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Reservoir Covering-Lake Forest Park

BCL/Program Name:	Water Quality & Treatment	BCL/Program Code:	C140B
Project Type:	Improved Facility	Start Date:	Q1/2019
Project ID:	C1418	End Date:	Q4/2020
Location:	Lake Forest Park		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Not in an Urban Village

This project addresses the need for a new cover on Lake Forest Park Reservoir once it has reached the end of its useful life. The project will evaluate options for a new cover, including replacing the existing floating Hypolan cover with a similar design. A new cover will be designed and constructed to maintain and improve the water quality protection and security enhancement functions of the existing cover.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	0	0	25	50	590	1,200	9,750	620	12,235
Total:	0	0	25	50	590	1,200	9,750	620	12,235
Fund Appropriations/Allocations									
Water Fund	0	0	25	50	590	1,200	9,750	620	12,235
Total*:	0	0	25	50	590	1,200	9,750	620	12,235
O & M Costs (Savings)			0	0	0	0	0	0	0

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Seattle Direct Service Additional Conservation

BCL/Program Name:	Water Resources	BCL/Program Code:	C150B
Project Type:	Improved Facility	Start Date:	Q1/2001
Project ID:	C1505	End Date:	ONGOING
Location:	Citywide and Direct Service		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project provides water use efficiency resources to the City's low-income customers to implement water conservation measures authorized by Ordinance 120532, adopted in 2001, and supplements funding provided under SPU's Regional Water Conservation project (C1504). Typical improvements consist of, but are not limited to, installing water-efficient fixtures, such as aerating showerheads and faucets, low water use toilets and efficient clothes washers.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	3,297	681	697	713	729	746	863	880	8,606
Total:	3,297	681	697	713	729	746	863	880	8,606
Fund Appropriations/Allocations									
Water Fund	3,297	681	697	713	729	746	863	880	8,606
Total*:	3,297	681	697	713	729	746	863	880	8,606
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		791	697	713	729	746	863	880	5,419
Total:		791	697	713	729	746	863	880	5,419

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Security Improvements - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2005
Project ID:	C4113-WF	End Date:	ONGOING
Location:	Citywide 0/0/0		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing project funds physical, integrated security system components on water infrastructure throughout the City. Components may include, but are not limited to, fences, gates, access control card readers, intercoms, lighting, door and hatch contacts, CCTV cameras, motion detection devices, and fiber and conduit.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	5,406	788	934	838	1,060	938	938	938	11,838
Total:	5,406	788	934	838	1,060	938	938	938	11,838
Fund Appropriations/Allocations									
Water Fund	5,406	788	934	838	1,060	938	938	938	11,838
Total*:	5,406	788	934	838	1,060	938	938	938	11,838
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		1,201	934	838	1,060	938	938	938	6,845
Total:		1,201	934	838	1,060	938	938	938	6,845

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Sound Transit - North Link - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Facility	Start Date:	Q1/2012
Project ID:	C4135-WF	End Date:	Q4/2020
Location:	Various		
Neighborhood Plan:	In more than one Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project funds relocation, replacement, and protection of water infrastructure affected by the development of Sound Transit's Link Light Rail System. Sound Transit is constructing the third segment of their electrical light rail transit system that includes a 4.3 mile light rail extension, three additional stations, and other supporting facilities from the University of Washington to Northgate.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	872	485	192	112	105	73	0	0	1,838
Total:	872	485	192	112	105	73	0	0	1,838
Fund Appropriations/Allocations									
Water Fund	872	485	192	112	105	73	0	0	1,838
Total*:	872	485	192	112	105	73	0	0	1,838
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		308	192	112	105	73	0	0	789
Total:		308	192	112	105	73	0	0	789

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Sound Transit - Water Betterment

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	Improved Facility	Start Date:	Q1/2014
Project ID:	C4125	End Date:	Q4/2018
Location:	Central & South areas of Seattle		
Neighborhood Plan:	In more than one Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project funds improvements to watermain and appurtenances (hydrants, valves, coatings, cathodic protection, etc.) affected by the development of Sound Transit's Light Rail System. These improvements are "opportunity" projects that become available and are cost effective as Sound Transit constructs Light Rail and rebuilds the street right-of-way. This project covers Sound Transit's alignment within SPU's service area, including the South Link to SeaTac International Airport, the University Link, and the North Link towards Northgate.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	1,502	886	0	0	0	0	0	0	2,388
Total:	1,502	886	0	0	0	0	0	0	2,388
Fund Appropriations/Allocations									
Water Fund	1,502	886	0	0	0	0	0	0	2,388
Total*:	1,502	886	0	0	0	0	0	0	2,388
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		0	0	0	0	0	0	0	0
Total:		0	0	0	0	0	0	0	0

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Sound Transit University Link - WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	C4110-WF	End Date:	Q2/2016
Location:	Various		
Neighborhood Plan:	In more than one Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project funds relocation, replacement, and protection of water system infrastructure affected by the development of Sound Transit's Link Light Rail System. Sound Transit is constructing the second segment of their electrical light rail transit system that includes 3.15 miles of tunnel, two additional stations, and other supporting facilities from downtown to the University of Washington.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	408	106	0	0	0	0	0	0	514
Total:	408	106	0	0	0	0	0	0	514
Fund Appropriations/Allocations									
Water Fund	408	106	0	0	0	0	0	0	514
Total*:	408	106	0	0	0	0	0	0	514
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		13	0	0	0	0	0	0	13
Total:		13	0	0	0	0	0	0	13

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Sound Transit-East Link

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Facility	Start Date:	Q2/2013
Project ID:	C4122-WF	End Date:	Q4/2019
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project funds relocation, replacement, and protection of water infrastructure affected by the development of Sound Transit's Link Light Rail System. Sound Transit is constructing the next segment of their electrical light rail transit system that includes 14 mile light rail extension, 10 additional stations total (one in Seattle) and other supporting facilities from the International District across I-90 to Bellevue/Redmond.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	13	421	155	50	25	0	0	0	663
Total:	13	421	155	50	25	0	0	0	663
Fund Appropriations/Allocations									
Water Fund	13	421	155	50	25	0	0	0	663
Total*:	13	421	155	50	25	0	0	0	663
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		159	155	50	25	0	0	0	388
Total:		159	155	50	25	0	0	0	388

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Stream & Riparian Restoration

BCL/Program Name:	Habitat Conservation Program	BCL/Program Code:	C160B
Project Type:	Rehabilitation or Restoration	Start Date:	Q2/2000
Project ID:	C1602	End Date:	ONGOING
Location:	Cedar River Watershed		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides stream and riparian restoration in the Cedar River Watershed, including large woody debris placement, riparian conifer under-planting, and culvert replacement for fish passage and peak storm flows. This project is a requirement under the Cedar River Habitat Conservation Plan (HCP).

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	3,836	250	215	217	219	220	244	245	5,446
Total:	3,836	250	215	217	219	220	244	245	5,446
Fund Appropriations/Allocations									
Water Fund	3,836	250	215	217	219	220	244	245	5,446
Total*:	3,836	250	215	217	219	220	244	245	5,446
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		186	215	217	219	220	244	245	1,546
Total:		186	215	217	219	220	244	245	1,546

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Tank Improvements

BCL/Program Name:	Distribution	BCL/Program Code:	C110B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2008
Project ID:	C1134	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project implements water quality, seismic, and other improvements to steel water tanks in Seattle. Functional water tanks are essential to public health protection as they assure that the distribution system is under pressure at all times, even when pump stations or control valves malfunction. Depressurization of the water system may result in siphoning back contaminants from faulty private systems and from the ground into the water pipes.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	2,472	750	265	1,875	4,452	3,000	450	1,000	14,264
Total:	2,472	750	265	1,875	4,452	3,000	450	1,000	14,264
Fund Appropriations/Allocations									
Water Fund	2,472	750	265	1,875	4,452	3,000	450	1,000	14,264
Total*:	2,472	750	265	1,875	4,452	3,000	450	1,000	14,264
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		208	265	1,875	4,452	3,000	450	1,000	11,250
Total:		208	265	1,875	4,452	3,000	450	1,000	11,250

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Tolt Bridges

BCL/Program Name:	Watershed Stewardship	BCL/Program Code:	C130B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2004
Project ID:	C1308	End Date:	ONGOING
Location:	Tolt River Watershed		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project replaces aging bridges on forest roads in the Tolt River Watershed, including Chuck Judd Creek Bridge and Siwash Creek Bridge. It improves aging bridge assets in the watershed transportation system to provide City employees, City contractors, and visitors with safe and adequate access to City water supply and hydroelectric assets while minimizing and reducing environmental impacts over time. This project maintains compliance with state laws and safety and environmental regulations, including Washington Department of Natural Resources forest practice regulations and Washington Department of Health Watershed Protection Plan regulations.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	0	450	1	1	1	0	0	0	453
Total:	0	450	1	1	1	0	0	0	453
Fund Appropriations/Allocations									
Water Fund	0	450	1	1	1	0	0	0	453
Total*:	0	450	1	1	1	0	0	0	453
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		0	1	1	1	0	0	0	3
Total:		0	1	1	1	0	0	0	3

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Tolt Watershed Restoration

BCL/Program Name:	Watershed Stewardship	BCL/Program Code:	C130B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2009
Project ID:	C1310	End Date:	Q4/2016
Location:	Tolt River Watershed		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project provides aquatic and riparian restoration, and funds improvements and decommissioning of the road system in the Tolt River Municipal Watershed and is based upon best practices for land management. Projects are based upon recommendations of the 2011 Tolt Watershed Management Plan.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	292	0	0	0	0	0	0	0	292
Total:	292	0	0	0	0	0	0	0	292
Fund Appropriations/Allocations									
Water Fund	292	0	0	0	0	0	0	0	292
Total*:	292	0	0	0	0	0	0	0	292
O & M Costs (Savings)			0	0	0	0	0	0	0

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Transmission Pipelines Rehabilitation

BCL/Program Name:	Transmission	BCL/Program Code:	C120B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2005
Project ID:	C1207	End Date:	ONGOING
Location:	Regional		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing project rehabilitates and upgrades water pipes and associated structures in the City of Seattle's transmission system. It assists SPU in providing agreed-upon pressure and flow for wholesale customers, limiting drinking water supply outages, and meeting applicable regulatory requirements of the Washington Department of Health.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	3,088	2,568	3,283	21,431	21,435	5,356	1,850	1,500	60,511
Total:	3,088	2,568	3,283	21,431	21,435	5,356	1,850	1,500	60,511
Fund Appropriations/Allocations									
Water Fund	3,088	2,568	3,283	21,431	21,435	5,356	1,850	1,500	60,511
Total*:	3,088	2,568	3,283	21,431	21,435	5,356	1,850	1,500	60,511
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		1,112	3,283	21,431	21,435	5,356	1,850	1,500	55,967
Total:		1,112	3,283	21,431	21,435	5,356	1,850	1,500	55,967

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Transmission Right-of-Way Improvements

BCL/Program Name:	Watershed Stewardship	BCL/Program Code:	C130B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2012
Project ID:	C1316	End Date:	Q4/2014
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project provides drainage and vegetation improvements within and adjacent to water transmission rights-of-way and in the Lake Youngs Reserve. These improvements will reduce long-term maintenance costs, contribute to worker safety, and reduce sediment delivery adjacent waterways.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	272	0	0	0	0	0	0	0	272
Total:	272	0	0	0	0	0	0	0	272
Fund Appropriations/Allocations									
Water Fund	272	0	0	0	0	0	0	0	272
Total*:	272	0	0	0	0	0	0	0	272
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		40	0	0	0	0	0	0	40
Total:		40	0	0	0	0	0	0	40

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Treatment Facility/Water Quality Improvements

BCL/Program Name:	Water Quality & Treatment	BCL/Program Code:	C140B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	C1413	End Date:	ONGOING
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides construction of various smaller-scale water quality and treatment facility rehabilitation and improvement projects that may develop on short notice over the course of each year. It enhances SPU's ability to address water system improvement needs that relate to public health protection and drinking water regulatory compliance.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	449	322	234	250	250	480	150	150	2,286
Total:	449	322	234	250	250	480	150	150	2,286
Fund Appropriations/Allocations									
Water Fund	449	322	234	250	250	480	150	150	2,286
Total*:	449	322	234	250	250	480	150	150	2,286
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		250	234	250	250	480	150	150	1,764
Total:		250	234	250	250	480	150	150	1,764

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Upland Reserve Forest Restoration

BCL/Program Name:	Habitat Conservation Program	BCL/Program Code:	C160B
Project Type:	Rehabilitation or Restoration	Start Date:	Q2/2000
Project ID:	C1603	End Date:	ONGOING
Location:	Cedar River Watershed		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides upland forest restoration in the Cedar River Watershed, including ecological and restoration thinning, conifer planting, forest inventory and modeling, and species monitoring. This project is a requirement under the Cedar River Habitat Conservation Plan (HCP.)

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	6,926	93	82	82	83	82	82	82	7,513
Total:	6,926	93	82	82	83	82	82	82	7,513
Fund Appropriations/Allocations									
Water Fund	6,926	93	82	82	83	82	82	82	7,513
Total*:	6,926	93	82	82	83	82	82	82	7,513
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		101	82	82	83	82	82	82	595
Total:		101	82	82	83	82	82	82	595

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Water Infrastructure - Distribution System Modifications

BCL/Program Name:	Distribution	BCL/Program Code:	C110B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2013
Project ID:	C1138	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project provides funding for modifications and relocations of existing Distribution System assets resulting from third party project impacts to Distribution System infrastructure located in the right-of-way or on public property. The costs are recovered from third parties and primarily other public utilities and agencies through Memorandums of Agreement and standard charges. This project covers all Distribution System modifications and relocations that are funded by third parties excluding Water main Extension project projects. The benefit of this project is accommodation of third party development by relocating or modifying existing Distribution System infrastructure, while retaining a Distribution System that continues to provide cost effective service to the ratepayer.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	279	0	104	106	108	110	113	115	936
Total:	279	0	104	106	108	110	113	115	936
Fund Appropriations/Allocations									
Water Fund	279	0	104	106	108	110	113	115	936
Total*:	279	0	104	106	108	110	113	115	936
O & M Costs (Savings)			0	0	0	0	0	0	0

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Water Infrastructure - Hydrant Replacement/Relocation

BCL/Program Name:	Distribution	BCL/Program Code:	C110B
Project Type:	Rehabilitation or Restoration	Start Date:	Q4/1998
Project ID:	C1110	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project renews or replaces existing hydrants in the City's water distribution system. In general, hydrant renewal or replacement may occur as a result of hydrant malfunction, catastrophic failure due to vehicle damage, or to meet SPU criticality criteria such as spacing, location, cost, opportunity projects, or flow and pressure problems. This project improves access to fire hydrants for the Seattle Fire Department (SFD) and helps to reduce the damage as a result of fire by locating fire hydrants in alternate or additional locations.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	4,643	217	212	216	221	225	230	235	6,198
Total:	4,643	217	212	216	221	225	230	235	6,198
Fund Appropriations/Allocations									
Water Fund	4,643	217	212	216	221	225	230	235	6,198
Total*:	4,643	217	212	216	221	225	230	235	6,198
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		208	212	216	221	225	230	235	1,546
Total:		208	212	216	221	225	230	235	1,546

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Water Infrastructure - New Hydrants

BCL/Program Name:	Distribution	BCL/Program Code:	C110B
Project Type:	New Facility	Start Date:	Q2/1999
Project ID:	C1112	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project installs new hydrants in the City's water distribution system. In general, new hydrants are installed to meet service requests made by private property owners and to comply with Washington Administrative Code (WAC) or Seattle Fire Department (SFD) requirements. This project helps to reduce the damage as a result of fire by locating new fire hydrants throughout the City's direct service area.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	312	25	13	13	13	14	14	14	418
Total:	312	25	13	13	13	14	14	14	418
Fund Appropriations/Allocations									
Water Fund	312	25	13	13	13	14	14	14	418
Total*:	312	25	13	13	13	14	14	14	418
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		25	13	13	13	14	14	14	106
Total:		25	13	13	13	14	14	14	106

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Water Infrastructure - New Taps

BCL/Program Name:	Distribution	BCL/Program Code:	C110B
Project Type:	New Facility	Start Date:	Q4/1998
Project ID:	C1113	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project installs new drinking water services throughout the City of Seattle. This project provides new connections to existing water mains with no interruption of service to adjacent existing customers, and the installation of metered water service lines from the new tap to the new customer's property lines. This project meets City responsibility for new service connections in the Seattle Municipal Code (SMC) to provide reliable drinking water supply to customers.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	64,195	6,630	8,843	9,020	9,201	9,385	9,572	9,764	126,610
Total:	64,195	6,630	8,843	9,020	9,201	9,385	9,572	9,764	126,610
Fund Appropriations/Allocations									
Water Fund	64,195	6,630	8,843	9,020	9,201	9,385	9,572	9,764	126,610
Total*:	64,195	6,630	8,843	9,020	9,201	9,385	9,572	9,764	126,610
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		8,670	8,843	9,020	9,201	9,385	9,572	9,764	64,455
Total:		8,670	8,843	9,020	9,201	9,385	9,572	9,764	64,455

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Water Infrastructure - Service Renewal

BCL/Program Name:	Distribution	BCL/Program Code:	C110B
Project Type:	Rehabilitation or Restoration	Start Date:	Q4/1998
Project ID:	C1109	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project replaces existing plastic or galvanized water services in the City's water distribution system. Service replacement may occur as a result of leaking, failing, or to reduce damage in case of failure of the water service. This project improves Seattle's water system and extends the life of the system.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	114,679	7,807	7,722	5,837	5,953	6,072	6,193	6,317	160,581
Total:	114,679	7,807	7,722	5,837	5,953	6,072	6,193	6,317	160,581
Fund Appropriations/Allocations									
Water Fund	114,679	7,807	7,722	5,837	5,953	6,072	6,193	6,317	160,581
Total*:	114,679	7,807	7,722	5,837	5,953	6,072	6,193	6,317	160,581
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		7,610	7,722	5,837	5,953	6,072	6,193	6,317	45,705
Total:		7,610	7,722	5,837	5,953	6,072	6,193	6,317	45,705

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Water Infrastructure - Watermain Extensions

BCL/Program Name:	Distribution	BCL/Program Code:	C110B
Project Type:	New Facility	Start Date:	Q1/1998
Project ID:	C1111	End Date:	ONGOING
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project assists developers by adding new water mains to the water system in order to serve new residential and commercial developments. Most of the costs are recovered through standard charges. The benefit of this project is that water service is provided to new housing and businesses throughout Seattle.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	2,513	1,127	845	862	879	897	915	897	8,935
Total:	2,513	1,127	845	862	879	897	915	897	8,935
Fund Appropriations/Allocations									
Water Fund	2,513	1,127	845	862	879	897	915	897	8,935
Total*:	2,513	1,127	845	862	879	897	915	897	8,935
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		828	845	862	879	897	915	897	6,123
Total:		828	845	862	879	897	915	897	6,123

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Water Quality Equipment

BCL/Program Name:	Water Quality & Treatment	BCL/Program Code:	C140B
Project Type:	Improved Facility	Start Date:	Q1/2007
Project ID:	C1414	End Date:	Q4/2015
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project installs water quality monitoring equipment throughout the drinking water distribution system and enhances SPU's drinking water quality, security, and public health surveillance system. This effort will improve Seattle's ability to detect and respond appropriately to potential drinking water contamination events as recommended by research produced by SPU and the Environmental Protection Agency (EPA) for online monitoring equipment and SPU's broader efforts to increase the security of the water system.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	249	176	0	0	0	0	0	0	425
Total:	249	176	0	0	0	0	0	0	425
Fund Appropriations/Allocations									
Water Fund	249	176	0	0	0	0	0	0	425
Total*:	249	176	0	0	0	0	0	0	425
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		100	0	0	0	0	0	0	100
Total:		100	0	0	0	0	0	0	100

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Water Supply Flexibility Program

BCL/Program Name:	Water Resources	BCL/Program Code:	C150B
Project Type:	New Investment	Start Date:	Q1/2008
Project ID:	C1507	End Date:	Q4/2016
Location:	Multiple		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project improves water system performance, reliability, and flexibility during severe weather events, supply and infrastructure emergencies, as well as enhancing environmental performance for fish and supporting regulatory and policy compliance in these areas. Project improvements include Tolt Reservoir Temperature and the Overflow Dike in Chester Morse Lake, and may include but are not limited to, dam integrity and alternatives to improved crest control, reservoir water temperature, and water quality management.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	316	1,441	250	0	0	0	0	0	2,007
Total:	316	1,441	250	0	0	0	0	0	2,007
Fund Appropriations/Allocations									
Water Fund	316	1,441	250	0	0	0	0	0	2,007
Total*:	316	1,441	250	0	0	0	0	0	2,007
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		259	250	0	0	0	0	0	509
Total:		259	250	0	0	0	0	0	509

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Water System Dewatering

BCL/Program Name:	Transmission	BCL/Program Code:	C120B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	C1205	End Date:	ONGOING
Location:	Regional		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	Not in an Urban Village

This ongoing project improves structures used to empty the water from larger pipelines when necessary for inspection or repair. The new structures better control the impact of the water discharged to the environment and comply with current environmental regulations.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	59	54	25	27	30	33	35	36	299
Total:	59	54	25	27	30	33	35	36	299
Fund Appropriations/Allocations									
Water Fund	59	54	25	27	30	33	35	36	299
Total*:	59	54	25	27	30	33	35	36	299
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		144	25	27	30	33	35	36	330
Total:		144	25	27	30	33	35	36	330

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Water System Plan - 2019

BCL/Program Name:	Water Resources	BCL/Program Code:	C150B
Project Type:	New Investment	Start Date:	Q1/2016
Project ID:	C1510	End Date:	Q2/2019
Location:	Various		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project develops the 2019 Water System Plan. This project meets the State requirement that SPU update a water system plan every six years and submit the plan to the Washington Department of Health (DOH) for approval as a condition of the operating permit for the drinking water system.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	0	0	500	300	50	0	0	0	850
Total:	0	0	500	300	50	0	0	0	850
Fund Appropriations/Allocations									
Water Fund	0	0	500	300	50	0	0	0	850
Total*:	0	0	500	300	50	0	0	0	850
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		110	500	300	50	0	0	0	960
Total:		110	500	300	50	0	0	0	960

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Watermain Rehabilitation

BCL/Program Name:	Distribution	BCL/Program Code:	C110B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2004
Project ID:	C1129	End Date:	ONGOING
Location:	Regional		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project replaces or rehabilitates existing water mains in Seattle. Replacements occur when leaks become too frequent. Rehabilitation by lining the interior of the pipe with cement mortar restores the capacity of water mains that have degraded due to interior deposits. The benefits of this project are restored quality of the delivered water, lower use of chlorine to maintain required chlorine residual, and restored pressures.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	4,413	5,182	6,865	5,742	4,600	4,600	4,600	4,300	40,302
Total:	4,413	5,182	6,865	5,742	4,600	4,600	4,600	4,300	40,302
Fund Appropriations/Allocations									
Water Fund	4,413	5,182	6,865	5,742	4,600	4,600	4,600	4,300	40,302
Total*:	4,413	5,182	6,865	5,742	4,600	4,600	4,600	4,300	40,302
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		4,535	6,865	5,742	4,600	4,600	4,600	4,300	35,242
Total:		4,535	6,865	5,742	4,600	4,600	4,600	4,300	35,242

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Watershed Road Improvement/Decommissioning

BCL/Program Name:	Habitat Conservation Program	BCL/Program Code:	C160B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2001
Project ID:	C1601	End Date:	ONGOING
Location:	Cedar River Watershed		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides forest road improvements and decommissioning in the Cedar River Watershed. The purpose of this project is to reduce the delivery of sediment into the waterways in the watershed to protect both aquatic habitat and water quality. This project is a requirement under the Cedar River Watershed Habitat Conservation Plan (HCP.)

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	4,604	1,265	876	840	871	889	951	833	11,130
Total:	4,604	1,265	876	840	871	889	951	833	11,130
Fund Appropriations/Allocations									
Water Fund	4,604	1,265	876	840	871	889	951	833	11,130
Total*:	4,604	1,265	876	840	871	889	951	833	11,130
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		823	876	840	871	889	951	833	6,084
Total:		823	876	840	871	889	951	833	6,084

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program

Yesler Terrace-WF

BCL/Program Name:	Shared Cost Projects	BCL/Program Code:	C410B
Project Type:	New Facility	Start Date:	Q1/2014
Project ID:	C4136-WF	End Date:	Q4/2014
Location:	Yesler and Broadway		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	3
Neighborhood District:	Central	Urban Village:	Not in an Urban Village

This project provides funding for SPU Water infrastructure investments in association with this project. Seattle Housing Authority (SHA) is leading a major project to replace Yesler Terrace's aging public housing buildings with a new mixed-income community.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
Water Rates	236	845	0	0	0	0	0	0	1,081
Total:	236	845	0	0	0	0	0	0	1,081
Fund Appropriations/Allocations									
Water Fund	236	845	0	0	0	0	0	0	1,081
Total*:	236	845	0	0	0	0	0	0	1,081
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		0	0	0	0	0	0	0	0
Total:		0	0	0	0	0	0	0	0

* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

2017 - 2022 Proposed Capital Improvement Program