

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
- 19,500 feet 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 \$874 million over the next six years, from 2016 to 2021.

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 percent 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 percent 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 percent of sediments cleanup project costs.

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CIP Highlights

2016-2021 Proposed Drainage and Wastewater Fund CIP by BCL
(In '000s; total may not sum due to rounding)

BCL	2016	2017	2018	2019	2020	2021	Total
Protection of Beneficial Uses	4,820	8,769	13,952	7,952	8,702	10,160	54,355
Sediments	4,762	3,687	6,958	8,273	18,320	15,983	57,983
Combined Sewer Overflows	56,597	30,591	35,376	63,446	90,940	100,239	377,190
Rehabilitation and Heavy Equipment	19,758	21,758	24,020	24,520	26,520	28,500	145,075
Flooding, Sewer Backups, and Landslides	13,390	20,552	19,232	20,150	7,898	26,162	107,384
Shared Cost Projects	17,845	25,508	14,008	15,474	9,766	12,544	95,144
Technology	12,797	7349	4,588	3,872	3,918	3,999	36,523
Total	129,969	118,231	118,134	143,686	166,064	197,587	873,653

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 federal Environmental Protection Agency (EPA), the Washington State Department of Ecology, King County, and other PRPs including King County on an assessment of contaminants and sources. The Sediments program provides funding for: preliminary studies and analysis for cleanup of

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contaminated sediment sites in which the City is a participant; actual cleanup of contaminated sites; preliminary engineering for future cleanup efforts; and 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 2019.

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, stormwater separation, pump stations, etc.), smaller retrofits, construction of Green Stormwater Infrastructure (GSI) for CSO control, and development of regulatory required plans such as the Integrated Plan (IP), and 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 IP, the largest of which is to construct tunnel storage along the Ship Canal. Planning work to review potential siting areas and perform initial geotechnical investigations is underway and will continue through the coming years. This work is starting early in order to meet CSO Consent Decree compliance date requirements. The project cost was also updated to include the shared cost portion for King County. Negotiations have not been completed, but current estimates have King County paying for 35 percent 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.

Projects include:

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

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

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Water Quality and Pump Station project, both of which are action plans in the SPU Strategic Business Plan.

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 2016, the Shared Cost program includes funding for a number of interdepartmental projects including the Alaskan Way Viaduct and Seawall Replacement, Mercer Corridor, and Sound Transit Link Light Rail. Funding is also included for 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 2016 address SPU's key initiatives, which focus on:

- Improving Internal Controls
- Improving Productivity and Performance
- Improving Customer Service
- Transitioning from Data Rich to Knowledge Rich
- Improving Project Delivery

SPU will focus technology spending on the highest priority business needs. Increased spending in 2016 reflects major business changes in both the Customer Contact and Billing and Project Delivery and Performance programs.

In the Customer Contact and Billing Program, a driver for increased costs is related to changes in the schedule with the New Customer Information System (NCIS). Delays in the project will increase costs in 2016. In the Project Delivery and Performance program, the main driver is SPU's anticipation of its share of the costs for the Summit Re-Implementation project. Other drivers for costs in the program include SPU's participation in the implementation of the City's New Permit System or permit system alternative, as well as the enhancement and upgrade of SPU's Enterprise Project Management System (EPMS).

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

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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, Combined Sewer Overflow Reduction Plan, and the Comprehensive Drainage Plan. 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 Localized Flood Control Program, the Broadview Sanitary Sewer Overflow (SSO) reduction program and the South Park Pump Station project. The primary capital program is the sewer and drainage rehabilitation program. This 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 the Venema Natural Drainage System (NDS) and Capitol Hill Water Quality Facility where GSI will be used to reduce stormwater impacts while contributing to meeting sustainability goals.
 - The Venema NDS project will construct natural drainage elements including large bioretention swales and installing permeable pavement in alleys. A swale is a specially designed area where stormwater can infiltrate into or through the ground or vegetation, depending on whether it is designed primarily for water quality treatment or flow control. The result will be improved stormwater flow control and water quality treatment in the Venema basin which will improve hydrology and water quality in Venema Creek, a tributary of Piper's Creek.
 - 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.

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 Mercer Corridor 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 is 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.

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 IP 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) 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 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

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considered by our regulators to be a violation of our State permits and Federal Consent Decree. 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 percent 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 IP, which was submitted for regulatory approval on May 29, 2015. SPU must also achieve significant NPDES Wastewater Permit milestones for the control of CSOs to Lake Washington by December 30, 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 \$377 million over the next six years on CSO reduction projects. The projects will include a combination of underground storage tanks, GSI, system retrofits, gravity sewer pipe rehabilitation projects, and the development of a long-range plan for CSO projects to be constructed from 2016-2025. One of the biggest challenges of the program is siting 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, are not stripped of funding as our 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, the Thornton Confluence Improvement 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

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will be integral to the Integrated Plans South Park Water Quality Facility and will be a regulatory requirement if the Integrated Plan (IP) is approved.

- The Thornton Confluence Improvement Project: This project will replace the road culvert at 35th Ave NE and restore the floodplain area at the confluence of the north and south forks of Thornton Creek. This will reduce local flooding impacts to roads and private property as well as enhance instream and riparian habitat in a critical segment of the creek.
- Broadview Sewer and Stormwater Improvements Project: The Broadview neighborhood has experienced a long history of capacity-related backups and overflows. This project 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. There have been major storms in 2006, 2007, 2010, 2012, and 2014 that 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 and shared cost projects. Major projects include the completion of the Ship Canal Water Quality Project, sediment remediation, and other CSO projects necessary under the IP/Plan to Protect Seattle's Waterways, 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	2015	2016	2017	2018	2019	2020	2021	Total
Protection of Beneficial Uses									C333B
Capitol Hill Water Quality Project (C3373)	0	237	0	0	0	0	0	0	237
Creek Culvert Replacement Program (C3314)	0	0	1,463	923	5,528	500	1,000	3,000	12,414
GSI for Protection of Beneficial Uses (C3316)	0	0	2,737	7,766	8,424	7,452	7,702	7,160	41,241
Knickerbocker Floodplain Improvements (C3383)	0	138	0	0	0	0	0	0	138
Protection of Beneficial Uses Program (C3317)	0	0	420	80	0	0	0	0	500
Street Sweeping for Water Quality (C3363)	266	765	200	0	0	0	0	0	1,231
Taylor Creek Culvert Replacement (C3353)	0	800	0	0	0	0	0	0	800
Venema Creek Natural Drainage System (C3333)	0	2,142	0	0	0	0	0	0	2,142
Water Quality & Flow Improvements (C3393)	0	1,100	0	0	0	0	0	0	1,100
Protection of Beneficial Uses	266	5,182	4,820	8,769	13,952	7,952	8,702	10,160	59,803
Sediments									C350B
Sediment Remediation - DWF (C3503)	24,873	4,797	4,762	3,687	6,958	8,273	18,320	15,983	87,652
Sediments	24,873	4,797	4,762	3,687	6,958	8,273	18,320	15,983	87,652
Combined Sewer Overflows									C360B
Combined Sewer Overflow Facility Retrofit (C3611)	22,730	13,202	4,788	2,611	5,461	720	1,500	12,884	63,897
Future CSO Projects (C3612)	0	6,709	0	685	1,356	1,356	1,080	7,145	18,331
Green Stormwater Infrastructure Program (C3610)	9,993	9,635	6,936	2,400	1,990	1,750	1,650	1,100	35,453
Long Term Control Plan (C3604)	36,321	1,980	750	500	250	0	0	1,000	40,801
S Genesee Combined Sewer Overflow (C3608)	38,329	2,455	137	0	0	0	0	0	40,921
S Henderson Combined Sewer Overflow Storage (C3609)	27,512	26,762	26,134	5,295	319	0	0	0	86,021
Ship Canal Water Quality Project (C3614)	0	0	17,690	19,100	26,000	59,620	86,710	78,110	287,230
Windermere Combined Sewer Overflow Storage (C3605)	49,244	1,300	162	0	0	0	0	0	50,706
Combined Sewer Overflows	184,129	62,042	56,597	30,591	35,376	63,446	90,940	100,239	623,361

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

2016 - 2021 Proposed Capital Improvement Program

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Project Summary

BCL/Program Name/ Project Title & ID	LTD Actuals	2015	2016	2017	2018	2019	2020	2021	Total
Rehabilitation									C370B
Emergency Rehabilitation (C3705)	0	598	0	0	0	0	0	0	598
No Dig Pipe & Maintenance Rehabilitation (C3707)	0	2,750	0	0	0	0	0	0	2,750
Outfall Rehabilitation Program (C3708)	1,774	1,446	2,325	1,530	1,500	1,500	1,500	1,500	13,075
Pipe Renewal Program (C3710)	0	0	13,520	17,208	19,500	20,000	22,000	22,500	114,727
Point Sewer Pipe Rehabilitation (C3704)	0	2,152	0	0	0	0	0	0	2,152
Pump Station and Force Main Improvements (C3703)	11,754	4,433	3,913	3,020	3,020	3,020	3,020	4,500	36,680
Sewer Full Line Replacements (C3702)	0	250	0	0	0	0	0	0	250
Rehabilitation	13,528	11,629	19,758	21,758	24,020	24,520	26,520	28,500	170,232
Flooding, Sewer Back-up, and Landslides									C380B
Broadview Long Term Plan (C3812)	3,667	5,756	3,000	3,000	7,900	8,000	3,700	12,915	47,938
Culvert Replacement Program (C3810)	0	1,297	0	0	0	0	0	0	1,297
Densmore Basin Drainage Improvements (C3803)	7,588	0	0	0	0	0	0	0	7,588
Localized Flood Control Program (C3802)	11,147	3,960	2,678	1,371	1,256	1,373	1,391	500	23,676
Madison Valley Long Term Solution (C3805)	35,008	0	0	0	0	0	0	0	35,008
Meadowbrook Pond Sediment Management (C3808)	4,013	0	0	0	0	0	0	0	4,013
Sanitary Sewer Overflow Capacity (C3804)	3,047	4,361	4,766	6,023	6,000	6,000	0	1,000	31,196
South Park Pump Station (C3806)	7,432	1,500	2,897	10,158	4,076	4,776	2,807	11,747	45,394
Thornton Confluence Improvement (C3811)	7,288	861	50	0	0	0	0	0	8,199
Flooding, Sewer Back-up, and Landslides	79,189	17,735	13,390	20,552	19,232	20,150	7,898	26,162	204,308
Shared Cost Projects									C410B
1% for Art & DWF (C4118-DWF)	3,592	637	762	770	640	502	477	544	7,923
Alaskan Way Viaduct & Seawall Replacement Program - DWF (C4102-DWF)	12,779	6,378	3,081	13,210	1,166	401	0	0	37,016
Bridging the Gap - DWF (C4119-DWF)	184	200	27	100	100	766	350	100	1,827

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

2016 - 2021 Proposed Capital Improvement Program

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Project Summary

BCL/Program Name/ Project Title & ID	LTD Actuals	2015	2016	2017	2018	2019	2020	2021	Total
Emergency Storms - DWF (C4120-DWF)	1	100	100	100	100	100	100	0	601
First Hill Streetcar - DWF (C4130-DWF)	12	500	400	1,800	400	0	0	0	3,112
Heavy Equipment Purchases - DWF (C4116-DWF)	10,938	7,665	2,355	2,412	1,916	2,248	2,754	2,500	32,787
Integrated Control Monitoring Program - DWF (C4108- DWF)	12,262	1,121	250	250	250	250	250	0	14,633
Mercer Corridor Project East Phase - DWF (C4114-DWF)	6,294	0	0	0	0	0	0	0	6,294
Mercer Corridor Project West Phase - DWF (C4133-DWF)	1,066	351	30	0	0	0	0	0	1,447
Meter Replacement - DWF (C4101-DWF)	5,374	575	504	552	554	558	562	481	9,161
Operational Facility - Construction - DWF (C4106- DWF)	2,953	1,163	9,442	5,694	7,866	9,672	5,116	8,074	49,980
Operational Facility - Other - DWF (C4115-DWF)	136	300	100	0	0	0	0	0	536
Operations Control Center - DWF (C4105-DWF)	203	1,063	28	70	84	70	0	740	2,259
Other Major Transportation Projects - DWF (C4123-DWF)	301	650	250	266	750	750	50	0	3,017
Security Improvements - DWF (C4113-DWF)	265	180	128	109	82	82	82	105	1,032
Sound Transit - North Link - DWF (C4135-DWF)	0	400	359	75	50	50	25	0	959
Sound Transit - University Link - DWF (C4110-DWF)	283	87	10	0	0	0	0	0	380
Sound Transit-East Link (C4122-DWF)	10	38	20	100	50	25	0	0	243
Yesler Terrace-DWF (C4136- DWF)	0	2,800	0	0	0	0	0	0	2,800
Shared Cost Projects	56,652	24,209	17,845	25,508	14,008	15,474	9,766	12,544	176,005
Technology									BCL/Program Code: C510B
Asset Information Management (C5407)	88	847	1,223	250	372	824	823	860	5,287
Customer Contact & Billing (C5402)	6,250	4,801	4,983	1,456	1,381	512	1,025	430	20,840
Enterprise Information Management (C5403)	3,164	965	328	225	342	858	199	860	6,942
IT Infrastructure (C5404)	2,420	923	573	738	1,248	420	1,073	430	7,825
Project Delivery & Performance (C5405)	3,636	2,476	5,072	3,978	993	758	298	731	17,944

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

2016 - 2021 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Project Summary

BCL/Program Name/ Project Title & ID	LTD Actuals	2015	2016	2017	2018	2019	2020	2021	Total
Science & System Performance (C5406)	2,752	1,044	618	700	250	500	500	688	7,052
Technology	18,311	11,056	12,797	7,349	4,588	3,872	3,918	3,999	65,890
Department Total*:	376,949	136,650	129,969	118,213	118,134	143,686	166,064	197,587	1,387,252

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

2016 - 2021 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Fund Summary

Fund Name & Code	LTD Actuals	2015	2016	2017	2018	2019	2020	2021	Total
Drainage and Wastewater Fund (44010)	376,949	136,650	129,969	118,213	118,134	143,686	166,064	197,587	1,387,252
Department Total*:	376,949	136,650	129,969	118,213	118,134	143,686	166,064	197,587	1,387,252

**Amounts in thousands of dollars*

2016 - 2021 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

1% for Art & 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:			
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 program 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 program. Funds contributed to the 1% for Art program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	3,592	637	762	770	640	502	477	544	7,923
Total:	3,592	637	762	770	640	502	477	544	7,923
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	3,592	637	762	770	640	502	477	544	7,923
Total*:	3,592	637	762	770	640	502	477	544	7,923
O & M Costs (Savings)			36,935	36,935	36,935	36,935	36,935	36,935	221,611
Spending Plan by Fund									
Drainage and Wastewater Fund		583	762	770	640	502	477	544	4,276
Total:		583	762	770	640	502	477	544	4,276

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

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 program relocates, replaces, and protects drainage and wastewater infrastructure affected by the replacement of the Alaskan Way Viaduct and Seawall. This program encompasses many sub-projects which are collectively known as the “Alaskan Way Viaduct and Seawall Replacement Program” (AWVSR Program.) 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	12,779	6,378	3,081	13,210	1,166	401	0	0	37,016
Total:	12,779	6,378	3,081	13,210	1,166	401	0	0	37,016
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	12,779	6,378	3,081	13,210	1,166	401	0	0	37,016
Total*:	12,779	6,378	3,081	13,210	1,166	401	0	0	37,016
O & M Costs (Savings)			178,581	178,581	178,581	178,581	178,581	178,581	1,071,490
Spending Plan by Fund									
Drainage and Wastewater Fund		6,943	3,081	13,210	1,166	401	0	0	24,801
Total:		6,943	3,081	13,210	1,166	401	0	0	24,801

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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 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, multi-project program 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" program. SPU assesses the condition of its utility infrastructure at SDOT's project sites and conducts repairs and improvements as needed.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	184	200	27	100	100	766	350	100	1,827
Total:	184	200	27	100	100	766	350	100	1,827
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	184	200	27	100	100	766	350	100	1,827
Total*:	184	200	27	100	100	766	350	100	1,827
O & M Costs (Savings)			14,428	14,428	14,428	14,428	14,428	14,428	86,570
Spending Plan by Fund									
Drainage and Wastewater Fund		0	27	100	100	766	350	100	1,443
Total:		0	27	100	100	766	350	100	1,443

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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

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. Program will develop and implement a plan with the goal of restoring sanitary sewer system capacity.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	3,667	5,756	3,000	3,000	7,900	8,000	3,700	12,915	47,938
Total:	3,667	5,756	3,000	3,000	7,900	8,000	3,700	12,915	47,938
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	3,667	5,756	3,000	3,000	7,900	8,000	3,700	12,915	47,938
Total*:	3,667	5,756	3,000	3,000	7,900	8,000	3,700	12,915	47,938
O & M Costs (Savings)			385,150	385,150	385,150	385,150	385,150	385,150	2,310,900
Spending Plan by Fund									
Drainage and Wastewater Fund		1,475	3,000	3,000	7,900	8,000	3,700	12,915	39,990
Total:		1,475	3,000	3,000	7,900	8,000	3,700	12,915	39,990

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SPU-Drainage & Wastewater

Capitol Hill Water Quality Project

BCL/Program Name:	Protection of Beneficial Uses	BCL/Program Code:	C333B
Project Type:	New Facility	Start Date:	Q1/2006
Project ID:	C3373	End Date:	Q4/2018
Location:	Yale Ave N/Pontius Ave N/Thomas Street		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	7
Neighborhood District:	Lake Union	Urban Village:	South Lake Union

This project provides construction of four blocks of biofiltration swales in the South Lake Union neighborhood. As part of a regional storm water treatment facility, this project will be constructed in partnership with an adjacent land developer and includes new sidewalks and road surfaces. The project treats runoff from a portion of approximately 435 acres of Capitol Hill.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	0	237	0	0	0	0	0	0	237
Total:	0	237	0	0	0	0	0	0	237
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	0	237	0	0	0	0	0	0	237
Total*:	0	237	0	0	0	0	0	0	237
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.*

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 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 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	22,730	13,202	4,788	2,611	5,461	720	1,500	12,884	63,897
Total:	22,730	13,202	4,788	2,611	5,461	720	1,500	12,884	63,897
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	22,730	13,202	4,788	2,611	5,461	720	1,500	12,884	63,897
Total*:	22,730	13,202	4,788	2,611	5,461	720	1,500	12,884	63,897
O & M Costs (Savings)			279,648	279,648	279,648	279,648	279,648	279,648	1,677,890
Spending Plan by Fund									
Drainage and Wastewater Fund		11,856	4,788	2,611	5,461	720	1,500	12,884	39,820
Total:		11,856	4,788	2,611	5,461	720	1,500	12,884	39,820

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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:			
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 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 program, while retrofits will be covered within the Operations and Maintenance budget.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	1,463	923	5,528	500	1,000	3,000	12,414
Total:	0	0	1,463	923	5,528	500	1,000	3,000	12,414
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	0	0	1,463	923	5,528	500	1,000	3,000	12,414
Total*:	0	0	1,463	923	5,528	500	1,000	3,000	12,414
Spending Plan by Fund									
Drainage and Wastewater Fund		475	1,463	923	5,528	500	1,000	3,000	12,889
Total:		475	1,463	923	5,528	500	1,000	3,000	12,889

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

SPU-Drainage & Wastewater

Culvert Replacement Program

BCL/Program Name:	Flooding, Sewer Back-up, and Landslides	BCL/Program Code:	C380B
Project Type:	Rehabilitation or Restoration	Start Date:	Q2/2008
Project ID:	C3810	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 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 and public infrastructure risk and benefits. Replacements will be addressed as part of this capital program, while small repairs and retrofits will be covered within the Operations and Maintenance budget. Funding transfers to from the budget placeholder to culvert replacement projects once they are approved through the AMC process.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	0	1,297	0	0	0	0	0	0	1,297
Total:	0	1,297	0	0	0	0	0	0	1,297
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	0	1,297	0	0	0	0	0	0	1,297
Total*:	0	1,297	0	0	0	0	0	0	1,297
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

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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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	7,588	0	0	0	0	0	0	0	7,588
Total:	7,588	0	0	0	0	0	0	0	7,588
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	7,588	0	0	0	0	0	0	0	7,588
Total*:	7,588	0	0	0	0	0	0	0	7,588
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.*

SPU-Drainage & Wastewater

Emergency Rehabilitation

BCL/Program Name:	Rehabilitation	BCL/Program Code:	C370B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1998
Project ID:	C3705	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 emergency sewer response to collapsed mainlines, surface street subsidence or voids resulting from leaking pipes, and storm-related incidents in Seattle, as well as emergency rehabilitation to drainage pipes that collapse, cause surface problems, or otherwise endanger public health or welfare. Typical improvements may include, but are not limited to, rehabilitation or replacement of structurally damaged pipes that caused the emergency and restoring surrounding areas. Rehabilitation or replacement quickly corrects the situation, avoids repeat incident, and extends the life of the asset.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	0	598	0	0	0	0	0	0	598
Total:	0	598	0	0	0	0	0	0	598
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	0	598	0	0	0	0	0	0	598
Total*:	0	598	0	0	0	0	0	0	598
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.

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 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 program 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 program will now serve as a placeholder for any future storm events.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	1	100	100	100	100	100	100	0	601
Total:	1	100	100	100	100	100	100	0	601
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	1	100	100	100	100	100	100	0	601
Total*:	1	100	100	100	100	100	100	0	601
O & M Costs (Savings)			5,000	5,000	5,000	5,000	5,000	5,000	30,000
Spending Plan by Fund									
Drainage and Wastewater Fund		100	100	100	100	100	100	0	600
Total:		100	100	100	100	100	100	0	600

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

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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	12	500	400	1,800	400	0	0	0	3,112
Total:	12	500	400	1,800	400	0	0	0	3,112
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	12	500	400	1,800	400	0	0	0	3,112
Total*:	12	500	400	1,800	400	0	0	0	3,112
O & M Costs (Savings)			26,000	26,000	26,000	26,000	26,000	26,000	156,000
Spending Plan by Fund									
Drainage and Wastewater Fund		800	400	1,800	400	0	0	0	3,400
Total:		800	400	1,800	400	0	0	0	3,400

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

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:			
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 program 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 will begin around 2015, and the projects should complete their construction by 2025.

		LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources										
Drainage and Wastewater Rates		0	6,709	0	685	1,356	1,356	1,080	7,145	18,331
Total:		0	6,709	0	685	1,356	1,356	1,080	7,145	18,331
Fund Appropriations/Allocations										
Drainage and Wastewater Fund		0	6,709	0	685	1,356	1,356	1,080	7,145	18,331
Total*:		0	6,709	0	685	1,356	1,356	1,080	7,145	18,331
O & M Costs (Savings)				116,215	116,215	116,215	116,215	116,215	116,215	697,289
Spending Plan by Fund										
Drainage and Wastewater Fund			18,299	0	685	1,356	1,356	1,080	7,145	29,921
Total:			18,299	0	685	1,356	1,356	1,080	7,145	29,921

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

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 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 raingardens, permeable pavement alleys, 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	9,993	9,635	6,936	2,400	1,990	1,750	1,650	1,100	35,453
Total:	9,993	9,635	6,936	2,400	1,990	1,750	1,650	1,100	35,453
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	9,993	9,635	6,936	2,400	1,990	1,750	1,650	1,100	35,453
Total*:	9,993	9,635	6,936	2,400	1,990	1,750	1,650	1,100	35,453
O & M Costs (Savings)			158,257	158,257	158,257	158,257	158,257	158,257	949,540
Spending Plan by Fund									
Drainage and Wastewater Fund		5,315	6,936	2,400	1,990	1,750	1,650	1,100	21,141
Total:		5,315	6,936	2,400	1,990	1,750	1,650	1,100	21,141

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

2016 - 2021 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:			
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 private property incentives for construction of properly sized and installed rain gardens or cisterns (RainWise program) in creek watersheds. Current projects included in this program are the Capitol Hill Water Quality Channel, which treats a large drainage area from Capitol Hill before the water is discharged to South Lake Union; the Venema Natural Drainage System Project, which treats a majority of the stormwater from the Venema Creek basin and provides a significant reduction in flow volumes reaching the creek; and the Natural Drainage System Partnering Projects which will achieve the water quality goals identified in the Plan to Protect Seattle’s Waterways (i.e. the Integrated Plan) by working with sister agencies and community partners to deliver high-value neighborhood improvements.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	2,737	7,766	8,424	7,452	7,702	7,160	41,241
Total:	0	0	2,737	7,766	8,424	7,452	7,702	7,160	41,241
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	0	0	2,737	7,766	8,424	7,452	7,702	7,160	41,241
Total*:	0	0	2,737	7,766	8,424	7,452	7,702	7,160	41,241
Spending Plan by Fund									
Drainage and Wastewater Fund		3,467	2,737	7,766	8,424	7,452	7,702	7,160	44,707
Total:		3,467	2,737	7,766	8,424	7,452	7,702	7,160	44,707

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

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:			
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 program 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 program is one of three SPU fund-specific heavy equipment CIP programs.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	10,938	7,665	2,355	2,412	1,916	2,248	2,754	2,500	32,787
Total:	10,938	7,665	2,355	2,412	1,916	2,248	2,754	2,500	32,787
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	10,938	7,665	2,355	2,412	1,916	2,248	2,754	2,500	32,787
Total*:	10,938	7,665	2,355	2,412	1,916	2,248	2,754	2,500	32,787
O & M Costs (Savings)			141,844	141,844	141,844	141,844	141,844	141,844	851,067
Spending Plan by Fund									
Drainage and Wastewater Fund		5,651	2,355	2,412	1,916	2,248	2,754	2,500	19,835
Total:		5,651	2,355	2,412	1,916	2,248	2,754	2,500	19,835

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

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 ongoing program 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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	12,262	1,121	250	250	250	250	250	0	14,633
Total:	12,262	1,121	250	250	250	250	250	0	14,633
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	12,262	1,121	250	250	250	250	250	0	14,633
Total*:	12,262	1,121	250	250	250	250	250	0	14,633
O & M Costs (Savings)			12,500	12,500	12,500	12,500	12,500	12,500	75,000
Spending Plan by Fund									
Drainage and Wastewater Fund		850	250	250	250	250	250	0	2,100
Total:		850	250	250	250	250	250	0	2,100

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

SPU-Drainage & Wastewater

Knickerbocker Floodplain Improvements

BCL/Program Name:	Protection of Beneficial Uses	BCL/Program Code:	C333B
Project Type:	Rehabilitation or Restoration	Start Date:	Q3/2012
Project ID:	C3383	End Date:	Q4/2015
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project provides design, permits and construction of a floodplain restoration project on the south branch of Thornton Creek to contribute to reduced system-wide stream-side flooding and improve instream and riparian habitat and water quality. Project elements include stream realignment, floodplain excavation, installation of a hyporheic zone (a subsurface volume of sediment and porous space adjacent to a stream through which stream water readily exchanges), replacement of a pedestrian bridge, and riparian plantings. This project is consistent with a number of long-term plans (including the DWW Urban Watershed Strategy, 2004 Mayor’s Aquatic Ecology Strategy, and 1999 Thornton Creek Watershed Action Plan) and follows the path mapped out by the Thornton Creek Confluence project which also increases floodplain area to provide stream water storage.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	0	138	0	0	0	0	0	0	138
Total:	0	138	0	0	0	0	0	0	138
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	0	138	0	0	0	0	0	0	138
Total*:	0	138	0	0	0	0	0	0	138
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

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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 Various	Council District:	5
Neighborhood Plan:	Not in a Neighborhood Plan	Urban Village:	Bitter Lake Village
Neighborhood District:	Northwest		

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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	11,147	3,960	2,678	1,371	1,256	1,373	1,391	500	23,676
Total:	11,147	3,960	2,678	1,371	1,256	1,373	1,391	500	23,676
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	11,147	3,960	2,678	1,371	1,256	1,373	1,391	500	23,676
Total*:	11,147	3,960	2,678	1,371	1,256	1,373	1,391	500	23,676
O & M Costs (Savings)			85,683	85,683	85,683	85,683	85,683	85,683	514,098
Spending Plan by Fund									
Drainage and Wastewater Fund		3,488	2,678	1,371	1,256	1,373	1,391	500	12,056
Total:		3,488	2,678	1,371	1,256	1,373	1,391	500	12,056

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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:			
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 program 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 Program also includes a Programmatic SEPA EIS (Note: includes the Alaskan Way Viaduct & Seawall Program Q102). The Plan and EIS will be submitted to EPA/ Washington State Department of Ecology for approval in 2015 and will include all City of Seattle CSO basins except existing CSO Projects at Windermere, Genesee, Henderson and Central Waterfront (except as noted).

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	36,321	1,980	750	500	250	0	0	1,000	40,801
Total:	36,321	1,980	750	500	250	0	0	1,000	40,801
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	36,321	1,980	750	500	250	0	0	1,000	40,801
Total*:	36,321	1,980	750	500	250	0	0	1,000	40,801
O & M Costs (Savings)			25,000	25,000	25,000	25,000	25,000	25,000	150,000
Spending Plan by Fund									
Drainage and Wastewater Fund		1,553	750	500	250	0	0	1,000	4,053
Total:		1,553	750	500	250	0	0	1,000	4,053

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2016 - 2021 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 Various	Council District:	4
Neighborhood Plan:	Not in a Neighborhood Plan	Urban Village:	Not in an Urban Village
Neighborhood District:	Central		

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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	35,008	0	0	0	0	0	0	0	35,008
Total:	35,008	0	0	0	0	0	0	0	35,008
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	35,008	0	0	0	0	0	0	0	35,008
Total*:	35,008	0	0	0	0	0	0	0	35,008
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.*

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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	4,013	0	0	0	0	0	0	0	4,013
Total:	4,013	0	0	0	0	0	0	0	4,013
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	4,013	0	0	0	0	0	0	0	4,013
Total*:	4,013	0	0	0	0	0	0	0	4,013
O & M Costs (Savings)			0	0	0	0	0	0	0

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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:	Q4/2014
Location:	South Lake Union		
Neighborhood Plan:	South Lake Union	Council District:	More than one
Neighborhood District:	Lake Union	Urban Village:	South Lake Union

This program funds the repair, relocation, protection, and upgrade of drainage and wastewater infrastructure related to the redevelopment of the South Lake Union neighborhood. Program 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 program also funds planning-level coordination with other city departments on projects within the South Lake Union area.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	6,294	0	0	0	0	0	0	0	6,294
Total:	6,294	0	0	0	0	0	0	0	6,294
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	6,294	0	0	0	0	0	0	0	6,294
Total*:	6,294	0	0	0	0	0	0	0	6,294
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.*

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/Elliott 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	1,066	351	30	0	0	0	0	0	1,447
Total:	1,066	351	30	0	0	0	0	0	1,447
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	1,066	351	30	0	0	0	0	0	1,447
Total*:	1,066	351	30	0	0	0	0	0	1,447
O & M Costs (Savings)			300	300	300	300	300	300	1,800
Spending Plan by Fund									
Drainage and Wastewater Fund		350	30	0	0	0	0	0	380
Total:		350	30	0	0	0	0	0	380

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

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 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 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	5,374	575	504	552	554	558	562	481	9,161
Total:	5,374	575	504	552	554	558	562	481	9,161
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	5,374	575	504	552	554	558	562	481	9,161
Total*:	5,374	575	504	552	554	558	562	481	9,161
O & M Costs (Savings)			32,119	32,119	32,119	32,119	32,119	32,119	192,711
Spending Plan by Fund									
Drainage and Wastewater Fund		410	504	552	554	558	562	481	3,622
Total:		410	504	552	554	558	562	481	3,622

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

SPU-Drainage & Wastewater

No Dig Pipe & Maintenance Rehabilitation

BCL/Program Name:	Rehabilitation	BCL/Program Code:	C370B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1998
Project ID:	C3707	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 trenchless technology to reline wastewater pipe in Seattle. Generally, prioritized critical sewer pipe that is intact though leaking, and very near the end of its useful life, is relined by a specialized vendor. Installation of the liner extends pipe segment life for more than fifty years.

		LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources										
Drainage and Wastewater Rates		0	2,750	0	0	0	0	0	0	2,750
Total:		0	2,750	0	0	0	0	0	0	2,750
Fund Appropriations/Allocations										
Drainage and Wastewater Fund		0	2,750	0	0	0	0	0	0	2,750
Total*:		0	2,750	0	0	0	0	0	0	2,750
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.

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 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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	2,953	1,163	9,442	5,694	7,866	9,672	5,116	8,074	49,980
Total:	2,953	1,163	9,442	5,694	7,866	9,672	5,116	8,074	49,980
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	2,953	1,163	9,442	5,694	7,866	9,672	5,116	8,074	49,980
Total*:	2,953	1,163	9,442	5,694	7,866	9,672	5,116	8,074	49,980
O & M Costs (Savings)			458,640	458,640	458,640	458,640	458,640	458,640	2,751,840
Spending Plan by Fund									
Drainage and Wastewater Fund		1,757	9,442	5,694	7,866	9,672	5,116	8,074	47,621
Total:		1,757	9,442	5,694	7,866	9,672	5,116	8,074	47,621

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

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 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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	136	300	100	0	0	0	0	0	536
Total:	136	300	100	0	0	0	0	0	536
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	136	300	100	0	0	0	0	0	536
Total*:	136	300	100	0	0	0	0	0	536
O & M Costs (Savings)			1,000	1,000	1,000	1,000	1,000	1,000	6,000

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

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	203	1,063	28	70	84	70	0	740	2,259
Total:	203	1,063	28	70	84	70	0	740	2,259
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	203	1,063	28	70	84	70	0	740	2,259
Total*:	203	1,063	28	70	84	70	0	740	2,259
O & M Costs (Savings)			9,920	9,920	9,920	9,920	9,920	9,920	59,520
Spending Plan by Fund									
Drainage and Wastewater Fund		524	28	70	84	70	0	740	1,516
Total:		524	28	70	84	70	0	740	1,516

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

2016 - 2021 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 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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	301	650	250	266	750	750	50	0	3,017
Total:	301	650	250	266	750	750	50	0	3,017
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	301	650	250	266	750	750	50	0	3,017
Total*:	301	650	250	266	750	750	50	0	3,017
O & M Costs (Savings)			20,660	20,660	20,660	20,660	20,660	20,660	123,960
Spending Plan by Fund									
Drainage and Wastewater Fund		904	250	266	750	750	50	0	2,969
Total:		904	250	266	750	750	50	0	2,969

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

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 program 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 program will investigate the condition of each of the outfalls and complete an options analysis, followed by design, construction, and closeout activities.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	1,774	1,446	2,325	1,530	1,500	1,500	1,500	1,500	13,075
Total:	1,774	1,446	2,325	1,530	1,500	1,500	1,500	1,500	13,075
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	1,774	1,446	2,325	1,530	1,500	1,500	1,500	1,500	13,075
Total*:	1,774	1,446	2,325	1,530	1,500	1,500	1,500	1,500	13,075
O & M Costs (Savings)			98,551	98,551	98,551	98,551	98,551	98,551	591,303
Spending Plan by Fund									
Drainage and Wastewater Fund		613	2,325	1,530	1,500	1,500	1,500	1,500	10,468
Total:		613	2,325	1,530	1,500	1,500	1,500	1,500	10,468

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

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:			
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

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. There are a number of factors that impact pipe life thereby creating complex renewal decisions. This program is a capital reinvestment program into the repair, replacement, rehabilitation and renewal of the collection system by various contracting and construction methods.

		LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources										
Drainage and Wastewater Rates		0	0	13,520	17,208	19,500	20,000	22,000	22,500	114,727
Total:		0	0	13,520	17,208	19,500	20,000	22,000	22,500	114,727
Fund Appropriations/Allocations										
Drainage and Wastewater Fund		0	0	13,520	17,208	19,500	20,000	22,000	22,500	114,727
Total*:		0	0	13,520	17,208	19,500	20,000	22,000	22,500	114,727
Spending Plan by Fund										
Drainage and Wastewater Fund			10,184	13,520	17,208	19,500	20,000	22,000	22,500	124,911
Total:			10,184	13,520	17,208	19,500	20,000	22,000	22,500	124,911

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

2016 - 2021 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Point Sewer Pipe Rehabilitation

BCL/Program Name:	Rehabilitation	BCL/Program Code:	C370B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2003
Project ID:	C3704	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 complex point sewer rehabilitation of sewer mains that are greater than seventeen feet deep in the downtown corridor, landslide prone areas, or difficult access areas. Failed or nonfunctional sections of pipe are assessed and prioritized for rehabilitation through one or two public works contracts. This project also provides point sewer rehabilitation of sewer mains that are less than seventeen feet deep in non-arterial Seattle roadways. In these cases, failed or nonfunctional sections of pipe are assessed and prioritized for rehabilitation by Seattle Public Utilities field operation crews. Sewer trouble spots and voids are addressed while increasing the sewer main asset life and function.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	0	2,152	0	0	0	0	0	0	2,152
Total:	0	2,152	0	0	0	0	0	0	2,152
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	0	2,152	0	0	0	0	0	0	2,152
Total*:	0	2,152	0	0	0	0	0	0	2,152
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.

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:			
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

Protection of Beneficial Uses 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	420	80	0	0	0	0	500
Total:	0	0	420	80	0	0	0	0	500
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	0	0	420	80	0	0	0	0	500
Total*:	0	0	420	80	0	0	0	0	500
Spending Plan by Fund									
Drainage and Wastewater Fund		1,746	420	80	0	0	0	0	2,246
Total:		1,746	420	80	0	0	0	0	2,246

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

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 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 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 program enhances and extends the useful life of the existing pump stations which, in turn, protects water quality.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	11,754	4,433	3,913	3,020	3,020	3,020	3,020	4,500	36,680
Total:	11,754	4,433	3,913	3,020	3,020	3,020	3,020	4,500	36,680
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	11,754	4,433	3,913	3,020	3,020	3,020	3,020	4,500	36,680
Total*:	11,754	4,433	3,913	3,020	3,020	3,020	3,020	4,500	36,680
O & M Costs (Savings)			204,933	204,933	204,933	204,933	204,933	204,933	1,229,600
Spending Plan by Fund									
Drainage and Wastewater Fund		2,159	3,913	3,020	3,020	3,020	3,020	4,500	22,652
Total:		2,159	3,913	3,020	3,020	3,020	3,020	4,500	22,652

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

2016 - 2021 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. 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	38,329	2,455	137	0	0	0	0	0	40,921
Total:	38,329	2,455	137	0	0	0	0	0	40,921
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	38,329	2,455	137	0	0	0	0	0	40,921
Total*:	38,329	2,455	137	0	0	0	0	0	40,921
O & M Costs (Savings)			1,375	1,375	1,375	1,375	1,375	1,375	8,248
Spending Plan by Fund									
Drainage and Wastewater Fund		3,180	137	0	0	0	0	0	3,318
Total:		3,180	137	0	0	0	0	0	3,318

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

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. 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	27,512	26,762	26,134	5,295	319	0	0	0	86,021
Total:	27,512	26,762	26,134	5,295	319	0	0	0	86,021
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	27,512	26,762	26,134	5,295	319	0	0	0	86,021
Total*:	27,512	26,762	26,134	5,295	319	0	0	0	86,021
O & M Costs (Savings)			317,482	317,482	317,482	317,482	317,482	317,482	1,904,890
Spending Plan by Fund									
Drainage and Wastewater Fund		17,198	26,134	5,295	319	0	0	0	48,946
Total:		17,198	26,134	5,295	319	0	0	0	48,946

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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 Various	Council District:	More than one
Neighborhood Plan:	Not in a Neighborhood Plan	Urban Village:	In more than one Urban Village
Neighborhood District:	In more than one District		

The Wastewater Capacity Improvement 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	3,047	4,361	4,766	6,023	6,000	6,000	0	1,000	31,196
Total:	3,047	4,361	4,766	6,023	6,000	6,000	0	1,000	31,196
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	3,047	4,361	4,766	6,023	6,000	6,000	0	1,000	31,196
Total*:	3,047	4,361	4,766	6,023	6,000	6,000	0	1,000	31,196
O & M Costs (Savings)			237,886	237,886	237,886	237,886	237,886	237,886	1,427,320
Spending Plan by Fund									
Drainage and Wastewater Fund		1,886	4,766	6,023	6,000	6,000	0	1,000	25,674
Total:		1,886	4,766	6,023	6,000	6,000	0	1,000	25,674

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

2016 - 2021 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 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 program 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. This program enhances protection of SPU's critical infrastructure and addresses vulnerabilities identified in U.S. Environmental Protection Agency (EPA) mandated vulnerability assessments.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	265	180	128	109	82	82	82	105	1,032
Total:	265	180	128	109	82	82	82	105	1,032
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	265	180	128	109	82	82	82	105	1,032
Total*:	265	180	128	109	82	82	82	105	1,032
O & M Costs (Savings)			5,878	5,878	5,878	5,878	5,878	5,878	35,269
Spending Plan by Fund									
Drainage and Wastewater Fund		135	128	109	82	82	82	105	723
Total:		135	128	109	82	82	82	105	723

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

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 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	24,873	4,797	4,762	3,687	6,958	8,273	18,320	15,983	87,652
Total:	24,873	4,797	4,762	3,687	6,958	8,273	18,320	15,983	87,652
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	24,873	4,797	4,762	3,687	6,958	8,273	18,320	15,983	87,652
Total*:	24,873	4,797	4,762	3,687	6,958	8,273	18,320	15,983	87,652
O & M Costs (Savings)			579,829	579,829	579,829	579,829	579,829	579,829	3,478,980
Spending Plan by Fund									
Drainage and Wastewater Fund		4,042	4,762	3,687	6,958	8,273	18,320	15,983	62,025
Total:		4,042	4,762	3,687	6,958	8,273	18,320	15,983	62,025

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

SPU-Drainage & Wastewater

Sewer Full Line Replacements

BCL/Program Name:	Rehabilitation	BCL/Program Code:	C370B
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2001
Project ID:	C3702	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 for replacement of existing sewer lines citywide with pipes of the same diameter and capacity. Closed circuit television inspections identify defects in sewer mainlines, and each mainline defect is catalogued in an SPU database and assigned a priority that reflects the urgency of repair. Replacement is done by pipe-bursting methods that avoid extended pavement cutting.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	0	250	0	0	0	0	0	0	250
Total:	0	250	0	0	0	0	0	0	250
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	0	250	0	0	0	0	0	0	250
Total*:	0	250	0	0	0	0	0	0	250
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.*

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:			
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

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	2015	2016	2017	2018	2019	2020	2021	Total
	Actuals	Rev							
Revenue Sources									
Drainage and Wastewater Rates	0	0	17,690	19,100	26,000	59,620	86,710	78,110	287,230
Total:	0	0	17,690	19,100	26,000	59,620	86,710	78,110	287,230
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	0	0	17,690	19,100	26,000	59,620	86,710	78,110	287,230
Total*:	0	0	17,690	19,100	26,000	59,620	86,710	78,110	287,230

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

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 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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	0	400	359	75	50	50	25	0	959
Total:	0	400	359	75	50	50	25	0	959
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	0	400	359	75	50	50	25	0	959
Total*:	0	400	359	75	50	50	25	0	959
O & M Costs (Savings)			5,588	5,588	5,588	5,588	5,588	5,588	33,528
Spending Plan by Fund									
Drainage and Wastewater Fund		92	359	75	50	50	25	0	651
Total:		92	359	75	50	50	25	0	651

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

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 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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	283	87	10	0	0	0	0	0	380
Total:	283	87	10	0	0	0	0	0	380
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	283	87	10	0	0	0	0	0	380
Total*:	283	87	10	0	0	0	0	0	380
O & M Costs (Savings)			100	100	100	100	100	100	600
Spending Plan by Fund									
Drainage and Wastewater Fund		65	10	0	0	0	0	0	75
Total:		65	10	0	0	0	0	0	75

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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 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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	10	38	20	100	50	25	0	0	243
Total:	10	38	20	100	50	25	0	0	243
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	10	38	20	100	50	25	0	0	243
Total*:	10	38	20	100	50	25	0	0	243
O & M Costs (Savings)			1,950	1,950	1,950	1,950	1,950	1,950	11,700
Spending Plan by Fund									
Drainage and Wastewater Fund		20	20	100	50	25	0	0	215
Total:		20	20	100	50	25	0	0	215

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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) and water quality facility (WQF) 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	7,432	1,500	2,897	10,158	4,076	4,776	2,807	11,747	45,394
Total:	7,432	1,500	2,897	10,158	4,076	4,776	2,807	11,747	45,394
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	7,432	1,500	2,897	10,158	4,076	4,776	2,807	11,747	45,394
Total*:	7,432	1,500	2,897	10,158	4,076	4,776	2,807	11,747	45,394
O & M Costs (Savings)			364,621	364,621	364,621	364,621	364,621	364,621	2,187,730
Spending Plan by Fund									
Drainage and Wastewater Fund		1,254	2,897	10,158	4,076	4,776	2,807	11,747	37,716
Total:		1,254	2,897	10,158	4,076	4,776	2,807	11,747	37,716

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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 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 program 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 Program is a partnership between Seattle Public Utilities, who sets the program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	266	765	200	0	0	0	0	0	1,231
Total:	266	765	200	0	0	0	0	0	1,231
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	266	765	200	0	0	0	0	0	1,231
Total*:	266	765	200	0	0	0	0	0	1,231
O & M Costs (Savings)			2,000	2,000	2,000	2,000	2,000	2,000	12,000
Spending Plan by Fund									
Drainage and Wastewater Fund		450	200	0	0	0	0	0	650
Total:		450	200	0	0	0	0	0	650

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SPU-Drainage & Wastewater

Taylor Creek Culvert Replacement

BCL/Program Name:	Protection of Beneficial Uses	BCL/Program Code:	C333B
Project Type:	New Facility	Start Date:	Q4/1999
Project ID:	C3353	End Date:	Q4/2016
Location:	Taylor Creek at Rainier Ave S		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	2
Neighborhood District:	Southeast	Urban Village:	Not in an Urban Village

This project provides funding to replace the barrier culvert at Rainier Avenue South for lower Taylor Creek. Design alternatives include rerouting and other habitat improvements. The Taylor Creek culvert at Rainier Avenue South is the number one fish-passage barrier in the city that blocks access to a majority of spawning and rearing habitat in upper Taylor Creek to all species of salmonids.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	0	800	0	0	0	0	0	0	800
Total:	0	800	0	0	0	0	0	0	800
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	0	800	0	0	0	0	0	0	800
Total*:	0	800	0	0	0	0	0	0	800
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

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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		
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 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	7,288	861	50	0	0	0	0	0	8,199
Total:	7,288	861	50	0	0	0	0	0	8,199
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	7,288	861	50	0	0	0	0	0	8,199
Total*:	7,288	861	50	0	0	0	0	0	8,199
O & M Costs (Savings)			496	496	496	496	496	496	2,974
Spending Plan by Fund									
Drainage and Wastewater Fund		951	50	0	0	0	0	0	1,001
Total:		951	50	0	0	0	0	0	1,001

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SPU-Drainage & Wastewater

Venema Creek Natural Drainage System

BCL/Program Name:	Protection of Beneficial Uses	BCL/Program Code:	C333B
Project Type:	New Facility	Start Date:	Q1/2003
Project ID:	C3333	End Date:	Q4/2017
Location:	1st and 2nd Ave NW/NW 120th St/NW 122nd St		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	5
Neighborhood District:	Northwest	Urban Village:	Not in an Urban Village

This project provides stormwater flow control and water quality treatment using a Natural Drainage System approach within the Venema Creek sub basin of Pipers Creek. Proposed design uses the concept developed for the Pinehurst Natural Drainage System project (parking on only one side of road, large bioretention swale on the other side of road). Alley improvements using permeable pavements are also being considered. The project focus is retrofitting stormwater runoff from the 105-acre residential and commercial land area in an effort to reduce the effect of stormwater flow on the aquatic biota within Venema Creek.

		LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources										
Drainage and Wastewater Rates		0	2,142	0	0	0	0	0	0	2,142
Total:		0	2,142	0	0	0	0	0	0	2,142
Fund Appropriations/Allocations										
Drainage and Wastewater Fund		0	2,142	0	0	0	0	0	0	2,142
Total*:		0	2,142	0	0	0	0	0	0	2,142
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

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SPU-Drainage & Wastewater

Water Quality & Flow Improvements

BCL/Program Name:	Protection of Beneficial Uses	BCL/Program Code:	C333B
Project Type:	New Facility	Start Date:	Q1/2017
Project ID:	C3393	End Date:	ONGOING
Location:			
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 program is for future Protection of Beneficial Uses projects that will protect and improve water quality and flow in creeks and other habitats. Types of projects will include natural drainage system (NDS) projects, creek daylighting projects, fish passage improvements, stream/creek habitat improvements, and passive or active stormwater treatment facilities.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	0	1,100	0	0	0	0	0	0	1,100
Total:	0	1,100	0	0	0	0	0	0	1,100
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	0	1,100	0	0	0	0	0	0	1,100
Total*:	0	1,100	0	0	0	0	0	0	1,100
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

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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./Sand Point Way NE NE 65th St./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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Drainage and Wastewater Rates	49,244	1,300	162	0	0	0	0	0	50,706
Total:	49,244	1,300	162	0	0	0	0	0	50,706
Fund Appropriations/Allocations									
Drainage and Wastewater Fund	49,244	1,300	162	0	0	0	0	0	50,706
Total*:	49,244	1,300	162	0	0	0	0	0	50,706
O & M Costs (Savings)			1,620	1,620	1,620	1,620	1,620	1,620	9,720
Spending Plan by Fund									
Drainage and Wastewater Fund		886	162	0	0	0	0	0	1,048
Total:		886	162	0	0	0	0	0	1,048

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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

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

		LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources										
Drainage and Wastewater Rates		0	2,800	0	0	0	0	0	0	2,800
Total:		0	2,800	0	0	0	0	0	0	2,800
Fund Appropriations/Allocations										
Drainage and Wastewater Fund		0	2,800	0	0	0	0	0	0	2,800
Total*:		0	2,800	0	0	0	0	0	0	2,800
O & M Costs (Savings)				0	0	0	0	0	0	0

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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 significant infrastructure, which is in the middle of a 10-year upgrade, to fulfill the Solid Waste Master Plan. When the master plan is complete, the City will operate:

- Two transfer stations
- Two self-haul recycling and reuse facilities
- 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 \$76 million (excluding Technology) over the next six years, from 2016 through 2021.

Major anticipated projects include:

- Rebuilding of the North Transfer Station (2013-2016)
- Constructing a recycling/re-use facility at the South Transfer Station (2015-2018)
- Completing the South Park Development Project, cleanup of the historic South Park Landfill (2015-2018)

These projects comprise roughly 70 percent of the CIP. Other significant projects include the possible replacement of, or improvements 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 to a lesser extent 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 and 2015 and plans to issue again in 2016. 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 North Transfer Station (NTS) rehabilitation project. These projects are the primary drivers of CIP spending and have required rate increases for financing.

CIP Highlights

2016-2021 Proposed Solid Waste Fund CIP by BCL

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

BCL	2016	2017	2018	2019	2020	2021	Total
New Facilities	30,552	15,560	4,807	0	0	0	50,919
Rehabilitation and Heavy Equipment	430	30	30	15	15	50	570
Shared Cost Projects	1,147	2,084	1,263	1,259	981	1,842	8,577
Technology	7,235	2,908	2,037	1,137	1,079	1,395	15,791
Total	39,364	20,582	8,137	2,411	2,076	3,287	75,857

New Facilities: This program plans, designs, and constructs new facilities to enhance solid waste operations. In 2016, SPU will continue to implement its Solid Waste Facilities Master Plan, which features a two-station configuration. The key project drivers of the New Facilities Budget Control Level (BCL) are the NTS Rebuild and South Park Development projects.

The changes in this BCL are mainly on the NTS Rebuild project and reflect schedule adjustments for project delays associated with contaminated soil, changes in market conditions and schedule recovery. The changes also reflect programmatic reductions in the South Park Development project and South Transfer Station Phase 2 project. The South Park Development project was reduced to reflect the results of the Remedial Investigation/Feasibility Study regarding reductions in the scope of the anticipated site cleanup. The South Transfer Station Phase 2 project was reduced because the project scope changed from a full facility relocation/rebuild to renovating the existing Household Hazardous Waste facility.

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 Kent Highlands Landfill program. Landfill improvements include the modification of existing flares, drainage improvements, groundwater protection and water treatment as required by State Department of Ecology.

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 decrease in 2016. The key driver is the scope schedule change in Operational Facility Construction that will address shortages of adequate space for existing and future operational functions for multiple Lines of Business and SPU staff. The changes in Heavy Equipment Purchases reflect the best estimated needs of the fleet of trucks and heavy equipment for the transfer stations following full implementation of the new organics contracts that reduced SW fleet needs.

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 2016 address SPU's key initiatives, which focus on:

- Improving Internal Controls
- Improving Productivity and Performance
- Improving Customer Service
- Transitioning from Data Rich to Knowledge Rich
- Improving Project Delivery

SPU will focus technology spending on the highest priority business needs. Increased spending in 2016 reflects major business changes in both the Customer Contact and Billing and Project Delivery and Performance programs.

In the Customer Contact and Billing Program, a driver for increased costs is related to changes in the schedule with the New Customer Information System (NCIS). Delays in the project will increase costs in 2016. In the Project Delivery and Performance program, the main driver is SPU's anticipation of its share of the costs for the Summit Re-Implementation project. Other drivers for costs in the program include SPU's participation in the implementation of the City's New Permit System as well as the enhancement and upgrade of SPU's Enterprise Project Management System (EPMS).

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 human 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 high 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.
- Protecting human health and safety: The old south and north transfer stations were at the end of their useful lives. The new facilities, once completed, will result in greater safety for the public and SPU employees. Well-functioning and efficient transfer stations are part of a solid waste collection system that protects human health.

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 NTS Rebuild project and the South Transfer Station Phase 2 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 NTS Rebuild project and the South Transfer Station Phase 2 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 must continue handling solid waste while it reconstructs the North Transfer Station. With the new North Transfer Station coming on line in 2016, SWF is now focused on the redevelopment of the old South Transfer Station. To adequately manage waste, the old South Transfer Station will be kept in operation until the North Transfer Station is complete. This will require continued diversion of waste from the North Transfer Station to the old South Transfer Station. In addition, it will require SWF to maintain the aged old South Transfer Station through 2016.
- **Financial Challenges:** Reconstruction of the North Transfer Station 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 and 2015 and is planning another issuance in 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 moderate rate increases and operational efficiencies.

Future Projects/What is on the Horizon

In the seven years prior to the initiation of the transfer station rebuild projects, the SWF CIP Budget averaged \$4.7 million annually. For those years that include the transfer station rebuild projects, the SWF CIP Budget averages \$37 million annually. Once the transfer stations rebuilds are completed, the core SWF CIP is expected to approximate the lower, historical spending levels.

Once the North 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.

Project Summary

BCL/Program Name/ Project Title & ID	LTD Actuals	2015	2016	2017	2018	2019	2020	2021	Total
New Facilities					BCL/Program Code:				C230B
Miscellaneous Station Improvements (C2303)	2,778	600	100	0	0	0	0	0	3,478
North Transfer Station Rebuild (C2306)	47,598	46,538	18,949	0	0	0	0	0	113,084
South Park Development (C2304)	3,692	1,225	4,535	9,084	0	0	0	0	18,537
South Recycling Disposal Station Household Hazardous Waste Relocation (C2305)	0	57	236	476	57	0	0	0	825
South Transfer Station Rebuild (C2302)	77,737	1,500	6,732	6,000	4,750	0	0	0	96,720
New Facilities	131,806	49,920	30,552	15,560	4,807	0	0	0	232,644
Rehabilitation and Heavy Equipment					BCL/Program Code:				C240B
Kent Highlands Landfill (C2402)	1,111	15	15	15	15	15	15	25	1,226
Midway Landfill (C2403)	110	15	415	15	15	0	0	25	595
Rehabilitation and Heavy Equipment	1,221	30	430	30	30	15	15	50	1,821
Shared Cost Projects					BCL/Program Code:				C410B
1% for Art & SWF (C4118-SWF)	1,249	511	124	111	2	1	0	7	2,005
Heavy Equipment Purchases - SWF (C4116-SWF)	6,306	1,200	594	583	584	587	599	1,020	11,472
Integrated Control Monitoring Program - SWF (C4108-SWF)	0	400	0	0	0	0	0	0	400
Operational Facility - Construction - SWF (C4106-SWF)	119	245	310	1,270	570	570	303	720	4,106
Operations Control Center - SWF (C4105-SWF)	65	128	9	22	27	22	0	0	274
Security Improvements - SWF (C4113-SWF)	570	70	110	97	80	80	80	95	1,181
Shared Cost Projects	8,308	2,553	1,147	2,084	1,263	1,259	981	1,842	19,438
Technology					BCL/Program Code:				C510B
Asset Information Management (C5407)	32	364	267	147	194	210	115	300	1,628
Customer Contact & Billing (C5402)	5,566	4,387	4,661	533	505	187	375	150	16,364
Enterprise Information Management (C5403)	1,574	357	113	82	130	319	77	300	2,953
IT Infrastructure (C5404)	565	338	215	274	455	150	395	150	2,541
Project Delivery & Performance (C5405)	1,507	925	1,928	1,501	426	270	116	255	6,928

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

2016 - 2021 Proposed Capital Improvement Program

Project Summary

BCL/Program Name/ Project Title & ID	LTD Actuals	2015	2016	2017	2018	2019	2020	2021	Total
Science & System Performance (C5406)	362	750	53	371	327	0	0	240	2,102
Technology	9,606	7,120	7,235	2,908	2,037	1,137	1,079	1,395	32,517
Department Total*:	150,941	59,622	39,364	20,582	8,137	2,411	2,076	3,287	286,421

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

SPU-Solid Waste

Fund Summary

Fund Name & Code	LTD Actuals	2015	2016	2017	2018	2019	2020	2021	Total
Solid Waste Fund (45010)	150,941	59,622	39,364	20,582	8,137	2,411	2,076	3,287	286,421
Department Total*:	150,941	59,622	39,364	20,582	8,137	2,411	2,076	3,287	286,421

**Amounts in thousands of dollars*

2016 - 2021 Proposed Capital Improvement Program

SPU-Solid Waste

1% for Art & 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:			
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 program 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 program. Funds contributed to the 1% for Art program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Solid Waste Rates	1,249	511	124	111	2	1	0	7	2,005
Total:	1,249	511	124	111	2	1	0	7	2,005
Fund Appropriations/Allocations									
Solid Waste Fund	1,249	511	124	111	2	1	0	7	2,005
Total*:	1,249	511	124	111	2	1	0	7	2,005
O & M Costs (Savings)			2,454	2,454	2,454	2,454	2,454	2,454	14,725
Spending Plan by Fund									
Solid Waste Fund		476	124	111	2	1	0	7	722
Total:		476	124	111	2	1	0	7	722

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

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:			
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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources										
Solid Waste Rates		6,306	1,200	594	583	584	587	599	1,020	11,472
Total:		6,306	1,200	594	583	584	587	599	1,020	11,472
Fund Appropriations/Allocations										
Solid Waste Fund		6,306	1,200	594	583	584	587	599	1,020	11,472
Total*:		6,306	1,200	594	583	584	587	599	1,020	11,472
O & M Costs (Savings)				39,664	39,664	39,664	39,664	39,664	39,664	237,983
Spending Plan by Fund										
Solid Waste Fund			673	594	583	584	587	599	1,020	4,639
Total:			673	594	583	584	587	599	1,020	4,639

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

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

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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources										
Solid Waste Rates		0	400	0	0	0	0	0	0	400
Total:		0	400	0	0	0	0	0	0	400
Fund Appropriations/Allocations										
Solid Waste Fund		0	400	0	0	0	0	0	0	400
Total*:		0	400	0	0	0	0	0	0	400
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

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

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:	Q4/2015
Location:			
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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Solid Waste Rates	1,111	15	15	15	15	15	15	25	1,226
Total:	1,111	15	15	15	15	15	15	25	1,226
Fund Appropriations/Allocations									
Solid Waste Fund	1,111	15	15	15	15	15	15	25	1,226
Total*:	1,111	15	15	15	15	15	15	25	1,226
O & M Costs (Savings)			1,000	1,000	1,000	1,000	1,000	1,000	6,000
Spending Plan by Fund									
Solid Waste Fund		15	15	15	15	15	15	25	115
Total:		15	15	15	15	15	15	25	115

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

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:	Q4/2016
Location:			
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 as well as retrofits to the existing Midway flare facility. 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.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Solid Waste Rates	110	15	415	15	15	0	0	25	595
Total:	110	15	415	15	15	0	0	25	595
Fund Appropriations/Allocations									
Solid Waste Fund	110	15	415	15	15	0	0	25	595
Total*:	110	15	415	15	15	0	0	25	595
O & M Costs (Savings)			4,700	4,700	4,700	4,700	4,700	4,700	28,200

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

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:	Q2/2015
Location:	8101 2nd Ave S		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	1
Neighborhood District:	Greater Duwamish	Urban Village:	Duwamish

This project provides repairs to the existing City solid waste transfer stations. The existing City solid waste transfer stations were constructed in the mid-1960s and are nearing the end of their useful lives. This funding allows short term actions to ensure that these facilities operate reliably and safely, pending construction of the new North and South Transfer Stations. The work includes drainage modifications, emergency equipment rehabilitation, and temporary replacement/refurbishment of aging crew facilities.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Solid Waste Rates	2,778	600	100	0	0	0	0	0	3,478
Total:	2,778	600	100	0	0	0	0	0	3,478
Fund Appropriations/Allocations									
Solid Waste Fund	2,778	600	100	0	0	0	0	0	3,478
Total*:	2,778	600	100	0	0	0	0	0	3,478
O & M Costs (Savings)			1,000	1,000	1,000	1,000	1,000	1,000	6,000
Spending Plan by Fund									
Solid Waste Fund		350	100	0	0	0	0	0	450
Total:		350	100	0	0	0	0	0	450

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

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:	1350 N 34th St		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	4
Neighborhood District:	Lake Union	Urban Village:	Not in an Urban Village

This project provides for the replacement of the existing North Recycling and Disposal Station (NRDS) in Wallingford. The existing station was built in 1967 and is outdated and nearing the end of its useful life. The project includes the demolition of the existing transfer station and warehouse building on the adjacent property to the east. The new transfer station campus includes the tipping floor, recycling facility, educational center, new administrative building and employee facilities.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Solid Waste Rates	47,598	46,538	18,949	0	0	0	0	0	113,084
Total:	47,598	46,538	18,949	0	0	0	0	0	113,084
Fund Appropriations/Allocations									
Solid Waste Fund	47,598	46,538	18,949	0	0	0	0	0	113,084
Total*:	47,598	46,538	18,949	0	0	0	0	0	113,084
O & M Costs (Savings)			189,486	189,486	189,486	189,486	189,486	189,486	1,136,920
Spending Plan by Fund									
Solid Waste Fund		46,517	18,949	0	0	0	0	0	65,465
Total:		46,517	18,949	0	0	0	0	0	65,465

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

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Solid Waste Rates	119	245	310	1,270	570	570	303	720	4,106
Total:	119	245	310	1,270	570	570	303	720	4,106
Fund Appropriations/Allocations									
Solid Waste Fund	119	245	310	1,270	570	570	303	720	4,106
Total*:	119	245	310	1,270	570	570	303	720	4,106
O & M Costs (Savings)			37,425	37,425	37,425	37,425	37,425	37,425	224,550
Spending Plan by Fund									
Solid Waste Fund		216	310	1,270	570	570	303	720	3,959
Total:		216	310	1,270	570	570	303	720	3,959

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

2016 - 2021 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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Solid Waste Rates	65	128	9	22	27	22	0	0	274
Total:	65	128	9	22	27	22	0	0	274
Fund Appropriations/Allocations									
Solid Waste Fund	65	128	9	22	27	22	0	0	274
Total*:	65	128	9	22	27	22	0	0	274
O & M Costs (Savings)			810	810	810	810	810	810	4,860
Spending Plan by Fund									
Solid Waste Fund		168	9	22	27	22	0	0	249
Total:		168	9	22	27	22	0	0	249

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

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 program 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. In addition, this program enhances protection of SPU's critical infrastructure and addresses vulnerabilities identified in U.S. Environmental Protection Agency (EPA) mandated vulnerability assessments.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Solid Waste Rates	570	70	110	97	80	80	80	95	1,181
Total:	570	70	110	97	80	80	80	95	1,181
Fund Appropriations/Allocations									
Solid Waste Fund	570	70	110	97	80	80	80	95	1,181
Total*:	570	70	110	97	80	80	80	95	1,181
O & M Costs (Savings)			5,419	5,419	5,419	5,419	5,419	5,419	32,513
Spending Plan by Fund									
Solid Waste Fund		107	110	97	80	80	80	95	649
Total:		107	110	97	80	80	80	95	649

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

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:	Q4/2017
Location:	8100 2nd Ave S		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	1
Neighborhood District:	Greater Duwamish	Urban Village:	Duwamish

This project complies with a Washington State Department of Ecology Agreed Order to conduct a Remedial Investigation and Feasibility Study of the historic South Park Landfill site and covers investigation and eventual remediation of the landfill site to protect human health and the environment. Final cost allocation among potentially liable parties will occur at a later stage.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Solid Waste Rates	3,692	1,225	4,535	9,084	0	0	0	0	18,537
Total:	3,692	1,225	4,535	9,084	0	0	0	0	18,537
Fund Appropriations/Allocations									
Solid Waste Fund	3,692	1,225	4,535	9,084	0	0	0	0	18,537
Total*:	3,692	1,225	4,535	9,084	0	0	0	0	18,537
O & M Costs (Savings)			136,191	136,191	136,191	136,191	136,191	136,191	817,145
Spending Plan by Fund									
Solid Waste Fund		1,246	4,535	9,084	0	0	0	0	14,865
Total:		1,246	4,535	9,084	0	0	0	0	14,865

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

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:	Q1/2018
Location:	8105 5th Ave S		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	1
Neighborhood District:	Greater Duwamish	Urban Village:	Duwamish

This project relocates the South Household Hazardous Waste (SHHW) facility and makes facility improvements required by code and ensures other South Recycling and Disposal Station (SRDS) redevelopment efforts are not constrained. Work on the North Transfer Station and South Transfer Station projects must be completed before this project can start.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Solid Waste Rates	0	57	236	476	57	0	0	0	825
Total:	0	57	236	476	57	0	0	0	825
Fund Appropriations/Allocations									
Solid Waste Fund	0	57	236	476	57	0	0	0	825
Total*:	0	57	236	476	57	0	0	0	825
O & M Costs (Savings)			7,688	7,688	7,688	7,688	7,688	7,688	46,129
Spending Plan by Fund									
Solid Waste Fund		57	236	476	57	0	0	0	825
Total:		57	236	476	57	0	0	0	825

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

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:	Q4/2018
Location:	8100 2nd AVE S		
Neighborhood Plan:	Duwamish	Council District:	1
Neighborhood District:	Greater Duwamish	Urban Village:	Duwamish

This program provides for the replacement of the existing South Recycling and Disposal Station (SRDS) in South Park. The existing solid waste transfer station was built in 1966 and is outdated and nearing the end of its useful life. The design and construction of replacement facilities is a two phase project. The first phase includes the development of a new transfer station and associated facilities adjacent to the existing facility on a 9.1 acre parcel to the northwest of the existing station. The second phase includes demolition of the existing facilities and development of new recycling and reuse facilities, a household hazardous waste facility, and other utility facilities.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Solid Waste Rates	77,737	1,500	6,732	6,000	4,750	0	0	0	96,720
Total:	77,737	1,500	6,732	6,000	4,750	0	0	0	96,720
Fund Appropriations/Allocations									
Solid Waste Fund	77,737	1,500	6,732	6,000	4,750	0	0	0	96,720
Total*:	77,737	1,500	6,732	6,000	4,750	0	0	0	96,720
O & M Costs (Savings)			174,824	174,824	174,824	174,824	174,824	174,824	1,048,940
Spending Plan by Fund									
Solid Waste Fund		1,587	6,732	6,000	4,750	0	0	0	19,070
Total:		1,587	6,732	6,000	4,750	0	0	0	19,070

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

Seattle Public Utilities

Technology Projects

Project Summary

BCL/Program Name/									
Project Title & ID	LTD Actuals	2015	2016	2017	2018	2019	2020	2021	Total
Technology									C510B
Asset Information Management (C5407)	214	2,258	2,744	808	1,115	1,900	1,800	2,000	12,838
Customer Contact & Billing (C5402)	18,433	14,312	14,752	3,552	3,369	1,250	2,500	1,000	59,169
Enterprise Information Management (C5403)	9,849	2,365	950	550	850	2,100	500	2,000	19,164
IT Infrastructure (C5404)	5,351	2,250	1,400	1,800	3,000	1,000	2,600	1,000	18,401
Project Delivery & Performance (C5405)	9,643	6,100	12,558	9,830	2,649	1,800	750	1,700	45,029
Science & System Performance (C5406)	3,785	2,674	942	1,469	1,498	1,000	1,000	1,600	13,968
Technology	47,275	29,960	33,346	18,008	12,480	9,050	9,150	9,300	168,569
Department Total*:	47,275	29,960	33,346	18,008	12,480	9,050	9,150	9,300	168,569

** 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	2015	2016	2017	2018	2019	2020	2021	Total
Drainage and Wastewater Fund (44010)	18,311	11,056	12,797	7,349	4,588	3,872	3,918	3,999	65,890
Solid Waste Fund (45010)	9,606	7,120	7,235	2,908	2,037	1,137	1,079	1,395	32,517
Water Fund (43000)	19,357	11,784	13,314	7,751	5,856	4,041	4,152	3,906	70,162
Department Total*:	47,275	29,960	33,346	18,008	12,480	9,050	9,150	9,300	168,569

**Amounts in thousands of dollars*

2016 - 2021 Proposed Capital Improvement Program

SPU-Technology

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:			
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 program provides applications, upgrades and data management tools in support of SPU's work and asset management programs. 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	93	1,048	1,254	411	548	866	862	840	5,923
Drainage and Wastewater Rates	88	847	1,223	250	372	824	823	860	5,287
Solid Waste Rates	32	364	267	147	194	210	115	300	1,628
Total:	214	2,258	2,744	808	1,115	1,900	1,800	2,000	12,838
Fund Appropriations/Allocations									
Water Fund	93	1,048	1,254	411	548	866	862	840	5,923
Drainage and Wastewater Fund	88	847	1,223	250	372	824	823	860	5,287
Solid Waste Fund	32	364	267	147	194	210	115	300	1,628
Total*:	214	2,258	2,744	808	1,115	1,900	1,800	2,000	12,838
O & M Costs (Savings)			103,664	103,664	103,664	103,664	103,664	103,664	621,981
Spending Plan by Fund									
Water Fund		172	1,254	411	548	866	862	840	4,953
Drainage and Wastewater Fund		161	1,223	250	372	824	823	860	4,513
Solid Waste Fund		18	267	147	194	210	115	300	1,250
Total:		350	2,744	808	1,115	1,900	1,800	2,000	10,716

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

2016 - 2021 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:			
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 program will provide 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 program is intended to enhance customer service, customer contact, and ensure accurate Utility billing.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	6,617	5,124	5,108	1,563	1,482	550	1,100	420	21,964
Drainage and Wastewater Rates	6,250	4,801	4,983	1,456	1,381	512	1,025	430	20,840
Solid Waste Rates	5,566	4,387	4,661	533	505	187	375	150	16,364
Total:	18,433	14,312	14,752	3,552	3,369	1,250	2,500	1,000	59,169
Fund Appropriations/Allocations									
Water Fund	6,617	5,124	5,108	1,563	1,482	550	1,100	420	21,964
Drainage and Wastewater Fund	6,250	4,801	4,983	1,456	1,381	512	1,025	430	20,840
Solid Waste Fund	5,566	4,387	4,661	533	505	187	375	150	16,364
Total*:	18,433	14,312	14,752	3,552	3,369	1,250	2,500	1,000	59,169
O & M Costs (Savings)			264,230	264,230	264,230	264,230	264,230	264,230	1,585,380
Spending Plan by Fund									
Water Fund		6,386	5,108	1,563	1,482	550	1,100	420	16,609
Drainage and Wastewater Fund		6,177	4,983	1,456	1,381	512	1,025	430	15,965
Solid Waste Fund		5,513	4,661	533	505	187	375	150	11,924
Total:		18,076	14,752	3,552	3,369	1,250	2,500	1,000	44,499

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SPU-Technology

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:			
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 program will provide 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 program enhances SPU's ability to retrieve, share, distribute and manage corporate information.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	5,110	1,043	510	242	377	923	223	840	9,269
Drainage and Wastewater Rates	3,164	965	328	225	342	858	199	860	6,942
Solid Waste Rates	1,574	357	113	82	130	319	77	300	2,953
Total:	9,849	2,365	950	550	850	2,100	500	2,000	19,164
Fund Appropriations/Allocations									
Water Fund	5,110	1,043	510	242	377	923	223	840	9,269
Drainage and Wastewater Fund	3,164	965	328	225	342	858	199	860	6,942
Solid Waste Fund	1,574	357	113	82	130	319	77	300	2,953
Total*:	9,849	2,365	950	550	850	2,100	500	2,000	19,164
O & M Costs (Savings)			69,500	69,500	69,500	69,500	69,500	69,500	417,000
Spending Plan by Fund									
Water Fund		402	510	242	377	923	223	840	3,518
Drainage and Wastewater Fund		190	328	225	342	858	199	860	3,002
Solid Waste Fund		60	113	82	130	319	77	300	1,082
Total:		652	950	550	850	2,100	500	2,000	7,602

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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:			
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 program ensures the availability, reliability, and security of SPU's corporate computing infrastructure. The program acquires and maintains SPU-owned and managed servers, local networks, shared storage and backup systems, operating software, and communications infrastructure.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	2,366	990	612	788	1,297	430	1,132	420	8,034
Drainage and Wastewater Rates	2,420	923	573	738	1,248	420	1,073	430	7,825
Solid Waste Rates	565	338	215	274	455	150	395	150	2,541
Total:	5,351	2,250	1,400	1,800	3,000	1,000	2,600	1,000	18,401
Fund Appropriations/Allocations									
Water Fund	2,366	990	612	788	1,297	430	1,132	420	8,034
Drainage and Wastewater Fund	2,420	923	573	738	1,248	420	1,073	430	7,825
Solid Waste Fund	565	338	215	274	455	150	395	150	2,541
Total*:	5,351	2,250	1,400	1,800	3,000	1,000	2,600	1,000	18,401
O & M Costs (Savings)			108,000	108,000	108,000	108,000	108,000	108,000	648,000
Spending Plan by Fund									
Water Fund		1,132	612	788	1,297	430	1,132	420	5,811
Drainage and Wastewater Fund		1,090	573	738	1,248	420	1,073	430	5,572
Solid Waste Fund		392	215	274	455	150	395	150	2,031
Total:		2,615	1,400	1,800	3,000	1,000	2,600	1,000	13,415

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SPU-Technology

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:			
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 program 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 program will result in an improved ability to plan and deliver projects on schedule and within budget.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	4,500	2,698	5,558	4,351	1,229	772	335	714	20,157
Drainage and Wastewater Rates	3,636	2,476	5,072	3,978	993	758	298	731	17,944
Solid Waste Rates	1,507	925	1,928	1,501	426	270	116	255	6,928
Total:	9,643	6,100	12,558	9,830	2,649	1,800	750	1,700	45,029
Fund Appropriations/Allocations									
Water Fund	4,500	2,698	5,558	4,351	1,229	772	335	714	20,157
Drainage and Wastewater Fund	3,636	2,476	5,072	3,978	993	758	298	731	17,944
Solid Waste Fund	1,507	925	1,928	1,501	426	270	116	255	6,928
Total*:	9,643	6,100	12,558	9,830	2,649	1,800	750	1,700	45,029
O & M Costs (Savings)			292,862	292,862	292,862	292,862	292,862	292,862	1,757,170
Spending Plan by Fund									
Water Fund		66	5,558	4,351	1,229	772	335	714	13,025
Drainage and Wastewater Fund		59	5,072	3,978	993	758	298	731	11,890
Solid Waste Fund		23	1,928	1,501	426	270	116	255	4,519
Total:		148	12,558	9,830	2,649	1,800	750	1,700	29,435

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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:			
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 program 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 program enhances SPU's ability to control water quality and comply with environmental and health regulations.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	672	880	272	397	921	500	500	672	4,814
Drainage and Wastewater Rates	2,752	1,044	618	700	250	500	500	688	7,052
Solid Waste Rates	362	750	53	371	327	0	0	240	2,102
Total:	3,785	2,674	942	1,469	1,498	1,000	1,000	1,600	13,968
Fund Appropriations/Allocations									
Water Fund	672	880	272	397	921	500	500	672	4,814
Drainage and Wastewater Fund	2,752	1,044	618	700	250	500	500	688	7,052
Solid Waste Fund	362	750	53	371	327	0	0	240	2,102
Total*:	3,785	2,674	942	1,469	1,498	1,000	1,000	1,600	13,968
O & M Costs (Savings)			75,086	75,086	75,086	75,086	75,086	75,086	450,515
Spending Plan by Fund									
Water Fund		236	272	397	921	500	500	672	3,498
Drainage and Wastewater Fund		205	618	700	250	500	500	688	3,461
Solid Waste Fund		378	53	371	327	0	0	240	1,368
Total:		819	942	1,469	1,498	1,000	1,000	1,600	8,328

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2016 - 2021 Proposed Capital Improvement Program

Seattle Public Utilities

Water

Overview

Seattle Public Utilities (SPU) delivers an average of approximately 120 million gallons of drinking water per day to more than 1.3 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
- Approximately 350 million gallons of treated water storage
- 30 pump stations
- Approximately 1,900 miles of transmission and distribution system pipelines
- Over 191,000 meters and service connections
- More than 21,000 distribution system valves
- About 18,000 hydrants
- Monitoring and control systems
- Various buildings and other related facilities

In addition to replacing and improving the supply, treatment, transmission and distribution systems, the Water Fund (WF) CIP 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 WF CIP is \$425 million over the next six years.

Major anticipated projects include:

- Transmission pipeline improvements to address issues in a slide area on the Tolt system
- Upgrades to buildings and other facilities at Cedar Falls, Tolt/Duvall Shop, and Lake Youngs
- Seismic retrofits to the correct design flaws at four of the newly buried treated water reservoirs
- Morse Lake Pump Plant upgrades to improve water storage access
- Water system improvements associated with transportation projects

The WF CIP also includes many ongoing programs, such as improving the distribution and transmission system water mains, valves, and pump stations, watershed stewardship and conservation projects and programs, and facilities, vehicles, and heavy equipment investments. By 2019, however, the overall CIP will be reduced, and investments will be substantially focused on rehabilitating and replacing infrastructure for delivery of clean drinking water, with continued watershed stewardship.

CIP Revenue Sources

The WF CIP is funded through a combination of cash and bond proceeds. The primary source of cash and debt repayment funds come from sale of water 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 that is required every six years.

SPU WF CIP is funded largely by Water ratepayers. About 70 percent of the WF operating revenues come from retail ratepayers, split approximately evenly between residential and commercial customers.

Another approximately 23 percent of overall WF revenues come from wholesale purveyors who serve surrounding jurisdictions. The remaining approximately 7 percent consists of non-rate revenue, which includes such elements as tap fees received. SPU issues bonds, serviced by ratepayers, which in the current period covers 49 percent 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. As mentioned above, SPU also receives payments from developers. Those payments are intended to offset the cost of installing new taps when they connect newly constructed buildings to SPU water mains. These “tap fees” are a volatile revenue source, trending with the construction-related sectors of the economy.

CIP Highlights

2016-2021 Proposed Water Fund CIP by BCL
(In ‘000s; total may not sum due to rounding)

BCL	2016	2017	2018	2019	2020	2021	Total
Distribution	21,514	24,543	26,117	24,263	24,465	24,215	145,118
Transmission	3,788	11,765	21,399	20,702	5,385	2,665	65,703
Watershed Stewardship	841	551	250	250	100	105	2,097
Water Quality and Treatment	1,846	6,754	225	1,405	3,445	17,210	30,885
Water Resources	7,713	6,478	2,902	3,047	3,006	3,459	26,605
Habitat Conservation Program	2,116	1,882	1,954	1,600	1,630	1,313	10,495
Shared Cost	21,702	26,476	17,431	12,957	9,772	16,565	104,903
Technology	13,314	7,751	5,856	4,041	4,152	3,906	39,020
Total	72,835	86,200	76,133	68,266	51,955	69,438	424,828

Distribution: Projects and programs in this category relate to rehabilitation and improvements to the City’s water mains and appurtenances, pump stations, and other facilities that are part of the system that distributes treated water throughout the City of Seattle and portions outside of the City served by SPU to retail customers. Water Service Renewals and New Taps are the bulk of the costs for this BCL. Additionally, there is a renewed focus on seismic reliability and establishment of a seismic program for water system pipelines.

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 water from the

treatment facilities to Seattle and to other local utilities that purchase a portion of SPU's supply for their customers. In 2016 and 2017, up to 2.7 miles of 42-inch diameter pipeline between the Ship Canal and Maple Leaf Reservoir (“the 430 Pipeline”) will be replaced or structurally rehabilitated. In 2017 and 2018, one-half a mile of new tunnel pipeline around an area of ground instability affecting the Tolt Pipelines will be constructed.

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 to comply with the Federal Endangered Species Act. Projects include remediation of identified soil contamination near the City Light Gatehouse Bridge in the Cedar River Municipal Watershed, and Cedar River Watershed road improvements related to commitments made to the Muckleshoot Indian tribe to retain certain roads.

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 treatment facilities and burying or covering reservoirs that contain already treated water that is distributed directly to Seattle residents and wholesale customers for drinking purposes. For 2016 and 2017, projects will correct seismic design flaws at four of the newly buried reservoirs.

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 and the Morse Lake Pump Plant. Morse Lake Pump Plant is anticipated to be substantially complete in 2015.

Habitat Conservation Program: This program category includes projects and programs directly related to implementing the Cedar River Watershed Habitat Conservation Plan. The Habitat Conservation Plan benefits SPU 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 percent 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:

- (1) Managing in-stream flows for people and fish
- (2) Forest and land conservation activities
- (3) Mitigating the blockage of salmon and steelhead fish as they return to the Cedar River to spawn

The WF CIP projects in this area are grouped into seven 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

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 includes funding for a number of interdepartmental projects including the continuation of project initiated under the Bridging the Gap program, Alaskan Way Viaduct and Seawall Replacement (AWVSRP), and Sound Transit Link Light Rail. Funding is also included for SPU's facility improvements, Heavy Equipment Purchases, and a number of smaller projects. For AWVSRP, the Western Avenue water main has experienced significant settlement during a similar time period as dewatering performed by SDOT for their AWV tunnel boring machine access pit, and more settlement is expected as the AWV tunnel boring machine passes under this area. Another significant project within this BCL is the SDOT Center City Connector streetcar project, which will create access restrictions and potential stray current corrosion to approximately 5,300 feet of SPU water mains located under or near the proposed streetcar tracks. This project will relocate the affected water mains away from the streetcar and renew approximately 50 water services crossing under the proposed tracks.

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 2016 address SPU's key initiatives, which focus on:

- Improving Internal Controls
- Improving Productivity and Performance
- Improving Customer Service
- Transitioning from Data Rich to Knowledge Rich
- Improving Project Delivery

SPU will focus technology spending on the highest priority business needs. Increased spending in 2016 reflects major business changes in both the Customer Contact and Billing and Project Delivery and Performance programs.

In the Customer Contact and Billing Program, a driver for increased costs is related to changes in the schedule with the New Customer Information System (NCIS). Delays in the project will increase costs in 2016. In the Project Delivery and Performance program, the main driver is SPU's anticipation of its share of the costs for the Summit Re-Implementation project. Other drivers for costs in the program include SPU's participation in the implementation of the City's New Permit System as well as the enhancement and upgrade of SPU's Enterprise Project Management System (EPMS).

Thematic Priorities

The overarching goal of the WF 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.

- Asset Preservation: 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 renewal vs. decommissioning decisions on steel elevated tank and standpipes.
- Health and Human Safety: 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 improve water quality and system security. Seismic retrofits are planned for four of the buried reservoirs that have design flaws. SPU plans further evaluate the possibility of decommissioning Roosevelt Reservoir and Volunteer Reservoirs. However, permanent actions at these two reservoirs are not expected to occur until upcoming seismic analysis has been completed. Additionally, by 2019, SPU will begin designing and 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.
- Environmental Sustainability: SPU is committed to environmental sustainability as demonstrated by the 50-year Habitat Conservation Plan (HCP), an agreement between local, State and Federal agencies. The HCP (1) ensures the long-term ecological integrity of the Cedar River Watershed, which supplies the majority of the City's drinking water, and (2) 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 to manage our natural resources, while helping customers reduce their utility bills.
- Race and Social Justice: 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 Seattle 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 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 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 23rd Ave water main projects.
- **Infrastructure:** How a project addresses infrastructure conditions or vulnerabilities. Examples of highly ranked projects in this category include the water main 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.

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

Two 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 1990 and is projected to further decline albeit at a slower rate. In 2010, consumption was 33 percent below 1990 levels 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 WF 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 WF is transitioning from a period of building large capital projects, mainly in response to regulatory requirements, to a period of physical infrastructure rehabilitation. Past investments include water treatment facilities for the Tolt and Cedar water supplies, burying/covering 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 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 proposed WF CIP should:

- Provide for water system modifications associated with various Seattle and regional transportation projects
- Preserve the transmission and distribution systems, as well as 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
- Prioritize projects to deliver on infrastructure and regulatory requirements within the limited resources of the WF
- 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 associated risk

Future Projects / What is on the Horizon

The WF CIP includes completion of the Morse Lake Pump Plant, funds for the Tolt Slide Tunnel Project, and a few special mid-range programs, such as seismic retrofitting of reservoirs, and programs related to transportation projects and improvements to SPU facilities. Additionally, by 2019, SPU will begin designing and 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 lives. SPU will also begin significant improvements to buildings and other facilities at Cedar Falls, Tolt/Duvall Shop and Lake Youngs. Finally, SPU will be initiating studies on how best to modernize and streamline its operations within its service area, including location of operations and maintenance personnel and location of materials stockpiles and spoils disposal.

As noted previously, 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 system resiliency in light of seismic risk. These recommendations may reflect a combination of operational and maintenance improvements, such as stockpiling spare pipe and other materials in potential response to emergencies as well as associated staffing, and system upgrades, such as upgrades to buried pipes in key locations to improve their performance in a significant seismic event. These recommendations may define a significant portion of the WF CIP over the next several budget cycles.

Beyond these projects, emphasis will be on continued application of asset management based rehabilitation and replacement of distribution system infrastructure (e.g. water mains, valves, hydrants, meters, and service lines). Each of these asset classes will require significant planning and analysis work to determine the appropriate level of CIP versus operating and maintenance work needed for each asset and shifting the workforce accordingly. As an example of the complexity of the continued work, the Water Main Rehabilitation program will continue to identify areas in which it makes cost-effective sense to proactively replace or rehabilitate pipelines before they fail catastrophically. Projects identified in this program may overlap with recommendations identified in the seismic analysis as well as potential opportunity projects, such as transportation driven projects.

Project Summary

BCL/Program Name/									
Project Title & ID	LTD Actuals	2015	2016	2017	2018	2019	2020	2021	Total
Distribution					BCL/Program Code:				C110B
Chamber Upgrades - Distribution (C1137)	191	27	28	28	29	29	30	30	392
Distribution System Improvements (C1128)	4,415	4,801	3,030	2,047	3,500	4,000	4,000	4,000	29,793
Distribution System In-Line Gate Valves (C1136)	933	325	331	338	345	351	359	366	3,347
Multiple Utility Relocation (C1133)	5,647	1,317	370	564	574	586	597	609	10,265
Pump Station Improvements (C1135)	185	125	700	2,225	125	125	125	125	3,735
Tank Improvements (C1134)	2,431	250	750	500	100	550	850	0	5,431
Water Infrastructure - Distribution System Modifications (C1138)	42	100	0	104	106	108	110	113	684
Water Infrastructure - Hydrant Replacement/Relocation (C1110)	4,466	204	208	212	216	221	225	229	5,982
Water Infrastructure - New Hydrants (C1112)	281	61	25	13	13	13	14	14	433
Water Infrastructure - New Taps (C1113)	55,612	6,000	6,630	6,763	6,898	7,036	7,177	7,320	103,435
Water Infrastructure - Service Renewal (C1109)	108,389	4,986	7,610	7,722	5,837	5,953	6,072	6,193	152,763
Water Infrastructure - Watermain Extensions (C1111)	2,000	812	828	845	862	879	897	915	8,038
Watermain Rehabilitation (C1129)	3,660	6,430	1,004	3,182	7,513	4,411	4,010	4,300	34,511
Distribution	188,252	25,438	21,514	24,543	26,117	24,263	24,465	24,215	358,808
Transmission					BCL/Program Code:				C120B
Cathodic Protection Program (C1208)	416	1,187	867	380	1,120	390	1,140	900	6,401
Purveyor Meters Replace - SPU (C1206)	731	200	204	208	213	218	223	100	2,097
Replace Air Valve Chambers (C1209)	911	122	125	125	127	130	133	130	1,802
Transmission Pipelines Rehabilitation (C1207)	1,770	1,152	2,568	11,027	19,912	19,934	3,856	1,500	61,720
Water System Dewatering (C1205)	39	50	24	25	27	30	33	35	263
Transmission	3,867	2,712	3,788	11,765	21,399	20,702	5,385	2,665	72,282
Watershed Stewardship					BCL/Program Code:				C130B
Cedar Bridges (C1307)	498	1	1	1	250	250	100	15	1,116

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

2016 - 2021 Proposed Capital Improvement Program

Project Summary

BCL/Program Name/									
Project Title & ID	LTD Actuals	2015	2016	2017	2018	2019	2020	2021	Total
Environmental Stewardship (C1301)	0	210	390	100	0	0	0	90	790
Kerriston Road (C1314)	0	0	0	0	0	0	0	0	0
Tolt Bridges (C1308)	0	0	450	450	0	0	0	0	900
Tolt Watershed Restoration (C1310)	292	5	0	0	0	0	0	0	297
Transmission Right-of-Way Improvements (C1316)	163	85	0	0	0	0	0	0	248
Watershed Stewardship	953	301	841	551	250	250	100	105	3,352
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	0	0	0	590	1,790	7,310	9,690
Reservoir Covering - Beacon (C1408)	1,122	649	135	6,470	0	0	0	0	8,376
Reservoir Covering - Maple Leaf (C1411)	39,984	7,036	1,306	0	0	0	0	0	48,326
Reservoir Covering - Myrtle (C1410)	435	1,256	55	0	0	0	0	0	1,746
Reservoir Covering - West Seattle (C1409)	40,381	2,967	50	0	0	0	0	0	43,398
Reservoir Covering-Lake Forest Park (C1418)	0	0	0	0	0	590	1,200	9,750	11,540
Treatment Facility/Water Quality Improvements (C1413)	342	205	225	209	225	225	455	150	2,036
Water Quality Equipment (C1414)	249	101	75	75	0	0	0	0	500
Water Quality & Treatment	82,512	12,214	1,846	6,754	225	1,405	3,445	17,210	125,612
Water Resources									BCL/Program Code: C150B
Dam Safety Program (C1506)	5,778	1,025	1,250	875	475	650	650	750	11,453
Hatchery Works (C1511)	0	0	300	3,400	175	98	0	0	3,973
Morse Lake Pump Plant (C1508)	19,511	17,258	4,010	0	0	0	0	0	40,779
Regional Water Conservation Program (C1504)	20,829	1,839	1,472	1,506	1,539	1,570	1,610	1,846	32,212
Seattle Direct Service Additional Conservation (C1505)	2,692	566	681	697	713	729	746	863	7,687
Water Supply Flexibility Program (C1507)	277	1,480	0	0	0	0	0	0	1,757

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

2016 - 2021 Proposed Capital Improvement Program

Project Summary

BCL/Program Name/ Project Title & ID	LTD Actuals	2015	2016	2017	2018	2019	2020	2021	Total
Water System Plan - 2019 (C1510)	0	0	0	0	0	0	0	0	0
Water Resources	49,087	22,169	7,713	6,478	2,902	3,047	3,006	3,459	97,861
Habitat Conservation Program									BCL/Program Code: C160B
Ballard Locks Improvements (C1606)	359	200	136	140	145	150	155	160	1,445
Cedar Sockeye Hatchery (C1605)	10,058	70	0	0	0	0	0	0	10,128
Downstream Fish Habitat (C1607)	8,592	734	605	342	383	0	0	0	10,656
Instream Flow Management Studies (C1608)	1,984	208	137	142	147	152	157	0	2,928
Stream & Riparian Restoration (C1602)	3,718	204	164	165	167	168	168	193	4,947
Upland Reserve Forest Restoration (C1603)	6,783	98	93	95	97	98	100	103	7,467
Watershed Road Improvement/Decommissioning (C1601)	3,798	1,090	981	998	1,015	1,032	1,049	857	10,820
Habitat Conservation Program	35,291	2,604	2,116	1,882	1,954	1,600	1,630	1,313	48,389
Shared Cost Projects									BCL/Program Code: C410B
1% for Art & WF (C4118- WF)	1,385	349	93	77	81	117	122	128	2,352
Alaskan Way Viaduct & Seawall Replacement Program - WF (C4102-WF)	10,838	6,392	4,904	1,511	861	258	0	0	24,764
Bridging the Gap - WF (C4119 -WF)	1,549	6,751	7,988	1,395	505	1,500	1,500	2,000	23,189
Emergency Storms - WF (C4120-WF)	321	100	100	100	100	100	100	0	921
First Hill Streetcar - WF (C4130-WF)	414	1,150	655	9,001	3,322	0	0	0	14,542
Heavy Equipment Purchases - WF (C4116-WF)	8,042	4,140	2,251	2,014	2,040	2,043	2,017	2,500	25,047
Integrated Control Monitoring Program - WF (C4108-WF)	1,132	762	200	400	480	480	480	0	3,934
Mercer Corridor Project East Phase - WF (C4114-WF)	3,428	0	0	0	0	0	0	0	3,428
Mercer Corridor Project West Phase - WF (C4133-WF)	1,093	343	30	0	0	0	0	0	1,466
Meter Replacement - WF (C4101-WF)	5,821	623	546	598	600	605	609	521	9,924

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2016 - 2021 Proposed Capital Improvement Program

Project Summary

BCL/Program Name/									
Project Title & ID	LTD Actuals	2015	2016	2017	2018	2019	2020	2021	Total
Operational Facility - Construction - WF (C4106- WF)	2,065	1,297	1,753	2,751	3,036	5,336	2,458	6,006	24,702
Operational Facility - Other - WF (C4115-WF)	657	400	50	0	0	0	0	0	1,107
Operations Control Center - WF (C4105-WF)	457	2,028	63	157	189	157	0	1,260	4,312
Other Major Transportation Projects - WF (C4123-WF)	194	255	50	550	800	1,000	1,000	0	3,850
Regional Facility - WF (C4107 -WF)	15,008	6,249	1,570	6,738	4,605	525	675	3,000	38,370
Security Improvements - WF (C4113-WF)	5,005	1,078	783	934	686	736	786	1,150	11,157
Sound Transit - North Link - WF (C4135-WF)	619	516	485	100	75	75	25	0	1,896
Sound Transit - Water Betterment (C4125)	1,502	50	0	0	0	0	0	0	1,552
Sound Transit - University Link - WF (C4110-WF)	353	96	10	0	0	0	0	0	459
Sound Transit-East Link (C4122-WF)	10	53	170	150	50	25	0	0	458
Yesler Terrace-WF (C4136- WF)	18	200	0	0	0	0	0	0	218
Shared Cost Projects	59,912	32,834	21,702	26,476	17,431	12,957	9,772	16,565	197,649
Technology									BCL/Program Code: C510B
Asset Information Management (C5407)	93	1,048	1,254	411	548	866	862	840	5,923
Customer Contact & Billing (C5402)	6,617	5,124	5,108	1,563	1,482	550	1,100	420	21,964
Enterprise Information Management (C5403)	5,110	1,043	510	242	377	923	223	840	9,269
IT Infrastructure (C5404)	2,366	990	612	788	1,297	430	1,132	420	8,034
Project Delivery & Performance (C5405)	4,500	2,698	5,558	4,351	1,229	772	335	714	20,157
Science & System Performance (C5406)	672	880	272	397	921	500	500	672	4,814
Technology	19,357	11,784	13,314	7,751	5,856	4,041	4,152	3,906	70,162
Department Total*:	439,233	110,054	72,835	86,200	76,133	68,266	51,955	69,438	974,114

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

2016 - 2021 Proposed Capital Improvement Program

Fund Summary

Fund Name & Code	LTD Actuals	2015	2016	2017	2018	2019	2020	2021	Total
Water Fund (43000)	439,233	110,054	72,835	86,200	76,133	68,266	51,955	69,438	974,114
Department Total*:	439,233	110,054	72,835	86,200	76,133	68,266	51,955	69,438	974,114

**Amounts in thousands of dollars*

1% for Art & 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:			
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 program 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 program. Funds contributed to the 1% for Art program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	1,385	349	93	77	81	117	122	128	2,352
Total:	1,385	349	93	77	81	117	122	128	2,352
Fund Appropriations/Allocations									
Water Fund	1,385	349	93	77	81	117	122	128	2,352
Total*:	1,385	349	93	77	81	117	122	128	2,352
O & M Costs (Savings)			6,185	6,185	6,185	6,185	6,185	6,185	37,108
Spending Plan by Fund									
Water Fund		171	93	77	81	117	122	128	789
Total:		171	93	77	81	117	122	128	789

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

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 program 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 Program” (AWVSR Program.) 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	10,838	6,392	4,904	1,511	861	258	0	0	24,764
Total:	10,838	6,392	4,904	1,511	861	258	0	0	24,764
Fund Appropriations/Allocations									
Water Fund	10,838	6,392	4,904	1,511	861	258	0	0	24,764
Total*:	10,838	6,392	4,904	1,511	861	258	0	0	24,764
O & M Costs (Savings)			75,344	75,344	75,344	75,344	75,344	75,344	452,061
Spending Plan by Fund									
Water Fund		8,743	4,904	1,511	861	258	0	0	16,278
Total:		8,743	4,904	1,511	861	258	0	0	16,278

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

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 program 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 program is a requirement of the Cedar River Habitat Conservation Plan (HCP.)

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	359	200	136	140	145	150	155	160	1,445
Total:	359	200	136	140	145	150	155	160	1,445
Fund Appropriations/Allocations									
Water Fund	359	200	136	140	145	150	155	160	1,445
Total*:	359	200	136	140	145	150	155	160	1,445
O & M Costs (Savings)			8,860	8,860	8,860	8,860	8,860	8,860	53,160
Spending Plan by Fund									
Water Fund		131	136	140	145	150	155	160	1,017
Total:		131	136	140	145	150	155	160	1,017

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

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, multi-project program 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" program. SPU assesses the condition of its utility infrastructure at SDOT's project sites and conducts repairs and improvements as needed.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	1,549	6,751	7,988	1,395	505	1,500	1,500	2,000	23,189
Total:	1,549	6,751	7,988	1,395	505	1,500	1,500	2,000	23,189
Fund Appropriations/Allocations									
Water Fund	1,549	6,751	7,988	1,395	505	1,500	1,500	2,000	23,189
Total*:	1,549	6,751	7,988	1,395	505	1,500	1,500	2,000	23,189
O & M Costs (Savings)			148,883	148,883	148,883	148,883	148,883	148,883	893,299
Spending Plan by Fund									
Water Fund		4,849	7,988	1,395	505	1,500	1,500	2,000	19,738
Total:		4,849	7,988	1,395	505	1,500	1,500	2,000	19,738

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

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	416	1,187	867	380	1,120	390	1,140	900	6,401
Total:	416	1,187	867	380	1,120	390	1,140	900	6,401
Fund Appropriations/Allocations									
Water Fund	416	1,187	867	380	1,120	390	1,140	900	6,401
Total*:	416	1,187	867	380	1,120	390	1,140	900	6,401
O & M Costs (Savings)			47,973	47,973	47,973	47,973	47,973	47,973	287,835
Spending Plan by Fund									
Water Fund		1,106	867	380	1,120	390	1,140	900	5,903
Total:		1,106	867	380	1,120	390	1,140	900	5,903

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

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 program replaces aging bridges and related structures, such as abutments, asphalt approaches, and guardrails in the Cedar River Watershed. Projects within this program improve 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 program also maintains compliance with state laws, safety and environmental regulations, and tribal access agreements including Washington Department of Natural Resources (WDNR) forest practice regulations, Washington Department of Health (DOH) Watershed Protection Plan regulations, and Cedar River Habitat Conservation Plan (HCP) restoration commitments.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	498	1	1	1	250	250	100	15	1,116
Total:	498	1	1	1	250	250	100	15	1,116
Fund Appropriations/Allocations									
Water Fund	498	1	1	1	250	250	100	15	1,116
Total*:	498	1	1	1	250	250	100	15	1,116
O & M Costs (Savings)			6,170	6,170	6,170	6,170	6,170	6,170	37,020
Spending Plan by Fund									
Water Fund		2	1	1	250	250	100	15	619
Total:		2	1	1	250	250	100	15	619

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

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	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		55	0	0	0	0	0	0	55
Total:		55	0	0	0	0	0	0	55

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

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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	191	27	28	28	29	29	30	30	392
Total:	191	27	28	28	29	29	30	30	392
Fund Appropriations/Allocations									
Water Fund	191	27	28	28	29	29	30	30	392
Total*:	191	27	28	28	29	29	30	30	392
O & M Costs (Savings)			1,741	1,741	1,741	1,741	1,741	1,741	10,447

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

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:			
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 program 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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	5,778	1,025	1,250	875	475	650	650	750	11,453
Total:	5,778	1,025	1,250	875	475	650	650	750	11,453
Fund Appropriations/Allocations									
Water Fund	5,778	1,025	1,250	875	475	650	650	750	11,453
Total*:	5,778	1,025	1,250	875	475	650	650	750	11,453
O & M Costs (Savings)			46,500	46,500	46,500	46,500	46,500	46,500	279,000
Spending Plan by Fund									
Water Fund		660	1,250	875	475	650	650	750	5,310
Total:		660	1,250	875	475	650	650	750	5,310

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

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 program 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 watermain 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	4,415	4,801	3,030	2,047	3,500	4,000	4,000	4,000	29,793
Total:	4,415	4,801	3,030	2,047	3,500	4,000	4,000	4,000	29,793
Fund Appropriations/Allocations									
Water Fund	4,415	4,801	3,030	2,047	3,500	4,000	4,000	4,000	29,793
Total*:	4,415	4,801	3,030	2,047	3,500	4,000	4,000	4,000	29,793
O & M Costs (Savings)			205,773	205,773	205,773	205,773	205,773	205,773	1,234,640
Spending Plan by Fund									
Water Fund		3,297	3,030	2,047	3,500	4,000	4,000	4,000	23,874
Total:		3,297	3,030	2,047	3,500	4,000	4,000	4,000	23,874

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

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 watermain 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 watermain shut down.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	933	325	331	338	345	351	359	366	3,347
Total:	933	325	331	338	345	351	359	366	3,347
Fund Appropriations/Allocations									
Water Fund	933	325	331	338	345	351	359	366	3,347
Total*:	933	325	331	338	345	351	359	366	3,347
O & M Costs (Savings)			20,894	20,894	20,894	20,894	20,894	20,894	125,364

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

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 ongoing program 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 mainstem of the Cedar River. Although this is an ongoing program, no work is currently planned for 2018. This program is a requirement of the Cedar River Habitat Conservation Plan (HCP.)

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	8,592	734	605	342	383	0	0	0	10,656
Total:	8,592	734	605	342	383	0	0	0	10,656
Fund Appropriations/Allocations									
Water Fund	8,592	734	605	342	383	0	0	0	10,656
Total*:	8,592	734	605	342	383	0	0	0	10,656
O & M Costs (Savings)			13,300	13,300	13,300	13,300	13,300	13,300	79,801
Spending Plan by Fund									
Water Fund		470	605	342	383	0	0	0	1,800
Total:		470	605	342	383	0	0	0	1,800

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

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 program funds water infrastructure capital improvement projects resulting from previous and possible future storm events. Projects within this program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	321	100	100	100	100	100	100	0	921
Total:	321	100	100	100	100	100	100	0	921
Fund Appropriations/Allocations									
Water Fund	321	100	100	100	100	100	100	0	921
Total*:	321	100	100	100	100	100	100	0	921
O & M Costs (Savings)			5,000	5,000	5,000	5,000	5,000	5,000	30,000
Spending Plan by Fund									
Water Fund		114	100	100	100	100	100	0	614
Total:		114	100	100	100	100	100	0	614

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

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	0	210	390	100	0	0	0	90	790
Total:	0	210	390	100	0	0	0	90	790
Fund Appropriations/Allocations									
Water Fund	0	210	390	100	0	0	0	90	790
Total*:	0	210	390	100	0	0	0	90	790
O & M Costs (Savings)			5,801	5,801	5,801	5,801	5,801	5,801	34,806

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

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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	414	1,150	655	9,001	3,322	0	0	0	14,542
Total:	414	1,150	655	9,001	3,322	0	0	0	14,542
Fund Appropriations/Allocations									
Water Fund	414	1,150	655	9,001	3,322	0	0	0	14,542
Total*:	414	1,150	655	9,001	3,322	0	0	0	14,542
O & M Costs (Savings)			129,780	129,780	129,780	129,780	129,780	129,780	778,680
Spending Plan by Fund									
Water Fund		764	655	9,001	3,322	0	0	0	13,742
Total:		764	655	9,001	3,322	0	0	0	13,742

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

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	0	0	300	3,400	175	98	0	0	3,973
Total:	0	0	300	3,400	175	98	0	0	3,973
Fund Appropriations/Allocations									
Water Fund	0	0	300	3,400	175	98	0	0	3,973
Total*:	0	0	300	3,400	175	98	0	0	3,973
O & M Costs (Savings)			39,730	39,730	39,730	39,730	39,730	39,730	238,380

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

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:			
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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	8,042	4,140	2,251	2,014	2,040	2,043	2,017	2,500	25,047
Total:	8,042	4,140	2,251	2,014	2,040	2,043	2,017	2,500	25,047
Fund Appropriations/Allocations									
Water Fund	8,042	4,140	2,251	2,014	2,040	2,043	2,017	2,500	25,047
Total*:	8,042	4,140	2,251	2,014	2,040	2,043	2,017	2,500	25,047
O & M Costs (Savings)			128,654	128,654	128,654	128,654	128,654	128,654	771,922
Spending Plan by Fund									
Water Fund		3,415	2,251	2,014	2,040	2,043	2,017	2,500	16,280
Total:		3,415	2,251	2,014	2,040	2,043	2,017	2,500	16,280

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

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 program provides research and monitoring to examine the effects of instream flows on salmon species in the Cedar River. This program 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 program is a requirement of the Cedar River Habitat Conservation Plan (HCP.)

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	1,984	208	137	142	147	152	157	0	2,928
Total:	1,984	208	137	142	147	152	157	0	2,928
Fund Appropriations/Allocations									
Water Fund	1,984	208	137	142	147	152	157	0	2,928
Total*:	1,984	208	137	142	147	152	157	0	2,928
O & M Costs (Savings)			7,350	7,350	7,350	7,350	7,350	7,350	44,100
Spending Plan by Fund									
Water Fund		76	137	142	147	152	157	0	811
Total:		76	137	142	147	152	157	0	811

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

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:	Q4/2020
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 ongoing program funds improvements to the centralized monitoring and control of the drinking water portion of the overall Supervisory Control and Data Acquisition (SCADA) system infrastructure throughout King County. Infrastructure affected may include, but is not limited to, flow and pressure sensors, remote control pumps, and valves. This program enhances the delivery and quality of drinking water and the delivery of water to fire hydrants, also known as "fire flow."

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	1,132	762	200	400	480	480	480	0	3,934
Total:	1,132	762	200	400	480	480	480	0	3,934
Fund Appropriations/Allocations									
Water Fund	1,132	762	200	400	480	480	480	0	3,934
Total*:	1,132	762	200	400	480	480	480	0	3,934
O & M Costs (Savings)			20,400	20,400	20,400	20,400	20,400	20,400	122,400
Spending Plan by Fund									
Water Fund		310	200	400	480	480	480	0	2,350
Total:		310	200	400	480	480	480	0	2,350

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

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	2015 Rev	2016	2017	2018	2019	2020	2021	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.

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	2015 Rev	2016	2017	2018	2019	2020	2021	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.

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:	Q4/2014
Location:	South Lake Union		
Neighborhood Plan:	South Lake Union	Council District:	More than one
Neighborhood District:	Lake Union	Urban Village:	South Lake Union

This program 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 program also funds planning-level coordination with other City departments on projects within the South Lake Union area.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	3,428	0	0	0	0	0	0	0	3,428
Total:	3,428	0	0	0	0	0	0	0	3,428
Fund Appropriations/Allocations									
Water Fund	3,428	0	0	0	0	0	0	0	3,428
Total*:	3,428	0	0	0	0	0	0	0	3,428
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
Water Fund		30	0	0	0	0	0	0	30
Total:		30	0	0	0	0	0	0	30

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

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 a 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	1,093	343	30	0	0	0	0	0	1,466
Total:	1,093	343	30	0	0	0	0	0	1,466
Fund Appropriations/Allocations									
Water Fund	1,093	343	30	0	0	0	0	0	1,466
Total*:	1,093	343	30	0	0	0	0	0	1,466
O & M Costs (Savings)			300	300	300	300	300	300	1,800
Spending Plan by Fund									
Water Fund		374	30	0	0	0	0	0	404
Total:		374	30	0	0	0	0	0	404

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

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	5,821	623	546	598	600	605	609	521	9,924
Total:	5,821	623	546	598	600	605	609	521	9,924
Fund Appropriations/Allocations									
Water Fund	5,821	623	546	598	600	605	609	521	9,924
Total*:	5,821	623	546	598	600	605	609	521	9,924
O & M Costs (Savings)			34,795	34,795	34,795	34,795	34,795	34,795	208,770
Spending Plan by Fund									
Water Fund		444	546	598	600	605	609	521	3,924
Total:		444	546	598	600	605	609	521	3,924

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

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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	19,511	17,258	4,010	0	0	0	0	0	40,779
Total:	19,511	17,258	4,010	0	0	0	0	0	40,779
Fund Appropriations/Allocations									
Water Fund	19,511	17,258	4,010	0	0	0	0	0	40,779
Total*:	19,511	17,258	4,010	0	0	0	0	0	40,779
O & M Costs (Savings)			40,096	40,096	40,096	40,096	40,096	40,096	240,574
Spending Plan by Fund									
Water Fund		17,257	4,010	0	0	0	0	0	21,267
Total:		17,257	4,010	0	0	0	0	0	21,267

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

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	5,647	1,317	370	564	574	586	597	609	10,265
Total:	5,647	1,317	370	564	574	586	597	609	10,265
Fund Appropriations/Allocations									
Water Fund	5,647	1,317	370	564	574	586	597	609	10,265
Total*:	5,647	1,317	370	564	574	586	597	609	10,265
O & M Costs (Savings)			33,008	33,008	33,008	33,008	33,008	33,008	198,050
Spending Plan by Fund									
Water Fund		417	370	564	574	586	597	609	3,718
Total:		417	370	564	574	586	597	609	3,718

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

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	2,065	1,297	1,753	2,751	3,036	5,336	2,458	6,006	24,702
Total:	2,065	1,297	1,753	2,751	3,036	5,336	2,458	6,006	24,702
Fund Appropriations/Allocations									
Water Fund	2,065	1,297	1,753	2,751	3,036	5,336	2,458	6,006	24,702
Total*:	2,065	1,297	1,753	2,751	3,036	5,336	2,458	6,006	24,702
O & M Costs (Savings)			213,395	213,395	213,395	213,395	213,395	213,395	1,280,370
Spending Plan by Fund									
Water Fund		1,723	1,753	2,751	3,036	5,336	2,458	6,006	23,063
Total:		1,723	1,753	2,751	3,036	5,336	2,458	6,006	23,063

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

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	657	400	50	0	0	0	0	0	1,107
Total:	657	400	50	0	0	0	0	0	1,107
Fund Appropriations/Allocations									
Water Fund	657	400	50	0	0	0	0	0	1,107
Total*:	657	400	50	0	0	0	0	0	1,107
O & M Costs (Savings)			500	500	500	500	500	500	3,000
Spending Plan by Fund									
Water Fund		145	50	0	0	0	0	0	195
Total:		145	50	0	0	0	0	0	195

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

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	457	2,028	63	157	189	157	0	1,260	4,312
Total:	457	2,028	63	157	189	157	0	1,260	4,312
Fund Appropriations/Allocations									
Water Fund	457	2,028	63	157	189	157	0	1,260	4,312
Total*:	457	2,028	63	157	189	157	0	1,260	4,312
O & M Costs (Savings)			18,270	18,270	18,270	18,270	18,270	18,270	109,620
Spending Plan by Fund									
Water Fund		1,178	63	157	189	157	0	1,260	3,005
Total:		1,178	63	157	189	157	0	1,260	3,005

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

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	194	255	50	550	800	1,000	1,000	0	3,850
Total:	194	255	50	550	800	1,000	1,000	0	3,850
Fund Appropriations/Allocations									
Water Fund	194	255	50	550	800	1,000	1,000	0	3,850
Total*:	194	255	50	550	800	1,000	1,000	0	3,850
O & M Costs (Savings)			34,000	34,000	34,000	34,000	34,000	34,000	204,000
Spending Plan by Fund									
Water Fund		0	50	550	800	1,000	1,000	0	3,400
Total:		0	50	550	800	1,000	1,000	0	3,400

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

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	185	125	700	2,225	125	125	125	125	3,735
Total:	185	125	700	2,225	125	125	125	125	3,735
Fund Appropriations/Allocations									
Water Fund	185	125	700	2,225	125	125	125	125	3,735
Total*:	185	125	700	2,225	125	125	125	125	3,735
O & M Costs (Savings)			34,250	34,250	34,250	34,250	34,250	34,250	205,500
Spending Plan by Fund									
Water Fund		137	700	2,225	125	125	125	125	3,562
Total:		137	700	2,225	125	125	125	125	3,562

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

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	731	200	204	208	213	218	223	100	2,097
Total:	731	200	204	208	213	218	223	100	2,097
Fund Appropriations/Allocations									
Water Fund	731	200	204	208	213	218	223	100	2,097
Total*:	731	200	204	208	213	218	223	100	2,097
O & M Costs (Savings)			11,660	11,660	11,660	11,660	11,660	11,660	69,960

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

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 program renovates, rehabilitates, replaces existing buildings, and constructs new facilities at various locations outside the city limits to address deficiencies, failures, and functional changes in the drinking water system.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	15,008	6,249	1,570	6,738	4,605	525	675	3,000	38,370
Total:	15,008	6,249	1,570	6,738	4,605	525	675	3,000	38,370
Fund Appropriations/Allocations									
Water Fund	15,008	6,249	1,570	6,738	4,605	525	675	3,000	38,370
Total*:	15,008	6,249	1,570	6,738	4,605	525	675	3,000	38,370
O & M Costs (Savings)			171,130	171,130	171,130	171,130	171,130	171,130	1,026,780
Spending Plan by Fund									
Water Fund		6,940	1,570	6,738	4,605	525	675	3,000	24,053
Total:		6,940	1,570	6,738	4,605	525	675	3,000	24,053

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

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 Plus Wholesale		
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 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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	20,829	1,839	1,472	1,506	1,539	1,570	1,610	1,846	32,212
Total:	20,829	1,839	1,472	1,506	1,539	1,570	1,610	1,846	32,212
Fund Appropriations/Allocations									
Water Fund	20,829	1,839	1,472	1,506	1,539	1,570	1,610	1,846	32,212
Total*:	20,829	1,839	1,472	1,506	1,539	1,570	1,610	1,846	32,212
O & M Costs (Savings)			95,432	95,432	95,432	95,432	95,432	95,432	572,592
Spending Plan by Fund									
Water Fund		1,439	1,472	1,506	1,539	1,570	1,610	1,846	10,983
Total:		1,439	1,472	1,506	1,539	1,570	1,610	1,846	10,983

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

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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	911	122	125	125	127	130	133	130	1,802
Total:	911	122	125	125	127	130	133	130	1,802
Fund Appropriations/Allocations									
Water Fund	911	122	125	125	127	130	133	130	1,802
Total*:	911	122	125	125	127	130	133	130	1,802
O & M Costs (Savings)			7,692	7,692	7,692	7,692	7,692	7,692	46,151
Spending Plan by Fund									
Water Fund		122	125	125	127	130	133	130	892
Total:		122	125	125	127	130	133	130	892

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

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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	0	0	0	0	0	590	1,790	7,310	9,690
Total:	0	0	0	0	0	590	1,790	7,310	9,690
Fund Appropriations/Allocations									
Water Fund	0	0	0	0	0	590	1,790	7,310	9,690
Total*:	0	0	0	0	0	590	1,790	7,310	9,690
O & M Costs (Savings)			96,900	96,900	96,900	96,900	96,900	96,900	581,400

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

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:	Q4/2016
Location:	S Spokane St/Beacon Ave S		
Neighborhood Plan:	North Beacon Hill	Council District:	2
Neighborhood District:	Greater Duwamish	Urban Village:	Not in an Urban Village

This project will construct a 50 million gallon reinforced concrete buried reservoir in compliance with new state and federal regulations and improves water quality as well as the security of the drinking water system. It is part of the reservoir burying program which was adopted by Ordinance 120899 in August 2002.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	1,122	649	135	6,470	0	0	0	0	8,376
Total:	1,122	649	135	6,470	0	0	0	0	8,376
Fund Appropriations/Allocations									
Water Fund	1,122	649	135	6,470	0	0	0	0	8,376
Total*:	1,122	649	135	6,470	0	0	0	0	8,376
O & M Costs (Savings)			66,050	66,050	66,050	66,050	66,050	66,050	396,300
Spending Plan by Fund									
Water Fund		870	135	6,470	0	0	0	0	7,475
Total:		870	135	6,470	0	0	0	0	7,475

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

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:	Q2/2016
Location:	NE 86th St/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 will construct a 60 million gallon, dual-cell, reinforced concrete buried reservoir in compliance with new state and federal regulations. This effort improves water quality and the security of the drinking water system. It is part of the Reservoir burying program which was adopted by Ordinance 120899 in August 2002.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	39,984	7,036	1,306	0	0	0	0	0	48,326
Total:	39,984	7,036	1,306	0	0	0	0	0	48,326
Fund Appropriations/Allocations									
Water Fund	39,984	7,036	1,306	0	0	0	0	0	48,326
Total*:	39,984	7,036	1,306	0	0	0	0	0	48,326
O & M Costs (Savings)			13,060	13,060	13,060	13,060	13,060	13,060	78,360
Spending Plan by Fund									
Water Fund		6,218	1,306	0	0	0	0	0	7,524
Total:		6,218	1,306	0	0	0	0	0	7,524

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

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/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 will construct a 5 million gallon reinforced concrete buried reservoir in compliance with new state and federal regulations. This effort improves water quality and the security of the drinking water system. It is part of the Reservoir burying program which was adopted by Ordinance 120899 in August 2002.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	435	1,256	55	0	0	0	0	0	1,746
Total:	435	1,256	55	0	0	0	0	0	1,746
Fund Appropriations/Allocations									
Water Fund	435	1,256	55	0	0	0	0	0	1,746
Total*:	435	1,256	55	0	0	0	0	0	1,746
O & M Costs (Savings)			550	550	550	550	550	550	3,300
Spending Plan by Fund									
Water Fund		1,073	55	0	0	0	0	0	1,128
Total:		1,073	55	0	0	0	0	0	1,128

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

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/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 will construct a 30 million gallon reinforced concrete buried reservoir in compliance with new state and federal regulations. This effort improves water quality and the security of the drinking water system. It is part of the Reservoir burying program which was adopted by Ordinance 120899 in August 2002.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	40,381	2,967	50	0	0	0	0	0	43,398
Total:	40,381	2,967	50	0	0	0	0	0	43,398
Fund Appropriations/Allocations									
Water Fund	40,381	2,967	50	0	0	0	0	0	43,398
Total*:	40,381	2,967	50	0	0	0	0	0	43,398
O & M Costs (Savings)			500	500	500	500	500	500	3,000
Spending Plan by Fund									
Water Fund		1,954	50	0	0	0	0	0	2,004
Total:		1,954	50	0	0	0	0	0	2,004

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

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:			
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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	0	0	0	0	0	590	1,200	9,750	11,540
Total:	0	0	0	0	0	590	1,200	9,750	11,540
Fund Appropriations/Allocations									
Water Fund	0	0	0	0	0	590	1,200	9,750	11,540
Total*:	0	0	0	0	0	590	1,200	9,750	11,540
O & M Costs (Savings)			115,400	115,400	115,400	115,400	115,400	115,400	692,400

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

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 & 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 program 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 Program (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. The program is cooperatively managed by SPU and the City's Human Services Department and requires an annual report to be provided to Council.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	2,692	566	681	697	713	729	746	863	7,687
Total:	2,692	566	681	697	713	729	746	863	7,687
Fund Appropriations/Allocations									
Water Fund	2,692	566	681	697	713	729	746	863	7,687
Total*:	2,692	566	681	697	713	729	746	863	7,687
O & M Costs (Savings)			44,293	44,293	44,293	44,293	44,293	44,293	265,758
Spending Plan by Fund									
Water Fund		666	681	697	713	729	746	863	5,095
Total:		666	681	697	713	729	746	863	5,095

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

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		
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 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. This program enhances protection of SPU's critical infrastructure and addresses vulnerabilities identified in U.S. Environmental Protection Agency (EPA) mandated vulnerability assessments.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	5,005	1,078	783	934	686	736	786	1,150	11,157
Total:	5,005	1,078	783	934	686	736	786	1,150	11,157
Fund Appropriations/Allocations									
Water Fund	5,005	1,078	783	934	686	736	786	1,150	11,157
Total*:	5,005	1,078	783	934	686	736	786	1,150	11,157
O & M Costs (Savings)			50,741	50,741	50,741	50,741	50,741	50,741	304,444
Spending Plan by Fund									
Water Fund		1,065	783	934	686	736	786	1,150	6,139
Total:		1,065	783	934	686	736	786	1,150	6,139

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

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 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 program 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 4.3 mile light rail extension, three additional stations, and other supporting facilities from the University of Washington to Northgate.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	619	516	485	100	75	75	25	0	1,896
Total:	619	516	485	100	75	75	25	0	1,896
Fund Appropriations/Allocations									
Water Fund	619	516	485	100	75	75	25	0	1,896
Total*:	619	516	485	100	75	75	25	0	1,896
O & M Costs (Savings)			7,602	7,602	7,602	7,602	7,602	7,602	45,612
Spending Plan by Fund									
Water Fund		201	485	100	75	75	25	0	961
Total:		201	485	100	75	75	25	0	961

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

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 watermains 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	1,502	50	0	0	0	0	0	0	1,552
Total:	1,502	50	0	0	0	0	0	0	1,552
Fund Appropriations/Allocations									
Water Fund	1,502	50	0	0	0	0	0	0	1,552
Total*:	1,502	50	0	0	0	0	0	0	1,552
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.

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	353	96	10	0	0	0	0	0	459
Total:	353	96	10	0	0	0	0	0	459
Fund Appropriations/Allocations									
Water Fund	353	96	10	0	0	0	0	0	459
Total*:	353	96	10	0	0	0	0	0	459
O & M Costs (Savings)			100	100	100	100	100	100	600
Spending Plan by Fund									
Water Fund		67	10	0	0	0	0	0	77
Total:		67	10	0	0	0	0	0	77

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

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 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 program 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 (ID) across I-90 to Bellevue/Redmond.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	10	53	170	150	50	25	0	0	458
Total:	10	53	170	150	50	25	0	0	458
Fund Appropriations/Allocations									
Water Fund	10	53	170	150	50	25	0	0	458
Total*:	10	53	170	150	50	25	0	0	458
O & M Costs (Savings)			3,950	3,950	3,950	3,950	3,950	3,950	23,700
Spending Plan by Fund									
Water Fund		20	170	150	50	25	0	0	415
Total:		20	170	150	50	25	0	0	415

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

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

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	3,718	204	164	165	167	168	168	193	4,947
Total:	3,718	204	164	165	167	168	168	193	4,947
Fund Appropriations/Allocations									
Water Fund	3,718	204	164	165	167	168	168	193	4,947
Total*:	3,718	204	164	165	167	168	168	193	4,947
O & M Costs (Savings)			10,259	10,259	10,259	10,259	10,259	10,259	61,552
Spending Plan by Fund									
Water Fund		213	164	165	167	168	168	193	1,239
Total:		213	164	165	167	168	168	193	1,239

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

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	2,431	250	750	500	100	550	850	0	5,431
Total:	2,431	250	750	500	100	550	850	0	5,431
Fund Appropriations/Allocations									
Water Fund	2,431	250	750	500	100	550	850	0	5,431
Total*:	2,431	250	750	500	100	550	850	0	5,431
O & M Costs (Savings)			27,500	27,500	27,500	27,500	27,500	27,500	165,000
Spending Plan by Fund									
Water Fund		50	750	500	100	550	850	0	2,800
Total:		50	750	500	100	550	850	0	2,800

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

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 program 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 program maintains compliance with state laws and safety and environmental regulations, including Washington Department of Natural Resources (WDNR) forest practice regulations and Washington Department of Health (DOH) Watershed Protection Plan regulations.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	0	0	450	450	0	0	0	0	900
Total:	0	0	450	450	0	0	0	0	900
Fund Appropriations/Allocations									
Water Fund	0	0	450	450	0	0	0	0	900
Total*:	0	0	450	450	0	0	0	0	900
O & M Costs (Savings)			9,000	9,000	9,000	9,000	9,000	9,000	54,000

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

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 program provides aquatic and riparian restoration, and funds improvements and decommissioning of the road system in the Tolt River Municipal Watershed. This program improves Tolt Watershed management practices to be consistent with the land management practices in the Cedar River Watershed, the City's other primary water supply watershed. Projects are based upon recommendations of the 2011 Tolt Watershed Management Plan.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	292	5	0	0	0	0	0	0	297
Total:	292	5	0	0	0	0	0	0	297
Fund Appropriations/Allocations									
Water Fund	292	5	0	0	0	0	0	0	297
Total*:	292	5	0	0	0	0	0	0	297
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.

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 program 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 (DOH).

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	1,770	1,152	2,568	11,027	19,912	19,934	3,856	1,500	61,720
Total:	1,770	1,152	2,568	11,027	19,912	19,934	3,856	1,500	61,720
Fund Appropriations/Allocations									
Water Fund	1,770	1,152	2,568	11,027	19,912	19,934	3,856	1,500	61,720
Total*:	1,770	1,152	2,568	11,027	19,912	19,934	3,856	1,500	61,720
O & M Costs (Savings)			587,970	587,970	587,970	587,970	587,970	587,970	3,527,820
Spending Plan by Fund									
Water Fund		1,631	2,568	11,027	19,912	19,934	3,856	1,500	60,428
Total:		1,631	2,568	11,027	19,912	19,934	3,856	1,500	60,428

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

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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	163	85	0	0	0	0	0	0	248
Total:	163	85	0	0	0	0	0	0	248
Fund Appropriations/Allocations									
Water Fund	163	85	0	0	0	0	0	0	248
Total*:	163	85	0	0	0	0	0	0	248
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.

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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	342	205	225	209	225	225	455	150	2,036
Total:	342	205	225	209	225	225	455	150	2,036
Fund Appropriations/Allocations									
Water Fund	342	205	225	209	225	225	455	150	2,036
Total*:	342	205	225	209	225	225	455	150	2,036
O & M Costs (Savings)			14,895	14,895	14,895	14,895	14,895	14,895	89,368
Spending Plan by Fund									
Water Fund		180	225	209	225	225	455	150	1,669
Total:		180	225	209	225	225	455	150	1,669

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

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

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	6,783	98	93	95	97	98	100	103	7,467
Total:	6,783	98	93	95	97	98	100	103	7,467
Fund Appropriations/Allocations									
Water Fund	6,783	98	93	95	97	98	100	103	7,467
Total*:	6,783	98	93	95	97	98	100	103	7,467
O & M Costs (Savings)			5,859	5,859	5,859	5,859	5,859	5,859	35,156
Spending Plan by Fund									
Water Fund		98	93	95	97	98	100	103	684
Total:		98	93	95	97	98	100	103	684

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

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 program 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 program covers all Distribution System modifications and relocations that are funded by third parties excluding Water main Extension Program projects. The benefit of this program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	42	100	0	104	106	108	110	113	684
Total:	42	100	0	104	106	108	110	113	684
Fund Appropriations/Allocations									
Water Fund	42	100	0	104	106	108	110	113	684
Total*:	42	100	0	104	106	108	110	113	684
O & M Costs (Savings)			5,414	5,414	5,414	5,414	5,414	5,414	32,486
Spending Plan by Fund									
Water Fund		0	0	104	106	108	110	113	541
Total:		0	0	104	106	108	110	113	541

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

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 program 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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	4,466	204	208	212	216	221	225	229	5,982
Total:	4,466	204	208	212	216	221	225	229	5,982
Fund Appropriations/Allocations									
Water Fund	4,466	204	208	212	216	221	225	229	5,982
Total*:	4,466	204	208	212	216	221	225	229	5,982
O & M Costs (Savings)			13,115	13,115	13,115	13,115	13,115	13,115	78,690

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

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 program 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 program helps to reduce the damage as a result of fire by locating new fire hydrants throughout the City's direct service area.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	281	61	25	13	13	13	14	14	433
Total:	281	61	25	13	13	13	14	14	433
Fund Appropriations/Allocations									
Water Fund	281	61	25	13	13	13	14	14	433
Total*:	281	61	25	13	13	13	14	14	433
O & M Costs (Savings)			912	912	912	912	912	912	5,474

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

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 program installs new drinking water services throughout the City of Seattle. This program 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 program meets City responsibility for new service connections in the Seattle Municipal Code (SMC) to provide reliable drinking water supply to customers.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	55,612	6,000	6,630	6,763	6,898	7,036	7,177	7,320	103,435
Total:	55,612	6,000	6,630	6,763	6,898	7,036	7,177	7,320	103,435
Fund Appropriations/Allocations									
Water Fund	55,612	6,000	6,630	6,763	6,898	7,036	7,177	7,320	103,435
Total*:	55,612	6,000	6,630	6,763	6,898	7,036	7,177	7,320	103,435
O & M Costs (Savings)			418,228	418,228	418,228	418,228	418,228	418,228	2,509,370
Spending Plan by Fund									
Water Fund		6,500	6,630	6,763	6,898	7,036	7,177	7,320	48,323
Total:		6,500	6,630	6,763	6,898	7,036	7,177	7,320	48,323

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

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 program 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 program improves Seattle's water system and extends the life of the system.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	108,389	4,986	7,610	7,722	5,837	5,953	6,072	6,193	152,763
Total:	108,389	4,986	7,610	7,722	5,837	5,953	6,072	6,193	152,763
Fund Appropriations/Allocations									
Water Fund	108,389	4,986	7,610	7,722	5,837	5,953	6,072	6,193	152,763
Total*:	108,389	4,986	7,610	7,722	5,837	5,953	6,072	6,193	152,763
O & M Costs (Savings)			393,881	393,881	393,881	393,881	393,881	393,881	2,363,290
Spending Plan by Fund									
Water Fund		7,000	7,610	7,722	5,837	5,953	6,072	6,193	46,388
Total:		7,000	7,610	7,722	5,837	5,953	6,072	6,193	46,388

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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 program 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 program is that water service is provided to new housing and businesses throughout Seattle.

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	2,000	812	828	845	862	879	897	915	8,038
Total:	2,000	812	828	845	862	879	897	915	8,038
Fund Appropriations/Allocations									
Water Fund	2,000	812	828	845	862	879	897	915	8,038
Total*:	2,000	812	828	845	862	879	897	915	8,038
O & M Costs (Savings)			52,258	52,258	52,258	52,258	52,258	52,258	313,546
Spending Plan by Fund									
Water Fund		500	828	845	862	879	897	915	5,726
Total:		500	828	845	862	879	897	915	5,726

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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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	249	101	75	75	0	0	0	0	500
Total:	249	101	75	75	0	0	0	0	500
Fund Appropriations/Allocations									
Water Fund	249	101	75	75	0	0	0	0	500
Total*:	249	101	75	75	0	0	0	0	500
O & M Costs (Savings)			1,500	1,500	1,500	1,500	1,500	1,500	9,000
Spending Plan by Fund									
Water Fund		25	75	75	0	0	0	0	175
Total:		25	75	75	0	0	0	0	175

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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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	277	1,480	0	0	0	0	0	0	1,757
Total:	277	1,480	0	0	0	0	0	0	1,757
Fund Appropriations/Allocations									
Water Fund	277	1,480	0	0	0	0	0	0	1,757
Total*:	277	1,480	0	0	0	0	0	0	1,757
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

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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 program 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	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	39	50	24	25	27	30	33	35	263
Total:	39	50	24	25	27	30	33	35	263
Fund Appropriations/Allocations									
Water Fund	39	50	24	25	27	30	33	35	263
Total*:	39	50	24	25	27	30	33	35	263
O & M Costs (Savings)			1,740	1,740	1,740	1,740	1,740	1,740	10,440
Spending Plan by Fund									
Water Fund		126	24	25	27	30	33	35	300
Total:		126	24	25	27	30	33	35	300

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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:			
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	2015 Rev	2016	2017	2018	2019	2020	2021	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

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

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	3,660	6,430	1,004	3,182	7,513	4,411	4,010	4,300	34,511
Total:	3,660	6,430	1,004	3,182	7,513	4,411	4,010	4,300	34,511
Fund Appropriations/Allocations									
Water Fund	3,660	6,430	1,004	3,182	7,513	4,411	4,010	4,300	34,511
Total*:	3,660	6,430	1,004	3,182	7,513	4,411	4,010	4,300	34,511
O & M Costs (Savings)			244,208	244,208	244,208	244,208	244,208	244,208	1,465,250
Spending Plan by Fund									
Water Fund		3,508	1,004	3,182	7,513	4,411	4,010	4,300	27,929
Total:		3,508	1,004	3,182	7,513	4,411	4,010	4,300	27,929

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

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	3,798	1,090	981	998	1,015	1,032	1,049	857	10,820
Total:	3,798	1,090	981	998	1,015	1,032	1,049	857	10,820
Fund Appropriations/Allocations									
Water Fund	3,798	1,090	981	998	1,015	1,032	1,049	857	10,820
Total*:	3,798	1,090	981	998	1,015	1,032	1,049	857	10,820
O & M Costs (Savings)			59,322	59,322	59,322	59,322	59,322	59,322	355,930
Spending Plan by Fund									
Water Fund		965	981	998	1,015	1,032	1,049	857	6,897
Total:		965	981	998	1,015	1,032	1,049	857	6,897

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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:	Yelser and Broadway		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	3
Neighborhood District:	Central	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2015 Rev	2016	2017	2018	2019	2020	2021	Total
Revenue Sources									
Water Rates	18	200	0	0	0	0	0	0	218
Total:	18	200	0	0	0	0	0	0	218
Fund Appropriations/Allocations									
Water Fund	18	200	0	0	0	0	0	0	218
Total*:	18	200	0	0	0	0	0	0	218
O & M Costs (Savings)			0	0	0	0	0	0	0

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