

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
- 481 miles of storm drains / 290 storm drain outfalls
- 33,750 catch basins
- 65 miles of ditches, 128 miles of culverts
- 30 miles of stream channel (49 creeks, 6 of which are salmon bearing)
- 9 acres of green stormwater infrastructure
- 27 detention/treatment ponds
- 153 flow control facilities
- 202 water quality structures

The Drainage and Wastewater (DWF) CIP is the vehicle for rehabilitating, replacing, improving, and expanding this infrastructure, as well as constructing projects that protect, conserve, and enhance our region's environmental resources. Planned spending in the DWF CIP is approximately \$1.3 billion over the next six years, from 2018 to 2023.

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, a 3-year average of 25% of total CIP costs were funded by a cash contribution, with the remaining capital needs being debt financed.

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

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

CIP Highlights

2018-2023 Proposed Drainage and Wastewater Fund CIP by BCL
(In '000s; total may not sum due to rounding)

BCL	2018	2019	2020	2021	2022	2023	Total
Protection of Beneficial Uses	11,731	18,916	20,766	13,541	14,411	14,228	93,593
Sediments	6,489	7,343	8,753	6,178	15,712	16,222	60,697
Combined Sewer Overflows	33,137	41,534	102,042	149,011	112,825	98,349	536,898
Rehabilitation and Heavy Equipment	39,089	40,078	31,361	32,214	32,214	31,294	206,250
Flooding, Sewer Backups, and Landslides	16,566	31,218	36,636	26,071	12,558	10,667	133,716
Shared Cost Projects	55,632	74,266	46,921	28,879	18,922	15,941	240,561
Technology	6,135	4,677	3,951	4,298	4,298	4,298	27,657
Total	168,778	218,032	250,429	260,191	210,941	190,999	1,299,370

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, and preserve the stormwater conveyance function of our creeks through stream culvert repair and rehabilitation. The program includes projects to meet regulatory requirements, primarily NDS Partnering Projects (a key component of Seattle’s Plan to Protect Seattle’s Waterways) which improves water quality with Green Stormwater Infrastructure (GSI) approaches while partnering with SDOT to provide streetscape enhancements. Funding in the DWF CIP is focused on cost effective stormwater and water quality projects such as NDS Partnering Projects Capitol Hill Water Quality project, and the Taylor Creek Culvert Replacement project.

Sediments: The City of Seattle is a Potentially Responsible Party (PRP) for cleanup liabilities for contaminated sediments at the Lower Duwamish Waterway Superfund Site, the Harbor Island Superfund Site, and Gas Works Park because of alleged contributions from Combined Sewer Overflows (CSO) and storm drain discharges. The City continues to work with EPA, the Washington State Department of Ecology, King County, and other PRPs on an assessment of contaminants and sources. The Sediments program provides funding for preliminary studies and analysis for cleanup of contaminated sediment sites in which the City is a participant, for actual cleanup of contaminated sites, for preliminary engineering for future cleanup efforts, and for liability allocation negotiations. The study phase of sediment remediation projects often requires multiple years before specific cleanup actions are defined. Current projections reflect actual cleanup adjacent to Gasworks Park beginning in 2019 and on

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the Duwamish Waterway Sediment Remediation and East Waterway Remediation projects beginning in 2022 based on preliminary schedules.

Combined Sewer Overflows (CSOs): 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 and implementation of regulatory required plans such as the Plan to Protect Seattle's Waterways.

The largest project in the DWF CIP is the Ship Canal Water Quality Project. Other key efforts in the program include Montlake area retrofits (Portage Bay and East Montlake projects), and Magnolia pump station 22 retrofit. Planning work is underway and will continue through the coming years for additional CSO reduction efforts in order to meet CSO Consent Decree compliance date requirements.

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

- pump station structures, airlift conversions, major mechanical, ventilation and electrical components;
- drainage and wastewater outfalls, and;
- drainage and wastewater pipes.

Work within this program is a critical component to achieving SPU's Consent Decree target of four sanitary sewer overflows per 100 miles of sewer pipe. 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 2018 Proposed Budget includes the addition of a new crew to conduct pipe lining, a minimally disruptive, trenchless and fast method for renewing old pipes. Currently SPU relies on private contractors to conduct the lining work, however there are very few available. To increase the rate of rehabilitation and flexibility to complete work, SPU has decided to add a new DWF crew to perform this work in house.

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 the ultimate discharge locations of creeks, lakes, and the Puget Sound. 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 Pearl Street SSO reduction project, Broadview's Dayton SSO project and 12th Avenue drainage projects, and the South Park Water Quality and Pump Station project. The South Park Water Quality Facility is a regulatory commitment within the Plan to Protect Seattle's Waterways.

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

The 2018 Proposed Budget for the Shared Cost program includes funding for a number of interdepartmental projects including the Alaskan Way Viaduct and Seawall Replacement, Move Seattle Levy projects, the Center City Connector streetcar, and Sound Transit Link Light Rail. This BCL also includes funding for SPU Facility Improvements such as the Horizon complex, the North Operations Center, and a new dewatering facility near the South Transfer Station. Other programs in this BCL include DWF Heavy Equipment Purchases, 1% for the Arts, 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 2018 address several of SPU's key initiatives, including:

- Financial Management and Internal Controls
- Operational Excellence and Performance Management
- Engaged Customer Experience
- Data-driven Decision Support
- Project Delivery and Project Controls

SPU's slight increase in funding for 2018 will focus technology spending on the highest priority business needs, primarily within the Customer Contact and Billing program, Enterprise Information Management and Project Delivery program areas.

With the New Customer Information System in place, one of the biggest drivers within the program will be the Customer Self-Service Portal. The Enterprise Information Management planned projects for 2018 include Automation of Paper Process (automated forms) as well as Document Controls to support major cross-Branch and inter-agency projects and programs. SPU's portion of the Summit Re-Implementation project and integration of SPU financial side-systems are the main components within the Project Delivery and Performance program area.

Thematic Priorities

The goal of the DWF CIP is to construct facilities that reduce the frequency of flooding and sewer backups for customers and improve water quality and habitat in the environment by reducing sewage overflows and the impacts of stormwater pollution. Projects in the DWF CIP are guided by various Federal regulations, City policies, long-term plan documents, and the SPU Asset Management

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Committee (AMC) benefit criteria. Many DWF CIP projects are outlined in the Wastewater System Plan, the Comprehensive Drainage Plan, and the Plan to Protect Seattle’s Waterways. The DWF primarily considers three main criteria when prioritizing work: public health and safety, environmental protection/regulatory requirements, and City 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 critical infrastructure rehab and repair needs, and projects to improve conveyance level of service, and projects to reduce exposure to pollutants.
- 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).
- City Priorities: Improvements to DWF infrastructure result in safer communities, a healthier environment, and regulatory compliance which are goals inherent within the City’s key values (safe, affordable, vibrant and interconnected City that fosters innovation).
 - Projects added to SPU’s priority to facilitate citywide interconnectivity primarily include SPU’s efforts around transportation led projects, described above within the shared costs projects BCL.
 - Projects in the DWF CIP that address City priorities are projects to help achieve the Green Stormwater Infrastructure (GSI) Strategy target. Projects that will help achieve this goal, to manage 400 million gallons of stormwater annually with GSI by 2020, include the following:
 - The Capitol Hill Water Quality Facility is a cost efficient public private partnership project that innovatively approaches water quality by treating large volumes of water while also providing green space in a dense urban neighborhood.
 - The Natural Drainage Systems (NDS) Partnering program will use biorention to reduce stormwater pollution in creeks and to improve neighborhoods. The NDS Partnering Program will build natural drainage systems along approximately 66 blocks (330 foot block equivalents) in the Longfellow, Thornton, and Pipers Creek watersheds. The first of these projects will be 30th Ave NE, with construction led by SDOT starting in 2018.

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, CSO Retrofits, S. Park water quality facility, and NDS Partnering.
- **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, Center City Connector streetcar, and Move Seattle Levy projects.
- **Infrastructure:** How a project addresses infrastructure conditions or vulnerabilities. Examples of highly ranked projects in this category include the Pipe Rehabilitation and Pump Station improvement programs.
- **Level of Service:** The importance of this project in providing or improving services to customers. Examples of highly ranked projects in this category include the South Park Pump Station, Localized Flood Control program, Sanitary Sewer Overflow Capacity program, and the Pipe Rehabilitation program.
- **Other Factors:** Other important factors include high net present value or cost-effectiveness, social or environmental benefits not otherwise captured, a project already in progress or near completion, limited time opportunity, demonstration projects, community visibility, and outside funding. An example of a highly ranked project in this category is the Capital Hill Water Quality Project.

Every project is rated against each criterion. Criteria ratings are then considered in determining an overall project priority ranking, using expert judgment (rather than a formula). Priority rankings for the CIP are determined by the leads for each LOB, with reviews by key internal stakeholders. The ranking scheme and criteria are the same for all LOBs, and are approved by the SPU CEO/GM 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. 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 City 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 Long Term Control Plan (LTCP) and will drive spending in the CSO Reduction Program over the next several years. The Consent Decree also includes requirements to implement a Capacity Management, Operations and Maintenance (CMOM) Program, which drives operations and maintenance spending and CIP spending in the Rehabilitation Program. Additionally, an NPDES permit for stormwater includes requirements to help protect local waterways and the Puget Sound from damaging pollutants and excessive runoff. This increased regulatory emphasis on protecting and improving water quality has resulted in the need for the City to make substantial investments in detention, water quality treatment (e.g., GSI), CSO retrofits, pipe and pump station rehabilitation, and inflow/infiltration reduction.

- Detention: This focuses on storing stormwater and/or sewage during a rainfall event and can be accomplished through detention ponds (for stormwater), GSI (for stormwater) or underground tanks or tunnels (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 untreated overflows by allowing stormwater to infiltrate slowly into the ground, cutting the volume of stormwater entering the system, and providing water quality treatment through natural processes as the polluted runoff comes in contact with the soil and vegetation. The use of GSI is required as part of development through Seattle's NPDES permit and Stormwater Code.
- CSO Retrofits: This focuses on optimizing the existing collection, pumping and storage systems, using low-cost repairs and modifications to reduce overflows to waterways.
- Pipe and Pump Station Rehabilitation: This consists of repairing, rehabilitating, or replacing existing gravity sewer pipes, wastewater pump stations, and/or force mains that have deficiencies or have reached the end of their useful life.
- Inflow/Infiltration Reduction: This focuses on filling in cracks in sewer lines that allow groundwater to enter the system. It also addresses parts of the system where there are direct stormwater connections to the sanitary sewer system which can/should be directed to a separated stormwater system. By reducing inflow/infiltration, it is possible to reduce the frequency and volume of SSOs and sewer backups.

DWF CIP funding is also needed to improve the existing drainage system so that residents experience less flooding and fewer sewage backups. Sewer backups are prohibited and considered by our regulators

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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% of the volume) and sewage may exceed the capacity of the CSS and overflow into our waterways – causing a combined sewer overflow. CSOs spill a mixture of raw sewage and stormwater into local waterways at 90 outfalls throughout the City. These spills violate water quality standards, create unacceptable risk to public health, contaminate sediment and habitat for endangered species and pollute the Puget Sound.

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

While cost estimating is dependent on many factors, SPU currently expects to spend approximately \$537 million over the next six years on CSO reduction projects. The projects will include a combination of underground storage tanks and tunnels, GSI, and system retrofits. One of the biggest challenges of the program is finding sites for wastewater facilities in a dense urban environment. Coupled with this is the increasing cost pressures brought by a strong market that are changing the planning factors for major construction projects.

Another challenge revolves around escalating costs on the Ship Canal Water Quality Project. Original cost estimates presented total project costs between \$340 million to \$550 million, a range to account for planning and construction uncertainties. To date, SPU estimates the total project cost of the Ship Canal Water Quality Project at \$540 million into 2025, outside the current CIP planning window. This is an increase from an early planning level estimate of \$423 million. The increases in total cost are preliminary, and largely driven by the following factors:

- increases in regional construction market cost assumptions reflecting updated projections on growing costs of construction;
- increases due to larger tunnel storage volume based on modeling of more recent rainfall data and changing rainfall patterns;
- increases based on design changes like increased pipe and shaft diameters, and changes in construction methodology, and;
- increases based on new sales tax growth.

To accommodate these increases, SPU has shifted costs to future years, decreasing the 2018 Proposed Budget by \$4 million compared to the 2018 Endorsed Budget. King County is responsible for roughly 30% of total project costs on the Ship Canal Water Quality Project. However, final determination of total

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project cost will depend on SPU and King County concurrent review and agreement under established multiagency governance processes. SPU will also participate in a new oversight pilot to provide better oversight and transparency over the budget for the tunnel construction portion of the Ship Canal Water Quality Project during the 2018 Proposed Budget process. The Executive will work with City Council to implement this new pilot.

Another challenge for the DWF is addressing public expectation around our basic service level programs, such as flooding and system capacity. The funding for these programs are below the program need, but unable to be increased at this time due to the demand on our budget from our regulatory requirements. The separated drainage and wastewater system is at capacity during storm events, or lacking the fundamental infrastructure, 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 with a comprehensive planning effort to better identify the highest priority locations and potential funding and financing strategies.

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.

Spending Plan Variance

As part of the 2018-2023 Proposed CIP, departments are now required to report Total Project Cost for discrete projects. Due to technical system limitations and SPU's unique planning processes, the 2017 Revised figures for Fund Appropriations/Allocations lines do not reflect SPU's most up-to-date total project cost expectations for some project pages. For this data, please see the Spending Plan line and Total Project Cost figure on the project page for the following projects in the Drainage and Wastewater Fund:

- C3609: S Henderson Combined Sewer Overflow Storage
- C3806: South Park Stormwater Program
- C4102-DWF: Alaskan Way Viaduct & Seawall Replacement Program – DWF
- C4122-DWF: Sound Transit – East Link
- C4130-DWF: Streetcar Related Projects – DWF
- C4135-DWF: Sound Transit – North Link – DWF

Future Projects/What is on the Horizon

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

Technical Changes

The following projects have new information, modified descriptions, or name changes as noted from the Adopted 2017-2022 CIP:

- **Move Seattle – DWF:** Name changed from Bridging the Gap – DWF.
- **Streetcar Related Projects – DWF:** Name changed from First Hill Streetcar – DWF; Project description updated to reflect ongoing streetcar utility impacts as the streetcar project connects to expanded lines
- **South Park Stormwater Program:** Name changed from South Park Pump Station.

2017 Revised figures may not match previous years for select projects that were closed in 2017. These projects include:

- Street Sweeping for Water Quality
- Windermere Combined Sewer Overflow Storage

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Project Summary

BCL/Program Name/ Project Title & ID	LTD Actuals	2017	2018	2019	2020	2021	2022	2023	Total
Protection of Beneficial Uses		BCL/Program Code:							C333B
<u>Ongoing</u>									
Creek Culvert Replacement Program (C3314)	3,025	2,811	1,662	2,431	92	0	0	0	10,020
GSI for Protection of Beneficial Uses (C3316)	16,525	6,077	8,350	11,592	13,166	12,541	14,306	14,225	96,782
Protection of Beneficial Uses Program (C3317)	7,847	1,000	1,719	4,893	7,508	1,000	106	3	24,075
Protection of Beneficial Uses	27,398	9,887	11,731	18,916	20,766	13,541	14,411	14,228	130,877
Sediments		BCL/Program Code:							C350B
<u>Ongoing</u>									
Sediment Remediation - DWF (C3503)	29,042	6,855	6,489	7,343	8,753	6,178	15,712	16,222	96,594
Sediments	29,042	6,855	6,489	7,343	8,753	6,178	15,712	16,222	96,594
Combined Sewer Overflows		BCL/Program Code:							C360B
<u>Discrete</u>									
Long Term Control Plan (C3604)	11,507	500	1,000	1,000	1,000	1,000	1,000	1,000	18,007
S Henderson Combined Sewer Overflow Storage (C3609)	64,683	5,340	251	0	0	0	0	0	70,273
Ship Canal Water Quality Project (C3614)	38,221	21,732	19,858	25,422	95,370	135,766	98,639	59,412	494,420
<u>Ongoing</u>									
Combined Sewer Overflow Facility Retrofit (C3611)	24,278	7,033	8,442	12,006	1,480	4,100	6,700	6,500	70,540
Future CSO Projects (C3612)	0	0	1,356	1,356	2,542	7,145	5,486	30,437	48,321
Green Stormwater Infrastructure Program (C3610)	18,566	2,600	2,229	1,750	1,650	1,000	1,000	1,000	29,795
Combined Sewer Overflows	157,254	37,205	33,137	41,534	102,042	149,011	112,825	98,349	731,356
Rehabilitation		BCL/Program Code:							C370B
<u>Ongoing</u>									
Outfall Rehabilitation Program (C3708)	1,348	1,550	647	1,100	1,500	1,500	1,500	1,500	10,645

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

2018 - 2023 Proposed Capital Improvement Program

Pipe Renewal Program (C3710)	44,480	24,300	27,228	24,429	24,194	26,694	26,694	25,794	223,812
Pump Station and Force Main Improvements (C3703)	5,090	5,425	11,214	14,548	5,667	4,020	4,020	4,000	53,985
Rehabilitation	50,919	31,275	39,089	40,078	31,361	32,214	32,214	31,294	288,442
Flooding, Sewer Back-up, and Landslides	BCL/Program Code:							C380B	
<u>Discrete</u>									
South Park Stormwater Program (C3806)	10,594	5,267	4,729	10,231	14,702	11,547	784	63	57,918
<u>Ongoing</u>									
Broadview Long Term Plan (C3812)	5,305	4,348	2,624	8,468	9,203	4,395	50	0	34,393
Localized Flood Control Program (C3802)	17,132	2,396	2,270	3,024	1,874	1,724	3,724	3,304	35,448
Sanitary Sewer Overflow Capacity (C3804)	7,931	7,035	6,943	9,494	10,857	8,405	8,000	7,300	65,966
Flooding, Sewer Back-up, and Landslides	40,962	19,046	16,566	31,218	36,636	26,071	12,558	10,667	193,724
Shared Cost Projects	BCL/Program Code:							C410B	
<u>Discrete</u>									
Alaskan Way Viaduct & Seawall Replacement Program - DWF (C4102-DWF)	24,332	7,321	3,286	7,568	7,063	980	594	27	51,171
Sound Transit - North Link - DWF (C4135-DWF)	496	155	149	112	90	13	0	0	1,014
Sound Transit-East Link (C4122-DWF)	29	105	50	25	0	0	0	0	209
Streetcar Related Projects - DWF (C4130-DWF)	463	902	9,032	4,029	1,795	0	0	0	16,222
<u>Ongoing</u>									
1% for the Arts - DWF (C4118-DWF)	3,564	625	722	1,044	1,223	1,316	929	646	10,068
Emergency Storms - DWF (C4120-DWF)	1	100	100	100	100	0	0	0	401
Heavy Equipment Purchases - DWF (C4116-DWF)	11,740	2,760	2,801	2,904	3,300	2,261	2,456	2,363	30,584
Integrated Control Monitoring Program - DWF (C4108-DWF)	1,327	250	250	250	250	0	0	0	2,327
Meter Replacement - DWF (C4101-DWF)	5,806	552	554	561	567	481	491	500	9,512

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

2018 - 2023 Proposed Capital Improvement Program

Move Seattle - DWF (C4119 -DWF)	38	1,551	17,360	28,381	17,397	16,601	10,849	9,411	101,587
Operational Facility - Construction - DWF (C4106 -DWF)	13,408	9,510	20,588	28,333	14,915	7,115	3,492	2,810	100,170
Operations Control Center - DWF (C4105-DWF)	2,963	182	0	0	0	0	0	0	3,145
Other Major Transportation Projects - DWF (C4123-DWF)	933	175	627	750	55	0	0	0	2,540
Security Improvements - DWF (C4113-DWF)	157	109	113	210	165	113	113	185	1,163
Shared Cost Projects	65,258	24,296	55,632	74,266	46,921	28,879	18,922	15,941	330,116
Technology							BCL/Program Code:		C510B
<u>Ongoing</u>									
Asset Information Management (C5407)	259	1,065	608	1,189	1,028	860	860	860	6,728
Customer Contact & Billing (C5402)	14,359	6,820	1,351	678	1,025	430	430	430	25,523
Enterprise Information Management (C5403)	157	702	325	868	199	860	860	860	4,831
IT Infrastructure (C5404)	1,180	330	491	572	750	729	729	729	5,507
Project Delivery & Performance (C5405)	1,664	8,968	3,124	871	449	731	731	731	17,269
Science & System Performance (C5406)	3,044	1,069	236	500	500	688	688	688	7,413
Technology	20,662	18,954	6,135	4,677	3,951	4,298	4,298	4,298	67,272
Department Total:	391,494	147,519	168,778	218,032	250,429	260,191	210,941	190,999	1,838,382

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

2018 - 2023 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Fund Summary

Fund Name & Code	LTD Actuals	2017	2018	2019	2020	2021	2022	2023	Total
Drainage and Wastewater Fund (44010)	391,494	147,519	168,778	218,032	250,429	260,191	210,941	190,999	1,838,382
Department Total:	391,494	147,519	168,778	218,032	250,429	260,191	210,941	190,999	1,838,382

**Amounts in thousands of dollars*

SPU-Drainage & Wastewater

Alaskan Way Viaduct & Seawall Replacement Program - DWF

Project Type:	Discrete	Project No.:	C4102-DWF
Start/End Date:	2001-2023	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
Current Project Stage:	Construction	Location:	SR 99 / Battery St
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	\$48,352	Urban Village:	Multiple

This project relocates, replaces, and protects drainage and wastewater infrastructure affected by the replacement of the Alaskan Way Viaduct and Seawall. This project encompasses many sub-projects which are collectively known as the Alaskan Way Viaduct and Seawall Replacement project (AWVSR project). The Washington State Department of Transportation (WSDOT) is the lead for the SR99 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	24,332	7,321	3,286	7,568	7,063	980	594	27	51,171
Total:	24,332	7,321	3,286	7,568	7,063	980	594	27	51,171

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	24,332	7,321	3,286	7,568	7,063	980	594	27	51,171
Total:	24,332	7,321	3,286	7,568	7,063	980	594	27	51,171

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	24,332	4,502	3,286	7,568	7,063	980	594	27	48,352
Total:	24,332	4,502	3,286	7,568	7,063	980	594	27	48,352

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

SPU-Drainage & Wastewater

Long Term Control Plan

Project Type:	Discrete	Project No.:	C3604
Start/End Date:	2008-2030	BCL/Program Code:	C360B
Project Category:	Improved Facility	BCL/Program Name:	Combined Sewer Overflows
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	\$20,007	Urban Village:	Not in an Urban Village

This project creates a Long Term Control Plan (LTCP) in accordance with SPU's Combined Sewer Overflow (CSO) National Pollutant Discharge Elimination System (NPDES) permit and the Federal CSO Control Policy. On May 1, 2012, the Environmental Protection Agency/Department of Justice issued a draft Consent Decree to the City of Seattle which requires the development and submission of a Long-Term Control Plan for approval by May30, 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. The LTCP will reduce the number and volume of its CSOs, meet receiving water quality standards, and protect designated beneficial uses. The LTCP includes flow characterization, monitoring, and hydraulic modeling; development of CSO control alternatives; development of control alternatives that takes into consideration costs and performance; operational plan revisions; public participation; implementation schedule; and post-construction monitoring. The project also includes a programmatic SEPA EIS (Note: includes the Alaskan Way Viaduct & Seawall project C4102). The Plan and EIS was submitted to EPA/ Washington State Department of Ecology for approval in2015 and included all City of Seattle CSO basins except existing CSO Projects at Windermere, Genesee, Henderson and Central Waterfront (except as noted).

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	11,507	500	1,000	1,000	1,000	1,000	1,000	1,000	18,007
Total:	11,507	500	1,000	1,000	1,000	1,000	1,000	1,000	18,007
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	11,507	500	1,000	1,000	1,000	1,000	1,000	1,000	18,007
Total:	11,507	500	1,000	1,000	1,000	1,000	1,000	1,000	18,007

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

2018 - 2023 Proposed Capital Improvement Program

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	11,507	1,000	1,000	1,000	1,000	1,000	1,000	1,000	18,507
Total:	11,507	1,000	1,000	1,000	1,000	1,000	1,000	1,000	18,507
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

2018 - 2023 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

S Henderson Combined Sewer Overflow Storage

Project Type:	Discrete	Project No.:	C3609
Start/End Date:	2001-2018	BCL/Program Code:	C360B
Project Category:	Improved Facility	BCL/Program Name:	Combined Sewer Overflows
Current Project Stage:	Closeout	Location:	S Henderson St.
Neighborhood District:	Southeast	Council District:	2
Total Project Cost:	\$68,656	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	64,683	5,340	251	0	0	0	0	0	70,273
Total:	64,683	5,340	251	0	0	0	0	0	70,273
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	64,683	5,340	251	0	0	0	0	0	70,273
Total:	64,683	5,340	251	0	0	0	0	0	70,273
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	64,683	3,722	251	0	0	0	0	0	68,656
Total:	64,683	3,722	251	0	0	0	0	0	68,656
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

2018 - 2023 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Ship Canal Water Quality Project

Project Type:	Discrete	Project No.:	C3614
Start/End Date:	2014-2025	BCL/Program Code:	C360B
Project Category:	Improved Facility	BCL/Program Name:	Combined Sewer Overflows
Current Project Stage:	Design	Location:	West Ship Canal
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	\$540,252	Urban Village:	Multiple

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 15th 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. Note all City/County funding allocations are for informational purposes, only. Actual resource allocations will be determined through ongoing project governance agreements and interagency coordination between the City and King County.

CIP Staged Oversight Proviso

Of the funds appropriated in the Combined Sewer Overflow Budget Control Level for the Ship Canal Water Quality Project Storage Tunnel (C315503) (adopted in the 2018-2023 Capital Improvement Program), no funds may be spent on physical construction until Seattle Public Utilities completes 100% project design of the Storage Tunnel activity and reports to the Civil Rights, Utilities, Economic Development & Arts Committee, or its successor committee, in a format requested by that committee's chair.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	27,253	18,703	13,159	16,524	61,990	88,248	65,865	41,278	333,020
King County Funds	10,968	3,030	6,699	8,898	33,379	47,518	32,774	18,134	161,400
Total:	38,221	21,732	19,858	25,422	95,370	135,766	98,639	59,412	494,420

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

2018 - 2023 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	38,221	21,732	19,858	25,422	95,370	135,766	98,639	59,412	494,420
Total:	38,221	21,732	19,858	25,422	95,370	135,766	98,639	59,412	494,420

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	38,221	21,732	19,858	25,422	95,370	135,766	98,639	59,412	494,420
Total:	38,221	21,732	19,858	25,422	95,370	135,766	98,639	59,412	494,420

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

SPU-Drainage & Wastewater

Sound Transit - North Link - DWF

Project Type:	Discrete	Project No.:	C4135-DWF
Start/End Date:	2012-2030	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
Current Project Stage:	Construction	Location:	Various
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	\$1,067	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	496	155	149	112	90	13	0	0	1,014
Total:	496	155	149	112	90	13	0	0	1,014

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	496	155	149	112	90	13	0	0	1,014
Total:	496	155	149	112	90	13	0	0	1,014

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	496	207	149	112	90	13	0	0	1,067
Total:	496	207	149	112	90	13	0	0	1,067

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

SPU-Drainage & Wastewater

Sound Transit-East Link

Project Type:	Discrete	Project No.:	C4122-DWF
Start/End Date:	2013-2019	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
Current Project Stage:	Construction	Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	\$245	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	29	105	50	25	0	0	0	0	209
Total:	29	105	50	25	0	0	0	0	209

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	29	105	50	25	0	0	0	0	209
Total:	29	105	50	25	0	0	0	0	209

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	29	141	50	25	0	0	0	0	245
Total:	29	141	50	25	0	0	0	0	245

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

SPU-Drainage & Wastewater

South Park Stormwater Program

Project Type:	Discrete	Project No.:	C3806
Start/End Date:	2006-2025	BCL/Program Code:	C380B
Project Category:	Improved Facility	BCL/Program Name:	Flooding, Sewer Back-up, and Landslides
Current Project Stage:	Design	Location:	698 S Riverside DR/Holden/Austin
Neighborhood District:	Greater Duwamish	Council District:	1
Total Project Cost:	\$55,652	Urban Village:	Greater Duwamish

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
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Resources

Drainage and Wastewater Rates	10,594	5,267	4,729	10,231	14,702	11,547	784	63	57,918
Total:	10,594	5,267	4,729	10,231	14,702	11,547	784	63	57,918

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
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**Fund Appropriations/
Allocations***

Drainage and Wastewater Fund	10,594	5,267	4,729	10,231	14,702	11,547	784	63	57,918
Total:	10,594	5,267	4,729	10,231	14,702	11,547	784	63	57,918

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
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Spending Plan

Drainage and Wastewater Fund	10,594	3,002	4,729	10,231	14,702	11,547	784	63	55,652
Total:	10,594	3,002	4,729	10,231	14,702	11,547	784	63	55,652

	2018	2019	2020	2021	2022	2023	Total
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O & M Costs (Savings)

Total:	0	0	0	0	0	0	0
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** Funds are appropriated through the Adopted Budget at the Budget Control Level. All amounts shown above are in thousands of dollars.*

SPU-Drainage & Wastewater

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

2018 - 2023 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Streetcar Related Projects - DWF

Project Type:	Discrete	Project No.:	C4130-DWF
Start/End Date:	2009-2020	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
Current Project Stage:	Construction	Location:	First Hill
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	\$17,554	Urban Village:	Multiple

This project plans and relocates drainage and wastewater facilities that will be impacted by the SDOT-led First Hill Streetcar project and related streetcar projects, 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 construction phase. This project was formerly titled "First Hill Streetcar - DWF."

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	463	902	9,032	4,029	1,795	0	0	0	16,222
Total:	463	902	9,032	4,029	1,795	0	0	0	16,222

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	463	902	9,032	4,029	1,795	0	0	0	16,222
Total:	463	902	9,032	4,029	1,795	0	0	0	16,222

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	463	2,234	9,032	4,029	1,795	0	0	0	17,554
Total:	463	2,234	9,032	4,029	1,795	0	0	0	17,554

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

SPU-Drainage & Wastewater

1% for the Arts - DWF

Project Type:	Ongoing	Project No.:	C4118-DWF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	3,564	625	722	1,044	1,223	1,316	929	646	10,068
Total:	3,564	625	722	1,044	1,223	1,316	929	646	10,068

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	3,564	625	722	1,044	1,223	1,316	929	646	10,068
Total:	3,564	625	722	1,044	1,223	1,316	929	646	10,068

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	3,564	625	722	1,044	1,223	1,316	929	646	10,068
Total:	3,564	625	722	1,044	1,223	1,316	929	646	10,068

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

SPU-Drainage & Wastewater

Broadview Long Term Plan

Project Type:	Ongoing	Project No.:	C3812
Start/End Date:	N/A	BCL/Program Code:	C380B
Project Category:	Improved Facility	BCL/Program Name:	Flooding, Sewer Back-up, and Landslides
		Location:	Broadview
Neighborhood District:	Northwest	Council District:	5
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

This ongoing program addresses longstanding drainage and wastewater problems to alleviate sewer backups and localized flooding. Portions of the Broadview neighborhood endure capacity limitations of the sanitary sewer resulting in sewer backups into residences during wet weather events for which the City has paid historical claims dating back to 1996. Multiple conditions contribute to wastewater and drainage inadequacies. The Broadview Program plans individual capital projects to address these problems.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	5,305	4,348	2,624	8,468	9,203	4,395	50	0	34,393
Total:	5,305	4,348	2,624	8,468	9,203	4,395	50	0	34,393

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	5,305	4,348	2,624	8,468	9,203	4,395	50	0	34,393
Total:	5,305	4,348	2,624	8,468	9,203	4,395	50	0	34,393

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	5,305	4,348	2,624	8,468	9,203	4,395	50	0	34,393
Total:	5,305	4,348	2,624	8,468	9,203	4,395	50	0	34,393

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

SPU-Drainage & Wastewater

Combined Sewer Overflow Facility Retrofit

Project Type:	Ongoing	Project No.:	C3611
Start/End Date:	N/A	BCL/Program Code:	C360B
Project Category:	Improved Facility	BCL/Program Name:	Combined Sewer Overflows
		Location:	Various
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	24,278	7,033	8,442	12,006	1,480	4,100	6,700	6,500	70,540
Total:	24,278	7,033	8,442	12,006	1,480	4,100	6,700	6,500	70,540
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	24,278	7,033	8,442	12,006	1,480	4,100	6,700	6,500	70,540
Total:	24,278	7,033	8,442	12,006	1,480	4,100	6,700	6,500	70,540
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	24,278	7,033	8,442	12,006	1,480	4,100	6,700	6,500	70,540
Total:	24,278	7,033	8,442	12,006	1,480	4,100	6,700	6,500	70,540
	2018	2019	2020	2021	2022	2023	Total		
O & M Costs (Savings)									
Total:	0	0	0	0	0	0	0		

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

SPU-Drainage & Wastewater

Creek Culvert Replacement Program

Project Type:	Ongoing	Project No.:	C3314
Start/End Date:	N/A	BCL/Program Code:	C333B
Project Category:	Improved Facility	BCL/Program Name:	Protection of Beneficial Uses
		Location:	Various
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

This ongoing project provides for the repair and replacement of stream culverts that are part of SPU's critical drainage infrastructure. Culverts will be repaired or replaced based on risks and benefits of the project, including flooding, risk of failure, operations and maintenance needs and benefits.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	3,025	2,811	1,662	2,431	92	0	0	0	10,020
Total:	3,025	2,811	1,662	2,431	92	0	0	0	10,020

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	3,025	2,811	1,662	2,431	92	0	0	0	10,020
Total:	3,025	2,811	1,662	2,431	92	0	0	0	10,020

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	3,025	2,811	1,662	2,431	92	0	0	0	10,020
Total:	3,025	2,811	1,662	2,431	92	0	0	0	10,020

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

SPU-Drainage & Wastewater

Emergency Storms - DWF

Project Type:	Ongoing	Project No.:	C4120-DWF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	1	100	100	100	100	0	0	0	401
Total:	1	100	100	100	100	0	0	0	401

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	1	100	100	100	100	0	0	0	401
Total:	1	100	100	100	100	0	0	0	401

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	1	100	100	100	100	0	0	0	401
Total:	1	100	100	100	100	0	0	0	401

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

SPU-Drainage & Wastewater

Future CSO Projects

Project Type:	Ongoing	Project No.:	C3612
Start/End Date:	N/A	BCL/Program Code:	C360B
Project Category:	Improved Facility	BCL/Program Name:	Combined Sewer Overflows
		Location:	N/A
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	0	0	1,356	1,356	2,542	7,145	5,486	30,437	48,321
Total:	0	0	1,356	1,356	2,542	7,145	5,486	30,437	48,321

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	0	0	1,356	1,356	2,542	7,145	5,486	30,437	48,321
Total:	0	0	1,356	1,356	2,542	7,145	5,486	30,437	48,321

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	0	0	1,356	1,356	2,542	7,145	5,486	30,437	48,321
Total:	0	0	1,356	1,356	2,542	7,145	5,486	30,437	48,321

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

SPU-Drainage & Wastewater

Green Stormwater Infrastructure Program

Project Type:	Ongoing	Project No.:	C3610
Start/End Date:	N/A	BCL/Program Code:	C360B
Project Category:	Improved Facility	BCL/Program Name:	Combined Sewer Overflows
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	18,566	2,600	2,229	1,750	1,650	1,000	1,000	1,000	29,795
Total:	18,566	2,600	2,229	1,750	1,650	1,000	1,000	1,000	29,795

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	18,566	2,600	2,229	1,750	1,650	1,000	1,000	1,000	29,795
Total:	18,566	2,600	2,229	1,750	1,650	1,000	1,000	1,000	29,795

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	18,566	2,600	2,229	1,750	1,650	1,000	1,000	1,000	29,795
Total:	18,566	2,600	2,229	1,750	1,650	1,000	1,000	1,000	29,795

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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SPU-Drainage & Wastewater

GSI for Protection of Beneficial Uses

Project Type:	Ongoing	Project No.:	C3316
Start/End Date:	N/A	BCL/Program Code:	C333B
Project Category:	Improved Facility	BCL/Program Name:	Protection of Beneficial Uses
		Location:	Various
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	16,525	6,077	8,350	11,592	13,166	12,541	14,306	14,225	96,782
Total:	16,525	6,077	8,350	11,592	13,166	12,541	14,306	14,225	96,782

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	16,525	6,077	8,350	11,592	13,166	12,541	14,306	14,225	96,782
Total:	16,525	6,077	8,350	11,592	13,166	12,541	14,306	14,225	96,782

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	16,525	6,077	8,350	11,592	13,166	12,541	14,306	14,225	96,782
Total:	16,525	6,077	8,350	11,592	13,166	12,541	14,306	14,225	96,782

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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SPU-Drainage & Wastewater

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2018 - 2023 Proposed Capital Improvement Program

SPU-Drainage & Wastewater

Heavy Equipment Purchases - DWF

Project Type:	Ongoing	Project No.:	C4116-DWF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	11,740	2,760	2,801	2,904	3,300	2,261	2,456	2,363	30,584
Total:	11,740	2,760	2,801	2,904	3,300	2,261	2,456	2,363	30,584

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	11,740	2,760	2,801	2,904	3,300	2,261	2,456	2,363	30,584
Total:	11,740	2,760	2,801	2,904	3,300	2,261	2,456	2,363	30,584

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	11,740	2,760	2,801	2,904	3,300	2,261	2,456	2,363	30,584
Total:	11,740	2,760	2,801	2,904	3,300	2,261	2,456	2,363	30,584

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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SPU-Drainage & Wastewater

Integrated Control Monitoring Program - DWF

Project Type:	Ongoing	Project No.:	C4108-DWF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	1,327	250	250	250	250	0	0	0	2,327
Total:	1,327	250	250	250	250	0	0	0	2,327

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	1,327	250	250	250	250	0	0	0	2,327
Total:	1,327	250	250	250	250	0	0	0	2,327

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	1,327	250	250	250	250	0	0	0	2,327
Total:	1,327	250	250	250	250	0	0	0	2,327

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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SPU-Drainage & Wastewater

Localized Flood Control Program

Project Type:	Ongoing	Project No.:	C3802
Start/End Date:	N/A	BCL/Program Code:	C380B
Project Category:	Improved Facility	BCL/Program Name:	Flooding, Sewer Back-up, and Landslides
		Location:	Various
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

This ongoing program provides flood control and local drainage and wastewater projects 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	17,132	2,396	2,270	3,024	1,874	1,724	3,724	3,304	35,448
Total:	17,132	2,396	2,270	3,024	1,874	1,724	3,724	3,304	35,448

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	17,132	2,396	2,270	3,024	1,874	1,724	3,724	3,304	35,448
Total:	17,132	2,396	2,270	3,024	1,874	1,724	3,724	3,304	35,448

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	17,132	2,396	2,270	3,024	1,874	1,724	3,724	3,304	35,448
Total:	17,132	2,396	2,270	3,024	1,874	1,724	3,724	3,304	35,448

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

SPU-Drainage & Wastewater

Meter Replacement - DWF

Project Type:	Ongoing	Project No.:	C4101-DWF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	5,806	552	554	561	567	481	491	500	9,512
Total:	5,806	552	554	561	567	481	491	500	9,512

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	5,806	552	554	561	567	481	491	500	9,512
Total:	5,806	552	554	561	567	481	491	500	9,512

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	5,806	552	554	561	567	481	491	500	9,512
Total:	5,806	552	554	561	567	481	491	500	9,512

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

SPU-Drainage & Wastewater

Move Seattle - DWF

Project Type:	Ongoing	Project No.:	C4119-DWF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	38	1,551	17,360	28,381	17,397	16,601	10,849	9,411	101,587
Total:	38	1,551	17,360	28,381	17,397	16,601	10,849	9,411	101,587

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	38	1,551	17,360	28,381	17,397	16,601	10,849	9,411	101,587
Total:	38	1,551	17,360	28,381	17,397	16,601	10,849	9,411	101,587

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	38	1,551	17,360	28,381	17,397	16,601	10,849	9,411	101,587
Total:	38	1,551	17,360	28,381	17,397	16,601	10,849	9,411	101,587

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

SPU-Drainage & Wastewater

Operational Facility - Construction - DWF

Project Type:	Ongoing	Project No.:	C4106-DWF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	13,408	9,510	20,588	28,333	14,915	7,115	3,492	2,810	100,170
Total:	13,408	9,510	20,588	28,333	14,915	7,115	3,492	2,810	100,170

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	13,408	9,510	20,588	28,333	14,915	7,115	3,492	2,810	100,170
Total:	13,408	9,510	20,588	28,333	14,915	7,115	3,492	2,810	100,170

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	13,408	9,510	20,588	28,333	14,915	7,115	3,492	2,810	100,170
Total:	13,408	9,510	20,588	28,333	14,915	7,115	3,492	2,810	100,170

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

SPU-Drainage & Wastewater

Operations Control Center - DWF

Project Type:	Ongoing	Project No.:	C4105-DWF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	2700 Airport Way S
Neighborhood District:	Greater Duwamish	Council District:	2
Total Project Cost:	N/A	Urban Village:	Greater Duwamish

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	2,963	182	0	0	0	0	0	0	3,145
Total:	2,963	182	0	0	0	0	0	0	3,145

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	2,963	182	0	0	0	0	0	0	3,145
Total:	2,963	182	0	0	0	0	0	0	3,145

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	2,963	182	0	0	0	0	0	0	3,145
Total:	2,963	182	0	0	0	0	0	0	3,145

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

SPU-Drainage & Wastewater

Other Major Transportation Projects - DWF

Project Type:	Ongoing	Project No.:	C4123-DWF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	933	175	627	750	55	0	0	0	2,540
Total:	933	175	627	750	55	0	0	0	2,540

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	933	175	627	750	55	0	0	0	2,540
Total:	933	175	627	750	55	0	0	0	2,540

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	933	175	627	750	55	0	0	0	2,540
Total:	933	175	627	750	55	0	0	0	2,540

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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SPU-Drainage & Wastewater

Outfall Rehabilitation Program

Project Type:	Ongoing	Project No.:	C3708
Start/End Date:	N/A	BCL/Program Code:	C370B
Project Category:	Improved Facility	BCL/Program Name:	Rehabilitation
		Location:	Various
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	1,348	1,550	647	1,100	1,500	1,500	1,500	1,500	10,645
Total:	1,348	1,550	647	1,100	1,500	1,500	1,500	1,500	10,645

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	1,348	1,550	647	1,100	1,500	1,500	1,500	1,500	10,645
Total:	1,348	1,550	647	1,100	1,500	1,500	1,500	1,500	10,645

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	1,348	1,550	647	1,100	1,500	1,500	1,500	1,500	10,645
Total:	1,348	1,550	647	1,100	1,500	1,500	1,500	1,500	10,645

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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SPU-Drainage & Wastewater

Pipe Renewal Program

Project Type:	Ongoing	Project No.:	C3710
Start/End Date:	N/A	BCL/Program Code:	C370B
Project Category:	Improved Facility	BCL/Program Name:	Rehabilitation
		Location:	Various
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

SPU operates and maintains approximately 1,423 miles of wastewater conveyance (combined and separated) pipe. The age of this infrastructure varies; however, significant portions of the system were constructed prior to 1950. This ongoing project completes projects to repair, replace, rehabilitate and renew the collection system by various contracting and construction methods.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	44,480	24,300	27,228	24,429	24,194	26,694	26,694	25,794	223,812
Total:	44,480	24,300	27,228	24,429	24,194	26,694	26,694	25,794	223,812

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	44,480	24,300	27,228	24,429	24,194	26,694	26,694	25,794	223,812
Total:	44,480	24,300	27,228	24,429	24,194	26,694	26,694	25,794	223,812

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	44,480	24,300	27,228	24,429	24,194	26,694	26,694	25,794	223,812
Total:	44,480	24,300	27,228	24,429	24,194	26,694	26,694	25,794	223,812

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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SPU-Drainage & Wastewater

Protection of Beneficial Uses Program

Project Type:	Ongoing	Project No.:	C3317
Start/End Date:	N/A	BCL/Program Code:	C333B
Project Category:	Improved Facility	BCL/Program Name:	Protection of Beneficial Uses
		Location:	Various
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	7,847	1,000	1,719	4,893	7,508	1,000	106	3	24,075
Total:	7,847	1,000	1,719	4,893	7,508	1,000	106	3	24,075

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	7,847	1,000	1,719	4,893	7,508	1,000	106	3	24,075
Total:	7,847	1,000	1,719	4,893	7,508	1,000	106	3	24,075

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	7,847	1,000	1,719	4,893	7,508	1,000	106	3	24,075
Total:	7,847	1,000	1,719	4,893	7,508	1,000	106	3	24,075

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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SPU-Drainage & Wastewater

Pump Station and Force Main Improvements

Project Type:	Ongoing	Project No.:	C3703
Start/End Date:	N/A	BCL/Program Code:	C370B
Project Category:	Improved Facility	BCL/Program Name:	Rehabilitation
		Location:	Various
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	5,090	5,425	11,214	14,548	5,667	4,020	4,020	4,000	53,985
Total:	5,090	5,425	11,214	14,548	5,667	4,020	4,020	4,000	53,985

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	5,090	5,425	11,214	14,548	5,667	4,020	4,020	4,000	53,985
Total:	5,090	5,425	11,214	14,548	5,667	4,020	4,020	4,000	53,985

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	5,090	5,425	11,214	14,548	5,667	4,020	4,020	4,000	53,985
Total:	5,090	5,425	11,214	14,548	5,667	4,020	4,020	4,000	53,985

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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SPU-Drainage & Wastewater

Sanitary Sewer Overflow Capacity

Project Type:	Ongoing	Project No.:	C3804
Start/End Date:	N/A	BCL/Program Code:	C380B
Project Category:	Improved Facility	BCL/Program Name:	Flooding, Sewer Back-up, and Landslides
		Location:	Various
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	7,931	7,035	6,943	9,494	10,857	8,405	8,000	7,300	65,966
Total:	7,931	7,035	6,943	9,494	10,857	8,405	8,000	7,300	65,966

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	7,931	7,035	6,943	9,494	10,857	8,405	8,000	7,300	65,966
Total:	7,931	7,035	6,943	9,494	10,857	8,405	8,000	7,300	65,966

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	7,931	7,035	6,943	9,494	10,857	8,405	8,000	7,300	65,966
Total:	7,931	7,035	6,943	9,494	10,857	8,405	8,000	7,300	65,966

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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SPU-Drainage & Wastewater

Security Improvements - DWF

Project Type:	Ongoing	Project No.:	C4113-DWF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	157	109	113	210	165	113	113	185	1,163
Total:	157	109	113	210	165	113	113	185	1,163

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	157	109	113	210	165	113	113	185	1,163
Total:	157	109	113	210	165	113	113	185	1,163

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	157	109	113	210	165	113	113	185	1,163
Total:	157	109	113	210	165	113	113	185	1,163

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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SPU-Drainage & Wastewater

Sediment Remediation - DWF

Project Type:	Ongoing	Project No.:	C3503
Start/End Date:	N/A	BCL/Program Code:	C350B
Project Category:	Improved Facility	BCL/Program Name:	Sediments
		Location:	Various
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Drainage and Wastewater Rates	29,042	6,855	6,489	7,343	8,753	6,178	15,712	16,222	96,594
Total:	29,042	6,855	6,489	7,343	8,753	6,178	15,712	16,222	96,594

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Drainage and Wastewater Fund	29,042	6,855	6,489	7,343	8,753	6,178	15,712	16,222	96,594
Total:	29,042	6,855	6,489	7,343	8,753	6,178	15,712	16,222	96,594

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Drainage and Wastewater Fund	29,042	6,855	6,489	7,343	8,753	6,178	15,712	16,222	96,594
Total:	29,042	6,855	6,489	7,343	8,753	6,178	15,712	16,222	96,594

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	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 the following significant infrastructure:

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

The Solid Waste Fund (SWF) CIP is the planning tool for rehabilitating, replacing, improving and expanding infrastructure, as well as constructing projects that protect, conserve, and enhance our region's environmental resources. Planned spending in the SWF CIP is approximately \$72 million over the next six years, from 2018 through 2023.

Major anticipated projects include:

- constructing a recycling/re-use facility at the South Transfer Station; and
- cleanup of the historic South Park Landfill at the South Park Development Project.

These projects comprise roughly 68% of the CIP. Other significant projects include the possible enhancements to the South Household Hazardous Waste facility and the SPU's annual fleet and equipment investment.

CIP Revenue Sources

The majority of the SWF CIP is funded through bonds and current cash contributions, the mix of which is determined by SWF financial policies, the overall financial health of the SWF, and the best value and equity to ratepayers. SPU issued debt in 2014, 2015, and 2016. SPU is considering, among several potential financing sources, a 2018 bond issue which would provide the remaining funds needed to complete planned SWF CIP projects through 2023. Cash contributions to construction and repayment of debt come from rate-based charges to customers whose solid waste services are handled by the City's solid waste infrastructure and services.

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

CIP Highlights

2018-2023 Proposed Solid Waste Fund CIP by BCL
(In '000s; total may not sum due to rounding)

BCL	2018	2019	2020	2021	2022	2023	Total
New Facilities	3,623	17,934	19,797	3,661	100	100	45,214
Rehabilitation and Heavy Equipment	270	225	140	85	45	45	810
Shared Cost Projects	1,894	1,755	3,978	2,285	3,000	3,064	15,975
Technology	3,244	1,438	1,093	1,511	1,511	1,511	10,308
Total	9,031	21,352	25,007	7,542	4,656	4,720	72,308

New Facilities: This program plans, designs, and constructs new facilities to enhance solid waste operations. In 2018, SPU will continue to implement its Solid Waste Facilities Master Plan. The key project drivers of the New Facilities Budget Control Level (BCL) are the South Transfer Station Rebuild (STS2) and South Park Development projects.

The changes in this BCL are mainly on the STS2 Rebuild project and a pause in design for additional evaluation. Now that the preliminary site design has been fully approved by SPU leadership the project team will pick up at 30% design and advance the project toward completion with an overall delay of 18 months. The changes also delayed the South Park Development project.

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 new funding for the Solid Waste Comprehensive Plan Update as required by the Washington 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 2018. The key driver is the delay of the Seattle Municipal Tower (SMT) Relocation Program project with the costs shifted into future years.

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 2018 address several of SPU’s key initiatives, including:

- Financial Management and Internal Controls
- Operational Excellence and Performance Management
- Engaged Customer Experience
- Data-driven Decision Support
- Project Delivery and Project Controls

SPU’s slight increase in 2018 will focus technology spending on the highest priority business needs, primarily within the Customer Contact and Billing program, Enterprise Information Management and Project Delivery program areas.

With the New Customer Information System in place, one of the biggest drivers within the program would be the Customer Self-Service Portal. The Enterprise Information Management planned projects for 2018 include Automation of Paper Process (automated forms) as well as Document Controls to support major cross-Branch and inter-agency projects and programs. SPU’s portion of the Summit Re-Implementation project and integration of SPU financial side-systems are the main components within the Project Delivery and Performance program area.

Thematic Priorities

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

- Managing environmental issues and regulations: SPU is required to improve former landfill sites and take action as necessary when conditions change. For example, underground gas levels at these sites are monitored. When increasing gas levels are detected, SPU implements improvements to extract the excess gas or otherwise mitigate the environmental impacts of the gas increase. Landfill projects are also triggered by WSDOT improvements to I-5 that require modification to landfill infrastructure in the right-of-way. Additionally, the new transfer stations are designed to reduce the environmental impacts of the existing stations on neighboring communities.

Project Selection Criteria

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

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

Priority rankings are based on the following set of criteria:

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

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

Summary of Upcoming Budget Issues and Challenges

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

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

stewardship by encouraging waste reduction and recycling, which results in declining demand for services.

To address the funding needed to reconstruct and remediate the transfer stations, SPU issued bonds in 2014, 2015, and 2016. The cost to repay or service these bonds will be paid through rate-based revenues, which also support SPU operations, maintenance, administration, and contract costs. To assure that SWF has adequate revenues to support debt service and core functions while demand declines, SPU anticipates using a combination of rate increases and existing cash balances.

SPU has revived an intermittent, ongoing project to the Solid Waste Fund CIP. This project is the Solid Waste Comprehensive Plan Update (SW Comp Plan Update). The plan must be updated every five years which is required by Washington State Code for a Seattle Solid Waste Management Plan. The project has been reactivated in the 2018-2023 Proposed CIP, but is not a new body of work for the Utility.

Spending Plan Variance

As part of the 2018-2023 Proposed CIP, departments are now required to report Total Project Cost for discrete projects. Due to technical system limitations and SPU's unique planning processes, the 2017 Revised figures for Fund Appropriations/Allocations lines do not reflect SPU's most up-to-date total project cost expectations for some project pages. For this data, please see the Spending Plan line and Total Project Cost figure on the project page for the following projects in the Solid Waste Fund:

- C2302: South Transfer Station Rebuild
- C2304: South Park Development
- C2305: South Recycling Disposal Station Household Hazardous Waste Relocation
- C2306: North Transfer Station Rebuild
- C2407: SW Comp Plan Update

Future Projects/What is on the Horizon

Once the south transfer station rebuild is completed, the core SWF CIP is expected to approximate the lower spending levels. General SWF CIP spending will return to between \$4 and \$5 million annually after this project is completed.

After the South Transfer Station is rebuilt, annual costs for repairs and upkeep are projected to decrease initially and then increase as equipment replacement/renewal projects are required. Part of the South Transfer Station rebuild (STS2) is to retain enough space to take advantage for future technologies and innovations, and possibly construct a Material Recovery Facility (MRF) or some other waste reduction or recovery facility in the future to increase the recycling rate and help SPU achieve its environmental goals. No decisions have been made at this time.

SPU-Solid Waste

Project Summary

BCL/Program Name/ Project Title & ID	LTD Actuals	2017	2018	2019	2020	2021	2022	2023	Total
New Facilities									
									BCL/Program Code: C230B
<u>Discrete</u>									
North Transfer Station Rebuild (C2306)	104,795	4,457	20	0	0	0	0	0	109,272
South Park Development (C2304)	4,799	1,608	579	4,551	5,183	744	0	0	17,464
South Recycling Disposal Station Household Hazardous Waste Relocation (C2305)	5	281	130	100	100	0	0	0	616
South Transfer Station Rebuild (C2302)	3,077	5,125	2,286	12,212	14,093	2,766	0	0	39,559
<u>Ongoing</u>									
Miscellaneous Station Improvements (C2303)	2,870	866	608	1,071	421	150	100	100	6,186
New Facilities	115,546	12,337	3,623	17,934	19,797	3,661	100	100	173,098
Rehabilitation and Heavy Equipment									
									BCL/Program Code: C240B
<u>Discrete</u>									
SW Comp Plan Update (C2407)	0	0	150	150	100	50	0	0	450
<u>Ongoing</u>									
Kent Highlands Landfill (C2402)	275	50	50	25	15	15	25	25	480
Midway Landfill (C2403)	119	743	70	50	25	20	20	20	1,068
Rehabilitation and Heavy Equipment	395	793	270	225	140	85	45	45	1,998
Shared Cost Projects									
									BCL/Program Code: C410B
<u>Ongoing</u>									
1% for the Arts - SWF (C4118-SWF)	1,896	66	28	123	146	34	6	7	2,306
Heavy Equipment Purchases - SWF (C4116-SWF)	7,687	1,503	1,270	1,366	3,232	1,476	2,260	2,152	20,946
Operational Facility - Construction - SWF (C4106-SWF)	543	1,197	496	101	466	674	634	739	4,849
Operations Control Center - SWF (C4105-SWF)	864	59	0	0	0	0	0	0	923

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

2018 - 2023 Proposed Capital Improvement Program

Security Improvements - SWF (C4113-SWF)	467	173	100	165	135	100	100	165	1,404
Shared Cost Projects	11,456	2,997	1,894	1,755	3,978	2,285	3,000	3,064	30,428
Technology								BCL/Program Code:	C510B
<u>Ongoing</u>									
Asset Information Management (C5407)	90	503	165	285	190	300	300	300	2,133
Customer Contact & Billing (C5402)	13,819	7,274	1,631	353	375	150	150	150	23,902
Enterprise Information Management (C5403)	58	181	113	319	78	300	300	300	1,648
IT Infrastructure (C5404)	241	87	126	174	281	266	266	266	1,709
Project Delivery & Performance (C5405)	648	3,397	1,178	308	169	255	255	255	6,464
Science & System Performance (C5406)	559	0	30	0	0	240	240	240	1,309
Technology	15,415	11,442	3,244	1,438	1,093	1,511	1,511	1,511	37,165
Department Total:	142,812	27,569	9,031	21,352	25,007	7,542	4,656	4,720	242,689

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

2018 - 2023 Proposed Capital Improvement Program

SPU-Solid Waste

Fund Summary

Fund Name & Code	LTD Actuals	2017	2018	2019	2020	2021	2022	2023	Total
Solid Waste Fund (45010)	142,812	27,569	9,031	21,352	25,007	7,542	4,656	4,720	242,689
Department Total:	142,812	27,569	9,031	21,352	25,007	7,542	4,656	4,720	242,689

**Amounts in thousands of dollars*

North Transfer Station Rebuild

Project Type:	Discrete	Project No.:	C2306
Start/End Date:	2006-2018	BCL/Program Code:	C230B
Project Category:	Improved Facility	BCL/Program Name:	New Facilities
Current Project Stage:	Closeout	Location:	N 34th St
Neighborhood District:	Lake Union	Council District:	4
Total Project Cost:	\$108,062	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Solid Waste Rates	104,795	4,457	20	0	0	0	0	0	109,272
Total:	104,795	4,457	20	0	0	0	0	0	109,272

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Solid Waste Fund	104,795	4,457	20	0	0	0	0	0	109,272
Total:	104,795	4,457	20	0	0	0	0	0	109,272

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	104,795	3,247	20	0	0	0	0	0	108,062
Total:	104,795	3,247	20	0	0	0	0	0	108,062

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

South Park Development

Project Type:	Discrete	Project No.:	C2304
Start/End Date:	2007-2021	BCL/Program Code:	C230B
Project Category:	Improved Facility	BCL/Program Name:	New Facilities
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	8100 2nd Ave S
Neighborhood District:	Greater Duwamish	Council District:	1
Total Project Cost:	\$16,890	Urban Village:	Greater Duwamish

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Solid Waste Rates	4,799	1,608	579	4,551	5,183	744	0	0	17,464
Total:	4,799	1,608	579	4,551	5,183	744	0	0	17,464

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Solid Waste Fund	4,799	1,608	579	4,551	5,183	744	0	0	17,464
Total:	4,799	1,608	579	4,551	5,183	744	0	0	17,464

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	4,799	1,034	579	4,551	5,183	744	0	0	16,890
Total:	4,799	1,034	579	4,551	5,183	744	0	0	16,890

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

South Recycling Disposal Station Household Hazardous Waste Relocation

Project Type:	Discrete	Project No.:	C2305
Start/End Date:	2015-2020	BCL/Program Code:	C230B
Project Category:	Improved Facility	BCL/Program Name:	New Facilities
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	8105 5th Ave S
Neighborhood District:	Greater Duwamish	Council District:	1
Total Project Cost:	\$530	Urban Village:	Greater Duwamish

This project provides for modifications needed to the existing South Household Hazardous Waste (SHHW) facility and allows for facility improvements as required by code. This project and timeline is tied to the redevelopment of the existing South Recycling and Disposal Station (SRDS) site. Originally the project required relocation of the facility but during early planning work we found that we could retain the current facility as is.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Solid Waste Rates	5	281	130	100	100	0	0	0	616
Total:	5	281	130	100	100	0	0	0	616

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Solid Waste Fund	5	281	130	100	100	0	0	0	616
Total:	5	281	130	100	100	0	0	0	616

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	5	195	130	100	100	0	0	0	530
Total:	5	195	130	100	100	0	0	0	530

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

South Transfer Station Rebuild

Project Type:	Discrete	Project No.:	C2302
Start/End Date:	2012-2021	BCL/Program Code:	C230B
Project Category:	Improved Facility	BCL/Program Name:	New Facilities
Current Project Stage:	Design	Location:	8100 2nd AVE S
Neighborhood District:	Greater Duwamish	Council District:	1
Total Project Cost:	\$35,089	Urban Village:	Greater Duwamish

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Solid Waste Rates	3,077	5,125	2,286	12,212	14,093	2,766	0	0	39,559
Total:	3,077	5,125	2,286	12,212	14,093	2,766	0	0	39,559

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Solid Waste Fund	3,077	5,125	2,286	12,212	14,093	2,766	0	0	39,559
Total:	3,077	5,125	2,286	12,212	14,093	2,766	0	0	39,559

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	3,077	655	2,286	12,212	14,093	2,766	0	0	35,089
Total:	3,077	655	2,286	12,212	14,093	2,766	0	0	35,089

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

SW Comp Plan Update

Project Type:	Discrete	Project No.:	C2407
Start/End Date:	2017-2021	BCL/Program Code:	C240B
Project Category:	Improved Facility	BCL/Program Name:	Rehabilitation and Heavy Equipment
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	\$500	Urban Village:	Multiple

A Seattle Solid Waste Management Plan is required by Washington State Code. The plan must be updated every five years. The Comprehensive Plan guides the City's solid waste management.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Solid Waste Rates	0	0	150	150	100	50	0	0	450
Total:	0	0	150	150	100	50	0	0	450

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Solid Waste Fund	0	0	150	150	100	50	0	0	450
Total:	0	0	150	150	100	50	0	0	450

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	0	50	150	150	100	50	0	0	500
Total:	0	50	150	150	100	50	0	0	500

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

1% for the Arts - SWF

Project Type:	Ongoing	Project No.:	C4118-SWF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Solid Waste Rates	1,896	66	28	123	146	34	6	7	2,306
Total:	1,896	66	28	123	146	34	6	7	2,306

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Solid Waste Fund	1,896	66	28	123	146	34	6	7	2,306
Total:	1,896	66	28	123	146	34	6	7	2,306

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	1,896	66	28	123	146	34	6	7	2,306
Total:	1,896	66	28	123	146	34	6	7	2,306

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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Heavy Equipment Purchases - SWF

Project Type:	Ongoing	Project No.:	C4116-SWF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

This ongoing project provides SPU's Solid Waste Utility crews with new and replacement heavy equipment that is used throughout Seattle and in parts of King County. Typical purchases include loaders, dozers, class8 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 three SPU fund-specific heavy equipment CIP projects.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Solid Waste Rates	7,687	1,503	1,270	1,366	3,232	1,476	2,260	2,152	20,946
Total:	7,687	1,503	1,270	1,366	3,232	1,476	2,260	2,152	20,946

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Solid Waste Fund	7,687	1,503	1,270	1,366	3,232	1,476	2,260	2,152	20,946
Total:	7,687	1,503	1,270	1,366	3,232	1,476	2,260	2,152	20,946

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	7,687	1,503	1,270	1,366	3,232	1,476	2,260	2,152	20,946
Total:	7,687	1,503	1,270	1,366	3,232	1,476	2,260	2,152	20,946

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Kent Highlands Landfill

Project Type:	Ongoing	Project No.:	C2402
Start/End Date:	N/A	BCL/Program Code:	C240B
Project Category:	Improved Facility	BCL/Program Name:	Rehabilitation and Heavy Equipment
		Location:	Kent Highlands
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Solid Waste Rates	275	50	50	25	15	15	25	25	480
Total:	275	50	50	25	15	15	25	25	480

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Solid Waste Fund	275	50	50	25	15	15	25	25	480
Total:	275	50	50	25	15	15	25	25	480

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	275	50	50	25	15	15	25	25	480
Total:	275	50	50	25	15	15	25	25	480

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Midway Landfill

Project Type:	Ongoing	Project No.:	C2403
Start/End Date:	N/A	BCL/Program Code:	C240B
Project Category:	Improved Facility	BCL/Program Name:	Rehabilitation and Heavy Equipment
		Location:	Kent
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Solid Waste Rates	119	743	70	50	25	20	20	20	1,068
Total:	119	743	70	50	25	20	20	20	1,068

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Solid Waste Fund	119	743	70	50	25	20	20	20	1,068
Total:	119	743	70	50	25	20	20	20	1,068

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	119	743	70	50	25	20	20	20	1,068
Total:	119	743	70	50	25	20	20	20	1,068

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

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

2018 - 2023 Proposed Capital Improvement Program

Miscellaneous Station Improvements

Project Type:	Ongoing	Project No.:	C2303
Start/End Date:	N/A	BCL/Program Code:	C230B
Project Category:	Improved Facility	BCL/Program Name:	New Facilities
		Location:	2nd Ave S
Neighborhood District:	Greater Duwamish	Council District:	1
Total Project Cost:	N/A	Urban Village:	Greater Duwamish

This project provides modifications, upgrades and wear replacement for the two new City Transfer Stations. The new facilities will require periodic capital upgrades and replacement to extend the useful life of these assets. Examples of this work include improvements to the South Transfer Station (STS) wheelwash and floor drain system to meet regulatory requirements and replacement of the wear surface on the STS tipping floor or modifications to optimize the NTS facility.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Solid Waste Rates	2,870	866	608	1,071	421	150	100	100	6,186
Total:	2,870	866	608	1,071	421	150	100	100	6,186

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Solid Waste Fund	2,870	866	608	1,071	421	150	100	100	6,186
Total:	2,870	866	608	1,071	421	150	100	100	6,186

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	2,870	866	608	1,071	421	150	100	100	6,186
Total:	2,870	866	608	1,071	421	150	100	100	6,186

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Operational Facility - Construction - SWF

Project Type:	Ongoing	Project No.:	C4106-SWF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Solid Waste Rates	543	1,197	496	101	466	674	634	739	4,849
Total:	543	1,197	496	101	466	674	634	739	4,849

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Solid Waste Fund	543	1,197	496	101	466	674	634	739	4,849
Total:	543	1,197	496	101	466	674	634	739	4,849

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	543	1,197	496	101	466	674	634	739	4,849
Total:	543	1,197	496	101	466	674	634	739	4,849

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Operations Control Center - SWF

Project Type:	Ongoing	Project No.:	C4105-SWF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	2700 Airport Way S
Neighborhood District:	Greater Duwamish	Council District:	2
Total Project Cost:	N/A	Urban Village:	Greater Duwamish

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Solid Waste Rates	864	59	0	0	0	0	0	0	923
Total:	864	59	0	0	0	0	0	0	923

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Solid Waste Fund	864	59	0	0	0	0	0	0	923
Total:	864	59	0	0	0	0	0	0	923

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	864	59	0	0	0	0	0	0	923
Total:	864	59	0	0	0	0	0	0	923

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Security Improvements - SWF

Project Type:	Ongoing	Project No.:	C4113-SWF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Solid Waste Rates	467	173	100	165	135	100	100	165	1,404
Total:	467	173	100	165	135	100	100	165	1,404

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Solid Waste Fund	467	173	100	165	135	100	100	165	1,404
Total:	467	173	100	165	135	100	100	165	1,404

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	467	173	100	165	135	100	100	165	1,404
Total:	467	173	100	165	135	100	100	165	1,404

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Seattle Public Utilities

Technology Projects

SPU-Technology

Project Summary

BCL/Program Name/ Project Title & ID	LTD Actuals	2017	2018	2019	2020	2021	2022	2023	Total
Technology									C510B
<u>Ongoing</u>									
Asset Information Management (C5407)	604	2,874	1,025	2,550	2,300	2,000	2,000	2,000	15,353
Customer Contact & Billing (C5402)	44,214	21,169	4,373	1,750	2,500	1,000	1,000	1,000	77,007
Enterprise Information Management (C5403)	846	1,973	755	2,200	500	2,000	2,000	2,000	12,274
IT Infrastructure (C5404)	2,096	666	979	1,250	1,850	1,750	1,750	1,750	12,092
Project Delivery & Performance (C5405)	4,180	22,200	7,707	2,050	1,100	1,700	1,700	1,700	42,337
Science & System Performance (C5406)	4,870	2,159	1,570	1,800	1,000	1,600	1,600	1,600	16,198
Technology	56,811	51,041	16,409	11,600	9,250	10,050	10,050	10,050	175,261
Department Total:	56,811	51,041	16,409	11,600	9,250	10,050	10,050	10,050	175,261

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

2018 - 2023 Proposed Capital Improvement Program

SPU-Technology

Fund Summary

Fund Name & Code	LTD Actuals	2017	2018	2019	2020	2021	2022	2023	Total
Drainage and Wastewater Fund (44010)	20,662	18,954	6,135	4,677	3,951	4,298	4,298	4,298	67,272
Solid Waste Fund (45010)	15,415	11,442	3,244	1,438	1,093	1,511	1,511	1,511	37,165
Water Fund (43000)	20,734	20,645	7,031	5,485	4,207	4,241	4,241	4,241	70,825
Department Total:	56,811	51,041	16,409	11,600	9,250	10,050	10,050	10,050	175,261

**Amounts in thousands of dollars*

2018 - 2023 Proposed Capital Improvement Program

Asset Information Management

Project Type:	Ongoing	Project No.:	C5407
Start/End Date:	N/A	BCL/Program Code:	C510B
Project Category:	Improved Facility	BCL/Program Name:	Technology
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

This ongoing project provides applications, upgrades and data management tools in support of SPU's work and asset management projects. Several new and updated technology solutions designed to enhance the efficiency and effectiveness of drinking water, sewer, drainage, and solid waste operations are planned. Activities within this project aim to further enhance safety and improve responsiveness of SPU's utility operations.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	256	1,306	252	1,076	1,082	840	840	840	6,492
Drainage and Wastewater Rates	259	1,065	608	1,189	1,028	860	860	860	6,728
Solid Waste Rates	90	503	165	285	190	300	300	300	2,133
Total:	604	2,874	1,025	2,550	2,300	2,000	2,000	2,000	15,353
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	256	1,306	252	1,076	1,082	840	840	840	6,492
Drainage and Wastewater Fund	259	1,065	608	1,189	1,028	860	860	860	6,728
Solid Waste Fund	90	503	165	285	190	300	300	300	2,133
Total:	604	2,874	1,025	2,550	2,300	2,000	2,000	2,000	15,353
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	256	1,306	252	1,076	1,082	840	840	840	6,492
Drainage and Wastewater Fund	259	1,065	608	1,189	1,028	860	860	860	6,728
Solid Waste Fund	90	503	165	285	190	300	300	300	2,133
Total:	604	2,874	1,025	2,550	2,300	2,000	2,000	2,000	15,353

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

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

2018 - 2023 Proposed Capital Improvement Program

Customer Contact & Billing

Project Type:	Ongoing	Project No.:	C5402
Start/End Date:	N/A	BCL/Program Code:	C510B
Project Category:	Improved Facility	BCL/Program Name:	Technology
		Location:	N/A
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	16,036	7,075	1,391	720	1,100	420	420	420	27,582
Drainage and Wastewater Rates	14,359	6,820	1,351	678	1,025	430	430	430	25,523
Solid Waste Rates	13,819	7,274	1,631	353	375	150	150	150	23,902
Total:	44,214	21,169	4,373	1,750	2,500	1,000	1,000	1,000	77,007

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	16,036	7,075	1,391	720	1,100	420	420	420	27,582
Drainage and Wastewater Fund	14,359	6,820	1,351	678	1,025	430	430	430	25,523
Solid Waste Fund	13,819	7,274	1,631	353	375	150	150	150	23,902
Total:	44,214	21,169	4,373	1,750	2,500	1,000	1,000	1,000	77,007

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	16,036	7,075	1,391	720	1,100	420	420	420	27,582
Drainage and Wastewater Fund	14,359	6,820	1,351	678	1,025	430	430	430	25,523
Solid Waste Fund	13,819	7,274	1,631	353	375	150	150	150	23,902
Total:	44,214	21,169	4,373	1,750	2,500	1,000	1,000	1,000	77,007

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

SPU-Technology

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Enterprise Information Management

Project Type:	Ongoing	Project No.:	C5403
Start/End Date:	N/A	BCL/Program Code:	C510B
Project Category:	Improved Facility	BCL/Program Name:	Technology
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	631	1,091	317	1,013	224	840	840	840	5,796
Drainage and Wastewater Rates	157	702	325	868	199	860	860	860	4,831
Solid Waste Rates	58	181	113	319	78	300	300	300	1,648
Total:	846	1,973	755	2,200	500	2,000	2,000	2,000	12,274

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	631	1,091	317	1,013	224	840	840	840	5,796
Drainage and Wastewater Fund	157	702	325	868	199	860	860	860	4,831
Solid Waste Fund	58	181	113	319	78	300	300	300	1,648
Total:	846	1,973	755	2,200	500	2,000	2,000	2,000	12,274

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	631	1,091	317	1,013	224	840	840	840	5,796
Drainage and Wastewater Fund	157	702	325	868	199	860	860	860	4,831

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	58	181	113	319	78	300	300	300	1,648
Total:	846	1,973	755	2,200	500	2,000	2,000	2,000	12,274
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

2018 - 2023 Proposed Capital Improvement Program

IT Infrastructure

Project Type:	Ongoing	Project No.:	C5404
Start/End Date:	N/A	BCL/Program Code:	C510B
Project Category:	Improved Facility	BCL/Program Name:	Technology
		Location:	N/A
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	675	249	362	505	819	755	755	755	4,875
Drainage and Wastewater Rates	1,180	330	491	572	750	729	729	729	5,507
Solid Waste Rates	241	87	126	174	281	266	266	266	1,709
Total:	2,096	666	979	1,250	1,850	1,750	1,750	1,750	12,092

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	675	249	362	505	819	755	755	755	4,875
Drainage and Wastewater Fund	1,180	330	491	572	750	729	729	729	5,507
Solid Waste Fund	241	87	126	174	281	266	266	266	1,709
Total:	2,096	666	979	1,250	1,850	1,750	1,750	1,750	12,092

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	675	249	362	505	819	755	755	755	4,875
Drainage and Wastewater Fund	1,180	330	491	572	750	729	729	729	5,507
Solid Waste Fund	241	87	126	174	281	266	266	266	1,709
Total:	2,096	666	979	1,250	1,850	1,750	1,750	1,750	12,092

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

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

2018 - 2023 Proposed Capital Improvement Program

Project Delivery & Performance

Project Type:	Ongoing	Project No.:	C5405
Start/End Date:	N/A	BCL/Program Code:	C510B
Project Category:	Improved Facility	BCL/Program Name:	Technology
		Location:	N/A
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	1,868	9,835	3,405	871	482	714	714	714	18,604
Drainage and Wastewater Rates	1,664	8,968	3,124	871	449	731	731	731	17,269
Solid Waste Rates	648	3,397	1,178	308	169	255	255	255	6,464
Total:	4,180	22,200	7,707	2,050	1,100	1,700	1,700	1,700	42,337

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	1,868	9,835	3,405	871	482	714	714	714	18,604
Drainage and Wastewater Fund	1,664	8,968	3,124	871	449	731	731	731	17,269
Solid Waste Fund	648	3,397	1,178	308	169	255	255	255	6,464
Total:	4,180	22,200	7,707	2,050	1,100	1,700	1,700	1,700	42,337

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	1,868	9,835	3,405	871	482	714	714	714	18,604
Drainage and Wastewater Fund	1,664	8,968	3,124	871	449	731	731	731	17,269

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	648	3,397	1,178	308	169	255	255	255	6,464
Total:	4,180	22,200	7,707	2,050	1,100	1,700	1,700	1,700	42,337
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

2018 - 2023 Proposed Capital Improvement Program

Science & System Performance

Project Type:	Ongoing	Project No.:	C5406
Start/End Date:	N/A	BCL/Program Code:	C510B
Project Category:	Improved Facility	BCL/Program Name:	Technology
		Location:	N/A
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	1,267	1,090	1,304	1,300	500	672	672	672	7,477
Drainage and Wastewater Rates	3,044	1,069	236	500	500	688	688	688	7,413
Solid Waste Rates	559	0	30	0	0	240	240	240	1,309
Total:	4,870	2,159	1,570	1,800	1,000	1,600	1,600	1,600	16,198

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	1,267	1,090	1,304	1,300	500	672	672	672	7,477
Drainage and Wastewater Fund	3,044	1,069	236	500	500	688	688	688	7,413
Solid Waste Fund	559	0	30	0	0	240	240	240	1,309
Total:	4,870	2,159	1,570	1,800	1,000	1,600	1,600	1,600	16,198

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	1,267	1,090	1,304	1,300	500	672	672	672	7,477
Drainage and Wastewater Fund	3,044	1,069	236	500	500	688	688	688	7,413

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Solid Waste Fund	559	0	30	0	0	240	240	240	1,309
Total:	4,870	2,159	1,570	1,800	1,000	1,600	1,600	1,600	16,198
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

2018 - 2023 Proposed Capital Improvement Program

Seattle Public Utilities

Water

Overview

SPU delivers an average of approximately 120 million gallons of drinking water per day to 1.4 million people and businesses in Seattle and 18 surrounding cities and water districts, plus the Cascade Water Alliance. The water system infrastructure includes:

- The Cedar and South Fork Tolt supply sources;
- Three groundwater wells;
- Two primary water treatment plants;
- 11 booster chlorination facilities;
- 327 million gallons of treated water storage;
- 31 pump stations;
- Approximately 1,900 miles of transmission and distribution system pipelines;
- Almost 200,000 meters and service connections;
- More than 21,000 distribution system valves;
- About 18,000 hydrants;
- Monitoring and control systems; and,
- Various buildings and other related facilities.

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

Planned spending in the Water Capital Improvement Program (CIP) is \$568 million over the next six years. Major projects include:

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

The 2018-2023 Proposed CIP also includes many ongoing programs, such as improving the distribution and transmission system water mains, valves, steel storage tanks, and pump stations; watershed stewardship and conservation projects and programs; and facilities, vehicles, and heavy equipment investments.

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

CIP Revenue Sources

SPU’s Water CIP is funded largely by Water ratepayers. About 72% of the Water Fund’s Operating revenues come from retail ratepayers, split approximately evenly between residential and commercial customers. Another 21% of the Water Fund’s overall revenues come from wholesale purveyors who serve surrounding jurisdictions. The remaining 7% consists of non-rate revenue, which include such items as tap fees received. SPU issues bonds, serviced by ratepayers, which in the current period covers 64% of the CIP, with the remainder funded by cash and loan, i.e. directly by ratepayer revenue.

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

2018-2023 Proposed Water Fund CIP by BCL
(In ‘000s; total may not sum due to rounding)

Water Fund	2018	2019	2020	2021	2022	2023	Total
Distribution	34,687	29,546	30,086	26,093	27,804	31,840	180,056
Transmission	9,662	11,325	8,029	12,585	4,390	5,198	51,189
Watershed Stewardship	977	84	165	105	65	75	1,471
Water Quality & Treatment	2,363	6,117	20,491	1,989	7,640	19,600	58,199
Water Resources	8,553	16,039	3,614	3,756	3,854	5,063	40,880
Habitat Conservation Program	1,959	1,847	1,447	1,504	1,392	1,314	9,464
Shared Cost Projects	51,027	41,889	37,979	28,212	18,844	18,878	196,830
Technology	7,031	5,485	4,207	4,241	4,241	4,241	29,446
Grand Total	116,259	112,331	106,018	78,486	68,231	86,210	567,536

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

Increases in the **Distribution BCL** in 2018 are primarily due to increased costs for replacement of the feeder main on Third Ave W and other water main rehabilitation projects at multiple worksites across the city. Additionally, recently completed options analyses have led to increased cost estimates for interior/exterior recoating and potential seismic upgrades to the Beverly Park elevated tank.

2018-2023 Proposed Capital Improvement Program

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

Reductions in the **Transmission BCL** in 2018 are due primarily to the potential for lower cost alternatives for the Tolt Slide Improvements based on engineering studies that were recently completed. These decreases were off-set by increases for the 430 Pipeline Improvements and shifts in cash flow for the Cathodic Protection program.

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

- The Cedar River Municipal Watershed is 90,638 acres of land owned by the City of Seattle and provides about 65% of the drinking water used by 1.4 million people in the greater Seattle area supplied by SPU. The City of Seattle is required by law to maintain a clean drinking water supply. To that end, the City restricts public access and management is guided by a Habitat Conservation Plan. The Cedar River Watershed is an unfiltered surface water supply which produces some of the best water in the world.
- The South Fork Tolt River Watershed is the smaller and lesser known but still essential second supply watershed in SPU's freshwater supply system. Located in the foothills of the Cascades in east King County, it first came on-line in 1964, and since 1989 has also supported a small Seattle City Light hydro-electric facility. The Tolt Treatment Facilities, which includes filtration, can provide up to 120 million gallons of drinking water per day.

There is no change in 2018 for **Watershed Stewardship BCL**.

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

Increases in the **Water Quality & Treatment BCL** are based on recently completed engineering studies for correcting seismic design flaws at the buried Beacon Reservoir in 2018.

Water Resources: The purpose of this program category is to manage our water resources to meet anticipated demands and in-stream flow requirements – the amount of water provided to the river to support aquatic habitat, wetlands, riparian vegetation, and water quality – and to promote residential and commercial water conservation. The requirements for in-stream flows are detailed in agreements with state and federal agencies and include provisions for minimum stream flows in the Cedar and South

Fork Tolt Rivers. Examples of the types of projects in this category include the Dam Safety Program, the Morse Lake Pump Plant, and Sockeye Broodstock Weir and other improvements associated with the hatchery and fish ladder.

Decreases in the **Water Resources BCL** in 2018 are due to refinements to the scope and cost estimate for the Hatchery Spring Water Redundancy (water for incubating sockeye salmon eggs) and Sockeye Broodstock Weir (facility used to collect adult sockeye for the hatchery) projects.

Habitat Conservation Program: This program category includes projects and programs directly related to implementation of the Cedar River Watershed Habitat Conservation Plan. The Habitat Conservation Plan benefits the utility and the ratepayers it serves by providing legal certainty under the Endangered Species Act for the City's continued operations within the Cedar River Watershed, which supplies 65% of the SPU's drinking water. The Habitat Conservation Program requires SPU to invest \$100 million over 50 years, with \$60 million in the first decade, on approximately 30 capital projects and 60 O&M activities in three areas: management of in-stream flows for people and fish, forest and land conservation activities, and mitigation for the blockage of salmon and steelhead fish as they return to the Cedar River to spawn. The Water Fund's CIP projects in this area are grouped into eight categories: road improvements and decommissioning, stream and riparian restoration, upland forest restoration, Landsburg fish passage, Cedar River sockeye hatchery, improvements to the Ballard Locks for fish passage and water conservation, fish habitat protection and restoration in the lower Cedar River below the municipal watershed boundary, and evaluation of Cedar permanent dead storage in Chester Morse Lake.

Decreases in 2018 in the **Habitat Conservation Program BCL** are due to completion of the Downstream Habitat Protection Landsburg mitigation.

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

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

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 2018 address several of SPU’s key initiatives, including:

- Financial Management and Internal Controls
- Operational Excellence and Performance Management
- Engaged Customer Experience
- Data-driven Decision Support
- Project Delivery and Project Controls

SPU’s slight increase in 2018 will focus technology spending on the highest priority business needs, primarily within the Customer Contact and Billing program, Enterprise Information Management and Project Delivery program areas.

With the New Customer Information System in place, one of the biggest drivers within the program would be the Customer Self-Service Portal. The Enterprise Information Management planned projects for 2018 include Automation of Paper Process (automated forms) as well as Document Controls to support major cross-Branch and inter-agency projects and programs. SPU’s portion of the Summit Re-Implementation project and integration of SPU financial side-systems are the main components within the Project Delivery and Performance program area.

Thematic Priorities

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

- SPU is committed to making **asset preservation** investments to create or enhance operational efficiency. SPU uses asset management principles to determine the timing of rehabilitation or replacement of its infrastructure. Projects that fall into this category vary, ranging from water main replacement related to transportation projects to decommissioning of steel storage facilities.
- SPU’s commitment to **health and human safety** is also addressed through SPU’s reservoir covering projects. Consistent with Ordinance 120899 and required by state regulators, SPU has been replacing its open finished drinking water reservoirs with underground structures that will improve water quality and system security. Seismic retrofits are planned for four of the buried reservoirs that have design flaws. SPU plans to decommission Roosevelt Reservoir, and further evaluate the possibility of decommissioning Volunteer Reservoir. However, permanent actions at these two reservoirs are not expected to occur until enough time has elapsed to observe the water system’s performance without them. Additionally, by 2019, SPU will begin constructing new covers on the Lake Forest Park and Bitter Lake reservoirs to replace the existing floating covers that will have reached the end of their useful life.
- SPU is committed to **environmental sustainability**. This can best be seen in SPU’s responsibilities as outlined in the 50-year Habitat Conservation Plan (HCP), an agreement between local, state and federal agencies. The HCP seeks to ensure the long-term ecological

integrity of the Cedar River Watershed, which supplies the majority of the City’s drinking water. It simultaneously addresses the needs of protected wildlife species in and along the Cedar River. Investments in the regional conservation and low-income conservation programs also help in management of our natural resources, while helping customers reduce their utility bills.

- SPU is also committed to **race and social justice**. One example of this commitment is the Low Income Water Conservation Program. This ongoing program provides water use efficiency resources to the City's low-income customers to implement water conservation measures. Typical improvements consist of, but are not limited to, installing water-efficient fixtures, such as aerating showerheads and faucets, low water-use toilets and efficient clothes washers. The program is cooperatively managed by SPU and the City's Human Services Department.

Project Selection Criteria

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

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

Priority rankings are based on the following set of criteria:

- **Regulatory Mandates, Legal Agreements:** The degree to which a project is driven by federal, state, and local laws, permit and regulatory requirements, and consent decrees; as well as by legal agreements with public and private parties. Examples of highly ranked projects in this category include the reservoir covering programs and the Habitat Conservation Program.
- **External Drivers:** SPU’s responsiveness to, or engagement with, projects of other Departments or Jurisdictions, and the specific mandates of the City. Examples of highly ranked projects in this category include the Alaskan Way Viaduct and Mercer Corridor projects.
- **Infrastructure:** How a project addresses infrastructure conditions or vulnerabilities. Examples of highly ranked projects in this category include the Watermain Rehabilitation, Distribution System Improvements and Tank Improvements programs.
- **Level of Service:** The importance of a project in providing or improving services to customers. Examples of highly ranked projects in this category include the Water Infrastructure – New Taps and Service Renewals programs.

- **Other Factors:** Other important factors include high net present value or cost-effectiveness, social or environmental benefits not otherwise captured, a project already in progress or near completion, limited time opportunity, demonstration projects, community visibility, outside funding. An example of a highly ranked project in this category includes Rattlesnake Lake Sanitary Facilities.

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

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

Summary of Upcoming Budget Issues and Challenges

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

Water Conservation: The City of Seattle, Seattle residents and businesses, and Seattle’s wholesale water partners have worked together to reduce water consumption. As a result, consumption has declined since the 1980’s and is projected to flatten out. In 2016, consumption was 30% below the peak of 1984, despite serving a larger population. Seattle currently has some of the lowest per capita water consumption in the nation. While this accomplishment helps contribute to a sustainable future for the region, it puts financial pressure on the utility because fixed costs, including the costs of the CIP, need to be distributed across fewer units of water sold. This trend also puts pressure on SPU management and employees to deliver services as efficiently as possible.

Transitioning from Major Projects toward Asset Management: The Water Fund is transitioning from a period of building large capital projects, in response to regulatory requirements, to a time of physical infrastructure rehabilitation. Past investments include water treatment facilities for the Tolt and Cedar water supplies, coverings for seven open reservoirs in response to federal/state regulations, construction of a second pipeline for the Tolt system, and investments to meet federal requirements embodied in the Cedar River Watershed Habitat Conservation Plan (HCP). These investments helped secure the supply and distribution of high-quality drinking water and provide appropriate stewardship of the watersheds consistent with federal and state requirements.

The City of Seattle is now better positioned than many water utilities in the nation in terms of regulatory compliance. Residents, businesses and rate payers will benefit from these investments for years to come. Although the focus will shift from major projects to physical infrastructure rehabilitation, the

utility will be paying debt service over the next several budget cycles on the bonds that were issued for major projects.

Against the backdrop of these trends, the 2018-2023 Proposed Water CIP has been developed to:

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

Spending Plan Variance

As part of the 2018-2023 Proposed CIP, departments are now required to report Total Project Cost for discrete projects. Due to technical system limitations and SPU’s unique planning processes, the 2017 Revised figures for Fund Appropriations/Allocations lines do not reflect SPU’s most up-to-date total project cost expectations for some project pages. For this data, please see the Spending Plan line and Total Project Cost figure on the project page for the following projects in the Water Fund:

- C1408: Reservoir Covering - Beacon
- C1418: Reservoir Covering – Lake Forest Park
- C1419: Reservoir Covering – Bitter Lake
- C1607: Downstream Fish Habitat
- C4102-WF: Alaskan Way Viaduct & Seawall Replacement Program – WF
- C1422-WF: Sound Transit – East Link
- C1425: Sound Transit – Water Betterment
- C4130-WF: Streetcar Related Projects - WF

Future Projects/What is on the Horizon

The Water CIP has completed a multi-decade period of investments in major infrastructure projects. These projects have positioned SPU to meet drinking water quality and environmental regulations. Projects have included the Tolt and Cedar Water Treatment Facilities, Tolt Pipeline 2, Reservoir Covering Program, the Cedar River Watershed HCP, and a new Water Quality Laboratory. SPU has also made a major reinvestment in the Supervisory Control and Data Acquisition System which is used to monitor and control the regional and retail water system. However, these investments have also led to increasing debt service payments that constrain future budgets.

The 6-year CIP funds the work to replace floating covers at the Lake Forest Park and Bitter Lake reservoirs, and addresses the Tolt Pipelines slide area, and Operational and Regional Facility construction. Beyond these projects, emphasis will be on asset management based rehabilitation and

replacement of distribution system infrastructure (e.g. mains, valves, hydrants, meters), as well as water system infrastructure improvements related to transportation projects, such as the Move Seattle Levy.

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

Technical Changes

2017 Revised figures may not match previous years for select projects that were closed in 2017. These projects include:

- Reservoir Covering – Maple Leaf
- Morse Lake Pump Plant

Project Summary

BCL/Program Name/ Project Title & ID	LTD Actuals	2017	2018	2019	2020	2021	2022	2023	Total
Distribution									C110B
<u>Ongoing</u>									
Chamber Upgrades - Distribution (C1137)	224	28	29	29	30	30	30	381	781
Distribution System Improvements (C1128)	11,228	2,010	3,004	3,500	3,000	3,000	3,000	4,000	32,742
Distribution System In-Line Gate Valves (C1136)	1,065	338	345	351	359	366	373	381	3,577
Multiple Utility Relocation (C1133)	6,666	500	505	500	500	500	500	500	10,172
Pump Station Improvements (C1135)	423	800	1,600	1,500	281	500	500	500	6,104
Tank Improvements (C1134)	4,735	265	729	2,747	5,487	800	2,060	4,250	21,072
Water Infrastructure - Distribution System Modifications (C1138)	285	104	115	108	110	113	115	118	1,068
Water Infrastructure - Hydrant Replacement/Relocation (C1110)	5,597	212	216	221	225	230	235	239	7,175
Water Infrastructure - New Hydrants (C1112)	673	13	13	13	14	14	14	15	768
Water Infrastructure - New Taps (C1113)	127,242	8,843	9,020	9,201	9,385	9,572	9,764	9,959	192,986
Water Infrastructure - Service Renewal (C1109)	118,424	7,722	5,837	4,953	5,072	5,193	5,317	5,443	157,962
Water Infrastructure - Watermain Extensions (C1111)	15,149	845	862	879	897	915	897	915	21,359
Watermain Rehabilitation (C1129)	12,554	6,615	12,412	5,542	4,728	4,860	4,999	5,140	56,850
Distribution	304,264	28,295	34,687	29,546	30,086	26,093	27,804	31,840	512,616
Transmission									C120B
<u>Ongoing</u>									
Cathodic Protection Program (C1208)	2,577	1,889	1,977	2,112	616	2,320	624	2,428	14,543
Purveyor Meters Replace - SPU (C1206)	1,353	208	213	218	223	100	100	100	2,515

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

2018 - 2023 Proposed Capital Improvement Program

Replace Air Valve Chambers (C1209)	1,991	125	127	130	133	130	130	130	2,896
Transmission Pipelines Rehabilitation (C1207)	6,787	3,283	7,318	8,835	7,024	10,000	3,500	2,500	49,246
Water System Dewatering (C1205)	291	25	27	30	33	35	36	40	517
Transmission	13,000	5,529	9,662	11,325	8,029	12,585	4,390	5,198	69,718
Watershed Stewardship									BCL/Program Code: C130B
<u>Discrete</u>									
Tolt Bridges (C1308)	0	1	1	1	0	0	0	0	3
<u>Ongoing</u>									
Cedar Bridges (C1307)	1,618	1	901	1	100	15	0	0	2,636
Environmental Stewardship (C1301)	26,177	301	75	82	65	90	65	75	26,930
Watershed Stewardship	27,795	303	977	84	165	105	65	75	29,569
Water Quality & Treatment									BCL/Program Code: C140B
<u>Discrete</u>									
Reservoir Covering - Beacon (C1408)	2,691	8,153	1,169	0	0	0	0	0	12,014
Reservoir Covering-Bitter Lake (C1419)	0	275	250	320	320	1,770	7,490	19,600	30,025
Reservoir Covering-Lake Forest Park (C1418)	10	25	693	5,547	19,691	69	0	0	26,035
<u>Ongoing</u>									
Treatment Facility/Water Quality Improvements (C1413)	325	234	250	250	480	150	150	0	1,840
Water Quality & Treatment	3,027	8,688	2,363	6,117	20,491	1,989	7,640	19,600	69,914
Water Resources									BCL/Program Code: C150B
<u>Discrete</u>									
Water System Plan - 2019 (C1510)	81	500	300	50	0	0	0	0	931
<u>Ongoing</u>									
Dam Safety Program (C1506)	7,473	2,763	818	235	550	1,185	1,225	2,125	16,374
Hatchery Works (C1511)	38	2,379	5,280	13,545	800	250	250	500	23,041
Regional Water Conservation Program (C1504)	23,120	1,406	1,441	1,477	1,514	1,552	1,590	1,630	33,730
Seattle Direct Service Additional Conservation (C1505)	8,384	697	714	732	751	769	789	808	13,644
Water Resources	39,096	7,744	8,553	16,039	3,614	3,756	3,854	5,063	87,720

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2018 - 2023 Proposed Capital Improvement Program

Habitat Conservation Program					BCL/Program Code:				C160B
<u>Discrete</u>									
Ballard Locks Improvements (C1606)	1,198	140	145	150	155	160	165	170	2,283
Downstream Fish Habitat (C1607)	9,548	1,540	575	425	0	0	0	0	12,088
<u>Ongoing</u>									
Instream Flow Management Studies (C1608)	2,462	142	100	100	100	100	100	100	3,204
Stream & Riparian Restoration (C1602)	8,045	215	217	219	220	211	212	213	9,551
Upland Reserve Forest Restoration (C1603)	7,636	82	82	83	82	82	82	83	8,212
Watershed Road Improvement/Decommissioning (C1601)	14,339	876	840	871	889	951	833	749	20,349
Habitat Conservation Program	43,228	2,995	1,959	1,847	1,447	1,504	1,392	1,314	55,687
Shared Cost Projects					BCL/Program Code:				C410B
<u>Discrete</u>									
Alaskan Way Viaduct & Seawall Replacement Program - WF (C4102-WF)	32,125	5,393	2,549	1,785	1,330	283	55	39	43,558
Sound Transit - North Link - WF (C4135-WF)	964	192	250	203	115	18	0	0	1,741
Sound Transit - Water Betterment (C4125)	1,502	0	60	0	0	0	0	0	1,562
Sound Transit-East Link (C4122-WF)	67	155	50	25	0	0	0	0	297
Streetcar Related Projects - WF (C4130-WF)	1,142	2,256	15,938	6,531	1,592	0	0	0	27,458
<u>Ongoing</u>									
1% for the Arts - WF (C4118-WF)	5,501	187	172	244	363	222	177	291	7,157
Emergency Storms - WF (C4120-WF)	29	100	0	0	0	0	0	0	129
Heavy Equipment Purchases - WF (C4116-WF)	15,353	4,255	3,955	2,000	2,000	2,105	2,100	2,100	33,868
Integrated Control Monitoring Program - WF (C4108-WF)	217	360	360	360	360	360	360	360	2,737
Meter Replacement - WF (C4101-WF)	6,290	598	601	608	615	521	531	542	10,305

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2018 - 2023 Proposed Capital Improvement Program

Move Seattle - WF (C4119-WF)	12,511	11,791	14,657	21,316	21,399	12,096	9,084	9,084	111,937
Operational Facility - Construction - WF (C4106-WF)	16,819	4,466	5,050	6,143	6,180	7,271	3,650	2,962	52,540
Operations Control Center - WF (C4105-WF)	2,259	670	800	10	50	0	0	0	3,789
Other Major Transportation Projects - WF (C4123-WF)	1,502	50	250	500	500	0	0	0	2,802
Regional Facility - WF (C4107-WF)	511	8,509	5,449	741	2,175	4,400	1,950	2,200	25,935
Security Improvements - WF (C4113-WF)	11,855	934	888	1,425	1,300	938	938	1,300	19,576
Shared Cost Projects	108,648	39,914	51,027	41,889	37,979	28,212	18,844	18,878	345,392
Technology							BCL/Program Code:		C510B
<u>Ongoing</u>									
Asset Information Management (C5407)	256	1,306	252	1,076	1,082	840	840	840	6,492
Customer Contact & Billing (C5402)	16,036	7,075	1,391	720	1,100	420	420	420	27,582
Enterprise Information Management (C5403)	631	1,091	317	1,013	224	840	840	840	5,796
IT Infrastructure (C5404)	675	249	362	505	819	755	755	755	4,875
Project Delivery & Performance (C5405)	1,868	9,835	3,405	871	482	714	714	714	18,604
Science & System Performance (C5406)	1,267	1,090	1,304	1,300	500	672	672	672	7,477
Technology	20,734	20,645	7,031	5,485	4,207	4,241	4,241	4,241	70,825
Department Total:	559,791	114,114	116,259	112,331	106,018	78,486	68,231	86,210	1,241,442

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

2018 - 2023 Proposed Capital Improvement Program

Fund Summary

Fund Name & Code	LTD Actuals	2017	2018	2019	2020	2021	2022	2023	Total
Water Fund (43000)	559,791	114,114	116,259	112,331	106,018	78,486	68,231	86,210	1,241,442
Department Total:	559,791	114,114	116,259	112,331	106,018	78,486	68,231	86,210	1,241,442

**Amounts in thousands of dollars*

Alaskan Way Viaduct & Seawall Replacement Program - WF

Project Type:	Discrete	Project No.:	C4102-WF
Start/End Date:	2001-2023	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
Current Project Stage:	Construction	Location:	SR 99 / Battery St
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	\$43,558	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	32,125	5,393	2,549	1,785	1,330	283	55	39	43,558
Total:	32,125	5,393	2,549	1,785	1,330	283	55	39	43,558

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	32,125	5,393	2,549	1,785	1,330	283	55	39	43,558
Total:	32,125	5,393	2,549	1,785	1,330	283	55	39	43,558

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	32,125	4,627	2,549	1,785	1,330	283	55	39	42,792
Total:	32,125	4,627	2,549	1,785	1,330	283	55	39	42,792

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Ballard Locks Improvements

Project Type:	Discrete	Project No.:	C1606
Start/End Date:	2000-2023	BCL/Program Code:	C160B
Project Category:	Improved Facility	BCL/Program Name:	Habitat Conservation Program
Current Project Stage:	Construction	Location:	NW 54th St 30th Ave NW
Neighborhood District:	Ballard	Council District:	6
Total Project Cost:	\$2,283	Urban Village:	Ballard-Interbay Northend

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	1,198	140	145	150	155	160	165	170	2,283
Total:	1,198	140	145	150	155	160	165	170	2,283

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	1,198	140	145	150	155	160	165	170	2,283
Total:	1,198	140	145	150	155	160	165	170	2,283

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	1,198	140	145	150	155	160	165	170	2,283
Total:	1,198	140	145	150	155	160	165	170	2,283

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Downstream Fish Habitat

Project Type:	Discrete	Project No.:	C1607
Start/End Date:	2008-2020	BCL/Program Code:	C160B
Project Category:	Improved Facility	BCL/Program Name:	Habitat Conservation Program
Current Project Stage:	Construction	Location:	Cedar River Watershed
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$14,598	Urban Village:	Not in an Urban Village

This project provides protection and restoration of fish habitat along the lower Cedar River, below the City's municipal watershed boundary at the Landsburg Dam and includes both acquisition of habitat lands and habitat restoration on the main stem of the Cedar River. This project is a requirement of the Cedar River Habitat Conservation Plan (HCP).

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	9,548	1,540	575	425	0	0	0	0	12,088
Total:	9,548	1,540	575	425	0	0	0	0	12,088

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	9,548	1,540	575	425	0	0	0	0	12,088
Total:	9,548	1,540	575	425	0	0	0	0	12,088

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	9,548	4,050	575	425	0	0	0	0	14,598
Total:	9,548	4,050	575	425	0	0	0	0	14,598

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Reservoir Covering - Beacon

Project Type:	Discrete	Project No.:	C1408
Start/End Date:	2001-2018	BCL/Program Code:	C140B
Project Category:	Improved Facility	BCL/Program Name:	Water Quality & Treatment
Current Project Stage:	Construction	Location:	S Spokane St and Beacon Ave S
Neighborhood District:	Greater Duwamish	Council District:	2
Total Project Cost:	\$11,819	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	2,691	8,153	1,169	0	0	0	0	0	12,014
Total:	2,691	8,153	1,169	0	0	0	0	0	12,014

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	2,691	8,153	1,169	0	0	0	0	0	12,014
Total:	2,691	8,153	1,169	0	0	0	0	0	12,014

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	2,691	7,958	1,169	0	0	0	0	0	11,819
Total:	2,691	7,958	1,169	0	0	0	0	0	11,819

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Reservoir Covering-Bitter Lake

Project Type:	Discrete	Project No.:	C1419
Start/End Date:	2013-2023	BCL/Program Code:	C140B
Project Category:	Improved Facility	BCL/Program Name:	Water Quality & Treatment
Current Project Stage:	Design	Location:	N 143rd St and Linden Ave N
Neighborhood District:	Northwest	Council District:	5
Total Project Cost:	\$29,900	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	0	275	250	320	320	1,770	7,490	19,600	30,025
Total:	0	275	250	320	320	1,770	7,490	19,600	30,025

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	0	275	250	320	320	1,770	7,490	19,600	30,025
Total:	0	275	250	320	320	1,770	7,490	19,600	30,025

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	0	150	250	320	320	1,770	7,490	19,600	29,900
Total:	0	150	250	320	320	1,770	7,490	19,600	29,900

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Reservoir Covering-Lake Forest Park

Project Type:	Discrete	Project No.:	C1418
Start/End Date:	2013-2021	BCL/Program Code:	C140B
Project Category:	Improved Facility	BCL/Program Name:	Water Quality & Treatment
Current Project Stage:	Design	Location:	Lake Forest Park
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$26,185	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	10	25	693	5,547	19,691	69	0	0	26,035
Total:	10	25	693	5,547	19,691	69	0	0	26,035

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	10	25	693	5,547	19,691	69	0	0	26,035
Total:	10	25	693	5,547	19,691	69	0	0	26,035

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	10	175	693	5,547	19,691	69	0	0	26,185
Total:	10	175	693	5,547	19,691	69	0	0	26,185

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Sound Transit - North Link - WF

Project Type:	Discrete	Project No.:	C4135-WF
Start/End Date:	2012-2021	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
Current Project Stage:	Construction	Location:	Various
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	\$1,741	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	964	192	250	203	115	18	0	0	1,741
Total:	964	192	250	203	115	18	0	0	1,741

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	964	192	250	203	115	18	0	0	1,741
Total:	964	192	250	203	115	18	0	0	1,741

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	964	192	250	203	115	18	0	0	1,741
Total:	964	192	250	203	115	18	0	0	1,741

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Sound Transit - Water Betterment

Project Type:	Discrete	Project No.:	C4125
Start/End Date:	2005-2018	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
Current Project Stage:	Construction	Location:	Central & South areas of Seattle
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	\$1,622	Urban Village:	Multiple

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	1,502	0	60	0	0	0	0	0	1,562
Total:	1,502	0	60	0	0	0	0	0	1,562

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	1,502	0	60	0	0	0	0	0	1,562
Total:	1,502	0	60	0	0	0	0	0	1,562

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	1,502	60	60	0	0	0	0	0	1,622
Total:	1,502	60	60	0	0	0	0	0	1,622

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Sound Transit-East Link

Project Type:	Discrete	Project No.:	C4122-WF
Start/End Date:	2013-2019	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
Current Project Stage:	Construction	Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	\$333	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	67	155	50	25	0	0	0	0	297
Total:	67	155	50	25	0	0	0	0	297
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	67	155	50	25	0	0	0	0	297
Total:	67	155	50	25	0	0	0	0	297
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	67	191	50	25	0	0	0	0	333
Total:	67	191	50	25	0	0	0	0	333
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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2018 - 2023 Proposed Capital Improvement Program

Streetcar Related Projects - WF

Project Type:	Discrete	Project No.:	C4130-WF
Start/End Date:	2009-2020	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
Current Project Stage:	Construction	Location:	First Hill
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	\$29,966	Urban Village:	Multiple

This project plans and relocates water facilities that will be impacted by the SDOT-led First Hill Streetcar project and related streetcar projects, 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 construction phase. This project was formerly titled "First Hill Streetcar - WF."

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	1,142	2,256	15,938	6,531	1,592	0	0	0	27,458
Total:	1,142	2,256	15,938	6,531	1,592	0	0	0	27,458

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	1,142	2,256	15,938	6,531	1,592	0	0	0	27,458
Total:	1,142	2,256	15,938	6,531	1,592	0	0	0	27,458

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	1,142	4,764	15,938	6,531	1,592	0	0	0	29,966
Total:	1,142	4,764	15,938	6,531	1,592	0	0	0	29,966

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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Tolt Bridges

Project Type:	Discrete	Project No.:	C1308
Start/End Date:	2004-2020	BCL/Program Code:	C130B
Project Category:	Improved Facility	BCL/Program Name:	Watershed Stewardship
Current Project Stage:	Construction	Location:	Tolt River Watershed
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$3	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	0	1	1	1	0	0	0	0	3
Total:	0	1	1	1	0	0	0	0	3

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	0	1	1	1	0	0	0	0	3
Total:	0	1	1	1	0	0	0	0	3

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	0	1	1	1	0	0	0	0	3
Total:	0	1	1	1	0	0	0	0	3

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Water System Plan - 2019

Project Type:	Discrete	Project No.:	C1510
Start/End Date:	2010-2019	BCL/Program Code:	C150B
Project Category:	Improved Facility	BCL/Program Name:	Water Resources
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	\$931	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	81	500	300	50	0	0	0	0	931
Total:	81	500	300	50	0	0	0	0	931

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	81	500	300	50	0	0	0	0	931
Total:	81	500	300	50	0	0	0	0	931

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	81	500	300	50	0	0	0	0	931
Total:	81	500	300	50	0	0	0	0	931

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

1% for the Arts - WF

Project Type:	Ongoing	Project No.:	C4118-WF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	5,501	187	172	244	363	222	177	291	7,157
Total:	5,501	187	172	244	363	222	177	291	7,157

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	5,501	187	172	244	363	222	177	291	7,157
Total:	5,501	187	172	244	363	222	177	291	7,157

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	5,501	187	172	244	363	222	177	291	7,157
Total:	5,501	187	172	244	363	222	177	291	7,157

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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Cathodic Protection Program

Project Type:	Ongoing	Project No.:	C1208
Start/End Date:	N/A	BCL/Program Code:	C120B
Project Category:	Improved Facility	BCL/Program Name:	Transmission
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	2,577	1,889	1,977	2,112	616	2,320	624	2,428	14,543
Total:	2,577	1,889	1,977	2,112	616	2,320	624	2,428	14,543

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	2,577	1,889	1,977	2,112	616	2,320	624	2,428	14,543
Total:	2,577	1,889	1,977	2,112	616	2,320	624	2,428	14,543

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	2,577	1,889	1,977	2,112	616	2,320	624	2,428	14,543
Total:	2,577	1,889	1,977	2,112	616	2,320	624	2,428	14,543

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Cedar Bridges

Project Type:	Ongoing	Project No.:	C1307
Start/End Date:	N/A	BCL/Program Code:	C130B
Project Category:	Improved Facility	BCL/Program Name:	Watershed Stewardship
		Location:	Cedar River Watershed
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	1,618	1	901	1	100	15	0	0	2,636
Total:	1,618	1	901	1	100	15	0	0	2,636

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	1,618	1	901	1	100	15	0	0	2,636
Total:	1,618	1	901	1	100	15	0	0	2,636

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	1,618	1	901	1	100	15	0	0	2,636
Total:	1,618	1	901	1	100	15	0	0	2,636

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Chamber Upgrades - Distribution

Project Type:	Ongoing	Project No.:	C1137
Start/End Date:	N/A	BCL/Program Code:	C110B
Project Category:	Improved Facility	BCL/Program Name:	Distribution
		Location:	Citywide
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

This ongoing project improves access to water distribution 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	224	28	29	29	30	30	30	381	781
Total:	224	28	29	29	30	30	30	381	781

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	224	28	29	29	30	30	30	381	781
Total:	224	28	29	29	30	30	30	381	781

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	224	28	29	29	30	30	30	381	781
Total:	224	28	29	29	30	30	30	381	781

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Dam Safety Program

Project Type:	Ongoing	Project No.:	C1506
Start/End Date:	N/A	BCL/Program Code:	C150B
Project Category:	Improved Facility	BCL/Program Name:	Water Resources
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	7,473	2,763	818	235	550	1,185	1,225	2,125	16,374
Total:	7,473	2,763	818	235	550	1,185	1,225	2,125	16,374

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	7,473	2,763	818	235	550	1,185	1,225	2,125	16,374
Total:	7,473	2,763	818	235	550	1,185	1,225	2,125	16,374

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	7,473	2,763	818	235	550	1,185	1,225	2,125	16,374
Total:	7,473	2,763	818	235	550	1,185	1,225	2,125	16,374

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Distribution System Improvements

Project Type:	Ongoing	Project No.:	C1128
Start/End Date:	N/A	BCL/Program Code:	C110B
Project Category:	Improved Facility	BCL/Program Name:	Distribution
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	11,228	2,010	3,004	3,500	3,000	3,000	3,000	4,000	32,742
Total:	11,228	2,010	3,004	3,500	3,000	3,000	3,000	4,000	32,742

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	11,228	2,010	3,004	3,500	3,000	3,000	3,000	4,000	32,742
Total:	11,228	2,010	3,004	3,500	3,000	3,000	3,000	4,000	32,742

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	11,228	2,010	3,004	3,500	3,000	3,000	3,000	4,000	32,742
Total:	11,228	2,010	3,004	3,500	3,000	3,000	3,000	4,000	32,742

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Distribution System In-Line Gate Valves

Project Type:	Ongoing	Project No.:	C1136
Start/End Date:	N/A	BCL/Program Code:	C110B
Project Category:	Improved Facility	BCL/Program Name:	Distribution
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	1,065	338	345	351	359	366	373	381	3,577
Total:	1,065	338	345	351	359	366	373	381	3,577

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	1,065	338	345	351	359	366	373	381	3,577
Total:	1,065	338	345	351	359	366	373	381	3,577

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	1,065	338	345	351	359	366	373	381	3,577
Total:	1,065	338	345	351	359	366	373	381	3,577

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Emergency Storms - WF

Project Type:	Ongoing	Project No.:	C4120-WF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	29	100	0	0	0	0	0	0	129
Total:	29	100	0	0	0	0	0	0	129

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	29	100	0	0	0	0	0	0	129
Total:	29	100	0	0	0	0	0	0	129

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	29	100	0	0	0	0	0	0	129
Total:	29	100	0	0	0	0	0	0	129

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Environmental Stewardship

Project Type:	Ongoing	Project No.:	C1301
Start/End Date:	N/A	BCL/Program Code:	C130B
Project Category:	Improved Facility	BCL/Program Name:	Watershed Stewardship
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	26,177	301	75	82	65	90	65	75	26,930
Total:	26,177	301	75	82	65	90	65	75	26,930

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	26,177	301	75	82	65	90	65	75	26,930
Total:	26,177	301	75	82	65	90	65	75	26,930

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	26,177	301	75	82	65	90	65	75	26,930
Total:	26,177	301	75	82	65	90	65	75	26,930

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Hatchery Works

Project Type:	Ongoing	Project No.:	C1511
Start/End Date:	N/A	BCL/Program Code:	C150B
Project Category:	Improved Facility	BCL/Program Name:	Water Resources
		Location:	Cedar River Watershed
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	38	2,379	5,280	13,545	800	250	250	500	23,041
Total:	38	2,379	5,280	13,545	800	250	250	500	23,041

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	38	2,379	5,280	13,545	800	250	250	500	23,041
Total:	38	2,379	5,280	13,545	800	250	250	500	23,041

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	38	2,379	5,280	13,545	800	250	250	500	23,041
Total:	38	2,379	5,280	13,545	800	250	250	500	23,041

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Heavy Equipment Purchases - WF

Project Type:	Ongoing	Project No.:	C4116-WF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	15,353	4,255	3,955	2,000	2,000	2,105	2,100	2,100	33,868
Total:	15,353	4,255	3,955	2,000	2,000	2,105	2,100	2,100	33,868

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	15,353	4,255	3,955	2,000	2,000	2,105	2,100	2,100	33,868
Total:	15,353	4,255	3,955	2,000	2,000	2,105	2,100	2,100	33,868

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	15,353	4,255	3,955	2,000	2,000	2,105	2,100	2,100	33,868
Total:	15,353	4,255	3,955	2,000	2,000	2,105	2,100	2,100	33,868

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Instream Flow Management Studies

Project Type:	Ongoing	Project No.:	C1608
Start/End Date:	N/A	BCL/Program Code:	C160B
Project Category:	Improved Facility	BCL/Program Name:	Habitat Conservation Program
		Location:	Cedar River Watershed
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	2,462	142	100	100	100	100	100	100	3,204
Total:	2,462	142	100	100	100	100	100	100	3,204

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	2,462	142	100	100	100	100	100	100	3,204
Total:	2,462	142	100	100	100	100	100	100	3,204

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	2,462	142	100	100	100	100	100	100	3,204
Total:	2,462	142	100	100	100	100	100	100	3,204

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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Integrated Control Monitoring Program - WF

Project Type:	Ongoing	Project No.:	C4108-WF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	217	360	360	360	360	360	360	360	2,737
Total:	217	360	360	360	360	360	360	360	2,737

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	217	360	360	360	360	360	360	360	2,737
Total:	217	360	360	360	360	360	360	360	2,737

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	217	360	360	360	360	360	360	360	2,737
Total:	217	360	360	360	360	360	360	360	2,737

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Meter Replacement - WF

Project Type:	Ongoing	Project No.:	C4101-WF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	6,290	598	601	608	615	521	531	542	10,305
Total:	6,290	598	601	608	615	521	531	542	10,305

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	6,290	598	601	608	615	521	531	542	10,305
Total:	6,290	598	601	608	615	521	531	542	10,305

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	6,290	598	601	608	615	521	531	542	10,305
Total:	6,290	598	601	608	615	521	531	542	10,305

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Move Seattle - WF

Project Type:	Ongoing	Project No.:	C4119-WF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	12,511	11,791	14,657	21,316	21,399	12,096	9,084	9,084	111,937
Total:	12,511	11,791	14,657	21,316	21,399	12,096	9,084	9,084	111,937

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	12,511	11,791	14,657	21,316	21,399	12,096	9,084	9,084	111,937
Total:	12,511	11,791	14,657	21,316	21,399	12,096	9,084	9,084	111,937

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	12,511	11,791	14,657	21,316	21,399	12,096	9,084	9,084	111,937
Total:	12,511	11,791	14,657	21,316	21,399	12,096	9,084	9,084	111,937

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Multiple Utility Relocation

Project Type:	Ongoing	Project No.:	C1133
Start/End Date:	N/A	BCL/Program Code:	C110B
Project Category:	Improved Facility	BCL/Program Name:	Distribution
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	6,666	500	505	500	500	500	500	500	10,172
Total:	6,666	500	505	500	500	500	500	500	10,172

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	6,666	500	505	500	500	500	500	500	10,172
Total:	6,666	500	505	500	500	500	500	500	10,172

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	6,666	500	505	500	500	500	500	500	10,172
Total:	6,666	500	505	500	500	500	500	500	10,172

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Operational Facility - Construction - WF

Project Type:	Ongoing	Project No.:	C4106-WF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	16,819	4,466	5,050	6,143	6,180	7,271	3,650	2,962	52,540
Total:	16,819	4,466	5,050	6,143	6,180	7,271	3,650	2,962	52,540

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	16,819	4,466	5,050	6,143	6,180	7,271	3,650	2,962	52,540
Total:	16,819	4,466	5,050	6,143	6,180	7,271	3,650	2,962	52,540

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	16,819	4,466	5,050	6,143	6,180	7,271	3,650	2,962	52,540
Total:	16,819	4,466	5,050	6,143	6,180	7,271	3,650	2,962	52,540

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Operations Control Center - WF

Project Type:	Ongoing	Project No.:	C4105-WF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	2700 Airport Way S
Neighborhood District:	Greater Duwamish	Council District:	2
Total Project Cost:	N/A	Urban Village:	Greater Duwamish

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	2,259	670	800	10	50	0	0	0	3,789
Total:	2,259	670	800	10	50	0	0	0	3,789

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	2,259	670	800	10	50	0	0	0	3,789
Total:	2,259	670	800	10	50	0	0	0	3,789

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	2,259	670	800	10	50	0	0	0	3,789
Total:	2,259	670	800	10	50	0	0	0	3,789

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Other Major Transportation Projects - WF

Project Type:	Ongoing	Project No.:	C4123-WF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	1,502	50	250	500	500	0	0	0	2,802
Total:	1,502	50	250	500	500	0	0	0	2,802

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	1,502	50	250	500	500	0	0	0	2,802
Total:	1,502	50	250	500	500	0	0	0	2,802

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	1,502	50	250	500	500	0	0	0	2,802
Total:	1,502	50	250	500	500	0	0	0	2,802

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Pump Station Improvements

Project Type:	Ongoing	Project No.:	C1135
Start/End Date:	N/A	BCL/Program Code:	C110B
Project Category:	Improved Facility	BCL/Program Name:	Distribution
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	423	800	1,600	1,500	281	500	500	500	6,104
Total:	423	800	1,600	1,500	281	500	500	500	6,104

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	423	800	1,600	1,500	281	500	500	500	6,104
Total:	423	800	1,600	1,500	281	500	500	500	6,104

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	423	800	1,600	1,500	281	500	500	500	6,104
Total:	423	800	1,600	1,500	281	500	500	500	6,104

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Purveyor Meters Replace - SPU

Project Type:	Ongoing	Project No.:	C1206
Start/End Date:	N/A	BCL/Program Code:	C120B
Project Category:	Improved Facility	BCL/Program Name:	Transmission
		Location:	Regional
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	1,353	208	213	218	223	100	100	100	2,515
Total:	1,353	208	213	218	223	100	100	100	2,515

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	1,353	208	213	218	223	100	100	100	2,515
Total:	1,353	208	213	218	223	100	100	100	2,515

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	1,353	208	213	218	223	100	100	100	2,515
Total:	1,353	208	213	218	223	100	100	100	2,515

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Regional Facility - WF

Project Type:	Ongoing	Project No.:	C4107-WF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	511	8,509	5,449	741	2,175	4,400	1,950	2,200	25,935
Total:	511	8,509	5,449	741	2,175	4,400	1,950	2,200	25,935

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	511	8,509	5,449	741	2,175	4,400	1,950	2,200	25,935
Total:	511	8,509	5,449	741	2,175	4,400	1,950	2,200	25,935

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	511	8,509	5,449	741	2,175	4,400	1,950	2,200	25,935
Total:	511	8,509	5,449	741	2,175	4,400	1,950	2,200	25,935

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Regional Water Conservation Program

Project Type:	Ongoing	Project No.:	C1504
Start/End Date:	N/A	BCL/Program Code:	C150B
Project Category:	Improved Facility	BCL/Program Name:	Water Resources
		Location:	Citywide and Regional
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	23,120	1,406	1,441	1,477	1,514	1,552	1,590	1,630	33,730
Total:	23,120	1,406	1,441	1,477	1,514	1,552	1,590	1,630	33,730

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	23,120	1,406	1,441	1,477	1,514	1,552	1,590	1,630	33,730
Total:	23,120	1,406	1,441	1,477	1,514	1,552	1,590	1,630	33,730

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	23,120	1,406	1,441	1,477	1,514	1,552	1,590	1,630	33,730
Total:	23,120	1,406	1,441	1,477	1,514	1,552	1,590	1,630	33,730

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Replace Air Valve Chambers

Project Type:	Ongoing	Project No.:	C1209
Start/End Date:	N/A	BCL/Program Code:	C120B
Project Category:	Improved Facility	BCL/Program Name:	Transmission
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	1,991	125	127	130	133	130	130	130	2,896
Total:	1,991	125	127	130	133	130	130	130	2,896

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	1,991	125	127	130	133	130	130	130	2,896
Total:	1,991	125	127	130	133	130	130	130	2,896

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	1,991	125	127	130	133	130	130	130	2,896
Total:	1,991	125	127	130	133	130	130	130	2,896

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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Seattle Direct Service Additional Conservation

Project Type:	Ongoing	Project No.:	C1505
Start/End Date:	N/A	BCL/Program Code:	C150B
Project Category:	Improved Facility	BCL/Program Name:	Water Resources
		Location:	Citywide and Direct Service
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	8,384	697	714	732	751	769	789	808	13,644
Total:	8,384	697	714	732	751	769	789	808	13,644

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	8,384	697	714	732	751	769	789	808	13,644
Total:	8,384	697	714	732	751	769	789	808	13,644

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	8,384	697	714	732	751	769	789	808	13,644
Total:	8,384	697	714	732	751	769	789	808	13,644

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Security Improvements - WF

Project Type:	Ongoing	Project No.:	C4113-WF
Start/End Date:	N/A	BCL/Program Code:	C410B
Project Category:	Improved Facility	BCL/Program Name:	Shared Cost Projects
		Location:	Citywide 0/0/0
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	11,855	934	888	1,425	1,300	938	938	1,300	19,576
Total:	11,855	934	888	1,425	1,300	938	938	1,300	19,576

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	11,855	934	888	1,425	1,300	938	938	1,300	19,576
Total:	11,855	934	888	1,425	1,300	938	938	1,300	19,576

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	11,855	934	888	1,425	1,300	938	938	1,300	19,576
Total:	11,855	934	888	1,425	1,300	938	938	1,300	19,576

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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Stream & Riparian Restoration

Project Type:	Ongoing	Project No.:	C1602
Start/End Date:	N/A	BCL/Program Code:	C160B
Project Category:	Improved Facility	BCL/Program Name:	Habitat Conservation Program
		Location:	Cedar River Watershed
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	8,045	215	217	219	220	211	212	213	9,551
Total:	8,045	215	217	219	220	211	212	213	9,551

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	8,045	215	217	219	220	211	212	213	9,551
Total:	8,045	215	217	219	220	211	212	213	9,551

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	8,045	215	217	219	220	211	212	213	9,551
Total:	8,045	215	217	219	220	211	212	213	9,551

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Tank Improvements

Project Type:	Ongoing	Project No.:	C1134
Start/End Date:	N/A	BCL/Program Code:	C110B
Project Category:	Improved Facility	BCL/Program Name:	Distribution
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	4,735	265	729	2,747	5,487	800	2,060	4,250	21,072
Total:	4,735	265	729	2,747	5,487	800	2,060	4,250	21,072

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	4,735	265	729	2,747	5,487	800	2,060	4,250	21,072
Total:	4,735	265	729	2,747	5,487	800	2,060	4,250	21,072

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	4,735	265	729	2,747	5,487	800	2,060	4,250	21,072
Total:	4,735	265	729	2,747	5,487	800	2,060	4,250	21,072

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Transmission Pipelines Rehabilitation

Project Type:	Ongoing	Project No.:	C1207
Start/End Date:	N/A	BCL/Program Code:	C120B
Project Category:	Improved Facility	BCL/Program Name:	Transmission
		Location:	Regional
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	6,787	3,283	7,318	8,835	7,024	10,000	3,500	2,500	49,246
Total:	6,787	3,283	7,318	8,835	7,024	10,000	3,500	2,500	49,246

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	6,787	3,283	7,318	8,835	7,024	10,000	3,500	2,500	49,246
Total:	6,787	3,283	7,318	8,835	7,024	10,000	3,500	2,500	49,246

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	6,787	3,283	7,318	8,835	7,024	10,000	3,500	2,500	49,246
Total:	6,787	3,283	7,318	8,835	7,024	10,000	3,500	2,500	49,246

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Treatment Facility/Water Quality Improvements

Project Type:	Ongoing	Project No.:	C1413
Start/End Date:	N/A	BCL/Program Code:	C140B
Project Category:	Improved Facility	BCL/Program Name:	Water Quality & Treatment
		Location:	Various
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	325	234	250	250	480	150	150	0	1,840
Total:	325	234	250	250	480	150	150	0	1,840

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	325	234	250	250	480	150	150	0	1,840
Total:	325	234	250	250	480	150	150	0	1,840

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	325	234	250	250	480	150	150	0	1,840
Total:	325	234	250	250	480	150	150	0	1,840

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Upland Reserve Forest Restoration

Project Type:	Ongoing	Project No.:	C1603
Start/End Date:	N/A	BCL/Program Code:	C160B
Project Category:	Improved Facility	BCL/Program Name:	Habitat Conservation Program
		Location:	Cedar River Watershed
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	7,636	82	82	83	82	82	82	83	8,212
Total:	7,636	82	82	83	82	82	82	83	8,212

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	7,636	82	82	83	82	82	82	83	8,212
Total:	7,636	82	82	83	82	82	82	83	8,212

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	7,636	82	82	83	82	82	82	83	8,212
Total:	7,636	82	82	83	82	82	82	83	8,212

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Water Infrastructure - Distribution System Modifications

Project Type:	Ongoing	Project No.:	C1138
Start/End Date:	N/A	BCL/Program Code:	C110B
Project Category:	Improved Facility	BCL/Program Name:	Distribution
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	285	104	115	108	110	113	115	118	1,068
Total:	285	104	115	108	110	113	115	118	1,068

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	285	104	115	108	110	113	115	118	1,068
Total:	285	104	115	108	110	113	115	118	1,068

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	285	104	115	108	110	113	115	118	1,068
Total:	285	104	115	108	110	113	115	118	1,068

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Water Infrastructure - Hydrant Replacement/Relocation

Project Type:	Ongoing	Project No.:	C1110
Start/End Date:	N/A	BCL/Program Code:	C110B
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	Distribution
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	5,597	212	216	221	225	230	235	239	7,175
Total:	5,597	212	216	221	225	230	235	239	7,175

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	5,597	212	216	221	225	230	235	239	7,175
Total:	5,597	212	216	221	225	230	235	239	7,175

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	5,597	212	216	221	225	230	235	239	7,175
Total:	5,597	212	216	221	225	230	235	239	7,175

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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

Water Infrastructure - New Hydrants

Project Type:	Ongoing	Project No.:	C1112
Start/End Date:	N/A	BCL/Program Code:	C110B
Project Category:	New Facility	BCL/Program Name:	Distribution
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	673	13	13	13	14	14	14	15	768
Total:	673	13	13	13	14	14	14	15	768

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	673	13	13	13	14	14	14	15	768
Total:	673	13	13	13	14	14	14	15	768

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	673	13	13	13	14	14	14	15	768
Total:	673	13	13	13	14	14	14	15	768

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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Water Infrastructure - New Taps

Project Type:	Ongoing	Project No.:	C1113
Start/End Date:	N/A	BCL/Program Code:	C110B
Project Category:	New Facility	BCL/Program Name:	Distribution
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	127,242	8,843	9,020	9,201	9,385	9,572	9,764	9,959	192,986
Total:	127,242	8,843	9,020	9,201	9,385	9,572	9,764	9,959	192,986

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	127,242	8,843	9,020	9,201	9,385	9,572	9,764	9,959	192,986
Total:	127,242	8,843	9,020	9,201	9,385	9,572	9,764	9,959	192,986

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	127,242	8,843	9,020	9,201	9,385	9,572	9,764	9,959	192,986
Total:	127,242	8,843	9,020	9,201	9,385	9,572	9,764	9,959	192,986

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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Water Infrastructure - Service Renewal

Project Type:	Ongoing	Project No.:	C1109
Start/End Date:	N/A	BCL/Program Code:	C110B
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	Distribution
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	118,424	7,722	5,837	4,953	5,072	5,193	5,317	5,443	157,962
Total:	118,424	7,722	5,837	4,953	5,072	5,193	5,317	5,443	157,962

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	118,424	7,722	5,837	4,953	5,072	5,193	5,317	5,443	157,962
Total:	118,424	7,722	5,837	4,953	5,072	5,193	5,317	5,443	157,962

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	118,424	7,722	5,837	4,953	5,072	5,193	5,317	5,443	157,962
Total:	118,424	7,722	5,837	4,953	5,072	5,193	5,317	5,443	157,962

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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Water Infrastructure - Watermain Extensions

Project Type:	Ongoing	Project No.:	C1111
Start/End Date:	N/A	BCL/Program Code:	C110B
Project Category:	New Facility	BCL/Program Name:	Distribution
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	15,149	845	862	879	897	915	897	915	21,359
Total:	15,149	845	862	879	897	915	897	915	21,359

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	15,149	845	862	879	897	915	897	915	21,359
Total:	15,149	845	862	879	897	915	897	915	21,359

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	15,149	845	862	879	897	915	897	915	21,359
Total:	15,149	845	862	879	897	915	897	915	21,359

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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Water System Dewatering

Project Type:	Ongoing	Project No.:	C1205
Start/End Date:	N/A	BCL/Program Code:	C120B
Project Category:	Improved Facility	BCL/Program Name:	Transmission
		Location:	Regional
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	291	25	27	30	33	35	36	40	517
Total:	291	25	27	30	33	35	36	40	517

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	291	25	27	30	33	35	36	40	517
Total:	291	25	27	30	33	35	36	40	517

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	291	25	27	30	33	35	36	40	517
Total:	291	25	27	30	33	35	36	40	517

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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Watermain Rehabilitation

Project Type:	Ongoing	Project No.:	C1129
Start/End Date:	N/A	BCL/Program Code:	C110B
Project Category:	Improved Facility	BCL/Program Name:	Distribution
		Location:	Regional
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

This ongoing project replaces or rehabilitates existing water mains in Seattle. Replacements occur when leaks and breaks become too frequent and the cost of ongoing repairs is no longer cost effective. The benefits of this program can include improved service reliability, fire flow, water quality and lower maintenance costs. These benefits vary depending on the specific water main and site conditions.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	12,554	6,615	12,412	5,542	4,728	4,860	4,999	5,140	56,850
Total:	12,554	6,615	12,412	5,542	4,728	4,860	4,999	5,140	56,850

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	12,554	6,615	12,412	5,542	4,728	4,860	4,999	5,140	56,850
Total:	12,554	6,615	12,412	5,542	4,728	4,860	4,999	5,140	56,850

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	12,554	6,615	12,412	5,542	4,728	4,860	4,999	5,140	56,850
Total:	12,554	6,615	12,412	5,542	4,728	4,860	4,999	5,140	56,850

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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Watershed Road Improvement/Decommissioning

Project Type:	Ongoing	Project No.:	C1601
Start/End Date:	N/A	BCL/Program Code:	C160B
Project Category:	Improved Facility	BCL/Program Name:	Habitat Conservation Program
		Location:	Cedar River Watershed
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Water Rates	14,339	876	840	871	889	951	833	749	20,349
Total:	14,339	876	840	871	889	951	833	749	20,349

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Water Fund	14,339	876	840	871	889	951	833	749	20,349
Total:	14,339	876	840	871	889	951	833	749	20,349

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Water Fund	14,339	876	840	871	889	951	833	749	20,349
Total:	14,339	876	840	871	889	951	833	749	20,349

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

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