

Seattle Public Utilities Water Fund
Draft Proposed 2017-2022 Capital Improvement Program
 Project Descriptions and Budget Crosswalk (new since 2015)

#	Cost Pool	Program Area	Program Name (Budget Item)	Project ID	Project Name	Project Description
1	Existing Supply	Water Resources	C1506 - Dam Safety	C113009	Tolt Ring Gate Upgrade	This project recoats the Ring Gate Structures; replaces or fixes the gripper system; replaces or fixes the hydraulic system for the ring gate; installs vibration-monitoring instrument; and corrects problems on the existing structures.
2			C1508 - Morse Lake Pump Plant	C103032	Morse Lake Pump Plant	This project includes funding to replace the existing barge-mounted pump plants at Chester Morse Lake. The pump plants at Chester Morse Lake are nearing the end of their useful lives. These pumps are designed for drought situations to access so called "dead storage" at the lake, which is at or below the level that drains by gravity. The improvements enhance the ability to provide reliable water supply and in-stream flows in the Cedar River during drought conditions and to address requirements of the Habitat Conservation Plan.
3			C1511 - Hatchery Works	C113002	Hatchery Spring Water Redundancy	This project improves the reliability and redundancy of the disease-free fresh water supply used for incubation and rearing production at the Cedar River Sockeye Hatchery.
4				C114068	Sockeye Broodstock Weir	This project installs a new sockeye broodstock collection weir and trap at the Renton Broodstock Collection Facility in order to meet the design criteria for the number and type of sockeye collected for the Sockeye Hatchery Program and to remove constraints on in-stream flow operations.
5				C115103	Hatchery Spring Water Pump Improvement	This project improves the pumping systems from the spring water supplies to enable year-round delivery of the maximum available supplies to the Cedar River Sockeye Hatchery.
6				TBD	Hatchery Adult Pond Improvement	This project increases the holding capacity of the adult ponds at the Cedar River Sockeye Hatchery.
7				C116009	Landsburg Fish Ladder Retrofit	This project manufactures and installs redesigned primary and secondary fish crowders and fish entrance V-trap structure, and rehabilitates fish crowder rail and concrete channel damage.

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7a				C116017	Hatchery Moisture Mitigation	This project mitigates problematic moisture levels in air in Cedar River Sockeye Hatchery and may involve removing the existing hatchery HVAC system and replacing it with a new system.
7b				C1NW508	Budget Placeholder - Hatchery Works	This budget placeholder provides for work to be performed on the hatchery or fish ladder after 2019 that is not yet specifically identified but may include fish ladder flow reducer, hatchery adult pond expansion, or other projects.
8			C1507 - Water Supply Flexibility Program	C115102	New Landsburg Tunnel Flowmeter	This project installs a new sensor to continuously measure discharge in the aqueduct that carries water diverted from Landsburg Diversion Dam to Lake Youngs - specifically within the reach of the aqueduct where it is a single 96-inch diameter pipe between its upstream end and the Tunnel House.
9		Habitat Conservation Program	C1601 - Watershed Road Improvement /Decommissioning	C109018	Watershed Road Improvements	This project improves needed roads in the Cedar River Watershed to protect water quality and improve habitat. This project is a commitment under the Cedar River Habitat Conservation Plan.
10	C109019			Watershed Road Decommissioning	This project removes unneeded logging roads in the Cedar River Watershed to protect water quality and improve habitat. This project also decommissions any bridges associated with these roads. This project is a commitment under the Cedar River Habitat Conservation Plan.	
11	C100018			Riparian Conifer Underplanting	This project promotes riparian function, biodiversity, and the restoration of conifers in streamside areas that were disturbed by historic timber harvest in the Cedar River Municipal Watershed. This project is a commitment under the Cedar River Watershed Habitat Conservation Plan.	
12	C100019			LWD Replacement in Streams	This project replaces large woody debris (LWD) in streams located in previously logged areas that are lacking in LWD in order to restore habitat. This project is a commitment under the Cedar River Habitat Conservation plan.	
13	C100020			Riparian Restoration Thinning	This project is designed to accelerate the growth and structural development of trees in riparian zones to provide greater stream protection and high functioning riparian forests. This project is a commitment under the Cedar River Habitat Conservation Plan.	

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14				C100022	Bank Revegetation	This project provides bank revegetation on streams in the Cedar River Watershed to protect water quality and improve habitat. This project is a commitment under the Cedar River Habitat Conservation Plan.
15				C109020	Passage for Peak Flows	This project replaces old culverts that are inadequate to pass high flows with new culverts or small bridges to provide accommodate high flows. This project is a commitment under the Cedar River Habitat Conservation Plan.
16				C109021	Bank Stabilization	This project provides bank stabilization on streams in the Cedar River Watershed to protect water quality and improve habitat. This project is a commitment under the Cedar River Habitat Conservation Plan.
17				C109022	Stream Crossing for Fish Passage	This project replaces old culverts that block fish passage with new culverts or small bridges to provide fish passage. This project is a commitment under the Cedar River Habitat Conservation Plan.
18			C1603 - Upland Reserve Forest Restore	C100025	Upland Restoration Planting	This project provides native tree and shrub planting in second-growth upland forests in the Cedar River Watershed to increase the biological diversity and structural complexity for enhanced ecosystem functioning and habitat value. This project is a commitment under the Cedar River Habitat Conservation Plan.
19				C100027	Upland Ecological Thinning	This ongoing program provides upland forest restoration in the Cedar River Watershed to improve habitat for at-risk species. This program is a requirement under the Cedar River Habitat Conservation Plan.
20			C1606 - Ballard Locks Improvements	C100013	Freshwater Conservation (Ballard Locks)	This program provides improvements at the Ballard Locks to upgrade conditions for salmon. Improvements are focused on conserving the amount of freshwater needed to operate the locks in order to reduce the demand for freshwater from the Cedar River and increase the availability of freshwater for salmon. This program is a requirement of the Cedar River Habitat Conservation Plan.
21			C1607 - Downstream Fish Habitat	C100015	Downstream Habitat Protection- Instream Flows	This project acquires and restores salmon habitat in the lower Cedar River below the City's ownership boundary. This project is a commitment under the Cedar River Habitat Conservation Plan.

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22				C100036	Downstream Habitat Protection—Landsburg Mitigation	This project acquires and restores salmon habitat in the lower Cedar River below the City's ownership boundary. This project is a commitment under the Cedar River Habitat Conservation Plan.
23			C1608 - Instream Flow Management Studies	C105076	Chinook Studies	This project studies the effects of the Cedar River Habitat Conservation Plan Instream Flow Regime on Chinook salmon. This project is a commitment under the Cedar River Habitat Conservation Plan.
24		Watershed Stewardship	C1307 - Cedar Bridges	C1307PW	Cedar Bridges	This program replaces aging bridges and related structures, such as abutments, asphalt approaches, and guardrails in the Cedar River Watershed. Projects within this program improve aging bridge assets on priority roads in the watershed transportation system to provide City employees, City contractors, and visitors with safe and adequate access to City water supply and hydroelectric assets while minimizing and reducing environmental impacts over time. Work in this program also maintains compliance with state laws, safety and environmental regulations, and tribal access agreements including Washington Department of Natural Resources forest practice regulations, Washington Department of Health Watershed Protection Plan regulations, and Cedar River Habitat Conservation Plan restoration commitments. Current plan includes replacement of Cedar River Road 600 Bridge in 2020.
25				C115142	Taylor Creek 9 Road Bridge Replacement	This project replaces the Taylor Creek 9 Road bridge, which has reached its life span.
26				C115143	Taylor Cr Railroad Trestle Removal & Stream Restoration	This project deconstructs the historic railroad trestle at Taylor Creek and restores creek streambanks to remove channel confinement and re-establish high-functioning hydrological and geomorphological stream and riparian features.
27				C1308 - Tolt Bridges	TBD	Tolt Bridges

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28			C1301 - Environmental Stewardship	C115107	MIT Road Improvements	This project funds the improvements on those roads in the Cedar River Watershed that the City will not abandon immediately to help facilitate the Muckleshoot Indian Tribe (MIT) access to traditionally significant hunting, gathering and spiritual sites. The level of road retention within the Cedar River Watershed (CRW) was agreed to in an October 2013 preliminary agreement with between the City and MIT. SPU must improve these roads in order to comply with regulatory requirements and meet the terms of the Habitat Conservation Plan.
29		Shared Cost Projects	C4107 - Regional Facility - Other	C408045	Cedar Falls Building Improvements	This project provides for the renovation, replacement and construction of Cedar Falls Building components to correct the maintenance gaps and extend the useful life of the buildings.
30				C408051	Cedar Falls Facilities Development	This project provides for the preliminary engineering, design, construction and completion of functional square footage space improvements at Cedar Falls facilities located at 19901 Cedar Falls Road, North Bend, WA.
31				C415008	Cedar Falls Phase 2	Phase 2 of Cedar Falls Facilities Development.
32				C408054	Tolt Building Improvements	This project provides for the renovation, replacement and construction of Tolt/Duvall Building components to correct the maintenance gaps and to extend the useful life of the buildings. Any improvements at Duvall Shop will not be allocated to the regional Transmission Cost Pool.
33				C413007	Tolt/Duvall Facilities Dev.	This project provides for the design and construction of new facilities for the Tolt/Duvall Operations Center. Any improvements at Duvall Shop will not be allocated to the regional Transmission Cost Pool.
34				C408056	Lake Youngs Building Improvements	This project provides for the renovation, replacement and construction of Lake Youngs Building components to correct failures, maintenance gaps and extend the useful life of the buildings.
35				C413006	Lake Youngs Facilities Dev.	This project provides for the design and construction of new facilities for the Lake Youngs Operations Center.

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36	Existing Trans-mission	Water Quality & Treatment	C1411 - Reservoir Covering-Maple Leaf	C112049	Maple Leaf Reservoir Seismic	This project will construct a 60 million gallon, dual-cell, reinforced concrete buried reservoir in compliance with new state and federal regulations. This effort improves water quality and the security of the drinking water system. It is part of the Reservoir burying program which was adopted by Ordinance 120899 in August 2002.
37			C1418 - Reservoir Covering-Lake Forest Park	C113007	Reservoir Covering-Lake Forest Park	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.
38		Transmission	C1207 - Transmission Pipelines Rehab	C113010	Tolt Slide Improvements	This project provides for improvements at the slide area on the Tolt Pipeline (TPL), including the installation of a bypass to TPL1, replacement of distressed pipe joints, installation of a blow off, resetting of a ball joint on TPL2, possible removal of fill material, and installation of inclinometers as needed. This project will also implement solutions identified from the ongoing analysis of long-term options for the Tolt raw water pipelines as they pass through an area with a slowly moving slope.
39				C113043	Tolt Slide Toe Stabilization	This project constructs a series of five engineered logjams at the toe of the Tolt Pipeline landslide area on the bank of the North Fork Tolt River, using large woody debris and boulders, in order to protect the slope toe from erosion and reduce the rate of landslide failure upslope. Permitting delayed construction to 2015
40					C1NW207	Transmission Pipelines Rehab
41	Individual Purveyor	Transmission	C1206 - Purveyor Meters Replace-SPU	C1NW206	Purveyor Meters	This ongoing program installs new meters for Seattle's wholesale customers at the customer's request. In addition, existing meters are upgraded to current safety standards. The benefits are accurate metering and billing for Seattle's wholesale customers while meeting their water needs. Assumes that most mechanical meters will be phased out.

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42	SW Subregion	Distribution	C1134 - Tank Improvements	C115164	Beverly Park Tank Improvements	This project recoats the interior and exterior of Beverly Park Tank, makes any necessary structural repairs, and seismically upgrades the tank.
43	Various	Water Resources	C1506 - Dam Safety	C1NW506	Dam Safety	This ongoing program maintains the safety of SPU's water supply dams in the Cedar River and South Fork Tolt River Municipal Watersheds and the in-town reservoir dams. Typical improvements may include, but are not limited to, upgrades to the dams' failure warning systems, spillways, outlet works, piping, and other civil, mechanical, and structural systems. This program ensures the continuing safe functioning, operation and monitoring of SPU's water supply dams and associated facilities per Federal Energy Regulatory Commission (FERC), state and local regulations, and SPU requirements to prevent loss of life and/or property damage and loss of SPU's ability to deliver reliable drinking water supply to its customers.
44		Water Quality & Treatment	C1413 - Treatment Facility/WQ Imprvmts	C107018	Treatment Facility/WQ Improvements	This ongoing program provides construction of various smaller scale water quality and treatment facility rehabilitation and improvement projects that may develop on short notice over the course of each year. It enhances SPU's ability to address water system improvement needs that relate to public health protection and drinking water regulatory compliance.
45		Transmission	C1205 - Water System Dewatering	C1NW205	System Dewatering Program	This ongoing program improves structures used to empty the water from larger pipelines when necessary for inspection or repair. The new structures better control the impact of the water discharged to the environment and comply with current environmental regulations.
46			C1208 - Cathodic Protection	C1NW208	Cathodic Protection (CP)	This ongoing program installs corrosion protection systems that prevent external corrosion of water transmission pipelines located in Seattle and throughout King County. The cathodic protection systems extend the life of buried pipelines made of ductile iron, steel, and concrete cylinder pipe.
47			C1209 - Replace Air Valve Chambers	C199060	Replace Air Valve Chambers	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.

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48		Shared Cost Projects	C4108 - Intg Control Monitoring Program	C409005	Water SCADA Improvements Phase 2	The program improves field instrumentation at water infrastructure sites throughout the greater Seattle region. The data produced by the SCADA system is used by SPU Water System Operators to make decisions and emergency call out response. The improvements supplied by this program increase or enhance overall water system usability, availability and maintainability. Typical improvements include trenching and conduit from power/Telco pole to above ground SCADA cabinet to field monitoring instrumentation.	
49			C4113 - Security Improvements	C408024	Integrated Security System - WF	This ongoing program funds physical, integrated security system components on water infrastructure throughout the City. Components may include, but are not limited to, fences, gates, access control card readers, intercoms, lighting, door and hatch contacts, CCTV cameras, motion detection devices, and fiber and conduit. This program enhances protection of SPU's critical infrastructure and addresses vulnerabilities identified in U.S. Environmental Protection Agency (EPA) mandated vulnerability assessments. Water Fund (WF) only.	
50					C408S07	Integrated Security System	This ongoing program provides security improvements to SPU assets that support multiple lines of business.
51				C4123 - Other Major Tran Projects	C413013	SR 520 Corridor Project-WF	This project addresses water system changes needed to accommodate Washington Department of Transportation's (WSDOT's) West Approach Bridge North (WABN) project in Seattle. Water Fund (WF) only. Costs are reimbursable from WSDOT. Potential changes needed to Maple Leaf Pipeline.
52	New Supply		Water Resources	C1504 - Regional Water Conservation	C105055	Regional Conservation Indoor	This ongoing program provides customer incentives for residential, commercial, institutional, and industrial water efficiency capital improvements. Typical examples include, but are not limited to, water efficient toilets and urinals, clothes washers, landscape irrigation devices, upgrades in industrial process water, and replacing water-cooled equipment with air-cooled versions. The program benefits both existing and future ratepayers. Water conservation provides low-cost options for meeting potential challenges from climate change, managing Seattle's drinking water resources, and customer efficiency and potential cost savings on water bills.
53		C105056			Regional Conservation Outdoor		
54		C105057			Regional Conservation Commercial		