#### **Alaskan Way Viaduct & Seawall**

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type:New FacilityStart Date:4th Quarter 2001Project ID:C404201-WFEnd Date:4th Quarter 2011

**Location:** Alaskan Way Viaduct

Neighborhood Plan: Commercial Core Neighborhood Plan Matrix: LT 13

Neighborhood District: Downtown Urban Village: In more than one Urban Village

This project funds planning, preliminary engineering, and design costs associated with water utility impacts arising from replacing the Alaskan Way Viaduct and Seawall with a new transportation facility. The Alaskan Way Viaduct is part of State Route 99, which carries 25% of the north-south traffic through downtown Seattle and is a major truck route serving the City's industrial areas. The seawall supports the soils under Alaskan Way and the Viaduct. Both facilities were damaged in the February 28, 2001 Nisqually Earthquake. The Federal Highway Administration (FHWA), the Washington State Department of Transportation (WSDOT) and the City of Seattle are partners on the project. WSDOT, in conjunction with the Seattle Department of Transportation (SDOT), is conducting a plan and study for demolition and replacement of the existing facility. At this early stage, a number of options are being evaluated. The costs and timing of improvements, as well as the sources of funding, have not been determined and will be refined as the project scope is further developed. See also projects in the SDOT (project TC36605) and Seattle City Light (project 8307) CIPs. The SPU Asset Management Committee approved the project in 2005.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	129	125	765	0	0	0	0	0	1,019
Project Total:	129	125	765	0	0	0	0	0	1,019
Fund Appropriations/Allocations									
SPU Water Fund	129	125	765	0	0	0	0	0	1,019
Appropriations Total*	129	125	765	0	0	0	0	0	1,019
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Asset Management**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

**Project Type:** Rehabilitation or Restoration **Start Date:** 4th Ouarter 2002

Project ID: C1126 End Date: Ongoing

Location: Citywide

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:In more than one DistrictUrban Village:Not in an Urban Village

This program provides funding for managing the City's water system assets as optimally as possible by using sound asset management principles and practices. Project elements include the following: developing, monitoring, and reporting on measurable customer and environmental service levels; preparing Strategic Asset Management Plans; developing and implementing asset decision models; developing information technology applications; collecting data and assessing the condition of SPU's assets; and evaluating SPU's current operating and maintenance practices and processes. Funding is allocated from the Asset Management Program to these various programs once they are clearly defined. The confidence level in the current cost estimate is medium for 2006; cost estimates for future years will be revised over time. SPU's Asset Management Committee has approved the Clean and Line Cast Iron Pipes (C104006) and Valve & Pump Station Control (C105069) projects of this program.

In 2005, Ordinance 121780 transferred \$600,000 from the Asset Management program (C1126) to the Tolt Pipeline I - Phase III-B project (C199003) to fund higher than anticipated costs for that project. Also in 2005, Ordinance 121993 transferred \$400,000 from the Asset Management program (C1126) to the Water Infrastructure - New Taps program (C1113) to support increased customer demand for new taps. These supplemental funding changes is reflected in the fund table below.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	2,703	2,944	1,417	3,183	3,278	3,377	3,478	3,582	23,962
Project Total:	2,703	2,944	1,417	3,183	3,278	3,377	3,478	3,582	23,962
Fund Appropriations/Allocations SPU Water Fund	2,703	2,944	1,417	3,183	3,278	3,377	3,478	3,582	23,962
Appropriations Total*	2,703	2,944	1,417	3,183	3,278	3,377	3,478	3,582	23,962
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

#### Aurora Ave. N (110th - 145th)

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Improved FacilityStart Date:4th Quarter 2003Project ID:C103033End Date:4th Quarter 2006

**Location:** N 110th St./Aurora Ave. N

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:NorthUrban Village:Not in an Urban Village

The Seattle Department of Transportation is developing a scope of work for rehabilitating or improving Aurora Ave. N between N 110th St. and N 145th St. This project funds the necessary preliminary engineering to determine the water system impacts of that transportation project. If the transportation project progresses further, additional funds will be requested at that time to address the impacts. The cost estimates will be revised to incorporate new information.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	3	8	16	0	0	0	0	0	27
Project Total:	3	8	16	0	0	0	0	0	27
Fund Appropriations/Allocations SPU Water Fund	3	8	16	0	0	0	0	0	27
Appropriations Total*	3	8	16	0	0	0	0	0	27
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Aurora N Multi-modal Corridor**

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Improved FacilityStart Date:4th Quarter 2003Project ID:C103027End Date:2nd Quarter 2007

Location: N 145th St./Aurora Ave. N

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:NorthUrban Village:Not in an Urban Village

The City of Shoreline is redeveloping Aurora Ave. N between N 145th St. and N. 165th St. This project addresses the impacts of the City of Shoreline's project on the water system, and funds improvements required to increase the fireflow along both sides of Aurora Ave. to current standards. The project includes the replacement of four- and six-inch watermains with 12-inch watermains; the replacement, relocation, and addition of new fire hydrants; and the installation of water service meters. The confidence level of the planning phase cost estimate is medium.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	73	985	156	53	0	0	0	0	1,267
Project Total:	73	985	156	53	0	0	0	0	1,267
Fund Appropriations/Allocations									
SPU Water Fund	73	985	156	53	0	0	0	0	1,267
Appropriations Total*	73	985	156	53	0	0	0	0	1,267
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

#### **Ballard Locks Improvements**

BCL/Program Name: Habitat Conservation Program

BCL/Program Code: C160B

Project Type:Improved FacilityStart Date:1st Quarter 2000Project ID:C1606End Date:4th Quarter 2011

Location: 3015 NW 54th St.

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: Ballard Urban Village: Ballard

This project is a sub-element of the Cedar River Habitat Conservation Plan (HCP) and associated Cedar River Instream Flow Agreement. Improvements include the planning, design, and construction of freshwater conservation and smolt passage facilities at the Ballard Locks to improve fish passage and survival. The project is part of a comprehensive instream flow management program for the Cedar River that protects the City's continued ability to divert adequate amounts of high quality water for regional use. This program also protects instream resources and the U.S. Army Corps of Engineers' ability to provide adequate flows for operating the Locks. SPU's Asset Management Committee has approved the HCP at the program level. The confidence level for this cost estimate is high.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	902	150	155	159	164	113	811	836	3,290
Project Total:	902	150	155	159	164	113	811	836	3,290
Fund Appropriations/Allocations									
SPU Water Fund	902	150	155	159	164	113	811	836	3,290
Appropriations Total*	902	150	155	159	164	113	811	836	3,290
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **BPA - Aquatic & Riparian Restoration**

BCL/Program Name: Bonneville Agreement BCL/Program Code: C170B

Project Type:Improved FacilityStart Date:2nd Quarter 2004Project ID:C1702End Date:4th Quarter 2007

Location: Cedar River Watershed

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project group within the Bonneville Agreement program provides funds to plan and implement aquatic and riparian restoration projects within the Cedar River Municipal Watershed. These projects enhance and accelerate the City's existing efforts to restore riparian, aquatic, and wetland habitat in the watershed, and compensate for the impacts of the Bonneville Power Administration's (BPA's) power line project on that habitat. SPU's Asset Management Committee has approved this set of projects. The confidence level in the cost estimate is medium as the project is in the early stage of development.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	234	844	600	140	0	0	0	0	1,818
Project Total:	234	844	600	140	0	0	0	0	1,818
Fund Appropriations/Allocations									
SPU Water Fund	234	844	600	140	0	0	0	0	1,818
Appropriations Total*	234	844	600	140	0	0	0	0	1,818
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **BPA - Road Decommissioning/Improvements**

BCL/Program Name: Bonneville Agreement BCL/Program Code: C170B

Project Type:Improved FacilityStart Date:2nd Quarter 2004Project ID:C1703End Date:4th Quarter 2009

Location: Cedar River Watershed

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project group within the Bonneville Agreement program provides funds to plan and implement road decommissioning and road improvement projects within the Cedar River Municipal Watershed. These projects enhance and accelerate the City's existing programs to improve or abandon watershed roads, and compensate for the effects of the additional road length added to the watershed as a result of the Bonneville Power Administration's power line project. SPU's Asset Management Committee has approved this set of projects. The confidence level in the cost estimate is medium as the project is in the early stage of development.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	162	728	282	32	44	203	0	0	1,451
Project Total:	162	728	282	32	44	203	0	0	1,451
Fund Appropriations/Allocations									
SPU Water Fund	162	728	282	32	44	203	0	0	1,451
Appropriations Total*	162	728	282	32	44	203	0	0	1,451
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **BPA - Security Measures**

BCL/Program Name: Bonneville Agreement BCL/Program Code: C170B

Project Type:New FacilityStart Date:1st Quarter 2004Project ID:C1704End Date:4th Quarter 2006

Location: Cedar River Watershed

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project group within the Bonneville Agreement program provides funds to plan, purchase and install watershed security improvements within the Cedar River Municipal Watershed to protect watershed resources and restrict watershed access. These projects compensate for the impacts of the Bonneville Power Administration's power line project on security within the watershed. SPU's Asset Management Committee has reviewed and approved this set of projects. The confidence level in cost estimates is medium as the project is in the early stage of development.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	260	312	255	0	0	0	0	0	827
Project Total:	260	312	255	0	0	0	0	0	827
Fund Appropriations/Allocations									
SPU Water Fund	260	312	255	0	0	0	0	0	827
Appropriations Total*	260	312	255	0	0	0	0	0	827
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **BPA - Upland Forest Restoration**

BCL/Program Name: Bonneville Agreement BCL/Program Code: C170B

Project Type:Improved FacilityStart Date:2nd Quarter 2004Project ID:C1705End Date:4th Quarter 2008

**Location:** Cedar River Watershed

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project group within the Bonneville Agreement program provides funds to plan and implement forest restoration projects within the Cedar River Municipal Watershed. This program will enhance and accelerate the City's existing Upland Forest Restoration Program. To compensate for the impacts of the Bonneville Power Administration's power line project on older second-growth forest and other upland habitats in the watershed. SPU's Asset Management Committee has reviewed and approved this set of projects. The confidence level in cost estimates is medium as the project is in the early stage of development.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	134	608	390	164	144	0	0	0	1,440
Project Total:	134	608	390	164	144	0	0	0	1,440
Fund Appropriations/Allocations									
SPU Water Fund	134	608	390	164	144	0	0	0	1,440
Appropriations Total*	134	608	390	164	144	0	0	0	1,440
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Cathodic Protection Program**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type: Rehabilitation or Restoration Start Date: 1st Quarter 2004

Project ID: C1NW116 End Date: Ongoing

**Location:** Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This program implements SPU's Cathodic Protection Master Plan, by installing pipe exterior corrosion protection systems along the major water transmission pipelines. Cathodic protection systems are a relatively low cost method of extending the life of buried pipelines and submerged surfaces of water storage tanks. They can be used to protect ductile iron, steel, and concrete cylinder pipe. Unprotected, these types of pipe corrode through an electrochemical process; cathodic protection attempts to slow down or even stop this electrochemical process by providing electrical current to the pipe. Projects are accomplished over two years; one year for design and one year for construction. Each project installs new or replacement rectifiers and anodes along a section of pipeline between one and four miles in length.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	500	731	530	546	563	580	597	4,047
Project Total:	0	500	731	530	546	563	580	597	4,047
Fund Appropriations/Allocations									
SPU Water Fund	0	500	731	530	546	563	580	597	4,047
Appropriations Total*	0	500	731	530	546	563	580	597	4,047
O & M Costs (Savings)			0	2	3	3	3	3	14

#### **Cedar Bridges**

BCL/Program Name: Infrastructure

BCL/Program Code: C110B

Project Type: Improved Facility Start Date: Ongoing

**Project ID:** C1119 End Date: 4th Quarter 2011

**Location:** Cedar Watershed

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project replaces bridges in the Cedar River Watershed at which SPU requires access and the existing bridges are no longer able to carry required loading, resulting in safety and environmental risks. This project may include replacing the bridges at Cedar River 600 Road, Middle Fork Taylor Creek 60 Road, Barneston Bridge, North Fork Taylor 60 Road, Rex 300 Road, Rock 41 Road, Taylor 9 Road, Tinkham 560 Road, North Fork Taylor 62 Road, Cedar 9 Road, and Cedar 560 Road.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	19,448	1,014	422	650	229	101	180	185	22,229
Project Total:	19,448	1,014	422	650	229	101	180	185	22,229
Fund Appropriations/Allocations SPU Water Fund	19,448	1,014	422	650	229	101	180	185	22,229
Appropriations Total*	19,448	1,014	422	650	229	101	180	185	22,229
O & M Costs (Savings)			16	16	16	16	16	16	96

#### Cedar Eastside Supply Improvement - East Creek

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Improved FacilityStart Date:2nd Quarter 2001Project ID:C145007End Date:3rd Quarter 2005

**Location:** East Creek & Camber Rd.

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project responds to improvements initiated by the City of Bellevue to the Kamber Road crossing of East Creek in the Factoria area. The Cedar Eastside Supply Line, located in the Kamber Road roadway, is lowered and encased in concrete to accommodate the creek crossing improvements. The confidence level of the cost estimate is high, and SPU's Asset Management Committee has approved the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	245	590	0	0	0	0	0	0	835
Project Total:	245	590	0	0	0	0	0	0	835
Fund Appropriations/Allocations									
SPU Water Fund	245	590	0	0	0	0	0	0	835
Appropriations Total*	245	590	0	0	0	0	0	0	835
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

#### **Cedar Falls Facility Master Plan**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Improved FacilityStart Date:1st Quarter 2005Project ID:C105092End Date:4th Quarter 2006

**Location:** Cedar Falls Rd. SE

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project provides for a preliminary study and creation of a design plan to upgrade the existing facilities at Cedar Falls Headquarters. The existing buildings, which were constructed from the 1920s to 1950s, do not meet building codes or the requirements of current staff, and are in a deteriorated condition that requires constant major repairs. Several of the buildings were constructed for residential occupation and are not well suited to business needs. The study and plan for construction of new facilities addresses ongoing maintenance issues in the current facilities including toxic mold, lack of handicapped access, and rodent infestations, and includes replacing or rebuilding stairs at building entrances. In the 2005-2010 Adopted CIP, the project ID for this project was C1NW101-005.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	60	247	0	0	0	0	0	307
Project Total:	0	60	247	0	0	0	0	0	307
Fund Appropriations/Allocations									
SPU Water Fund	0	60	247	0	0	0	0	0	307
Appropriations Total*	0	60	247	0	0	0	0	0	307
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Cedar Moraine Improvements**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Improved FacilityStart Date:1st Quarter 1997Project ID:C197009End Date:4th Quarter 2008

**Location:** Cedar Watershed

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

Cedar Moraine is a porous, glacial deposit abutting Chester Morse Lake. In December 1918, during the initial filling of the reservoir, a massive landslide occurred as a result of high groundwater. Subsequently, a network of observation wells was installed to monitor groundwater levels. Over time, some of the wells became blocked. This project began in 1997 to evaluate the conditions of the network, provide rehabilitation, and recommend further improvements. Current planning studies focus on improving monitoring capabilities along the northwest slopes of the moraine and drilling additional wells, and may lead to a recommendation for a warning system. The confidence level in the cost estimate for the development of the planning phase is high. Development of the warning system is at an early stage, and cost estimates for this stage will be revised over time.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	1,072	200	474	53	55	0	0	0	1,854
Project Total:	1,072	200	474	53	55	0	0	0	1,854
Fund Appropriations/Allocations	1.072	200	477.4	52	5.5	0	0	0	1 054
SPU Water Fund	1,072	200	474	53	55	0	0	0	1,854
Appropriations Total*	1,072	200	474	53	55	0	0	0	1,854
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Cedar River - Boundary Land Acquisition**

BCL/Program Name: Water Quality

BCL/Program Code: C140B

Project Type: Rehabilitation or Restoration Start Date: 1st Ouarter 1998

Project ID: C198008 End Date: Ongoing

**Location:** Cedar River Watershed

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

Although the City owns virtually all lands draining to the municipal water supply intake on the Cedar River, some exceptions remain along the boundary. The past decade has seen significant changes in ownership and land use of properties immediately adjoining the City's property. This project enables SPU to evaluate risks to watershed protection and security posed by these changes, and to respond as opportunities arise by acquiring property. All property acquisitions require specific legislative authority. Although funding is not yet allocated for 2012, the project is expected to be ongoing. The confidence level of the cost estimate is medium and the project requires the SPU Asset Management Committee review. Acquisitions to date include 101 acres inside the Cedar Watershed at Yakima Pass through a 2003 agreement with Bonneville Power Administration and non-City property rights formerly used for railroad purposes in the Watershed.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	2,212	325	104	107	110	114	117	121	3,210
Project Total:	2,212	325	104	107	110	114	117	121	3,210
Fund Appropriations/Allocations SPU Water Fund	2,212	325	104	107	110	114	117	121	3,210
Appropriations Total*	2,212	325	104	107	110	114	117	121	3,210
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Cedar River - Education Center Exhibits**

BCL/Program Name: Environmental Stewardship BCL/Program Code: C130B

Project Type:Improved FacilityStart Date:2nd Quarter 2003Project ID:C103001End Date:2nd Quarter 2006

Location: Crw Education Center North Bend

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:NorthUrban Village:Not in an Urban Village

This project funds fabrication and installation of interpretive exhibits (already designed) in the empty Interpretive Hall, to complete the Cedar River Watershed Education Center. These exhibits enhance the experience and understanding gained by the facility's 30,000-40,000 visitors per year. Existing staff performs regular maintenance of exhibits that were completed in 2004. A final exhibit required further evaluation which delayed the project completion until 2006.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	641	0	155	0	0	0	0	0	796
Project Total:	641	0	155	0	0	0	0	0	796
Fund Appropriations/Allocations									
SPU Water Fund	641	0	155	0	0	0	0	0	796
Appropriations Total*	641	0	155	0	0	0	0	0	796
O & M Costs (Savings)			2	2	2	2	2	2	12

#### **Cedar River Non-HCP Road Improvements**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type: Improved Facility Start Date: 1st Ouarter 1991

Project ID: C191001 End Date: Ongoing

**Location:** Cedar Watershed

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

The Cedar River Watershed contains more than 615 miles of forest roads. This project funds major improvements (beyond routine maintenance) on roads designated as having long-term purpose for watershed management including forest fire suppression, fish and wildlife management, forest management, security, and public education. Roads not deemed to be of long-term necessity are "deconstructed" by removing potentially unstable sidecast and fill material; constructing frequent waterbars, and re-establishing stream crossings. This work is designed to provide long-term stability, to approximate the drainage flows that existed prior to management activities, and to be complementary to road improvement and decommissioning projects included in the Cedar River Habitat Conservation Plan (HCP). The City's HCP assumes these projects are completed.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	917	786	828	828	852	878	904	931	6,924
Project Total:	917	786	828	828	852	878	904	931	6,924
Fund Appropriations/Allocations SPU Water Fund	917	786	828	828	852	878	904	931	6,924
Appropriations Total*	917	786	828	828	852	878	904	931	6,924
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Cedar River Northridge Trail**

BCL/Program Name: Environmental Stewardship BCL/Program Code: C130B

Project Type:New FacilityStart Date:1st Quarter 2002Project ID:C102022End Date:4th Quarter 2006

**Location:** Cedar River Watershed, Northern Boundary

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project involves planning and implementation of an alternative trail connection along the northern ridge boundary of Cedar River Watershed. Planning, public process, construction, and management are done in cooperation with the Washington State Parks Department, the US Forest Service, other agencies, and adjacent landowners.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	31	51	11	0	0	0	0	0	93
Project Total:	31	51	11	0	0	0	0	0	93
Fund Appropriations/Allocations									
SPU Water Fund	31	51	11	0	0	0	0	0	93
Appropriations Total*	31	51	11	0	0	0	0	0	93
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Cedar River Pipeline 2 Replace Portion**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Rehabilitation or RestorationStart Date:1st Quarter 2004Project ID:C104013End Date:4th Quarter 2007

**Location:** CRpl #2 Between Volunteer Park And Maple Leaf Gatehouse

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This project rehabilitates an 88-year-old 42-inch lockbar steel feeder main that is corroded in some locations. The Cedar River pipeline extends from Volunteer Park to the Maple Leaf neighborhood and crosses the Ship Canal in a tunnel. It is part of the planned seismically hardened backbone of the Seattle distribution system; timely rehabilitation results in less disruption to water service after a major earthquake, and eliminates the risk of property damage associated with a major leak or pipeline failure. The parameters of the replacement are determined during the planning phase of the project. This project is in a preliminary phase of development and cost estimates will be revised over time. The SPU Asset Management Committee reviewed and approved the preliminary engineering phase of the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	45	60	217	5,305	0	0	0	0	5,627
Project Total:	45	60	217	5,305	0	0	0	0	5,627
Fund Appropriations/Allocations									
SPU Water Fund	45	60	217	5,305	0	0	0	0	5,627
Appropriations Total*	45	60	217	5,305	0	0	0	0	5,627
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Cedar River Watershed - Headquarters Major Maintenance

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type: Rehabilitation or Restoration Start Date: 2nd Quarter 2000

Project ID: C100051 End Date: Ongoing

Location: Cedar River Watershed

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project replaces leaky roofs, repairs plumbing, paints for existing facilities, and conducts other major maintenance at the Cedar Falls Headquarters.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	1,653	88	91	93	96	99	102	105	2,327
Project Total:	1,653	88	91	93	96	99	102	105	2,327
<b>Fund Appropriations/Allocations</b>									
SPU Water Fund	1,653	88	91	93	96	99	102	105	2,327
Appropriations Total*	1,653	88	91	93	96	99	102	105	2,327
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

#### **Cedar Sockeye Hatchery**

BCL/Program Name: Habitat Conservation Program

BCL/Program Code: C160B

Project Type:New FacilityStart Date:1st Quarter 2000Project ID:C1605End Date:4th Quarter 2008

**Location:** Cedar River

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project, a component of the Cedar River Habitat Conservation Plan (HCP), implements measures to mitigate impacts on sockeye salmon caused by the migration barrier formed by the Landsburg Diversion Dam. The hatchery's purpose is to produce fry in lieu of the production that could occur if sockeye were allowed to spawn above Landsburg Dam. The project consists of spring-fed water supply improvements, a broodstock holding facility, an incubation and short-term holding facility capable of producing 34 million fry, housing for two employees, and a broodstock collection trap. SPU's Asset Management Committee approved the HCP at the program level. The confidence level for this cost estimate is medium.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	2,305	750	242	6,153	2,950	0	0	0	12,400
Project Total:	2,305	750	242	6,153	2,950	0	0	0	12,400
Fund Appropriations/Allocations									
SPU Water Fund	2,305	750	242	6,153	2,950	0	0	0	12,400
Appropriations Total*	2,305	750	242	6,153	2,950	0	0	0	12,400
O & M Costs (Savings)			99	130	334	458	458	458	1,937

#### **Cedar Treatment Facility**

BCL/Program Name: Water Quality

BCL/Program Code: C140B

Project Type:New FacilityStart Date:1st Quarter 1996Project ID:C196015End Date:4th Quarter 2006

**Location:** Lake Youngs Reservoir

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project develops and implements water treatment improvements to the Cedar River water supply to improve water quality, ensure compliance with drinking water regulations, and mitigate the periodic taste and odor problems that occur on the Cedar source. Under this project, new ozone disinfecting facilities (compatible with filtration) are planned, designed, and constructed near the Lake Young's Reservoir. SPU is utilizing a design-build-operate contracting method for this project, similar to that used for the recently commissioned Tolt Treatment Facility. The confidence level of the cost estimate is high, and SPU's Asset Management Committee has approved the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	100,612	597	10	0	0	0	0	0	101,219
Project Total:	100,612	597	10	0	0	0	0	0	101,219
<b>Fund Appropriations/Allocations</b>									
SPU Water Fund	100,612	597	10	0	0	0	0	0	101,219
Appropriations Total*	100,612	597	10	0	0	0	0	0	101,219
O & M Costs (Savings)			3,980	5,100	6,520	6,520	6,917	7,338	36,375

#### **Chamber Upgrades - Distribution**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type: Rehabilitation or Restoration Start Date: 1st Quarter 2003

Project ID: C103002 End Date: Ongoing

Location: Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: In more than one District Urban Village: Not in an Urban Village

This program allows SPU to meet current Occupational Safety and Health Administration (OSHA) and Washington State Health Administration (WSHA) standards for confined space entry by replacing undersized underground chamber access openings (rings and covers) throughout the City's water system.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	330	180	124	159	164	169	174	179	1,479
Project Total:	330	180	124	159	164	169	174	179	1,479
Fund Appropriations/Allocations									
SPU Water Fund	330	180	124	159	164	169	174	179	1,479
Appropriations Total*	330	180	124	159	164	169	174	179	1,479
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

#### **Control & Data Acquisition Upgrade**

BCL/Program Name: Water Quality

BCL/Program Code: C140B

Project Type:New InvestmentStart Date:1st Quarter 2002Project ID:C195008End Date:4th Quarter 2007

**Location:** Various

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project upgrades the Supervisory Control and Data Acquisition (SCADA) system. Water system operators use SCADA equipment to acquire and monitor data, such as flow or pressure from remote sensors and from water supply dams, and to remotely operate pumps and valves. This project is broken down into four concurrent stages. Stage one of the project, which includes creating functional specifications, is complete and SPU has selected a vendor. Stage two converts SPU's Operations Control Center control room to a PC workstation-based software system, upgrades approximately 110 pieces of field site data collection equipment, and improves the communications system to allow for a redundant control room at SPU's North Operation Center. The confidence level of the cost estimate for this project stage is high, and the stage has been approved by SPU's Asset Management Committee (AMC). Stage three focuses on improving the capacity of the Water System Control Center to optimize system operations. Stage four integrates SCADA with other SPU business information systems such as SPU's work order system. Stage three has been approved by the AMC.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	4,480	3,625	2,383	2,019	0	0	0	0	12,507
Project Total:	4,480	3,625	2,383	2,019	0	0	0	0	12,507
Fund Appropriations/Allocations									
SPU Water Fund	4,480	3,625	2,383	2,019	0	0	0	0	12,507
Appropriations Total*	4,480	3,625	2,383	2,019	0	0	0	0	12,507
O & M Costs (Savings)			354	405	455	455	483	512	2,664

#### **Design Commission Fees - Water**

BCL/Program Name:InfrastructureBCL/Program Code:C110BProject Type:Improved FacilityStart Date:OngoingProject ID:C101050End Date:Ongoing

**Location:** N/A

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project funds the City Design Commission's review of the environmental and design aspects of capital improvement projects funded by the Water Fund. Projects reviewed by the Design Commission include those which have a visual impact on the public realm, including buildings, fencing, gates, and landscaping. The allocations shown below are estimates and are expected to be revised over time. This project serves as a central location for fee estimates and once specific projects are reviewed and costs are incurred, the fees are allocated to the appropriate projects.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	20	21	21	22	23	23	24	154
Project Total:	0	20	21	21	22	23	23	24	154
Fund Appropriations/Allocations									
SPU Water Fund	0	20	21	21	22	23	23	24	154
Appropriations Total*	0	20	21	21	22	23	23	24	154
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Distribution Projects Development**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Improved FacilityStart Date:1st Quarter 2005Project ID:C105087End Date:4th Quarter 2011

**Location:** Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: In more than one District Urban Village: Not in an Urban Village

This project provides funds for planning level work in the Water Distribution System business area prior to the identification of specific capital projects. This work includes policy analysis and program development to address emerging and unanticipated issues at the time of CIP budget development. In the 2005-2010 Adopted CIP, the project ID for this project was C1NW101-001.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	100	103	106	109	113	116	119	766
Project Total:	0	100	103	106	109	113	116	119	766
Fund Appropriations/Allocations									
SPU Water Fund	0	100	103	106	109	113	116	119	766
Appropriations Total*	0	100	103	106	109	113	116	119	766
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

#### **Distribution System In-Line Gate Valves**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type: Rehabilitation or Restoration Start Date: 1st Quarter 1999

Project ID: C199012 End Date: Ongoing

Location: Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This project replaces aging in-line gate valves throughout the water distribution system. Many of these valves are more than 50 years old and are obsolete. Spare parts are difficult, and in some cases impossible, to obtain. The confidence level of the cost estimate is medium as it is dependent on the condition of the gate valves and the availability of parts. The project has been approved by SPU's Asset Management Committee.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	411	60	62	64	66	68	70	72	873
Project Total:	411	60	62	64	66	68	70	72	873
Fund Appropriations/Allocations									
SPU Water Fund	411	60	62	64	66	68	70	72	873
Appropriations Total*	411	60	62	64	66	68	70	72	873
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Downstream Fish Habitat**

BCL/Program Name: Habitat Conservation Program

BCL/Program Code: C160B

Project Type:Rehabilitation or RestorationStart Date:1st Quarter 2001Project ID:C1607End Date:4th Quarter 2008

**Location:** Cedar River

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project is a component of the Cedar River Habitat Conservation Plan (HCP). The project implements downstream habitat protection and restoration measures in the lower 22 miles of the mainstem Cedar River for the benefit of anadromous salmonid species, especially Chinook salmon, and to enhance natural ecological processes that shape and maintain riparian and aquatic habitat. Activities include habitat land acquisition in collaboration with Cascade Land Conservancy and restoration work at Walsh Lake. This project is part of the HCP, which was approved by SPU's Asset Management Committee at the program level. The confidence level of the current cost estimate is medium.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	268	2,213	1,527	2,721	12	0	0	0	6,741
Project Total:	268	2,213	1,527	2,721	12	0	0	0	6,741
Fund Appropriations/Allocations									
SPU Water Fund	268	2,213	1,527	2,721	12	0	0	0	6,741
Appropriations Total*	268	2,213	1,527	2,721	12	0	0	0	6,741
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Environmental Steward Project Development**

BCL/Program Name: Environmental Stewardship BCL/Program Code: C130B

Project Type:Improved FacilityStart Date:1st Quarter 2005Project ID:C105084End Date:4th Quarter 2011

Location: Cedar & Tolt River Watershed

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project provides funds for performing planning level work on Environmental Stewardship activities prior to the formation of specific capital projects. This work includes development of Strategic Asset Management Plans for the Watershed and Environmental Program Area, policy analysis and program development to deal with issues related to the management of the Tolt & Cedar River Municipal Watersheds, and other work that assists in the identification of potential capital projects and development of concept level scopes and estimates for new capital projects. In the 2005-2010 Adopted CIP, the project ID for this project was C1NW301-003.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	100	103	106	109	113	116	119	766
Project Total:	0	100	103	106	109	113	116	119	766
Fund Appropriations/Allocations									
SPU Water Fund	0	100	103	106	109	113	116	119	766
Appropriations Total*	0	100	103	106	109	113	116	119	766
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **ESA Chinook Research & Monitoring**

BCL/Program Name: Environmental Stewardship BCL/Program Code: C130B

Project Type:Rehabilitation or RestorationStart Date:1st Quarter 2001Project ID:C101048End Date:4th Quarter 2011

**Location:** Lake Washington Watershed

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This program provides funding for research and monitoring of Seattle's salmon population, with emphasis on their habitat use in Lake Washington, the Ship Canal/Lake Union, and Ballard Locks. This program is part of the City's response to the listing of Chinook salmon as a threatened species under the federal Endangered Species Act. The results of these research and monitoring activities are used to minimize adverse impacts to endangered species from capital facilities and facility operations, as well as design salmon habitat restoration projects within the City of Seattle.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	561	217	230	250	271	281	290	299	2,399
Project Total:	561	217	230	250	271	281	290	299	2,399
Fund Appropriations/Allocations SPU Water Fund	561	217	230	250	271	281	290	299	2,399
Appropriations Total*	561	217	230	250	271	281	290	299	2,399
	301	217			_,_				*
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **ESA Snohomish River Basin**

BCL/Program Name: Environmental Stewardship BCL/Program Code: C130B

Project Type: Rehabilitation or Restoration Start Date: 2nd Quarter 2000

Project ID: C101003 End Date: Ongoing

**Location:** Snohomish River Basin

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This program acquires and develops critical habitat for salmon in the Tolt River Watershed. The program is coordinated with similar efforts undertaken by City Light, and projects may occur in cooperation with King County, affected tribes, or other local, state, and federal agencies. Beginning with the 2005-2010 Adopted CIP, funding for "ESA Tolt Levee Modifications" (C1NW301-004), which had been included in this project, is displayed as a separate CIP project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	229	52	21	150	160	164	169	174	1,119
Project Total:	229	52	21	150	160	164	169	174	1,119
Fund Appropriations/Allocations									
SPU Water Fund	229	52	21	150	160	164	169	174	1,119
Appropriations Total*	229	52	21	150	160	164	169	174	1,119
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

#### **ESA Tolt Levee Modifications**

BCL/Program Name: Environmental Stewardship BCL/Program Code: C130B

Project Type:Improved FacilityStart Date:1st Quarter 2005Project ID:C105095End Date:4th Quarter 2010

**Location:** City Of Carnation

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This is a collaborative project between Seattle Public Utilities, Seattle City Light, and the King County Department of Natural Resources and Parks. The project removes approximately 1,000 feet of riverbank levee along the lower right bank of the Tolt River adjacent to the Tolt MacDonald Park. It constructs a new setback levee at the edge of the floodplain to provide reconnection to off-channel salmon habitat, and to allow for the creation of new spawning and rearing habitat for Chinook salmon. The SPU Asset Management Committee approved this project in 2005. In the 2005-2010 Adopted CIP, the project ID for this project was C1NW301-004.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	347	258	1,167	546	23	23	0	2,364
Project Total:	0	347	258	1,167	546	23	23	0	2,364
Fund Appropriations/Allocations									
SPU Water Fund	0	347	258	1,167	546	23	23	0	2,364
Appropriations Total*	0	347	258	1,167	546	23	23	0	2,364
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Facility Improvements - Water**

BCL/Program Name: Shared Cost Projects BCL/Program Code: C410B

Project Type:Improved FacilityStart Date:1st Quarter 2003Project ID:C404602-WFEnd Date:4th Quarter 2006

Location: 700 5th Ave.

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:DowntownUrban Village:Commercial Core

This project funds logistical support services for SPU including tenant improvements, office buildouts, and furniture. The funding shown below is the Water Fund's share of the project's cost. The 2006 total cost for this project across all SPU funds is approximately \$2.8 million.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	902	2,491	1,421	0	0	0	0	0	4,814
Project Total:	902	2,491	1,421	0	0	0	0	0	4,814
Fund Appropriations/Allocations									
SPU Water Fund	902	2,491	1,421	0	0	0	0	0	4,814
Appropriations Total*	902	2,491	1,421	0	0	0	0	0	4,814
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

### **Fireflow & Pressure Improvement**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type: Improved Facility Start Date: 1st Quarter 2003

Project ID: C1128 End Date: Ongoing

Location: Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This project improves the water distribution system by adding new water lines; replacing, relining, or slip-lining existing lines; adjusting pressure zone boundaries; and installing pressure reducing and pressure boosting installations to meet evolving customer service levels for continuity of service, pressure, water quality, and fire protection.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	266	300	580	2,652	5,316	6,010	6,191	6,376	27,691
Project Total:	266	300	580	2,652	5,316	6,010	6,191	6,376	27,691
Fund Appropriations/Allocations									
SPU Water Fund	266	300	580	2,652	5,316	6,010	6,191	6,376	27,691
Appropriations Total*	266	300	580	2,652	5,316	6,010	6,191	6,376	27,691
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Fleet Management Study

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type:Rehabilitation or RestorationStart Date:1st Quarter 2005Project ID:C405601-WFEnd Date:4th Quarter 2005

**Location:** N/A

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project applies asset management principles to the management of SPU's fleet of heavy equipment. A consultant study is complete and the recommendations related to fleet utilization, including which kinds of equipment SPU should be using and how the Department's work practices might be changed either to use existing equipment better or to use different equipment, has been presented to the SPU Asset Management Committee. The project supports other work being done by SPU to assess its current system of fleet management, develop performance measures and tracking systems, and modify department processes and practices related to fleet management. It is expected that the implementation of the recommendations identified through this study will lead to lower life cycle costs for fleet management.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	123	0	0	0	0	0	0	123
Project Total:	0	123	0	0	0	0	0	0	123
Fund Appropriations/Allocations									
SPU Water Fund	0	123	0	0	0	0	0	0	123
Appropriations Total*	0	123	0	0	0	0	0	0	123
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Fremont Bridge**

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Improved FacilityStart Date:3rd Quarter 2004Project ID:C1NW201-003End Date:1st Quarter 2006

**Location:** South End Of Fremont Bridge

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project is in support of the Seattle Department of Transportation's project to replace the approaches to the Fremont Bridge. The design is complete for the first phase of construction and there are very few impacts to the water system. The second phase of the project constructs a new maintenance building near the south approach and this will likely require the construction of a new eight-inch watermain to replace the existing two-inch galvanized main. Plans are not yet available for review of the building or the new water main. SPU develops the scope and costs with SDOT plans. The SPU Asset Management Committee review is not required as the project total cost does not exceed \$250,000.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	0	1	0	0	0	0	0	1
Project Total:	0	0	1	0	0	0	0	0	1
Fund Appropriations/Allocations									
SPU Water Fund	0	0	1	0	0	0	0	0	1
Appropriations Total*	0	0	1	0	0	0	0	0	1
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Heavy Equipment Purchases - Water**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type: New Investment Start Date: 1st Quarter 1999

Project ID: C199068 End Date: Ongoing

Location: N/A

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: Not in an Urban Village

This program replaces existing heavy equipment (such as loaders and bulldozers) used at Water Utility facilities. These pieces of equipment have reached the end of their useful lives. The project also funds retrofitting of existing equipment to meet environmental standards.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	9,072	2,934	2,179	3,501	1,639	1,688	4,869	5,015	30,897
Project Total:	9,072	2,934	2,179	3,501	1,639	1,688	4,869	5,015	30,897
Fund Appropriations/Allocations SPU Water Fund	9,072	2,934	2,179	3,501	1,639	1,688	4,869	5,015	30,897
Appropriations Total*	9,072	2,934	2,179	3,501	1,639	1,688	4,869	5,015	30,897
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

#### **Hidden Lake CSO Betterments**

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Rehabilitation or RestorationStart Date:3rd Quarter 2004Project ID:C104066End Date:4th Quarter 2006

**Location:** City of Shoreline

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:NortheastUrban Village:Not in an Urban Village

This project allows SPU to perform betterment work in conjunction with a King County combined sewer rehab project, which is impacting SPU Water services in Shoreline. The County project creates an opportunity for SPU to perform its work while the width of the street is exposed, reducing future disruption by additional street openings. The four-inch water line under Springdale Ct. NW does not provide minimum fireflow requirements to the area and replacing approximately 1,100 linear feet of pipe will bring the area at least 20% more than the minimum requirement. Also all hydrants in the area will be replaced with six-inch wide capacity.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	0	188	0	0	0	0	0	188
Project Total:	0	0	188	0	0	0	0	0	188
Fund Appropriations/Allocations									
SPU Water Fund	0	0	188	0	0	0	0	0	188
Appropriations Total*	0	0	188	0	0	0	0	0	188
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Hidden Lake CSO Impact Work**

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Rehabilitation or RestorationStart Date:3rd Quarter 2004Project ID:C104067End Date:4th Quarter 2007

Location: City of Shoreline

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:NortheastUrban Village:Not in an Urban Village

This project is an inter-agency project with King County to address impacts made to the City's water system in Shoreline impacted by County sewer improvements project. The County project includes the installation of a large underground storage pipe in the Boeing Creek Park, replacing the Hidden Lake pump station and replacing approximately 11,000 feet of sewer pipe between the Hidden Lake pump station and the Richmond Beach pump station. The SPU work involves cutting, capping, and reconnecting pipes to allow implementation of the County project through SPU's water service area.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	54	271	85	0	0	0	0	410
Project Total:	0	54	271	85	0	0	0	0	410
Fund Appropriations/Allocations									
SPU Water Fund	0	54	271	85	0	0	0	0	410
Appropriations Total*	0	54	271	85	0	0	0	0	410
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Holgate/Amtrak Water Relocation**

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Rehabilitation or RestorationStart Date:4th Quarter 1998Project ID:C101009End Date:4th Quarter 2005

**Location:** S Holgate St./4th Ave. S/1st Ave. S

Neighborhood Plan: Duwamish Neighborhood Plan Matrix: Multiple

Neighborhood District: Greater Duwamish Urban Village: Duwamish

This project responds to Amtrak's redevelopment of rail yard facilities at S Holgate St. between 3rd Ave. S and 4th Ave. S. As part of the redevelopment, the grade of S Holgate St. was lowered, reducing the cover over the existing 20-inch feeder main under S Holgate St. This project replaced the main at a lower depth (at Amtrak's expense) under the new track and extended the water main replacement under existing tracks on Holgate in the vicinity of 3rd Ave. S (at SPU's expense). Additionally, SPU supported Amtrak's project by performing shutdowns, water service relocations and installation of new services. The construction is complete, and the confidence level in the cost estimate is medium pending a determination of contaminated soil disposal costs.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	275	10	0	0	0	0	0	0	285
Project Total:	275	10	0	0	0	0	0	0	285
Fund Appropriations/Allocations									
SPU Water Fund	275	10	0	0	0	0	0	0	285
Appropriations Total*	275	10	0	0	0	0	0	0	285
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **I-405 Widening Cedar River Pipelines Impacts**

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Rehabilitation or RestorationStart Date:2nd Quarter 2005Project ID:C105096End Date:4th Quarter 2006

**Location:** City of Renton

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project is in response to the Washington State Department of Transportation's (WSDOT) planned widening of various sections of I-405 and SR-167, at locations that could impact Cedar River Pipelines (CRPLs) 1, 2, 3, 4. Initially, the main impacts seem to be on CRPL 4 where it crosses SR-167, and near Southcenter. The WSDOT project is still in the preliminary engineering stage, so impacts to SPU have not been fully determined at this time. SPU's potential involvement in this project could range from easement work and pipeline monitoring to pipeline replacement. Only planning and coordination costs are included at this time. The confidence level of the current cost estimate is medium, and the project does not require review by the SPU Asset Management Committee.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	0	46	0	0	0	0	0	46
Project Total:	0	0	46	0	0	0	0	0	46
Fund Appropriations/Allocations									
SPU Water Fund	0	0	46	0	0	0	0	0	46
Appropriations Total*	0	0	46	0	0	0	0	0	46
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Instream Flow Management Studies**

BCL/Program Name: Habitat Conservation Program

BCL/Program Code: C160B

Project Type:Improved FacilityStart Date:4th Quarter 2003Project ID:C1608End Date:4th Quarter 2011

**Location:** Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: Ballard Urban Village: In more than one Urban Village

This set of projects is part of the Cedar River Habitat Conservation Plan (HCP), which has received approval by SPU's Asset Management Committee. Studies conducted under this project generate information on relationships between stream flow and habitat conditions, with an emphasis on Chinook; support effective allocation of water above guaranteed levels; and address technical issues that emerged in the later stages of developing the HCP. The project includes studies of Chester Morse dead storage, to evaluate the feasibility of using dead storage in Chester Morse Lake to augment future water supply and flows, taking into account engineering, environmental, and economic issues. The project also includes an Accretion Flow Study, which studies Cedar River hydrology to confirm assumptions embodied in the HCP. The confidence level of cost estimates for this project is high.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	93	533	623	727	327	208	131	135	2,777
Project Total:	93	533	623	727	327	208	131	135	2,777
Fund Appropriations/Allocations SPU Water Fund	93	533	623	727	327	208	131	135	2,777
Appropriations Total*	93	533	623	727	327	208	131	135	2,777
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Lake Young's Outlet Dam Rehabilitation**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Rehabilitation or RestorationStart Date:2nd Quarter 2003Project ID:C102013End Date:1st Quarter 2006

**Location:** Lake Youngs Reservoir

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project makes improvements at the dams at Lake Young's to comply with Washington state dam safety requirements. Work identified or completed to date includes installation of survey monuments on all three dams; raising the west portion of the south dam of Lake Young's, which is constructed of semi-structural fill that may fail in an earthquake and release water within the top six feet of the lake into the Kent valley; and replacement of the deteriorated siphon pipes at Lake Young's that are used to provide water to Little Soos Creek. The confidence level of cost estimates is high, and the SPU Asset Management Committee approved the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	185	125	4	0	0	0	0	0	314
Project Total:	185	125	4	0	0	0	0	0	314
Fund Appropriations/Allocations									
SPU Water Fund	185	125	4	0	0	0	0	0	314
Appropriations Total*	185	125	4	0	0	0	0	0	314
O & M Costs (Savings)			6	6	6	6	6	6	36

### **Lake Young's Outlet Dam Warning System**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Improved FacilityStart Date:1st Quarter 2001Project ID:C101006End Date:1st Quarter 2007

**Location:** South Of Lake Youngs Reservoir

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project installs a warning system for detecting dam failure at the Lake Young's Outlet Dam, per regulatory requirement. Operations and maintenance costs listed below are included in the Department's operating budget. The confidence level of cost estimate is high and the SPU Asset Management Committee approved this project for construction.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	533	34	41	11	0	0	0	0	619
Project Total:	533	34	41	11	0	0	0	0	619
Fund Appropriations/Allocations									
SPU Water Fund	533	34	41	11	0	0	0	0	619
Appropriations Total*	533	34	41	11	0	0	0	0	619
O & M Costs (Savings)			15	19	24	24	24	24	130

### **Landsburg Fish Passage Improvements**

BCL/Program Name: Habitat Conservation Program

BCL/Program Code: C160B

Project Type:Improved FacilityStart Date:2nd Quarter 1999Project ID:C1604End Date:4th Quarter 2010

**Location:** Cedar River

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project mitigates the effects of the fish migration blockage on the Cedar River created by the Landsburg Dam, and is a key element of the Cedar River Habitat Conservation Plan (HCP). The project includes the planning, design, and construction of four major fish passage facilities; interim studies; and the implementation of monitoring and other mitigation measures to help restore Chinook, Coho and Steelhead populations. Landsburg is the site of the City of Seattle's municipal water diversion and treatment facilities on the Cedar River. The SPU Asset Management Committee approved the design and construction phases of the project and the confidence level for this cost estimate is high.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	12,611	202	226	255	262	10	8	0	13,574
Project Total:	12,611	202	226	255	262	10	8	0	13,574
Fund Appropriations/Allocations									
SPU Water Fund	12,611	202	226	255	262	10	8	0	13,574
Appropriations Total*	12,611	202	226	255	262	10	8	0	13,574
O & M Costs (Savings)			169	169	169	169	169	169	1,014

### **Landsburg Flood Passage Improvement**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Improved FacilityStart Date:1st Quarter 2004Project ID:C104016End Date:4th Quarter 2008

**Location:** Landsburg Dam

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project addresses flood passage deficiencies at the City's Landsburg Dam on the Cedar River, making necessary improvements to reduce the risk of significant damage or loss of the dam in the event of a major flood. Preliminary engineering is proceeding per SPU's Asset Management Committee approval to identify the preferred option. Cost estimates are based on construction of a new 40-foot wide emergency spillway. Other options being considered are debris control and modification of the spillway to install an inflatable rubber dam. The rubber dam portion would be deflated in a major flood to provide increased spillway capacity and to allow better passage of debris. The confidence level of the current cost estimate is medium. The SPU Asset Management Committee approved moving forward on the design and construction phases of this project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	44	450	410	2,649	2,370	0	0	0	5,923
Project Total:	44	450	410	2,649	2,370	0	0	0	5,923
Fund Appropriations/Allocations									
SPU Water Fund	44	450	410	2,649	2,370	0	0	0	5,923
Appropriations Total*	44	450	410	2,649	2,370	0	0	0	5,923
O & M Costs (Savings)			0	8	10	10	10	10	48

### Main Warehouse Improvements - Water

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type:Improved FacilityStart Date:1st Quarter 2006Project ID:C406601-WFEnd Date:4th Quarter 2006

Location: 2700 Airport/Way/S

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Greater DuwamishUrban Village:Not in an Urban Village

This project evaluates, plans, designs and constructs building systems, including a sprinkler system for fire suppression and maintenance improvements, such as lighting, heating, ventilation and air conditioning, and roof replacement for the main warehouse facility at the Operations Control Center. The funding shown for this project reflects an estimated cost to perform required code improvements and evaluate the overall building needs. The SPU Asset Management Committee approved this project in 2005. The Project ID was C406604-WF in the 2006-2011 proposed CIP.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	0	262	0	0	0	0	0	262
Project Total:	0	0	262	0	0	0	0	0	262
<b>Fund Appropriations/Allocations</b> SPU Water Fund	0	0	262	0	0	0	0	0	262
Appropriations Total*	0	0	262	0	0	0	0	0	262
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Maple Leaf Gatehouse Pipe Refurbishing

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Improved FacilityStart Date:2nd Quarter 1995Project ID:C195001End Date:2nd Quarter 2007

**Location:** NE 83rd St./12th Ave. NE

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:NortheastUrban Village:Not in an Urban Village

This project refurbishes valves and piping to allow more water from the Tolt Watershed source to be delivered to areas south of the Lake Washington Ship Canal normally served by the Cedar River. The project makes it possible to supply the indoor water uses of the City's entire water system from the Tolt. The project also addresses seismic issues with the gatehouse structure. The confidence level in the current cost estimate is medium.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	43	390	10	13	0	0	0	0	456
Project Total:	43	390	10	13	0	0	0	0	456
Fund Appropriations/Allocations									
SPU Water Fund	43	390	10	13	0	0	0	0	456
Appropriations Total*	43	390	10	13	0	0	0	0	456
O & M Costs (Savings)			0	5	5	5	5	5	25

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

### Marine View/Des Moines Creek

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Rehabilitation or RestorationStart Date:3rd Quarter 1997Project ID:C197021End Date:4th Quarter 2006

**Location:** Marine View Dr.

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project responds to a project by the City of Des Moines that replaces an existing embankment and box culvert over the Des Moines Creek with a bridge. As a result of the City of Des Moines' project, SPU's Des Moines Way pipeline over the embankment is decommissioned. The project includes the installation of thrust restraint system and blowoffs, and the decommissioning of existing facilities. The certainty of the cost estimate is medium-high, and SPU's Asset Management Committee has approved the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	214	400	31	0	0	0	0	0	645
Project Total:	214	400	31	0	0	0	0	0	645
Fund Appropriations/Allocations									
SPU Water Fund	214	400	31	0	0	0	0	0	645
Appropriations Total*	214	400	31	0	0	0	0	0	645
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Meter Replacement - Water

BCL/Program Name:Shared Cost ProjectsBCL/Program Code:C410BProject Type:Rehabilitation or RestorationStart Date:OngoingProject ID:C4101-WFEnd Date:Ongoing

**Location:** Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This program replaces customer meters that are not performing within the American Water Works Association's standards of accuracy due to obsolescence, incorrect application, or inability to repair. It is currently more cost-effective to replace two-inch and smaller meters than it is to repair them. Three-inch and larger meters are repaired, if possible. In the 2005-2010 Adopted CIP, the project ID for this project was C404102-WF.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	11,190	728	718	739	761	784	808	831	16,559
Project Total:	11,190	728	718	739	761	784	808	831	16,559
Fund Appropriations/Allocations	11.190	728	710	720	761	701	808	831	16.550
SPU Water Fund	11,190	128	718	739	761	784	808	831	16,559
Appropriations Total*	11,190	728	718	739	761	784	808	831	16,559
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

### Morse Lake Dead Storage Facilities

BCL/Program Name: Water Supply BCL/Program Code: C150B

Project Type:Improved FacilityStart Date:1st Quarter 2003Project ID:C103032End Date:2nd Quarter 2011

**Location:** Cedar River Watershed, Northern Boundary

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project implements a cost-effective system for reliably delivering water from Cedar Dead Storage during drought conditions for water supply and instream flows. Depending on the outcome of a preliminary engineering study and approval by SPU's Asset Management Committee, either the existing facilities are improved or new facilities are constructed. Deficiencies in the existing Morse Lake emergency pumping plants found during this project are also corrected while the longer-term improvements are being implemented. This project is in a preliminary phase of development and cost estimates will be revised over time.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	407	900	927	955	983	12,268	7,814	1,194	25,448
Project Total:	407	900	927	955	983	12,268	7,814	1,194	25,448
Fund Appropriations/Allocations									
SPU Water Fund	407	900	927	955	983	12,268	7,814	1,194	25,448
Appropriations Total*	407	900	927	955	983	12,268	7,814	1,194	25,448
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Multiple Utility Relocation**

BCL/Program Name:Other AgenciesBCL/Program Code:C120BProject Type:Rehabilitation or RestorationStart Date:OngoingProject ID:C1NW201-001End Date:Ongoing

Location: Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This program enables SPU to respond to large projects that are conducted by other agencies and that impact Seattle's water system. Impacts include utility conflicts that require relocations and construction impacts, and the project includes coordination to minimize impacts to SPU's customers and supply. Often, these agencies reimburse SPU for some or all of the costs incurred. The life to date costs for this project is zero as costs are allocated to the individual projects once they are identified.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	976	927	1,061	1,093	1,126	1,159	1,194	7,536
Project Total:	0	976	927	1,061	1,093	1,126	1,159	1,194	7,536
Fund Appropriations/Allocations	0	076	027	1.061	1 002	1.126	1 150	1 104	7.526
SPU Water Fund	0	976	927	1,061	1,093	1,126	1,159	1,194	7,536
Appropriations Total*	0	976	927	1,061	1,093	1,126	1,159	1,194	7,536
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Operational Facilities Plan**

BCL/Program Name: Shared Cost Projects BCL/Program Code: C410B

Project Type:Improved FacilityStart Date:1st Quarter 2006Project ID:C406622-WFEnd Date:4th Quarter 2006

**Location:** Various

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project provides an inventory of existing facilities and their condition and identifies department functions, and adjacency, facility and space requirements. The information is used to develop a plan for the use of existing facilities, required upgrades, identification of gaps and recommended options for addressing those gaps. The 2006 total cost for this project across all the SPU funds is \$759,000.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	0	364	0	0	0	0	0	364
Project Total:	0	0	364	0	0	0	0	0	364
Fund Appropriations/Allocations									
SPU Water Fund	0	0	364	0	0	0	0	0	364
Appropriations Total*	0	0	364	0	0	0	0	0	364
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

### **Operations Control Center Upgrade - Water**

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type:Improved FacilityStart Date:1st Quarter 2003Project ID:C404501-WFEnd Date:4th Quarter 2007

Location: 2700 Airport Wy. S

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Greater DuwamishUrban Village:Not in an Urban Village

This project remodels and upgrades SPU's Operations Control Center building. The project includes reconfiguring internal space to improve security and incorporate the new Supervisory Control And Data Acquisition system. The upgraded center accommodates SPU's new Strategic Operations Division, as well as Field Operations administration and electrical, mechanical, maintenance and emergency response crews.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	1,683	2,195	1,393	259	0	0	0	0	5,530
Project Total:	1,683	2,195	1,393	259	0	0	0	0	5,530
Fund Appropriations/Allocations SPU Water Fund	1,683	2,195	1,393	259	0	0	0	0	5,530
Appropriations Total*	1,683	2,195	1,393	259	0	0	0	0	5,530
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Painting Program - Myrtle Tank**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Rehabilitation or RestorationStart Date:2nd Quarter 2004Project ID:C104031End Date:2nd Quarter 2006

**Location:** 3600 SW Myrtle St.

Neighborhood Plan:Morgan Junction (MOCA)Neighborhood Plan Matrix:RG17Neighborhood District:SouthwestUrban Village:Morgan Junction

The Tank Painting program involves interior and exterior surface preparation and painting, minor structural repairs, and safety modifications on a regular maintenance cycle at the City's various tank sites. This project cleans and overcoats the tank exterior of the Myrtle tanks. The interior lining on one of the tanks is also removed and replaced. Minor safety and operational modifications are made. The confidence level of the cost estimate is high, and SPU's Asset Management Committee has approved the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	22	653	127	0	0	0	0	0	802
Project Total:	22	653	127	0	0	0	0	0	802
Fund Appropriations/Allocations									
SPU Water Fund	22	653	127	0	0	0	0	0	802
Appropriations Total*	22	653	127	0	0	0	0	0	802
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

### Painting Program - Richmond Highland

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Rehabilitation or RestorationStart Date:2nd Quarter 2004Project ID:C104032End Date:2nd Quarter 2006

**Location:** N 195th St./Fremont Ave. N

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

The Tank Painting program involves interior and exterior surface preparation and painting, minor structural repairs, and safety modifications on a regular maintenance cycle at the City's various tank sites. This project cleans and overcoats the tank exterior of the Richmond Highland tanks (located north of Seattle city limits). The interior lining is completely removed and replaced. Minor safety and operational modifications are made. The confidence level of the cost estimate is high, and SPU's Asset Management Committee has approved the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	26	1,295	314	0	0	0	0	0	1,635
Project Total:	26	1,295	314	0	0	0	0	0	1,635
Fund Appropriations/Allocations SPU Water Fund	26	1,295	314	0	0	0	0	0	1,635
Appropriations Total*	26	1,295	314	0	0	0	0	0	1,635
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Painting Program - Steel Structures**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Rehabilitation or RestorationStart Date:1st Quarter 2005Project ID:C1NW130End Date:4th Quarter 2011

Location: Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: In more than one District Urban Village: Not in an Urban Village

The Steel Structures Painting program involves rehabilitation of the coating, lining, and paint systems on exposed steel pipelines, elevated tanks, standpipes, and other steel structures in the water system. The work involves minor structural repairs and safety modifications, surface preparation, and the application of a new coating system. This program is in a preliminary phase of development and cost estimates will be revised over time. SPU Asset Management Committee review is not required at this time.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	20	103	530	546	563	580	597	2,939
Project Total:	0	20	103	530	546	563	580	597	2,939
Fund Appropriations/Allocations SPU Water Fund	0	20	103	530	546	563	580	597	2,939
Appropriations Total*	0	20	103	530	546	563	580	597	2,939
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Pump Station - Install Station Motors**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

**Project Type:** Rehabilitation or Restoration **Start Date:** 4th Quarter 1999

Project ID: C199052 End Date: Ongoing

**Location:** Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This program replaces aging pump station motors throughout the water distribution system with new, more efficient motors. Some of the existing motors were installed 30 or more years ago and are now obsolete, with no replacement parts available. The confidence for this project cost estimate is medium. SPU's Asset Management Committee has approved this project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	39	61	62	69	76	79	81	84	551
Project Total:	39	61	62	69	76	79	81	84	551
Fund Appropriations/Allocations									
SPU Water Fund	39	61	62	69	76	79	81	84	551
Appropriations Total*	39	61	62	69	76	79	81	84	551
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

### **Pump Station - Queen Anne**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Improved FacilityStart Date:1st Quarter 1996Project ID:C1AA005End Date:4th Quarter 2007

Location: 110 Lee St.

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Magnolia/Queen AnneUrban Village:Not in an Urban Village

This project constructs a new booster pump station and pressure zone on the top of Queen Anne Hill to improve pressure at existing low-pressure water services in the higher elevation areas. The project includes more than 12,000 feet of watermain improvements necessary to establish the new pressure zone. The booster pump station will be an underground facility located at the site of the Queen Anne standpipes. The project also has a side benefit of improving fire flow capacity within the new pressure zone created. Project design is proceeding in conjunction with the Queen Anne tank project, and the current plan is to combine the two projects into a single construction contract.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	1,045	50	3,018	3,071	0	0	0	0	7,184
Project Total:	1,045	50	3,018	3,071	0	0	0	0	7,184
Fund Appropriations/Allocations									
SPU Water Fund	1,045	50	3,018	3,071	0	0	0	0	7,184
Appropriations Total*	1,045	50	3,018	3,071	0	0	0	0	7,184
O & M Costs (Savings)			10	13	16	16	16	16	87

### Purveyor Meters Replace - SPU

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type: Rehabilitation or Restoration Start Date: 1st Quarter 2000

Project ID: C1107 End Date: Ongoing

Location: Citywide

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:In more than one DistrictUrban Village:Not in an Urban Village

This program replaces SPU wholesale customer meters that are not performing within industry standards of accuracy. The project also funds customer-requested wholesale meter changes and upgrades. For the most part, SPU costs are directly reimbursed by the wholesale customers. The confidence in the cost estimate is medium, and this program does not require the SPU Asset Management Committee review as it is an ongoing program.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									_
Water Rates	3,624	176	103	106	109	113	116	119	4,466
Project Total:	3,624	176	103	106	109	113	116	119	4,466
Fund Appropriations/Allocations SPU Water Fund	3,624	176	103	106	109	113	116	119	4,466
Appropriations Total*	3,624	176	103	106	109	113	116	119	4,466
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Regional Water Conservation Program**

BCL/Program Name: Water Supply BCL/Program Code: C150B

Project Type:Improved FacilityStart Date:1st Quarter 1999Project ID:C1504End Date:4th Quarter 2010

Location: Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This project is a cooperative regional effort between SPU and 18 of Seattle's wholesale customers. Not all of Seattle's wholesale customers are participating in this project. In some cases, wholesale customers choose to find other ways to manage supply and demand; in other cases, those wholesale customers do not purchase significant amounts of water from SPU. Fifty percent of the project is paid for from wholesale rates as part of current wholesale contract requirements. The project has the goal of reducing personal and commercial water consumption by one percent per year, which is approximately equal to the projected level of growth in regional water demand over the period 2000 to 2010 (14.5 million gallons per day peak demand savings). The project is required by Seattle's Water System Plan, wholesale contracts, and by City Council adopted legislation, including Resolutions 30091 and 30259 and Ordinance 120532. The confidence level of the cost estimate is high. SPU's Asset Management Committee has approved this project. In the 2005-2010 Adopted CIP, the project ID for this project was C199032.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	15,706	3,300	3,657	4,138	4,535	5,121	5,796	0	42,253
Project Total:	15,706	3,300	3,657	4,138	4,535	5,121	5,796	0	42,253
Fund Appropriations/Allocations SPU Water Fund	15,706	3,300	3,657	4,138	4,535	5,121	5,796	0	42,253
Appropriations Total*	15,706	3,300	3,657	4,138	4,535	5,121	5,796	0	42,253
O & M Costs (Savings)			0	0	0	0	0	0	0

### Renton Franchise/Line Valve Cedar River

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Rehabilitation or RestorationStart Date:1st Quarter 2002Project ID:C102023End Date:4th Quarter 2006

Location: Cedar River Pipeline

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

In 1998, the Cities of Seattle and Renton signed an agreement that addresses Renton's request that SPU add line valves east of downtown Renton to reduce flooding in the event of a pipeline failure. This project responds to that agreement. Project components include improvement or relocation of pipeline blowoffs, replacement of Cedar River Pipeline 1 & 2 valves at Leo Street, automation of the I- 405 ball valves, modifications to Augusta Gatehouse, and other miscellaneous work. This certainty of this project cost estimate is high and the project has been approved by SPU's Asset Management Committee

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	1,258	970	15	0	0	0	0	0	2,243
Project Total:	1,258	970	15	0	0	0	0	0	2,243
Fund Appropriations/Allocations									
SPU Water Fund	1,258	970	15	0	0	0	0	0	2,243
Appropriations Total*	1,258	970	15	0	0	0	0	0	2,243
O & M Costs (Savings)			21	27	35	35	0	0	118

### **Replace Air Valve Chambers**

BCL/Program Name: Infrastructure

BCL/Program Code: C110B

Project Type:Rehabilitation or RestorationStart Date:OngoingProject ID:C199060End Date:Ongoing

Location: Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This program replaces existing valve chamber tops and access chimneys with larger diameter tops and chimneys, and makes minor air valve improvements as needed. The project provides SPU staff with safer access to valves, and complies with industry safety standards. The confidence level in the cost estimate is high, and SPU's Asset Management Committee has approved the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	346	61	64	66	66	68	70	72	813
Project Total:	346	61	64	66	66	68	70	72	813
Fund Appropriations/Allocations									
SPU Water Fund	346	61	64	66	66	68	70	72	813
Appropriations Total*	346	61	64	66	66	68	70	72	813
O & M Costs (Savings)			0	0	0	0	0	0	0

### Reservoir Covering - Beacon

BCL/Program Name: Water Quality

BCL/Program Code: C140B

Project Type:Improved FacilityStart Date:1st Quarter 2001Project ID:C101060End Date:2nd Quarter 2008

**Location:** S Spokane St./Beacon Ave. S

Neighborhood Plan: North Beacon Hill Neighborhood Plan Matrix: WR4

Neighborhood District: Greater Duwamish Urban Village: Beacon Hill

Per Ordinance 121447, this project replaces the existing 49 million gallon open South Beacon Reservoir with a new underground reservoir of approximately the same size, and rehabilitates the pipes and valves connecting the reservoir to the water system. Additionally, the project retires the existing North Beacon Reservoir. The project helps to protect Seattle's water supply from vandalism and contamination, and improves the quality of life in the surrounding neighborhood by creating approximately 29 acres of open space and avoiding the unsightly appearance of other reservoir covering options. Inflation and higher steel and construction costs are reflected below, and the confidence level of the cost estimate is high. SPU's Asset Management Committee has reviewed and approved the reservoir burying program, including this project. Following this project, the Seattle Department of Parks and Recreation (Parks) will expand Jefferson Park over the reservoir site as a 2000 Parks Levy Project. See the Parks section of the 2006-2011 Proposed CIP for more information on the Jefferson Park Project (K733131).

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	882	1,000	8,799	24,411	4,137	0	0	0	39,229
Project Total:	882	1,000	8,799	24,411	4,137	0	0	0	39,229
Fund Appropriations/Allocations									
SPU Water Fund	882	1,000	8,799	24,411	4,137	0	0	0	39,229
Appropriations Total*	882	1,000	8,799	24,411	4,137	0	0	0	39,229
O & M Costs (Savings)			0	0	76	76	0	0	152

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

### Reservoir Covering - Lincoln

BCL/Program Name: Water Quality

BCL/Program Code: C140B

Project Type:Improved FacilityStart Date:4th Quarter 1996Project ID:C196012End Date:1st Quarter 2008

**Location:** Nagle Pl./E Denny Wy./E Pine St.

Neighborhood Plan:Capitol HillNeighborhood Plan Matrix:B3Neighborhood District:East DistrictUrban Village:Capitol Hill

Per Ordinance 121447, this project replaces the existing 21 million gallon Lincoln reservoir with a new concrete cast-in-place 12.5 million gallon underground reservoir. It also changes out the existing gas chlorinating system to a sodium hypochlorite (bleach) system, replaces pipe and valves connecting the new reservoir to the water system, and restores elements of the park site. The project helps to protect drinking water quality, and creates approximately four acres of open space. The project received SPU's Asset Management Committee approval and is essentially complete. The Seattle Department of Parks and Recreation has expanded the Cal Anderson Park over the reservoir as a 2000 Parks Levy project. See the Parks section of the 2006-2011 Adopted CIP for more details on the Cal Anderson project (K733132).

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	18,693	404	21	5	5	0	0	0	19,128
Project Total:	18,693	404	21	5	5	0	0	0	19,128
<b>Fund Appropriations/Allocations</b> SPU Water Fund	18,693	404	21	5	5	0	0	0	19,128
Appropriations Total*	18,693	404	21	5	5	0	0	0	19,128
O & M Costs (Savings)			43	55	71	91	91	91	442

### Reservoir Covering - Maple Leaf

BCL/Program Name: Water Quality BCL/Program Code: C140B

Project Type:Improved FacilityStart Date:4th Quarter 2001Project ID:C101078End Date:3rd Quarter 2013

**Location:** NE 86th St./Roosevelt Wy. NE

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:NortheastUrban Village:Not in an Urban Village

Per Ordinance 121447, this project replaces the existing Maple Leaf Reservoir with a new underground reservoir, and rehabilitates pipelines leading into and out of the reservoir. The project helps to protect Seattle's water supply from vandalism and contamination, and improves the quality of life in the surrounding neighborhood by creating open space and avoiding the unsightly appearance of other reservoir covering options. Funds spent to date have been for design. Inflation and higher steel and construction costs are reflected below and the confidence level of the cost estimate is medium as construction is not scheduled to occur for several years in the future. SPU's Asset Management Committee has reviewed and approved the reservoir burying program, including this project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	266	513	2	2	0	303	485	16,476	18,047
Project Total:	266	513	2	2	0	303	485	16,476	18,047
Fund Appropriations/Allocations									
SPU Water Fund	266	513	2	2	0	303	485	16,476	18,047
Appropriations Total*	266	513	2	2	0	303	485	16,476	18,047
O & M Costs (Savings)			33	54	69	69	0	0	225

# **Reservoir Covering - Myrtle**

BCL/Program Name: Water Quality

BCL/Program Code: C140B

Project Type:Improved FacilityStart Date:4th Quarter 2001Project ID:C101076End Date:4th Quarter 2007

**Location:** 35th Ave. SW

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:SouthwestUrban Village:Morgan Junction

Per Ordinance 121447, this project replaces the existing open Myrtle Reservoir with a new underground reservoir of approximately the same size, rehabilitates the pipes and valves connecting the reservoir to the water system, and converts the disinfection system at the reservoir to sodium hypochlorite (bleach). The project helps to protect Seattle's water supply from vandalism and contamination, and improves the quality of life in the surrounding neighborhood by creating open space and avoids the unsightly appearance of other reservoir covering options. Inflation and higher steel and construction costs are reflected below and the confidence level of the cost estimate is high. The SPU Asset Management Committee has reviewed and approved the reservoir burying program, including this project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	291	955	2,695	3,325	0	0	0	0	7,266
Project Total:	291	955	2,695	3,325	0	0	0	0	7,266
Fund Appropriations/Allocations									
SPU Water Fund	291	955	2,695	3,325	0	0	0	0	7,266
Appropriations Total*	291	955	2,695	3,325	0	0	0	0	7,266
O & M Costs (Savings)			0	0	8	9	0	0	17

### **Reservoir Covering - Volunteer**

BCL/Program Name: Water Quality BCL/Program Code: C140B

Project Type:Improved FacilityStart Date:1st Quarter 2001Project ID:C101059End Date:2nd Quarter 2015

**Location:** 12th Ave. E/E Prospect St.

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: East District Urban Village: Capitol Hill

Per Ordinance 121447, this project replaces the existing Volunteer Reservoir with a new underground reservoir, and rehabilitates pipelines leading into and out of the reservoir. The project helps to protect Seattle's water supply from vandalism and contamination. SPU is also evaluating the possibility of decommissioning this reservoir instead of undergrounding it. This project was the subject of a budget proviso in 2004, which was lifted by Ordinance 121447. Funding provided in 2010 is intended for design work to underground the reservoir, if a decision is made to keep the reservoir in service. Deferring this project until 2010 helps to reduce near-term pressure on water rates, and allows the costs of the overall reservoir burying program to be slowly phased into commercial and residential water rates. The confidence level of the cost estimate is medium since implementation is several years in the future. The SPU Asset Management Committee has reviewed and approved the reservoir burying program, including this project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	94	0	0	0	0	0	280	1,247	1,621
Project Total:	94	0	0	0	0	0	280	1,247	1,621
Fund Appropriations/Allocations	0.4	0	0	0	0	0	200	1.047	1 (21
SPU Water Fund	94	0	0	0	0	0	280	1,247	1,621
Appropriations Total*	94	0	0	0	0	0	280	1,247	1,621
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Reservoir Covering - West Seattle**

BCL/Program Name: Water Quality

BCL/Program Code: C140B

Project Type:Improved FacilityStart Date:4th Quarter 2001Project ID:C101075End Date:3rd Quarter 2010

**Location:** 8th Ave SW/SW Henderson

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:SouthwestUrban Village:Not in an Urban Village

Per Ordinance 121447, this project replaces the existing West Seattle Reservoir with a new underground reservoir, and rehabilitates pipelines leading into and out of the reservoir. The project helps to protect Seattle's water supply from vandalism and contamination, and improves the quality of life in the surrounding neighborhood by creating open space and avoiding the unsightly appearance of other reservoir covering options. This project was the subject of a budget proviso in 2004, which was lifted by Ordinance 121447. Inflation and higher steel and construction costs are reflected below and the confidence level of the cost estimate is medium as project implementation is not scheduled for a couple years in the future. SPU's Asset Management Committee has reviewed and approved the reservoir burying program, including this project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	264	523	284	489	7,203	14,105	5,560	0	28,428
Project Total:	264	523	284	489	7,203	14,105	5,560	0	28,428
Fund Appropriations/Allocations SPU Water Fund	264	523	284	489	7,203	14,105	5,560	0	28,428
Appropriations Total*	264	523	284	489	7,203	14,105	5,560	0	28,428
O & M Costs (Savings)			0	0	0	17	0	0	17

### **Rock Creek Fishway**

BCL/Program Name: Environmental Stewardship BCL/Program Code: C130B

Project Type:Improved FacilityStart Date:1st Quarter 2002Project ID:C101008End Date:4th Quarter 2007

**Location:** Lake Youngs

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

In 2000, SPU received notification from the Washington Department of Fish and Wildlife that the culvert crossing under the Lake Young's Aqueduct on Rock Creek, approximately 3.5 miles north of Landsburg, does not comply with existing fish passage requirements. This project provides the following to meet requirements: an independent consultant assessment of the nature and magnitude of fish passage impairment at the current structure; conceptual development of a range of improvement options for the facility; and design, permitting, and construction of the selected improvement option.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	84	22	115	555	0	0	0	0	776
Project Total:	84	22	115	555	0	0	0	0	776
Fund Appropriations/Allocations									
SPU Water Fund	84	22	115	555	0	0	0	0	776
Appropriations Total*	84	22	115	555	0	0	0	0	776
O & M Costs (Savings)			0	0	0	0	0	0	0

### **SeaTac 3 Runway Pipeline Relocation**

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Rehabilitation or RestorationStart Date:4th Quarter 1999Project ID:C199075End Date:2nd Quarter 2006

**Location:** S 156th Wy./24th Ave. S

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project relocates the Bow Lake Pipeline away from SeaTac Airport onto a new road along the north perimeter of the airport property. The original pipeline crossed both runways, and was not compatible with the third runway. As a result it was determined that the pipeline should be relocated away from the runways. The Port of Seattle is bearing the majority of the costs, and the amounts shown below are SPU's contribution to the project. The certainty of the cost estimate is high, and SPU's Asset Management Committee has approved the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	283	545	3	0	0	0	0	0	831
Project Total:	283	545	3	0	0	0	0	0	831
Fund Appropriations/Allocations									
SPU Water Fund	283	545	3	0	0	0	0	0	831
Appropriations Total*	283	545	3	0	0	0	0	0	831
O & M Costs (Savings)			0	3	3	3	3	3	15

# **Seattle Direct Service Additional Conservation**

BCL/Program Name: Water Supply BCL/Program Code: C150B

Project Type:Improved FacilityStart Date:1st Quarter 2001Project ID:C1505End Date:4th Quarter 2011

**Location:** Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This program provides additional funding for measures to reduce personal and commercial water consumption in SPU's Direct Service Area for water supply. The program implements Ordinance 120532, adopted in 2001, and supplements funding provided under SPU's Regional Water Conservation Program (C1504). The project is designed in three phases. Phase One works with low-income housing providers; Phase Two works with subsidized and non-subsidized low-income households; and Phase Three works on clothes washers and irrigation system upgrades. Commercial and industrial facility and equipment upgrades are done in all three phases, and may include reclaimed water projects if cost-effective. The confidence level of the cost estimate is low. The SPU Asset Management Committee review is not required for the project. In the 2005-2010 Adopted CIP, the project ID was C102010 for this project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	952	988	1,018	2,016	2,147	2,250	2,317	2,387	14,075
Project Total:	952	988	1,018	2,016	2,147	2,250	2,317	2,387	14,075
Fund Appropriations/Allocations SPU Water Fund	952	988	1,018	2,016	2,147	2,250	2,317	2,387	14,075
Appropriations Total*	952	988	1,018	2,016	2,147	2,250	2,317	2,387	14,075
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Seattle Monorail Project - Water**

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type:New FacilityStart Date:1st Quarter 2004Project ID:C404301-WFEnd Date:1st Quarter 2006

Location: SW Morgan St./NW 85th St.

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

The Seattle Monorail Project (SMP) was planning an initial 14-mile monorail route between Ballard and West Seattle that travels through downtown Seattle. Seattle voters approved the Monorail conceptual plan in November 2002. This project funded planning, design, and coordination with agencies involved in SPU utility relocations associated with implementation of a new monorail. The project does not include funding for construction. An agreement was in place between the SMP and the City in which the former will reimburse the City for all costs incurred by City departments because of the Monorail project. This project was funded by SPU's Drainage & Wastewater and Water Funds. In 2005, the SMP's Board of Directors turned down the financing plan proposed for the SMP, and the project's status was uncertain at the time of the 2006 Proposed Budget. In November 2005, Proposition 1, which concerned constructing a monorail by modifying the Seattle Popular Monorail Plan, was not approved by voters. As a result, the Monorail Green Line will not be built and the Seattle Popular Monorail Authority will be dissolved. See also the Seattle Monorail Project in the Seattle City Light CIP (8306).

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	122	400	0	0	0	0	0	0	522
Project Total:	122	400	0	0	0	0	0	0	522
Fund Appropriations/Allocations SPU Water Fund	122	400	0	0	0	0	0	0	522
Appropriations Total*	122	400	0	0	0	0	0	0	522
O & M Costs (Savings)			0	0	0	0	0	0	0

### Seattle Monorail Project Watermain Replacement - Water

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type:New FacilityStart Date:1st Quarter 2005Project ID:C405330End Date:4th Quarter 2009

Location: Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

The Seattle Monorail Project (SMP) was planning an initial 14-mile monorail route between Ballard and West Seattle that travels through downtown Seattle. Seattle voters approved the Monorail conceptual plan in November 2002. This project funded construction of water utility relocations where appropriate, in association with implementation of a new monorail. The costs would be reimbursed by the SMP. In the 2005-2010 Adopted CIP, the project ID for this project was C4NW103-001-WF. In 2005, the SMP's Board of Directors turned down the financing plan proposed for the SMP, and the project's status was uncertain at the time of the 2006 Proposed Budget. In November 2005, Proposition 1, which concerned constructing a monorail by modifying the Seattle Popular Monorail Plan, was not approved by voters. As a result, the Monorail Green Line will not be built and the Seattle Popular Monorail Authority will be dissolved. See also the Seattle Monorail Project (8306) in the Seattle City Light CIP.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	1,200	0	0	0	0	0	0	1,200
Project Total:	0	1,200	0	0	0	0	0	0	1,200
Fund Appropriations/Allocations									
SPU Water Fund	0	1,200	0	0	0	0	0	0	1,200
Appropriations Total*	0	1,200	0	0	0	0	0	0	1,200
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Seismic Upgrade - Buildings**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Improved FacilityStart Date:4th Quarter 1994Project ID:C1118End Date:4th Quarter 2011

Location: Citywide

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:In more than one DistrictUrban Village:Not in an Urban Village

Under this project, the Broadway, Spokane Street, and Volunteer pump stations, Lincoln, Roosevelt, and Landsburg Tunnel gatehouses, Lake Young's Office and Lake Forest Reservoir Chlorination buildings are seismically upgraded. SPU is evaluating the most economical way of addressing seismic vulnerabilities that have been identified in these facilities, which may consist in some cases of connecting the roofs to the walls. Cost estimates shown below are preliminary and will be revised over time. The SPU Asset Management Committee review is not required.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	1,329	141	170	403	705	732	232	239	3,951
Project Total:	1,329	141	170	403	705	732	232	239	3,951
<b>Fund Appropriations/Allocations</b> SPU Water Fund	1,329	141	170	403	705	732	232	239	3,951
Appropriations Total*	1,329	141	170	403	705	732	232	239	3,951
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Seismic Upgrade - Cedar River Pipelines at Ginger Creek

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Improved FacilityStart Date:1st Quarter 1999Project ID:C197032End Date:4th Quarter 2008

**Location:** Lake Youngs Wy. SE & Kirkland Wy. SE (Renton)

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project upgrades support systems for Cedar River Pipelines 1, 2, and 3 where they cross a boggy area at Ginger Creek so they can better withstand and remain operational after a medium to large earthquake. The confidence in the cost estimates is high, and SPU's Asset Management Committee has approved the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	414	2,105	6	3	3	0	0	0	2,531
Project Total:	414	2,105	6	3	3	0	0	0	2,531
Fund Appropriations/Allocations									
SPU Water Fund	414	2,105	6	3	3	0	0	0	2,531
Appropriations Total*	414	2,105	6	3	3	0	0	0	2,531
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

### Seismic Upgrade - Pipeline Backbone

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Improved FacilityStart Date:1st Quarter 2001Project ID:C101038End Date:4th Quarter 2007

**Location:** Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This program makes seismic improvements to the water distribution system, to better ensure water availability following an earthquake. The program includes seismic vulnerability and hydraulic modeling of the system to determine pipeline vulnerabilities, earthquake failure effects on the system, and cost effective mitigation approaches. For budgeting purposes, it is anticipated that approximately 12 isolation valves will be installed at various locations to prevent vulnerable pipelines from draining the system. Types of valves being considered include seismic-actuated, remote controlled and excess flow. The confidence in the cost estimate is medium and the SPU Asset Management Committee review is required for this program.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	325	205	103	1,432	0	0	0	0	2,065
Project Total:	325	205	103	1,432	0	0	0	0	2,065
Fund Appropriations/Allocations									
SPU Water Fund	325	205	103	1,432	0	0	0	0	2,065
Appropriations Total*	325	205	103	1,432	0	0	0	0	2,065
O & M Costs (Savings)			0	5	5	5	5	5	25

### Seismic Upgrade - Tanks

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Improved FacilityStart Date:4th Quarter 1994Project ID:C1120End Date:4th Quarter 2011

Location: Citywide

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:In more than one DistrictUrban Village:Not in an Urban Village

This project makes seismic upgrades to Barton standpipe, Woodland Park standpipe, Foy standpipe, Landsburg Elevated tanks, Maple Leaf elevated tank, Beverly Park elevated tank and the Volunteer Park standpipe. Typical upgrades include improving standpipe anchorage and foundations and adding seismic isolators and strengthening braces of elevated tanks. Under this program to date, SPU has replaced the Charlestown standpipe, and seismically upgraded the Richmond Highlands tanks and the Magnolia tank. Most of the funding allocated for 2005 and 2006 is for construction of Queen Anne standpipes replacement, which has already been approved by SPU's Asset Management Committee (AMC). Seismic upgrades to the remaining tank and standpipes have not yet been approved by the AMC. It is anticipated that some of the facilities listed may not be upgraded as the cost of the upgrades may outweigh the benefit of the facility to the water system. This project is in a preliminary phase of development and cost estimates will be revised over time.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	6,580	1,445	1,591	4,010	2,748	2,848	2,620	2,699	24,541
Project Total:	6,580	1,445	1,591	4,010	2,748	2,848	2,620	2,699	24,541
<b>Fund Appropriations/Allocations</b> SPU Water Fund	6,580	1,445	1,591	4,010	2,748	2,848	2,620	2,699	24,541
Appropriations Total*	6,580	1,445	1,591	4,010	2,748	2,848	2,620	2,699	24,541
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Shared Opportunity Projects - Water**

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type: Rehabilitation or Restoration Start Date: 1st Ouarter 2005

Project ID: C405603-WF End Date: Ongoing

**Location:** Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This project provides funding for a preliminary assessment of emerging demands that may develop during the year, such as shared fund water, drainage and wastewater, and solid waste projects, emergency repairs or actions to comply with enforcement orders by regulatory agencies. Funding is used to develop scopes, budgets and schedules for new projects to be included in subsequent CIP proposals. For projects that cannot wait until the next funding cycle, SPU uses these funds to prepare background documentation to seek City Council approval for project design and construction in the year it wants the project to begin. New projects that are developed from these funds are reviewed and approved by SPU's capital planning committees. The committees review expenditures on a monthly basis and establish priorities among projects. In the 2005-2010 Adopted CIP, the project ID for this project was C4NW106-005-WF.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	100	0	103	105	108	110	110	636
Project Total:	0	100	0	103	105	108	110	110	636
Fund Appropriations/Allocations									
SPU Water Fund	0	100	0	103	105	108	110	110	636
Appropriations Total*	0	100	0	103	105	108	110	110	636
O & M Costs (Savings)			0	0	0	0	0	0	0

### SLU - Watermain Replacement/South Lake Union Park

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Improved FacilityStart Date:4th Quarter 2004Project ID:C104035End Date:4th Quarter 2006

**Location:** South Lake Union

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Lake UnionUrban Village:South Lake Union

This project replaces an existing watermain during the South Lake Union Park redevelopment. This work includes the design and construction of a 750-foot eight-inch watermain along Terry Avenue N. from the intersection of Valley St. N. This watermain has a high incidence of leaks and, when combined with the park construction, the leak or failure rate of the water could increase. See also the South Lake Union Park - Development project (K733134) in the Department of Parks and Recreation CIP. The confidence level of the planning phase cost estimate is medium.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	155	10	0	0	0	0	0	165
Project Total:	0	155	10	0	0	0	0	0	165
Fund Appropriations/Allocations SPU Water Fund	0	155	10	0	0	0	0	0	165
Appropriations Total*	0	155	10	0	0	0	0	0	165
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **SLU Watermain - Utility Coordination**

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Improved FacilityStart Date:1st Quarter 2004Project ID:C104036End Date:4th Quarter 2008

**Location:** South Lake Union

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Lake UnionUrban Village:South Lake Union

This project funds planning level coordination with other City departments on projects within the South Lake Union area. This effort identifies SPU water system direct impacts, opportunities for system improvements and cost responsibility. As specific water system impacts are identified, then a separate project number will be created to track the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	24	71	62	32	33	0	0	0	222
Project Total:	24	71	62	32	33	0	0	0	222
<b>Fund Appropriations/Allocations</b>									
SPU Water Fund	24	71	62	32	33	0	0	0	222
Appropriations Total*	24	71	62	32	33	0	0	0	222
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

### Sound Transit Light Rail - Water

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type:New FacilityStart Date:1st Quarter 2003Project ID:C4104-WFEnd Date:4th Quarter 2009

**Location:** Martin Luther King Jr. Wy. S/S Walden St.

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: Southeast Urban Village: In more than one Urban Village

This program will fund projects for SPU's costs related to Sound Transit's Light Rail system. SPU is currently working on the planning, design and construction of the Central Link Light Rail system. Sound Transit proposes to construct and operate this electrical light rail transit system, which includes more than 14 miles of alignment. The first phase of Sound Transit's project constructs a light rail segment from the Convention Place Station to South 154th Street near Seattle/Tacoma Airport. SPU is also planning to participate in Sound Transit's preliminary engineering and design on the North Link system, which is expected to begin late 2006. The City of Seattle, including SPU, has an ongoing agreement for reimbursement from Sound Transit. See also Sound Transit projects in the City Light (8204) and Seattle Department of Transportation (TC36631) CIPs. In the 2005-2010 Adopted CIP, the project ID for this project was C404401-WF.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	890	2,172	762	633	299	11	0	0	4,767
Project Total:	890	2,172	762	633	299	11	0	0	4,767
Fund Appropriations/Allocations									
SPU Water Fund	890	2,172	762	633	299	11	0	0	4,767
Appropriations Total*	890	2,172	762	633	299	11	0	0	4,767
O & M Costs (Savings)			0	0	0	0	0	0	0

### Sound Transit Light Rail - Water Betterment

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type:Improved FacilityStart Date:1st Quarter 2005Project ID:C405430End Date:4th Quarter 2008

**Location:** Regional

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This project provides funding for "opportunity" water system improvements as Sound Transit implements the Link Light Rail project. In addition, this project provides funding for shared cost improvements by SPU (Water Fund) and Sound Transit where there is a mutual benefit. These improvements include instances where water system relocation or replacement is not a direct impact of Sound Transit's Light Rail project; where SPU and Sound Transit both benefit from an agreement to share the cost of replacements; or where replacing aging water system infrastructure while Sound Transit implements their project creates logistical efficiencies for SPU. The project area is along the present 14-mile light rail alignment in the City of Seattle and King County. The confidence level of current cost estimates is medium. An agreement authorizing all City services related to Sound Transit Light Rail construction (Sound Transit Construction Services Agreement) was adopted via Ordinance 121312 in July 2003. Sound Transit intends to issue task orders authorizing multiple years of City service for each contract segment. For information on other City department involvement see the Sound Transit projects in the City Light (8204) and Seattle Department of Transportation (TC36631) CIPs. In the 2005-2010 Adopted CIP, the project ID for this project was C4NW104-WF.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	1,400	1,452	764	219	0	0	0	3,835
Project Total:	0	1,400	1,452	764	219	0	0	0	3,835
Fund Appropriations/Allocations									
SPU Water Fund	0	1,400	1,452	764	219	0	0	0	3,835
Appropriations Total*	0	1,400	1,452	764	219	0	0	0	3,835
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Spoils Yard & Decant Facility - Water**

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type:New FacilityStart Date:3rd Quarter 2004Project ID:C404603-WFEnd Date:4th Quarter 2006

**Location:** S Michigan St./E Marginal Wy. S

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Greater DuwamishUrban Village:Not in an Urban Village

This project replaces the temporary spoils yard on Ellis Ave. South with a permanent yard located at the intersection of South Michigan and East Marginal Way South. It is designed and built to allow SPU to handle spoils materials from repair sites, sewer and drainage vactor grits, future hydro-excavated materials and store replacement fill materials for completing repair jobs. The facility is designed to enable SPU to perform these functions environmentally using best management practices. The project may include partners from Seattle Department of Transportation, City Light and Seattle Department of Parks and Recreation. This project is in a preliminary phase of development and cost estimates will be revised over time. The identification of a suitable site and the acquisition process have delayed the project. In the 2005-2010 Adopted CIP, the project ID for this project was C4NW106-007-WF.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	10	116	0	0	0	0	0	126
Project Total:	0	10	116	0	0	0	0	0	126
Fund Appropriations/Allocations									
SPU Water Fund	0	10	116	0	0	0	0	0	126
Appropriations Total*	0	10	116	0	0	0	0	0	126
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Stream & Riparian Restoration**

BCL/Program Name: Habitat Conservation Program

BCL/Program Code: C160B

Project Type: Rehabilitation or Restoration Start Date: 2nd Quarter 2000

Project ID: C1602 End Date: Ongoing

**Location:** Cedar River

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

Stream and Riparian Restoration is a category of projects within the Cedar River Habitat Conservation Plan (HCP) that involves mitigation related to streams and forests adjacent to streams and other aquatic habitats. Projects include streambank stabilization, streamside revegetation, large woody debris placement, conifer under-planting, restoration thinning, ecological thinning, stream-crossing projects to improve flow patterns, stream-crossing improvements to reestablish fish passage, and bull trout habitat studies. SPU's Asset Management Committee approved the HCP at the program level. The confidence level for this project cost estimate is high.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	2,348	837	890	832	861	661	680	701	7,810
Project Total:	2,348	837	890	832	861	661	680	701	7,810
Fund Appropriations/Allocations									
SPU Water Fund	2,348	837	890	832	861	661	680	701	7,810
Appropriations Total*	2,348	837	890	832	861	661	680	701	7,810
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Tolt Bridges**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Rehabilitation or RestorationStart Date:1st Quarter 2004Project ID:C1131End Date:4th Quarter 2007

Location: Tolt River Watershed

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project replaces three deteriorated bridges in the Tolt River Watershed. A 2003 cost/benefit analysis determined that access is needed and the existing bridges are no longer able to carry the required loading, resulting in safety and environmental risks. This project combines the following projects: Tolt Bridge Replacement - Dorothy Creek, Siwash Creek and Chuck Judd Creek. The confidence level of the current cost estimate is medium. SPU Asset Management Committee review is not required at this time.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	61	6	22	350	0	0	0	0	439
Project Total:	61	6	22	350	0	0	0	0	439
Fund Appropriations/Allocations									
SPU Water Fund	61	6	22	350	0	0	0	0	439
Appropriations Total*	61	6	22	350	0	0	0	0	439
O & M Costs (Savings)			3	3	3	3	3	3	18

### **Tolt Fisheries Mitigation**

BCL/Program Name: Environmental Stewardship BCL/Program Code: C130B

Project Type:Improved FacilityStart Date:1st Quarter 2004Project ID:C104057End Date:4th Quarter 2007

**Location:** South Fork Tolt River

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project funds fish habitat conservation efforts on the South Fork Tolt River based on an agreement between the Tolt Fisheries Advisory Groups and the City of Seattle. This project funds SPU's spending obligation pursuant to the 1989 Tolt Settlement Agreement for the federal relicensing of the South Fork Tolt Dam. The allocation of this funding is under the management of the interagency Tolt Fish Advisory Committee (TFAC). In 2004, a project to place large woody debris in the South Fork Tolt River was approved by TFAC and is now in the planning stages. This project improves habitat conditions for salmon and steelhead in the river.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	47	185	44	64	0	0	0	0	340
Project Total:	47	185	44	64	0	0	0	0	340
Fund Appropriations/Allocations									
SPU Water Fund	47	185	44	64	0	0	0	0	340
Appropriations Total*	47	185	44	64	0	0	0	0	340
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Tolt Instrument and Warning Upgrade**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

**Project Type:** Improved Facility Start Date: 1st Quarter 1999

Project ID: C1AA012 End Date: Ongoing

Location: Tolt Dam

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project replaces outmoded equipment and improves the reliability of the required Tolt Instrument and Warning System for detecting dam failure. The project cost estimate has a high confidence level. Because this project is in construction, no approval by SPU's Asset Management Committee is required.

LTD	2005	2006	2007	2008	2009	2010	2011	Total
1,903	47	47	28	28	30	32	33	2,148
1,903	47	47	28	28	30	32	33	2,148
1 903	47	47	28	28	30	32	33	2,148
· · ·								2,148
1,703	1,					0		0
	1,903	1,903 47 1,903 47 1,903 47	1,903 47 47 1,903 47 47 1,903 47 47	1,903     47     47     28       1,903     47     47     28       1,903     47     47     28       1,903     47     47     28       1,903     47     47     28	1,903     47     47     28     28       1,903     47     47     28     28       1,903     47     47     28     28       1,903     47     47     28     28       1,903     47     47     28     28	1,903     47     47     28     28     30       1,903     47     47     28     28     30       1,903     47     47     28     28     30       1,903     47     47     28     28     30       1,903     47     47     28     28     30	1,903     47     47     28     28     30     32       1,903     47     47     28     28     30     32       1,903     47     47     28     28     30     32       1,903     47     47     28     28     30     32       1,903     47     47     28     28     30     32	1,903     47     47     28     28     30     32     33       1,903     47     47     28     28     30     32     33       1,903     47     47     28     28     30     32     33       1,903     47     47     28     28     30     32     33       1,903     47     47     28     28     30     32     33

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

#### **Tolt Pipeline 1 Cathodic Protection**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Improved FacilityStart Date:1st Quarter 1999Project ID:C100063End Date:1st Quarter 2006

**Location:** Between Tolt Treatment Facility and Kelly Rd.

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project installs an impressed current cathodic protection system on approximately 3.5 miles of the original Tolt Pipeline No. 1 between the new Tolt Treatment Facility and Kelly Road to extend the pipeline's useful life. The pipeline west of the project location has already been replaced. The project includes electrically connecting the 20-foot long individual pipe sections, and installing deep wells to create an electrical circuit and apply voltage to the pipe. The confidence level of the cost estimate is high, and the SPU Asset Management Committee has approved the project. In the 2005-2010 Adopted CIP, the project title for this project was "Cathodic Phase V".

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	1,184	248	5	0	0	0	0	0	1,437
Project Total:	1,184	248	5	0	0	0	0	0	1,437
Fund Appropriations/Allocations									
SPU Water Fund	1,184	248	5	0	0	0	0	0	1,437
Appropriations Total*	1,184	248	5	0	0	0	0	0	1,437
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Tolt Pipeline 2 II & III East of Tieline**

BCL/Program Name: Water Supply BCL/Program Code: C150B

Project Type:Improved FacilityStart Date:3rd Quarter 1987Project ID:C100084End Date:4th Quarter 2008

Location: Various

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

Tolt Pipeline No. 2 has been planned as a 25-mile second regional supply pipeline for the Tolt system, ranging in diameter from 54 to 87 inches, and to be constructed in several phases over a period of decades. Phases II and III include installation of eight miles of 60-, 75- and 81-inch diameter welded steel pipeline between Duvall and Redmond along a different route than the original. The project is essentially complete and in service, with environmental restoration and monitoring activities required by permits continuing for several more years. The confidence level in the cost estimate is high, and SPU's Asset Management Committee has approved the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	28,067	73	33	23	13	0	0	0	28,209
Project Total:	28,067	73	33	23	13	0	0	0	28,209
Fund Appropriations/Allocations									
SPU Water Fund	28,067	73	33	23	13	0	0	0	28,209
Appropriations Total*	28,067	73	33	23	13	0	0	0	28,209
O & M Costs (Savings)			10	10	10	10	10	10	60

#### Tolt Pipeline 2 II & III West of Tieline

BCL/Program Name: Water Supply BCL/Program Code: C150B

Project Type:Improved FacilityStart Date:3rd Quarter 1987Project ID:C100083End Date:4th Quarter 2008

**Location:** Various

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

Tolt Pipeline II is a 25-mile second regional supply pipeline for the Tolt System, ranging in diameter from 54 to 87 inches. This new pipeline improves the reliability of the Tolt system, allows rehabilitation of remaining portions of Tolt Pipeline 1, enhances operational flexibility, increases reliability of the system during a major flood, landslide, or earthquake, and provides increased capacity. Phases II and III include installation of eight miles of 60-, 75- and 81-inch diameter steel-welded joint pipeline. The project is essentially complete and in service, with environmental restoration and monitoring activities required by permits continuing on for several more years. The confidence level in the cost estimate is high, and SPU's Asset Management Committee has approved the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	26,377	30	5	5	5	0	0	0	26,422
Project Total:	26,377	30	5	5	5	0	0	0	26,422
Fund Appropriations/Allocations									
SPU Water Fund	26,377	30	5	5	5	0	0	0	26,422
Appropriations Total*	26,377	30	5	5	5	0	0	0	26,422
O & M Costs (Savings)			20	20	20	20	20	20	120

#### Tolt Pipeline I - Phase 3 - B

BCL/Program Name: Water Supply BCL/Program Code: C150B

Project Type:Rehabilitation or RestorationStart Date:1st Quarter 1999Project ID:C199003End Date:4th Quarter 2008

**Location:** Tolt Pipeline

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project is part of a long-term plan to rehabilitate or replace the Tolt Pipeline I. To date, four sections of the pipeline (totaling approximately 12 miles) have been re-lined with a smaller pipe or replaced. This project rehabilitates the last remaining higher-risk section of the original pipeline where it crosses the Snoqualmie River Valley for a length of about one mile. The confidence level in the cost estimate is high, and SPU's Asset Management Committee has approved the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	756	4,894	9	5	5	0	0	0	5,669
Project Total:	756	4,894	9	5	5	0	0	0	5,669
Fund Appropriations/Allocations									
SPU Water Fund	756	4,894	9	5	5	0	0	0	5,669
Appropriations Total*	756	4,894	9	5	5	0	0	0	5,669
O & M Costs (Savings)			6	8	10	10	10	10	54

#### Tolt Pipeline II - Phase 4

BCL/Program Name: Water Supply BCL/Program Code: C150B

Project Type:Improved FacilityStart Date:1st Quarter 1995Project ID:C194029End Date:4th Quarter 2007

**Location:** Tolt Pipeline Right of Way

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

Tolt Pipeline II is a 25-mile second regional supply pipeline for the Tolt system, ranging in diameter from 54 to 87 inches. This new pipeline improves the reliability of the Tolt system, allows rehabilitation of remaining portions of Tolt Pipeline I, enhances operational flexibility, increases reliability of the system during a major flood, landslide, or earthquake, and provides increased capacity. Phase 4 included the installation of six miles of 54-inch and 60-inch diameter welded steel pipeline. The project is essentially complete and in service, with environmental restoration and monitoring activities required by permits continuing on for several more years. The confidence level in the cost estimate is high, and SPU's Asset Management Committee has approved the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	31,585	55	43	28	0	0	0	0	31,711
Project Total:	31,585	55	43	28	0	0	0	0	31,711
<b>Fund Appropriations/Allocations</b> SPU Water Fund	31,585	55	43	28	0	0	0	0	31,711
Appropriations Total*	31,585	55	43	28	0	0	0	0	31,711
O & M Costs (Savings)			15	19	24	24	25	27	134

### **Tolt River Watershed Road Improvements**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Improved FacilityStart Date:1st Quarter 1996Project ID:C196007End Date:4th Quarter 2011

**Location:** Tolt Watershed

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project provides drainage and other road improvements on portions of the 70 miles of forest roads in the South Fork Tolt River Watershed. The confidence level of the current cost estimate is medium.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	203	170	175	186	191	197	203	209	1,534
Project Total:	203	170	175	186	191	197	203	209	1,534
Fund Appropriations/Allocations									
SPU Water Fund	203	170	175	186	191	197	203	209	1,534
Appropriations Total*	203	170	175	186	191	197	203	209	1,534
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

#### **Tolt Watershed Management Plan**

BCL/Program Name: Environmental Stewardship BCL/Program Code: C130B

Project Type:Improved FacilityStart Date:1st Quarter 2005Project ID:C105083End Date:4th Quarter 2010

**Location:** Tolt River Watershed

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project develops a Tolt Watershed Management Plan to bring operations in the Tolt municipal watershed area into alignment with the operation of other major watershed facilities, and to provide guidance for a wide array of management activities into the future. Major elements addressed in the plan include forestland management, facility security and protection, road maintenance and operations, and fish and wildlife management. Historically, water supply and watershed management operations have been undertaken in the Tolt Watershed area with little formal written protocol or management guidance. In the 2005-2010 Adopted CIP, the project ID was C1NW301-002 for this project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	300	206	212	219	113	116	0	1,166
Project Total:	0	300	206	212	219	113	116	0	1,166
Fund Appropriations/Allocations									
SPU Water Fund	0	300	206	212	219	113	116	0	1,166
Appropriations Total*	0	300	206	212	219	113	116	0	1,166
O & M Costs (Savings)			0	0	0	0	0	0	0

#### <u>Transmission Pipelines Rehabilitation</u>

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type: Rehabilitation or Restoration Start Date: 1st Quarter 2005

Project ID: C1127 End Date: Ongoing

Location: Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: In more than one District Urban Village: Not in an Urban Village

This program repairs and upgrades water transmission pipes as deficiencies are identified. The confidence level of the current cost estimate is low, and the SPU Asset Management Committee review is not required as it is an on-going program.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	500	103	1,061	1,093	1,126	1,159	1,194	6,236
Project Total:	0	500	103	1,061	1,093	1,126	1,159	1,194	6,236
<b>Fund Appropriations/Allocations</b>									
SPU Water Fund	0	500	103	1,061	1,093	1,126	1,159	1,194	6,236
Appropriations Total*	0	500	103	1,061	1,093	1,126	1,159	1,194	6,236
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

### **Treatment & Transmission Project Development**

BCL/Program Name: Water Supply BCL/Program Code: C150B

Project Type: Improved Facility Start Date: 1st Quarter 2005

Project ID: C1NW501-008 End Date: Ongoing

Location: Various

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project provides funds for performing planning level work in SPU's Treatment and Transmission System business area prior to the formation of specific capital projects. This work includes policy analysis and program development to deal with issues related to the management of the distribution system.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	100	41	106	109	113	116	119	704
Project Total:	0	100	41	106	109	113	116	119	704
Fund Appropriations/Allocations									
SPU Water Fund	0	100	41	106	109	113	116	119	704
Appropriations Total*	0	100	41	106	109	113	116	119	704
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Upland Reserve Forest Restoration**

BCL/Program Name: Habitat Conservation Program

BCL/Program Code: C160B

Project Type: Rehabilitation or Restoration Start Date: 2nd Quarter 2000

Project ID: C1603 End Date: Ongoing

**Location:** Cedar River

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This program within the Cedar River Habitat Conservation Plan (HCP) includes restoration planting and restoration and ecological thinning within previously harvested upland forests. Planting occurs in selected areas of forest to promote the development of more natural and diverse ecological communities of vegetation. Restoration thinning reduces the density of trees to encourage tree growth. Ecological thinning accelerates the development of characteristics of mature forests. Work also includes marbled murrelet surveys and forest inventory and modeling. The inventory is used to plan restoration work, and the modeling is used to project effects of restoration treatments in development of the forest over time. SPU's Asset Management Committee approved the HCP at the program level. The confidence level for this cost estimate is high.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	2,365	854	850	811	798	747	770	793	7,988
Project Total:	2,365	854	850	811	798	747	770	793	7,988
Fund Appropriations/Allocations SPU Water Fund	2,365	854	850	811	798	747	770	793	7,988
Appropriations Total*	2,365	854	850	811	798	747	770	793	7,988
O & M Costs (Savings)			0	0	0	0	0	0	0

#### W Duwamish Waterway Tunnel/Rails

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Rehabilitation or RestorationStart Date:2nd Quarter 2003Project ID:C194034End Date:1st Quarter 2006

**Location:** SW Spokane St.

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Greater DuwamishUrban Village:Not in an Urban Village

This work is implemented as part of an agreement between SPU and the King County Department of Natural Resources and Parks for the W Duwamish Waterway Tunnel Crossing and the project relocates a watermain. SPU's obligation under the interagency agreement governing this project includes site restoration for the project staging area.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	153	50	52	0	0	0	0	0	255
Project Total:	153	50	52	0	0	0	0	0	255
Fund Appropriations/Allocations									
SPU Water Fund	153	50	52	0	0	0	0	0	255
Appropriations Total*	153	50	52	0	0	0	0	0	255
O & M Costs (Savings)			0	0	0	0	0	0	0

### Water Design Standards & Guideline Program

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Rehabilitation or RestorationStart Date:2nd Quarter 2002Project ID:C102028End Date:4th Quarter 2008

Location: N/A

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project creates detailed design standards for various types of water facilities, to streamline future design efforts, reduce costs, and increase the quality of future new facilities. The confidence level in the cost estimate is high, and the SPU Asset Management Committee has approved the first phase of the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	115	200	258	265	273	0	0	0	1,111
Project Total:	115	200	258	265	273	0	0	0	1,111
Fund Appropriations/Allocations									
SPU Water Fund	115	200	258	265	273	0	0	0	1,111
Appropriations Total*	115	200	258	265	273	0	0	0	1,111
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

#### Water Infrastructure - Hydrant Replacement/Relocation

BCL/Program Name:InfrastructureBCL/Program Code:C110BProject Type:Rehabilitation or RestorationStart Date:OngoingProject ID:C1110End Date:Ongoing

Location: Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This program replaces older and damaged hydrants to ensure a reliable and adequate supply of water for fire protection. The Seattle Fire Department provides SPU with information on hydrants that are found to be malfunctioning. Other repairs or replacements occur when hydrants are damaged by vehicles. On average, the Department repairs or replaces between seven and 25 hydrants per year. This project is in a preliminary phase of development and cost estimates will be revised over time, reflecting uncertainty about how many hydrants will be found to be malfunctioning in a given year. The SPU Asset Management Committee has approved the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	2,247	222	233	240	247	254	262	270	3,975
Project Total:	2,247	222	233	240	247	254	262	270	3,975
Fund Appropriations/Allocations SPU Water Fund	2,247	222	233	240	247	254	262	270	3,975
<b>Appropriations Total*</b>	2,247	222	233	240	247	254	262	270	3,975
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Water Infrastructure - New Hydrants

BCL/Program Name:InfrastructureBCL/Program Code:C110BProject Type:New FacilityStart Date:OngoingProject ID:C1112End Date:Ongoing

Location: Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This program provides new fire hydrants citywide. The number of new hydrants installed each year varies with demand. The confidence level of the cost estimate is medium as the Seattle Fire Department determines the number of hydrants that should be added. The project has been approved by the SPU Asset Management Committee.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	161	64	12	13	13	14	14	14	305
Project Total:	161	64	12	13	13	14	14	14	305
Fund Appropriations/Allocations									
SPU Water Fund	161	64	12	13	13	14	14	14	305
Appropriations Total*	161	64	12	13	13	14	14	14	305
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

#### Water Infrastructure - New Taps

BCL/Program Name:InfrastructureBCL/Program Code:C110BProject Type:New FacilityStart Date:OngoingProject ID:C1113End Date:Ongoing

Location: Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This program installs new water service lines (taps) from the City watermain to customers' property lines. Taps are usually installed within an average of six weeks following a customer's request. The confidence level of the current cost estimate is medium as the number of taps is dependent upon customer requests. The SPU Asset Management Committee has approved this project. In 2005, Ordinance 121993 transferred \$400,000 from the Asset Management program (C1126) to the Water Infrastructure - New Taps program to support increased customer demand for new taps. This supplemental funding change is reflected in the fund table below.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	33,704	4,001	3,708	3,819	3,934	4,052	4,173	4,299	61,690
Project Total:	33,704	4,001	3,708	3,819	3,934	4,052	4,173	4,299	61,690
<b>Fund Appropriations/Allocations</b>									
SPU Water Fund	33,704	4,001	3,708	3,819	3,934	4,052	4,173	4,299	61,690
Appropriations Total*	33,704	4,001	3,708	3,819	3,934	4,052	4,173	4,299	61,690
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Water Infrastructure - Service Renewal

BCL/Program Name:InfrastructureBCL/Program Code:C110BProject Type:Rehabilitation or RestorationStart Date:OngoingProject ID:C1109End Date:Ongoing

Location: Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This program replaces water service lines that are substandard, leaking, or have outlived their useful life, and disconnects service lines that are no longer required. The confidence level of the current cost estimate is medium. The Asset Management Committee has approved this project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	43,294	5,123	5,315	5,489	5,654	5,823	5,998	6,178	82,874
Project Total:	43,294	5,123	5,315	5,489	5,654	5,823	5,998	6,178	82,874
Fund Appropriations/Allocations SPU Water Fund	43,294	5,123	5,315	5,489	5,654	5,823	5,998	6,178	82,874
Appropriations Total*	43,294	5,123	5,315	5,489	5,654	5,823	5,998	6,178	82,874
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

#### Water Infrastructure - Watermain Extensions

BCL/Program Name:InfrastructureBCL/Program Code:C110BProject Type:New FacilityStart Date:OngoingProject ID:C1111End Date:Ongoing

**Location:** Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

The Watermain Extension program assists private developers to install new standard watermains and fire hydrants to serve properties that are being developed or re-developed. Once constructed and commissioned, new watermains are turned over to SPU to own, operate, and maintain. Costs incurred by SPU under this program are almost fully reimbursed by the parties triggering the need for the new watermains. The confidence level of the current cost estimate is medium, and the program has been approved by the Asset Management Committee.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	7,586	1,191	1,030	1,061	1,093	1,126	1,159	1,194	15,440
Project Total:	7,586	1,191	1,030	1,061	1,093	1,126	1,159	1,194	15,440
Fund Appropriations/Allocations									
SPU Water Fund	7,586	1,191	1,030	1,061	1,093	1,126	1,159	1,194	15,440
Appropriations Total*	7,586	1,191	1,030	1,061	1,093	1,126	1,159	1,194	15,440
O & M Costs (Savings)			0	0	0	0	0	0	0

### Water Infrastructure - Watermain Replacement

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Rehabilitation or RestorationStart Date:1st Quarter 2001Project ID:C1104End Date:2nd Quarter 2006

**Location:** Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This program systematically replaces older water distribution pipes to reduce leakage and watermain breaks and improve water quality and fire protection. Targeted watermains are prioritized and scheduled for replacement in groups to maintain a steady volume of work and to facilitate quality design and construction management. This program typically only considered replacement of the pipes as the way to improve their performance, and ended in its current form in 2003. Several other targeted programs, including the Watermain Rehabilitation Program (C1129), which began in 2004, include the scope of the Watermain Replacement Program. These other programs implement a broader range of cost effective methods for improving pipe performance, including cleaning and re-lining pipes, retiring pipes and replacing them with longer service lines, and options. The confidence level of the cost estimates is high, and the SPU's Asset Management Committee has approved the program.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	16,074	339	12	0	0	0	0	0	16,425
Project Total:	16,074	339	12	0	0	0	0	0	16,425
Fund Appropriations/Allocations SPU Water Fund	16,074	339	12	0	0	0	0	0	16,425
Appropriations Total*	16,074	339	12	0	0	0	0	0	16,425
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Water Infrastructure - Tank Site Remediation**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Rehabilitation or RestorationStart Date:4th Quarter 1995Project ID:C1114End Date:4th Quarter 2008

Location: Citywide

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This program cleans up soil and other contamination on adjacent private properties around some of SPU's steel water tank sites. The contamination is typically due to lead-based paint and arsenic used in prior sand blasting operations. The contamination of the soil around the SPU tank sites is cleaned up during either the seismic upgrades or tank painting program unless those project timelines warrant earlier action by the utility.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	1,350	320	309	318	328	0	0	0	2,625
Project Total:	1,350	320	309	318	328	0	0	0	2,625
Fund Appropriations/Allocations									
SPU Water Fund	1,350	320	309	318	328	0	0	0	2,625
Appropriations Total*	1,350	320	309	318	328	0	0	0	2,625
O & M Costs (Savings)			0	0	0	0	0	0	0

### Water Resources Project Development

BCL/Program Name: Water Supply BCL/Program Code: C150B

Project Type: Improved Facility Start Date: 1st Quarter 2005

Project ID: C105100 End Date: Ongoing

**Location:** N/A

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project supports the development of improvements in SPU's Water Resources Business Area through the preparation of Project Development Plans. Project proposals, including supporting cost-benefit analyses, are reviewed and approved by SPU's Capital Planning Committee. Staff then develops a Project Development Plan for approval by SPU's Asset Management Committee. Documentation is prepared and budget implications are identified. This project is in a preliminary phase of development and cost estimates will be revised over time. In the 2005-2010 Adopted CIP, the project ID for this project was C1NW501-009.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	100	103	106	109	113	116	119	766
Project Total:	0	100	103	106	109	113	116	119	766
Fund Appropriations/Allocations									
SPU Water Fund	0	100	103	106	109	113	116	119	766
Appropriations Total*	0	100	103	106	109	113	116	119	766
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Water System Dewatering**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type:Rehabilitation or RestorationStart Date:OngoingProject ID:C1105End Date:Ongoing

**Location:** Regional

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This program improves the configuration and operation of approximately 200 blowoffs. Blowoffs are valves and piping located at low points in water pipelines used to drain or flush the line for emergency or maintenance operations. The program's goals include: minimizing flooding damage to downstream private development due to blowoff operations; addressing the discharge of water into sensitive streams; requiring monitoring and treatment for impacts due to chlorine, pH, and turbidity; eliminating possible cross-connections; and addressing improvements to water courses to reduce erosion or other damage caused by blowoff operations. The programmatic approach and criteria have been approved by the SPU's Asset Management Committee (AMC). Each individual location is reviewed by the AMC for approval; a few sites have been already approved. This project is in a preliminary phase of development and cost estimates will be revised over time.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	1,767	1,056	58	371	382	394	406	418	4,852
Project Total:	1,767	1,056	58	371	382	394	406	418	4,852
Fund Appropriations/Allocations	1.767	1.056	<b>5</b> 0	271	202	20.4	40.6	410	4.050
SPU Water Fund	1,767	1,056	58	371	382	394	406	418	4,852
Appropriations Total*	1,767	1,056	58	371	382	394	406	418	4,852
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Water System Plan - 2007

BCL/Program Name: Water Supply BCL/Program Code: C150B

Project Type:New InvestmentStart Date:2nd Quarter 2004Project ID:C103058End Date:1st Quarter 2007

**Location:** N/A

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

State regulations require water utilities to submit a new comprehensive water system plan every six years as a condition of state utility operating permit renewal. This project funds work on an environmental review and updated Comprehensive Water System Plan to commence in 2004 and finish 2007. SPU's Asset Management Committee has approved this project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	85	430	399	28	0	0	0	0	942
Project Total:	85	430	399	28	0	0	0	0	942
Fund Appropriations/Allocations SPU Water Fund	85	430	399	28	0	0	0	0	942
Appropriations Total*	85	430	399	28	0	0	0	0	942
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Water System Plan - 2013

BCL/Program Name: Water Supply BCL/Program Code: C150B

Project Type:New InvestmentStart Date:3rd Quarter 2009Project ID:C1NW501-006End Date:3rd Quarter 2013

Location: N/A

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

State regulations require water utilities to submit a new comprehensive water system plan every six years as a condition of state utility operating permit renewal. This project funds work on an environmental review and updated Comprehensive Water System Plan, to commence in 2009 and finish 2013. This project is in a preliminary phase of development and cost estimates will be revised over time, as the scope of the plan is clarified.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	0	0	0	0	50	104	179	333
Project Total:	0	0	0	0	0	50	104	179	333
Fund Appropriations/Allocations SPU Water Fund	0	0	0	0	0	50	104	179	333
Appropriations Total*	0	0	0	0	0	50	104	179	333
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.

### Water System Security Improvement

BCL/Program Name: Water Quality

BCL/Program Code: C140B

Project Type:Improved FacilityStart Date:1st Quarter 2002Project ID:C1405End Date:4th Quarter 2006

**Location:** Citywide

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:In more than one DistrictUrban Village:Not in an Urban Village

This project responds to a demand for increased security and water quality protection at SPU facilities. The project includes key card installation at pump stations, improved signage, key and fence upgrades, physical hardening of critical infrastructure at water treatment facilities and facility gates, and improving communications systems at various facilities. In 2005, Ordinance 121916 appropriated \$328,576 (contingent upon execution of grant agreements) to pay for additional water system security improvements. This supplemental appropriation is reflected in the fund table below.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	3,348	5,655	5,694	0	0	0	0	0	14,697
Project Total:	3,348	5,655	5,694	0	0	0	0	0	14,697
Fund Appropriations/Allocations									
SPU Water Fund	3,348	5,655	5,694	0	0	0	0	0	14,697
Appropriations Total*	3,348	5,655	5,694	0	0	0	0	0	14,697
O & M Costs (Savings)			200	250	300	350	350	350	1,800

### **Watermain Rehabilitation**

BCL/Program Name: Infrastructure BCL/Program Code: C110B

Project Type: Rehabilitation or Restoration Start Date: 1st Quarter 2004

Project ID: C1129 End Date: Ongoing

**Location:** Regional

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: In more than one District Urban Village: In more than one Urban Village

This program utilizes asset management principles to provide sustainability of the watermain distribution system infrastructure at the lowest life cycle costs. Pipes are replaced when the cost of continued repairs exceeds the replacement cost. Alternative methods of rehabilitation, such as clean and cement mortar lining, are utilized when appropriate, to provide a more cost effective option while reducing the impacts to the surrounding community. Other customer levels of service, such as pressure and fire flow, may drive watermain improvements, either by regulation or where cost effective.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									_
Water Rates	344	1,366	2,369	4,144	4,268	4,396	4,528	4,664	26,079
Project Total:	344	1,366	2,369	4,144	4,268	4,396	4,528	4,664	26,079
Fund Appropriations/Allocations									
SPU Water Fund	344	1,366	2,369	4,144	4,268	4,396	4,528	4,664	26,079
Appropriations Total*	344	1,366	2,369	4,144	4,268	4,396	4,528	4,664	26,079
O & M Costs (Savings)			0	0	0	0	0	0	0

### Watershed Road Improvement/Decommissioning

BCL/Program Name: Habitat Conservation Program

BCL/Program Code: C160B

Project Type: Rehabilitation or Restoration Start Date: 1st Quarter 2001

Project ID: C1601 End Date: Ongoing

**Location:** Cedar River

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

Road improvements and decommissioning are components of the Cedar River Habitat Conservation Plan (HCP). The goal of these projects is to protect stream and riparian habitats and forest ecosystems. These projects are based on analyses and designs for the control of water flowing on, under, or adjacent to forest roads, and the removal of unstable soils within the road prism. Control of water and unstable soils minimizes sediment delivery to streams from roads, and improves drainage patterns. The HCP requires the decommissioning of an average of 10 miles of road per year. The SPU Asset Management Committee approved the HCP at the program level. The confidence level for this cost estimate is high.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	3,381	864	890	886	919	948	981	1,010	9,879
Project Total:	3,381	864	890	886	919	948	981	1,010	9,879
Fund Appropriations/Allocations									
SPU Water Fund	3,381	864	890	886	919	948	981	1,010	9,879
Appropriations Total*	3,381	864	890	886	919	948	981	1,010	9,879
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Westlake Ave. Watermain Decommissioning

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Rehabilitation or RestorationStart Date:1st Quarter 2006Project ID:C1NW201-002End Date:1st Quarter 2007

**Location:** Westlake Ave.

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Lake UnionUrban Village:South Lake Union

This project transfers water services from Westlake Avenue between Olive Way and Denny Way to adjacent watermains allowing this section of watermain to be abandoned. This work is coordinated with the construction of the South Lake Union streetcar.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	0	0	1,957	21	0	0	0	0	1,978
Project Total:	0	0	1,957	21	0	0	0	0	1,978
Fund Appropriations/Allocations SPU Water Fund	0	0	1,957	21	0	0	0	0	1,978
Appropriations Total*	0	0	1,957	21	0	0	0	0	1,978
O & M Costs (Savings)			0	0	0	0	0	0	0

### **WSDOT Sound Walls**

BCL/Program Name: Other Agencies BCL/Program Code: C120B

Project Type:Improved FacilityStart Date:1st Quarter 2004Project ID:C104019End Date:2nd Quarter 2005

Location: I-5/E Roanoke

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:East DistrictUrban Village:Not in an Urban Village

This project responds to utility impacts by the Washington State Department of Transportation's project to install sound walls along the I-5 corridor near E Roanoke St. The project design has been modified to have a low level of construction activities monitoring and some water service relocations may be needed. The project is implemented in phases and the current construction phase has little to no impact on the City utilities.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Water Rates	6	20	0	0	0	0	0	0	26
Project Total:	6	20	0	0	0	0	0	0	26
Fund Appropriations/Allocations									
SPU Water Fund	6	20	0	0	0	0	0	0	26
Appropriations Total*	6	20	0	0	0	0	0	0	26
O & M Costs (Savings)			0	0	0	0	0	0	0

<sup>\*</sup>This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts in thousands of dollars.