### 10718 35th NE Sediment Pond

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:Improved FacilityStart Date:3rd Quarter 2002Project ID:C302305End Date:4th Quarter 2009

**Location:** 10718 35th Ave. NE

Neighborhood Plan:North District/Lake CityNeighborhood Plan Matrix: 2B-4Neighborhood District:NorthUrban Village:Not in an Urban Village

This project constructs a new, efficient off-line sediment collection facility and other site improvements upstream of the Meadowbrook Pond detention facility. Meadowbrook currently has no formal maintenance access; there are no roadways or staging areas for required dredging activities, and access to trashracks is poor. The new facilities provide improved maintenance access, water quality and habitat. The confidence level of the current cost estimate is medium.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	522	250	222	615	5	5	0	0	1,619
Project Total:	522	250	222	615	5	5	0	0	1,619
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	522	250	222	615	5	5	0	0	1,619
Appropriations Total*	522	250	222	615	5	5	0	0	1,619
O & M Costs (Savings)			0	0	0	0	0	0	0

### **1500 - 2600 Aurora N Landslide**

BCL/Program Name: Public Asset Protection BCL/Program Code: C334B

Project Type:New FacilityStart Date:3rd Quarter 2006Project ID:C363401End Date:1st Quarter 2010

**Location:** Aurora Ave. N

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

Three combined sewer lines traverse a steep slope down to Aurora Ave. N at the northeast corner of Queen Anne Hill. Preliminary analysis determined these three lines were at risk of damage due to landslides. This project installs the combined sewer lines deeper in the hillside to protect them from landslide damage, possibly using directional drilling techniques. The project also improves the method for collecting stormwater from the nearby streets to reduce the risk of landslides. This project is in a preliminary phase of development and cost estimates will be revised over time. SPU Asset Management Committee review is conducted prior to the start of the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	31	62	221	1,077	6	0	1,397
Project Total:	0	0	31	62	221	1,077	6	0	1,397
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	31	62	221	1,077	6	0	1,397
Appropriations Total*	0	0	31	62	221	1,077	6	0	1,397
O & M Costs (Savings)			0	0	0	0	0	0	0

### 20th Ave. NE Local Drainage

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:Improved FacilityStart Date:3rd Quarter 2001Project ID:C301317End Date:4th Quarter 2007

**Location:** 20th Ave. NE/NE 137th St.

Neighborhood Plan:North District/Lake CityNeighborhood Plan Matrix:MultipleNeighborhood District:NorthUrban Village:Not in an Urban Village

This project develops a plan and makes improvements to resolve safety concerns related to a ditch along 20th Ave. NE. The ditch is deep and has steep side slopes. High-velocity flows in the ditch have undercut the banks near residential properties. SPU provides culverts and fill to allow formal bus stops to be constructed by King County Metro in three locations along 20th Ave. NE, to allow safe loading and off-loading of passengers. Spot improvements are also provided in several locations to repair undercut banks eroded by stormwater. SPU's Asset Management Committee has approved the project and the confidence level of the cost estimate is high.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	205	5	5	5	0	0	0	0	220
Project Total:	205	5	5	5	0	0	0	0	220
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	205	5	5	5	0	0	0	0	220
Appropriations Total*	205	5	5	5	0	0	0	0	220
O & M Costs (Savings)			0	0	3	3	3	3	12

### **2500 Fairview Drainage Improvements**

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:1st Quarter 2005Project ID:C353201End Date:4th Quarter 2006

**Location:** 2500 Fairview Ave. N

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

This project addresses a lack of adequate runoff collection and conveyance at 2500 Fairview Ave. N., an approximately one-acre physical depression. Ponding develops when the existing single catch-basin grate is obstructed or a storm taxes the capacity of the six-inch outfall. The flooding extends across the west roadway shoulder, the southbound shoulder and partially into the northbound lane of Fairview Ave. N. for approximately 300 feet, obstructing traffic and parking. The project removes the existing paved shoulder to collect, detain and convey runoff from the one-acre basin, and replaces the existing brick catch basin with a new, larger structure. Funding to maintain the improvements made by this project will be included in SPU's operating budget. The confidence level for the cost estimate is medium.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	105	110	0	0	0	0	0	215
Project Total:	0	105	110	0	0	0	0	0	215
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	105	110	0	0	0	0	0	215
Appropriations Total*	0	105	110	0	0	0	0	0	215
O & M Costs (Savings)			0	1	1	1	1	1	5

### 30th Ave. NE/NE 107 St. Drainage Improvements

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:1st Quarter 2004Project ID:C343203End Date:4th Quarter 2009

**Location:** 10703 30th Ave. NE

Neighborhood Plan: Northgate Neighborhood Plan Matrix: Multiple

Neighborhood District: North Urban Village: Lake City

This project investigates alternatives that upgrade the flow capacity to achieve a 25-year level of service and reduce maintenance costs. The south fork of Thornton Creek (Maple Leaf) and Kramer ditch intersect on the west side of 30th Ave. NE at NE 107th St. and flow beneath 30th Ave. NE through independent channels to converge on the east side of the bridge. A delta forms where the two streams combine as the result of sediment deposition from Thornton Creek. This results in flooding of houses upstream of the culverts. Areas of investigation include ditch widening, installation of larger culverts at selected driveways, and adding berms to protect low lying properties and the possible addition of an overflow line. Funding shown for 2008 through 2009 is for the establishment of landscaping.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	114	370	130	0	1	1	0	0	616
Project Total:	114	370	130	0	1	1	0	0	616
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	114	370	130	0	1	1	0	0	616
Appropriations Total*	114	370	130	0	1	1	0	0	616
O & M Costs (Savings)			0	0	0	0	0	0	0

### 3rd Ave. NW & NW 107 St. Natural System

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:Improved FacilityStart Date:4th Quarter 2000Project ID:C300329End Date:4th Quarter 2007

**Location:** NW 107th St./3rd Ave. NW

Neighborhood Plan:Broadview-Bitter Lake-Haller LakeNeighborhood Plan Matrix: A-11Neighborhood District:NorthwestUrban Village: Not in an Urban Village

This project addresses stormwater management using a "natural system" approach that promotes sustainable drainage design. The project minimizes the use of standard engineered stormwater infrastructure, using the unimproved right-of-way as a starting point for design. The project includes construction of an engineered system of stepped pools to detain runoff, filter pollutants and allow maximum opportunity for infiltration; construction of a sidewalk on the south side of 3rd Ave. NW and NW 107th to provide safe pedestrian access to a nearby elementary school; creation of natural drainage system features within the right-of-way; and the use of vegetation as a stormwater management element and for aesthetic appeal. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	4,669	77	69	56	0	0	0	0	4,871
Project Total:	4,669	77	69	56	0	0	0	0	4,871
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	4,669	77	69	56	0	0	0	0	4,871
Appropriations Total*	4,669	77	69	56	0	0	0	0	4,871
O & M Costs (Savings)			0	0	4	4	4	4	16

### 47 SW & SW Maplewood Pl. Landslide

BCL/Program Name: Public Asset Protection BCL/Program Code: C334B

Project Type:New FacilityStart Date:3rd Quarter 2006Project ID:C363402End Date:4th Quarter 2009

**Location:** 47th Ave. SW

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

This project, which was identified during the Comprehensive Drainage Planning process, evaluates an existing storm drain system that traverses a steep slope between 47th Ave. SW and SW Maplewood Pl., and street runoff that is currently routed through a private drainage system. The project constructs measures to stabilize the slope where the storm drain is located, while rerouting street runoff from a private drainage system and outfall to an existing SPU storm drain system. This project is in a preliminary phase of development and cost estimates will be revised over time. SPU Asset Management Committee review is required prior to the start of the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	50	103	105	576	0	0	834
Project Total:	0	0	50	103	105	576	0	0	834
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	0	50	103	105	576	0	0	834
Appropriations Total*	0	0	50	103	105	576	0	0	834
O & M Costs (Savings)			0	0	0	0	6	6	12

### 4th Ave. S/S Trenton Storm Drain

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:1st Quarter 2005Project ID:C353202End Date:4th Quarter 2011

**Location:** S Trenton/2nd Ave./5th Ave.

Neighborhood Plan: South Park Neighborhood Plan Matrix: Multiple

Neighborhood District: Greater Duwamish Urban Village: South Park

This project installs approximately 1,760 linear feet of 12-inch storm drain along South Trenton St., 3rd Ave. S and 4th Ave. S, and approximately 2,380 linear feet of 12-inch storm drain along S Director St. and 7th Ave. S, to resolve a number of documented flooding problems in these areas. The project reduces flows to the combined sewer system in the area by rerouting the drainage from the combined and sanitary system to an existing storm drain on S Henderson Street. 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									
Drainage and Wastewater Rates	0	185	750	1,604	1,713	169	2	2	4,425
Project Total:	0	185	750	1,604	1,713	169	2	2	4,425
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	185	750	1,604	1,713	169	2	2	4,425
Appropriations Total*	0	185	750	1,604	1,713	169	2	2	4,425
O & M Costs (Savings)			5	5	5	10	10	10	45

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

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type:New FacilityStart Date:4th Quarter 2001Project ID:C404201-DWFEnd 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 drainage and wastewater 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. WDSOT, 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 those 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									
Drainage and Wastewater Rates	263	1,335	1,535	0	0	0	0	0	3,133
Project Total:	263	1,335	1,535	0	0	0	0	0	3,133
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	263	1,335	1,535	0	0	0	0	0	3,133
Appropriations Total*	263	1,335	1,535	0	0	0	0	0	3,133
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Aquatic Habitat Matching Grant Project**

BCL/Program Name: Protection of Beneficial Uses BCL/Program Code: C333B

**Project Type:** New Facility **Start Date:** 1st Quarter 2005

Project ID: C353301 End Date: Ongoing

**Location:** Various

Neighborhood Plan:In more than one PlanNeighborhood Plan Matrix:MultipleNeighborhood District:In more than one DistrictUrban Village:Not in an Urban Village

This matching grant project funds community-based habitat improvement projects that leverage SPU's drainage-related habitat efforts with a dollar-for-dollar contribution of volunteer labor and donated materials and services. This project was added to the 2005-2010 Adopted CIP by Council action. Resolution 30719 describes grant application procedures and eligible projects, which may include removal of fish passage blockages; removal of non-native invasive plant species from aquatic habitats; restoration of native plant species, riparian vegetation and natural aquatic habitat features and complexity; removal of bank armoring; and re-establishment of creek connectivity. A seven-member Aquatic Habitat Matching Grant Review Board was established in 2005, and developed the grant guidelines for implementation.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	300	300	300	300	300	300	300	2,100
Project Total:	0	300	300	300	300	300	300	300	2,100
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	300	300	300	300	300	300	300	2,100
Appropriations Total*	0	300	300	300	300	300	300	300	2,100
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Aurora Bridge Drainage**

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:Improved FacilityStart Date:1st Quarter 2006Project ID:C363201End Date:4th Quarter 2006

Location: Aurora Bridge

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

The Aurora Bridge requires frequent maintenance by SPU crews to ensure the drains are clean and functional. Poor drainage on the bridge can lead to traffic delays. This project replaces the existing drainage system with improved drains. The intended changes likely result in reduced drainage operation and maintenance costs but the reduction has not been determined. This project is in a preliminary phase of development and the cost estimates will be revised over time.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	50	0	0	0	0	0	50
Project Total:	0	0	50	0	0	0	0	0	50
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	50	0	0	0	0	0	50
Appropriations Total*	0	0	50	0	0	0	0	0	50
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Ballard Combined Sewer Overflow**

BCL/Program Name: Combined Sewer Overflow BCL/Program Code: C310B

Project Type:New FacilityStart Date:1st Quarter 2004Project ID:C303101End Date:1st Quarter 2021

**Location:** Various

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

This project constructs Combined Sewer Overflow (CSO) reduction facilities in the Ballard area, at Basins 150/151 and 152, which discharge to Salmon Bay. Major work includes flow monitoring, system modeling, facility planning, preliminary engineering, design, permits, land acquisition (if necessary), and construction. The project was proposed in the 1988 CSO Control Plan as a joint project with King County. The project began in 2004 but is on hold until 2008; the project budget and schedule have been revised to account for project development and potential coordination with King County. Other work performed under SPU's CSO Facility Retrofit project (C302102) may reduce the size of the necessary facilities in this basin. This project is in a preliminary phase of development and cost estimates will be revised over time. SPU Asset Management Committee review is required before the project begins. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	0	0	270	220	552	566	1,608
Project Total:	0	0	0	0	270	220	552	566	1,608
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	0	0	0	270	220	552	566	1,608
Appropriations Total*	0	0	0	0	270	220	552	566	1,608
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Ballard/Fremont Drainage Improvements**

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:1st Quarter 2005Project ID:C353203End Date:2nd Quarter 2008

Location: Various

Neighborhood Plan: In more than one Plan Neighborhood Plan Matrix: Multiple

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

This project constructs drainage improvements to reduce or eliminate flooding in the Ballard and Fremont areas in response to complaints from the public. A report has been completed including the scoping of drainage issues in the area and required spot improvements. 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									
Drainage and Wastewater Rates	0	60	90	328	32	0	0	0	510
Project Total:	0	60	90	328	32	0	0	0	510
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	60	90	328	32	0	0	0	510
Appropriations Total*	0	60	90	328	32	0	0	0	510
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Beer Sheva Habitat Improvement**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:New FacilityStart Date:4th Quarter 2001Project ID:C301319End Date:4th Quarter 2011

**Location:** Seward Park Ave. S/S Henderson St.

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

This project makes several improvements to create a high-quality fish refuge and rearing habitat at the mouth of Mapes Creek and a natural creek channel in the lower portion of the creek. The project includes creating a natural creek mouth by placing the creek in an open, meandering creek channel in Beer Sheva Park, and relocating its discharge point into Lake Washington at the edge of the shoreline rather than offshore in deeper water. The middle portion of the creek is repiped to separate its flow from stormwater and Combined Sewer Overflow discharges, and to improve downstream water quality. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	142	65	50	36	68	13	13	13	400
Project Total:	142	65	50	36	68	13	13	13	400
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	142	65	50	36	68	13	13	13	400
Appropriations Total*	142	65	50	36	68	13	13	13	400
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Best Management Practice Program Implementation**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:New FacilityStart Date:2nd Quarter 2000Project ID:C300316End 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 identifies, develops and implements high priority water quality improvement projects incorporating Best Management Practices (BMP) as identified by ongoing water quality basin investigations in the Norfolk, South Park, and Densmore drainage basins. In addition, efforts include work in the Lake Washington Drainage basin in order to address SPU's Seattle Housing Authority Integrated Drainage Plan water quality BMP requirements. These projects are designed to improve the quality of stormwater runoff discharged to nearby receiving water bodies (e.g. streams or lakes) from City-owned storm drains. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	207	75	365	1,025	1,366	1,238	1,214	0	5,490
Project Total:	207	75	365	1,025	1,366	1,238	1,214	0	5,490
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	207	75	365	1,025	1,366	1,238	1,214	0	5,490
Appropriations Total*	207	75	365	1,025	1,366	1,238	1,214	0	5,490
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Bitter Lake Dredging**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:Rehabilitation or RestorationStart Date:1st Quarter 2007Project ID:C3NW033-002End Date:4th Quarter 2007

**Location:** N 137th St.

Neighborhood Plan:Broadview-Bitter Lake-Haller LakeNeighborhood Plan Matrix:MultipleNeighborhood District:NorthwestUrban Village:Not in an Urban Village

This project dredges the north end of Bitter Lake, near the stormwater outfall from N 138th St. The project addresses more extensive sedimentation than is possible with existing operation and maintenance methods. The project investigates access routes, new technology, or access via the lake for those areas that are beyond the reach of the current dredging process. For the long term, another Drainage & Wastewater CIP project, Bitter Lake/N 137th St. Stormwater (C301322), reduces sedimentation and improves stormwater conveyance so that this Bitter Lake dredging project is a one-time event. The confidence level of the cost estimate is medium. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	0	410	0	0	0	0	410
Project Total:	0	0	0	410	0	0	0	0	410
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	0	410	0	0	0	0	410
Appropriations Total*	0	0	0	410	0	0	0	0	410
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Bitter Lake/N 137th Stormwater**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:New FacilityStart Date:2nd Quarter 2001Project ID:C301322End Date:3rd Quarter 2010

**Location:** Bitter Lake Drainage Basin/N 145th St.

Neighborhood Plan:Broadview-Bitter Lake-Haller LakeNeighborhood Plan Matrix:MultipleNeighborhood District:NorthwestUrban Village:Bitter Lake Village

This project funds the design and construction of a stormwater treatment project to improve the quality of stormwater discharging to Bitter Lake and to reduce the frequency of required dredging offshore of the Greenwood Ave. N storm drain outfall in the lake. A preliminary engineering report, completed by a Seattle University civil engineering senior design team in 2000, evaluated options for treating runoff from the Greenwood Ave. N storm drain. Treatment options included wet vaults and media filters with swirl concentrators for pretreatment. Additional work includes evaluation of natural drainage system designs, updating the preliminary engineering analysis to determine the most cost-effective option, and constructing the selected project(s). The project is delayed due to staffing capacity and is projected to continue in 2007. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	11	200	0	1,743	210	54	55	0	2,273
Project Total:	11	200	0	1,743	210	54	55	0	2,273
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	11	200	0	1,743	210	54	55	0	2,273
Appropriations Total*	11	200	0	1,743	210	54	55	0	2,273
O & M Costs (Savings)			0	2	2	2	2	2	10

### **Burke Gilman/NE 144th Landslide**

BCL/Program Name: Public Asset Protection BCL/Program Code: C334B

Project Type:Improved FacilityStart Date:1st Quarter 2001Project ID:C301355End Date:4th Quarter 2009

**Location:** NE 145th St./38th Ave. NE

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

This project investigates and develops a long-range plan to address flooding and slope instability problems in the area of Burke Gilman/NE 144th in northeast Seattle. The project includes researching historical information, drilling soil samples, and identifying and implementing solutions to problem areas. This project is in a preliminary phase of development as SPU evaluates all projects identified in the planning study conducted in 2002 and cost estimates will be revised over time. Ten projects addressing flooding and slope instability have been completed to date.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	350	577	662	715	570	208	0	0	3,082
Project Total:	350	577	662	715	570	208	0	0	3,082
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	350	577	662	715	570	208	0	0	3,082
Appropriations Total*	350	577	662	715	570	208	0	0	3,082
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Capital Planning - CSO Plan Implementation**

BCL/Program Name: Combined Sewer Overflow BCL/Program Code: C310B

**Project Type:** New Facility **Start Date:** 1st Quarter 2005

Project ID: C305101 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 supports implementation of the 2001 Combined Sewer Overflow (CSO) Reduction Plan Update. It conducts project studies and engineering to provide for compliance with the City's National Pollutant Discharge Elimination System permit, supports Asset Management Committee presentations for projects, and studies and develops small capital projects necessary to implement the plan. 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 project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	500	150	566	633	1,002	888	1,183	4,922
Project Total:	0	500	150	566	633	1,002	888	1,183	4,922
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	500	150	566	633	1,002	888	1,183	4,922
Appropriations Total*	0	500	150	566	633	1,002	888	1,183	4,922
O & M Costs (Savings)			0	0	0	0	0	0	0

### Capital Planning - Flood Control & Local Drainage

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

**Project Type:** New Facility **Start Date:** 1st Quarter 2004

Project ID: C343201 End Date: Ongoing

**Location:** Various

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 supports development of Flood Control and Local Drainage program projects. Work includes evaluation of potential projects (primarily those identified in the Comprehensive Drainage Plan), including investigation of reported drainage problems. The evaluation includes field verification and technical analysis to obtain information on benefits and level of service. A project proposal, including cost-benefit analysis, is reviewed and approved by SPU's Capital Planning Committee. Staff then develop a Project Development Plan, including documentation and budget input, for approval by SPU's Asset Management Committee.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	236	370	320	308	394	323	414	426	2,791
Project Total:	236	370	320	308	394	323	414	426	2,791
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	236	370	320	308	394	323	414	426	2,791
Appropriations Total*	236	370	320	308	394	323	414	426	2,791
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Capital Planning - Protection of Beneficial Uses**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

**Project Type:** New Facility **Start Date:** 1st Quarter 2004

Project ID: C343301 End Date: Ongoing

**Location:** Various

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 supports development of Protection of Beneficial Uses program projects. Work includes evaluation of potential projects (primarily those identified in the Comprehensive Drainage Plan) for water quality and habitat drainage-related projects. The evaluation of potential projects includes field verification and technical analysis. Analysis to explore solutions, including cost-benefit information, is reviewed and approved by SPU's Capital Planning Committee. A Project Development Plan, including documentation and budget input, is then developed by SPU staff for approval by SPU's Asset Management Committee. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environment.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	245	116	70	154	158	162	166	170	1,241
Project Total:	245	116	70	154	158	162	166	170	1,241
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	245	116	70	154	158	162	166	170	1,241
Appropriations Total*	245	116	70	154	158	162	166	170	1,241
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Capital Planning - Public Asset Protection**

BCL/Program Name: Public Asset Protection BCL/Program Code: C334B

Project Type: New Facility Start Date: 1st Quarter 2004

Project ID: C343401 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 supports development of Public Asset Protection program projects. Work includes evaluation of potential projects (primarily those identified in the Comprehensive Drainage Plan) including investigation of reported drainage problems. The evaluation includes field verification and technical analysis to obtain information on benefits and level of service. A project proposal, including cost-benefit analysis, is reviewed and approved by SPU's Capital Planning Committee. Staff then develop a Project Development Plan, including documentation and budget input, for approval by SPU's Asset Management Committee.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	61	175	100	179	184	377	552	566	2,194
Project Total:	61	175	100	179	184	377	552	566	2,194
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	61	175	100	179	184	377	552	566	2,194
Appropriations Total*	61	175	100	179	184	377	552	566	2,194
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Channel Widening Project**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:New FacilityStart Date:1st Quarter 2008Project ID:C3NW033-013End Date:4th Quarter 2010

**Location:** Citywide

Neighborhood Plan:DelridgeNeighborhood Plan Matrix:P-18Neighborhood District:In more than one DistrictUrban Village:Not in an Urban Village

This project evaluates channel widening on creeks to provide aquatic resource benefits. Higher stormwater flows and channel confinements have resulted in adverse impacts to stream aquatic biota and habitat. This project addresses these impacts by making improvements to dissipate flow energy, reduce excessive scour of creek banks and floors, and create aquatic biota refugia. The project's benefits include improving stream ecosystems and protecting property from flooding. This project is in a preliminary phase of development and cost estimates will be revised over time. Proposed channel widening projects are evaluated by SPU's Asset Management Committee for cost-benefit impacts and to ensure the appropriate use of the drainage funds. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	0	0	100	100	100	0	300
Project Total:	0	0	0	0	100	100	100	0	300
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	0	0	0	100	100	100	0	300
Appropriations Total*	0	0	0	0	100	100	100	0	300
O & M Costs (Savings)			0	0	0	5	5	5	15

### **City Facilities Drainage Assessment**

BCL/Program Name: Other Drainage BCL/Program Code: C335B

Project Type:New FacilityStart Date:1st Quarter 2006Project ID:C363501End Date:4th Quarter 2006

**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

The SPU Surface Water Quality Team conducts periodic inspections of businesses and City facilities that are engaged in high-risk pollution generating activities, such as vehicle fueling or washing, above ground fuel or hazardous materials storage. SPU has identified a number of City facilities that require facility retrofits or changes to operational procedures. This project allows the City to conduct a comprehensive review of City facilities to identify potential retrofits or changes to operational procedures. This assessment is funded through reimbursements from the Cumulative Reserve Fund to the Drainage and Wastewater Fund.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	100	0	0	0	0	0	100
Project Total:	0	0	100	0	0	0	0	0	100
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	100	0	0	0	0	0	100
Appropriations Total*	0	0	100	0	0	0	0	0	100
O & M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### **Comprehensive Drainage Plan Implementation**

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

**Project Type:** New Facility **Start Date:** 1st Quarter 2007

Project ID: C3NW032-008 End Date: Ongoing

**Location:** Various

Neighborhood Plan: In more than one Plan Neighborhood Plan Matrix: Multiple

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

This project funds work to be done in the outer years of the current six-year Capital Improvement Program to implement drainage improvements identified in the 2004 Comprehensive Drainage Plan (CDP) Update. Project development work done as part of the Capital Planning – Flood Control and Local Drainage project establishes priorities and schedules for these projects. The specific projects to be implemented in 2007 and beyond are identified in later CIPs after the initial project development work is done. The funding level is identified in advance to provide information about projected spending levels required to meet the goals of the CDP. 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									
Drainage and Wastewater Rates	0	0	0	2,463	4,349	10,573	12,950	11,058	41,393
Project Total:	0	0	0	2,463	4,349	10,573	12,950	11,058	41,393
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	0	2,463	4,349	10,573	12,950	11,058	41,393
Appropriations Total*	0	0	0	2,463	4,349	10,573	12,950	11,058	41,393
O & M Costs (Savings)			0	0	13	40	100	100	253

### **Creek Flow Control Implementation**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

**Project Type:** New Facility **Start Date:** 1st Quarter 2008

Project ID: C3NW033-014 End Date: Ongoing

**Location:** 

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 builds flow control projects in targeted Seattle creek areas. High stormwater flows have resulted in aquatic ecosystem degradation. The project's objectives include the reduction of stormwater discharge entering creeks, the reduction of associated habitat degradation, and the potential associated reduction of water quality pollutants. The project's benefits include improving creek ecosystems and potentially protecting property from flooding. Projects constructed are determined by the results of preliminary engineering. This project is in a preliminary phase of development and cost estimates will be revised over time. Specific proposed projects are evaluated by SPU's Asset Management Committee for cost-benefit impacts and to ensure the appropriate use of drainage funds. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	0	0	1,000	4,000	3,000	5,223	13,223
Project Total:	0	0	0	0	1,000	4,000	3,000	5,223	13,223
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	0	0	1,000	4,000	3,000	5,223	13,223
Appropriations Total*	0	0	0	0	1,000	4,000	3,000	5,223	13,223
O & M Costs (Savings)			0	0	0	15	15	15	45

### **Creek Sediment Control Program**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:New FacilityStart Date:1st Quarter 2005Project ID:C353303End 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 program identifies and implements minor capital projects that address sediment control in urban creeks. The initial program focus is on roadway runoff that is inadequately managed from the roadway edge to the receiving creek, and small, discrete sections of creek located on public land with raw, eroded banks. In the medium term, SPU staff have identified more holistic approaches to controlling excessive fine sediments and a shortage of appropriate larger gravel. This project is in a preliminary phase of development and cost estimates will be revised over time. SPU Asset Management Committee review is required prior to the start of the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	23	25	103	105	135	138	0	529
Project Total:	0	23	25	103	105	135	138	0	529
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	23	25	103	105	135	138	0	529
Appropriations Total*	0	23	25	103	105	135	138	0	529
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Creeks Habitat Complexity Program**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

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

Project ID: C353302 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 addresses altered stream and shoreline habitat. The program increases in-stream habitat complexity and establishes conditions that result in increased pools, riffles, and fish refuge habitat, by adding large woody debris or boulders to creeks and creek mouths. Different sites are designed and constructed each year, with an initial focus on land owned by the Seattle Department of Parks and Recreation (Parks). Individual projects are identified and prioritized based on expected habitat benefits and ease of implementation. The project results in costs to Parks to operate and maintain the habitat improvements, but these costs have not yet been determined. The SPU Asset Management Committee approved this project in 2005, and the confidence level of current cost estimate is medium.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	75	75	77	79	81	83	85	555
Project Total:	0	75	75	77	79	81	83	85	555
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	75	75	77	79	81	83	85	555
Appropriations Total*	0	75	75	77	79	81	83	85	555
O & M Costs (Savings)			5	5	5	5	5	5	30

### **Creeks Hydrology Program**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:New FacilityStart Date:1st Quarter 2007Project ID:C3NW033-005End Date:4th Quarter 2010

**Location:** Various

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 addresses altered creek hydrology. The short-term focus is on obtaining easements along undeveloped sections of creek to protect the existing flood plains, developing a strategy for modifying altered hydrology, and implementing some pilot projects. The long-term focus is implementing the strategy. This project is in a preliminary phase of development and cost estimates will be revised over time. SPU Asset Management Committee review is conducted prior to the start of the program. Beginning in 2007, funding will be included in SPU's operating budget for maintenance of improvements made under this project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	0	63	38	194	237	0	532
Project Total:	0	0	0	63	38	194	237	0	532
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	0	63	38	194	237	0	532
Appropriations Total*	0	0	0	63	38	194	237	0	532
O & M Costs (Savings)			0	3	3	3	3	3	15

### **Creeks Vegetation Program**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

**Project Type:** New Facility **Start Date:** 1st Quarter 2005

Project ID: C353304 End Date: Ongoing

Location: Citywide

Neighborhood Plan:Aurora LictonNeighborhood Plan Matrix:MultipleNeighborhood District:In more than one DistrictUrban Village:Not in an Urban Village

This project establishes the first six years of a 20-year effort to protect and restore more than 300 acres of publicly owned forest located along riparian corridors. This project removes invasive plants from selected sites each year, adds native trees and shrubs, and provides maintenance for the first three years. SPU is working in partnership with the Seattle Department of Parks and Recreation and the City's Office of Sustainability and Environment. Restoring the riparian forest helps ensure creeks have cooler water with more oxygen and creek banks remain stable, and reduces the amount of runoff reaching creeks during storm events. SPU's Asset Management Committee has approved the 2006 budget and program re-evaluation occurs annually for years 2007-2011. The confidence level of current cost estimates is medium. This project supports both the Mayor's Green Seattle Initiative to reforest riparian areas along urban creeks, and the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	150	150	154	158	162	166	170	1,110
Project Total:	0	150	150	154	158	162	166	170	1,110
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	150	150	154	158	162	166	170	1,110
Appropriations Total*	0	150	150	154	158	162	166	170	1,110
O & M Costs (Savings)			0	0	0	0	0	0	0

### **CSO Facility Retrofit**

BCL/Program Name: Combined Sewer Overflow BCL/Program Code: C310B

Project Type: Rehabilitation or Restoration Start Date: 1st Quarter 2002

Project ID: C302102 End Date: Ongoing

**Location:** Various

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

To optimize system operation and storage, this project retrofits, upgrades, and modifies existing Combined Sewer Overflow (CSO) reduction facilities in priority CSO basins. The project was evaluated during the development of the 2001 CSO Reduction Plan Amendment and provides a cost-effective approach to complying with CSO regulations. The project is in the design and construction phase and the certainty of the cost estimate is a medium confidence level.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	2,083	550	554	513	525	538	1,000	1,025	6,788
Project Total:	2,083	550	554	513	525	538	1,000	1,025	6,788
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	2,083	550	554	513	525	538	1,000	1,025	6,788
Appropriations Total*	2,083	550	554	513	525	538	1,000	1,025	6,788
O & M Costs (Savings)			0	0	0	0	0	0	0

### **CSO Plan Update**

BCL/Program Name: Combined Sewer Overflow BCL/Program Code: C310B

Project Type: Improved Facility Start Date: 1st Ouarter 1999

Project ID: C3AA103 End Date: Ongoing

**Location:** Various

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

Combined Sewer Overflow (CSO) reduction plans are required by the Department of Ecology. This project funds preparation of the next plan update, Environmental Impact Statement, and public participation activities. The project also prepares feasibility studies to identify potential opportunities for coordination with King County. This project is in a preliminary phase of development and cost estimates will be revised over time. The SPU Asset Management Committee approved the plan in 2005.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	1,316	200	550	349	326	420	320	3,300	6,781
Project Total:	1,316	200	550	349	326	420	320	3,300	6,781
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	1,316	200	550	349	326	420	320	3,300	6,781
Appropriations Total*	1,316	200	550	349	326	420	320	3,300	6,781
O & M Costs (Savings)			0	0	0	0	0	0	0

### **CSO Structure Configuration Management**

BCL/Program Name: Combined Sewer Overflow BCL/Program Code: C310B

Project Type:Rehabilitation or RestorationStart Date:1st Quarter 2006Project ID:C306101End 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

The project surveys the condition and configuration of the existing CSO overflow structures. It identifies limitations or deficiencies with the existing structures and makes recommendations for replacement or rehabilitation of the structure.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	100	100	50	0	0	0	250
Project Total:	0	0	100	100	50	0	0	0	250
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	100	100	50	0	0	0	250
Appropriations Total*	0	0	100	100	50	0	0	0	250
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.

### **CSO Wastewater Monitoring**

BCL/Program Name: Combined Sewer Overflow BCL/Program Code: C310B

**Project Type:** New Facility **Start Date:** 1st Quarter 2005

Project ID: C305102 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 collects data regarding wastewater flows in the combined sewer system to support facility planning and engineering through model calibration and refinement, pre-flow monitoring of CIP project locations, and post-flow monitoring of CIP projects. Funds are used for acquisition of monitoring equipment, identification of monitoring site locations, and data collection and management for use in modeling, planning, design, and NPDES permit compliance. This project is in a preliminary phase of development and cost estimates will be revised over time. This project has been approved by SPU's Asset Management Committee.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	1,085	407	325	419	407	382	355	3,380
Project Total:	0	1,085	407	325	419	407	382	355	3,380
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	1,085	407	325	419	407	382	355	3,380
Appropriations Total*	0	1,085	407	325	419	407	382	355	3,380
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Dallas Ave. S Emergency Soil Removal**

BCL/Program Name: Habitat and Sediments BCL/Program Code: C350B

Project Type:New FacilityStart Date:4th Quarter 2004Project ID:C304502End Date:4th Quarter 2007

**Location:** 17th Ave. S/S Donovan/Dallas Ave. S

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 an interim project to mitigate PCB-contaminated soil in street right-of-ways and in two residential yards and a private lot in a residential-industrial neighborhood along 17th Avenue South, South Donovan Street and Dallas Avenue South in South Park (see South Park Soil project C305502). To protect public health in the immediate term, SPU removed some contaminated soil and placed a temporary asphalt cap on other contaminated areas. Crews also installed a temporary storm water collection and treatment system in the area to control runoff from the newly paved roadways. This interim action was designed in consultation with the State Department of Ecology and Seattle-King County Public Health to limit human exposure to the PCBs until a more permanent solution could be implemented. Most of these interim activities were completed in December 2004. Two residential yards and another private storage lot were excavated in June 2005, along with a small part of the road shoulder along 16th Avenue South. For information on other soil remediation projects, see South Park Soil Project (C305502).

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	312	0	120	60	0	0	0	0	492
Project Total:	312	0	120	60	0	0	0	0	492
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	312	0	120	60	0	0	0	0	492
Appropriations Total*	312	0	120	60	0	0	0	0	492
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Delridge Way SW/SW Myrtle - DRN**

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:1st Quarter 2005Project ID:C353204End Date:4th Quarter 2008

Location: Delridge Wy. SW/SW Myrtle St.

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

Frequent ponding occurs along the east side of Delridge Way SW, centered near a bus stop just north of SW Myrtle. Traffic on Delridge is adversely impacted, along with bus service (the curb and sidewalk are submerged). This project upgrades the drainage infrastructure at this location, providing adequate conveyance to eliminate the flooding, with some basic water quality features to reduce pollutant loads reaching Longfellow Creek. The confidence level of the cost estimate is medium.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	45	60	205	21	0	0	0	331
Project Total:	0	45	60	205	21	0	0	0	331
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	45	60	205	21	0	0	0	331
Appropriations Total*	0	45	60	205	21	0	0	0	331
O & M Costs (Savings)			0	0	0	1	1	1	3

### **Design Commission Fees - DRN**

BCL/Program Name: Other Drainage BCL/Program Code: C335B

Project Type: Improved Facility Start Date: Ongoing

Project ID: C301704 End Date: Ongoing

**Location:** Citywide

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 drainage capital improvement projects funded by the Drainage and Wastewater 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									
Drainage and Wastewater Rates	0	15	26	8	11	11	11	11	93
Project Total:	0	15	26	8	11	11	11	11	93
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	15	26	8	11	11	11	11	93
Appropriations Total*	0	15	26	8	11	11	11	11	93
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Design Commission Fees - WW**

BCL/Program Name:General WastewaterBCL/Program Code:C320BProject Type:Improved FacilityStart Date:OngoingProject ID:C301706End Date:Ongoing

**Location:** Citywide

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 wastewater capital improvement projects funded by the Drainage and Wastewater 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 when specific projects are reviewed and costs are incurred, fees are allocated to the appropriate projects.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	5	1	5	5	5	6	6	33
Project Total:	0	5	1	5	5	5	6	6	33
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	5	1	5	5	5	6	6	33
Appropriations Total*	0	5	1	5	5	5	6	6	33
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Design Standards & Guidelines - DRN**

BCL/Program Name: Other Drainage BCL/Program Code: C335B

Project Type:New InvestmentStart Date:1st Quarter 2005Project ID:C353501End Date:4th Quarter 2006

**Location:** Citywide

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

This program creates detailed design standards and guidelines for the development of various types of drainage facilities to streamline future design efforts, reduce costs, and increase the quality of future facilities. This program is conducted with staff from the SPU Engineering and Operations divisions. The project supports benchmarking efforts by SPU's Asset Management Committee and implementation of SPU's Strategic Business Plan. Confidence level in the cost estimate is high.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	263	130	0	0	0	0	0	393
Project Total:	0	263	130	0	0	0	0	0	393
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	263	130	0	0	0	0	0	393
Appropriations Total*	0	263	130	0	0	0	0	0	393
O & M Costs (Savings)			0	100	100	100	100	100	500

#### **Design Standards & Guidelines - WW**

BCL/Program Name: General Wastewater BCL/Program Code: C320B

Project Type:New InvestmentStart Date:1st Quarter 2005Project ID:C305201End Date:4th Quarter 2006

**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 program creates detailed design standards and guidelines for the development of various types of wastewater facilities to streamline future design efforts, reduce costs, and increase the quality of future facilities. This program is conducted with staff from the SPU Engineering and Operations divisions. The project supports benchmarking efforts by SPU's Asset Management Committee and implementation of SPU's Strategic Business Plan. Confidence level in the cost estimate is high.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	51	326	0	0	0	0	0	377
Project Total:	0	51	326	0	0	0	0	0	377
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	51	326	0	0	0	0	0	377
Appropriations Total*	0	51	326	0	0	0	0	0	377
O & M Costs (Savings)			0	100	100	100	100	100	500

#### **Drainage Spot Improvements**

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type: Rehabilitation or Restoration Start Date: 2nd Quarter 1998

Project ID: C333201 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 makes a number of spot improvements to drainage systems and creeks throughout Seattle. Projects increase the capacity of the drainage systems and prevent flooding. Typical improvements include installation of inlets and catch-basins, construction of ditches and grassed swales, and installation of culverts. Funding to maintain the improvements made under this program is included in SPU's 2006 Adopted Budget. The confidence level of the cost estimate is medium.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	507	500	500	513	525	538	552	566	4,201
Project Total:	507	500	500	513	525	538	552	566	4,201
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	507	500	500	513	525	538	552	566	4,201
Appropriations Total*	507	500	500	513	525	538	552	566	4,201
O & M Costs (Savings)			3	3	3	3	3	3	18

#### Eastlake Ave./Galer-Drainage Improvement

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:1st Quarter 2009Project ID:C3NW032-010End Date:4th Quarter 2010

**Location:** Eastlake Ave. E

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

This project investigates and improves a drainage problem identified at this location as a result of the Comprehensive Drainage Plan. SPU Operations staff are collecting additional information to determine the appropriate solution. 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									
Drainage and Wastewater Rates	0	0	0	0	0	162	110	0	272
Project Total:	0	0	0	0	0	162	110	0	272
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	0	0	0	162	110	0	272
Appropriations Total*	0	0	0	0	0	162	110	0	272
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Facility Improvements - DWF**

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

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

**Location:** 700 5th Ave.

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Downtown Urban Village: Commercial Core

This project funds logistical support services for SPU, including tenant improvements, office buildouts, and furniture. The funding shown below is the Drainage and Wastewater 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									
Drainage and Wastewater Rates	799	1,055	1,050	0	0	0	0	0	2,904
Project Total:	799	1,055	1,050	0	0	0	0	0	2,904
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	799	1,055	1,050	0	0	0	0	0	2,904
Appropriations Total*	799	1,055	1,050	0	0	0	0	0	2,904
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.

#### Facility Security Upgrades - DRN

BCL/Program Name: Other Drainage BCL/Program Code: C335B

Project Type:New FacilityStart Date:1st Quarter 2004Project ID:C3NW035-004End Date:4th Quarter 2006

**Location:** Haller Lake & Charles St. Facilities

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 funds basic physical security upgrades to the Drainage and Wastewater facilities at Haller Lake and Charles Street including installation of card key access systems, high security locks, reinforced doors and windows, and "No Trespassing" signs on perimeter fencing.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	16	0	0	0	0	0	0	16
Project Total:	0	16	0	0	0	0	0	0	16
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	16	0	0	0	0	0	0	16
Appropriations Total*	0	16	0	0	0	0	0	0	16
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Facility Security Upgrades - WW

BCL/Program Name: General Wastewater BCL/Program Code: C320B

Project Type:New FacilityStart Date:1st Quarter 2004Project ID:C304202End Date:4th Quarter 2006

**Location:** Haller Lake & Charles St. Facilities

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 funds basic physical security upgrades to the Drainage and Wastewater facilities including installation of card key access systems, high security locks, reinforced doors and windows, and "No Trespassing" signs on perimeter fencing.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	16	387	0	0	0	0	0	403
Project Total:	0	16	387	0	0	0	0	0	403
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	16	387	0	0	0	0	0	403
Appropriations Total*	0	16	387	0	0	0	0	0	403
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.

#### Fecal Total Maximum Daily Load Feasibility

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:New FacilityStart Date:1st Quarter 2004Project ID:C343302End 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

This project investigates bacteria problems identified in Seattle's creeks and evaluates options for reducing bacteria levels, including treatment. Work focuses on watersheds that are affected by Total Maximum Daily Load water quality regulations. This focus includes Pipers, Thornton, and Longfellow creeks, after completion of additional work to identify sources of fecal coliform bacteria in these three basins. The project includes funding for development of a pilot project to test performance of some of the alternatives identified during the investigation. Understanding of bacteria sources is key to developing solutions and identifying potential sites for pilot testing. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	1	113	0	256	53	0	0	0	423
Project Total:	1	113	0	256	53	0	0	0	423
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	1	113	0	256	53	0	0	0	423
Appropriations Total*	1	113	0	256	53	0	0	0	423
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Fish Passage Program

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

**Project Type:** New Facility **Start Date:** 1st Quarter 2005

Project ID: C353305 End Date: Ongoing

Location: Citywide

Neighborhood Plan: In more than one Plan Neighborhood Plan Matrix: Multiple

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

This program removes top priority fish passage barriers in the city that meet requirements for the use of drainage funds. Within the five fish-bearing creeks in Seattle, there are nearly 90 documented barriers to fish passage. The prioritized list of barriers that this project addresses changes as fish move into new areas, fish populations increase or decrease, and downstream barriers are modified or removed by SPU or others. The project's short-term focus is on removing minor barriers located in downstream Pipers Creek and Taylor Creek near 68th Ave. SE. Currently, returning adult salmon can access approximately five miles of stream. If all the barriers were removed, salmon could potentially use up to 22 miles of stream. SPU's Asset Management Committee approved this project in 2005. This project is in a preliminary phase of development and cost estimates will be revised over time. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	27	40	128	425	140	121	124	1,005
Project Total:	0	27	40	128	425	140	121	124	1,005
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	27	40	128	425	140	121	124	1,005
Appropriations Total*	0	27	40	128	425	140	121	124	1,005
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-DWFEnd 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, have 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 lead to lower life cycle costs for fleet management.

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

#### Force Main/Pump Stations Plan

BCL/Program Name: General Wastewater BCL/Program Code: C320B

**Project Type:** Improved Facility Start Date: 3rd Quarter 2002

Project ID: C302204 End 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 program implements a long-term strategy for prioritizing improvements to the City's wastewater force mains and pump stations based on criteria such as average life expectancy, system capacity projections, and physical inventory data. The program includes replacing defective critical components. The program allows SPU to make better capital replacement and repair decisions regarding pump stations and force mains, helping to optimize operations and maintenance efforts and costs associated with these assets over a longer-term planning horizon.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	317	288	142	513	525	538	552	566	3,441
Project Total:	317	288	142	513	525	538	552	566	3,441
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	317	288	142	513	525	538	552	566	3,441
Appropriations Total*	317	288	142	513	525	538	552	566	3,441
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Fremont-Wallingford CSO

BCL/Program Name: Combined Sewer Overflow BCL/Program Code: C310B

Project Type:Improved FacilityStart Date:1st Quarter 2004Project ID:C303102End Date:1st Quarter 2020

Location: Fremont/Wallingford areas

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 constructs Combined Sewer Overflow (CSO) reduction facilities in the Fremont/Wallingford area, at Basins 147 and 174. Major work includes flow monitoring, system modeling, facility planning, preliminary engineering, design, permits, land acquisition (if necessary) and construction. Work performed in the initial planning phase collects additional data and re-evaluates alternatives prior to allocating and spending additional funds. The project is on hold until 2007, and the project budget and schedule have been revised from the 2001 CSO Plan to account for project development, CSO Retrofit Implementation (which may reduce the size of the necessary facilities in this basin), and potential coordination with King County. Proposed allocations for 2007 and 2008 are for initial planning work, with future allocations to be determined after the study is completed. This project is in a preliminary phase of development and cost estimates will be revised over time. SPU Asset Management Committee review is required before the start of the project. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	0	513	525	0	0	0	1,038
Project Total:	0	0	0	513	525	0	0	0	1,038
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	0	513	525	0	0	0	1,038
Appropriations Total*	0	0	0	513	525	0	0	0	1,038
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Georgetown Drainage Basin Study**

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:Improved FacilityStart Date:2nd Quarter 2002Project ID:C302311End Date:4th Quarter 2009

Location: Georgetown

Neighborhood Plan:GeorgetownNeighborhood Plan Matrix:GC-4 B.2Neighborhood District:Greater DuwamishUrban Village:Not in an Urban Village

This project funds a planning-level analysis of drainage demands in the Georgetown neighborhood. Information previously developed by City and County Combined Sewer Overflow (CSO) studies and past drainage studies is used in the analysis. The project is coordinated with implementation of the Norfolk Basin Plan, the City's new CSO Plan (prepared under CSO Plan Update, C3AA103), and other initiatives in the project area.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	135	0	50	205	158	27	0	0	575
Project Total:	135	0	50	205	158	27	0	0	575
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	135	0	50	205	158	27	0	0	575
Appropriations Total*	135	0	50	205	158	27	0	0	575
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **GIS System Enhancements**

BCL/Program Name: Other Drainage BCL/Program Code: C335B

Project Type:New InvestmentStart Date:1st Quarter 2004Project ID:C343502End Date:4th Quarter 2006

**Location:** Citywide

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

The Drainage and Wastewater Geographic Information System (GIS) has undergone significant improvements in recent years to enhance accuracy and completeness. This project provides funding to complete yet-to-be addressed GIS data enhancements to deal with missing data, map/data correction backlog, and missing data attributes.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	124	45	45	0	0	0	0	0	214
Project Total:	124	45	45	0	0	0	0	0	214
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	124	45	45	0	0	0	0	0	214
Appropriations Total*	124	45	45	0	0	0	0	0	214
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.

#### **Golden Gardens/View Ave. Landslide**

BCL/Program Name: Public Asset Protection BCL/Program Code: C334B

Project Type:New FacilityStart Date:2nd Quarter 2004Project ID:C343403End Date:4th Quarter 2008

**Location:** Golden Garden Dr. NW/View Dr. NW

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

This project performs preliminary engineering and initial design of a landslide mitigation project in the area of Golden Gardens Drive NW and View Ave. NW. There is uncontrolled stormwater discharging off of View Ave. NW onto private properties and an eight-inch sewer line and pump station on a steep slope that has experienced several landslides in the past. The Seattle Department of Parks and Recreation (Parks) owns property downslope of both streets and Golden Gardens Drive NW has been damaged from past slides. This project has been identified as a potential joint project between SPU, Parks and the Seattle Department of Transportation. The project is in the planning phase and cost estimates will be revised over time. The SPU Asset Management Committee approved this project in 2004.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	66	50	100	513	677	0	0	0	1,406
Project Total:	66	50	100	513	677	0	0	0	1,406
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	66	50	100	513	677	0	0	0	1,406
Appropriations Total*	66	50	100	513	677	0	0	0	1,406
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Greenwood Peat Bog**

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:Rehabilitation or RestorationStart Date:1st Quarter 2003Project ID:C333207End Date:4th Quarter 2010

**Location:** NW 85th St. & NW 97th St. & Greenwood Ave. N & 8th Av. N

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

This project studies the physical features of the Greenwood Peat Bog basin, including water levels, basin morphometry, and peat layers/characteristics. Flow monitors have also been installed in the storm drain system and in Pipers Creek to determine whether the creek is affected by land use impacts, especially dewatering, in the basin. Water level and flow monitoring take place over several years to develop a hydrologic model, which supports consideration of land use restrictions to control ongoing subsidence problems and alternatives to stormwater conveyance where technically feasible. Corrugated metal pipe was used for the storm drain trunk system, and it may be nearing the end of its useful life. The project also supports rehabilitation/replacement options for this system. The confidence level of the current cost estimate is medium.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	167	65	20	21	21	108	22	0	424
Project Total:	167	65	20	21	21	108	22	0	424
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	167	65	20	21	21	108	22	0	424
Appropriations Total*	167	65	20	21	21	108	22	0	424
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Greenwood Water Quality Best Management Practice**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:New FacilityStart Date:1st Quarter 2005Project ID:C353306End Date:4th Quarter 2007

**Location:** N 105th St./N 112th St.

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

This project designs and constructs a stormwater treatment facility to meet code requirements for a portion of the Seattle Department of Transportation (SDOT) roadway improvement project on Greenwood Ave. N between N 105th and N 112th Streets. See SDOT project TC36638 for more transportation-related information. SPU and SDOT have agreed that the existing natural drainage system on NW 110th can be modified to meet most of the drainage requirements. This project provides treatment for the section of Greenwood Ave. N between NW 105th and NW 107th via a media filtration vault or other conventional stormwater treatment system. The project also includes grant funding for the SDOT roadway improvement project. The confidence level of the current cost estimate is low as the project is in the planning phase.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	40	80	349	0	0	0	0	469
Project Total:	0	40	80	349	0	0	0	0	469
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	40	80	349	0	0	0	0	469
Appropriations Total*	0	40	80	349	0	0	0	0	469
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Heavy Equipment Purchases - DRN**

BCL/Program Name:Other DrainageBCL/Program Code:C335BProject Type:New InvestmentStart Date:OngoingProject ID:C300399End Date:Ongoing

**Location:** N/A

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 replaces existing heavy equipment (such as vactors, loaders, and bulldozers) used by SPU field crews. 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									
Drainage and Wastewater Rates	1,919	477	320	825	1,073	485	706	725	6,530
Project Total:	1,919	477	320	825	1,073	485	706	725	6,530
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	1,919	477	320	825	1,073	485	706	725	6,530
Appropriations Total*	1,919	477	320	825	1,073	485	706	725	6,530
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Heavy Equipment Purchases - WW**

BCL/Program Name:General WastewaterBCL/Program Code:C320BProject Type:New InvestmentStart Date:OngoingProject ID:C300499End 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 replaces existing heavy equipment (such as vactors, loaders, and bulldozers) used by SPU field crews. 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									
Drainage and Wastewater Rates	1,368	2,410	195	440	684	345	784	804	7,030
Project Total:	1,368	2,410	195	440	684	345	784	804	7,030
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	1,368	2,410	195	440	684	345	784	804	7,030
Appropriations Total*	1,368	2,410	195	440	684	345	784	804	7,030
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.

#### **High Point Drainage System**

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:1st Quarter 2002Project ID:C301303End Date:4th Quarter 2009

**Location:** SW Juneau St./SW Myrtle St.

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

This project funds SPU's share of a partnership with the Seattle Housing Authority (SHA) to construct 34 blocks of natural drainage system in SHA's High Point 120-acre redevelopment. The natural drainage system project retrofits 10% of Longfellow Creek Watershed to meet the pre-developed pasture runoff conditions for the two-year design storm, as well as provide a distributed, block-scale water quality treatment system. The drainage system also includes construction of porous pavement sidewalks and up to three blocks of porous pavement streets. The project enables SPU to achieve flood control and water quality objectives in the project area at a lower cost than through either development of a large regional drainage and water quality facility, or through retrofit of currently developed streets to include natural drainage systems.

Funding to maintain the new natural drainage system starting in 2007 will be included in future SPU operating budgets. The High Point Natural Drainage System was approved by City Council in May 2003 as part of SHA's subdivision and street vacation application. The project is partially funded by a \$2.7 million construction loan and a \$157,170 grant for education, water quality monitoring and other activities, both from the Washington State Department of Ecology, and a \$192,900 grant from the United States Environmental Protection Agency. These loans and grants were authorized in 2004 by Ordinance 121553. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	810	1,300	1,100	513	53	54	0	0	3,830
Project Total:	810	1,300	1,100	513	53	54	0	0	3,830
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	810	1,300	1,100	513	53	54	0	0	3,830
Appropriations Total*	810	1,300	1,100	513	53	54	0	0	3,830
O & M Costs (Savings)			0	36	64	64	65	65	294

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

#### **Intergovernmental Shares - DRN**

BCL/Program Name: Other Drainage BCL/Program Code: C335B

**Project Type:** New Facility **Start Date:** 1st Quarter 2005

Project ID: C353550 End Date: Ongoing

**Location:** Citywide

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 funding of to enable SPU to partner with other City departments that are implementing projects with a drainage nexus and creating a benefit for the drainage system. Requests for funding from this project are developed in partnership with other departments and SPU, and involve joint planning of CIP projects. The SPU Asset Management Committee reviews and approves all drainage funding commitments. 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									
Drainage and Wastewater Rates	0	2,000	2,000	2,050	2,101	2,154	2,208	2,263	14,776
Project Total:	0	2,000	2,000	2,050	2,101	2,154	2,208	2,263	14,776
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	2,000	2,000	2,050	2,101	2,154	2,208	2,263	14,776
Appropriations Total*	0	2,000	2,000	2,050	2,101	2,154	2,208	2,263	14,776
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Intergovernmental Shares - WW**

BCL/Program Name: General Wastewater BCL/Program Code: C320B

**Project Type:** New Facility **Start Date:** 1st Quarter 2005

Project ID: C305250 End Date: Ongoing

**Location:** Citywide

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 funding to enable SPU to partner with other City departments that are implementing projects with a wastewater nexus and creating a benefit for the wastewater system. Requests for funding from this project are developed in partnership with other departments and SPU, and involve joint planning of CIP projects. The SPU Asset Management Committee reviews and approves all wastewater funding commitments. 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									
Drainage and Wastewater Rates	0	250	250	256	263	269	276	283	1,847
Project Total:	0	250	250	256	263	269	276	283	1,847
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	250	250	256	263	269	276	283	1,847
Appropriations Total*	0	250	250	256	263	269	276	283	1,847
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Jackson Park Detention - Phase 2**

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:2nd Quarter 1999Project ID:C399305End Date:4th Quarter 2009

**Location:** Multiple locations

Neighborhood Plan: In more than one Neighborhood Plan Neighborhood Plan Matrix: Multiple matrix

Neighborhood District: In more than one Neighborhood

Urban Village: In more than one Urban Village

District

This project constructs three detention ponds in the Jackson Park golf course, including overflow structures for transferring flow between Thornton Creek and the ponds. The project reroutes 1,600 feet of Thornton Creek channel within the golf course to accommodate the detention ponds and improve habitat for fish and wildlife. The project removes 500 feet of culvert within the golf course and replaces it with open creek channel. This project was substantially completed in 2003 and physical completion notice was issued in April 2004. Remaining work includes post-construction monitoring, reporting to external agencies, and riparian plant establishment to meet federal permitting requirements. Funding to operate and maintain the detention pond and other facilities is included in the SPU operating budget.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	10,495	88	110	85	87	89	0	0	10,954
Project Total:	10,495	88	110	85	87	89	0	0	10,954
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	10,495	88	110	85	87	89	0	0	10,954
Appropriations Total*	10,495	88	110	85	87	89	0	0	10,954
O & M Costs (Savings)			45	45	45	45	45	45	270

#### Lake City/NE 92nd Storm Drain

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:Rehabilitation or RestorationStart Date:3rd Quarter 2002Project ID:C302312End Date:4th Quarter 2007

**Location:** Lake City Wy. NE/NE 92nd St./NE 95th St.

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

This project rehabilitates approximately 700 feet of cracked culvert line along the east side of Lake City Way NE

between NE 92nd and NE 95th Streets. The project is scheduled for construction in 2007.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	26	0	0	201	0	0	0	0	227
Project Total:	26	0	0	201	0	0	0	0	227
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	26	0	0	201	0	0	0	0	227
Appropriations Total*	26	0	0	201	0	0	0	0	227
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Longfellow Creek-Yancy St. - Phase 3**

BCL/Program Name: Protection of Beneficial Uses BCL/Program Code: C333B

Project Type:Improved FacilityStart Date:1st Quarter 2003Project ID:C302332End Date:4th Quarter 2007

Location: SW Yancy St./30th Ave. SW

Neighborhood Plan:DelridgeNeighborhood Plan Matrix:I-A-11Neighborhood District:DelridgeUrban Village:Not in an Urban Village

This project continues habitat improvements at the Yancy Street site along Longfellow Creek. Work includes additional bank stabilization, landscaping, wetland enhancements, and other repairs as necessary. The construction phase of the project is substantially complete and is now in the close-out phase.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	161	64	0	10	0	0	0	0	235
Project Total:	161	64	0	10	0	0	0	0	235
Fund Appropriations/Allocations									
SPU Drainage and Wastewater	161	64	0	10	0	0	0	0	235
Fund									
Appropriations Total*	161	64	0	10	0	0	0	0	235
O & M Costs (Savings)			10	10	10	10	10	10	60

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

#### **Lower Densmore Drainage Improvement**

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:1st Quarter 2005Project ID:C353205End Date:4th Quarter 2006

Location: Aurora Ave. N

Neighborhood Plan: Broadview-Bitter Lake-Haller Lake Neighborhood Plan Matrix: B2

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

This project develops the preliminary engineering analysis, including modeling, to identify alternatives to constructing a storm drain system in the Lower Densmore subbasin. The project also identifies the additional system requirements for stormwater flow resulting from improvements in the Bitter Lake, Haller Lake and Stone Avenue subbasins. Lower Densmore is a large subbasin on the receiving end of the flow draining through the upper Densmore basin, which includes the Bitter Lake, Haller Lake and Stone Ave. subbasins. This subbasin has experienced numerous flooding incidents for two-year storm levels or higher, in particular at N 107th and Midvale Ave. N, and the Licton Springs area. This preliminary engineering phase defines a scope and budget for the project, and the cost for design and construction will be determined after preliminary engineering is completed. This project is in a preliminary phase of development and cost estimates will be revised over time. SPU Asset Management Committee review is conducted prior to project implementation.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	225	225	0	0	0	0	0	450
Project Total:	0	225	225	0	0	0	0	0	450
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	225	225	0	0	0	0	0	450
Appropriations Total*	0	225	225	0	0	0	0	0	450
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Madison Valley Infrastructure Improvements**

BCL/Program Name: General Wastewater BCL/Program Code: C320B

**Project Type:** New Facility **Start Date:** 1st Quarter 2006

Project ID: C306201 End Date: TBD

**Location:** Madison Valley

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

The project corrects infrastructure deficiencies that have resulted in sewage backups and flooding problems in the vicinity of East John Street and 30th Avenue East, to minimize the likelihood that sewage backups and stormwater flooding occur in private residences. This project may include stormwater and combined sewage new facilities and also make operational or infrastructure improvements. The project may include flow monitoring, modeling, property acquisition, preliminary engineering, design, permitting, public works contracting, demolition activities, community involvement, Asset Management deliverables, and construction of infrastructure improvements. Future phases of the project continue beyond 2006. The cost estimate is preliminary and will be refined over time.

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

#### **Main Warehouse Improvements - DWF**

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

Project Type:Improved FacilityStart Date:1st Quarter 2006Project ID:C406601-DWFEnd 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, such as 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.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	128	0	0	0	0	0	128
Project Total:	0	0	128	0	0	0	0	0	128
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	128	0	0	0	0	0	128
Appropriations Total*	0	0	128	0	0	0	0	0	128
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Meadowbrook Outfall Rehabilitation**

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:1st Quarter 2005Project ID:C353206End Date:2nd Quarter 2008

Location: Riviera Pl. NE & NE 105th & NE 106th St.

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

This project repairs or replaces three damaged outfall pipes discharging overflow stormwater from Meadowbrook Pond to Lake Washington at Riviera Place NE between NE 106th St. and NE 105th St. Preliminary engineering investigates alternatives to repair or replace the three outfall pipes, and assesses conditions of related structures, including the seawall next to the outfall pipes, an upstream 90-inch pipe connecting to the outfall pipes, and an upstream 72-inch pipe connecting to the 90-inch pipe. Preliminary engineering also investigates causes of sinkholes near the outfall pipes, and performs a flow analysis and evaluation to check the feasibility of adding another 72-inch overflow pipe at Meadowbrook Pond. The planning phase cost estimate has a medium level of confidence. The SPU Asset Management Committee reviewed is required before the start of the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	200	231	1,333	53	0	0	0	1,817
Project Total:	0	200	231	1,333	53	0	0	0	1,817
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	200	231	1,333	53	0	0	0	1,817
Appropriations Total*	0	200	231	1,333	53	0	0	0	1,817
O & M Costs (Savings)			0	0	0	12	12	12	36

#### Meter Replacement - DWF

**BCL/Program Name:** Shared Cost Projects BCL/Program Code: C410B Rehabilitation or Restoration **Project Type: Start Date:** Ongoing **Project ID:** C4101-DWF **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 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-DWF.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	3,817	672	597	543	557	571	643	643	8,043
Project Total:	3,817	672	597	543	557	571	643	643	8,043
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	3,817	672	597	543	557	571	643	643	8,043
Appropriations Total*	3,817	672	597	543	557	571	643	643	8,043
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Minor Facility Upgrades - Rehabilitation**

BCL/Program Name: Sewer Rehabilitation **BCL/Program Code:** C340B

Rehabilitation or Restoration **Project Type: Start Date:** 1st Quarter 1998

**Project ID:** C3AA402 **End Date:** Ongoing

**Location:** Various

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

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

This project makes minor upgrades and replacements to sewer infrastructure such as setting castings to grade on repaying projects and installing maintenance holes on existing sewer mainlines. These upgrades facilitate maintenance activities and do not increase capacity.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	211	80	76	81	110	98	100	103	859
Project Total:	211	80	76	81	110	98	100	103	859
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	211	80	76	81	110	98	100	103	859
Appropriations Total*	211	80	76	81	110	98	100	103	859
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.

#### MLK Way/Norfolk St. Storm Improvement

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:1st Quarter 2003Project ID:C333205End Date:4th Quarter 2010

**Location:** Norfolk Drainage Basin East Of I-5

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

This project reduces flooding problems along Martin Luther King, Jr. Way S and adjacent streets by rehabilitating the existing system, eliminating bypasses to the sanitary sewer system and providing a functioning conveyance system for future roadway and drainage improvements proposed for construction in 2007 along Martin Luther King, Jr. Way by Sound Transit. The project removes petroleum-contaminated sediments from the existing system, provides improved maintenance access for future cleaning, increases the carrying capacity of the system to meet a 25-year performance level, improves storm water quality treatment using funding from Sound Transit, and reduces overall long-term maintenance costs.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	171	440	183	113	2	2	2	0	913
Project Total:	171	440	183	113	2	2	2	0	913
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	171	440	183	113	2	2	2	0	913
Appropriations Total*	171	440	183	113	2	2	2	0	913
O & M Costs (Savings)			0	0	2	2	2	2	8

#### **Mobility Improvement**

BCL/Program Name: Other Drainage BCL/Program Code: C335B

Project Type: Improved Facility Start Date: 1st Quarter 2004

Project ID: C333514 End 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 program funds drainage designers to work on Seattle Department of Transportation design functions and assist with cost estimates for transportation capital project grant applications. This coordination allows SPU to improve drainage in concert with transportation capital projects.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	300	300	300	308	315	323	331	339	2,516
Project Total:	300	300	300	308	315	323	331	339	2,516
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	300	300	300	308	315	323	331	339	2,516
Appropriations Total*	300	300	300	308	315	323	331	339	2,516
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Monitoring System Upgrades**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:Improved FacilityStart Date:1st Quarter 2004Project ID:C343303End Date:4th Quarter 2006

**Location:** Various

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

This project updates SPU's flow and rainfall monitoring system to improve access to the data and to ensure consistent data quality for the existing network of rainfall, Combined Sewer Overflow (CSO) and stream/storm drain monitoring stations located throughout the city. Flow monitoring data is routinely collected and used to design capital improvement projects, comply with water quality permit requirements, and evaluate program and project performance. Better data can also be used to identify maintenance problems, help reduce costs, and improve the effectiveness of future projects. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	137	459	103	0	0	0	0	0	699
Project Total:	137	459	103	0	0	0	0	0	699
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	137	459	103	0	0	0	0	0	699
Appropriations Total*	137	459	103	0	0	0	0	0	699
O & M Costs (Savings)			0	0	0	0	0	0	0

#### N 105th St./Aurora Ave. N - Drainage Improvement

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:2nd Quarter 2006Project ID:C363203End Date:4th Quarter 2007

**Location:** N 105th St./Aurora Ave. N/Northgate Ave.

Neighborhood Plan:Aurora LictonNeighborhood Plan Matrix:D-3Neighborhood District:NorthUrban Village:Not in an Urban Village

This project investigates stormwater runoff along North 105th Street and Aurora Ave. N. The project examines the causes of flooding in the travel lane, and identifies possible drainage improvements to this area including the alternative of constructing new inlets and catch-basins. 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									
Drainage and Wastewater Rates	0	0	150	103	0	0	0	0	253
Project Total:	0	0	150	103	0	0	0	0	253
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	150	103	0	0	0	0	253
Appropriations Total*	0	0	150	103	0	0	0	0	253
O & M Costs (Savings)			0	0	0	0	0	0	0

#### N 125th & Aurora N Storm Drain

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:3rd Quarter 2002Project ID:C302313End Date:4th Quarter 2011

**Location:** N 125th St./Aurora Ave. N

Neighborhood Plan: Broadview-Bitter Lake-Haller Lake
Neighborhood District: Northwest
Neighborhood District: Bitter Lake Village
Urban Village: Bitter Lake Village

This project funds a preliminary study for the construction of approximately 2,550 linear feet of new pipe combined with catch-basins and connecting pipes along N 125th St. and Aurora Ave. N, as well as the upgrade of approximately 2,400 linear feet of existing pipe along Aurora Ave. N, to reduce street and property flooding. The project is consistent with SPU's Densmore Drainage Basin Study, and has been accelerated to coordinate with the Seattle Department of Transportation (SDOT) Aurora Transit, Pedestrian and Safety Improvements project TC36625, which plans to install new curbs, gutters, and sidewalks on the west side of Aurora Ave. N from N 110th to N 145th St. The shoulder is also upgraded and converted to a new bus lane.

While construction of SDOT's project is targeted to begin second quarter of 2006, delay may occur due to uncertainty around the funding of SDOT's Aurora Avenue project. SPU plans to proceed with this project on an expedited basis to take advantage of cost sharing opportunities with SDOT. The project is also coordinated with downstream improvements that SPU is making to move stormwater out of the Densmore Basin to Lake Union, and with the Water Quality Study planned for the Densmore Basin, which evaluates alternatives for improving water quality in the basin. This project is in a preliminary phase of development and cost estimates will be revised over time. SPU's Asset Management Committee has approved preliminary engineering for the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	593	800	575	1,538	1,576	1,615	1,656	1,000	9,353
Project Total:	593	800	575	1,538	1,576	1,615	1,656	1,000	9,353
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	593	800	575	1,538	1,576	1,615	1,656	1,000	9,353
Appropriations Total*	593	800	575	1,538	1,576	1,615	1,656	1,000	9,353
O & M Costs (Savings)			0	0	0	0	0	0	0

#### N 85th St/Greenwood Ave. - Drainage Improvement

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:2nd Quarter 2006Project ID:C363204End Date:4th Quarter 2007

**Location:** Greenwood Ave. N/3rd Ave. N

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

Neighborhood District: Northwest Urban Village: Greenwood

This project investigates a drainage problem identified at this location through the development of the Comprehensive Drainage Plan. Although street flooding in the travel lane exists, little information is currently available about the causes or extent of the problem, or potential solutions. The confidence level of the preliminary cost estimate is low.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	150	103	0	0	0	0	253
Project Total:	0	0	150	103	0	0	0	0	253
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	150	103	0	0	0	0	253
Appropriations Total*	0	0	150	103	0	0	0	0	253
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Natural Drainage System Improvements**

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

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

Project ID: C333206 End Date: Ongoing

**Location:** Various/3rd Ave. NW

Neighborhood Plan: Broadview-Bitter Lake-Haller Lake
Neighborhood District: Northwest
Neighborhood District: Northwest
Neighborhood Plan Matrix: Multiple
Urban Village: Not in an Urban Village

This project assesses unimproved right-of-way within the city and identifies areas suitable for enhancing existing ditch drainage systems. In addition to identifying "natural system" drainage areas based on surface water management goals, the project assesses neighborhood, land use, and transportation objectives for unimproved right-of-way. The project produces a suitability map for "natural system" surface water management in the right-of-way. The project also identifies a menu of options for natural system enhancement based on local condition criteria and drainage basin performance goals relative to conveyance, detention or treatment. Each option is developed for consideration in the City's Street Improvement Manual update, and includes right-of-way elements, configuration and dimensions. For each option, associated standard plans are developed for consideration in the Standard Plans update to assist SPU in prioritizing drainage improvements, as well as to prescribe how drainage is to be improved by other public and private developers. Work on this project was delayed while efforts were spent on natural drainage systems at 3rd Ave. NW and NW 107th St., Venema Creek, and Pinehurst natural drainage systems. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments. In 2005, Ordinance 121993 appropriated \$70,000 in a grant from the John F. Kennedy School of Government for this project. This supplemental appropriation is reflected in the fund table below.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	320	326	217	1,773	1,092	1,130	1,000	5,858
Project Total:	0	320	326	217	1,773	1,092	1,130	1,000	5,858
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	320	326	217	1,773	1,092	1,130	1,000	5,858
Appropriations Total*	0	320	326	217	1,773	1,092	1,130	1,000	5,858
O & M Costs (Savings)			0	0	0	0	0	0	0

#### No Dig Pipe & Maintenance Rehabilitation

BCL/Program Name:Sewer RehabilitationBCL/Program Code:C340BProject Type:Rehabilitation or RestorationStart Date:OngoingProject ID:C3AA403End 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 ongoing program rehabilitates sewer pipes prior to complete failure. "No Dig" technology avoids surface use disruption and costly surface repairs.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	9,882	785	663	1,531	2,288	2,280	2,008	2,511	21,948
Project Total:	9,882	785	663	1,531	2,288	2,280	2,008	2,511	21,948
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	9,882	785	663	1,531	2,288	2,280	2,008	2,511	21,948
Appropriations Total*	9,882	785	663	1,531	2,288	2,280	2,008	2,511	21,948
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Northlake Way Drainage**

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:1st Quarter 2004Project ID:C343202End Date:4th Quarter 2006

Location: N Northlake Wy/Stone Wy. N

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

This project studies drainage problems along N Northlake Way, located along the north shore of Lake Union. The project proposes solutions to noted storm water conveyance problems, as well as alternatives for water quality treatment before draining into Lake Union. The timing of the project is such that it can be coordinated with planned paving improvements along N Northlake Way as planned by the Seattle Department of Transportation.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	17	200	300	0	0	0	0	0	517
Project Total:	17	200	300	0	0	0	0	0	517
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	17	200	300	0	0	0	0	0	517
Appropriations Total*	17	200	300	0	0	0	0	0	517
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.

#### Northpark Ave. N Drainage Improvement

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:2nd Quarter 2007Project ID:C3NW032-011End Date:4th Quarter 2010

Location: Northpark Ave N & Linden Ave N

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

This project investigates and makes improvements to address the drainage problem identified at this location (Northpark Ave. N, formerly called Linden Swale) during development of the Comprehensive Drainage Plan. Little information is currently available about the extent or causes of the problem, or potential solutions. The confidence level for the cost estimate is low.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	0	51	735	377	28	0	1,191
Project Total:	0	0	0	51	735	377	28	0	1,191
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	0	51	735	377	28	0	1,191
Appropriations Total*	0	0	0	51	735	377	28	0	1,191
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-DWFEnd Date:4th Quarter 2006

**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

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									
Drainage and Wastewater Rates	0	0	260	0	0	0	0	0	260
Project Total:	0	0	260	0	0	0	0	0	260
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	260	0	0	0	0	0	260
Appropriations Total*	0	0	260	0	0	0	0	0	260
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Operations Control Center Upgrade - DWF**

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type:Improved FacilityStart Date:1st Quarter 2003Project ID:C404501-DWFEnd 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									
Drainage and Wastewater Rates	164	770	286	108	0	0	0	0	1,328
Project Total:	164	770	286	108	0	0	0	0	1,328
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	164	770	286	108	0	0	0	0	1,328
Appropriations Total*	164	770	286	108	0	0	0	0	1,328
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Other Agency Opportunity - DRN**

BCL/Program Name: Other Drainage BCL/Program Code: C335B

**Project Type:** New Facility **Start Date:** 1st Quarter 2005

Project ID: C353520 End Date: Ongoing

**Location:** Citywide

Neighborhood Plan: In more than one Plan Neighborhood Plan Matrix: N/A

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

This project designs and constructs improvements to the drainage system as opportunities arise to partner with projects being constructed by other agencies. In order to reduce disruption of neighborhoods by future street openings, SPU considers replacing or repairing facilities in conjunction with construction on other projects such as Sound Transit Link Light Rail, the Alaskan Way Viaduct, other Washington State Department of Transportation projects, and transportation improvements at South Lake Union. SPU saves the cost of surface restoration and extends the life of its facilities, or upgrades their capacity, as necessary. This project is in a preliminary phase of development and cost estimates are revised over time as specific projects are identified.

In 2005, Ordinance 121883 transferred \$768,000 from this project to SPU's Sediment Remediation-Drainage project (C3NW033-011), to fund emergency clean-up work in the South Park area. Also in 2005, Ordinance 121993 transferred \$300,000 from this project to SPU's Drainage and Wastewater Administration Budget Control Level, to reflect that fewer general and administrative costs had been charged to the CIP than SPU had originally planned for 2005. These supplemental appropriation changes are reflected in the fund table below.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	55	400	1,025	1,414	1,077	1,104	1,132	6,207
Project Total:	0	55	400	1,025	1,414	1,077	1,104	1,132	6,207
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	55	400	1,025	1,414	1,077	1,104	1,132	6,207
Appropriations Total*	0	55	400	1,025	1,414	1,077	1,104	1,132	6,207
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Other Agency Opportunity - WW**

BCL/Program Name: General Wastewater BCL/Program Code: C320B

**Project Type:** New Facility **Start Date:** 1st Quarter 2005

Project ID: C305220 End Date: Ongoing

**Location:** Citywide

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

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

This project designs and constructs improvements to the wastewater system as opportunities arise to partner with projects being constructed by other agencies. In order to reduce disruption of neighborhoods by future street openings, SPU considers replacing or repairing facilities in conjunction with construction on other projects such as Sound Transit Link Light Rail, the Alaskan Way Viaduct, other Washington State Department of Transportation projects, and transportation improvements at South Lake Union. SPU saves the cost of surface restoration and extends the life of its facilities or upgrades their capacity, as needed. This project is in a preliminary phase of development and cost estimates are revised over time as specific projects are identified.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	139	200	410	420	431	442	453	2,495
Project Total:	0	139	200	410	420	431	442	453	2,495
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	139	200	410	420	431	442	453	2,495
Appropriations Total*	0	139	200	410	420	431	442	453	2,495
O & M Costs (Savings)			0	0	0	0	0	0	0

### Outfall Rehab Program - DRN

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type: Rehabilitation or Restoration Start Date: 2nd Quarter 2005

Project ID: C353207 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 funds improvements to the City's stormwater outfalls, based on the results of the Outfall Inspection - Drainage project (C302304). The project's initial focus is on developing an analysis of the existing information on the outfalls and related permitting processes and interagency activities.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	150	200	154	158	162	166	170	1,160
Project Total:	0	150	200	154	158	162	166	170	1,160
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	150	200	154	158	162	166	170	1,160
Appropriations Total*	0	150	200	154	158	162	166	170	1,160
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Outfall Rehab Program - WW**

BCL/Program Name: General Wastewater BCL/Program Code: C320B

Project Type: Rehabilitation or Restoration Start Date: 2nd Quarter 2005

Project ID: C305203 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 funds improvements to the City's wastewater outfalls, based on the results of the Outfall Inspection-Wastewater project (C302202). The project's initial focus is on developing an analysis of the existing information on the outfalls and related permitting processes and interagency activities.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	137	10	297	158	162	166	170	1,100
Project Total:	0	137	10	297	158	162	166	170	1,100
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	137	10	297	158	162	166	170	1,100
Appropriations Total*	0	137	10	297	158	162	166	170	1,100
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.

### Pinehurst Natural Drainage System

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:4th Quarter 2002Project ID:C333202End Date:4th Quarter 2008

**Location:** Thornton Creek Watershed

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

This project constructs natural drainage system improvements to convey stormwater, using the unimproved right-of-way as a starting point for design. The project scope includes: constructing an engineered system of swales or other design alternatives to detain runoff, filter pollutants, and allow maximum opportunity for infiltration; using native vegetation as a stormwater management element, as well as for aesthetic appeal; and constructing a sidewalk on one side of each street within the project area. These sidewalks may include alternative design elements such as porous pavements. The project installs natural drainage systems on approximately 11.5 blocks (330 ft. per block) in the project area.

In addition, some ditch and culvert systems are installed to mitigate against existing spot drainage problems. In 2004, this project was the subject of a budget proviso, which was lifted by Ordinance 121459. The project is partially funded with a \$3.7 million state Public Works Trust Fund loan, which was approved by Ordinance 121464 in 2004. Beginning in 2008, costs to operate and maintain the new system are included in the Department's operating budget. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	1,168	1,698	1,287	91	12	0	0	0	4,256
Project Total:	1,168	1,698	1,287	91	12	0	0	0	4,256
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	1,168	1,698	1,287	91	12	0	0	0	4,256
Appropriations Total*	1,168	1,698	1,287	91	12	0	0	0	4,256
O & M Costs (Savings)			0	0	1	2	1	1	5

### **Piper's Creek - Detention**

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

**Project Type:** Improved Facility Start Date: 3rd Quarter 1999

Project ID: C399326 End Date: Ongoing

**Location:** 777 NW Carkeek Park Rd.

Neighborhood Plan: Broadview-Bitter Lake-Haller Lake Neighborhood Plan Matrix: Multiple Neighborhood District: Northwest Urban Village: Not in an Urban Village

The existing pond on NW Carkeek Park Road is loaded with sediment and has little detention capacity, requiring substantial improvements before it can serve as a detention facility. After evaluation of alternatives and performing cost/benefit analysis, the preferred option is to dredge the existing pond now and every 10 years to maintain its function as a sedimentation trap. The project provides for this dredging, as well as for ongoing dam monitoring and ditch cleaning.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	296	140	24	41	42	43	44	45	675
Project Total:	296	140	24	41	42	43	44	45	675
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	296	140	24	41	42	43	44	45	675
Appropriations Total*	296	140	24	41	42	43	44	45	675
O & M Costs (Savings)			3	3	3	3	3	3	18

### **Point Sewer Pipe Rehabilitation - Contract**

BCL/Program Name: Sewer Rehabilitation BCL/Program Code: C340B

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

Project ID: C303401 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 repairs and replaces failing and misaligned sewer pipes throughout the city. An ongoing closed circuit television inspection program identifies pipes to be replaced. This program prevents complete pipe collapse by providing small repairs at numerous sites throughout the city, avoiding more costly full-line failures or repairs. This rehabilitation program is performed by outside contractors.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	965	810	445	1,421	3,071	1,616	1,651	1,533	11,512
Project Total:	965	810	445	1,421	3,071	1,616	1,651	1,533	11,512
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	965	810	445	1,421	3,071	1,616	1,651	1,533	11,512
Appropriations Total*	965	810	445	1,421	3,071	1,616	1,651	1,533	11,512
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Point Sewer Pipe Rehabilitation - Crews**

BCL/Program Name: Sewer Rehabilitation BCL/Program Code: C340B

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

Project ID: C303402 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 repairs and replaces failing and misaligned sewer pipes throughout the city. An ongoing closed circuit television inspection program identifies pipes to be replaced. This program prevents complete pipe collapse by providing small repairs at numerous sites throughout the city, avoiding more costly full-line failures or repairs. This rehabilitation program is performed by City crews.

In 2005, Ordinance 121993 transferred \$300,000 from this project to SPU's Drainage and Wastewater Administration Budget Control Level, to reflect that fewer general and administrative costs had been charged to the CIP than SPU had originally planned for 2005. Ordinance 121993 also transferred \$200,000 from this project to the SLU Combined Sewer Overflow - KC project (C3AA104), to provide additional budget authority in that project pending resolution of funding negotiations between the City and King County. These supplemental appropriation changes are reflected in the fund table below.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	5,404	3,325	3,200	4,271	4,596	4,947	5,325	4,408	35,476
Project Total:	5,404	3,325	3,200	4,271	4,596	4,947	5,325	4,408	35,476
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	5,404	3,325	3,200	4,271	4,596	4,947	5,325	4,408	35,476
Appropriations Total*	5,404	3,325	3,200	4,271	4,596	4,947	5,325	4,408	35,476
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Pump Station Improvements**

BCL/Program Name: General Wastewater BCL/Program Code: C320B

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

Project ID: C305230 End Date: Ongoing

**Location:** Various

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 for wastewater pump station improvements, upgrades, repairs and rehabilitation, including design and installation of emergency generators, and material and labor costs for equipment replacement (pumps and valves), as well as equipment for the remote monitoring system. This project implements the Pump Station Asset Management Plan.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	936	400	1,853	2,095	2,154	2,208	2,263	11,909
Project Total:	0	936	400	1,853	2,095	2,154	2,208	2,263	11,909
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	936	400	1,853	2,095	2,154	2,208	2,263	11,909
Appropriations Total*	0	936	400	1,853	2,095	2,154	2,208	2,263	11,909
O & M Costs (Savings)			0	0	0	0	0	0	0

### Rainier Ave. S/S Carver - Landslide

BCL/Program Name: Public Asset Protection BCL/Program Code: C334B

Project Type:New FacilityStart Date:3rd Quarter 2005Project ID:C353401End Date:1st Quarter 2009

**Location:** 

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

This project makes improvements to protect three combined sewer lines that traverse a steep slope down to Rainier Avenue S. Preliminary analysis determined these three lines were at risk of damage due to landslides. The project entails constructing retaining walls along Rainier Avenue S to protect the combined sewer lines from the effects of landslides. The project also makes improvements to the collection of stormwater from the streets that feed stormwater to these combined sewers, to reduce the risk of landslides. This project is in a preliminary phase of development and cost estimates will be revised over time. SPU Asset Management Committee review is required before the project implementation phase.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	74	86	57	672	11	0	0	900
Project Total:	0	74	86	57	672	11	0	0	900
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	74	86	57	672	11	0	0	900
Appropriations Total*	0	74	86	57	672	11	0	0	900
O & M Costs (Savings)			0	0	0	0	6	6	12

### S Genesee Combined Sewer Overflow

BCL/Program Name: Combined Sewer Overflow BCL/Program Code: C310B

Project Type:New FacilityStart Date:1st Quarter 2003Project ID:C303103End Date:3rd Quarter 2016

**Location:** S Genesee St.

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

This project constructs facilities for Combined Sewer Overflow (CSO) reduction in the S Genesee area. Major work includes flow monitoring, system modeling, facility planning, preliminary engineering, design, permits, land acquisition (if necessary) and construction. The project schedule has been revised from the 2001 CSO Plan to account for project development; work performed under the CSO Facility Retrofit project (C302102), which may reduce the size of the necessary facilities in this basin; and potential coordination with King County. This project is in an early phase of development and cost estimates will be revised over time. This project has been approved by SPU's Asset Management Committee. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	70	369	325	423	434	1,093	1,104	272	4,090
Project Total:	70	369	325	423	434	1,093	1,104	272	4,090
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	70	369	325	423	434	1,093	1,104	272	4,090
Appropriations Total*	70	369	325	423	434	1,093	1,104	272	4,090
O & M Costs (Savings)			0	0	0	0	0	0	0

### S Henderson CSO Storage

BCL/Program Name: Combined Sewer Overflow BCL/Program Code: C310B

Project Type:New FacilityStart Date:3rd Quarter 2004Project ID:C304102End Date:4th Quarter 2017

**Location:** S Henderson St./Rainier Ave. S

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

This project constructs facilities for Combined Sewer Overflow (CSO) reduction in the S Henderson/Rainier Avenue S area. Major work includes flow monitoring, system modeling, facility planning, preliminary engineering, design, permits, land acquisition (if necessary) and construction. The project schedule has been revised from the 2001 CSO Plan to account for project development; work performed under the CSO Facility Retrofit project (C302102), which may reduce the size of the necessary facilities in this basin; and potential co-ordination with King County. This project is in a preliminary phase of development and cost estimates will be revised over time. This project has been approved by SPU's Asset Management Committee. In addition, this project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	31	263	325	377	556	641	2,208	208	4,609
Project Total:	31	263	325	377	556	641	2,208	208	4,609
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	31	263	325	377	556	641	2,208	208	4,609
Appropriations Total*	31	263	325	377	556	641	2,208	208	4,609
O & M Costs (Savings)			0	0	0	0	0	0	0

### S Henderson Street Raincatchers

BCL/Program Name: General Wastewater BCL/Program Code: C320B

Project Type:New FacilityStart Date:1st Quarter 2005Project ID:C305202End Date:4th Quarter 2006

**Location:** S Henderson St.

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:SoutheastUrban Village:Rainier Beach

This project studies decentralized alternatives to managing the collection and conveyance of disposal of stormwater in combined sewer or partially separated sewer basins. The project also implements a stormwater cistern and rain garden demonstration project in the S Henderson Street neighborhood, which includes conducting pre- and post-project monitoring, marketing, and modeling. The project was created in 2004 by Ordinance 121553, and is partially funded by a \$1.3 million grant from the federal Environmental Protection Agency.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	789	628	0	0	0	0	0	1,417
Project Total:	0	789	628	0	0	0	0	0	1,417
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	789	628	0	0	0	0	0	1,417
Appropriations Total*	0	789	628	0	0	0	0	0	1,417
O & M Costs (Savings)			0	0	0	0	0	0	0

#### S Lake Washington Sewer Maintenance Assessment

BCL/Program Name: General Wastewater BCL/Program Code: C320B

Project Type:Rehabilitation or RestorationStart Date:1st Quarter 2003Project ID:C303201End Date:4th Quarter 2006

**Location:** Various

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

This project provides an assessment of the condition and capacity of the combined sewer main in the Henderson basin. Work may include cleaning, closed circuit television investigation, monitoring and modeling for alternatives in the basin addressing CSO compliance and sewer main capacity issues. Some repair and retrofit may be necessary while long term capital improvements are planned. Confidence level in this current cost estimate is medium.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	300	10	0	0	0	0	0	310
Project Total:	0	300	10	0	0	0	0	0	310
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	300	10	0	0	0	0	0	310
Appropriations Total*	0	300	10	0	0	0	0	0	310
O & M Costs (Savings)			0	0	0	0	0	0	0

### Salmon Bay Phase 2 Acquisition & Restoration

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:Improved FacilityStart Date:2nd Quarter 2003Project ID:C333307End Date:4th Quarter 2006

**Location:** Salmon Bay

Neighborhood Plan:Crown Hill/BallardNeighborhood Plan Matrix:II OS10Neighborhood District:NorthwestUrban Village:Not in an Urban Village

The Salmon Bay Natural Area is the only remaining wooded shoreline in Ballard that provides refuge and rearing habitat for juvenile salmon as they migrate to Puget Sound. It is a critical transition zone for migrating salmon, which must acclimatize to salt water immediately after passing through the locks. This project initiates restoration to improve shoreline habitat at the site. The project also improves public access by building pedestrian paths and installing a public "viewing area" with interpretive signage. Environmental restoration continues through 2006 to control invasive species and establish native and other habitat enhancing vegetation.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	419	95	10	0	0	0	0	0	524
Project Total:	419	95	10	0	0	0	0	0	524
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	419	95	10	0	0	0	0	0	524
Appropriations Total*	419	95	10	0	0	0	0	0	524
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Sanitary Sewer Overflow Capacity**

BCL/Program Name: General Wastewater BCL/Program Code: C320B

Project Type: New Investment Start Date: 2nd Quarter 2002

Project ID: C302205 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 develops a guidance document and self-audit tool for SPU to apply to its wastewater collection system programs and practices, as part of complying with a proposed federal ruling on Sanitary Sewer Overflows (SSOs). The project creates an inventory of the components of the wastewater collection system, and helps ensure that SPU's reporting and record keeping practices reflect federal Capacity, Management, Operations and Maintenance program standards. The project identifies gaps in regulatory compliance, and generates recommendations for improving preventive maintenance of the wastewater system and complying with proposed SSO regulations.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	231	350	250	1,025	1,051	1,077	1,104	1,132	6,220
Project Total:	231	350	250	1,025	1,051	1,077	1,104	1,132	6,220
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	231	350	250	1,025	1,051	1,077	1,104	1,132	6,220
Appropriations Total*	231	350	250	1,025	1,051	1,077	1,104	1,132	6,220
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Seattle Housing Authority Integrated Drainage Plan**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:New FacilityStart Date:1st Quarter 2006Project ID:C363301End Date:2nd Quarter 2010

**Location:** Lake Washington Drainage Basin

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

This project provides stormwater treatment facilities to mitigate more than eight acres of new roadway in Southeast Seattle created as part of the Seattle Housing Authority's (SHA) low income housing redevelopments, Rainier Vista and NewHolly Phase 3. The Seattle Municipal Code requires water quality treatment for runoff from new or replaced vehicular surfaces and allows off-site mitigation when approved by the SPU Director. SHA has agreed to reimburse the capital costs for SPU to identify and construct a water quality project or projects that provides equivalent or greater benefits to the Lake Washington drainage basin than facilities built at the project site.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	300	500	800	150	50	0	1,800
Project Total:	0	0	300	500	800	150	50	0	1,800
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	0	300	500	800	150	50	0	1,800
Appropriations Total*	0	0	300	500	800	150	50	0	1,800
O & M Costs (Savings)			0	0	0	0	2	2	4

### **Seattle Monorail Project - DWF**

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type:New FacilityStart Date:1st Quarter 2004Project ID:C404301-DWFEnd 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) is 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 funds 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 is 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 is 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									
Drainage and Wastewater 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 Drainage and Wastewater 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

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

### **Sediment Remediation - DRN**

BCL/Program Name: Habitat and Sediments BCL/Program Code: C350B

Project Type: New Investment Start Date: 1st Quarter 2005

Project ID: C305503 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 provides drainage funding for preliminary studies and analysis of cleanup of contaminated sediment sites in which the City is a participant, for actual cleanup of contaminated sites, and for preliminary engineering for future cleanup efforts. Funding is used to develop studies and analyses required by regulatory agencies for determining the boundaries and cleanup requirements for specific action sites. The study phase of sediment remediation projects often requires multiple years before specific cleanup actions are defined. As regulatory agency cleanup requirements become clear, additional individual cleanup projects are included in subsequent CIP proposals. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments. In 2005, Ordinance 121883 transferred \$768,000 from SPU's Other Agency Opportunity project (C3NW035-006) to this project to pay for emergency clean-up work in the South Park area. This supplemental appropriation change is reflected in the fund table below.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	1,196	2,115	611	287	221	162	166	4,758
Project Total:	0	1,196	2,115	611	287	221	162	166	4,758
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	1,196	2,115	611	287	221	162	166	4,758
Appropriations Total*	0	1,196	2,115	611	287	221	162	166	4,758
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Sediment Remediation - WW**

BCL/Program Name: Habitat and Sediments BCL/Program Code: C350B

Project Type: New Investment Start Date: 4th Quarter 2000

Project ID: C300412 End 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 provides wastewater funding for preliminary studies and analysis of cleanup of contaminated sediment sites in which the City is a participant, for actual clean-up of contaminated sites, and for preliminary engineering for future cleanup efforts. Funding is used to develop studies and analyses required by regulatory agencies for determining the boundaries and cleanup requirements for specific action sites. The study phase of sediment remediation projects often requires multiple years before specific cleanup actions are defined. As regulatory agency cleanup requirements become clear, additional individual cleanup projects are included in subsequent CIP proposals. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	1,786	1,392	985	1,085	320	242	201	206	6,217
Project Total:	1,786	1,392	985	1,085	320	242	201	206	6,217
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	1,786	1,392	985	1,085	320	242	201	206	6,217
Appropriations Total*	1,786	1,392	985	1,085	320	242	201	206	6,217
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Sewage System Modeling**

BCL/Program Name: General Wastewater BCL/Program Code: C320B

Project Type: New Investment Start Date: 3rd Quarter 1998

Project ID: C3AA206 End Date: Ongoing

**Location:** Citywide

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 facilitates sewer capacity assessment by development of computer models and other methodologies for sewer system evaluation, including data collection.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	726	163	225	103	105	108	110	113	1,653
Project Total:	726	163	225	103	105	108	110	113	1,653
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	726	163	225	103	105	108	110	113	1,653
Appropriations Total*	726	163	225	103	105	108	110	113	1,653
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Sewer Emergency Repairs**

BCL/Program Name: Sewer Rehabilitation BCL/Program Code: C340B

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

Project ID: C3AA404 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 makes emergency repairs to sewer lines that collapse, cause surface problems, or otherwise endanger public health or welfare.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	2,733	294	500	406	548	490	589	604	6,164
Project Total:	2,733	294	500	406	548	490	589	604	6,164
Fund Appropriations/Allocations									
SPU Drainage and Wastewater Fund	2,733	294	500	406	548	490	589	604	6,164
Appropriations Total*	2,733	294	500	406	548	490	589	604	6,164
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.

### **Sewer Full Line Replacements**

BCL/Program Name: Sewer Rehabilitation BCL/Program Code: C340B

Project Type:Rehabilitation or RestorationStart Date:OngoingProject ID:C300488End 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 and repairs sewer lines citywide. Closed circuit television inspections identify defects in sewer mainlines. Each mainline defect is catalogued in the Department's database and assigned a priority number, which designates the urgency of repair under this program. SPU uses a criticality analysis as part of an asset management approach to evaluating life cycle costs, and revises priorities among project selection and rehabilitation methodology.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	35,570	900	416	309	252	254	251	314	38,266
Project Total:	35,570	900	416	309	252	254	251	314	38,266
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	35,570	900	416	309	252	254	251	314	38,266
Appropriations Total*	35,570	900	416	309	252	254	251	314	38,266
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Shared Opportunity Projects - DWF**

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

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

Project ID: C405603-DWF 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 with 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-DWF.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater 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 Drainage and Wastewater 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 Combined Sewer Overflow - KC**

BCL/Program Name: Combined Sewer Overflow BCL/Program Code: C310B

Project Type:New FacilityStart Date:4th Quarter 1996Project ID:C3AA104End Date:4th Quarter 2006

**Location:** Denny Wy.

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

This is a joint City of Seattle/King County project to provide combined sewer overflow control near Denny Way and Lake Union. King County manages the project. Seattle's share of the project costs is 17% of the full project budget, and is reflected below. Construction was completed in 2005 and the project is in the close-out phase. In 2005, Ordinance 121993 transferred \$200,000 from the Point Sewer Pipe Rehabilitation - Crews project (C303402) to this project, to provide additional budget authority pending resolution of negotiations between the City and King County about the City's share of a grant for the project. This supplemental appropriation is reflected in the fund table below.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	17,031	1,810	400	0	0	0	0	0	19,241
Project Total:	17,031	1,810	400	0	0	0	0	0	19,241
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	17,031	1,810	400	0	0	0	0	0	19,241
Appropriations Total*	17,031	1,810	400	0	0	0	0	0	19,241
O & M Costs (Savings)			0	0	0	0	0	0	0

### **SLU Combined Sewer Overflow Phase 2**

BCL/Program Name: Combined Sewer Overflow BCL/Program Code: C310B

Project Type:New FacilityStart Date:1st Quarter 1995Project ID:C3AA106End Date:4th Quarter 2006

**Location:** Valley St.

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

This project connects the City's new Combined Sewer Overflow project (Phase I), a larger transport system along the east side of Lake Union, to King County's projects, which are storage, conveyance, and primary treatment projects (Phases III and IV). The project is in the construction phase with high confidence in the cost estimate, and does not require review by SPU's Asset Management Committee.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	5,627	260	10	0	0	0	0	0	5,897
Project Total:	5,627	260	10	0	0	0	0	0	5,897
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	5,627	260	10	0	0	0	0	0	5,897
Appropriations Total*	5,627	260	10	0	0	0	0	0	5,897
O & M Costs (Savings)			0	0	0	0	0	0	0

### **SLU Feasibility Phase 2 - DRN**

BCL/Program Name: Other Drainage BCL/Program Code: C335B

Project Type:Rehabilitation or RestorationStart Date:2nd Quarter 2005Project ID:C353521End Date:4th Quarter 2006

**Location:** South Lake Union Area

Neighborhood Plan:South Lake UnionNeighborhood Plan Matrix:N/ANeighborhood District:Lake UnionUrban Village:South Lake Union

This project addresses drainage-related requirements arising from other City-sponsored projects in South Lake Union. The work includes flow modeling, development of green roof specifications, and pipeline relocations. The cost estimate confidence level is medium and does require SPU Asset Management Committee review. The funding expended for this project is dependent upon the schedule of other South Lake Union projects.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	185	60	0	0	0	0	0	245
Project Total:	0	185	60	0	0	0	0	0	245
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	185	60	0	0	0	0	0	245
Appropriations Total*	0	185	60	0	0	0	0	0	245
O & M Costs (Savings)			0	0	0	0	0	0	0

### **SLU Feasibility Phase 2 - WW**

BCL/Program Name: General Wastewater BCL/Program Code: C320B

Project Type:Rehabilitation or RestorationStart Date:2nd Quarter 2005Project ID:C305221End Date:4th Quarter 2006

**Location:** South Lake Union Area

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

This project addresses wastewater-related requirements arising from other City-sponsored projects in South Lake Union. The work includes flow modeling, development of green roof specifications, and pipeline relocations. The cost estimate confidence levelis medium and does require SPU Asset Management Committee review. The funding expended for this project is dependent upon the schedule of other South Lake Union projects.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	210	660	0	0	0	0	0	870
Project Total:	0	210	660	0	0	0	0	0	870
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	210	660	0	0	0	0	0	870
Appropriations Total*	0	210	660	0	0	0	0	0	870
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Small Landslide Projects**

BCL/Program Name: Public Asset Protection BCL/Program Code: C334B

Project Type: Improved Facility Start Date: 1st Quarter 2004

Project ID: C343402 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 for spot improvements in landslide-prone areas throughout Seattle. Typical improvements include installing berms, swales, catch-basins, storm drains, subsurface drains and small slope stability improvement projects. Individual spot improvement projects do not exceed \$150,000. This project does not require SPU Asset Management Committee review as the spot improvements do not exceed \$250,000. The cost estimates will be revised over time as projects are determined.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	565	385	409	718	630	646	1,656	1,700	6,709
Project Total:	565	385	409	718	630	646	1,656	1,700	6,709
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	565	385	409	718	630	646	1,656	1,700	6,709
Appropriations Total*	565	385	409	718	630	646	1,656	1,700	6,709
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Small Sewer Improvements**

BCL/Program Name: General Wastewater BCL/Program Code: C320B

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

Project ID: C303299 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 spot improvements and project development support for small-capacity sewer systems throughout Seattle, as well as other small projects related to wastewater. Typical improvements include rerouting of a sewer line or relocation of a maintenance hole. This project does not require SPU Asset Management Committee review as the spot improvements do not exceed \$250,000. The cost estimates will be revised over time as projects are determined.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	106	170	160	174	179	183	188	193	1,353
Project Total:	106	170	160	174	179	183	188	193	1,353
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	106	170	160	174	179	183	188	193	1,353
Appropriations Total*	106	170	160	174	179	183	188	193	1,353
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Sound Transit Integrated Drainage Plan**

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type:New FacilityStart Date:1st Quarter 2005Project ID:C405001End Date:4th Quarter 2008

**Location:** Various

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 funds SPU's work to implement drainage improvements under an agreement with Sound Transit. Sound Transit has agreed in principle to enter into an Integrated Drainage Plan (IDP) agreement with the City of Seattle to provide funds to the City in lieu of constructing storm water treatment facilities for the Link Light Rail project constructed in the city south of the Downtown Seattle Transit Tunnel. The value established for Sound Transit's payment to the City under terms of the IDP is \$2.3 million, including the at-grade segments of light rail within the city south of the Transit Tunnel. Under the terms of the agreement, SPU develops a project to address drainage and water quality within the Martin Luther King/Norfolk drainage basin area. The confidence level of current cost estimate is low as specific work is continuing to be defined. 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. 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 C3NW035-008. In 2005, Ordinance 121883 moved this project from SPU's Other Drainage Budget Control Level to the Shared Cost Projects BCL. The Project ID was changed from C405451 in the 2006-2011 Proposed CIP.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	300	300	1,538	162	0	0	0	2,300
Project Total:	0	300	300	1,538	162	0	0	0	2,300
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	300	300	1,538	162	0	0	0	2,300
Appropriations Total*	0	300	300	1,538	162	0	0	0	2,300
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan		0	300	1,538	162	0	0	0	2,000

### **Sound Transit Light Rail - DWF**

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type:New FacilityStart Date:1st Quarter 2003Project ID:C4104-DWFEnd 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 was C404401-DWF for this project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	490	1,076	498	308	84	3	0	0	2,459
Project Total:	490	1,076	498	308	84	3	0	0	2,459
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	490	1,076	498	308	84	3	0	0	2,459
Appropriations Total*	490	1,076	498	308	84	3	0	0	2,459
O & M Costs (Savings)			0	0	0	0	0	0	0

### South Park Soil Project

BCL/Program Name: Habitat and Sediments

BCL/Program Code: C350B

Project Type:New FacilityStart Date:1st Quarter 2005Project ID:C305502End Date:2nd Quarter 2008

Location: Dallas Ave South/16th Ave South/South Donovan St

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

Neighborhood District: Southwest Urban Village: South Park

This project provides long-term mitigation of PCB contaminated soil in street right-of-ways in a residential-industrial neighborhood along 17th Avenue South, South Donovan Street and Dallas Avenue South in South Park. To protect public health and the environment, state Department of Ecology and federal EPA require SPU to meet either a residential (less than one part per million) or industrial cleanup standard (less than 10 parts per million with capping and institutional controls). The project likely involves a combination of excavation, soil disposal and replacement, capping, and installation of drainage infrastructure. An emergency cleanup is already substantially complete but regulators are requiring long term mitigation. This site is across the street from the Superfund Early Action Site Terminal 117. For information on other soil remediation projects, see the Dallas Ave. S Emergency Soil Removal project (C304502).

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	768	581	3,949	39	0	0	0	5,337
Project Total:	0	768	581	3,949	39	0	0	0	5,337
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	768	581	3,949	39	0	0	0	5,337
Appropriations Total*	0	768	581	3,949	39	0	0	0	5,337
O & M Costs (Savings)			0	0	0	0	0	0	0

### **South Park Water Quality Study**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:New FacilityStart Date:1st Quarter 2004Project ID:C343304End Date:4th Quarter 2006

**Location:** South Park Drainage Basin

Neighborhood Plan:In more than one PlanNeighborhood Plan Matrix:MultipleNeighborhood District:SouthwestUrban Village:Not in an Urban Village

A drainage improvement study was completed for the South Park drainage basin in 2002. In light of that study, this project evaluates water quality conditions and develops alternatives for solving water quality problems in the basin. Alternatives include incorporating water quality features into drainage improvement projects proposed in the 2002 study, constructing additional stormwater treatment facilities, and implementing non-structural controls to reduce stormwater pollution. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	21	25	10	0	0	0	0	0	56
Project Total:	21	25	10	0	0	0	0	0	56
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	21	25	10	0	0	0	0	0	56
Appropriations Total*	21	25	10	0	0	0	0	0	56
O & M Costs (Savings)			0	0	0	0	0	0	0

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

BCL/Program Name: Shared Cost Projects

BCL/Program Code: C410B

Project Type:New FacilityStart Date:3rd Quarter 2004Project ID:C404603-DWFEnd 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 Street 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 the 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 has delayed the project. In the 2005-2010 Adopted CIP, the project ID for this project was C4NW106-007-DWF.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	10	113	0	0	0	0	0	123
Project Total:	0	10	113	0	0	0	0	0	123
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	10	113	0	0	0	0	0	123
Appropriations Total*	0	10	113	0	0	0	0	0	123
O & M Costs (Savings)			0	0	0	0	0	0	0

### **Stormwater Mitigation Partnership Program**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:New FacilityStart Date:1st Quarter 2005Project ID:C353309End 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 program implements capital projects that support innovative stormwater management improvements (e.g., low impact development) by partnering with public and/or private entities. All efforts must meet the legal nexus for use of drainage funds and provide sufficient benefit in improving the function and operation of SPU's drainage system. The program has not been through the SPU Asset Management Committee review process. This project supports the Mayor's Restore Our Waters Initiative to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	50	50	50	50	50	50	0	300
Project Total:	0	50	50	50	50	50	50	0	300
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	50	50	50	50	50	50	0	300
Appropriations Total*	0	50	50	50	50	50	50	0	300
O & M Costs (Savings)			0	0	0	0	0	0	0

### Strategic Asset Management Plan - DRN

BCL/Program Name: Other Drainage BCL/Program Code: C335B

Project Type:New InvestmentStart Date:1st Quarter 2004Project ID:C333507End Date:4th Quarter 2006

**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 develops Strategic Asset Management Plans, which set the strategic framework for SPU. These plans are normally prepared looking forward for a five-year period. Plans are developed by analyzing an asset class and examining its life cycle cost, and provide the basis for development of action plans that are updated annually.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	52	40	40	0	0	0	0	0	132
Project Total:	52	40	40	0	0	0	0	0	132
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	52	40	40	0	0	0	0	0	132
Appropriations Total*	52	40	40	0	0	0	0	0	132
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Strategic Asset Management Plan - WW

BCL/Program Name: General Wastewater BCL/Program Code: C320B

Project Type:New InvestmentStart Date:1st Quarter 2003Project ID:C303204End Date:4th Quarter 2006

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 develops Strategic Asset Management Plans, which set the strategic framework for SPU. These plans are normally prepared looking forward for a five-year period. Plans are developed by analyzing an asset class and examining its life cycle cost, and provide the basis for development of action plans that are updated annually.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	73	100	100	0	0	0	0	0	273
Project Total:	73	100	100	0	0	0	0	0	273
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	73	100	100	0	0	0	0	0	273
Appropriations Total*	73	100	100	0	0	0	0	0	273
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.

#### **SW Prescott/Admiral Landslide**

BCL/Program Name: Public Asset Protection BCL/Program Code: C334B

Project Type:New FacilityStart Date:3rd Quarter 2002Project ID:C302353End Date:4th Quarter 2008

Location: SW Admiral Wy./SW Spokane Wy.

Neighborhood Plan:AdmiralNeighborhood Plan Matrix:NT-12Neighborhood District:SouthwestUrban Village:Not in an Urban Village

This project mitigates drainage problems and potential landslide conditions in the SW Prescott Place/Admiral Way Landslide Mitigation Study area that may put municipal infrastructure at risk and contribute to flooding of private property. The project is completed in phases. First, it defines and prioritizes stability and flooding problem areas. Currently nine landslide and three flooding areas have been identified in the study area. Next, preliminary engineering, which is expected to last through the third quarter of 2006, identifies cost-effective alternatives for improvements in each area. Finally, the project constructs the selected improvements in stages, beginning in 2004 and ending in 2007. Three of the landslide problem areas in the study area are joint projects with the Seattle Department of Transportation (SDOT) and the Seattle Department of Parks and Recreation. See SDOT project TC36551 for more transportation related information. There is a medium degree of confidence in the cost estimate. SPU's Asset Management Committee has approved the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	541	765	485	623	541	0	0	0	2,955
Project Total:	541	765	485	623	541	0	0	0	2,955
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	541	765	485	623	541	0	0	0	2,955
Appropriations Total*	541	765	485	623	541	0	0	0	2,955
O & M Costs (Savings)			0	0	0	1	1	1	3

#### **Taylor Creek Culverts Phase 2**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:New FacilityStart Date:4th Quarter 1999Project ID:C399315End Date:3rd Quarter 2009

**Location:** Taylor Creek/Rainier Ave. S

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

This project designs and constructs fish passage improvements at the culvert that conveys Taylor Creek under Rainier Avenue S. There are currently three different types of culverts connected together making up this culvert system under Rainier Avenue S: a short 42-inch diameter section crossing a 20-foot side street; a three-by-four-foot box culvert running under Rainier Avenue S.; and a corrugated metal culvert running under a adjacent apartment. The points where these three culverts connect have eight to 10-inch drops impeding fish passage. In addition, the culverts are velocity barriers during most rainstorms. There is a medium degree of confidence in the cost estimate. SPU's Asset Management Committee has approved the construction phase of the project. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	638	80	315	15	5	5	0	0	1,058
Project Total:	638	80	315	15	5	5	0	0	1,058
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	638	80	315	15	5	5	0	0	1,058
Appropriations Total*	638	80	315	15	5	5	0	0	1,058
O & M Costs (Savings)			0	6	6	6	6	6	30

#### **Thornton Creek Water Quality Channel Project**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:New FacilityStart Date:4th Quarter 2004Project ID:C343306End Date:4th Quarter 2008

**Location:** 5th Ave. NE

Neighborhood Plan: Northgate Neighborhood Plan Matrix: Multiple

Neighborhood District: North Urban Village: Northgate

This project includes preliminary engineering, design and construction of a water quality facility on the south lot of Northgate Mall. The facility is located between 3rd and 5th Ave. NE and between NE 100th and NE 103rd St., and provides water quality treatment for public drainage. The project includes excavation of fill material and creation of a creek-like channel for dry weather and small storm flow from the existing public drainage system under NE 100th St. at 3rd Ave. NE. The project facility also includes improvements to pedestrian access and landscaping. Ordinance 121548 created the project in 2004 and provided \$400,000 for property acquisition and closing costs. Ordinance 121547 appropriated \$6.8 million for project design and construction. SPU's Asset Management Committee has approved the project. The confidence level of the current cost estimate is medium. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	403	6,846	0	0	0	0	0	0	7,249
Project Total:	403	6,846	0	0	0	0	0	0	7,249
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	403	6,846	0	0	0	0	0	0	7,249
Appropriations Total*	403	6,846	0	0	0	0	0	0	7,249
O & M Costs (Savings)			0	0	0	0	71	71	142
Spending Plan		725	1,327	4,057	737	0	0	0	6,846

#### Venema Creek Natural Drainage System

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:New FacilityStart Date:1st Quarter 2003Project ID:C302317End Date:4th Quarter 2008

Location: 4th Ave. NW/NW 120th St./NW 122nd St.

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

This project reduces the stormwater runoff and pollutants from an approximately 70-acre sub-basin of Piper's Creek to protect downstream aquatic resources. The primarily residential project area includes Greenwood Ave. N. The project may provide code requirements for a portion of Greenwood Ave. N. to cover future requirements associated with redevelopment of the street right-of-way. An option will be provided to residents on project streets to invest in sidewalk and landscaping improvements as part of the project through a local improvement district (LID) funding mechanism. Funding to operate and maintain the project is expected to be included in SPU's operating budget starting in 2009, although surrounding property owners and residents are also expected to provide some level of maintenance. SPU received a \$2.3 million loan from the state Department of Ecology to fund a portion of the project. The confidence level for the current cost estimate is medium. SPU Asset Management Committee review is required prior to the start of the project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	118	250	405	2,300	1,500	0	0	0	4,573
Project Total:	118	250	405	2,300	1,500	0	0	0	4,573
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	118	250	405	2,300	1,500	0	0	0	4,573
Appropriations Total*	118	250	405	2,300	1,500	0	0	0	4,573
O & M Costs (Savings)			0	0	0	5	5	5	15

#### **Wastewater Plan**

BCL/Program Name: General Wastewater BCL/Program Code: C320B

Project Type:New FacilityStart Date:1st Quarter 2004Project ID:C304201End Date:4th 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 project develops a long-range plan to guide the development of improvements to the wastewater conveyance system for the next five to 20 years, and provides the framework for organizing and prioritizing the wastewater capital improvement program. It provides a decision model for setting priorities and determining the cost-effectiveness of programs and projects from an asset management perspective. The goal is to provide reliable, high quality, cost-effective wastewater services. While no such comprehensive plan has been prepared for wastewater to date, upcoming federal regulations for the Capacity Management, Operation, and Maintenance Program require a similar planning effort. The confidence level of the current cost estimate is medium for this plan. In the 2005-2011 Adopted CIP this project was titled "Comprehensive Wastewater Plan."

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	530	100	0	0	0	0	0	630
Project Total:	0	530	100	0	0	0	0	0	630
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	530	100	0	0	0	0	0	630
Appropriations Total*	0	530	100	0	0	0	0	0	630
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Wastewater Rehabilitation Evaluation**

BCL/Program Name: Sewer Rehabilitation BCL/Program Code: C340B

Project Type:Rehabilitation or RestorationStart Date:OngoingProject ID:C3AA401End 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 evaluates future wastewater rehabilitation projects by investigating existing records, reports, and plans, obtaining field data from closed circuit television inspection and for gauging, developing alternatives and cost estimates, and making recommendations.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	1,261	88	200	96	102	108	114	117	2,086
Project Total:	1,261	88	200	96	102	108	114	117	2,086
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	1,261	88	200	96	102	108	114	117	2,086
Appropriations Total*	1,261	88	200	96	102	108	114	117	2,086
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Water Reuse - Stormwater

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:New FacilityStart Date:4th Quarter 2001Project ID:C353308End 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 funds SPU's portion of the cost of rain barrels to be sold to the public. The project also helps to educate SPU's customers about options for reducing the amount of stormwater running into the City's drainage system from their properties, such as through downspout disconnection and landscape irrigation alternatives. Other benefits generated by the project include improvements in localized stormwater drainage, wastewater conveyance, and water conservation. Expenditures to date have supported development of large-building project elements such as a cistern for the new Seattle City Hall and the Carkeek Park Environmental Learning Center rainwater system. In the 2005-2010 Adopted CIP, the project was moved to the Protection of Beneficial Uses Budget Control Level, given the project's link with improving water quality.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	50	50	0	0	0	0	0	100
Project Total:	0	50	50	0	0	0	0	0	100
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	50	50	0	0	0	0	0	100
Appropriations Total*	0	50	50	0	0	0	0	0	100
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Water Reuse - Wastewater

BCL/Program Name: General Wastewater BCL/Program Code: C320B

Project Type:New FacilityStart Date:4th Quarter 2001Project ID:C301203End Date:4th Quarter 2006

Location: Citywide

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 one or more wastewater reuse projects, selected upon completion of an SPU-sponsored water reuse research study. Funds are used for projects in partnership with other entities (including the Seattle Department of Parks and Recreation and King County), or projects funded only by SPU.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	208	20	14	0	0	0	0	0	242
Project Total:	208	20	14	0	0	0	0	0	242
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	208	20	14	0	0	0	0	0	242
Appropriations Total*	208	20	14	0	0	0	0	0	242
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Watershed Base Creek Flow Control**

BCL/Program Name: Protection of Beneficial Uses

BCL/Program Code: C333B

Project Type:New FacilityStart Date:1st Quarter 2005Project ID:C353310End Date:4th Quarter 2010

**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 conducts preliminary engineering for projects to improve stormwater flow control in targeted creeks at which operation of the City's drainage system has resulted in ecosystem degradation. Under this project, SPU identifies flow control techniques (such as natural drainage system elements, by-pass facilities, and detention), evaluates alternatives, and prepares cost-benefit analysis on identified alternatives. A benefit of these preliminary engineering efforts is identification of the most cost-effective capital project options. Additional benefits may include the ability to incorporate multi-objective elements (such as flood control, environment, and economic benefits). The confidence level of the current cost estimate is medium. Proposed projects are subject to approval by SPU's Asset Management Committee. This project supports the Mayor's Restore Our Waters Strategy to improve Seattle's aquatic environments.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	50	150	425	200	200	200	0	1,225
Project Total:	0	50	150	425	200	200	200	0	1,225
Fund Appropriations/Allocations SPU Drainage and Wastewater Fund	0	50	150	425	200	200	200	0	1,225
Appropriations Total*	0	50	150	425	200	200	200	0	1,225
O & M Costs (Savings)			0	0	0	0	0	0	0

#### West Seattle Bridge Drainage

BCL/Program Name: Flood Control and Local Drainage BCL/Program Code: C332B

Project Type:Improved FacilityStart Date:1st Quarter 2006Project ID:C363202End Date:4th Quarter 2006

**Location:** West Seattle

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

The West Seattle Bridge requires frequent maintenance by SPU crews to ensure the drains are clean and functional. Poor drainage on the bridge can lead to ponding and water spilling off the higher road levels to the lower level roadways. This project replaces the older-style drain pipes that have right-angle bends which plug easily and are difficult to clean. The new drains avoid sharp corners and require easier maintenance and fewer plugs. The project also addresses repairs in the existing underground connections from bridge drainage to the storm drains. The project may include new inlets on the ground level roadway. Work is focused on the west end of the bridge. The intended changes likely result in reduced drainage operation and maintenance costs. This planning phase cost estimate has a low confidence level because initial investigations are underway.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	0	0	400	0	0	0	0	0	400
Project Total:	0	0	400	0	0	0	0	0	400
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	0	0	400	0	0	0	0	0	400
Appropriations Total*	0	0	400	0	0	0	0	0	400
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Windermere CSO Storage**

BCL/Program Name: Combined Sewer Overflow BCL/Program Code: C310B

Project Type:New FacilityStart Date:1st Quarter 2003Project ID:C302103End Date:4th Quarter 2011

**Location:** Windemere

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

This project constructs facilities for Combined Sewer Overflow (CSO) reduction in the Windermere area. Major work includes a feasibility study for assessing potential coordination with King County, flow monitoring, system modeling, facility planning, preliminary engineering, design, permitting, and construction. The project schedule has been revised from the 2001 CSO Plan to account for project development; SPU's CSO Facility Retrofit project (C302102), which may reduce the size of the necessary facilities in this basin; and potential coordination with King County. 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. This project has been approved by SPU's Asset Management Committee.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	448	249	325	395	521	434	552	272	3,196
Project Total:	448	249	325	395	521	434	552	272	3,196
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	448	249	325	395	521	434	552	272	3,196
Appropriations Total*	448	249	325	395	521	434	552	272	3,196
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Works Progress Administration Drains Study & Repair

BCL/Program Name: Public Asset Protection BCL/Program Code: C334B

Project Type: Rehabilitation or Restoration Start Date: 3rd Quarter 2000

Project ID: C300338 End Date: Ongoing

**Location:** Various

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 evaluates, prioritizes and makes necessary repairs on subsurface landslide control drains and tunnels installed as a result of extensive landslide damage during the winter of 1933-1934. The Works Progress Administration sponsored the construction of landslide mitigation projects at 29 sites around the city between 1935-1941. This project was one of the recommended activities from the Landslide Policy Paper adopted by the City Council in 1998. This project is in a preliminary phase of development and cost estimates will be revised over time as comprehensive site-specific evaluations are completed. SPU's Asset Management Committee has approved the programmatic approach.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Drainage and Wastewater Rates	511	250	250	256	263	485	552	566	3,133
Project Total:	511	250	250	256	263	485	552	566	3,133
<b>Fund Appropriations/Allocations</b> SPU Drainage and Wastewater Fund	511	250	250	256	263	485	552	566	3,133
Appropriations Total*	511	250	250	256	263	485	552	566	3,133
O & M Costs (Savings)			0	0	0	0	0	0	0