Overview of Facilities and Programs

Seattle Public Utilities (SPU) is responsible for maintaining the network of sewer and drainage systems throughout the City of Seattle. The system includes approximately:

- 448 miles of sanitary sewers
- 460 miles of storm drains
- 968 miles of combined sewers
- 68 pump stations
- 92 permitted combined sewer overflow outfalls
- 170 storm drain outfalls
- 38 combined sewer overflow control detention tanks/pipes

Seattle Public Utilities' Capital Improvement Program (CIP) is the vehicle for maintaining, upgrading, and expanding this infrastructure, as well as constructing projects that protect, conserve, and enhance our region's environmental resources. The overriding goal of the CIP is to ensure facilities are properly constructed and maintained, and regulatory requirements are met. Projects in the CIP are also guided by various federal regulations, City policies, long-term plan documents, and the SPU Asset Management Committee (AMC) benefit criteria. Many Drainage and Wastewater (DWF) CIP projects are outlined in the Wastewater System Plan, Combined Sewer Overflow Reduction Plan, and the Comprehensive Drainage Plan.

Historically, the DWF CIP has been funded primarily by revenue bonds. However, DWF financial policies adopted in 2003 gradually increase cash contributions from the Utility to fund the CIP. In 2007, SPU met its target of cash funding 25% of total CIP costs, with the remaining capital needs being debt financed. Overhead costs for the CIP are budgeted in the SPU operating fund and are reimbursed as CIP expenditures are incurred.

Highlights

- **Combined Sewer Overflow (CSO) Program**: Approximately $26.4 million is included in the 2009-2010 Adopted CIP for the combined sewer overflow program. In many parts of Seattle, sewage and stormwater flow together in pipes through a Combined Sewer System. Heavy rains may cause these pipes to fill, causing overflows through outfalls into Lake Union, Lake Washington, or Puget Sound. Projects in the 2009-2014 Adopted CIP respond to federal and state regulations requiring the City to monitor and reduce CSOs.

- **Flood Control, Local Drainage, and Water Quality**: The City's Comprehensive Drainage Plan (CDP), originally written in 1988, was updated in 2004 to address flooding and water quality needs in a systematic manner citywide, and to establish a long-term schedule of both capital improvements and operating programs. This work is also intended to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) drainage permit, which took effect in February 2007. The CIP includes projects to implement both the CDP and the Mayor's Restore Our Waters Strategy to protect Seattle's aquatic environment.

- **Sediments**: The City of Seattle is named as a potentially responsible party (PRP) for the Duwamish River Superfund Site because of alleged contamination of sediments in the river from CSO and storm drain discharges. The City continues to work with the Washington State Department of Ecology, King County, and other PRPs on an assessment of contaminants and sources.

Project Selection Process

SPU has adopted an asset management approach for selecting which projects to build. This is a triple bottom line approach in which projects are evaluated on their economic, social, and environmental benefits, as well as the ability to meet customer service levels. The approach provides an elaborate analytical and modeling framework to find the most economical balance between capital investments and operations and maintenance expenditures to minimize life-cycle costs of any facility.

A committee of senior SPU executives, the Asset Management Committee (AMC), reviews each project valued at $250,000 or more and assures that only projects that meet the benefit criteria move forward. Several projects have been dropped, as the costs were higher than the benefits.

Program Category Summaries

The 2009-2010 Adopted Drainage and Wastewater CIP totals approximately $78.1 million in 2009 and $89.2 million in 2010 (including Technology projects funded by the Drainage and Wastewater Fund, displayed in a separate section of this CIP).

The Control Structures Budget Control Level (BCL) is $12.2 million in 2009 and $14.1 million in 2010, which is a slight decrease relative to the prior CIP. This decrease is a result of combined sewer overflow (CSO) planning and monitoring projects being shifted from CIP to Operations and Maintenance (O&M) due to new SPU accounting policies, as recommended by SPU's external auditors. However, this reduction is offset by the addition of $4.7 million to develop and implement a CSO Long Term Control Plan as required by the Environmental Protection Agency (EPA). This BCL also includes funding to complete the Windermere, Genesee, Henderson, Ballard and Fremont/Wallingford CSO reduction projects on an aggressive schedule.

The Landslide Mitigation & Special Programs BCL is down slightly from the 2009 planned funding level in the 2008-2013 Adopted CIP due to moving work from the CIP to the O&M to be in compliance with SPU's new accounting policies and capitalization guidelines.

The Low Impact Development BCL is slightly higher than the 2009 planned funding level in the 2008-2013 Adopted CIP in 2009 largely due to an increase in costs for the following projects and programs: Capitol Hill Water Quality Implementation; Natural Drainage System Improvements; and Venema Creek Natural Drainage.

The Protection of Beneficial Uses BCL is $4.2 million in 2009 and $1.6 million in 2010. This is lower than the 2009 planned funding level in the 2008-2013 Adopted CIP, partly due to completion of the major construction portion of the Thornton Creek Water Quality Channel project in 2008.

The Shared Costs Projects BCL is $21.2 million in 2009 and $20.7 million in 2010. This is higher than the 2009 planned funding level in the 2008-2013 Adopted CIP largely due to higher estimates for the Bridging the Gap Program, utility relocation for the Alaskan Way Viaduct and Seawall Replacement project, and the South Lake Union program. Estimates are also higher for the Capital Storms program as permanent fixes to assets broken from the 2007 winter storms continue to be made.

The Stormwater & Flood Control BCL is $17.7 million in 2009 and $26.8 million in 2010. This is lower than the 2009 planned funding level in the 2008-2013 Adopted CIP largely due to a change in schedule for the Madison Valley project. Now that reconciliation of Council direction and community input on the long-term solution are complete, the schedule and spending plan have been adjusted to reflect final decisions.

The Wastewater Conveyance BCL is $10.9 million in 2009 and $11.5 million in 2010. The overall net change is just slightly higher than the 2009 planned funding level in the 2008-2013 Adopted CIP. The change is the result of reduced spending planned for Small Sewer Improvements and Wastewater Rehabilitation Evaluation projects offset by increased funding for the Sanitary Sewer Overflow Capacity project.

The Drainage and Wastewater CIP is composed of nine program categories, which are summarized below.

Control Structures: This program contains projects to plan, design, construct, and monitor facilities to control overflows from the combined and partially separated sewer system areas. The adopted CSO Plan amendment discusses the plan for control of those CSO locations where work has not yet been completed. This business area also addresses other hydraulic control features in the system, such as gates, valves, and weirs.

Landslide Mitigation & Special Programs: The projects and programs in this program category protect SPU drainage and wastewater infrastructure from landslides, provide drainage improvements where surface water generated from the city right-of-way is contributing to landslides, and manage stormwater policy and grants, interdepartmental coordination and programs, and citizen response activities.

Low-Impact Development: The projects and programs in this program category use stormwater facilities with multiple functionality to achieve the primary goals of flood protection, water quality improvement, and/or habitat enhancement.

Protection of Beneficial Uses: This program makes improvements to the City's drainage system to reduce the harmful effects of stormwater runoff on creeks and receiving water bodies by improving water quality and protecting or enhancing habitat. The program includes projects to improve water quality, protect creeks, meet regulatory requirements, and use best available science to meet community expectations for habitat.

Sediments: This program provides 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, for preliminary engineering for future cleanup efforts, and for liability allocation negotiations. 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.

Shared Cost Projects: This program includes individual capital improvement projects, which typically benefit multiple Lines of Business (e.g., the water line of business and the drainage and wastewater line of business) and whose costs are "shared," or paid for, by more than one of SPU's utility funds. In 2008, the Drainage and Wastewater program includes funding for the Utility Relocation due to the Alaskan Way Viaduct and Seawall Replacement Project, Operational Facility Improvements, the Operations Control Center Upgrade, Security Improvements, and Sound Transit Light Rail.

Stormwater & Flood Control: The projects and programs in this category make improvements to the City's drainage system to alleviate and prevent flooding in Seattle, with a primary focus on the protection of public health, safety and property.

Wastewater Conveyance: This program rehabilitates the City's collection system of sewer pipes. The Department establishes priorities for the program primarily based on the results of closed circuit television inspections and an asset management criticality analysis. The program funds full and partial replacement of sewer line segments, point repairs, and lining of pipes, as well as costs for emergency repairs.

Technology: (projects funded by the Drainage and Wastewater Fund, displayed in a separate section of this CIP). This program makes use of recent technological advances to increase the Department's efficiency and productivity. Drainage and Wastewater-supported technology projects are shown grouped with other technology projects following the Department's three CIP sections. In 2008, SPU continues analyzing and evaluating data and systems to move drainage billing from the King County property tax system to the City's utility billing system.

Anticipated Operating Expenses Associated with Capital Facilities Projects

When appropriate, the projects in the Drainage and Wastewater Fund CIP include operations and maintenance cost estimates. These estimates will be refined after project completion and will be included as part of SPU's future budget submittals.

City Council Provisos to the CIP

There are no Council provisos.