

Seattle Public Utilities – Solid Waste

Overview of Facilities and Programs

Seattle Public Utilities (SPU) is responsible for the collection and disposal of solid waste generated within the City of Seattle. The City-owned infrastructure used to accomplish this task consists of two recycling and disposal stations, two household hazardous waste facilities, and a fleet of trucks and heavy equipment. In addition, the Solid Waste Capital Improvement Plan (CIP) supports post-closure projects on two landfills previously used by the City.

The City's solid waste collection system consists of the South Recycling and Disposal Station (SRDS), located in the South Park area of the City, and the North Recycling and Disposal Station (NRDS), located just north of the Ship Canal at Stone Way. The South Household Hazardous Waste (SHHW) facility is located on the same site as the SRDS, while the North Household Hazardous Waste (NHHW) facility is located at 125th Street North, adjacent to the City-owned Haller Lake shops.

Private contractors collect household refuse and recyclables and deliver the waste to the recycling and disposal stations for its ultimate disposal. Self-haulers, private individuals, and small contractors can also deliver their own refuse to the stations. Once deposited at a station, the trash is processed through a large compaction machine and placed in a sealed shipping container. This container is hauled by solid waste fleet trucks to the Union Pacific Railhead where it is placed on a train. Three times a week, the trains carry the loaded containers to a privately owned regional landfill in Eastern Oregon, where final disposal is accomplished. The trains return with empty containers to be refilled. Self-haulers may also bring their recyclables to the recycling and disposal stations. Materials are separated by the customer and placed in large bins. Once full, Solid Waste Field Operations personnel haul these bins to private recyclers for processing. Large goods (refrigerators, stoves, etc.) may also be brought to the stations for recycling. Customers can also bring unused pesticides, paints, and solvents to one of the two household hazardous waste sites. The City contracts with a private company to pick up and dispose of these materials. Seattle Public Utilities maintains a list of materials that are still useable and makes these items available to anyone who wants them.

Highlights

- ◆ **CIP Facilities Master Plan (Completed 2004):** The project completed a Solid Waste CIP Facilities Master Plan to guide SPU towards the construction of facilities that will provide the citizens of Seattle with sufficient recycling and solid waste services for the next 30 years. The plan reflects how the City's system of facilities fits with both King County and private solid waste facilities, and with regional demands for solid waste services. The plan also sets objectives and defines options for replacing or rehabilitating the City's solid waste transfer stations and household hazardous waste sheds; constructing a regional, intermodal facility; conducting cost and feasibility analyses of facility options; and determining a preferred approach to implementation. Funding for implementation of the plan is provided through the Facilities Master Plan Implementation Project. The project's timeframe prepares the City for rebidding of its solid waste collection and disposal contracts in 2009.
- ◆ **Master Plan Implementation:** This project implements the Solid Waste CIP Facilities Master Plan. The scope, schedule, and costs of proposed projects will be further defined upon approval of the Solid Waste Facilities Master Plan and completion of a State Environmental Impact Statement (SEIS). Costs include completion of a SEIS, permitting, property acquisition, design, construction, and facility equipment.

Seattle Public Utilities – Solid Waste

- ◆ **Midway Landfill Post-Closure Improvements:** This project funds post-closure operations, maintenance, and capital improvements at the Midway Landfill, which SPU operated from 1966 to 1983. The landfill is a 50-acre former gravel quarry located adjacent to Interstate 5 in Kent, Washington. The Washington State Department of Transportation (WSDOT) is widening Interstate 5 by two lanes on the West Side. This state project affects SPU's post-closure infrastructure currently in place on the WSDOT right of way, and necessitates the removal of refuse buried in the right-of-way. SPU and WSDOT are working together on this project, which enters the construction phase in 2007 if WSDOT obtains funding.

Project Selection Process

Seattle Public Utilities recently adopted an Asset Management approach for selecting which projects to build. This is an essentially econometric, end-result focused approach in which only projects that provide greater customer benefit (based on adopted service levels) than their respective costs are allowed to proceed. The approach also provides an elaborate analytical and modeling framework to find the most economical balance between capital investments and operations and maintenance expenditures so as to minimize life cycle costs of any facility.

A committee of senior SPU executives, the Asset Management Committee (AMC) was created to guide the Utility into fully adopting Asset Management, and to assure that only projects that meet the benefit criteria move forward. Existing projects already under construction were allowed to proceed, but all remaining projects were subjected to "business case" review. Several projects have since been dropped, as their costs were higher than their benefits. Several cost-effective master planning efforts were approved to create up-to-date improvement and upgrade plans for several groups of assets.

Program Category Summaries

The Solid Waste CIP allocates \$25.2 million during the next biennium (including Technology and Shared Cost projects funded by the Solid Waste Fund), including \$12.7 million in 2005. It is comprised of four program categories as summarized below. A detailed listing of all programs for the Solid Waste Capital Improvement Program follows this overview. Solid Waste-supported technology and shared cost projects are shown grouped with other technology and shared cost projects in the SPU Technology and Shared Cost CIP section.

New Facilities: This program plans, designs, and constructs new facilities to enhance solid waste operations. SPU is in the process of developing a master plan for the Solid Waste system's long-term facility requirements.

Rehabilitation and Heavy Equipment: This program designs and constructs projects to repair and/or upgrade solid waste facilities and replaces aged heavy equipment.

Shared Cost Projects: This program funds SPU projects that benefit more than one Utility Fund or represent SPU contribution to Citywide efforts that will benefit the Solid Waste Fund.

Technology: This program makes use of recent technology advances to increase efficiency and productivity. Solid Waste-supported technology projects are shown grouped with other technology projects in the SPU Technology CIP section.

Anticipated Operating Expenses Associated with Capital Facilities Projects

The Department has identified new operations and maintenance costs of \$845,000 between 2005 and 2010. These estimates are predicated on commissioning of new Solid Waste Facilities in 2008, 2009 and 2010 and additional costs related to the collection of recyclable materials from public place and event containers.