

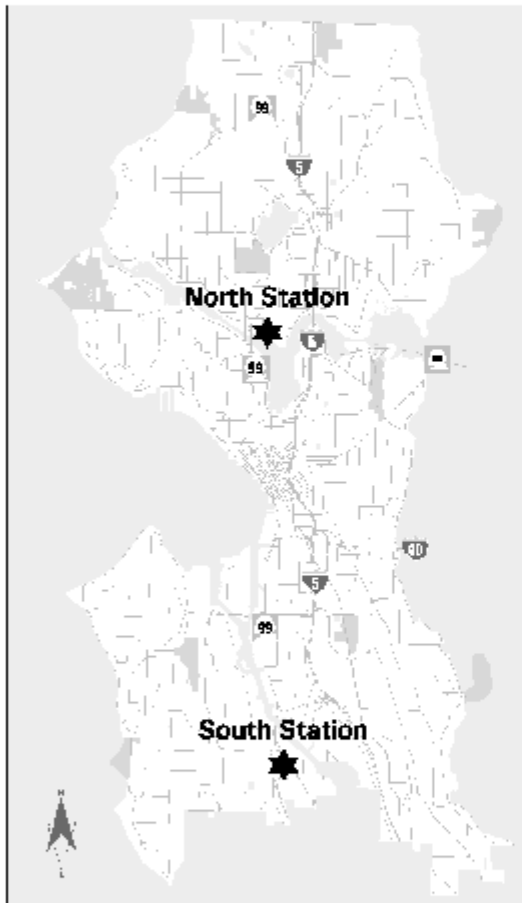
**SPU -
SOLID WASTE**

**Seattle Public Utilities
Solid Waste Division
North & South Recycling and Disposal Stations**

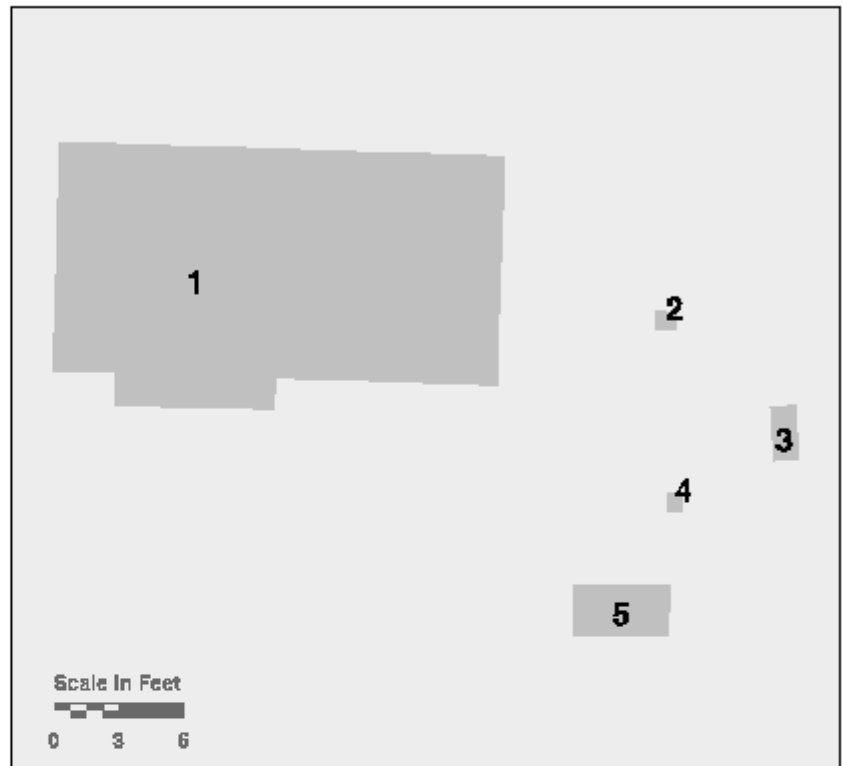
North Station:

- 1 Recycle & Disposal Building
- 2 Storage
- 3 Scale House
- 4 Fuel Tank
- 5 Crew Building

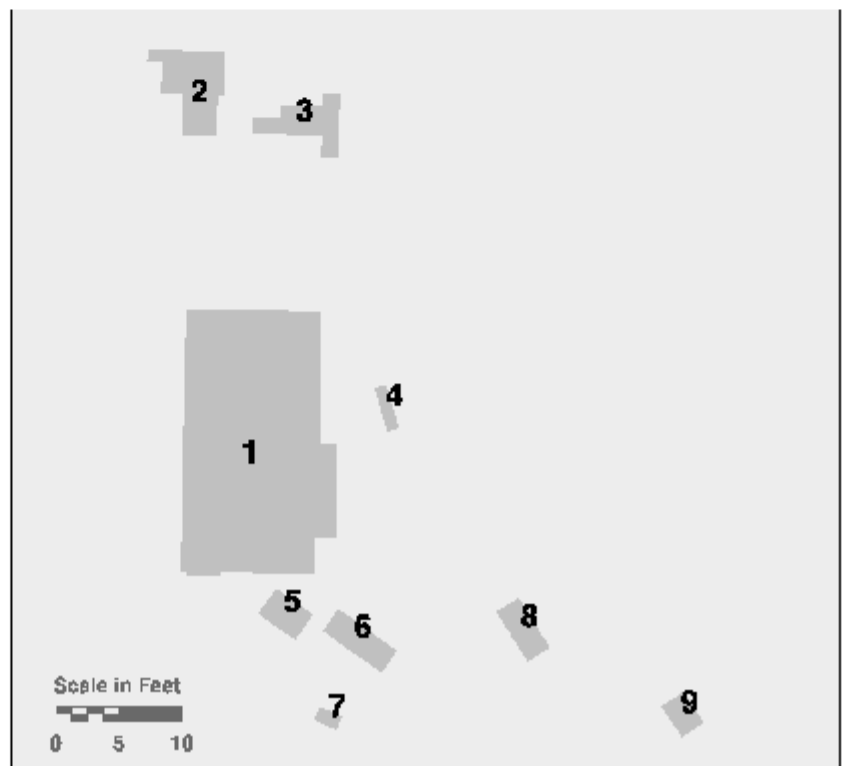
City View



North Station - 1350 N 34th St



South Station - 8100 2nd Ave S



South Station:

- 1 Recycle & Disposal Building
- 2 Household Hazardous Waste
- 3 Office Building
- 4 Storage
- 5 Storage
- 6 Crew Building
- 7 Scale House
- 8 Maintenance
- 9 Inspector's Building



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

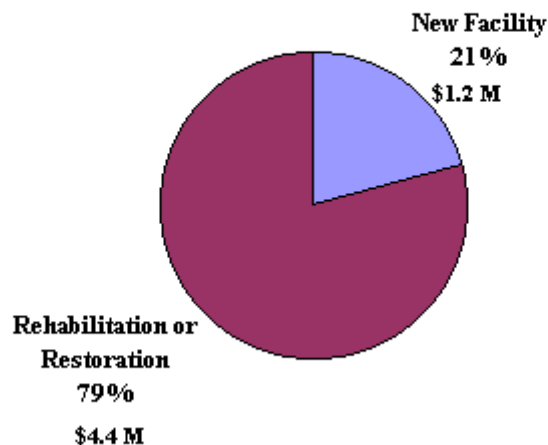
- ◆ **CIP Facilities Master Plan:** This project develops and establishes a Solid Waste CIP Facilities Master Plan to guide SPU towards the construction of facilities that will provide the citizens of Seattle with sufficient recycling and solid waste services for the next 30 years. The plan also takes into account 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 project also sets objectives and defines options for replacing or rehabilitating the City's solid waste transfer stations and household hazardous waste sheds; constructs one or more regional, intermodal facilities; conducts cost and feasibility analyses of facility options; and determines 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.
- ◆ **Compactor Replacement at NRDS & SRDS:** Seattle Public Utilities is working on the long-deferred replacement of the large compactors at the recycling and disposal stations. This project will not be affected by the development of the Solid Waste Facilities Master Plan.
- ◆ **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 2004 if WSDOT obtains funding.

Seattle Public Utilities – Solid Waste

Project Selection Process

The following chart shows how the Seattle Public Utilities' Solid Waste CIP allocates new funding in 2003 to two types of projects: rehabilitation of existing facilities and new facilities.

Solid Waste 2003 Adopted CIP by Project Type
(not including Technology CIP projects)



Seattle Public Utilities used a comprehensive approach to develop the 2003-2008 Adopted Capital Improvement Program. The department encouraged wide staff participation in the process. Steps included the following:

Project Identification: In late 2001 and early 2002, staff throughout the Department took part in an effort to identify new CIP projects, and changes and adjustments to existing projects. The criteria used in identifying projects were the Department's goals of environmental stewardship, customer service, strategic technology implementation, neighborhood benefits, infrastructure maintenance demands, and meeting growing demand. A detailed list of new and existing projects was then compiled.

Project Screening, Prioritization, and Selection: Meetings were held with various sections throughout the Department to gain full understanding and consensus of project drivers, demands, and benefits. The full project list was compared to expected available funding based on estimated likely rate increases. The projects were then prioritized, and a decision was made not to carry forward some lower priority projects. Various alternatives were considered for other projects, where possible. The most cost-effective approach was selected based on analyses of demand, risk, cost, and benefit.

Anticipated Operation Expenses: After the project selection process was complete, operations staff and CIP project managers held several meetings to discuss the various types of costs associated with operating newly constructed capital facilities. The financial costs and workload impacts are quantified and included in the 2003-2004 Operations and Maintenance budget.

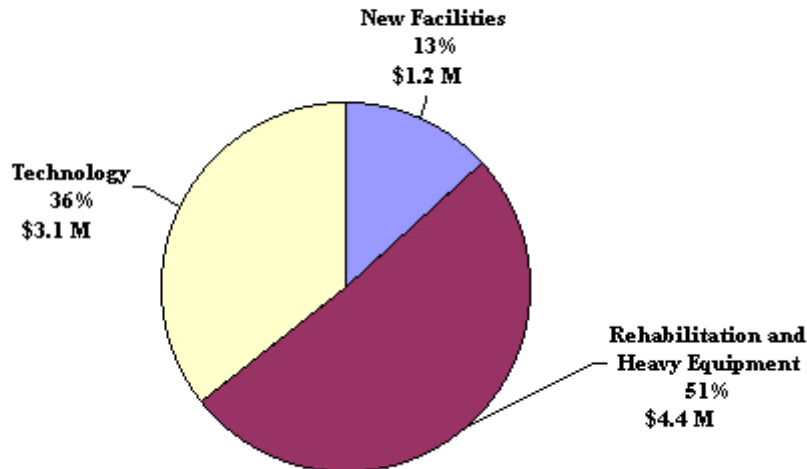
Project Budget and Workload Scheduling: As a final step, detailed budget and workload estimates were prepared for the selected projects.

Program Category Summaries

The Solid Waste CIP allocates \$21 million during the next biennium (including Technology projects funded by the Solid Waste Fund), including \$9 million in 2003. It is comprised of three 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 projects are shown grouped with other technology projects in the SPU Technology CIP section.

Solid Waste 2003 Adopted CIP by Program Category



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.

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 operations and maintenance costs of zero for 2003 and 2004. In these cases, cost savings either offset the financial impacts of the projects or the completed project will not have a significant fiscal impact. SPU will not be able to identify the operations and maintenance impacts for 2005 – 2008 until the Solid Waste Facilities Master Plan is completed.

City Council CIP Changes

For 2003, the Council reduced the overall proposed SPU Technology CIP by a total of \$2.2 million. The Solid Waste Fund’s share of this reduction is \$310,000. As part of this reduction, the Seattle Department of Transportation Mobility Project (an information technology project) will undergo additional analysis of scope, costs, and benefits before the project is proposed for implementation.

SPU - Solid Waste

Project Summary

Program/Project	Project ID	LTD	2002	2003	2004	2005	2006	2007	2008	Total
New Facilities										
CIP Facilities Master Plan	C201006	0	258	500	0	0	0	0	0	758
Facilities Master Plan Implementation	C2NW001	0	0	0	3,504	13,199	22,504	19,115	23,781	82,103
Intermodal Facility	C2NW003	0	0	500	0	0	0	0	0	500
South Recycling and Disposal Station Property Acquisition	C201003	3	17	153	0	0	0	0	0	173
New Facilities Total		3	275	1,153	3,504	13,199	22,504	19,115	23,781	83,534
Rehabilitation and Heavy Equipment										
Heavy Equipment Purchases - Solid Waste	C101002	364	1,184	1,111	844	953	1,019	1,090	1,120	7,685
Midway Landfill Post-Closure Improvements	C2NW002	0	71	250	4,001	0	0	0	0	4,322
Recycling and Disposal Stations - Compactor Replacement	C201007	14	150	3,053	1,178	0	0	0	0	4,395
Rehabilitation and Heavy Equipment Total		378	1,405	4,414	6,023	953	1,019	1,090	1,120	16,402
Department Total		381	1,680	5,567	9,527	14,152	23,523	20,205	24,901	99,936

**Amounts in thousands of dollars*

Fund Source Summary

Funding Source	LTD	2002	2003	2004	2005	2006	2007	2008	Total
SPU Solid Waste Fund	381	1,680	5,567	9,527	14,152	23,523	20,205	24,901	99,936
Department Total	381	1,680	5,567	9,527	14,152	23,523	20,205	24,901	99,936

**Amounts in thousands of dollars*

SPU - Solid Waste

CIP Facilities Master Plan

Program: New Facilities **Start Date:** 3rd Quarter 2001
Type: New Facility **End Date:** 4th Quarter 2003
Project ID: C201006
Location: Various

This project develops and establishes a Solid Waste CIP Facilities Master Plan to guide SPU towards the construction of facilities that provide the citizens of Seattle with sufficient recycling and solid waste services for the next 30 years. The project sets objectives and defines options for replacing or rehabilitating the City's solid waste transfer stations and household hazardous waste sheds; conducts cost and feasibility analyses of these options; and determines a preferred approach to implementation. Funding for implementation of the plan is provided through the Facilities Master Plan Implementation Project (C2NW001).

	LTD	2002	2003	2004	2005	2006	2007	2008	Total
SPU Solid Waste Fund	0	258	500	0	0	0	0	0	758
O&M Costs (Savings)			0	0	0	0	0	0	0

Facilities Master Plan Implementation

Program: New Facilities **Start Date:** 4th Quarter 2003
Type: New Facility **End Date:** 4th Quarter 2010
Project ID: C2NW001
Location: Various

This project implements the Solid Waste CIP Facilities Master Plan (C201006). The scope, schedule, and costs of proposed projects are further defined upon approval of the Master Plan. Options for rehabilitating or replacing the City's solid waste facilities range from remodeling the City's existing North and South Transfer Stations to constructing one or more regional, intermodal facilities. Potential approaches to plan implementation include having the City design, construct, and operate all facilities, or having the City contract for private sector design, construction and potentially operation of facilities. The project's timeframe allows the City to prepare for rebidding of its solid waste collection and disposal contracts in 2009. Costs shown below are estimated, and are in the mid to high range of likely total project costs.

	LTD	2002	2003	2004	2005	2006	2007	2008	Total
SPU Solid Waste Fund	0	0	0	3,504	13,199	22,504	19,115	23,781	82,103
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

Heavy Equipment Purchases - Solid Waste

Program: Rehabilitation and Heavy Equipment **Start Date:** Ongoing
Type: Rehabilitation or Restoration **End Date:** Ongoing
Project ID: C101002
Location: N/A

This project replaces heavy equipment (such as loaders and bulldozers) used at SPU's North and South Recycling and Disposal Stations. These pieces of equipment have reached the end of their useful lives.

	LTD	2002	2003	2004	2005	2006	2007	2008	Total
SPU Solid Waste Fund	364	1,184	1,111	844	953	1,019	1,090	1,120	7,685
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

*Amounts in thousands of dollars

Intermodal Facility

Program: New Facilities

Start Date: 3rd Quarter 2003

Type: New Facility

End Date: 4th Quarter 2003

Project ID: C2NW003

Location: To be determined

This project funds a portion of the planning, design, and property acquisition costs associated with construction of a new intermodal solid waste facility. The project supplements funding provided under the Facilities Master Plan Implementation Project (C2N001). The scope, schedule, and costs of constructing the new Intermodal Facility are further defined upon approval of the CIP Facilities Master Plan (C201006).

	LTD	2002	2003	2004	2005	2006	2007	2008	Total
SPU Solid Waste Fund	0	0	500	0	0	0	0	0	500
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

Midway Landfill Post-Closure Improvements

Program: Rehabilitation and Heavy Equipment

Start Date: 1st Quarter 2002

Type: Rehabilitation or Restoration

End Date: 4th Quarter 2004

Project ID: C2NW002

Location: Along Interstate 5

This project funds post-closure operations, maintenance, and capital improvements at the Midway Landfill, a 50-acre former gravel quarry located in Kent, Washington, operated by SPU from 1966 to 1983. The Washington State Department of Transportation (WSDOT) is undertaking a \$700 million project to widen Interstate 5 by two lanes on the west side. This state project impacts landfill post-closure infrastructure that is currently in place on the WSDOT right of way, and also requires SPU to remove refuse buried in the right-of-way. Project costs below are estimated, and are impacted by negotiations underway between SPU and WSDOT. SPU and WSDOT are working together on this project, which enters the construction phase in 2004, if WSDOT obtains funding for its highway project.

	LTD	2002	2003	2004	2005	2006	2007	2008	Total
SPU Solid Waste Fund	0	71	250	4,001	0	0	0	0	4,322
O&M Costs (Savings)			0	0	0	0	0	0	0

*Amounts in thousands of dollars

SPU - Solid Waste

Recycling and Disposal Stations - Compactor Replacement

Program: Rehabilitation and Heavy Equipment **Start Date:** 1st Quarter 2001
Type: Rehabilitation or Restoration **End Date:** 4th Quarter 2004
Project ID: C201007
Location: Various

This project replaces garbage compactors at the recycling and disposal stations. The existing compactors are at the typical industry standard of ten years for equipment life, and are no longer reliable for daily use. The compactors are used 10-12 hours per day, 363 days per year, in order to load the continuous stream of contract-collected and self-hauled waste containers into rail containers. This project includes design and installation of new waste compactors at both recycling and disposal stations, with the possibility of leaving the existing compactor at the south station as a back-up system. The new compactors also provide data-logging capability.

	LTD	2002	2003	2004	2005	2006	2007	2008	Total
SPU Solid Waste Fund	14	150	3,053	1,178	0	0	0	0	4,395
O&M Costs (Savings)			0	0	0	0	0	0	0

South Recycling and Disposal Station Property Acquisition

Program: New Facilities **Start Date:** 3rd Quarter 2001
Type: New Facility **End Date:** 4th Quarter 2003
Project ID: C201003
Location: 8100 2ND AV S

This project funds the Utility's acquisition of additional land at the South Recycling and Disposal Station (SRDS) site from the City's Fleets & Facilities Department (FFD), in order to facilitate the construction and operation of a new solid waste handling facility at the site as part of the Solid Waste Facilities Master Plan. The City owns two strips of land adjacent to the SRDS. One is a thirty-foot strip along the entire south of the site and the other is a sixty-foot vacated right-of-way along the southern portion of the west side of the site. These were obtained by the City for general corporate use over thirty years ago. Negotiations are underway between SPU and FFD to determine a fair price for this land.

	LTD	2002	2003	2004	2005	2006	2007	2008	Total
SPU Solid Waste Fund	3	17	153	0	0	0	0	0	173
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

*Amounts in thousands of dollars