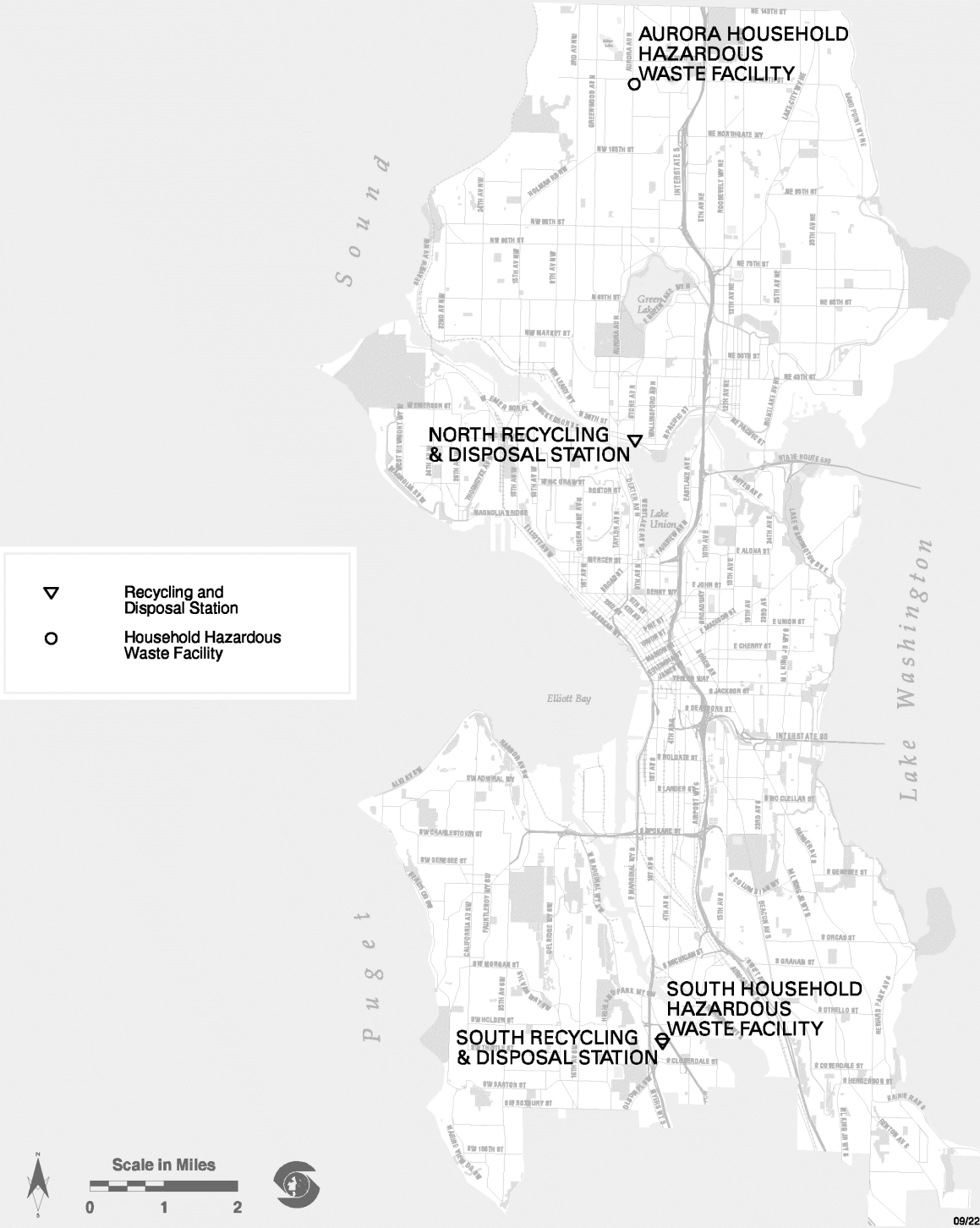


# Seattle Public Utilities Solid Waste Division Facilities



## Overview of Facilities and Programs

Seattle Public Utilities 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, or 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, the 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. The Department maintains a list of materials that are still useable and makes these items available to anyone who will use them.

## Highlights

- ◆ **Station Rehabilitation:** Seattle Public Utilities is working on long-deferred rehabilitation projects at the recycling and disposal stations. These projects include seismic upgrades to the stations, improvements to the electrical and water drainage systems, and concrete repairs.
- ◆ **Station Improvements:** The Department is planning a separate recycling facility at the South Recycling and Disposal Station to promote increased recycling and allow for a safer and more efficient transfer of recyclable materials.
- ◆ **Landfill Projects:** The Midway Landfill, closed in 1983, has reached the point where the combustible gas being extracted from the site is insufficient to keep the current flares operating. The City, working with a consultant, has determined that the replacement of the larger flares with one smaller flare is the most cost-effective alternative.

### Anticipated Operating Expenses Associated with Capital Facilities Projects

In some projects the Department has identified Operations and Maintenance costs of zero, or has not calculated a number (N/C). In these cases, the cost impacts of the project are either insignificant or are offset by cost savings realized by other projects.

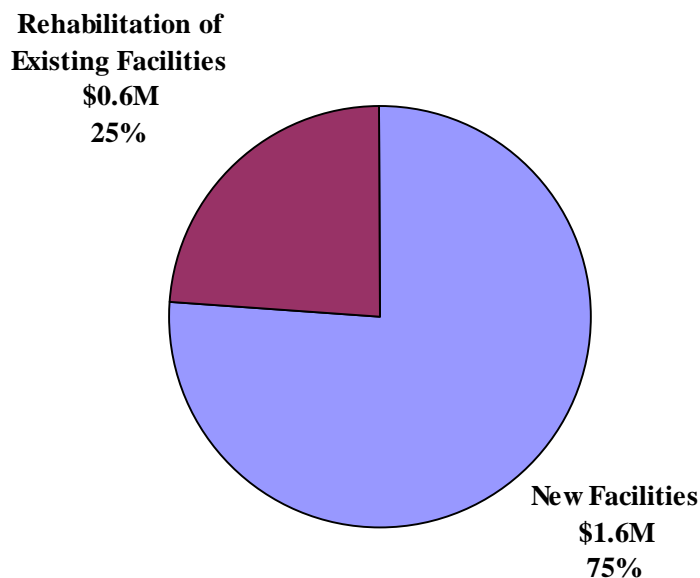
### Project Selection Process

In making capital investments in its infrastructure, the City tries to balance three goals:

- ◆ Rehabilitation of existing facilities to avoid the higher costs of deferred maintenance;
- ◆ Increase in the capacity of existing facilities to meet growing demand; and
- ◆ Development of new facilities to provide additional services.

The following chart shows how the Seattle Public Utilities' 2001 Adopted Solid Waste CIP allocates funding to these types of projects:

**2001 SPU Solid Waste Adopted CIP by Project Type**  
(not including Technology CIP projects)



Seattle Public Utilities used a comprehensive approach to develop the 2001-2006 Adopted Capital Improvement Program. The department encouraged wide staff participation in the process. The process included the following steps:

**Project Identification:** In late 1999 and early 2000, staff throughout the Department took part in a department-wide 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.

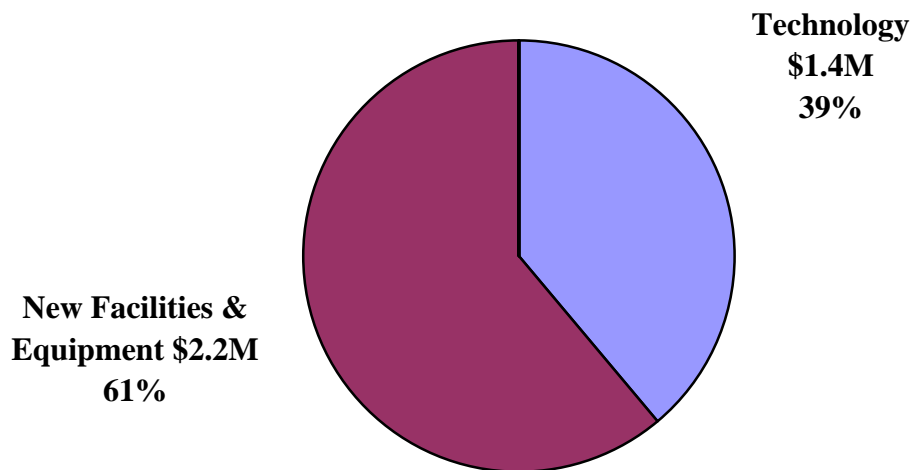
**Project Screening, Prioritization, and Selection:** Meetings were held with various sections throughout the Department to gain full understanding and consensus of project drivers, demands, and benefits. The full project list was compared to expected available funding based on estimated likely rate 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.

**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 \$23 million during the next six-year period. 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 following the Department’s three CIP sections.

**2001 SPU Solid Waste Adopted CIP by Program Category**



**New Facilities and Equipment:** This program designs and constructs new facilities to enhance operations at the transfer stations and replaces heavy equipment used at the stations. A new maintenance facility planned for the South Recycling and Disposal Station (SRDS) allows maintenance staff to work on vehicles and equipment on-site. A new office building consolidates all of the site’s operations into one facility. A new recycling center, separate from the SRDS, promotes increased recycling and allows for safer and more efficient transfer of recyclable materials.

**Rehabilitation and Improvements:** This program designs and constructs improvements to manage the City’s closed landfills, as well as projects to repair and upgrade the stations. Projects include replacing the larger flares

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at the Midway Landfill with one smaller flare; water diversion work at Kent Highlands Landfill; seismic upgrades to the tipping buildings; and repair or replacement of the water and electrical services at the stations.

**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 following the Department's three CIP sections.

## Project Summary

<b>Program/Project</b>	<b>Project ID</b>	<b>LTD</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>Total</b>
<b>New Facilities and Equipment</b>										
Heavy Equipment	C2NW004	0	0	545	545	585	600	615	630	<b>3,520</b>
South Recycling and Disposal Station Maintenance Facility	SWNEW0	0	50	0	35	821	21	0	0	<b>927</b>
South Recycling and Disposal Station Office Replacement	C299003	126	0	1,615	0	0	0	0	0	<b>1,741</b>
South Recycling and Disposal Station Recycling Center	C299008	86	90	0	0	48	1,981	226	728	<b>3,159</b>
<b>New Facilities and Equipment Total</b>		<b>212</b>	<b>140</b>	<b>2,160</b>	<b>580</b>	<b>1,454</b>	<b>2,602</b>	<b>841</b>	<b>1,358</b>	<b>9,347</b>
<b>Rehabilitation and Improvements</b>										
Kent Highlands North Pond Diversion	SWNEW0	0	0	0	150	0	0	0	0	<b>150</b>
Midway Flare Replacement	C299006	37	12	0	231	0	0	0	0	<b>280</b>
Recycling and Disposal Stations Electrical Rehabilitation	C299012	296	0	0	360	54	484	0	0	<b>1,194</b>
Recycling and Disposal Stations Seismic Upgrade	C299002	4	1,197	0	0	626	822	829	223	<b>3,701</b>
Recycling and Disposal Stations Water System Rehabilitation	SWNEW0	0	0	0	0	0	0	34	844	<b>878</b>
<b>Rehabilitation and Improvements Total</b>		<b>337</b>	<b>1,209</b>	<b>0</b>	<b>741</b>	<b>680</b>	<b>1,306</b>	<b>863</b>	<b>1,067</b>	<b>6,203</b>
<b>Department Total</b>		<b>549</b>	<b>1,349</b>	<b>2,160</b>	<b>1,321</b>	<b>2,134</b>	<b>3,908</b>	<b>1,704</b>	<b>2,425</b>	<b>15,550</b>

\*Amounts in thousands of dollars

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## Fund Source Summary

<b>Funding Source</b>	<b>LTD</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>Total</b>
SPU Solid Waste Fund	549	1,349	2,160	1,321	2,134	3,908	1,704	2,425	<b>15,550</b>
<b>Department Total</b>	<b>549</b>	<b>1,349</b>	<b>2,160</b>	<b>1,321</b>	<b>2,134</b>	<b>3,908</b>	<b>1,704</b>	<b>2,425</b>	<b>15,550</b>

*\*Amounts in thousands of dollars*

**Heavy Equipment**

**Program:** New Facilities and Equipment  
**Type:** Rehabilitation or Restoration  
**Location:**  
 N/A

**Start Date:** Ongoing  
**End Date:** Ongoing  
**Project ID:** C2NW004

This project replaces heavy equipment (such as loaders and bulldozers) used at the Recycling and Disposal stations. This equipment has reached the end of its useful life.

<u>Fund Source</u>	<u>LTD</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Total</u>
SPU Solid Waste Fund	0	0	545	545	585	600	615	630	3,520
<b>TOTAL FUNDS</b>	<b>0</b>	<b>0</b>	<b>545</b>	<b>545</b>	<b>585</b>	<b>600</b>	<b>615</b>	<b>630</b>	<b>3,520</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

**Kent Highlands North Pond Diversion**

**Program:** Rehabilitation and Improvements  
**Type:** Rehabilitation or Restoration  
**Location:**  
 Outside City limits in Kent

**Start Date:** 2002 1st Quarter  
**End Date:** 2002 4th Quarter  
**Project ID:** SWNEW003

This project safely diverts water from the Kent Highlands North Pond to surface waters via the Green River, avoiding costly discharge to the King County Metro sewer. An additional aerator and electrical controls may be added to pre-treat the surface water in the South Pond.

<u>Fund Source</u>	<u>LTD</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Total</u>
SPU Solid Waste Fund	0	0	0	150	0	0	0	0	150
<b>TOTAL FUNDS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>150</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>150</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

**Midway Flare Replacement**

**Program:** Rehabilitation and Improvements  
**Type:** Rehabilitation or Restoration  
**Location:**  
 24808 PACIFIC HWY S OFF RP

**Start Date:** 1998 1st Quarter  
**End Date:** 2002 4th Quarter  
**Project ID:** C299006

As part of the closure of the Midway Landfill, flares have been installed to burn off methane gas generated from composting garbage. This project replaces the existing flares with smaller flares that burn reduced gas flows more efficiently. In the interim, gas supplementation is necessary to keep the existing flares burning at the proper temperature.

<u>Fund Source</u>	<u>LTD</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Total</u>
SPU Solid Waste Fund	37	12	0	231	0	0	0	0	280
<b>TOTAL FUNDS</b>	<b>37</b>	<b>12</b>	<b>0</b>	<b>231</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>280</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

\*Amounts in thousands of dollars



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## Recycling and Disposal Stations Electrical Rehabilitation

**Program:** Rehabilitation and Improvements **Start Date:** 1999 1st Quarter  
**Type:** Improved Facility **End Date:** 2004 2nd Quarter  
**Location:** **Project ID:** C299012  
 1350 N 34TH ST

**Urban Village:** In more than one urban village **Neighborhood District:** In more than one district  
 8100 2ND AV S

**Urban Village:** In more than one urban village **Neighborhood District:** In more than one district

This project upgrades electrical systems and provides wiring and heating, ventilation, and air conditioning improvements at the scalehouses. It also provides electrical schematics and diagrams to allow for better troubleshooting of the system. The project labels all electrical circuits in every pull box and junction box throughout the sites. SPU is preparing a report to identify the requirements for installing a backup power generator system, if necessary.

<u>Fund Source</u>	<u>LTD</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Total</u>
SPU Solid Waste Fund	296	0	0	360	54	484	0	0	1,194
<b>TOTAL FUNDS</b>	<b>296</b>	<b>0</b>	<b>0</b>	<b>360</b>	<b>54</b>	<b>484</b>	<b>0</b>	<b>0</b>	<b>1,194</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

## Recycling and Disposal Stations Seismic Upgrade

**Program:** Rehabilitation and Improvements **Start Date:** 1999 3rd Quarter  
**Type:** Improved Facility **End Date:** 2006 4th Quarter  
**Location:** **Project ID:** C299002  
 1350 N 34TH ST

**Urban Village:** In more than one urban village **Neighborhood District:** In more than one district  
 8100 2ND AV S

**Urban Village:** In more than one urban village **Neighborhood District:** In more than one district

This project upgrades the seismic resistance of the North and South Recycling and Disposal Stations to allow them to better withstand an earthquake. This upgrade includes structural enhancements to the building shear walls, roofs, wall panel attachments, and roof-wall attachments, as well as repairs to the acoustical insulation, misting system, and concrete structures.

<u>Fund Source</u>	<u>LTD</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Total</u>
SPU Solid Waste Fund	4	1,197	0	0	626	822	829	223	3,701
<b>TOTAL FUNDS</b>	<b>4</b>	<b>1,197</b>	<b>0</b>	<b>0</b>	<b>626</b>	<b>822</b>	<b>829</b>	<b>223</b>	<b>3,701</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

\*Amounts in thousands of dollars

**Recycling and Disposal Stations Water System Rehabilitation**

**Program:** Rehabilitation and Improvements  
**Type:** Rehabilitation or Restoration  
**Location:**  
 1350 N 34TH ST

**Start Date:** 2005 1st Quarter  
**End Date:** 2007 2nd Quarter  
**Project ID:** SWNEW001

**Urban Village:** South Park  
 1350 N 34TH ST

**Neighborhood District:** Greater Duwamish

**Urban Village:** Fremont  
 8100 2ND AV S

**Neighborhood District:** Northwest

**Urban Village:** South Park  
 8100 2ND AV S

**Neighborhood District:** Greater Duwamish

**Urban Village:** Fremont

**Neighborhood District:** Northwest

This project analyzes the current state of the water systems at the North and South Recycling and Disposal Stations and provides options for repairing or replacing the systems.

<b>Fund Source</b>	<b>LTD</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>Total</b>
SPU Solid Waste Fund	0	0	0	0	0	0	34	844	878
<b>TOTAL FUNDS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>844</b>	<b>878</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

**South Recycling and Disposal Station Maintenance Facility**

**Program:** New Facilities and Equipment  
**Type:** New Facility  
**Location:**  
 8100 2ND AV S

**Start Date:** 2000 1st Quarter  
**End Date:** 2004 2nd Quarter  
**Project ID:** SWNEW002

**Urban Village:** South Park

**Neighborhood District:** Southwest

This project provides a shelter for Solid Waste's fleet of trucks and heavy equipment. The structure, which is to be either a building or a canopy, precludes weather from interfering with maintenance and repair work.

<b>Fund Source</b>	<b>LTD</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>Total</b>
SPU Solid Waste Fund	0	50	0	35	821	21	0	0	927
<b>TOTAL FUNDS</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>35</b>	<b>821</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>927</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

\*Amounts in thousands of dollars

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## South Recycling and Disposal Station Office Replacement

**Program:** New Facilities and Equipment  
**Type:** New Facility  
**Location:**  
 8100 2ND AV S

**Start Date:** 1999 2nd Quarter  
**End Date:** 2001 4th Quarter  
**Project ID:** C299003

**Urban Village:** South Park

**Neighborhood District:** Southwest

This project installs a manufactured building to replace three office buildings at the South Recycling and Disposal Center. The current buildings are in varying stages of disrepair and the most cost-effective solution is to remove the older structures and install a new manufactured building.

<u>Fund Source</u>	<u>LTD</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Total</u>
SPU Solid Waste Fund	126	0	1,615	0	0	0	0	0	1,741
<b>TOTAL FUNDS</b>	<b>126</b>	<b>0</b>	<b>1,615</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,741</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

## South Recycling and Disposal Station Recycling Center

**Program:** New Facilities and Equipment  
**Type:** New Facility  
**Location:**  
 8100 2ND AV S

**Start Date:** 1999 2nd Quarter  
**End Date:** 2007 2nd Quarter  
**Project ID:** C299008

**Urban Village:** South Park

**Neighborhood District:** Southwest

This project constructs a Recycling Center at the South Recycling and Disposal Center. This Recycling Center is to be separate from the existing refuse tipping building and allows for the collection of a variety of recyclables before customers enter the tipping building. This stand-alone structure reduces the congestion in the tipping building and improves overall customer traffic flow at the South Recycling and Disposal Center.

<u>Fund Source</u>	<u>LTD</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Total</u>
SPU Solid Waste Fund	86	90	0	0	48	1,981	226	728	3,159
<b>TOTAL FUNDS</b>	<b>86</b>	<b>90</b>	<b>0</b>	<b>0</b>	<b>48</b>	<b>1,981</b>	<b>226</b>	<b>728</b>	<b>3,159</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

\*Amounts in thousands of dollars