

**SPU -  
TECHNOLOGY  
PROJECTS**

# SPU - TECHNOLOGY PROJECTS

## Project Summary

<b>Program/Project</b>	<b>Project ID</b>	<b>LTD</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>Total</b>
<b>Technology</b>										
Automated Meter Reading	C598001	189	140	125	114	130	128	142	157	<b>1,125</b>
Business Technology Improvements	TECH105	6,702	1,200	1,162	3,316	3,847	4,091	4,669	5,185	<b>30,172</b>
Consolidated Customer Service System - Technology	C599018	14,201	380	351	376	385	394	406	438	<b>16,931</b>
Consolidated Customer Service System Interface	TECH115	542	0	0	54	55	57	57	62	<b>827</b>
Consolidated Customer Service System-SPU Additions	TECH110	79	0	0	376	385	394	406	438	<b>2,078</b>
Customer Service Technology Improvements	TECH125	534	462	446	0	0	0	0	0	<b>1,442</b>
Decision Support	C599005	827	162	52	215	221	227	225	261	<b>2,190</b>
Drainage and Wastewater Operations Technology	C300032	198	0	0	54	0	0	0	0	<b>252</b>
Engineering/CIP Tech Improvements	TECH135	8,759	1,523	2,184	579	495	0	0	0	<b>13,540</b>
Integrated Customer Contact Center	C599007	201	376	340	297	276	282	291	315	<b>2,378</b>
Operations Technology Improvements	TECH140	315	1,331	508	435	99	90	94	105	<b>2,977</b>
Real Property Records Automation	C191004	1,055	455	537	569	0	0	0	0	<b>2,616</b>
Supervisory Control And Data Acquisition Upgrades	C195008	1,934	918	1,971	1,636	2,328	2,764	2,346	2,562	<b>16,459</b>
Water Operations Technology Improvements	TECH155	1,191	148	31	32	33	34	35	42	<b>1,546</b>
<b>Technology Total</b>		<b>36,727</b>	<b>7,095</b>	<b>7,707</b>	<b>8,053</b>	<b>8,254</b>	<b>8,461</b>	<b>8,671</b>	<b>9,565</b>	<b>94,533</b>
<b>Department Total</b>		<b>36,727</b>	<b>7,095</b>	<b>7,707</b>	<b>8,053</b>	<b>8,254</b>	<b>8,461</b>	<b>8,671</b>	<b>9,565</b>	<b>94,533</b>

*\*Amounts in thousands of dollars*

# SPU - TECHNOLOGY PROJECTS

## Fund Source Summary

<b>Funding Source</b>	<b>LTD</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>Total</b>
SPU Drainage and Wastewater Fund	7,355	1,280	1,283	1,611	1,651	1,693	1,738	1,777	<b>18,388</b>
SPU Solid Waste Fund	7,110	1,226	1,126	1,610	1,650	1,692	1,704	1,738	<b>17,856</b>
SPU Water Fund	22,262	4,589	5,298	4,832	4,953	5,076	5,229	6,050	<b>58,289</b>
<b>Department Total</b>	<b>36,727</b>	<b>7,095</b>	<b>7,707</b>	<b>8,053</b>	<b>8,254</b>	<b>8,461</b>	<b>8,671</b>	<b>9,565</b>	<b>94,533</b>

*\*Amounts in thousands of dollars*

# SPU - TECHNOLOGY PROJECTS

## Automated Meter Reading

**Program:** Technology  
**Type:** New Investment  
**Location:**  
 N/A

**Start Date:** 1998 4th Quarter  
**End Date:** 2007 4th Quarter  
**Project ID:** C598001

This project implements wireless meter reading equipment on meters that are the most difficult to access and costly to read. These meters are usually located in deep meter chambers in busy streets or sidewalks, and may require confined space entry procedures, a crew instead of a single meter reader, weekend meter reading, and traffic revisions. Benefits of the project include increased employee safety, more efficient and accurate meter readings, and reduced traffic impacts.

<u>Fund Source</u>	<u>LTD</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>Total</u>
SPU Drainage and Wastewater Fund	93	67	60	57	65	64	71	72	549
SPU Water Fund	96	73	65	57	65	64	71	85	576
<b>TOTAL FUNDS</b>	<b>189</b>	<b>140</b>	<b>125</b>	<b>114</b>	<b>130</b>	<b>128</b>	<b>142</b>	<b>157</b>	<b>1,125</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

## Business Technology Improvements

**Program:** Technology  
**Type:** New Investment  
**Location:**  
 N/A

**Start Date:** 1999 4th Quarter  
**End Date:** Ongoing  
**Project ID:** TECH105

This project includes a series of major upgrades to SPU's shared business technology infrastructure, including core system software upgrades, integrated electronic document management, network enhancements, productivity applications and interfaces, security initiatives, server and desktop upgrades, and video services.

<u>Fund Source</u>	<u>LTD</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>Total</u>
SPU Solid Waste Fund	1,556	262	254	985	1,110	1,252	1,253	1,279	7,951
SPU Water Fund	3,849	709	686	1,434	1,671	1,643	2,193	2,654	14,839
SPU Drainage and Wastewater Fund	1,297	229	222	897	1,066	1,196	1,223	1,252	7,382
<b>TOTAL FUNDS</b>	<b>6,702</b>	<b>1,200</b>	<b>1,162</b>	<b>3,316</b>	<b>3,847</b>	<b>4,091</b>	<b>4,669</b>	<b>5,185</b>	<b>30,172</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

\*Amounts in thousands of dollars

# SPU - TECHNOLOGY PROJECTS

## Consolidated Customer Service System - Technology

**Program:** Technology **Start Date:** 1st Quarter 1999  
**Type:** New Investment **End Date:** Ongoing  
**Location:** **Project ID:** C599018  
 N/A

This project provides core components required for basic functionality in the new Consolidated Customer Service System environment. Examples of improvements include system report production and an interface with the telephone directory database.

<b>Fund Source</b>	<b>LTD</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>Total</b>
SPU Solid Waste Fund	4,696	125	116	124	127	130	134	136	5,588
SPU Water Fund	4,811	129	119	128	131	134	138	166	5,756
SPU Drainage and Wastewater Fund	4,694	126	116	124	127	130	134	136	5,587
<b>TOTAL FUNDS</b>	<b>14,201</b>	<b>380</b>	<b>351</b>	<b>376</b>	<b>385</b>	<b>394</b>	<b>406</b>	<b>438</b>	<b>16,931</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

## Consolidated Customer Service System Interface

**Program:** Technology **Start Date:** Ongoing  
**Type:** New Investment **End Date:** Ongoing  
**Location:** **Project ID:** TECH115  
 N/A

This project designs and implements an interface between SPU's Consolidated Customer Service System, work order processing system, and other systems.

<b>Fund Source</b>	<b>LTD</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>Total</b>
SPU Water Fund	290	0	0	18	19	19	19	24	389
SPU Solid Waste Fund	19	0	0	18	18	19	19	19	112
SPU Drainage and Wastewater Fund	233	0	0	18	18	19	19	19	326
<b>TOTAL FUNDS</b>	<b>542</b>	<b>0</b>	<b>0</b>	<b>54</b>	<b>55</b>	<b>57</b>	<b>57</b>	<b>62</b>	<b>827</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

\*Amounts in thousands of dollars

# SPU - TECHNOLOGY PROJECTS

## Consolidated Customer Service System-SPU Additions

**Program:** Technology **Start Date:** Ongoing  
**Type:** New Investment **End Date:** Ongoing  
**Location:** N/A **Project ID:** TECH110

This project provides Consolidated Customer Service System components to enhance basic system performance. This project could include a web-based interface for customer interaction with the system.

<b>Fund Source</b>	<b>LTD</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>Total</b>
SPU Drainage and Wastewater Fund	40	0	0	124	127	130	134	136	691
SPU Water Fund	19	0	0	128	131	134	138	166	716
SPU Solid Waste Fund	20	0	0	124	127	130	134	136	671
<b>TOTAL FUNDS</b>	<b>79</b>	<b>0</b>	<b>0</b>	<b>376</b>	<b>385</b>	<b>394</b>	<b>406</b>	<b>438</b>	<b>2,078</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

## Customer Service Technology Improvements

**Program:** Technology **Start Date:** 1999 1st Quarter  
**Type:** New Investment **End Date:** Ongoing  
**Location:** N/A **Project ID:** TECH125

This project creates a "real time" event application that shows different kinds of water system problems, such as water quality complaints or pressure problems, and their proximity to water system facilities. In addition to improving coordination within Seattle Public Utilities and response to problems on a routine ongoing basis, the application could also be used during emergencies.

<b>Fund Source</b>	<b>LTD</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>Total</b>
SPU Drainage and Wastewater Fund	106	89	86	0	0	0	0	0	281
SPU Solid Waste Fund	110	101	97	0	0	0	0	0	308
SPU Water Fund	318	272	263	0	0	0	0	0	853
<b>TOTAL FUNDS</b>	<b>534</b>	<b>462</b>	<b>446</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,442</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

\*Amounts in thousands of dollars

# SPU - TECHNOLOGY PROJECTS

## Decision Support

**Program:** Technology **Start Date:** 1999 1st Quarter  
**Type:** New Investment **End Date:** Ongoing  
**Location:** **Project ID:** C599005  
 N/A

This project integrates decision support databases for analytical modeling and deploys analytical tools on Seattle Public Utilities computers.

<b>Fund Source</b>	<b>LTD</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>Total</b>
SPU Water Fund	484	96	31	127	130	133	136	165	1,302
SPU Drainage and Wastewater Fund	161	31	10	41	42	43	44	45	417
SPU Solid Waste Fund	182	35	11	47	49	51	45	51	471
<b>TOTAL FUNDS</b>	<b>827</b>	<b>162</b>	<b>52</b>	<b>215</b>	<b>221</b>	<b>227</b>	<b>225</b>	<b>261</b>	<b>2,190</b>
<i>O&amp;M Costs (Savings)</i>			200	200	200	200	200	200	<b>1,200</b>

## Drainage and Wastewater Operations Technology

**Program:** Technology **Start Date:** 2000 1st Quarter  
**Type:** New Investment **End Date:** 2003 4th Quarter  
**Location:** **Project ID:** C300032  
 N/A

This project evaluates Drainage and Wastewater's work management system to decide whether and how to integrate it with other work management systems in Seattle Public Utilities.

<b>Fund Source</b>	<b>LTD</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>Total</b>
SPU Drainage and Wastewater Fund	198	0	0	54	0	0	0	0	252
<b>TOTAL FUNDS</b>	<b>198</b>	<b>0</b>	<b>0</b>	<b>54</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>252</b>
<i>O&amp;M Costs (Savings)</i>			0	50	0	0	0	0	<b>50</b>

\*Amounts in thousands of dollars

# SPU - TECHNOLOGY PROJECTS

## Engineering/CIP Tech Improvements

**Program:** Technology **Start Date:** 1999 1st Quarter  
**Type:** New Investment **End Date:** 2004 4th Quarter  
**Location:** N/A **Project ID:** TECH135

This project develops new technologies to support Engineering and Project Management, including As-Built Improvements, a CIP geographic database, electronic bid document distribution, plans management, engineering support contract payments, and engineering vault imaging and management.

<b>Fund Source</b>	<b>LTD</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>Total</b>
SPU Water Fund	7,957	779	1,219	342	292	0	0	0	10,589
SPU Solid Waste Fund	398	286	408	126	108	0	0	0	1,326
SPU Drainage and Wastewater Fund	404	458	557	111	95	0	0	0	1,625
<b>TOTAL FUNDS</b>	<b>8,759</b>	<b>1,523</b>	<b>2,184</b>	<b>579</b>	<b>495</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13,540</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

## Integrated Customer Contact Center

**Program:** Technology **Start Date:** 1999 1st Quarter  
**Type:** New Investment **End Date:** Ongoing  
**Location:** N/A **Project ID:** C599007

This project develops and deploys technology to improve Seattle Public Utilities' customer service and emergency response and moves the department from a call center model to a multi-media customer contact center model. This new technology supports the Call Center, Utility Service Teams, and the Emergency Resource Center, all of which support the customer service functions of both SPU and City Light.

<b>Fund Source</b>	<b>LTD</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>Total</b>
SPU Drainage and Wastewater Fund	66	124	112	98	91	93	96	98	778
SPU Solid Waste Fund	66	124	112	98	91	93	96	98	778
SPU Water Fund	69	128	116	101	94	96	99	119	822
<b>TOTAL FUNDS</b>	<b>201</b>	<b>376</b>	<b>340</b>	<b>297</b>	<b>276</b>	<b>282</b>	<b>291</b>	<b>315</b>	<b>2,378</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	0

\*Amounts in thousands of dollars



# SPU - TECHNOLOGY PROJECTS

## Operations Technology Improvements

**Program:** Technology **Start Date:** 1999 1st Quarter  
**Type:** New Investment **End Date:** Ongoing  
**Location:** **Project ID:** TECH140  
 N/A

This project provides new technologies to support the field operations of SPU's Drainage, Sewer, Water, and Solid Waste Utilities. These may include field staff automation, a paging system, a prepaid metering pilot, radio communication systems improvements, and a remote communication links upgrade.

<b>Fund Source</b>	<b>LTD</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>Total</b>
SPU Drainage and Wastewater Fund	63	156	120	87	20	18	17	19	500
SPU Solid Waste Fund	63	293	128	88	20	17	23	19	651
SPU Water Fund	189	882	260	260	59	55	54	67	1,826
<b>TOTAL FUNDS</b>	<b>315</b>	<b>1,331</b>	<b>508</b>	<b>435</b>	<b>99</b>	<b>90</b>	<b>94</b>	<b>105</b>	<b>2,977</b>
<i>O&amp;M Costs (Savings)</i>			0	20	20	20	20	20	<b>100</b>

## Real Property Records Automation

**Program:** Technology **Start Date:** 1991 1st Quarter  
**Type:** New Investment **End Date:** 2003 4th Quarter  
**Location:** **Project ID:** C191004  
 N/A

This project provides for the re-coding and automation of information regarding 13,000 parcels of property managed by SPU. The project puts data from 14 different filing systems, dating back to the early 1900s, into a coordinated database that is usable by all City departments. This project also includes software to maintain and access the newly automated records.

<b>Fund Source</b>	<b>LTD</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>Total</b>
SPU Water Fund	1,055	455	537	569	0	0	0	0	2,616
<b>TOTAL FUNDS</b>	<b>1,055</b>	<b>455</b>	<b>537</b>	<b>569</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,616</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	<b>0</b>

\*Amounts in thousands of dollars

# SPU - TECHNOLOGY PROJECTS

## Supervisory Control And Data Acquisition Upgrades

**Program:** Technology **Start Date:** 1995 1st Quarter  
**Type:** New Investment **End Date:** Ongoing  
**Location:** **Project ID:** C195008  
 N/A

This project upgrades the Supervisory Control and Data Acquisition (SCADA) system. Water system operators currently use SCADA equipment to acquire and monitor data, such as flow or pressure from remote sensors, and to remotely operate pumps or valves. Phase 1 of this project converts the current control room to a PC workstation-based software system, and creates new Intranet-based operations and maintenance manuals for water system operations. Phase 2 upgrades the field equipment, including installation of new sensors, and improves the communications system to allow for a completely redundant control room. Phase 3 integrates SCADA with other information systems and develops a hydraulic network model that could be used for training and simulation of the water system.

<b>Fund Source</b>	<b>LTD</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>Total</b>
SPU Water Fund	1,934	918	1,971	1,636	2,328	2,764	2,346	2,562	16,459
<b>TOTAL FUNDS</b>	<b>1,934</b>	<b>918</b>	<b>1,971</b>	<b>1,636</b>	<b>2,328</b>	<b>2,764</b>	<b>2,346</b>	<b>2,562</b>	<b>16,459</b>
<i>O&amp;M Costs (Savings)</i>			35	35	35	35	35	35	<b>210</b>

## Water Operations Technology Improvements

**Program:** Technology **Start Date:** 1999 1st Quarter  
**Type:** New Investment **End Date:** Ongoing  
**Location:** **Project ID:** TECH155  
 N/A

This project deploys new technologies that specifically support SPU's water utility operations. Systems to be developed include a forecast model and a source and supply data warehouse.

<b>Fund Source</b>	<b>LTD</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>Total</b>
SPU Water Fund	1,191	148	31	32	33	34	35	42	1,546
<b>TOTAL FUNDS</b>	<b>1,191</b>	<b>148</b>	<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>42</b>	<b>1,546</b>
<i>O&amp;M Costs (Savings)</i>			28	28	28	28	28	28	<b>168</b>

\*Amounts in thousands of dollars