

SPU - TECHNOLOGY PROJECTS

Project Summary

Program/Project	Project ID	LTD	2000	2001	2002	2003	2004	2005	2006	Total
Technology										
Automated Meter Reading	C598001	83	106	140	125	114	130	128	142	968
Business Technology Improvements	TECH105	5,358	1,344	1,200	1,162	3,316	3,847	4,091	4,669	24,987
Consolidated Customer Service System	C599018	8,640	5,561	380	351	376	385	394	406	16,493
Consolidated Customer Service System Interface	TECH115	0	542	0	0	54	55	57	58	766
Consolidated Customer Service System-SPU Additions	TECH110	0	79	0	0	376	385	394	406	1,640
Cost and Scheduling System	C500001	0	0	129	0	0	0	0	0	129
Customer Service Technology Improvements	TECH125	191	343	462	446	0	0	0	0	1,442
Decision Support	C599005	378	449	162	52	215	221	227	225	1,929
Drainage and Wastewater Operations Technology	C300032	0	198	0	0	54	0	0	0	252
Engineering/CIP Tech Improvements	TECH135	8,210	549	1,523	2,184	579	495	0	0	13,540
Integrated Customer Contact Center	C599007	101	100	376	340	297	276	282	291	2,063
Operations Technology Improvements	TECH140	119	196	1,331	508	435	99	90	94	2,872
Real Property Records Automation	C191004	283	772	455	537	569	0	0	0	2,616
Solid Waste Business Technology	TECH150	0	200	141	0	0	0	0	0	341
Summit Upgrade/Fixed Assets	C597004	0	415	45	0	0	0	0	0	460
Supervisory Control And Data Acquisition Upgrades	C195008	746	1,188	918	1,971	1,636	2,328	2,764	2,346	13,897
Water Operations Technology Improvements	TECH155	1,161	30	148	31	32	33	34	35	1,504
Technology Total		25,270	12,072	7,410	7,707	8,053	8,254	8,461	8,672	85,899
Department Total		25,270	12,072	7,410	7,707	8,053	8,254	8,461	8,672	85,899

**Amounts in thousands of dollars*

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Fund Source Summary

Funding Source	LTD	2000	2001	2002	2003	2004	2005	2006	Total
SPU Drainage and Wastewater Fund	4,431	3,019	1,315	1,283	1,611	1,651	1,693	1,738	16,741
SPU Solid Waste Fund	4,497	2,910	1,403	1,126	1,610	1,650	1,692	1,704	16,592
SPU Water Fund	16,342	6,143	4,692	5,298	4,832	4,953	5,076	5,230	52,566
Department Total	25,270	12,072	7,410	7,707	8,053	8,254	8,461	8,672	85,899

**Amounts in thousands of dollars*

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Automated Meter Reading

Program: Technology **Start Date:** 1998 4th Quarter
Type: New Investment **End Date:** 2007 4th Quarter
Location: **Project ID:** C598001
 N/A

This project implements radio frequency capable 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>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Total</u>
SPU Water Fund	41	55	73	65	57	65	64	71	491
SPU Drainage and Wastewater Fund	42	51	67	60	57	65	64	71	477
TOTAL FUNDS	83	106	140	125	114	130	128	142	968
<i>O&M Costs (Savings)</i>			0	0	0	0	0	0	0

Business Technology Improvements

Program: Technology **Start Date:** 1999 4th Quarter
Type: New Investment **End Date:** Ongoing
Location: **Project ID:** TECH105
 N/A

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>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Total</u>
SPU Drainage and Wastewater Fund	1,029	268	229	222	897	1,066	1,196	1,223	6,130
SPU Solid Waste Fund	1,168	388	262	254	985	1,110	1,252	1,253	6,672
SPU Water Fund	3,161	688	709	686	1,434	1,671	1,643	2,193	12,185
TOTAL FUNDS	5,358	1,344	1,200	1,162	3,316	3,847	4,091	4,669	24,987
<i>O&M Costs (Savings)</i>			0	0	0	0	0	0	0

*Amounts in thousands of dollars

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Consolidated Customer Service System

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.

<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 Drainage and Wastewater Fund	2,851	1,843	126	116	124	127	130	134	5,451
SPU Solid Waste Fund	2,851	1,845	125	116	124	127	130	134	5,452
SPU Water Fund	2,938	1,873	129	119	128	131	134	138	5,590
TOTAL FUNDS	8,640	5,561	380	351	376	385	394	406	16,493
<i>O&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 provides for design and implementation of an interface between SPU's Consolidated Customer Service System, work order processing system, and other systems.

<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 Water Fund	0	290	0	0	18	19	19	20	366
SPU Drainage and Wastewater Fund	0	233	0	0	18	18	19	19	307
SPU Solid Waste Fund	0	19	0	0	18	18	19	19	93
TOTAL FUNDS	0	542	0	0	54	55	57	58	766
<i>O&M Costs (Savings)</i>			0	0	0	0	0	0	0

*Amounts in thousands of dollars

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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.

<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	20	0	0	124	127	130	134	535
SPU Drainage and Wastewater Fund	0	40	0	0	124	127	130	134	555
SPU Water Fund	0	19	0	0	128	131	134	138	550
TOTAL FUNDS	0	79	0	0	376	385	394	406	1,640
<i>O&M Costs (Savings)</i>			0	0	0	0	0	0	0

Cost and Scheduling System

Program: Technology **Start Date:** 2000 1st Quarter
Type: New Investment **End Date:** 2001 4th Quarter
Location: N/A **Project ID:** C500001

This project provides a departmental cost and scheduling program for all capital projects throughout the Department. SPU is integrating this data and approach with Seattle City Light and SEATRAN.

<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 Drainage and Wastewater Fund	0	0	26	0	0	0	0	0	26
SPU Water Fund	0	0	77	0	0	0	0	0	77
SPU Solid Waste Fund	0	0	26	0	0	0	0	0	26
TOTAL FUNDS	0	0	129	0	0	0	0	0	129
<i>O&M Costs (Savings)</i>			77	134	133	134	133	134	745

*Amounts in thousands of dollars

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Customer Service Technology Improvements

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

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 the Department and response to problems on a routine ongoing basis, the application could also be used during emergencies.

<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 Drainage and Wastewater Fund	37	69	89	86	0	0	0	0	281
SPU Solid Waste Fund	37	73	101	97	0	0	0	0	308
SPU Water Fund	117	201	272	263	0	0	0	0	853
TOTAL FUNDS	191	343	462	446	0	0	0	0	1,442
<i>O&M Costs (Savings)</i>			0	0	0	0	0	0	0

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 implements analytical tools on Seattle Public Utilities computers.

<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 Drainage and Wastewater Fund	76	85	31	10	41	42	43	44	372
SPU Solid Waste Fund	84	98	35	11	47	49	51	45	420
SPU Water Fund	218	266	96	31	127	130	133	136	1,137
TOTAL FUNDS	378	449	162	52	215	221	227	225	1,929
<i>O&M Costs (Savings)</i>			454	200	200	200	200	200	1,454

*Amounts in thousands of dollars

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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 the Department.

<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 Drainage and Wastewater Fund	0	198	0	0	54	0	0	0	252
TOTAL FUNDS	0	198	0	0	54	0	0	0	252
<i>O&M Costs (Savings)</i>			0	0	50	0	0	0	50

Engineering/CIP Tech Improvements

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

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

<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 Drainage and Wastewater Fund	339	65	458	557	111	95	0	0	1,625
SPU Solid Waste Fund	300	98	286	408	126	108	0	0	1,326
SPU Water Fund	7,571	386	779	1,219	342	292	0	0	10,589
TOTAL FUNDS	8,210	549	1,523	2,184	579	495	0	0	13,540
<i>O&M Costs (Savings)</i>			0	0	0	0	0	0	0

*Amounts in thousands of dollars

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Integrated Customer Contact Center

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

This project develops and implements 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.

<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 Water Fund	35	34	128	116	101	94	96	99	703
SPU Solid Waste Fund	33	33	124	112	98	91	93	96	680
SPU Drainage and Wastewater Fund	33	33	124	112	98	91	93	96	680
TOTAL FUNDS	101	100	376	340	297	276	282	291	2,063
<i>O&M Costs (Savings)</i>			0	0	0	0	0	0	0

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, such as field staff automation, a paging system, a prepaid metering pilot, radio communication systems improvements, and a remote communication links upgrade.

<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	24	39	293	128	88	20	17	23	632
SPU Water Fund	71	118	882	260	260	59	55	54	1,759
SPU Drainage and Wastewater Fund	24	39	156	120	87	20	18	17	481
TOTAL FUNDS	119	196	1,331	508	435	99	90	94	2,872
<i>O&M Costs (Savings)</i>			0	0	20	20	20	20	80

*Amounts in thousands of dollars

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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.

<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 Water Fund	283	772	455	537	569	0	0	0	2,616
TOTAL FUNDS	283	772	455	537	569	0	0	0	2,616
<i>O&M Costs (Savings)</i>			0	0	0	0	0	0	0

Solid Waste Business Technology

Program: Technology **Start Date:** 2000 1st Quarter
Type: New Investment **End Date:** 2001 4th Quarter
Location: **Project ID:** TECH150
 N/A

This project creates an electronic Commercial Garbage Accounts Receivable System and allows SPU to electronically receive financial service and customer information from the commercial garbage haulers. Access to this information improves the monitoring and enforcement of contracts.

<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	200	141	0	0	0	0	0	341
TOTAL FUNDS	0	200	141	0	0	0	0	0	341
<i>O&M Costs (Savings)</i>			23	24	23	24	23	24	141

*Amounts in thousands of dollars

SPU - TECHNOLOGY PROJECTS

Summit Upgrade/Fixed Assets

Program: Technology **Start Date:** 2000 1st Quarter
Type: New Investment **End Date:** 2001 4th Quarter
Location: **Project ID:** C597004
 N/A

This project provides Seattle Public Utilities with additional computerized accounting capacity, through the City's Summit system, to meet special processing requirements for the financial management and accounting of water, drainage and wastewater, solid waste and engineering services funds.

<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 Drainage and Wastewater Fund	0	95	9	0	0	0	0	0	104
SPU Water Fund	0	223	26	0	0	0	0	0	249
SPU Solid Waste Fund	0	97	10	0	0	0	0	0	107
TOTAL FUNDS	0	415	45	0	0	0	0	0	460
<i>O&M Costs (Savings)</i>			0	0	0	0	0	0	0

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 & 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.

<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 Water Fund	746	1,188	918	1,971	1,636	2,328	2,764	2,346	13,897
TOTAL FUNDS	746	1,188	918	1,971	1,636	2,328	2,764	2,346	13,897
<i>O&M Costs (Savings)</i>			35	35	35	35	35	35	210

*Amounts in thousands of dollars

SPU - TECHNOLOGY PROJECTS

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 implements 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.

Fund Source	LTD	2000	2001	2002	2003	2004	2005	2006	Total
SPU Water Fund	1,161	30	148	31	32	33	34	35	1,504
TOTAL FUNDS	1,161	30	148	31	32	33	34	35	1,504
<i>O&M Costs (Savings)</i>			28	28	28	28	28	28	168

**Amounts in thousands of dollars*