

Action Plans: Summary & Detail

Costs shown in \$000s

Title	Short Description	2015-2020 O&M*	2015-2020 CIP*	Page #
FOCUS AREA: Protecting Your Health and Our Environment				
Climate Change Adaptation and Resiliency	Prepare for water supply and utility system threats that may occur from climate change.	\$1,686	\$3,533	3
Decentralized "Green" Systems	Develop policies to respond to "green" decentralized service alternatives like rain capture.	\$0	\$0	6
Energy management & Carbon Neutrality	Implement a program so that Utility can achieve carbon neutrality.	\$1,309	\$0	8
Watershed roads	Maintain identified roadways in the Cedar River watershed to preserve tribal access.	\$799	\$1,680	10
Street Sweeping	Expand existing street sweeping to remove 440 tons of pollutants from our streets and drainage to reduce Sound and waterway pollution.	\$4,408	\$345	12
FOCUS AREA: Improving How We Work to Deliver Consistent, High Quality Services				
DWW Planning and Policies	Improve the quality of drainage and sewer services through accelerated mapping, modeling, planning, and policy development.	\$5,762	\$0	14
Accelerate Broadview and South Park Projects	Accelerate flooding and sewer backup prevention projects in the Broadview and South Park neighborhoods.	\$0	\$20,000	16
Sewer Inspection & Rehabilitation	Increase sewer pipe inspection and rehabilitation to reduce sewer backups and overflows.	\$3,589	\$64,350	18
Sewer Cleaning	Increase sewer pipe cleaning to reduce sewer backups and overflows.	\$9,625	\$1,000	20
Emergencies and disasters	Create a comprehensive emergency plan for maintaining and restoring essential services in emergencies.	\$481	\$0	23
Seismic Vulnerability	Develop a plan to protect the drinking water system from earthquakes.	\$934	\$0	25
Valves	Improve maintenance and operation of the approximately 60,000 valves in the drinking water system.	\$2,619	\$0	27
System Development Charges	Require new developments to pay for a share of the Utility's systems to help fund the needs resulting from growth.	\$0	\$0	28
Billing Meters	Centralize meter management within the Utility and improve replacement and repair services.	\$1,794	\$408	30
Revenue recovery	Create a more comprehensive approach to collect non-rate-related revenues.	\$0	\$0	32
Technology Services	Improve the use of technology and data to create business knowledge to support core utility services.	\$4,450	\$0	34
SPU Facilities Management	Develop a centralized facility management program to improve the efficient use of energy and utility resources in existing facilities.	\$1,539	\$23,200	38
Managing Data & Information	Implement a data and quality assurance program so that the Utility can more effectively use its information.	\$856	\$0	40
Materials management	Continue to implement a centralized materials management system for everything from procuring to inventory to use.	\$543	\$0	43

Title	Short Description	2015-2020 O&M*	2015-2020 CIP*	Page #
FOCUS AREA: Enhancing Our Services by Continually Updating Employee Skills				
HR Data and Performance Measurement	Develop effective data and tools to support improved employee performance	\$3,298	\$0	45
Employee Performance Management	Develop effective systems, tools, and practices to continuously improve employee performance to deliver higher quality services at lower costs.	\$443	\$0	47
Leadership Development	Develop leadership skills at each level of management to improve project and service delivery.	\$1,146	\$0	49
Talent Management	Implement a comprehensive talent management system keep critical knowledge in the Utility and empower employees to achieve more.	\$1,649	\$0	51
Absence and Disability management	Develop a system for managing and preventing employee absences and disabilities.	\$2,292	\$0	53
FOCUS AREA: Making it Easier for You to Get Help and Answers				
Service equity	Actively ensure that all communities and customer groups have equal access, service delivery, and ability to use services.	\$0	\$0	55
Web Presence	Develop websites where customers can easily accomplish their tasks, whether it's to look up information, pay a bill, or submit a request.	\$1,630	\$0	58
Development Services	Centralize and streamline the utility permit, service, and sales functions for development customers.	\$1,146	\$2,000	60

Focus Area: Protecting your health and our environment

Action Plan: Climate Change Adaptation & Resiliency

Strategic Objective: Anticipate, adapt to change

Owner: Paul Fleming, Corporate Asset Management Division

Summary of proposed action

Improve SPU's ability to anticipate changing climatic conditions, enhance our understanding of the implications of these conditions on SPU's built and natural infrastructure and services, and develop adaptation strategies to address those implications. If implemented, this proposal will:

- Provide O&M funding to assess climate impacts on the drainage & wastewater and watersheds, develop an adaptation strategy for the DWW LOB, obtain new climate data and implement a Tier 1 adaptation option for the drinking water systems;
- Provide capital funding to implement a "Tier 1" adaptation as part of our drinking water supply delivery system.

Benefits of investment: Taken together, these investments represent the next phase in SPU's climate program. The investments will improve our climate preparedness by implementing adaptation options for the water LOB that should mitigate some of the effects of climate change on our drinking water supply. They also will lead to a better understanding of how sea level rise and changes in precipitation could affect our DWW LOB services and the development of a strategy to address and mitigate those effects. Given that our understanding of climate change is continually involving, these investments will enable us to obtain and use the best available science over time.

Description of the problem this action solves

Changes in the timing and intensity of rainfall and snowpack accumulation may dramatically affect SPU's built and natural utility infrastructure, and the reliability of the services that depend upon those systems. Sea level rise also has implications for the location and functioning of SPU's infrastructure, especially storm and sewer pipes and pump stations.

While we have enhanced our understanding over the past several years of the implications of climate change on SPU's systems, we have an incomplete and inadequate understanding of those implications. There is considerable uncertainty regarding the exact nature, magnitude and timing of those climate impacts; this uncertainty challenges SPU's ability to implement appropriate management and adaptation strategies. Continuing to strengthen and enhance our understanding of climate change will enable us to make sound infrastructure investments and develop resilient utility systems that support the reliability of the overall system, our services, and ultimately, Seattle's livability.

More detailed description of the proposed action

As described below, this proposal builds on existing work to complete an evaluation that will enhance our understanding of the exposure and sensitivity of our drainage and wastewater (DWW) systems to sea level rise and changes in precipitation patterns. This product will set the stage for the development of subsequent products, including an adaptation strategy for the DWW LOB, as

well as the updating of Intensity, Duration and Frequency (IDF) curves, which are used to inform the design of capital projects, as well as obtaining the next generation of climate data. In addition, this proposal will further our understanding of the vulnerability of our drinking water watersheds to climate change. All of the aforementioned work will be funded via O&M at a cost of roughly \$120,000/year on average.

The proposal also includes the implementation of two adaptation options for the drinking water LOB that were identified and evaluated as Tier 1 options (i.e., options that would be implemented first) in 2007:

- The first Tier 1 option is the Chester Morse refill, which allows us to fill the lake to a higher elevation but also requires significant analysis to address the regulatory needs of the State Dam Safety Office. Chester Morse refill would be funded by O&M.
- The second Tier 1 option, improvements to overflow dike, would be funded via CIP dollars, and augments the effectiveness of the Chester Morse refill project. These two adaptation options would significantly enhance our ability to store additional water, which will help us deal with the year to year climate variability that we face now as well as longer term climate change. The following proposed activities build on existing practices¹ to help us adapt to climate-related threats and continue to meet our customers' expectations for service levels into the future.

Drainage and Wastewater

- Identify precipitation thresholds for basins not influenced by Puget Sound tides. This identifies how sensitive our piped drainage and wastewater network is to changes in precipitation.
- Evaluate a portfolio of adaptation strategies (operational, maintenance, new or renovated infrastructure, etc.) that can be implemented to improve preparedness for increased frequency and severity of urban flooding, higher sea levels and sewer back-ups.

Drinking Water

- Evaluate climate-related vulnerabilities of the Tolt and Cedar watershed ecosystems (including water supply, forest fires, habitat, and wildlife) and develop adaptation strategies. Fund 0.2FTE for this work.
- Make improvements to the overflow dike separating Masonry Pool and Chester Morse Lake in the Cedar Watershed and modifying reservoir operations will increase our ability to manage flood events, water storage, and downstream flow concerns related to changing precipitation patterns.

SPU-wide – Institutionalize best practices

- Update climate change projections in 2019 to keep SPU's climate impacts assessment current and provide a common climate framework across SPU.

¹ Current baseline climate-related activities include: obtaining and using the current generation of climate projections, improving storm event and overall weather forecasting capabilities, collaborating with other City departments on a city-wide adaptation strategy, interacting climate considerations in SPU's capital planning; evaluation of a portfolio of adaptation strategies for inclusion in the 2019 Water System Plan and participating in water-industry and federal government climate initiatives.

Implementation plan and timeline

O&M: Gap Action Plan (excluding 0.2 FTE cost)	2015	2016	2017	2018	2019	2020
Non-tidal basin study (DWW Climate Resiliency Study)	\$60K					
DWW adaptation study and strategy		\$150K	\$100K	\$100K	\$100k	
Update of Intensity, Duration, Frequency curves	\$40K	x	x	x	x	\$40K
Watershed vulnerabilities studies	\$20K	x				
Implement Tier 1 adaptation: Chester Morse refill	\$490K	\$500K				
CIP: Gap Action Plan						
Implement Tier 1 adaptation option: Overflow Dike	\$1,480K	\$2,053K				

Budget and FTE Changes (in \$000s)

Fund: Drainage & Wastewater AND Drinking Water Funds

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	0	0	0	0	0	0	\$0
O&M Non-Labor	625	683	108	110	113	46	\$1,685
<i>O&M Subtotal</i>	625	683	108	110	113	46	\$1,685
CIP	1,480	2,053					\$3,533
<i>Total O&M and CIP</i>	\$2,105	\$2,736	\$108	\$110	\$113	\$46	\$5,218
FTE	0	0					

NOTE: Initial Action Plan to the Customer Panel included 0.2 FTE in 2015-16; this cost is now absorbed within baseline resources.

Plan for evaluating success or progress

This proposal includes developing reporting metrics in 2015.

Focus Area: Protecting your health and our environment

Action Plan: Decentralized “Green” Systems

Strategic Objective: Anticipate, adapt to change

Owner: Nancy Ahern, Deputy Director, Utility Systems Management Branch

Summary of proposed action

Evaluate the challenges and opportunities created by the increasing availability of- and interest in- emerging, decentralized alternatives to SPU-provided services (e.g., onsite rain capture and treatment in lieu of centralized water and sewer systems). Develop policies to respond to the growing interest in decentralized utility systems.

Description of the problem this action solves

Traditionally, utility services have been provided through centralized systems that distribute water via a city-wide treatment and distribution network of pipes, or collect sewage and drainage via a sewer network that carries wastewater to a central treatment plant. Today, traditional utilities such as SPU are faced with responding to growing interest in smaller, decentralized or distributed approaches to providing the same services, at a building or neighborhood scale. Recent examples of decentralized systems proposed by Seattle developers include:

- The Bullitt Foundation’s “*Bullitt Center*” is the first commercial building to meet the Living Building Challenge; it seeks to capture rainwater for tenants’ use and treats most sewage and rainwater runoff on site.
- Amazon.com Inc.’s proposed downtown campus includes potential water reuse for non-potable use.
- Gates Foundation Headquarters harvests rainwater for non-potable uses.
- Yesler Terrace Redevelopment is considering storm water harvesting and reuse.

Most decentralized or distributed approaches seek to replace or augment centrally provided services with site-scale facilities – in some cases, seeking to go completely “off the grid.” While still a tiny piece of the utility pie, these decentralized systems could, over time, have far-reaching effects on the provision of utility services.

SPU has participated in the projects described above, but currently lacks a good understanding of the potential long-term impacts of decentralized systems on our customers, the environment, and utility services. We have not yet developed comprehensive policies relating to private development involving decentralized systems or included them in system planning. Important policy questions raised by the increasing interest in decentralized systems include:

- What type of infrastructure and service delivery will best serve SPU’s customers 20-30 years from now?
- Could rainwater harvesting help reduce flooding or mitigate reduced drinking water supplies due to climate change?
- What are the impacts of increased infiltration on groundwater?
- How can system costs be fairly allocated if some users reduce or eliminate their regular consumption?
- Who will ensure decentralized drinking water systems are properly operated and/or take them over when they fail?

More detailed description of the proposed action

SPU would form a cross-Branch Team to develop a proactive utility approach to decentralized systems, assess the potential pros and cons of different decentralized systems, and develop recommended policies to serve the long-term interests of our customers. The Team will:

- Gather information about technology, codes, regulations and other issues/benefits associated with decentralized/distributed systems.
- Organize a workshop that would bring experts from other utilities, industry associations, and research/non-profits to Seattle to help inform SPU how other organizations are tackling these issues.
- Develop a Decentralized System Strategy Report within 18 months that:
 - Defines the regulatory responsibilities related to decentralized systems.
 - Benchmarks what is being done on this topic in other places and institutions.
 - Describes how decentralized systems specifically affect each Line of Business.
 - Projects the likely pace and extent of demand or adoption of different decentralized technologies.
 - Identifies and prioritizes policy issues.
 - Recommends how the utility can best take advantage of the opportunities and manage the challenges from decentralized systems while continuing to provide high quality utility services.
 - Allows us to develop new policies on the decentralized approach when we have sufficient information.
 - Recommends next steps, including areas of focus, staff and resource levels, information-gathering, and policy development.

Beyond 2016, work will be guided by the report, and will likely include policy development and code revisions.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
Gather information, benchmark other places	x					
Workshop	x					
Decentralized Systems Strategy Report		x				
Next Steps		x	x	x	x	x

Budget and FTE Changes (in \$000s)

Fund: Multiple Funds

	2015	2016	2017	2018	2019	2020	Total
O&M Labor							\$0
O&M Non-Labor	0	0	0	0	0	0	\$0
O&M Subtotal	0	0	0	0	0	0	\$0
CIP							\$0
Total O&M and CIP	\$0						
FTE	0	0	0	0	0	0	

NOTE: The initial Action Plan to the Customer Panel included \$50,000 in O&M non-labor resources in 2015 and \$30,000 in each succeeding year; this cost is now absorbed within baseline resources.

Plan for evaluating success or progress

To be determined.

Focus Area: Protecting your health and our environment

Action Plan: Energy Management & Carbon Neutrality

Strategic Objective: Stewardship

Owner: Paul Fleming, Corporate Asset Management Division

Summary of proposed action

Conduct a variety of assessments and implement a program so SPU can achieve net zero greenhouse gas (GHG) emissions (i.e., carbon neutrality) by 2015, as directed by Executive Order #2013-02, Oct 2013.

Description of the problem this action solves

SPU's routine operations (e.g., use of its automobile fleet, heavy equipment, and water treatment facilities) emit thousands of tons of GHGs every year. In 2009, SPU's activities emitted ~14,000 metric tons of GHGs. This is roughly equivalent to the annual emissions from 2900 passenger vehicles². Seattle City Light, which has been carbon neutral since 2005, annually purchases carbon offsets in the range of 100,000 to 300,000 metric tons. This proposal reflects a significant policy change and strategy to achieve net zero GHG emissions by 2015.

More detailed description of the proposed action

The proposed Energy Management & Carbon Neutrality Program (EMCNP) builds on the existing (baseline) work on the 2013 GHG inventories and policy work being completed in 2013 and 2014.

In the near term (2014-2020), the EMCNP reduces SPU's GHG emissions by funding a half-time staff position to create an annual inventory of SPU's emissions and contribute to the development and implementation of the carbon neutral strategy. The staff also would monitor SPU's energy use, assess opportunities to generate renewable energy within SPU's operations, implement energy efficiency measures, and purchase carbon offset credits and renewable energy credits as needed to achieve net carbon neutrality.

The longer term strategy combines the purchase of offset credits with implementation of energy efficiencies identified in the studies (funded by this proposal) and onsite energy generation. (Funding of the anticipated energy renewal and efficiency projects is not included in this proposal; we will propose such funding through SPU's ongoing infrastructure development program, also known as the CIP (Capital Improvement Program)).

The near and long term strategies result in a sustained effort to manage and reduce SPU's energy consumption and GHG emissions, as well as making SPU one of the first water utilities in the U.S. to achieve carbon neutrality.

² Assumes fuel economy of 21.5 mpg and annual vehicle miles traveled of 11,493.

Implementation plan and timeline

	2014	2015	2016	2017	2018	2019	2020
Develop and verify annual inventory of SPU's GHGs.	x	x	x	x	x	x	x
Identify options for energy efficiency measures	x						
Conduct renewable energy potential assessment (REPA)	x	x					
Identify and resolve carbon neutrality policy issues	x						
Develop draft carbon neutrality portfolio pathways	x	x					
Implement recommendations for pump station optimization		x					
Further develop REPA strategies		x					
Implement carbon neutrality portfolio (carbon offset credits)		x	x	x	x	x	x
Conduct efficiency studies as needed to identify more opportunities to reduce emissions			x	x	x	x	
Request capital funds needed for renewable energy work			x	x	x	x	x
Evaluate and adjust carbon neutrality portfolio				x		x	

Budget and FTE Changes (in \$000s)

Fund: All three funds

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	0	0	0	0	0	0	\$0
O&M Non-Labor	205	210	215	221	226	232	\$1,309
O&M Subtotal	205	210	215	221	226	232	\$1,309
CIP							\$0
Total O&M and CIP	\$205	\$210	\$215	\$221	\$226	\$232	\$1,309
FTE	0	0	0	0	0	0	

NOTE: The initial Action Plan to the Customer Panel included 0.5 FTE in 2015-2020; this cost is not absorbed within baseline resources.

Plan for evaluating success or progress

Monitor SPU's greenhouse gas emissions over time and evaluate the effectiveness of the carbon neutrality portfolio in achieving neutrality and in addressing other policy objectives.

Focus Area: Protecting your health and our environment

Action Plan: Watershed Roadways

Strategic Objective: Partnership w/ stakeholders

Owner: Cyndy Holtz, Suzy Flagor, Cedar River Municipal Watershed

Summary of proposed action

This proposal provides funding to implement work, required by law and regulation, on up to 121 miles of forest roads within the City's Cedar River Municipal Watershed (CRW), the source of 70% of the City's drinking water, to help facilitate the Muckleshoot Indian Tribe's (MIT) access to traditionally significant hunting, gathering and spiritual sites. Adds 2 FTE.

Description of the problem this action solves

SPU has been in ongoing discussions with the MIT on how it can honor the MIT's interests as it relates to exercising their tribal rights to access the watershed, while upholding the terms of the Habitat Conservation Plan (HCP) and taking into consideration operational costs and impacts to drinking water rate payers. In October 2013, the City reached a preliminary agreement with the MIT on a level of road retention within the CRW. This proposal funds both the maintenance and improvement on those roads we agreed not to abandon immediately.

More detailed description of the proposed action

One of the City's mitigation obligations under the HCP is to decommission 236 miles of forest roads in the CRW. The MIT has expressed concerns about SPU's decommissioning of certain roads that SPU has identified for removal. These roads are either not needed for SPU's operations and/or are in poor condition, and in some cases contribute sediment into stream and creeks in violation of State forest and fish protection laws. These roads are also more expensive to maintain than to decommission.

SPU and MIT have reached preliminary agreement that SPU will decommission only 236 miles of road, as required under the HCP, and will retain 121 miles of road originally slated for abandonment as part of the approved 2010 CRW Transportation Business Cases. Once SPU completes decommissioning as required by the HCP in approximately 10 years, SPU will start new discussions with MIT on possible further road decommissioning.

Funding is sought for the following elements:

- Additional road improvement projects within the 121 mile expansion of the permanent road system resulting from access needs expressed by the MIT. These roads had been slated for decommissioning per the adopted 2010 Cedar River Watershed Transportation Management Plan.
- Maintenance for the added 121 miles of roads.
- Improved access to traditional hunting, gathering and spiritual sites.
- 2 FTE positions, a Forest Maintenance Worker and an Equipment Operator.

Benefits of the proposed action

This proposal helps us honor our commitment and legal obligation to the Muckleshoot Indian Tribe.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
Improvements within additional 121 miles of road	214K	214K	214K	214K	214K	214K
Maintain 121 miles of road	188K	188K	188K	188K	188K	188K
Improve access to hunting and spiritual sites (costs included above)	x	x	x	x	x	x

Budget and FTE Changes (in \$000s)

Fund: Drinking Water

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	52	54	55	56	58	59	\$334
O&M Non-Labor	73	75	76	78	80	82	\$464
<i>O&M Subtotal</i>	125	129	131	134	138	141	\$798
CIP	280	280	280	280	280	280	\$1,680
<i>Total O&M and CIP</i>	\$405	\$409	\$411	\$414	\$418	\$421	\$2,478
FTE	2.00	2.00	2.00	2.00	2.00	2.00	

Note: A portion of the staff cost is captured in the CIP budget.

Plan for evaluating success or progress

To be determined.

Focus Area: Protecting your health and our environment

Action Plan: Street Sweeping

Strategic Objective: Environmental & Health mandates

Owner: Shelly Basketfield, Utility Systems Management Branch

Summary of proposed action

Expand the existing street sweeping program to increase the sweeping frequency, extend the sweeping season, and add a route. This increases the annual amount of pollutants removed by 40 percent (more than 400 tons from the streets and 40 tons from the City’s drainage system) and contributes importantly to the water quality of our urban streams, Lake Washington, and Puget Sound.³

Description of the problem this action solves

Streets constitute more than 16% of Seattle’s surface area and they are the source of more than 40% of the total stormwater pollutant load. Street sweeping is a very cost-effective, flexible stormwater pollution control practice that removes pollutants from streets, keeping it out of storm drains where it would be carried untreated into creeks, lakes, the Duwamish River, and Puget Sound. Once in the aquatic sediments, contaminants present long-term, persistent risks to aquatic and human health.

The expansion of the existing street sweeping program cost-effectively increases the annual collection of street-borne pollution from about 100 tons to about 140 tons (~230 dump truck loads). Using state-of-the-art regenerative air technology, sweeping does a good job to remove the very fine (less than one sixth the diameter of a hair) particulates that, pound for pound, carry more pollutants than the larger particles. Collected contaminants of consequence include:

- Metals from automobile wear (copper from brake pads, zinc from tires, nickel and chromium from engines)
- Organic compounds from automotive exhaust (poly-aromatic hydrocarbons (PAHs), which are cancer-causing)
- Tree detritus (leaves and needles) that stimulates algae growth and depletes oxygen in water (harming fish, and other aquatic life).

More detailed description of the proposed action

Street Sweeping is a collaboration between SPU and Seattle Department of Transportation (SDOT); SPU directs and pays for the sweeping routes that discharge water directly to “receiving waters,” while SDOT provides the sweeping services and funds the routes that drain to a sewage treatment plant.

Expanding the existing street sweeping program in 2016 would increase the swept distance by 10,700 curb-miles per year, as depicted in the following table. The primary change is to increase the number of routes swept each week, from 4 to 21.

	Schedule			Outcomes <small>(Storm Drain related, only. Not SDOT Sewer)</small>		Efficiency
	Sweeping Season <small>(weeks)</small>	Number Routes ⁴	Number of Weekly Routes	Swept Distance <small>(curb-miles/year)</small>	Pollutants Removed <small>(tons/year)</small>	Unit Cost <small>(\$/lb. of pollutant per year)</small>
Current program	40	24	4	10,000	100	5
Proposed Program	46 to 48	25	21	20,700	140	7

³ This program expansion will be submitted to the Washington Department of Ecology and EPA for consideration as part of the Integrated Plan being developed to comply with the CSO Consent Decree. The proposed expansion will be a regulatory requirement if the Integrated Plan is approved.

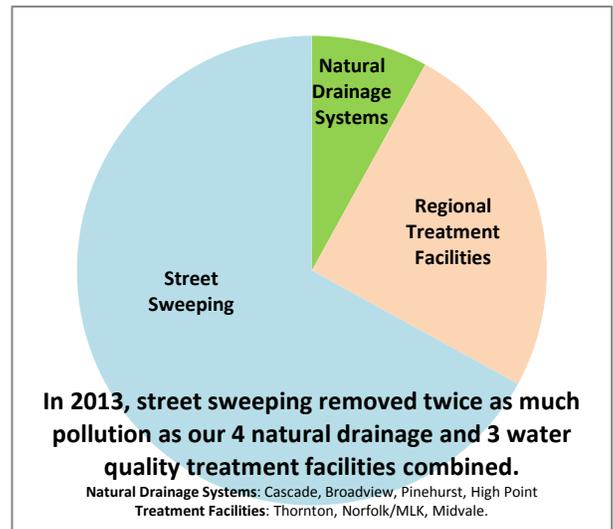
⁴ A typical route is approximately 30 lane miles long and covers. About 75% of a typical route discharges to storm drains; 25% runs off to the combined sewer system.

Benefits of the proposed action

Street sweeping is a very effective means of removing pollutants before they reach water and aquatic sediments. Since 2011, more than 27,000 curb-miles of pavement have been swept, removing 3,500 tons of street solids at a life-cycle cost of about \$5/pound of pollutants removed per year, substantially out-performing conventional stormwater treatment.

This proposal removes an additional 40 tons of pollutants per year at a cost of \$11/pound of pollutant removed per year. To reduce an equivalent load with a water quality treatment facility, a capital budget between \$10 and \$20 million would be needed, and cost per pound of pollutant removed would be between \$15 and \$25. Plus, with street sweeping, we can start the cleaning immediately, and not wait to site, permit, and build a facility.

Street sweeping also provides multiple city-wide benefits (clean water, clean streets, and clean air). Extending the sweeping season to include fall leaf drop season also reduces flooding related to leaf-blocked drainage inlets.



Implementation plan

The program expansion will commence in 2016. Milestones include:

- **2014** – Develop new routes that optimize sweeping time, travel, and dump times as well as meet pollution removal objectives.
- **2015** – SDOT tests and adjusts routes, if needed. Buy new sweeper, if needed. Hire 2.5 FTE operators.
- **2016** – Begin expanded schedule route sweeping.

Budget and FTE Changes (in \$000s) 5

Fund: Drainage & Wastewater

		2015	2016	2017	2018	2019	2020	Total
O&M Labor & Non-labor	Sweeping (SDOT)	0	809	829	850	871	893	\$4,252
O&M Non-labor	Monitoring (SPU)	\$0	\$0	\$51	\$52	\$53	\$0	\$156
O&M Subtotal		\$0	\$809	\$880	\$902	\$924	\$893	\$4,408
CIP	New Sweeper	\$345						\$345
Total O&M and CIP		\$345	\$809	\$880	\$902	\$924	\$893	\$4,753
FTE - SDOT			2.5	2.5	2.5	2.5	2.5	

The O&M Labor & Non-Labor for SDOT shows as Non-Labor in SPU's budget.

Plan for evaluating success or progress

Program metrics include pollutant load reductions and program cost-effectiveness, from an operating cost per curb-mile basis and a life-cycle per mass of pollutant removed basis. The following information will be collected:

- Miles swept from GPS derived distance and time sweeping on the route, on the storm drain routes, and traveling to and from the route.
- Load removed from onboard scale readings for each route and truck scale readings for the wet load hauled from the temporary stockpiles to the disposal facility.
- Sample measurements from the temporary stockpiles which indicate the level of contaminants in the sweepings.

⁵ The budget estimate and FTE changes are for the portion of the routes that drain to receiving waters. SDOT will fund the portion of the routes draining to the sewage treatment plant (~25% of the total sweeping effort or ~\$250,000) using General Funds it will request in the 2015 budget submittal.

Focus Area: Improving how we work to deliver consistent, high quality services

Action Plan: Drainage and Wastewater Planning & Policies

Strategic Objective: Service quality

Owner: Julie Crittenden & Gary Schimek, Utility Systems Management Branch

Summary of proposed action

This Action Plan improves the quality of Drainage and Wastewater services through accelerated mapping, modeling, planning, and policy development.

Description of the problem this action solves

SPU's Drainage and Wastewater services tend to be reactive and largely in response to regulatory requirements or immediate problems. This action plan allows SPU to become more strategic and proactive in addressing Drainage and Wastewater needs. This includes planning for future growth, collaborating with major transportation projects that affect our infrastructure, and addressing current service level shortfalls in an integrated and systematic way. We also have critical policy gaps that lead to challenges when working with the development community and delineating responsibilities between SPU and other City departments.

More detailed description of the proposed action

This proposal addresses Drainage & Wastewater planning and policy needs through enhanced efforts in three areas:

- Geographic-area specific "Master" planning to identify current and anticipated future DWW system needs -- and to specify the capital projects and other investments that will address flooding, water quality and sewer overflow issues.
- Updated, more comprehensive mapping and modeling of our D&WW infrastructure so these basic tools can be used to define, investigate, and plan improvements.
- Clarification and development of policies that will support the work of the newly created Development Services Office and resolve conflicts with other City departments.

Master Planning: DWW's current planning efforts are focused on regulator-required, issue-based plans (such as the Combined Sewer Overflow Long-term Control Plan) and a variety of "one off" plans addressing specific problems, development projects or transportation projects. Recently, we have undertaken more rigorous planning and capital development efforts in areas such as Broadview and South Park (the subject of another Action Plan). This Action Plan would allow SPU to continue master planning for defined geographic areas in order to integrate sewer, drainage, water quality and natural systems into a comprehensive strategy to guide capital projects, development regulation, and operating programs. The two additional FTEs (one in USM, one in FOM) and \$250k in consultant funding would support four to six new Master Plans by 2020.

Mapping, Modeling and GIS Analysis: Fundamental to running a line of business is an accurate understanding of the location and condition of infrastructure and how well it functions. This proposal allows for continuation of existing efforts to collect information about the location and condition of our assets; develop, calibrate and maintain DWW system models; and improve GIS mapping. Existing drainage system mapping and GIS analysis will be continued past 2016 by converting one temporary position to an FTE. An additional FTE will increase the rate of problem investigation and early CIP development.

Policy: This Action Plan allows unresolved policy issues to be addressed faster than would be possible under baseline resources and increases support and coordination for the new Development Services Office.

Examples of issues where clearer, updated policies are needed include: ownership and maintenance of drainage culverts; requirements and possible cost-sharing for mainline extensions from new development; and clear delineation of responsibilities for surfacing groundwater.

Benefits of the proposed action

- Develop Master Plans to identify system improvements and capital investments for four to six geographic areas. Anticipated planning areas include North Lake Union (including Fremont, Wallingford, Green Lake, and Densmore), Thornton Creek, Longfellow Creek (Delridge), the Duwamish River (South Park).
- Enhance the quality and utility of technical information that supports the D&WW line of business through system mapping, modeling, and GIS documentation.
- Ensure that adequate policies addressing items such as mainline extensions, latecomer agreements, and groundwater are in place.
- Ensure that our services and capital projects are being planned in an integrated manner across the line of business, and they are responsive to future growth.
- Ensure that services are provided equitably.

Implementation plan – Resources by Element

	FTEs	Labor O&M	Non-labor O&M ¹	Total O&M	CIP
Planning	2	\$200k	\$250k	\$450k	0
Mapping, Modeling & GIS	2	\$200k	\$130k	\$330k	0
Policy	1	\$100k	0	\$100k	0

¹ Non-labor O&M includes consultant contracts and technical support above the baseline.

Budget and FTE Changes (in \$000s)

Fund: Drainage & Wastewater

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	513	525	538	552	566	580	\$3,274
O&M Non-Labor	390	399	409	419	430	441	\$2,488
<i>O&M Subtotal</i>	903	924	947	971	996	1021	\$5,762
CIP	-	-	-	-	-	-	\$0
<i>Total O&M and CIP</i>	\$903	\$924	\$947	\$971	\$996	\$1,021	\$5,762
FTE	5.00	5.00	5.00	5.00	5.00	5.00	

Plan for evaluating success or progress

- Track the number of master plans developed. Goal is 4-6 Master plans developed.
- Track the number of policy gaps resolved. Goal is 1-2 per year.
- Percentage of DWW systems modeled. Goal is 80% by 2018 (5 years sooner than under baseline).
- Baseline system/asset mapping in GIS completed.

Focus Area: Improving how we work to deliver consistent, high quality services

Action Plan: Accelerate Broadview and South Park Projects

Strategic Objective: Service quality

Owner: Andrew Lee, Gary Schimek, Utility Systems Management Branch

Summary of proposed action

Accelerate the implementation of already-planned infrastructure improvements to reduce surface flooding, sewer backups, and related human health, safety and property damage issues in the South Park and Broadview neighborhoods.

Description of the problem this action solves

- Recurring surface flooding and sewer backups in the Broadview neighborhood in NW Seattle and the South Park neighborhood in the Duwamish basin.
- Underperforming and inadequate drainage and wastewater infrastructure due to historical development patterns in these areas.
- This action plan will increase funding in order to accelerate implementation of planned work to address chronic problems in these two areas.

Benefits of the proposed action

- Reduce street flooding, surface flooding and sewer backups for the residents and visitors in the South Park and Broadview neighborhoods.
- In the South Park neighborhood, accelerated capital work under this Action Plan will, by 2020, bring us roughly half-way to the desired service level of no more than one serious flood every 25 years. (Additional funding of about \$15M - 20M will be needed to complete the work.) Under the baseline funding, work in South Park would likely extend until 2030 or 2040. With the Action Plan, work can be completed ten years earlier.
- In the Broadview neighborhood, accelerated capital work under this Action Plan will address about 50% of the area's flooding and sewer back-up problems (up from an estimated 33% solution in the Baseline) by 2020. Under the baseline funding, work in Broadview would likely extend until 2030-2040. With the Action Plan, work could be completed between 2020 and 2030.

More detailed description of the proposed action

South Park: The South Park Pump Station and Water Quality Project, currently under way and funded in the Baseline, will construct a new water quality facility to treat stormwater flowing into the Duwamish River, as well as a new stormwater pump station to alleviate surface water flooding in the lower South Park basin during high tides. To completely solve the existing severe flooding problem in the basin, additional capital improvements are needed to improve the pipe conveyance system and carry water to the new pump station. The DWW baseline capital program includes a \$1.5M project to start this work; this Action Plan provides \$2M of additional funding to accelerate conveyance (i.e., new stormwater pipelines) improvements.

Broadview: In the Broadview basin, a project is under way to solve flooding and sewer backup problems. More than \$70M of sewer and drainage improvements has been identified to address the basin's problems. Between 2012 and 2017, about \$22 M has been budgeted in the baseline, which would address about 30% of the needed work. This Action Plan would provide additional funding to accelerate the system

improvements by \$2 M per year from 2015 – 2020, which will enable completion of Broadview sewer and drainage improvements (e.g., pipeline upsizing, new underground storage, side sewer improvements, and natural drainage systems) approximately ten years earlier than would be possible under baseline funding.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
South Park		\$2M	\$2M	\$2M	\$2M	\$2M
Broadview		\$2M	\$2M	\$2M	\$2M	\$2M

Budget and FTE Changes (in \$000s)

Fund: Drainage & Wastewater

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	-	-	-	-	-	-	\$0
O&M Non-Labor	-	-	-	-	-	-	\$0
<i>O&M Subtotal</i>	0	0	0	0	0	0	\$0
CIP		4,000	4,000	4,000	4,000	4,000	\$20,000
<i>Total O&M and CIP</i>	\$0	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$20,000
FTE	0.0	0.0	0.0	0.0	0.0	0.0	

Plan for evaluating success or progress

- % completion of Broadview and South Park capital projects
- Attainment of flooding and sewer back-up service levels for Broadview and South Park residents

Focus Area: Improving how we work to deliver consistent, high quality services

Action Plan: Sewer Inspection and Rehabilitation

Strategic Objective: Service Quality

Owner: TBD, Field Operations and Maintenance Branch

Summary of proposed action or investment

By 2020, increase the annual level of rehabilitation of sewer pipes spending by \$15.5 million to \$21 million. (The \$21M includes baseline spending of \$5.5 million, described below.) This, combined with the Sewer Cleaning proposal, will allow SPU to significantly reduce the risk of exceeding the regulatory maximum of four sanitary sewer overflows per 100 miles of sewer pipe.

Description of the problem this action solves or addresses

The baseline Capital Improvement Program (CIP) budget provides \$4.5 million in 2013 and \$4.74 million in 2014 (and onward) for rehabilitating sewer pipes. This funding level is insufficient to rehabilitate even our greatest risk sewer pipes through 2020.

More detailed description of the proposed action or investment

First, \$60.5 million will fund additional rehabilitation work on SPU's gravity flow sewer pipes, as follows:

- We will conduct a multi-factor risk analysis of each pipe and rehabilitate all pipes with a risk value of 70 or above, by 2020. This proposal allows more than 218 additional miles of pipe to be rehabilitated, for a total of more than 335 miles of rehabilitated pipe over the six-year period. Evaluation, risk assessment, and rehabilitation will continue past 2020; it is an ongoing body of work.
- Funds 7 new FTE added, beginning in 2016 and continuing past 2020. This includes:
 - Three (3.0) positions to staff planning, scheduling and system support to identify the highest-risk pipes, then plan and schedule rehab work. One position replaces a temporary position and therefore requiring no additional funding.
 - Four (4.0) positions to staff two new 2-person crews to examine (via closed circuit television (CCTV)) the selected pipes.

Additionally, \$500,000 per year will be spent to rehabilitate sewer force mains. In 2014, SPU will conduct a pump station condition assessment which staff believe will reveal moderate and severe structural defects needing rehabilitation.

Benefits

This Action Plan provides several critical benefits:

- It lowers our risk of exceeding the regulatory maximum for sanitary sewer overflows of four backups per 100 miles of pipe; if this maximum is exceeded, we risk losing the flexibility the Environmental Protection Agency and the State Department of Ecology have given us to deal with water quality problems.

- By reducing the number of sanitary sewer overflows, we provide an appropriate and expected level of service to our customers.
- By funding a reasonable level of rehabilitation, we maintain the integrity of our infrastructure and avoid the large, unplanned future costs that would result from deferring needed work.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
Purchase and overhaul CCTV trucks	x					x
New CCTV staff perform inspections		x	x	x	x	x
New staff conduct planning, scheduling and system support		x	x	x	x	x
Contractors rehabilitate pipes		x	x	x	x	x

Budget and FTE Changes (in \$000s)

Fund: Drainage & Wastewater

The table below provides the cost detail for this Action Plan.

- **O&M labor costs** - assumes totally loaded staff cost of \$100K/year. (One of the seven (7) new positions is funded in the baseline, as mentioned above.)
- **O&M non-labor costs** – operating two CCTV trucks
- **CIP costs**
 - ✓ \$1.1 million for the purchase of two new CCTV trucks in 2015
 - ✓ \$250K to overhaul the two trucks in 2020
 - ✓ \$500K/year - sewer force main rehabilitation
 - ✓ An increasing amount for rehabilitation of gravity flow pipes:
 - \$6.0M in 2016
 - \$12.0M in 2017
 - \$13.5M in 2018 and 2019, and
 - \$15.5M in 2020.

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	0	200	600	600	600	600	\$2,600
O&M Non-Labor		126	126	126	126	126	\$630
O&M Subtotal	0	326	726	726	726	726	\$3,230
CIP	1,100	6,500	12,500	14,000	14,000	16,250	\$64,350
Total O&M and CIP	\$1,100	\$6,826	\$13,226	\$14,726	\$14,726	\$16,976	\$67,580
FTE	1	3	7	7	7	7	

Plan for evaluating success or progress

SPU will use the following metrics to evaluate this effort.

- Dollar expenditures on sewer pipe rehabilitation per year
- Percent of highest-risk pipes inspected, assessed, and if needed, rehabilitated
- Number of sewer backups per 100 miles of pipe

Focus Area: Improving how we work to deliver consistent, high quality services

Action Plan: Sewer Cleaning

Strategic Objective: Service quality

Owner: John Holmes, Field Operations and Maintenance Branch

Summary of proposed action

Increase the percentage of sewer pipes on maintenance and cleaning schedules to a best-practice level of 50%. This, combined with the Sewer Inspection and Rehabilitation Action Plan (OE-3), will allow SPU to significantly reduce the risk of exceeding the regulatory maximum of four sanitary sewer overflows per 100 miles of sewer pipe.

Description of the problem this action solves

Currently, only 21% of SPU's 1,416 miles of sewer pipe are on maintenance and cleaning schedules. Baseline additions will increase this to 25%, which is an improvement but still significantly below best practice levels. More than 1,100 miles of pipe are not routinely inspected for safety, leakage, or basic functioning. Pipes are placed on a cleaning schedule after they back up (potentially causing street flooding, property damage, public health issues, or environmental damage), or if maintenance problems are otherwise identified.

Once pipes are on a maintenance schedule, crews are very good at following the schedule (it has been several years since a sewer backup has been caused by missed maintenance), however we are far below best practice levels of pipe maintenance. The number of annual backups is approaching the regulatory maximum of four backups per 100 miles of pipe.

More detailed description of the proposed action

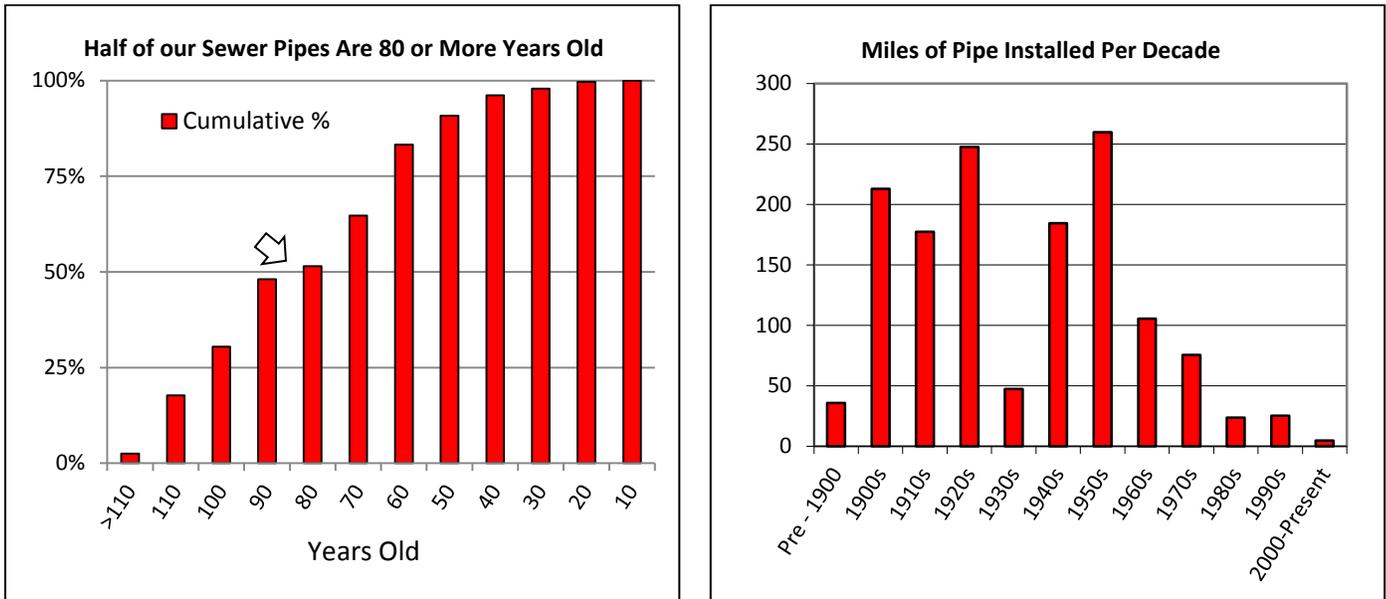
This proposal increases the percent of our total sewer pipe infrastructure that will get routine maintenance to 50% by 2020.

At an average age of 80 years of age, regular pipe maintenance and cleaning are required to keep the overall system functioning well. (See graphs, below).

A benchmarking study suggests having 50% of our pipes on a cleaning and maintenance schedule. We project that expanding routine maintenance and cleaning to 50% of our pipes by 2020 will reduce overflows from the current 3.8 annual overflows per 100 miles of pipe to about 2 overflows per 100 miles of pipe.

Moving from 25% of pipes to 50% of pipes on a maintenance schedule will require targeted assessment and selection of at-risk pipes – this will be supported by inspection crews using Closed Circuit Television (CCTV), as described in the Sewer Inspection and Rehabilitation Action Plan.

Figure 1.
50% of SPU's sewer pipes are more than 80 years old



Staffing

Currently 21 wastewater field employees are cleaning and maintaining sewer pipes. Assuming current levels of productivity by field crews, this proposal adds 14 wastewater field employees by 2020. However, this increase is largely offset by efficiency measures being undertaken over the same time period.

- Through increased productivity, we expect to decrease the number of wastewater field employees by 13 positions by 2020. This assumes increasing the average number of jobs per day from the current 3.5-4 jobs per day per crew to 8 jobs per day per crew. Furthermore, this assumes SPU builds a south-end grits facility, funding for which is included in the baseline CIP budget.
- Overall, between this proposal and the offsetting productivity gains, we expect to increase a net increase of one (1) wastewater field employees by 2020, relative to the baseline.

Changes in staffing for Sewer Pipe Cleaning	2015	2016	2017	2018	2019	2020
Baseline staffing levels	21	21	25	25	25	25
Plus adds in this Action Plan	10	13	13	13	14	14
Less efficiencies from increased productivity	-6	-9	-13	-13	-13	-13
New staffing levels	25	25	25	25	26	26

Equipment

This additional staff requires the purchase of two vactor trucks (\$500K each); the trucks have a 5-year life expectancy and annual operating costs of \$182K.

Benefits of the proposed action

The benefits of this proposal are threefold:

- It lowers our risk of exceeding above our regulatory maximum for sanitary sewer overflows; if this maximum is exceeded, we risk losing the flexibility the Environmental Protection Agency (EPA) and the State Department of Ecology (WSDOE) have given us to deal with water quality problems.
- It funds a reasonable level of annual pipe maintenance, thereby avoiding large, unplanned costs in the future.
- It reduces the impacts of flooding and backups on our customers.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
Staff level increases over the years to achieve 50% target in 2019 (see budget table below to see staff costs (O&M Labor) increasing over time)	x	x	x	x	x	x
Purchase vector trucks	x					

Budget and FTE Changes (in \$000s)

Fund: Drainage & Wastewater

	2015	2016	2017	2018	2019	2020	Total
O&M Labor*	\$1,025	\$1,366	\$1,400	\$1,435	\$1,584	\$1,624	\$8,434
O&M Non-Labor	\$187	\$191	\$196	\$201	\$206	\$211	\$1,192
<i>O&M Subtotal</i>	\$1,212	\$1,557	\$1,596	\$1,636	\$1,790	\$1,835	\$9,626
CIP	\$1,000						\$1,000
<i>Total O&M and CIP</i>	\$2,212	\$1,557	\$1,596	\$1,636	\$1,790	\$1,835	\$10,626
FTE	10	13	13	13	14	14	

*The anticipated productivity/efficiency improvements, described above, largely offset these staff increases.

Plan for evaluating success or progress

SPU will use the following metrics to evaluate the success of this proposal:

- Average # jobs per day per crew. The target is 10 jobs per day per crew. In 2013, the actual number of jobs per day per crew is 6 jobs.
- Number of sewer backups per 100 miles of pipe. The regulatory maximum is 4 overflows per 100 miles of pipe per year. In 2013, the actual number of overflows per 100 miles of pipe was 3.7. An annual average closer to 2 overflows per 100 miles of pipe will significantly lower the probability of exceeding our regulatory maximum.

Focus Area: Improving how we work to deliver consistent, high quality services

Action Plan: Emergencies & Disasters

Strategic Objective: Effectiveness & Efficiency

Owner: Tim Ramsaur, Utility Support Division

Summary of proposed action

This proposal funds development of a comprehensive emergency plan, critical skill training, and workforce readiness to improve our capacity for maintaining and restoring vital utility services during an emergency.

Description of the problem this action solves

- 1) Out-of-date and unintegrated emergency response plans need to be updated to ensure the ongoing delivery of our life-safety and business services during or after a disaster or other emergency event.
- 2) Training on the updated plans will be key to their effective use in responding to emergencies, safeguarding the public, and moving quickly to recover from the event.
- 3) SPU's emergency plans need to align with recovery and resilience plans and efforts of the City, as well as King County and Washington State.
- 4) In order to qualify for mitigation grants from FEMA, SPU needs to track and document its work both on projects that are primarily disaster related (e.g., mapping flood plains, slide zone stabilization) as well as projects that have disaster-mitigation elements to them (e.g., seismic resistant water distribution pipes), even if they are not primarily focused on disaster mitigation.

More detailed description of the proposed action

This builds on existing work that meets local, state, and federal requirements, and develops the following elements to mitigate the potential impacts of disasters (especially potential loss of life and property damage) and support a workforce that is aware of its duties in the event of large scale emergencies:

1. Develops a comprehensive, integrated emergency response plan – including damage assessment, prioritization, and plans for mitigating negative impacts and disruption of services, as well as the identification of key staff roles and personnel readiness.
2. Provides training and exercises for key personnel on plans, procedures, functions, and communications in large scale emergencies.
3. Establishes a practice for identifying and tracking SPU's work that provides mitigation benefits.

Benefits of the proposed action

Greater likelihood of an efficient and effective response and recovery from an emergency or disaster that disrupts the delivery of critical utility services.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
Inventory existing emergency plans and other materials, identify and fill gaps in plan coverage, and develop up-to-date materials to meet post-emergency performance expectations	x					
Develop and conduct training		x	x	x	x	x
Continually review plan and update as needed		x	x	x	x	x
Develop business practices for tracking and documenting disaster-mitigation work undertaken in SPU's capital improvement program.	x					

Budget and FTE Changes (in \$000s)

Fund: All Three Funds - DW, DWW, SW

	2015	2016	2017	2018	2019	2020	Total
O&M Labor							\$0
O&M Non-Labor	205	53	54	55	57	58	\$482
O&M Subtotal	205	53	54	55	57	58	\$482
CIP							\$0
Total O&M and CIP	\$205	\$53	\$54	\$55	\$57	\$58	\$482
FTE							

Plan for evaluating success or progress

Achievement of deliverables, including planning documents, training, and drills.

Focus Area: Improving how we work to deliver consistent, high quality services

Action Plan: Seismic Vulnerability

Strategic Objective: Environmental & Health mandates

Owner: Rick Scott, Deputy Director, Field Operations and Maintenance Branch

Summary of proposed action

Address SPU’s operational need to understand likely impacts of earthquakes on the drinking water infrastructure and develop mitigation scenarios and post-event performance goals.

Description of the problem this action solves

Provides needed baseline information about the water system’s overall vulnerability to earthquakes, and helps develop plans for mitigating and minimizing the impacts of water outages to our customers.

More detailed description of the proposed action

Damage to water system infrastructure in five recent earthquakes (one each in Chile, Haiti, and Japan, and two in Christchurch, New Zealand) has renewed attention on the importance of recovering from such events and avoiding lengthy water outages to critical facilities and customers. A recent Water Research Foundation report recommends water utilities adopt earthquake Performance Goals for the water outages (geographical extent and duration), perform vulnerability analysis for earthquake hazards, and develop infrastructure improvement and emergency response plans to address weaknesses and improve preparedness.

In addition to the system-wide assessment and plan development described above, this Action Plan includes funding for a targeted seismic vulnerability assessment of the Cascades Dam at Lake Youngs. (The dam experienced cracking along the roadway during the Nisqually Earthquake.)

Benefits of the proposed action

This works sets expectations for system performance following an earthquake and helps identify specific improvements (including funding) needed to meet those expectations. This foundational work supports future efforts to reduce the extent and duration of post-earthquake service outages, a crucial element in the overall recovery of communities following destructive earthquakes.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
Conduct vulnerability assessment, develop performance standards and mitigation concepts	450K	300K				
Cascades Dam (Lake Youngs) assessment		150K				

Budget and FTE Changes (in \$000s)

Fund: Drinking Water

	2015	2016	2017	2018	2019	2020	Total
O&M Labor							\$0
O&M Non-Labor	461	473					\$934
<i>O&M Subtotal</i>	461	473	0	0	0	0	\$934
CIP							\$0
<i>Total O&M and CIP</i>	\$461	\$473	\$0	\$0	\$0	\$0	\$934
FTE							

Plan for evaluating success or progress

Completion of the vulnerability assessment and establishment of performance expectations.

Focus Area: Improving how we work to deliver consistent, high quality services

Action Plan: Valves

Strategic Objective: Effectiveness & Efficiency

Owner: Tony Blackwell, Field Operations and Maintenance Branch

Summary of proposed action

Improve maintenance of the 50,000-60,000 valves in the Water transmission and distribution infrastructure. Through efficiencies, reallocate two existing crews (4 FTE) to do this work.

Description of the problem this action solves

Valves - SPU does not regularly inspect, exercise, or perform routine maintenance on any of the tens of thousands of valves in the water infrastructure system. Maintenance is “event-driven,” whether from a valve failure or in conjunction with other work (e.g., replacing pipes) that makes it convenient to work on the valves. Lack of regular valve maintenance increases risks and impacts to customers, as well as costs and delays to field work being undertaken SPU and others, such as the Seattle Dept. of Transportation.

More detailed description of the proposed action

Work on valves and leaks is part of SPU’s shift in focus from making major Water infrastructure improvements (building treatment plants and covering water reservoirs) to improving our understanding and maintenance of smaller elements of the water system infrastructure, including valves. More than 90% of large water utilities have proactive valve maintenance programs. In 2015, SPU proposes to reallocate two existing crews (4 FTE) to the valve maintenance function.

Benefits of the proposed action

Decrease risk of system failures, damage, costs, and customer claims due to malfunctioning valves.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
Valve maintenance	x	x	x	x	x	x

Budget and FTE Changes (in \$000s)

Fund: Drinking Water

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	410	420	431	442	453	464	\$2,620
O&M Non-Labor							\$0
O&M Subtotal	410	420	431	442	453	464	\$2,620
CIP							\$0
Total O&M and CIP	\$410	\$420	\$431	\$442	\$453	\$464	\$2,620
FTE	4.00	4.00	4.00	4.00	4.00	4.00	

Note: FTEs will be reallocated to valve maintenance through achievement of greater efficiency by field crews. After taking efficiencies into account, the net cost of this Action Plan will be zero FTEs and labor dollars.

Plan for evaluating success or progress

Valve maintenance performance targets to be developed.

Focus Area: Improving how we work to deliver consistent, high quality services

Action Plan: System Development Charges

Strategic Objective: Effectiveness & Efficiency

Owner: Danielle Purnell, Corporate Strategies and Communications

Summary of proposed concept

- Establish System Development Charges (SDCs) requiring those undertaking new development projects to “buy in” to a share of the City’s existing water, wastewater and drainage utility systems.
- Set SDCs at a level comparable to the charges of other jurisdictions in the region.
- Focus SDC revenues back towards development to: a) foster growth and redevelopment where the City desires it; and b) more fairly distribute the costs of addressing system infrastructure requirements.

Description of the problem this action solves

Developer costs to address missing, substandard or at capacity utility system infrastructure (e.g. mains) in order to serve their development can be fiscally burdensome to individual developments and potentially inequitable. This is especially true with Seattle’s growth pattern of infill and redevelopment where: a) improvements are often required to address pre-existing deficiencies (substandard or at capacity systems); and/or b) the cost burden to address requirements falls entirely on the “first in” developer and later developments, who benefit equally from the improvement, pay nothing. The City desires to encourage growth and redevelopment in designated areas of the City and to assign cost burdens equitably. However, if developers don’t pay to address system infrastructure needs where they exist in developing areas then: ratepayers do; development happens but systems become more constrained; or development can’t proceed due to the fiscal burden of utility costs.

A system development charge (SDC) requires that all new development projects pay equally (based on their impact on the utility system) for connection and access to existing utility system infrastructure. These charges are typically in addition to a developer’s costs to bring the utility system to their property (if the main isn’t there) and connect utility services into the building.

SPU has only one SDC charge for water and none for wastewater or drainage system connections. SPU’s water charge is also the lowest in the Puget Sound area when compared with other local jurisdictions (e.g. Bellevue, Kirkland, Renton). SDC revenue could provide SPU with revenue to address development customer equity concerns without raising rates. Growth would more equitably pay for growth by using SDC revenues to offset some development costs to extend or upgrade infrastructure where it was needed to facilitate that growth.

More detailed description of the proposed action

SDC Charge Detail: The methodology used to establish SDC amounts is laid out in State law (RCW 35.92.025) and case law with City flexibility to set lower levels if desired. State law allows SPU to collect a more robust fee (than its nominal water charge) that reflects the full value of existing ratepayer assets less debt service as well as any future capital projects benefiting growth. Based upon SPU’s system assets and future capital projects, SDCs could be in a range of:

	Existing Charge (per ERU*)	Possible Charge (per ERU*)
Water SDC	\$1,063	\$3,500 to \$3,550
Wastewater SDC	n/a	\$1,200 to \$1,500
Drainage SDC	n/a	\$1,300 to \$2,000

*=Cost per Equivalent Residential Unit

SDC Revenue Detail: The potential revenue stream from SDCs is variable since it depends on new growth each year. Based on past building trends, SDC revenue for the possible charge amounts above could be in a range of:

	Possible Revenue (per year)
Water SDC	\$3.3 M to \$4.5 M
Wastewater SDC	\$1.2 M to \$2.5 M
Drainage SDC	\$500 k to \$1.6 M

SDC Expenditure Options: SDC revenue could be focused on growth in a variety of ways. Options for further exploration include:

- **Cost Share Fund** – SPU *shares in %* of developer’s system improvement requirement.
- **Opportunity Project Fund** – SPU *pays to add to a developer’s project* to meet an SPU need.
- **Revolving Fund** – SPU pays for an opportunity project as part of a developer’s system requirement and along with the developer is repaid thru latecomers’ charges allocating project costs to all designated “benefitting parcels” if and when they later develop. SPU reinvests repayment back to development.
- **Growth Fund** – SPU addresses substandard infrastructure, bottlenecks *ahead of development* in designated growth areas.

Benefits of the proposed action

- Provides compensation to SPU for new growth’s connection and use of existing infrastructure systems.
- Aligns SPU charges with what most other jurisdictions in the region charge.
- Allows SPU to address development customer concerns (re: equity of requirements, infrastructure constraints) with developer-generated revenue rather than ratepayer-generated revenue.
- Fosters growth and redevelopment where the City desires it.
- By fostering growth, increases SPU rate revenue and developer asset contributions.

Implementation plan and timeline

	2014	2015	2016
Explore with Developer Advisory Panel	May		
Discuss with Mayor’s Office and Council whether and when to proceed.	Fall		
Introduce legislation and begin implementation		✓	✓

Plan for evaluating success or progress

- Track the number and \$ value of new infrastructure contributed by developments.
- Track the number and \$ value of infrastructure projects completed or supported with SDC revenue.
- Track the number of “benefitting” properties and/or developments.
- Track any “return on investment” or new development initiated due to infrastructure support.
- Survey developer customer satisfaction in terms of equity and related requirements concerns.

Focus Area: Improve how we work to deliver consistent, high quality services

Action Plan: Billing Meters

Strategic Objective: Fiscal Strength & Integrity

Owner: Dave Hilmoie, Utility Systems Management Branch; Shari Akramoff, Customer Services Branch; Tony Blackwell, Field Operations and Maintenance Branch

Summary of proposed action

This initiative proposes centralizing the various meter activities within SPU, and funds three additional staff for the following purposes:

- Create, coordinate, and administer a meter testing and replacement plan and program (1 FTE)
- Perform additional meter testing, exchange, and repair (2 FTE)

The increased focus on accurate metering is expected to generate at least \$500,000 per year in additional revenues from customers with currently under-registering meters.

Description of the problem this action solves

SPU's billing meters are the basis for collecting water and wastewater revenues. At present, there is no single person in SPU accountable for the meter program, which consists of reading, testing, maintenance, reinvestment in meters, and billing. As a result, there is little consistency in priorities or goals within the program, leading to uneven and inadequate response to meter accuracy and malfunction issues, meter replacement and purchasing decisions, and customer response. In addition, metering technology is undergoing a period of rapid change requiring a focused program to best leverage and transition to new technologies.

More detailed description of the proposed action

There are currently 5 FTE assigned to meter testing; however, two of these positions are vacant. This action plan adds one team (two employees) for testing, exchange, and repair of SPU's billing meters. In addition, a position would be added to create and coordinate a meter testing and replacement plan, and to administer the program.

With vacancies and changing priorities as well as changes in regulations, only approximately 200 retail meters have been tested over the past year (this is in addition to the meter testing and repair for wholesale meters).

If this action plan is approved, it is anticipated that the new program manager position would update and create a testing plan which when implemented would meet industry standards for testing and replacement of all meters based on size.

Current staffing allowed us to test and replace about 200 retail meters last year. Filling existing vacancies, plus adding the new two-person crew, will allow us to test 600 retail meters each year. This means that we will be able to test all 1855 of our meters that are 3" and larger every three years. Smaller meters will be on a run-to-failure plan. This general approach will be truth-tested as we develop our billing meter asset management plan this year, but is expected to be cost effective and to meet AWWA standards for meter testing frequency.

In addition, this action plan adds \$68,000 per year in CIP expenditures for buying and replacing additional meters anticipated due to increased testing.

Benefits of the proposed action

SPU expects that the costs related to this initiative would be consistently recovered year after year by improved meter accuracy over the baseline. This translates into lower rates for all customers, and a more equitable distribution of costs among customers.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
Add meter testing, exchange, repair crew	X	X	X	X	X	X
Add position to create and coordinate the program	X	X	X	X	X	X

Budget and FTE Changes (in \$000s)

Fund: Drainage & Wastewater AND Water

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	281	288	295	302	310	318	\$1,794
O&M Non-Labor	-	-	-	-	-	-	\$0
O&M Subtotal	281	288	295	302	310	318	\$1,794
CIP	68	68	68	68	68	68	\$408
Total O&M and CIP	\$349	\$356	\$363	\$370	\$378	\$386	\$2,202
FTE	3.00	3.00	3.00	3.00	3.00	3.00	

Plan for evaluating success or progress

A successful outcome of this action plan would be one that:

- Creates a meter testing and replacement plan within the first year
- Implement the plan by testing every meter over a three year cycle to set a baseline
- Increase revenues for water consumption for both wholesale and retail customers by 1% each year over the first three years and by .5% thereafter.

Focus Area: Improving how we work to deliver consistent, high quality services

Action Plan: Revenue Recovery

Strategic Objective: Fiscal Strength & Integrity

Owner: Sherri Crawford, Finance Division

Summary of proposed action

SPU's current method of assessing and collecting non-rate revenue is decentralized and inconsistent. This initiative proposes a more structured and comprehensive approach to ensure SPU maximizes revenue recovery while enhancing internal controls and providing transparency and predictability for the customers and employees. Implementing this plan will reduce the risk of fraud and waste, and will likely increase non-rate revenues, thereby lessening the burden on ratepayers.

Description of the problem this action solves

SPU's revenue is primarily generated via utility bills (rate revenue) and secondarily via non-rate revenue, such as standard charges that are assessed on specific services. In 2012, SPU's rate revenue for all lines of business was \$655 million; non-rate revenue was \$37 million. Currently, SPU's method of assessing and collecting non-rate revenue is decentralized and inconsistent. Several work units outside the Finance Division calculate and apply standard charges and ad-hoc fees to services they provide to customers, with little to no coordination with Finance. As a result, in some cases revenue may not cover the cost of service, charges are unpredictable and not transparent to customers, the administrative costs to manage some charges is high, and SPU's ability to forecast the non-rate revenue stream is constrained. In addition, although SPU has policies in place for credit and collection of rate revenue, we are not uniformly imposing these policies.

More detailed description of the proposed action

This Action Plan proposes to take a structured and comprehensive approach to ensuring SPU maximizes revenue recovery. Some key elements to this include:

- Develop appropriate policies, procedures, and internal financial controls on non-rate revenue
- Place ultimate accountability for setting rates, fees, and other charges within the Finance Division, understanding that the customer transactions associated with these rates, fees, and charges may occur in other divisions. Finance will collaborate with business operations experts to determine the following:
 - Which services SPU sells/offers
 - The method by which we charge for these services (e.g., embedded in rates, standard charge, or time and materials)
 - The amount of the charges (e.g., full cost recovery or subsidy)
 - Who collects the revenue (e.g., SPU or FAS Treasury)
 - The cycle for reviewing and updating rates, fees and charges
 - The method of tracking inventory, anticipated and actual revenue, expenditures and transactions
 - The technical and other systems needed to support this program
 - The process of recovering delinquencies and writing off bad debt

No additional resources are being requested in this Action Plan; any costs associated with implementing these activities will be absorbed in the baseline.

Benefits of the proposed action

This action is expected to generate more revenue and in a more efficient, effective, and equitable manner; however there is not yet an estimation of how much more revenue will be generated. This action will also lead to greater financial strength, improved ability to forecast revenues, and improved financial internal controls. In addition, this action will improve transparency by clearly showing customers and employees what makes up separate fees and charges. And it should reduce some administrative costs by embedding some costs in rates rather than charging separate fees.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
Identify and prioritize the list of services SPU provides which generates non-rate revenue; determine which ones should be embedded in rates	X					
Develop policies, procedures and internal controls based on the prioritized list	X	X	X			
Develop new fee structures based on the prioritized list and cost of service	X	X	X			
Implement the new policies, procedures, fees and business practices and track the program's progress	X	X	X	X	X	X

Budget and FTE Changes (in \$000s)

Fund: No additional resources requested.

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	-	-	-	-	-	-	\$0
O&M Non-Labor	-	-	-	-	-	-	\$0
O&M Subtotal	0	0	0	0	0	0	\$0
CIP	-	-	-	-	-	-	\$0
Total O&M and CIP	\$0						
FTE	0.00	0.00	0.00	0.00	0.00	0.00	

Plan for evaluating success or progress

- SPU has a consistent and transparent approach for determining when and how to set fees versus when to embed in rates; employees and customers understand our fee structures
- SPU knows how much each service costs and the fees and standard charges cover the cost of service
- SPU is able to forecast and effectively track and monitor non-rate revenues

Focus Area: Improving how we work to deliver consistent, high quality services

Action Plan: Technology Services

Strategic Objective: Efficiency & Effectiveness

Owner: Tom Nolan, Information Technology Division; Vicki Evans, Technology Program Office

Summary of proposed action

Optimize SPU's technology systems to support core utility services, in alignment with Strategic Business Plan (SBP) objectives. This Action Plan focuses on an approach to address known priority business and technology needs, as well as anticipated future needs. The specific requests in this Action Plan will help SPU achieve necessary business and technology improvements including: better management of information assets; quality assurance testing; enhanced business analysis; improved systems integration; expanded security and mobile workforce solutions; and sufficient funding to accommodate rising software licensing and maintenance costs.

Description of the problem this action solves

The effective use of information technology (IT) is critical to meeting SPU's strategic objectives and is an essential element of SPU's business and operations. IT tools increase efficiency and effectiveness in delivering Utility services and meeting regulatory requirements.

More detailed description of the proposed action

SPU provides a broad spectrum of IT-related services to the department and the City including: project and portfolio management; business system development; Utility and citywide GIS application development; data maintenance; strategic planning and governance; business analysis; end-user support services for employees located in 30 sites; technology procurement and contracting; system integration; application upgrades and maintenance; database administration; cyber and physical security monitoring; and active participation on Citywide projects and initiatives such as the Next Generation Data Center and the PeopleSoft Financial System Reimplementation. IT entails much more than desktop computers and office software.

SPU's reliance on information technology to deliver utility services has been and continues to increase. As business needs change and grow, so too do IT services and products. In 2014, SPU will begin work on a Technology Plan to strengthen the alignment between our technology investments and operations, and the SBP. Not only will this six-year tactical plan make recommendations in support of our meeting the SBP's objectives, but it will also address known IT service delivery and product issues. The Technology Plan and its recommendations will be completed in 2015 with no funding required. Any additional resource recommendations that arise in the strategic planning process beyond what is requested in this Action Plan will be met through careful planning and possibly reallocations within the existing baseline.

There is currently an urgent need to fund several new positions and to add to the IT O&M budget in advance of completing the Technology Plan. The section below describes 11.0 needed positions although this Action Plan is requesting 4.0 new positions. SPU will prioritize its position needs over the next few months.

Known Problems, Gaps and Opportunities to be addressed by the Technology Plan:

1. SPU's Information assets (e.g. data, documents, engineering plans) are not well organized, often of inconsistent or questionable quality, and difficult to find and share. To address these issues, we require

new skills and additional capacity to design and create document management, records management, and data stewardship systems. Position needs include:

- 1.0 FTE - Data Architect (baseline = 0.0 FTEs)
- 1.0 FTE - SharePoint Administrator (baseline = 0.5 FTE to support 200+ SharePoint sites)

2. New systems and business applications are sometimes deployed without sufficient business analysis or quality assurance (QA) testing. This has resulted in extended project schedules and higher consultant costs to test and fix bugs and develop needed enhancements. Additional business and quality assurance analyst skills would vastly improve software quality, usability and reliability and reduce life-cycle costs.

Position needs include:

- 2.0 FTE - QA Analyst / Testers (baseline = 0.0 FTE)
- 1.0 FTE - Business Analyst (baseline = 1.0 FTE)
- 1.0 FTE – Specialized software developer for CADD (baseline = 0.0 FTEs)

3. SPU's business systems, hardware, software, products, and platforms are rapidly growing in numbers and complexity and do not always "talk" to each other. This can significantly limit their usability and hinder the productivity of users. The value of business systems and data is diminished if they are not carefully designed to be flexible and integrated. Lack of integration causes users to spend inordinate amounts of time moving between different systems and databases to find, retrieve, analyze and deliver information. System integration requires advanced software development practices and best practices in back-end server configurations, data administration and vendor product management. Position needs to accomplish this work include:

- 2.0 FTE - Software Developer (baseline = 12.0 FTEs)
- 1.0 FTE - Systems Integration Technician (baseline = 5.0 FTEs)

4. Cyber security measures, prevention of data loss and strong internal controls are critical for protecting Utility operations. SPU must ensure that the necessary system controls are in place to protect both customers and employees from malicious intent including fraud, theft and breach of privacy or confidentiality. This is especially true as SPU expands its use of internet (i.e. 'Cloud') based software and infrastructure services. Additional staffing capacity with strong technical skills related to Cloud, network and system security will be needed in the future:

- 1.0 FTE – Security Technician (baseline = 1.0 FTEs)

5. SPU's changing workforce expects to use modern technologies that allow employees to easily collaborate real-time with co-workers and do their jobs from any location. Key to meeting SPU's stated objective of "transforming the workforce" will be a commitment to modernize IT provisioning practices so that employees are more mobile and have easier access to information from remote locations.

Position needs include:

- 1.0 FTE – Mobile Solutions Technician (baseline = 0.0 FTE)

6. Annual costs for software maintenance and licensing are rising steeply and well above the rate of inflation. The cost drivers include:

- Increased use of commercial software requiring licensing and vendor maintenance contracts. Vendor support costs for existing software, hardware and tools are also rising.
- The growing volume of maintenance contracts, including ones required by the City (e.g. security). In 2006, SPU renewed 26 contracts at a cost of \$505K; in 2014, 62 contracts will be renewed at a cost of \$1.4M.

- Increasing number of new and premium-level licensing due to larger user pool and need for additional vendor services.
- Built-in annual price increases that exceed the rate of inflation in some contracts (e.g. the City's IBM Cognos contract allows for 10% increases).

As a result of this trend, this Action Plan requests an escalator of \$50K per year be added to the baseline IT non-labor budget of \$1.4M. This would provide sufficient funding for the rapidly rising costs to license and maintain all software, hardware, tools, and IT infrastructure assets.

Benefits of the proposed action

In general, technology investments and IT operational spending provide employees with the services, tools and information they need to deliver SPU services more effectively and efficiently and help meet regulatory requirements. A few specific examples of the benefits of this Action Plan include:

- Improvements to SPU's asset management practices, including data-driven decision-making through availability of higher-performing business and information systems that deliver high quality asset, customer and financial data. This supports reliable and effective performance monitoring, problem solving, preventative maintenance, reporting, and planning.
- A well-designed, integrated, fully tested and supported business systems environment encourages improved, more efficient utility operations as well as fewer stand-alone business applications being developed and having to be maintained. It may also allow for the retirement of several obsolete legacy systems that increase complexity, pose risks, and add to costs.
- A modernized, usable and well-integrated business systems environment that is tightly aligned with the operations, business needs and practices of the Utility will increase productivity and help to meet several key efficiency objectives.
- A quality assurance program staffed by skilled in-house testers will improve software and system quality, usability, and flexibility, while also reducing schedule and budget impacts on all technology projects.
- Significant productivity improvements among employees and external business who regularly create, share and consume information in the form of documents and graphics (i.e. content). Leading document and records management practices are foundational for leveraging and protecting corporate information assets, ensuring information security and preventing fraud, misrepresentation, and error.

Implementation plan and timeline

- Development of the Technology Plan will begin in Q2 2014 with a targeted completion date of Q3 2015 (no funding request is associated with the Technology Plan).
- Prioritize staff needs, as described above. Begin hiring new positions in January, 2015.

Budget and FTE Changes (in \$000s)

The table below provides approximate costs to fund forecasted software maintenance costs and six (6) of the staffing needs described above.

Fund: All three funds.

	2015	2016	2017	2018	2019	2020	Total
O&M Labor*	\$277	\$410	\$625	\$640	\$656	\$673	\$3,281
O&M Non-Labor	\$51	\$105	\$162	\$221	\$283	\$348	\$1,170
<i>O&M Subtotal</i>	\$328	\$515	\$787	\$861	\$939	\$1,021	\$4,451
CIP	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Total O&M and CIP</i>	\$328	\$515	\$787	\$861	\$939	\$1,021	\$4,451
FTE	4.00	4.00	6.00	6.00	6.00	6.00	6.00

*Note: Most, but not all, of the costs associated with the 6.00 new positions impact the O&M. 2015 assumes a 3-month hiring lag.

Plan for evaluating success or progress

- Regularly evaluating SPU’s technology asset, service and performance metrics
- Ongoing review and governance of technology asset management practices (e.g. prioritization, portfolio review) in alignment with SPU’s Strategic Business Plan objectives and goals
- Ongoing review and management of development and software development and maintenance costs

Focus Area: Improving how we work to deliver consistent, high quality services

Action Plan: SPU Facilities Management

Strategic Objective: Effectiveness & Efficiency

Owner: Judith Cross, Facilities & Real Property Services Division

Summary of proposed action

Take a more strategic, cohesive and holistic approach to managing, providing, and retiring SPU's operational facilities:

- Address shortages of adequate space and safety requirements for operational work groups
- Implement a centralized facilities management program
- Implement a decommissioning program

Description of the problem this action solves

SPU owns and operates about 400 buildings, sites, and other facilities. These facilities are valuable assets if used effectively and a potential liability if not managed well, and can either help or hinder employee productivity and employee safety. We currently lack a strategic approach for planning, managing, constructing, and retiring these assets, particularly our operational facilities. The lack of a deliberate approach results in employee and customer safety issues, liability risks, higher capital and operating costs, and inadequate working space for our employees, equipment, tools, and materials.

More detailed description of the proposed action

There are three distinct parts to this Action Plan:

1. **Facilities Construction (CIP)** – Add \$23.2M over the six-year period to the 2015-2020 baseline budget of \$64M to address shortages of adequate space for existing and future operational functions for SPU staff, equipment, tools, and materials. SPU operational functions have expanded over the last decade and the facilities housing the field forces have deteriorated, no longer meet space allocation standards, and negatively impact employee safety and wellness. SPU currently approaches facilities solutions in a fragmented, isolated manner, missing opportunities to solve critical space deficiencies and operational efficiencies in a more integrated, comprehensive way. This Action Plan would fund the following, with the main objective focused on resolving the chronic shortage of facilities space for Drainage and Wastewater operations in the City's south end:
 - Interim site tenant improvements for south Drainage and Wastewater operations;
 - Facilities Master Plans for three SPU operational complexes (South Operations, North Operations, and Cedar Falls Phase 2);
 - Design of the North Operations complex; and
 - Design and construction of the South Operations complex.
2. **Facilities Management (O&M)** – Add 1.0 position (\$85K) to develop and implement a centralized facilities management program for SPU's in-City and regional operational complexes. SPU currently takes a decentralized approach to managing its buildings, sites and other facilities, with no single point of accountability. This Action Plan would create a new position to lead a more cohesive approach to facilities management, establish uniform building maintenance practices, measure and monitor utilities consumption, and create energy resource reduction plans, including development of Strategic Maintenance Plans. The baseline budget is \$0 for centralized facilities management and the amount currently expended across the department is unknown.

3. **Decommissioning (O&M)** – Add \$150K per year to decommission (take out of service) above-ground structures that no longer in use for their intended purpose. There is currently no discrete budget for building decommissioning and this type of work is done on a reactive basis. Taking a “do nothing” approach to facilities that are no longer in use results in employee safety, vandalism, public nuisance, and risk liability issues. This Action Plan would fund completing a Condition Assessment of non-functioning buildings and structures, developing decommissioning strategies, deconstructing, demolishing, recycling, or mothballing buildings and above-ground structures. The current list of facilities are: former Water Quality Laboratory, Tolt Lime Soda Ash building, Lake Youngs Corrosion Building, Landsburg Analyzer Building, Cedar Falls Chlorine Building, Small Myrtle Tank, Woodland Park Standpipe and Barton Standpipe.

Benefits of the proposed action

All three parts of this Action plan reduce facilities’ life cycle costs, reduces liabilities, enhances employee and customer safety and security, and improves employee productivity. In addition, implementing a proactive decommissioning program enables SPU to meet industry standards for safety requirements and permissible hazardous materials levels.

Implementation plan and timeline

Activity	2015	2016	2017	2018	2019	2020
1a. South Drainage & Wastewater Operations – Interim site tenant improvements [\$2M]	X	X				
1b. South Operations Complex master plan [\$500K]	X					
1c. South Operations Complex property purchase, design and construction [\$18.85M] (assumes \$6M property purchase in 2016)		X	X	X	X	X
1d. North Operations Complex master plan [\$400K]			X	X		
1e. North Operations Complex design [\$1M]					X	X
1f. Cedar Falls Phase 2 programming and pre-design [\$450K]					X	X
2. Develop and implement facilities management program [\$85K/yr.]	X	X	X	X	X	X
3. Develop and implement facilities decommissioning program [\$150k/yr.]	X	X	X	X	X	X

Budget and FTE Changes (in \$000s)

Fund: All three funds.

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	87	89	92	94	96	99	\$557
O&M Non-Labor	154	158	162	166	170	174	\$984
O&M Subtotal	241	247	254	260	266	273	\$1,541
CIP	1,000	9,500	3,150	3,250	3,700	2,600	\$23,200
Total O&M and CIP	\$1,241	\$9,747	\$3,404	\$3,510	\$3,966	\$2,873	\$24,741
FTE	1.00	1.00	1.00	1.00	1.00	1.00	

Plan for evaluating success or progress

For Facilities Construction, utilize the asset management approval process and financial reporting to evaluate the projects’ progress. For Facilities Management and Decommissioning, utilize service agreements to establish annual targets and financial reporting to evaluate the programs’ progress.

Focus Area: Improving how we work to deliver consistent, high quality services

Action Plan: Managing Data & Information

Strategic Objective: Effectiveness & Efficiency

Owner: Vicki Evans, Technology Program Office; Tom Nolan, Information Technology Division

Summary of proposed action

Create an enterprise information management (EIM) program and a quality assurance (QA) program to address the rising costs of SPU's vast, disorganized store of information so SPU's staff can easily access the enterprise knowledge base, and the organization can move from being data rich to being knowledge rich.

Description of the problem this action solves

SPU's fragmented and disorganized information environment limits employees' access to the enterprise knowledge base and the rich store of information it contains. Examples of data requiring quick, easy access by SPU employees includes: operating manuals, engineering plans and drawings, maps, asset condition reports, photos, spreadsheets, and regulatory reports.

An EIM Program will manage information as an asset, based on the application of asset management principles including transparency, governance, risk management, collaboration, and deliberate decision-making. With a goal of optimizing the long-term value of our information assets, the EIM Program will be rooted in a shared vision, supported by a coherent strategy, and guided by a set of roadmaps detailing the activities necessary to mature SPU's information practices and environment. The key success factors for an EIM Program are culture and change management, not technology.

More detailed description of the proposed action

A successful EIM Program will be a grass roots, iterative process carried out over several years, and will deliver improvements and benefits incrementally, beginning as early as 2015. The Program will:

- Create an Information Governance Board to establish and oversee information management practices
- Develop enterprise information architecture to provide a framework for decisions and operations
- Develop policies and standards for documents, records, and data to support all employees
- Develop suitable platforms and technologies to organize, update, preserve, search for, share, and dispose of information in order to optimize and extend the value of our information assets.

An EIM Program will address both structured data (information generally stored in electronic databases) and unstructured content (information contained in documents, images, maps, plans, blogs, etc.). The Program will develop and sustain an enterprise strategy, information architecture and an operational framework to effectively and securely move different kinds of information assets through their respective life cycles.

This Action Plan requests funding for a new position (Information Architect) that is key to the success of the EIM Program. The newly established role will create and maintain a structured, repeatable set of organizing guidelines, business rules, and security and permissions protocols needed to ensure that information is consistently defined, tagged, and stored so employees can quickly and easily search for, navigate to, and retrieve the information they need. With these goals in mind, several projects funded within the Technology CIP baseline are anticipated in the following areas (no additional CIP funding is being requested):

- Workflow applications to support the flow of documents for review and approval through the organization e.g. Development Services Office intake and sales

- Intranet Redesign that will utilize portal technologies to make corporate information easier to find on SPU’s internal work group web sites e.g. SharePoint 2013, Enterprise Search Tools
- Digital Asset Management Systems that allow employees to easily store, find, retrieve and share digital graphics such as maps, engineering plans, operating manuals and training videos.
- Online Collaboration Tools to streamline communication and information sharing between employees and work groups throughout the City e.g. deployment of *Microsoft Lync* and *SharePoint My Sites*
- Records Management Systems including the update of existing records retention policies and guidelines. e.g. Regulatory Compliance Tracking Repository

Maintaining the quality, reliability, and availability of the information will be a primary goal of all projects.

Benefits of the proposed action

- Controlled processes to acquire, organize, store, disseminate and dispose of information in accordance with the rules and guidelines established by governance to provide the underpinning for a significant reduction of risk and cost through greater workforce productivity and reliability of the information we use to deliver services.
- Information stewardship practices to ensure solid foundation for adequate quality standards that are also flexible as needs and priorities change.
- Easy-to-use tools, including searchable document and records repositories, dashboards, and online information portals designed to quickly and efficiently put the right information into the hands of SPU employees and customers.
- Improved information governance and management practices, e.g., records management, will reduce costs associated with creating, retention, and dissemination of vast amounts of data and documents needed to support and comply with cross-jurisdictional regulatory and reporting requirements.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
Establish Information Governance Board	x					
Hire Information Architect		x	x	x	x	x
Deliver/maintain enterprise information architecture		x	x	x	x	x
Sequence and deliver suite of related capital projects	x	x	x	x	x	x

Budget and FTE Changes (in \$000s)

Fund: All Three Funds

	2015	2016	2017	2018	2019	2020	Total
O&M Labor		163	167	171	175	180	\$856
O&M Non-Labor			-	-	-	-	\$0
O&M Subtotal	0	163	167	171	175	180	\$856
CIP	-	-	-	-	-	-	\$0
Total O&M and CIP	\$0	\$163	\$167	\$171	\$175	\$180	\$856
FTE		1.00	1.00	1.00	1.00	1.00	

Plan for evaluating success or progress

The Information Governance Board will be the primary oversight body for the Program. The charter of the group will include developing program performance indicators such as:

1. Monitor and measure adherence to information-related business rules and procedures (e.g. document management guidelines, records retention)
2. Monitor and measure user adoption of new technologies, including SPU Intranet and other technology-driven information portals (e.g. SharePoint)
3. Monitor and measure data quality within several specific domains (e.g. assets, customer data, regulatory) using industry –standard metrics and methodologies.

Focus Area: Improving how we work to deliver consistent, high quality services

Action Plan: Materials Management

Strategic Objective: Fiscal Strength & Integrity

Owner: Walter Vining, Finance & Administration Branch

Summary of proposed action

This action plan supports continued consolidation of SPU’s Materials Management function to additional divisions and satellite locations. The central warehouse is responsible for implementing a centralized materials management approach for procuring, receiving, storing, issuing, transferring, and counting of all inventory materials. The current inventory valuation in Maximo is \$6M; this figure does not include the inventory value of work groups that still procure and manage materials on their own.

Description of the problem this action solves

Centralizing the inventory management function reduces inconsistent practices, improves internal controls, ensures compliance with City purchasing rules, reduces procurement costs, increases the staff’s ability to use the software (Maximo) to track materials and parts used to repair and maintain SPU’s utility assets, and maximizes the use of technology solutions to streamline business practices.

More detailed description of the proposed action

In August 2011, changes were made to SPU’s existing Materials Management practices, policies and procedures as part of the utility’s implementation of its work order and materials software, Maximo. Since then, SPU’s central warehouse has been able to centralize parts of the organization, specifically the Drainage & Wastewater Operations and Maintenance groups, with no net resource additions to SPU. The central warehouse also plans to assume responsibility for other satellite warehouse locations, scrap, surplus, salvage, truck stock, and tool room management. Additional staff resources are needed to take on these activities and implement best management practices across the department.

These efforts are scalable and SPU can choose to centralize responsibility for materials management and tool room management more slowly, or only centralize specific parts of the department, contingent on available resources. Baseline resources for this function are as follows:

Description of Baseline	Baseline Resources	Areas/Functions Supported by Current Resources
Current resources support procurement, receiving, storing, issuing, transferring, and return of \$6M in inventory, as well as support activities, such as financial and inventory adjustments, audit coordination, blanket vendor contracts, monthly financial reporting to accounting, etc.	1.0 Chief Warehouse 1.0 Sr. Material Controller 9.0 Sr. Warehouse <u>0.5 Manager</u> 11.5 Total FTEs	<ul style="list-style-type: none"> • Water Distribution • 40% of Maintenance • Drainage & Wastewater Ops • SDOT’s Sunny Jim Facility • One central warehouse (OCC) • Three satellite warehouses • 32 mobile warehouses (Water Distribution trucks and ¾”-2” meters only)

SPU currently employs an additional 2.0 TES (temporary) positions, whose terms will soon end, to support materials management. This Action Plan would restore these positions and make them permanent.

Benefits of the proposed action

The most direct benefits of this action plan are improved internal controls and improving SPU’s ability to manage and analyze inventory data.

1. Safeguard SPU’s Materials and Tools through Internal Controls, Financial Accountability, and Security

- Procure, store, and issue materials and tools in a standardized manner
- Track all materials, parts and supplies throughout their life cycle
- Produce timely and reliable financial and management reports
- Ensure accuracy of accounting data
- Ensure adherence to all policies, procedures and plans
- Ensure segregation of duties, limiting physical access to inventories, and other internal controls

2. Improve Data Management and Analysis

- Using Maximo software, document the issuance of all parts, materials and supplies to specific work orders. This ensures we know what was used to repair and maintain a particular asset, as well as the actual cost of particular repairs. It also allows us to more accurately plan our work.

Implementation plan and timeline

The following is a list of materials and tool room management activities that will need to be prioritized and phased in over the 2015-2020 timeframe:

- Expand centralization to other work groups (e.g. watersheds, Lake Youngs, transfer stations).
- Convert 60 vehicles to mobile warehouses/store rooms.
- Implement best management practices for procurement and inventory counting.
- Design, implement and manage a centralized scrap, surplus, and salvage program.
- Design, implement and manage a centralized tool room program.
- Implement new technology solutions to further streamline and automate material and tool room management.

Budget and FTE Changes (in \$000s)

Fund: All Funds

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	-	-	-	177	181	186	\$544
O&M Non-Labor							\$0
<i>O&M Subtotal</i>	0	0	0	177	181	186	\$544
CIP							\$0
<i>Total O&M and CIP</i>	\$0	\$0	\$0	\$177	\$181	\$186	\$544
FTE	0.00	0.00	0.00	2.00	2.00	2.00	

Plan for evaluating success or progress

- Account for all materials and supplies purchased for internal warehouse customers.
- Reduce individual credit card purchases and optimize use of blanket contracts and prices.
- Reduce inventory loss.
- Report accurate work order cost use information.
- Reach out to customers for program feedback – full circle report.

Focus Area: Enhancing our services by continually updating employee skills

Action Plan: Human Resources Data and Performance Measurement

Strategic Objective: People (attract, develop, retain)

Owner: Laura Southard and Mary Cornelius, Human Resources

Summary of proposed action

Develop and deploy effective systems and tools to support workforce planning and employee performance measurement, including:

- Comprehensive skill assessment and competency inventory
- Succession and workforce planning
- Talent management HR technology that enables effective and efficient performance management, training, succession and workforce planning, and improved people analytics

Description of the problem this action solves

SPU people decisions are heavily influenced by past practice, rules, or the present situation, and not informed by a timely systemic review of business needs based on valid and reliable data. While SPU widely employs evidence based decision-making in business line decisions, data based decision-making in people decisions is rare. To effectively manage employees, SPU's most strategic asset, access to relevant and reliable people related information is essential. This action plan establishes the foundational elements for transforming SPU's workforce.

More detailed description of the proposed action

Investment in this plan is foundational for all workforce transformation action plans related to: Performance Management, Leadership Development, and Talent Management. Actions and systems needed to establish this foundation:

- **Collect critical and reliable people-related information**
 - Create a master data infrastructure, to provide for a standard description and format for data elements that are critical to human resource management and data integrity; e.g. job description elements, skills, certifications or competencies;
 - Complete a skills inventory of current skills capabilities within SPU;
 - Complete a compensation review including internal equity and external market competitiveness for key positions (underway on a citywide basis in 2014).
- **Create common competency-based frameworks for assessment and analysis**
 - Develop competency models that describe the level of knowledge and skill mastery required of employees to successfully perform job duties and what behaviors must be consistently demonstrated. This effort would result in a competency inventory of SPU's talent requirements.
 - Use a competency framework to plan how to organize and develop SPU's workforce; determine which job classification best fit business needs; recruit and select employees; and develop staff to fill future vacancies.
 - Establish a standard method of documenting work descriptions, practices and training, beginning with the most critical competencies and skills, and implement ongoing process to develop and maintain core competencies within the workforce on an ongoing basis.
 - Information gained through this process would then become foundational elements for SPU's re-alignment of human resource infrastructure and processes including performance management,

employee development, classification, leadership development, training, selection, succession and workforce planning.

- **Procure and implement Talent Management technology to effectively maintain, store and report large amounts of employee and HR data**, to replace the current labor intensive manual systems used to collect and maintain basic human resource information. Leverage technology for critical workforce processes including performance management and succession planning.

Benefits of the proposed action

Beyond providing the foundational elements necessary for data-based employee practices and decision-making, the plan allows SPU to establish a baseline of employee and job related data allowing for better people planning and decision-making.

Implementation plan and timeline *(some overlap with other Human Resources action plans)*

	2015	2016	2017	2018	2019	2020
Build skill, position and competencies inventory	X	X				
Compensation review for key positions (begin in 2014)	X					
Procure Talent Management software and complete implementation (begin in 2014)	X	X				
Develop and implement performance management redesign (begin in 2014)	X	X				
Configure and implement Talent Management software	X	X				
Develop succession and workforce plans		X	X			
Assess redesigned performance management process			X	X	X	X
Implement succession and workforce plans			X	X	X	X
Establish success measures and refine as needed (ongoing)	X	X	X	X	X	X

Budget and FTE Changes (in \$000s)

Fund: All Three Funds - DW, DWW, SW

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	102	105	108	331	339	348	\$1,333
O&M Non-Labor	308	315	323	331	339	348	\$1,964
O&M Subtotal	410	420	431	662	678	696	\$3,297
CIP							\$0
Total O&M and CIP	\$410	\$420	\$431	\$662	\$678	\$696	\$3,297
FTE	1.00	1.00	1.00	3.00	3.00	3.00	

- 1 FTE – project manager and technical leader for technology implementation
- 1 FTE – business process analysis, design and implementation
- 1 FTE – ongoing analytics and HR technology administration

Plan for evaluating success or progress

This plan will be successful with the implementation of Talent Management software, completion of compensation review, and completed development of the skills and competency inventory.

Focus Area: Enhancing our services by continually updating employee skills

Action Plan: Employee Performance Management Program

Strategic Objective: People (attract, develop, retain)

Owner: Laura Southard, Human Resources

Summary of proposed action

Develop and deploy a programmatic and systemic approach to ongoing employee performance management and improvement.

Description of the problem this action solves

Gap areas addressed:

- Inadequate and inconsistent performance management and improvement process
- Supervisors not adequately skilled in effective performance management and ongoing coaching
- Lack of effective resources, tools and processes to set goals and manage employee performance
- No direct alignment between SPU goals/objectives and employee performance and rewards
- Lack of clearly defined competencies

More detailed description of the proposed action

A clear and integrated employee performance management system will improve SPU's effectiveness in achieving business objectives by supporting and improving the performance of employees and developing the capabilities of teams and individual contributors to meet and exceed job performance expectations. This approach will align the E-team, SPU leadership and employees behind a shared vision of SPU's performance management culture and create the clear processes and tools that support that culture.

An effective performance management program would include standards, tools and resources to clearly set performance goals and expectations, establish a standard timeline for feedback, provide a systemic approach for ongoing monitoring of progress, establish standard behavioral competencies for all employees, support multi-rater feedback on those competencies, set clear framework for performance improvement, and support career development. This performance management program would be enabled by a technological solution that would be configured to support the components of the program. SPU is currently participating in the citywide Talent Management software selection process and will implement the chosen solution.

Benefits of the proposed action

An employee performance management program will allow employees to see how their performance helps SPU achieve strategic objectives. Managers and employees will be able to better plan work, set expectations and goals consistent with that work, and measure progress towards achieving the goals in a system which promotes feedback and communication between managers and employees. When performance gaps are identified, interventions aimed at improving performance will be created. An employee performance management program reflects a partnership in which managers share responsibility for developing their employees in such a way that encourages employees to make their best contributions to the organization. A clearly defined process for managing people will increase employee morale and productivity leading to greater success for both the individual and the organization.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
Procure Talent Management software and complete implementation (begin in 2014)	X	X				
Design performance management program including behavioral competencies, methods, standards and tools (begin in 2014)	X	X				
Train employees and implement new performance management program	X	X	X			
Establish success measures and refine as needed (ongoing)	X	X	X	X	X	X

Budget and FTE Changes (in \$000s)

Fund: All Three Funds - DW, DWW, SW

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	-	-	-	110	113	116	\$339
O&M Non-Labor	51	53	-	-	-	-	\$104
O&M Subtotal	51	53	0	110	113	116	\$443
CIP							\$0
Total O&M and CIP	\$51	\$53	\$0	\$110	\$113	\$116	\$443
FTE	0.00	0.00	0.00	1.00	1.00	1.00	

- 1 FTE – performance management program advisor and lead for entire program including associated technology.

Plan for evaluating success or progress

Ongoing progress will be evaluated through achievement of each milestone. The ultimate success of this action plan will be the full implementation of a new performance management and appraisal process. Employee survey feedback and performance improvement measures will also be tracked.

Focus Area: Enhancing our services by continually updating employee skills

Action Plan: Leadership Development

Strategic Objective: Culture

Owner: Laura Southard, Human Services

Summary of proposed action

Design and deliver leadership development programs for each level of management (crew chief/supervisor, manager, director) that include four components:

- Defined leadership competencies for each level of management
- Ongoing training and skill building
- Mentoring and coaching
- Continuous feedback

Description of the problem this action solves

- Lack of defined competencies and defined expectations
- Inadequate training opportunities to develop employee skills in critical areas
- Lack of ongoing training program for new skill development and development of successors
- Supervisors not adequately skilled in effective performance management and ongoing coaching
- Employee availability for work negatively impacted; absenteeism, leave of absence rates, low engagement

More detailed description of the proposed

SPU has begun building the foundation for the deployment of basic supervisor skill training. The basic curriculum exists and can be built upon to design a more advanced leadership development program aligned to succession plans. Our intention is to build the capability to develop and deploy these programs in-house and reduce the use of external consultants. This action plan adds programmatic funds to be used by SPU leadership development staff hired in 2014.

Benefits of the proposed action

Effective leadership is critical to our ability to deliver on the Strategic Business Plan. Our employees have shown us that morale is closely linked to their supervisor's effectiveness. Supervisors aren't adequately prepared to handle the current and future demands centered on performance management and the need for more accountability for everyone.

Leaders touch every aspect of our business: our employees, our customers, decision makers, elected officials, etc., and this plan will improve leadership performance, particularly in terms of communication and understanding the impact of decisions on the front line employees and customers. Skilled leaders are more efficient, innovative, and better prepared to support a culture of teamwork, collaboration and accountability.

These programs will provide a common language, common set of tools, clear expectations for supervisory personnel at every level, and ongoing support.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
Develop and implement initial basic supervisor skills training (begin in 2014)	X					
Complete leadership development gap analysis	X					
Develop and deploy leadership development programs	X	X				
Program assessment and continuous improvement		X	X	X	X	X
Ongoing offering of basic supervisor skills and leadership development programs to new hires and promoted staff			X	X	X	X

Budget and FTE Changes (in \$000s)

Fund: All Three Funds - DW, DWW, SW

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	-	-	-	-	-	-	\$0
O&M Non-Labor	179	184	188	193	198	203	\$1,145
O&M Subtotal	179	184	188	193	198	203	\$1,145
CIP							\$0
Total O&M and CIP	\$179	\$184	\$188	\$193	\$198	\$203	\$1,145
FTE							

Plan for evaluating success or progress

The progress of this action plan will be evaluated by the achievement of action plan milestones, employee survey results and a reduction in external consultant expenditures for leadership development.

Focus Area: Enhancing our services by continually updating employee skills

Action Plan: Talent Management

Strategic Objective: People (attract, develop, retain)

Owner: Laura Southard and Mary Cornelius, Human Resources

Summary of proposed action

Establish and implement a comprehensive talent management strategy to address SPU's short- and long-term workforce needs. This strategy will look at all levels of the organization, assess employee skills, and align those factors with SPU's Promise and Strategic Business Plan.

Description of the problem this action solves

SPU lacks comprehensive programs, systems and processes that enable:

- Recruitment, development and retention efforts
- Skill assessment and competency inventory
- Succession planning
- Workforce planning

More detailed description of the proposed action

To establish a comprehensive talent management strategy, we will:

- Align through business process redesign employment practices to better meet business needs. Current employment processes are inefficient, transactional, and reliant on information submitted via manual forms. A comprehensive redesign of recruitment and selection processes would provide the opportunity to recalibrate the human resource infrastructure to more effectively support SPU business objectives.
- Establish standardized data-based staffing plans. Staffing plans would identify business unit staffing requirements based on factors such as position allocation, required competencies, and employee demographics. Having a common approach to assessing necessary staffing requirements to achieve business outcomes will better inform hiring and staffing decisions and produce high quality hires.
- Develop a comprehensive workforce plan that supports business objectives by maximizing external and internal talent pools. The workforce plan would include strategies to address human capital needs, inform organizational design, support organizational culture change, and reduce risk. The plan includes processes for identifying mission critical roles and developing current employees or acquiring external talent to assume these roles as they become available.

Benefits of the proposed action

This action plan will establish a comprehensive approach to talent management to ensure that SPU has a skilled and competent workforce. Refined recruitment and selection process and tools are essential to improving SPU's current staffing practices which are reactionary and heavily influenced by immediate need rather than the long-term business interests of the organization. Additionally, a systemic approach to recruitment and staffing strengthens the alignment of investments in hiring, retention and employee development with SPU's business objectives and better prepares SPU to manage upcoming retirements.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
Procure Talent Management software and complete implementation (begin in 2014)	X	X				
Align employment operations to business requirements	X	X				
Establish standardized data-based staffing plans	X	X				
Develop and implement succession and workforce plans		X	X	X	X	X
Modify/populate HR technology solution	X	X	X			
Reassess and refine as needed	X	X	X	X	X	X

Budget and FTE Changes (in \$000s)

Fund: All Three Funds - DW, DWW, SW

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	102	105	108	221	226	232	\$994
O&M Non-Labor	102	105	108	110	113	116	\$654
O&M Subtotal	204	210	216	331	339	348	\$1,648
CIP							\$0
Total O&M and CIP	\$204	\$210	\$216	\$331	\$339	\$348	\$1,648
FTE	1.00	1.00	1.00	2.00	2.00	2.00	

- 1 FTE – talent management advisor with recruitment, selection, succession and workforce planning expertise.
- 1 FTE – business process redesign and analytics; development of succession, workforce and recruitment analytics for ongoing management by HR Operations team

Plan for evaluating success or progress

- Progress will be evaluated based on the achievement of the milestones; hiring talent management staff, redesign of recruitment and selection process and completed development of succession and workforce plans.
- Recruitment and staffing related metrics to be developed.

Focus Area: Enhancing our services by continually updating employee skills

Action Plan: Absence & Disability Management Program

Strategic Objective: Place/Safety

Owner: Tim Ramsaur, Field Operations and Maintenance Branch; Laura Southard and Mary Cornelius, Human Resources

Summary of proposed action

SPU needs to develop and maintain a programmatic approach to absence and disability management, to help employees stay at work and return to work.

Description of the problem this action solves

SPU's current safety culture and processes are primarily reactive. This has led to:

Injuries, Accidents and Illness

- High rates of occurrence
- No comprehensive plan to reduce

Wellness

- No comprehensive wellness program
- No dedicated wellness resources

Absences

- Increasing leaves of absence
- High sick leave utilization
- No integrated case management for managing leaves, workers comp, return-to-work and ADA (disability)

Workers Compensation (WC)

- Claims, time loss and total costs high
- No comprehensive plan to reduce claims and re-injury
- High multiple claims
- Focus on processing of claims versus prevention of claims

More detailed description of the proposed action

SPU needs to develop and maintain an integrated absence and disability management program, to help employees stay at work and return to work. Components of a successful program include:

- Commitment from the top and across the utility to create and maintain of a culture of safety, accountability, and continuous improvement;
- Internal expertise in Safety, Health and Wellness, and a robust, pro-active, case management approach for SPU's Return-to-Work program, focused on getting staff back to work in a timely, mutually successful way and coordinating 'light' and modified duty;
- An integrated, real-time data system for all safety and absence related data, to use for tracking, monitoring, reporting accidents, injuries, close calls, and Return to Work, so incidents can be tracked from hazard to correction, and communicated across the utility;
- Shift of focus from lagging indicators (what has already occurred) to predictive indicators (proactive and preventative), and use a case management approach for staff who have multiple claims/accidents/health issues;
- A focus on proactive wellness and health program with the potential to reduce health care usage and non-occupational injuries and illnesses and encourage a healthier workforce, benchmarking with other similar companies;
- Develop and deploy training, processes and systems designed to encourage and reward desired safety, health, employee availability, and work behaviors.

Benefits of the proposed action

An effective absence and disability management program would:

- Ensure continued compliance with all Federal, State, and local worker safety regulations;
- Monitor, track and reduce absences, injury frequency and severity, health costs;
- Reduce costs associated with absences, occupational and non-occupational injuries, accidents and incidents;
- Increase the number of days employees are at work, productive, and engaged;
- Promote change in SPU’s culture by encouraging employees to take responsibility for themselves and their co-workers health, wellness, and safety on the job.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
Establish program management (matrix HR/Field Ops)	X					
Complete wellness assessment and transition ongoing Intelx safety software administration to HR Ops	X					
Develop program including improving SPU basic safety program and training, developing case management process and a basic wellness program. Establish continuous improvement processes and associated health and safety analytics.	X	X				
Implement identified programmatic changes	X	X				
Continuous improvement actions	X	X	X	X	X	X
Ongoing measurement – metrics & advanced analytics	X	X	X	X	X	X

Budget and FTE Changes (in \$000s)

Fund: All Three Funds - DW, DWW, SW

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	205	210	215	221	226	232	\$1,309
O&M Non-Labor	154	158	162	166	170	174	\$984
O&M Subtotal	359	368	377	387	396	406	\$2,293
CIP							\$0
Total O&M and CIP	\$359	\$368	\$377	\$387	\$396	\$406	\$2,293
FTE	2.00	2.00	2.00	2.00	2.00	2.00	

- 1 FTE: Intelx (safety technology) system administrator and analyst for safety program data (HR Ops)
- 1 FTE: Wellness & Safety Specialist (Field Ops)
- \$150K/yr: to fund safety programmatic activities including Wellness assessments, proposal development and related activities, communications, online safety training licensing, lunch-learns, etc.

Plan for evaluating success or progress

This action plan will be evaluated through review of existing metrics including absences, leave utilization (sick leave, FML, etc.), safety incidents and accidents, Workers Compensation (WC) claims, re-injury rates and medical costs. It is expected to realize a reduction in incident rates, leave utilization rates and WC claims and medical costs.

Focus Area: Making it easier for you to get help and find answers

Action Plan: Service Equity

Strategic Objective: Equitable service accessibility

Owner: Michael Davis, Service Equity Director; Blair Troutman, Asset Management Director

Summary of proposed action

The goal of this Action Plan is to eliminate current service inequities (defined as disparate access, participation, and impacts to distinct customer segments and communities), and to proactively design and provide equitable services. This initiative expands on current efforts, and hastens the development of:

- Baseline demographic profiles of who we serve in order to measure change in access and participation
- Support to SPU Branches and divisions to embed service equity within their strategic work plans
- Corrective or proactive efforts to meet service equity goals through the use of equity planning tools and techniques, and
- Neighborhood-based engagement and efficiency plans.

Description of the problem this action solves

Inequity manifests unintentionally through our policies, comprehensive plans, programs, projects and services, in all Lines of Business and across all SPU Branches. Some examples include under reporting of sanitary sewer overflows in low income multi-lingual communities, lack of diverse participation in volunteer programs or response to web based customer feedback surveys, and historic under-utilization or lack of access to consulting opportunities.

More detailed description of the proposed action

SPU staff can better understand and address these issues through an **ongoing commitment to learning**, and they must also:

- Use standardized tools and processes to collect, enter, and analyze demographic data to create customer baselines
- Develop distinct Branch and Division-specific service equity planning goals, objectives, and accountability
- Embed service equity planning tools and practices into longstanding and new work-flow processes
- Allocate funds and time to conduct service equity planning and analysis, WMBE outreach, and culturally relevant community engagement methods to engage more diverse audiences; and
- Use service equity planning tools with other agencies and Departments.

Benefits of the proposed action

As a result of the proposed actions SPU will have a clear understanding of how our regulations and current or planned activities may result in disparate impacts or outcomes, and:

- Customer baselines, including demographic profiles and routine analysis of whom we serve in projects, programs and services, from which we can measure change in access and participation
- Taken corrective or proactive early efforts to build service equity goals and measurements in our policy, planning, prioritization, design, and implementation efforts
- Strengthened SPU's planning processes (e.g. tools that help capture learning and document next steps)
- Proactively identified all who may be interested and impacted in our planning processes, and mitigation of customer backlash due to a lack of proper engagement

- Bolstered reasoning or arguments for or against a particular policy, service, or project through the use of customer data regarding disparate experiences or impacts
- Surfaced ‘upstream’ policy-related issues (e.g. standards on open access to non-critical SPU property)
- Realized cost savings and streamlined outreach efforts through coordinated communications and public engagement plans
- Sustained community or neighborhood-based relationships which can be leveraged to more quickly initiate services
- Improved our knowledge of community issues and dynamics; and
- Improved SPU’s ability to routinely garner richer, more accurate, and more meaningful customer feedback.

Implementation plan and timeline

Primary Tasks	2015	2016	2017	2018	2019	2020	Primary Outcomes
Within baseline resources, expand Equity Planning support	X	X	X	X	X	X	Expansion of Equity Planning support and ongoing coverage for all Branches.
Staff training on Community Engagement Techniques and Service Equity Planning, and related items.	X	X	X	X	X	X	Builds skills and provides resources for staff to use equity planning tools and practice new community engagement techniques.
Support the tiered expansion of demographic database utilization, across key LOB programs (as appropriate).			X	X	X	X	LOB demographic baselines in key programs, which then re-directs planning goals to new target audiences and outcomes.
Create participant baselines, with initial analysis/ability to report on findings.					X	X	More accurate reporting capacity on ‘who does or does not currently access and participate’ to Mayor, Council, staff, and key stakeholders.
Include service equity planning goals and objectives in all SPU Branch and Division Strategic (Work) Plans.		X	X	X	X	X	Branch and Division management accountability to identify and address service equity, and a ‘push’ downward into projects and programs.
Apply service equity planning tools to master plans, prioritization processes, or programs that do not go through the Stage Gate approval process.				X	X	X	Application of equity planning tools to overall LOB/CIP prioritization processes, O & M funded programs, and key small CIP results in different priorities.
Apply service equity planning tools to multi-agency Capital Improvement Projects and create unified outreach/public engagement plans.				X	X	X	Mitigation of unintended service disparities, coordination of timelines, and creation of unified communications and engagement plans.
Require neighborhood-based staff/project check-ins (across and within LOBs) to coordinate timelines and outreach/public engagement efforts.		X	X	X	X	X	Neighborhood (or basin) based plans, improvement of inter-departmental communication, and cost savings on outreach or engagement efforts.

Budget and FTE Changes (in \$000s)

Fund: All Three Funds - DW, DWW, SW

	2015	2016	2017	2018	2019	2020	Total
O&M Labor							\$0
O&M Non-Labor							\$0
<i>O&M Subtotal</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>\$0</i>
CIP							\$0
<i>Total O&M and CIP</i>	<i>\$0</i>						
FTE							

Plan for evaluating success or progress

An abridged list of outcomes:

- Participant demographic baselines for key SPU programs - Customer Programs; USM LOBs; Communications
- Service equity planning goals and objectives in all SPU Branch and Division Strategic (Work) Plans - All SPU Branches
- Equity planning tools applied to LOB/CIP prioritization processes, O & M funded programs, and key small CIP - USM LOBs; CAM, EJSE
- Apply service equity planning tools to multi-agency Capital Improvement Projects and create unified outreach/public engagement plans - USM LOBs; CAM; Communications, EJSE
- Utility-wide neighborhood (or basin) plans - USM LOBs; CAM, EJSE

All outcomes should be incorporated into SPU's annual Key Performance Indicators worksheet (in accordance with the proposed timeline), SPU's annual Race and Social Justice Work Plan, and annual Executive and Manager Accountability Agreements.

Focus Area: Making it easier for you to get help and find answers

Action Plan: Web Presence

Strategic Objective: Minimum customer effort

Owner: Corinne Brown, Web Team Manager, Finance and Administration

Summary of proposed action

SPU has external and internal websites, and we want them to be effortless to use when asking a question, paying a bill, or researching an issue. In the baseline, there are four permanent web staff, plus two college interns dedicated to the web. This initiative funds an additional 2 FTE plus temporary staffing to do the following:

- Improve web text and multimedia content
- Offer a more seamless user experience between all online services
- Engage in usability research and web analytics
- Proactively build easy-to-use, efficient, desirable and useful web content and tools

Description of the problem this action solves

Current gap areas include:

- It is difficult for customers and employees (users) to transact their business online. Transactions aren't performed in real time but our users expect that they are. Users expect they can request information sent to them via the method of their choice (online only, email, text, phone). They expect a seamless experience when accessing any of our third party/vendor applications and our own internally built applications. They expect an engaging and efficient experience regardless of which device they use. We fail to meet these online transaction expectations.
- Functionally, our websites have slow download speeds, sub-optimal search engines and aren't designed to work well on mobile devices.
- Our external website is missing opportunities to support the Contact Center, which in turn could help our customers get their questions answered.
- Content management on the website is suboptimal. We are missing valuable and desired content, and the content that is there is difficult to find.
- The internal website does not adequately meet employees' and business needs.

More detailed description of the proposed action

The Web Team currently has four dedicated FTE, plus two college interns. With the addition of the 2 FTE and some consultant dollars, the Web Team will:

- Work with the business to create additional site content to support business objectives
- Evaluate user goals and create additional site content to support user expectations
- Assess and clean up the existing websites
- Design and develop new and improved websites
- Implement new and improved websites
- Engage in usability research and web analytics

Benefits of the proposed action

Benefits of this Action Plan are:

- Improved text and multi-media content on our website, allowing customers and employees to find and understand core information quickly

- A more seamless user-experience between all online services, regardless of development platform or user device
- Through usability research and web analytics, acquire a clearer understanding of how our online customers currently use the web, and how they expect the websites to perform
- Proactively build easy-to-use, efficient, desirable and useful web content and tools to enhance the customer’s and employee’s experience with our services

Implementation plan and timeline

In 2015-2016, with consultant support, SPU will clean up the existing websites and assess, design, and develop an implementation plan for the new websites. The new websites would then be implemented in 2017, with ongoing research and assessment from 2017 onward.

	2015	2016	2017	2018	2019	2020
Assessment and cleanup	X	X				
Design and new development		X				
Implement new sites			X	X	X	X
Engage in user research and analytics	X	X	X	X	X	X

Budget and FTE Changes (in \$000s)

Fund: All Three Funds - DW, DWW, SW

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	-	105	215	221	226	232	\$999
O&M Non-Labor	205	210	215	-	-	-	\$630
<i>O&M Subtotal</i>	205	315	430	221	226	232	\$1,629
CIP	-	-	-	-	-	-	\$0
<i>Total O&M and CIP</i>	\$205	\$315	\$430	\$221	\$226	\$232	\$1,629
FTE	0.00	1.00	2.00	2.00	2.00	2.00	

Plan for evaluating success or progress

- Work with the business to identify target tasks and content and to establish estimated value as KPIs for both websites
- Use web analytics to evaluate site traffic improvements to the destination site content KPIs
- Perform usability-testing to evaluate before-after performance and customer satisfaction with both websites

Focus Area: Making it easier for you to get help and find answers

Action Plan: Development Services

Strategic Objective: Effectiveness & Efficiency

Owner: Henry Chen, Project Delivery Branch

Summary of proposed action

Centralize and streamline the utility permit, service and sales functions for Development customers. This brings together relevant staff and services within a physical and web-based Development Services Office. Includes funding technology improvements (\$2M capital outlay) and operational costs for staff and training.

Description of the problem this action solves

The current process is confusing, time consuming and costly for our Development customers, with more than 200 SPU staff (~66 FTEs) directly or indirectly involved.

The current SPU development review, installation and oversight functions involve several staff in different locations. The existing system requires developers to talk to multiple different staff members, and potentially to interact with both SPU's Plan Review and Customer Service groups to get their project needs met. The intake processes for water taps and water mainline extensions are separately tracked and maintained. There are no charter agreements in place detailing how Plan Review will work with other SPU and City of Seattle departments to better meet the needs of the customer. The current financial management and control systems are not as rigorous and consolidated as they should be. The current plan review process and code/policy decisions need to be more transparent, equitable, and clear.

More detailed description of the proposed action

SPU is redesigning its Development Services function to create a new Development Services Office that is more efficient, better integrated, and easier for developers to navigate. This redesign is already well under way, with the following tasks accomplished or in progress:

- New DSO Manager has been hired.
- Internal SPU Design Team has completed work and is transitioning to an Implementation Team.
- We are currently making progress on:
 - Plans for the 27th floor (SMT) layout (future one-stop shop for developers)
 - Centralizing the intake and tracking process
 - Combining water main and taps into one process
 - Reconstituting the menu of "standard charges" for field work (i.e. main line extensions)
 - Addressing high-risk internal controls findings

This proposal supports and extends the 2014 baseline investment to redesign the Development Services function. It funds the following fundamental SPU functions for Development customers and implements integrated business applications (including mobile and online systems) to address and improve:

- Intake, sales and workflow
- Plan review and asset acceptance
- Work orders and inspection services
- Online services (general information, FAQs, forms, appointment scheduling, payments, permit and service tracking) Document and records management

This proposal also co-locates appropriate staff, integrates with multiple agencies (e.g., Dept. of Planning Development, Seattle Dept of Transportation), and provides essential staff training and tools.

Benefits of the proposed action

Centralizing this function is expected to streamline the current processes (saving both time and staff investments for other priorities), reduce costs substantially, and significantly improve the development customers' experiences.

Implementation plan and timeline

	2015	2016	2017	2018	2019	2020
Operational improvements (training, co-location moves)	x	x	x	x	x	x
Technology improvements	x	x				

Budget and FTE Changes (in \$000s)

The Development Services Office will be staffed within the resources available in the 2014 budget. However, we are including a placeholder estimate of \$175k per year for consultant support in the O&M budget, and \$2 million in the CIP as a placeholder for needed CIP improvements and other needed capital expenditures.

Fund: All Three Funds - DW, DWW, SW

	2015	2016	2017	2018	2019	2020	Total
O&M Labor							\$0
O&M Non-Labor	179	184	188	193	198	203	\$1,145
O&M Subtotal	179	184	188	193	198	203	\$1,145
CIP	1,000	1,000					\$2,000
Total O&M and CIP	\$1,179	\$1,184	\$188	\$193	\$198	\$203	\$3,145
FTE							

Plan for evaluating success or progress

- Percent of customers rating overall customer effort as 3 or less (1-7 scale, with 7 being high effort)
- Other possible targets and measures:
 - Reduce staff levels and the number of “touches”
 - Reduce process and service delivery times (including taps)
 - Reduce number of developer appeals
 - Increase asset contributions where appropriate
 - Implement annual reporting - financial transparency
 - Make progress towards revenue-cost neutrality – balance revenues with expenditures
 - Align expenditures strategically to support SPU system development, preservation, and city development goals
 - Ensure charges are regionally cost competitive
 - Have automated/online options for development customers to request and receive services from SPU