

Materials Management

Focus Area: Operational Excellence
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.

Materials Management

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	160	160	160	160	160	160	\$960
O&M Non-Labor							\$0
O&M Subtotal	160	160	160	160	160	160	\$960
CIP							\$0
Total O&M and CIP	\$160	\$160	\$160	\$160	\$160	\$160	\$960
FTE	2.00	2.00	2.00	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.

Emergencies & Disasters

Focus Area: Operational Excellence
Strategic Objective: Effectiveness & Efficiency
Owner: Tim Ramsaur

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.

Emergencies & Disasters

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	200	50	50	50	50	50	\$450
O&M Subtotal	200	50	50	50	50	50	\$450
CIP							\$0
Total O&M and CIP	\$200	\$50	\$50	\$50	\$50	\$50	\$450
FTE							

Plan for evaluating success or progress

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

Seismic Vulnerability

Focus Area: Operational Excellence
Strategic Objective: Environmental & Health mandates
Owner: Rick Scott

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				

Seismic Vulnerability

Budget and FTE Changes (in \$000s)

Fund: Drinking Water

	2015	2016	2017	2018	2019	2020	Total
O&M Labor							\$0
O&M Non-Labor	450	450					\$900
O&M Subtotal	450	450	0	0	0	0	\$900
CIP							\$0
Total O&M and CIP	\$450	\$450	\$0	\$0	\$0	\$0	\$900
FTE							

Plan for evaluating success or progress

Completion of vulnerability assessment and establishment of performance expectations.

Valves

Focus Area: Operational Excellence
Strategic Objective: Effectiveness & Efficiency
Owner: Tony Blackwell

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	400	400	400	400	400	400	\$2,400
O&M Non-Labor							\$0
O&M Subtotal	400	400	400	400	400	400	\$2,400
CIP							\$0
Total O&M and CIP	\$400	\$400	\$400	\$400	\$400	\$400	\$2,400
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.

Valves

Plan for evaluating success or progress

Valve maintenance performance targets to be developed.

Development Services

Focus Area: Customer Experience
Strategic Objective: Effectiveness & Efficiency
Owner: Henry Chen

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.

Development Services

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	175	175	175	175	175	175	\$1,050
O&M Subtotal	175	175	175	175	175	175	\$1,050
CIP	1,000	1,000					\$2,000
Total O&M and CIP	\$1,175	\$1,175	\$175	\$175	\$175	\$175	\$3,050
FTE							

Plan for evaluating success or progress

- Measure the % of customers who rate 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

Watershed Roadways

Focus Area: Environment & Public Health
Strategic Objective: Partnership w/ stakeholders
Owner: Cyndy Holtz, Suzy Flagor

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 under the HCP.
- 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.

Watershed Roadways

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	51	51	51	51	51	51	\$306
O&M Non-Labor	71	71	71	71	71	71	\$426
O&M Subtotal	122	122	122	122	122	122	\$732
CIP	280	280	280	280	280	280	\$1,680
Total O&M and CIP	\$402	\$402	\$402	\$402	\$402	\$402	\$2,412
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

TBD.